

HOW DO ENERGY-TRANSITION DRIVERS INFLUENCE UGANDA'S DEVELOPMENT PATHWAY?

BY

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1.0 Background of the study

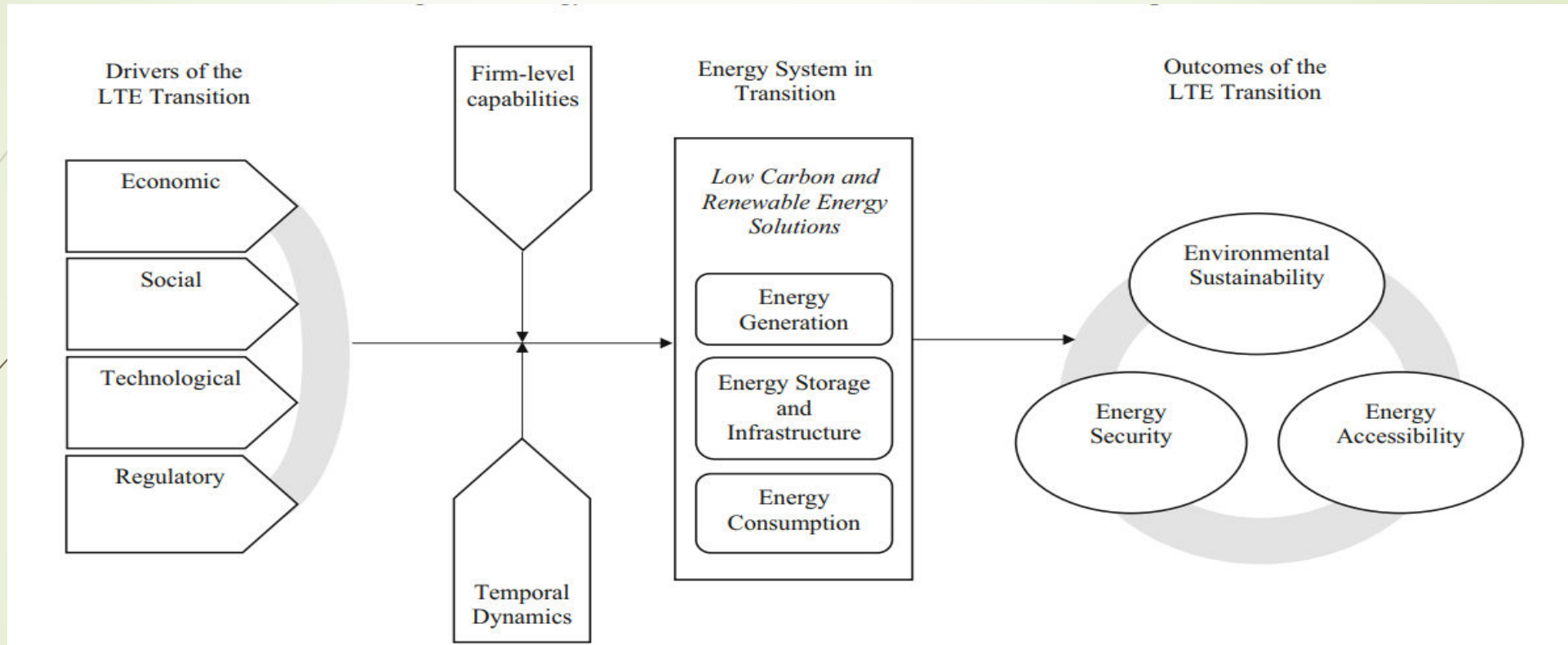
- Energy is one of the key driving forces of any economy, with the economic development of states depending on access to energy especially electricity (Borowski, 2021).
- Internationally the energy system is going through a transition to renewable energy (Nwaneto et al., 2019)
- The Paris agreement, Article 2.1 (b) encourages a transition from a fossil-fuel-based economy to a development path with low greenhouse gas emissions (Delbeke et al., 2019)

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- Renewable energy is on a gradual rise across Africa with an annual growth rate of 21% between 2010 and 2020 (Pwc, 2021).
- As the 2030 Agenda took effect globally, the Uganda government has integrated the Sustainable Development Goals (SDGs) into the national plan (European Commission, 2021).
- Access to energy increased the productivity of households and communities through promoting commerce, service delivery, and education (WWF Paper, 2021)

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Fig 1 Long-term energy transition framework for multinational enterprises.



