FROM RESEARCH TO POLICY

CASE STUDY: PURAMS

2ND LEAP-RE STAKEHOLDER FORUM, RWANDA

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LEAP-RE

Long-Term Joint EU-AU Research and Innovation Partnership on Renewable Energy

The LEAP-RE project has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement 963530.

CLEAN COOKING SCENARIO

Face2FaceAfrica.com

1B

Population in SSA cooking with biomass fuel, kerosene and coal as their primary fuel.

2% Global emissions contributed by combustion of CO2

29%

Global population cooking with polluting fuels.

3.2M

Deaths due to household air pollution.

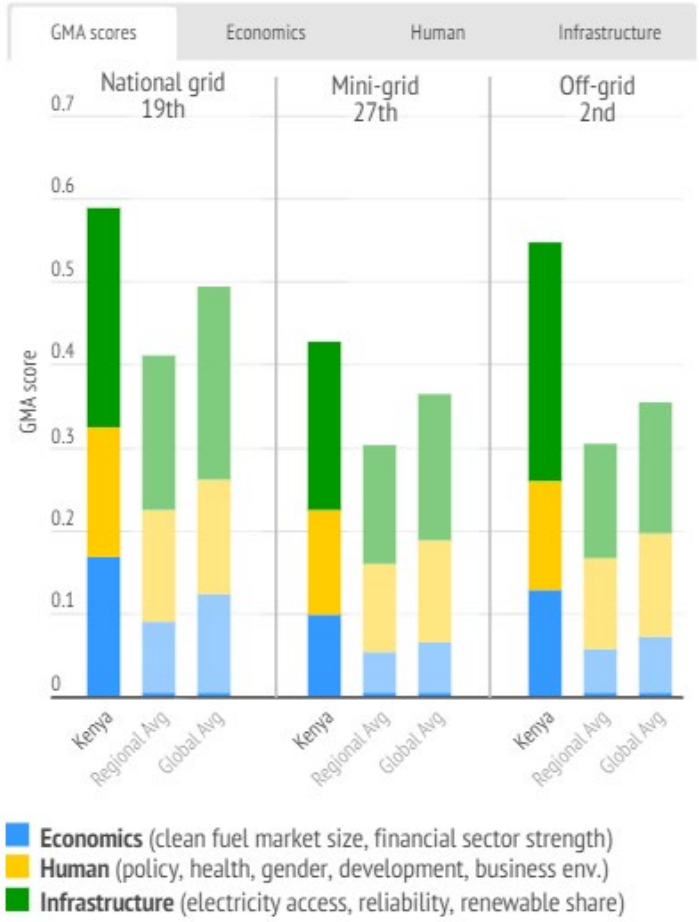
75%

People with access by 2030 if BAU.

Global Market Assessment (MECS)

Kenya

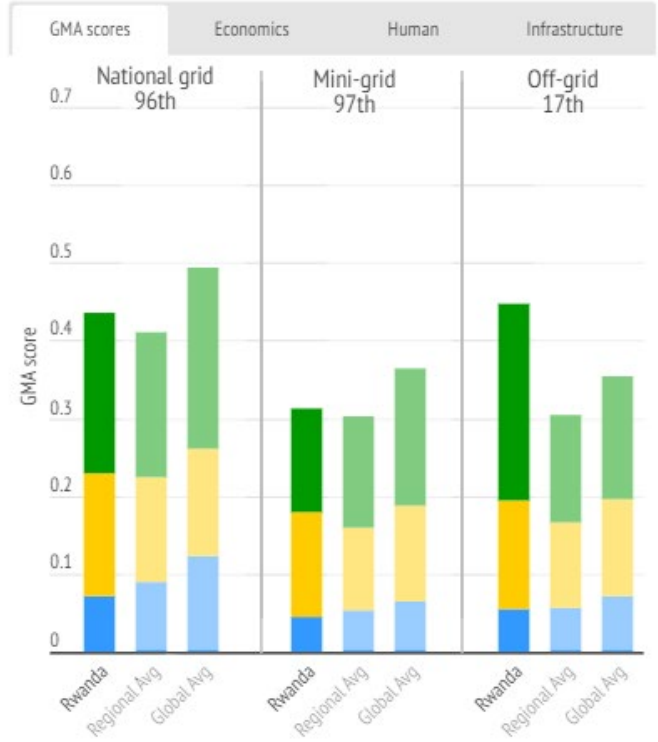
7th out of 130 countries in the Global South (overall GMA score for all scenarios)



