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Raising a new Generation of Leaders

Green Energy and Green Growth Strategy for the Sustainable Development of SSA Countries

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KEY MESSAGE

**Extent to which green
(renewable) energy can
support green growth
transition in Sub-Saharan
Africa**





SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	



Goal 7 & 13: Clean Energy/Environment

7 AFFORDABLE AND
CLEAN ENERGY



Ensure access to affordable,
reliable, sustainable and
modern energy for all

13 CLIMATE
ACTION



Introduction

- **Sustainable Development**
 - no compromise to future generation's growth & development
- **Green Growth**
 - alternative growth path that uses resources sustainably
- **Green Energy**
 - Energy from natural resources that are renewable and emits "minimal" emission
- **Green energy contributes to transition to green growth in developing countries**

Why Green Growth?

- According to OECD (2011)
 - Needed as there are increasing risks to development that if not checked can result to threats to human survival such as water scarcity, greater pollution, climate change and other negative consequences

Benefits

- Stronger economic growth
- Poverty reduction
- Income redistribution
- Employment generation
- Greater energy security
- Reduced vulnerability to climate change
- More secure livelihoods



Importance of Energy

- Used in industrial activities & household consumption
- Underlines global economic activities
- Impacts the environment & counter productive to sustainable development
- **Greening the energy sector is key**

Motivation

- Many developing countries, SSA inclusive, adoption of green growth is slow
- Not a priority for some; there are no doubt challenges
- Opportunities should be maximised
- What role can the energy sector play in the transition to green growth?

Specific Objectives

- Examine empirical link between renewable energy & measure of green growth
- Investigate green practices in energy use for industrial production
- Analyse adoption of green energy among households

Empirical Literature

- Growing body of literature, assessment of impacts on the economy
- Institutional studies: OECD, World bank, UN, AfDB
- Consensus
 - Green energy can support green growth, but there are limitations
- Data for analysis still a challenge (developing countries studies)

• Recent Literature on Positive influence of RE

S/N	Name	Findings
1	Dai, <i>et al.</i> (2016)	Large scale renewable energy in China have significant green growth effects that benefits growth of upstream industries, reshape the energy structure and bring substantial environmental co-benefits
2	Inglesi-hotz (2016)	Renewable energy (RE) has a positive influence on economic growth and promoting RE bears benefits not only for the environment, but also the economic conditions of countries
3	UNEP (2017)	RE and energy efficiency in developing countries can contribute to the reduction of global emissions
4	Funfgelt & Skowron (2017)	100 percent RE supports achievement of all 17 SDGs, also serves as means for socio-economic development & create equitable societies for today & future generations
5	Bishoge <i>et al.</i> (2018)	Reviewed current potentials of RE in Tanzania and found that it can eliminate energy problems

Theoretical Underpinning

- Hallegatte *et al.* (2011): From growth to green growth
- Traditional growth model
 - $Y = f(A, K, L)$
- Incorporation of environment in growth model
 - Treated as natural capital
 - $Y = f(A, K, L, E)$
- Environmental policies driving green policies as a source of growth

Empirical Strategy

- Adopt primary and secondary approach
- Primary
 - Data collection through direct interviews, focus group discussion, questionnaires
- Secondary
 - Estimate a green growth model with Generalised Method of Moments (GMM) using panel data of 44 SSA countries

Way Forward

- Conclude secondary analysis using secondary data
- Seek for funding to conduct two stage primary analysis
- Produce a book that documents various components of the green energy and green growth link

Policy Implications

- Green energy can support environmental sustainability plans
- Governments need to consider investments in green transition a priority (political economy)
- Short-term costs can be offset by long-term benefits
- Time to act is now; commitment is key

Conclusion

- Structural change & transformation is necessary for sustainable development
- Greening the energy sector is key
- Production & use of energy must not deteriorate the environment
- Green energy can improve access to energy (SDG)
- Increased investment in renewable technologies are needed

THANK YOU FOR LISTENING

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