

IEA Africa Energy Efficiency in Emerging Economies Energy Efficiency Policy Training

Regional perspectives on Energy Efficiency

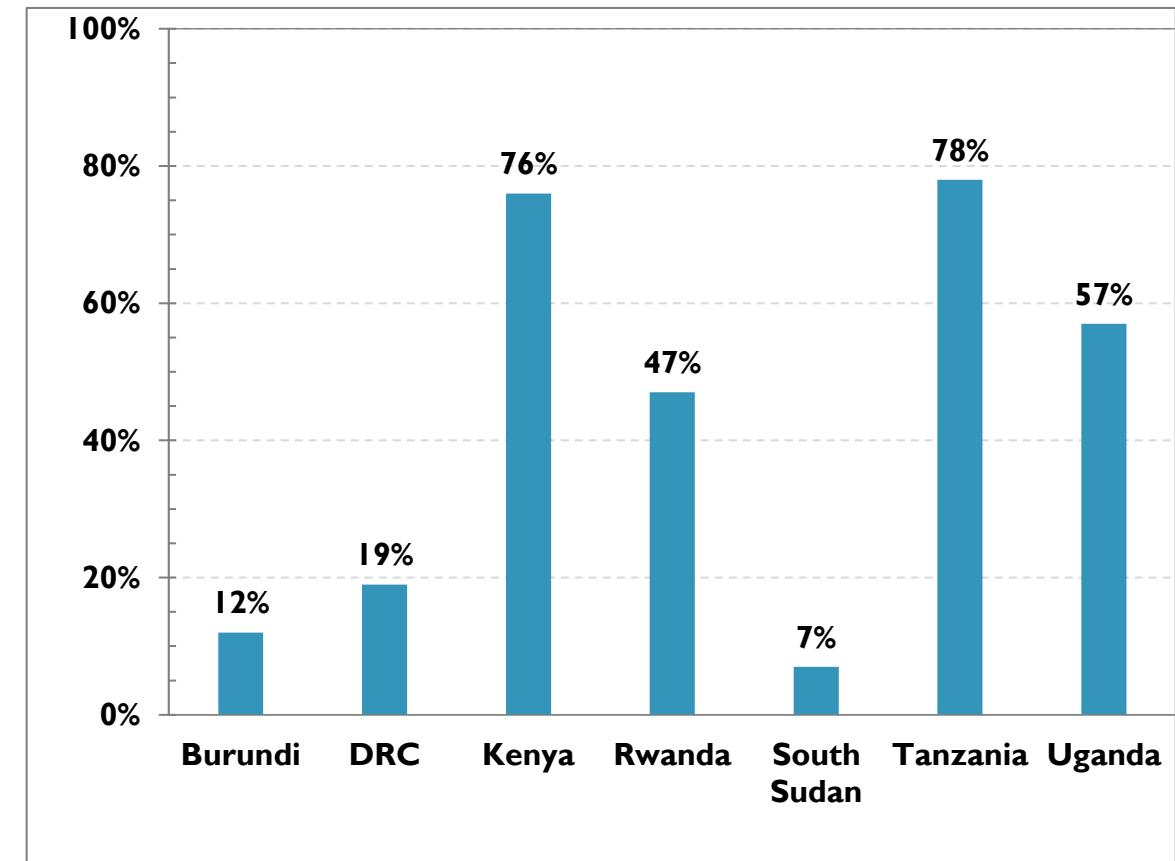
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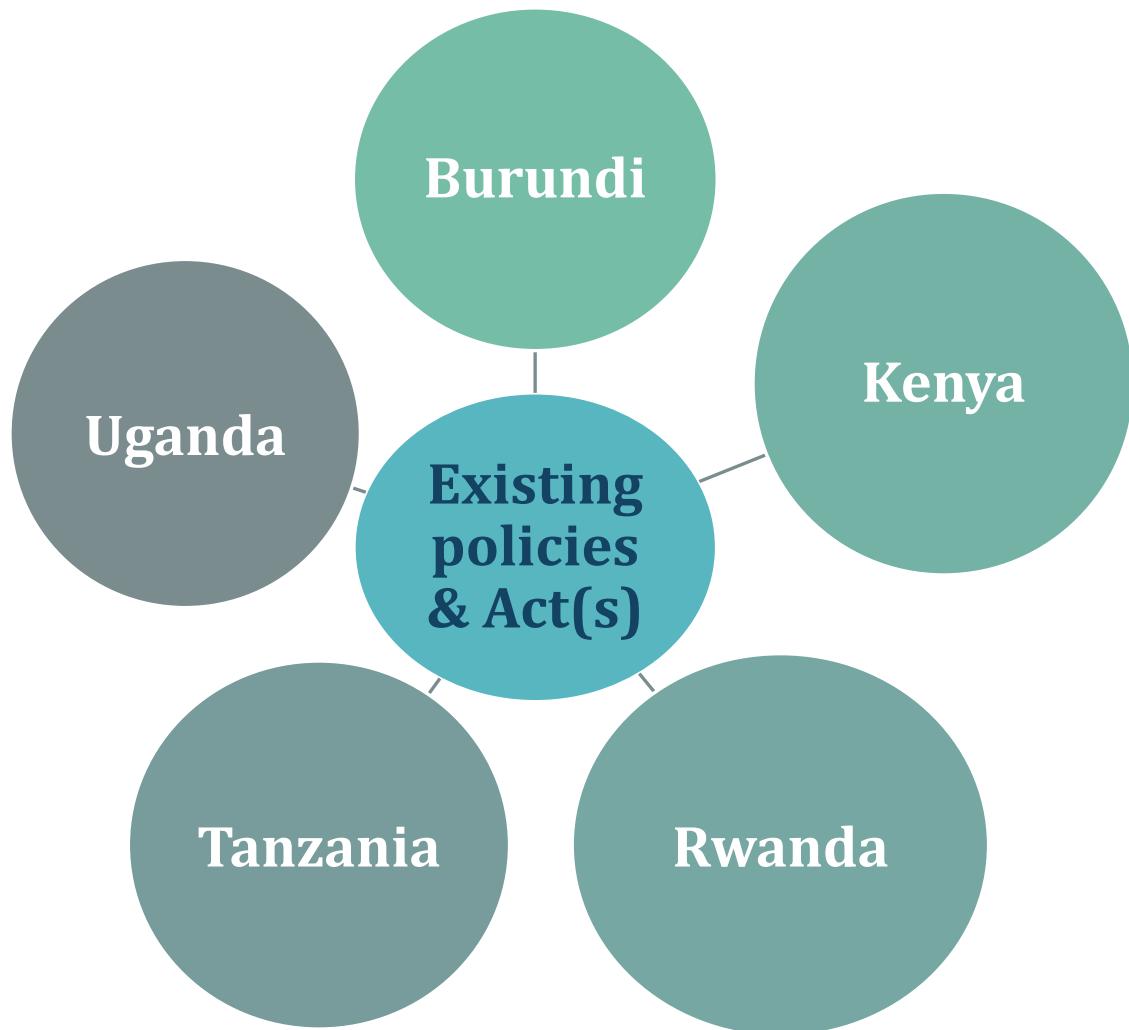
Introduction