Economics (clean fuel market size, financial sector strength)
Human (policy, health, gender, development, business env.)
Infrastructure (electricity access, reliability, renewable share)

Rwanda

76th out of 130 countries in the Global South (overall GMA score for all scenarios)



Economics (clean fuel market size, financial sector strength)
Human (policy, health, gender, development, business env.)
Infrastructure (electricity access, reliability, renewable share)

Mozambique

- 34% electricity access. 77% urban, 4% rural.
- Rate of access rose to 5% in 2021 from 3% in 2010.
- 1.4% of the population already cooking with electricity (MECS, 2022). 17% in urban.
- Pledges: Universal access by 2030
- Very low cost of electricity tariff ($0.10/kWh)
- There's growth in underserved off-grid markets.

Overall:	On-grid eCooking:	Mini-grid eCooking:	Off-grid eCooking:
115th/130	0.34 – 115th/130	0.317 – 110th/130	0.279 – 121st/130

PROJECT OBJECTIVES

LEAP-RE

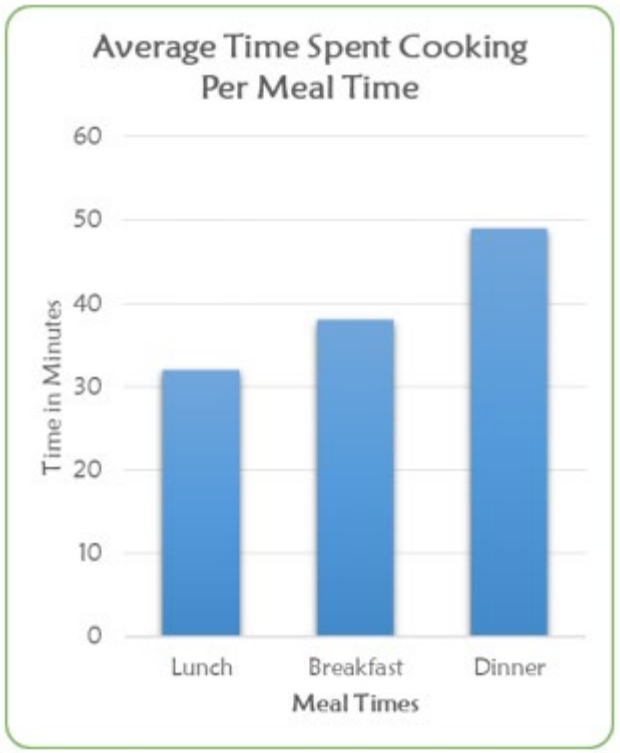
This project aims to develop a standalone solar cooking appliance (cooker), to address the challenges caused by traditional cooking methods and faced by rural communities in Africa. The specific objectives of the project can be summarized as follows:

- To do an off-grid market assessment for solar cooking, a solar resource assessment to enable cooker design and capacity assessment to support piloting of systems.
- To develop a standalone solar cooker and pilot it.
- To identify business models and engage policy makers to create an enabling environment.
- To develop or improve solar photovoltaic module technology for use in the cooker design.

Kenya(2), Rwanda, Mozambique, Spain, Portugal

PURAMS: COOKING DAIRY

- ✓ Biomass was used in 77% of the cooking events, Charcoal secondary fuel and LPG tertiary fuel.
- ✓ Firewood was predominantly used for all the three meals. LPG used as the secondary fuel during dinner.



