IREK
Innovation and Renewable Electrification in Kenya

# Towards a functional renewable energy sector in Kenya: recommendations from stakeholders

*What is the (potential) role of national policies in learning, innovation and capabilities building in renewable energy in Kenya? How can stakeholders inform the review and design of policies to ensure that the process of renewable electrification enhances inclusiveness and contributes to poverty reduction?*

In an endeavour to investigate these key questions, the IREK project has conducted a stakeholders' survey, key informant interviews and an initial policy analysis. Subsequently, 35 representatives from research institutions, non-governmental organisations, the private sector and the government were invited to a workshop on 29th March 2018 in Nairobi, Kenya to deliberate on the evidence based emerging issues pertaining to the renewable energy subsector. The following are some of the key recommendations from the participating stakeholders.

### *Case studies in renewable energy research*

- It is important to focus on successful and unsuccessful case studies in renewable energy projects. This is valuable for learning about capabilities and capability gaps.
- Vestas' Lake Turkana project in Kenya is an example of a project design that incorporates capability development and involvement of locals. Experiences about involvement of local communities and capability development should be documented.

### *Policy making and government involvement*

- Policies are statements of intent. Intent changes with time and circumstances and thus there is a need for continuous engagement between government and stakeholders. Learnt lessons from past policies should inform review of present and future policies.
- Evidence based research should feed into the policy making process.
- Government should be more involved in wind technologies endeavours to promote capabilities through licensing of right technicians for wind installation.
- There is need for a centralized and independent funding mechanism to augment the existing frameworks such as the National Research Fund (NRF) and public private partnerships (PPPs). The NRF could improve its operation through a network approach to funding.
- Information sharing and strong linkages between academia and private sector are essential. One channel for this is the Sustainable Energy for All (SE4ALL) platform. The Science, Technology and Innovation (STI) ecosystem is meant to create these linkages but the STI Act is not functioning the way it should to take ideas beyond policy to strategy.

### *Universities and industry*

- Strengthened collaboration between industry and universities for enhanced problems solving creates synergy and reduces operation costs.
- Effective communication between academic institutions and knowledge users is needed:

Employers are not always aware of expertise and combination of qualifications coming out of local universities. There is also a need for the industry to inform academia on the electricity/energy market or research needs.

- Academia needs to rethink the teaching methods from the traditional way to adapt modern methods that encourage innovation and entrepreneurship.
- Universities need to embrace practitioner oriented rather than basic academic training to align to job market needs. Training should focus on locals to enhance local capacity.
- Development partners should invest in training local personnel in renewable energy to take up the management role of the investments.

### *Business models*

- Developing sustainable business models to create demand for small wind systems might help close the energy gap in Kenya, especially in areas located far away from the national grid and with sufficient wind available.
- Technology acquisition models in Africa are faced with the challenges of low domestic capacity to manufacture, maintain and utilize technologies. Business incubation opportunities must be explored in order to expose Kenyans to the emerging technologies and build their capacities to utilize and maintain them.

### *Innovations*

- Supporting innovation in the small wind systems subsector in Kenya could greatly enhance uptake of a sustainable sources of electricity for rural households, and potentially spur its development.
- Sectoral/technological innovations in Kenya should be aligned to global value chains as a strategy of inculcating best practices.

### *Community*

- The success of renewable energy projects depends on how the communities are sensitized and assured of safety and benefits. Capacity building within the community and gender balance should be encouraged.

### *Triple, Quadruple or Penta Helix*

- There is a lot of knowledge gap in relation to the triple helix framework between the renewable energy stakeholders. There is need for stakeholders to foster linkages with government. Such a platform would create a market place for all.
- The discussion of renewable energy should be about a quadra-helix relationship between government, private, academic and civil society. A Penta helix relationship between government, private, civil society, academia and the people could also be explored.

The valuable inputs from the stakeholder workshop will inform further IREK research.

*Contributions from participants from African Technology Policy Studies Network, Association of Energy Professionals Eastern Africa, Community Alliance for Change, Buckner Kenya, FE.CO.RE, Deutsche Gesellschaft für Internationale Zusammenarbeit, Integral, Jomo Kenyatta University of Agriculture and Technology, Kenya Forest Service, Kenyatta University, Kisii University, Ministry of Education, Science and Technology, Ministry of Energy, Ministry of Health, Moi University, NETFUND, University of Nairobi, Nyangororo Banana Processing Youth Group, Prometra Kenya, Strathmore Energy Research Centre, University of Twente, United States Agency for International Development, Vestas and World Wild LiFe.*

*IREK researchers Dr. Ann Kingiri and PhD Fellow Faith Wandera facilitated the event. An internal workshop report can be made available upon request.*

This research is supported by the Danish Ministry of Foreign Affairs, Grant: DFC 14-09AAU.
IREK is a development research project on Innovation and Renewable Electrification in Kenya with research partners at Aalborg University (Denmark), African Centre for Technology Studies (Kenya) and Moi University (Kenya). IREK seeks to provide a better foundation for selecting and deploying available technologies in a way that increases inclusiveness and contributes to poverty reduction.
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