Source: *Journal of International Business Studies* (Bass & Grøgaard, 2021)

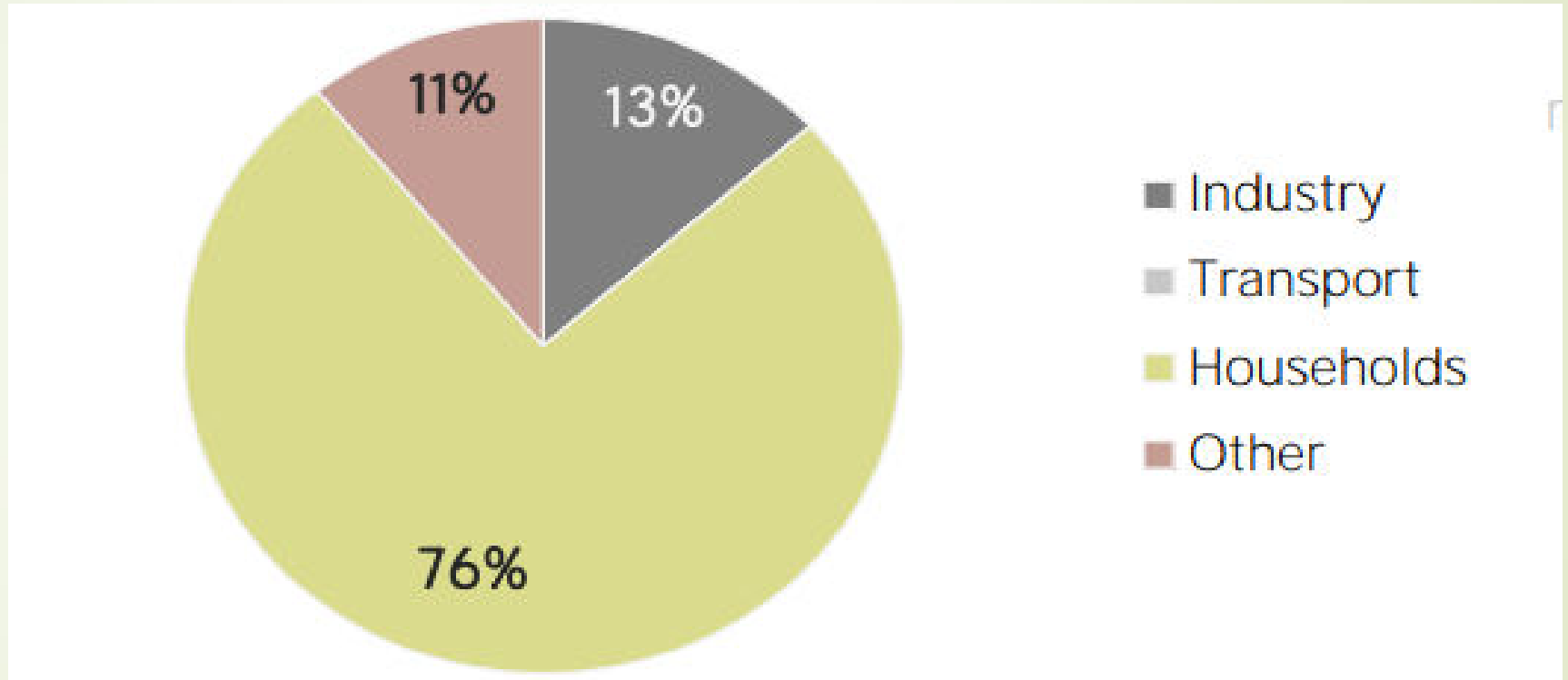
- The study points out the energy-transition drivers both at global and national level and how these drivers influence Uganda's development pathway.

2.0 Problem statement

- ▶ Limiting global warming to 1.5 °C and enabling socio-economic development that is inclusive and equitable are the world's pressing challenges (Mercedes & Cantarero, 2020)
- ▶ To achieve the targets of the Paris Agreement on climate change, Africa must forego burning 90% of known reserves of coal, 34% of gas and 26% of oil (UNU-INRA, 2019)
- ▶ In Uganda, hydropower largely facilitates renewable energy access for social and productive use, these are still powered primarily by biomass and fossil fuels (*DRAFT OF NATIONAL ENERGY POLICY*, 2021)

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Fig 2: **Renewable energy consumption**



Source: IRENA (2022)



Purpose of the study

The main purpose of this study is to assess how energy-transition drivers influence Uganda's development pathway.

Research objectives

- i.** To analyze the energy-transition drivers at the global level.
- ii.** To assess the energy-transition drivers at the national level.
- iii.** To understand how these drivers influence Uganda's development pathway.



3.0 Methodology

➤ **Research design**

The research will employ an interdisciplinary approach of integrating qualitative foresight analysis and quantitative energy modeling to reflect the interlinked dynamics associated with energy and development.

➤ **Qualitative foresight analysis**

Following (Ansari et al., 2018) & (Ansari & Holz, 2019), qualitative forecast analysis will develop possible future scenarios/narratives about probable changes in energy and development dimensions until the year 2050.



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► **Quantitative energy modelling**

Quantitative energy modelling will be used to quantify the energy transition drivers identified through desk research.

► **Integrating qualitative and Quantitative results**

The quantitative results and the qualitative scenarios will obtain rounded narratives that describe energy and development pathways while considering broader drivers of energy-transition (Ansari & Holz, 2019).

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