- EAC - regional, intergovernmental organization of **7 Partner States**
- Burundi, DRC, Kenya, Rwanda, South Sudan, Tanzania, and Uganda
- The Region's average electricity access rate of less than 50%
- Most households rely on traditional forms of cooking



Electricity access rates for EAC Partner States

Energy Policy and Act



- DRC and South Sudan - no policies or Act on energy

EE related regulations

Kenya

Energy (Energy Management) Regulations, 2012

Energy (Appliances' Energy Performance and Labelling) Regulations, 2016

Rwanda

Guidelines promoting EE measures, 2013

Rwanda Building Code, 2019

Green Building Regulations, 2019

Strategies

Regional

- **6th EAC Development Strategy, Regional Strategy on Scaling Up Access to Modern Energy Services**

Kenya

- **Kenya National Energy Efficiency and Conservation Strategy (2020)**
- **Kenya National Electrification Strategy, 2018**
- **Kenya Bioenergy Strategy**
- **Energy Policy, 2018**
- **Sessional Paper No. 4 on Energy**
- **Green Economy Strategy and Implementation Plan 2016-2030**
- **Least Cost Power Development Plan**

Strategies cont'd

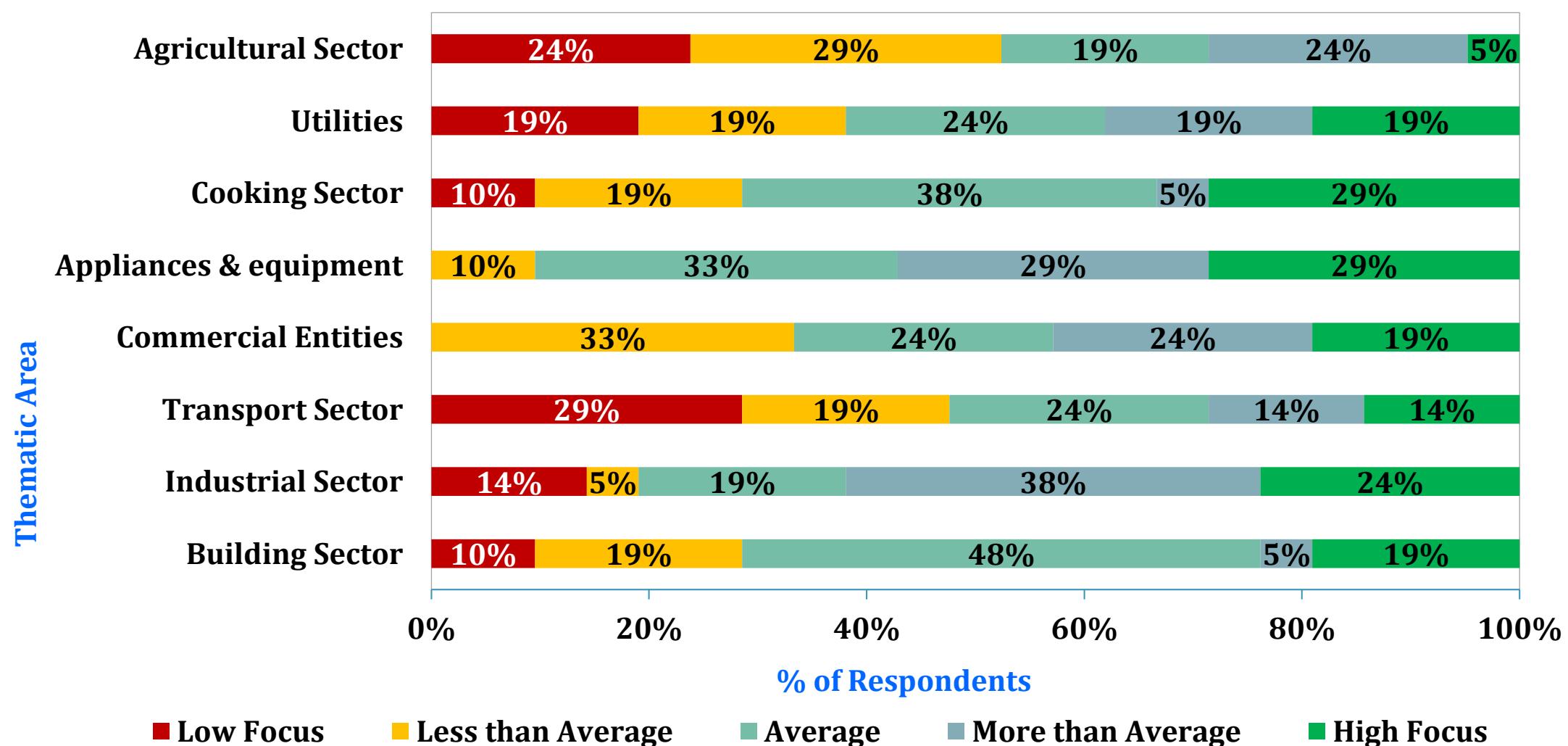
Rwanda

- Energy Sector Strategic Plan 2018/19-2023/24
- Rural Electrification Strategy, 2016
- Biomass energy strategy, 2019
- National Cooling Strategy, 2019
- EE for Rwanda 2018 -2024
- **Developing Ministerial Guidelines for Energy Audits**

