



## Press Release

*15<sup>th</sup> November 2021*

### **New book on Building Innovation Capabilities for Sustainable Industrialization: Renewable Electrification in Developing Economies**

Renewable energy is increasingly becoming the new currency in the economy of sustainable industrialization. For this reason, understanding the key elements and dynamics underpinning development, deployment and utilization of green energy in developing countries is paramount.

In light of the above, a new book - *Building Innovation Capabilities for Sustainable Industrialization: Renewable Electrification in Developing Economies* – which has just been published, provides valuable insights on how the potential of renewable electrification in developing economies can be actualized.

Capacity building for renewables in developing economies is critical especially coming immediately after COP26 where commitments made should both reduce emissions this decade and accelerate momentum. The book provides useful insights and practical recommendations on capacity building on green energy, which will be a key factor in reducing green-house gas emissions in light of discussions during the COP26 Conference, where experts estimate that we are now on a path to between 1.8°C and 2.4°C of warming as opposed to the 1.5°C under the Paris Agreement.

Authored by renowned researchers and scholars from the African Centre for Technology Studies (ACTS), Moi University and Aalborg University, the book posits that while renewable electrification in developing countries provides important opportunities for local economic development, new pathways are required for turning these opportunities into successful reality. It offers a novel input into the debate on development of capabilities for sustainable industrialization and delivers key insights for both researchers and policy makers when it comes to the question of how to increase the economic co-benefits of renewables expansion.

The chapters in the book use a tailored analytical framework in their studies of renewable electrification efforts in Kenya and other countries in sub-Saharan Africa. They draw on a mix of project, sector and country level case studies to address questions such as: What capabilities are developed through on-going renewable electrification projects in developing economies? How can the expansion of renewable electrification be supported in a way that also encourages sustainable economic development? What role do international linkages (South-South and North-South) play and what role should they play in the greening of energy systems in developing economies? The authors provide a new understanding of how green transformation and sustainable industrialization can be combined, highlighting the opportunities and constraints for local capability building and the scope for local policy action.

This book will be of great interest to students and scholars of development studies, energy studies, sustainability and sustainable development, as well as practitioners and policy makers working in development organizations and national governments.

### **More about the book**

The book is the result of more than five years' collaboration between ACTS, Moi University and Aalborg University during the 'Innovation and Renewable Electrification in Kenya' project. This project investigated how best to provide a better foundation for selecting and deploying available technologies in a way that increases inclusiveness and contributes to poverty reduction. It did this by focusing on the degree to which local capabilities were being built from renewable energy projects, mostly in Kenya and using wind and solar technologies. The project was funded by the Danish Ministry of Foreign Affairs (Grant: DFC 14- 09 AAU). The project website is: [www.irekproject.net](http://www.irekproject.net)

Below are titles and authors of the chapters in the book:

Chapter 1: Renewable electrification and sustainable industrialisation, *Rebecca Hanlin, Margrethe Holm Andersen, Rasmus Lema and Charles Nzila*; Chapter 2: Towards a conceptual framework: Renewable electrification and sustainable industrialisation, *Margrethe Holm Andersen and Rasmus Lema*; Chapter 3: Challenges and opportunities for the expansion of renewable electrification in Kenya, *Mbeo Ogeya, Philip Osano, Ann Kingiri and Josephat Mongare Okemwa*; Chapter 4: Centralised and decentralised deployment models: Is small beautiful?, *Ulrich Elmer Hansen, Cecilia Gregersen, Faith H. Wandera, Nina Kotschenreuther and Rebecca Hanlin*; Chapter 5: Understanding the diffusion of small wind turbines in Kenya: A technological innovation systems approach, *Faith H. Wandera*; Chapter 6: Are the capabilities for renewable electrification in place? A Kenyan firm-level survey, *Charles Nzila and Michael Korir*; Chapter 7: Interactive learning and capability-building in critical projects, *Rebecca Hanlin and Josephat Mongare Okemwa*; Chapter 8: Interactive learning spaces: Insights from two wind power megaprojects, *Cecilia Gregersen and Birgitte Gregersen*; Chapter 9: Moving forward? Building foundational capabilities in Kenyan and Tanzanian off-grid solar PV firms, *Joni Karjalainen and Rob Byrne*; Chapter 10: Chinese green energy projects in sub-Saharan Africa: Are there co-benefits? *Padmasai Lakshmi Bhamidipati, Cecilia Gregersen, Ulrich Elmer Hansen, Julian Kirchherr and Rasmus Lema*; Chapter 11: Local Content and Capabilities: Policy process and stakeholders in Kenya, *Ann Kingiri and Josephat Mongare Okemwa*; Chapter 12: Renewable electrification pathways and sustainable industrialisation: lessons learned and their implications, *Rasmus Lema, Margrethe Andersen, Rebecca Hanlin and Charles Nzila*

**For more information contact:**

**African Centre for Technology Studies (ACTS)**

ICIPE Duduville Campus, Kasarani  
P.O. Box 45917-00100  
Nairobi, Kenya  
Tel. +254-710607210/+254-737916566  
Email: info@acts-net.org

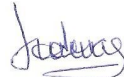
**Moi University**

P.O Box 3900 – 30100, Eldoret, Kenya  
Tel. +254 790940508/ +254 736138770  
Email: info@mu.ac.ke

**Aalborg University**

P.O. Box 159, DK - 9100 Aalborg  
Denmark  
Tel.: (+45) 9940 9940  
E-mail: aau@aau.dk  
VAT no.: DK 29102384

ACTS

Signed **Alfred Oduor**  
  
Date 22/11/2021

Moi University

Signed   
Date 22/11/2021

Aalborg

Signed **Margrethe Holm Andersen**  
  
Date