Uganda

- Energy Efficiency Strategy of Uganda for 2010 - 2020
- Energy Efficiency Roadmap

Energy Efficiency Focus on Thematic Areas



Key drivers of EE in thematic Areas

- **High cost of energy**
- **Resource and environmental conservation**
- **Enhancing energy security**
- **Relief stress on grid resources**
- **Reducing GHG emissions**
- **Mitigating deforestation and tackling climate change**
- **Compliance with regulations.**

Actions taken to Promote EE in thematic Areas

- Energy management regulations and EE policies
- Standards
- Reward for most efficient energy consumers in the building and industrial sectors
- Penalties e.g. demand charges and poor power factor surcharge
- Appliances labeling and MEPS
- Adaptation of solar technology in agriculture
- Incentives in E-mobility.

Specific actions to promote capacity building in EE

- **Training of energy professionals both in school and industry**
- **Policy and strategic planning promotes capacity building**
- **Existence of professional associations e.g. AEPEA**
- **EACREEE has played a big role in promotion and advocacy in the EE space**

Challenges and Opportunities for EE in the Region

- ❖ Insufficient funding
- ❖ High cost of EE programs
- ❖ Lack of awareness
- ❖ Lack of technical and human capacity in the industry-implementation of EE programs
- ❖ No mechanisms to enforce regulation in EE where there is uncoordinated adoption of EE.

Potential Areas of Collaboration Among PS

- ❖ **Harmonization of standards and policies**
- ❖ **Strengthening of regional organizations such as EACREEE through collaborative efforts and projects**
- ❖ **Peer to peer learning through:**
 - **knowledge sharing**
 - **joint planning**
 - **training**
 - **research**
 - **awareness campaigns.**

Draft EAC EE Policy

Policy Purpose

- i. **Create a favourable environment** for investment in the EE sector **through harmonized policies, regulations, standards, strategies, and other frameworks**
- ii. **Improve productivity** across all sectors of the economy by “generating excess energy capacity” in the region
- iii. **Enhance reliability and security** of EAC Partner States **electricity supply systems** by decreasing the generation, transmission and distribution losses and dependency on fossil fuels
- iv. **Increase access** to modern, reliable and affordable energy services in both rural and urban areas
- v. **Reduce negative environmental externalities**, such as GHG emissions, air, soil, and water pollution and land degradation associated with energy supply systems.

Objectives of the Policy

- i. Advocate for establishment of institutional structures in EAC PS for spearheading EE programmes**
- ii. Spearhead development and harmonization of EE metric framework for tracking EE progress in the EAC region**
- iii. Promote collaboration among PS in implementation of EE programmes, sourcing for financing, and capacity building in the region**
- iv. Promote the adoption of a harmonized policy and regulatory framework for promoting EE in the region**
- v. Set EE targets for the EAC region.**

Policy Scope

- Applicable to all EAC Partner States**
- Covers EE in seven thematic areas:**
 - **Appliances and equipment**
 - **Lighting**
 - **Buildings**
 - **Industry and agriculture**
 - **Transport**
 - **Utilities**
 - **Cross sectoral issues**
 - **Information Management**
 - **Local Expertise and Capacity Building**
 - **Inter-agency planning and coordination**
 - **Financing Mechanisms for EE in Government Facilities**
 - **Stimulating Investment in EE**
 - **Diversity, Equity and Inclusion.**

EE in Appliances and Equipment, and Lighting

- a) EAC PS shall adopt and enforce harmonized mandatory **MEPS and labelling schemes** for energy consuming appliances and equipment manufactured or imported into the region; non-ducted air conditioners, freezers & household refrigerating appliances, lighting appliances, computer monitors, improved cookstoves
 - EE codes for energy intensive industrial equipment and processes (e.g. electric motors, boilers, pumps, compressors, distribution transformers)

EAC EE Priority Areas and Sectoral Policy Statements cont'd

EE in Industry and Agriculture

- b) The EAC PS shall create an enabling environment to ensure ready access to finance and establish incentive packages to support the advancement of industrial and agricultural EE - government fiscal incentives, collaboration with development partners and financing institutions, and establishment of ESCOs.**
- c) The EAC PS shall develop a common designation for energy consumers into small, medium, and large energy consumers.**
- d) The EAC Partner States shall develop capacity building programmes in energy auditing, and measurement and verification to support the advancement of industrial and agricultural EE.**

EAC EE Priority Areas and Sectoral Policy Statements cont'd

EE in Transport

- e) EAC PS shall **promote** through fiscal incentives and set targets for **uptake of emerging clean and fuel-efficient technologies** such as SAF, hybrid vehicles, e-mobility, green hydrogen, and use of sustainable biofuels in the transport sector**
- f) EAC PS shall **develop**, in consultation with regional governments, **programmes to support non-motorized modes of transport in urban areas** such as car-free zone and cycling lanes, mass transportation and eco-driving trainings**
- g) EAC PS shall **develop and enforce common vehicular fuel efficiency standards and testing protocols** for light and heavy-duty vehicles plying in the region.**

EAC EE Priority Areas and Sectoral Policy Statements cont'd

EE in Buildings

- h) EAC PS shall **promote certification schemes for sustainable and net zero buildings.****
- i) EAC PS shall **develop and enforce Building Codes and Standards that provide requirements for sustainable designs including incorporation of renewable energy sources as part of the buildings. The requirements will act as minimum energy standards during renovation/improvements of existing buildings and construction of new buildings.****

EAC EE Priority Areas and Sectoral Policy Statements cont'd

EE in Energy Utilities

- j) EAC PS shall **develop targets** for utility EE and **enforce** rewards/penalty schemes to ensure EE improvement by the utilities.**

EAC EE Priority Areas and Sectoral Policy Statements cont'd

Cross Sectional Issues in EE

- k) EAC PS shall establish data collection and analysis framework for all the EE sectors discussed in this policy. This framework will establish the type of data to be collected and the frequency of collection and updates. It will also guide the establishment of benchmarks and performance indicators for each sector under consideration.**
- l) EAC PS shall develop an online repository capable of storing, analysing and displaying data related to EE in their jurisdictions.**
- m) EAC PS shall set up centralized regional EE training institutes, to train and improve skills of professionals in the sector.**

EAC EE Priority Areas and Sectoral Policy Statements cont'd

Cross Sectional Issues in EE

- n) EAC PS shall **integrate EE skills** in all levels of education, starting from elementary schooling up to the university level.**
- o) EAC PS shall **enhance capacity of EE** professionals by developing local vocational training curricula and courses related to EE programs.**
- p) EAC PS shall **institute a permanent coordinating agency, framework or committee**, responsible for planning, coordination, from different government and private implementation and monitoring EE initiatives that require input agencies. This framework shall be reporting to the ministry to be determined by each PS.**

EAC EE Priority Areas and Sectoral Policy Statements cont'd

Cross Sectional Issues in EE

- q) EAC PS shall **institute a revolving fund** for EE projects in **public facilities**. These facilities shall include public buildings, government owned factories and institutions. The administration of this fund shall be determined by each PS.**
- r) EAC PS shall **develop and publish laws, regulations or guidelines** to enable registration and participation of **ESCOs** in the EE markets.**
- s) EAC PS shall enter into agreements with financial institutions to finance EE initiatives in their respective countries.**

THANK YOU