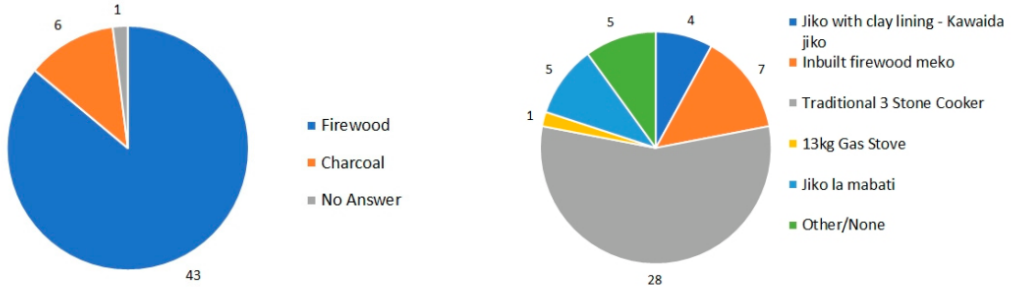
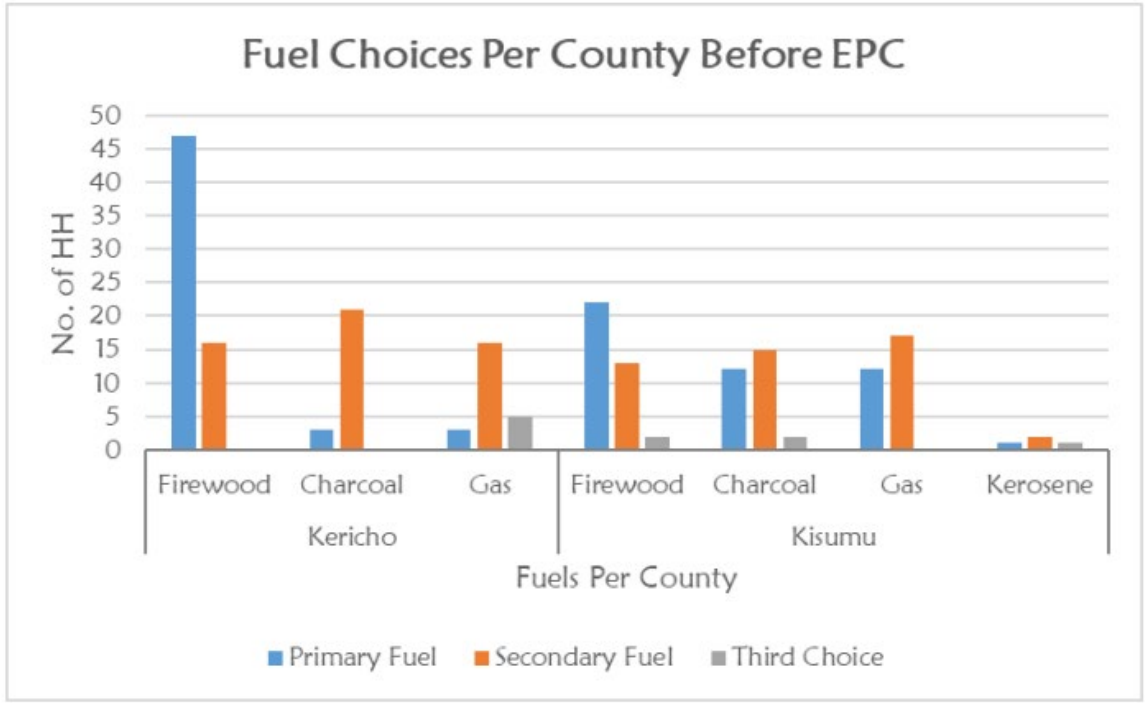


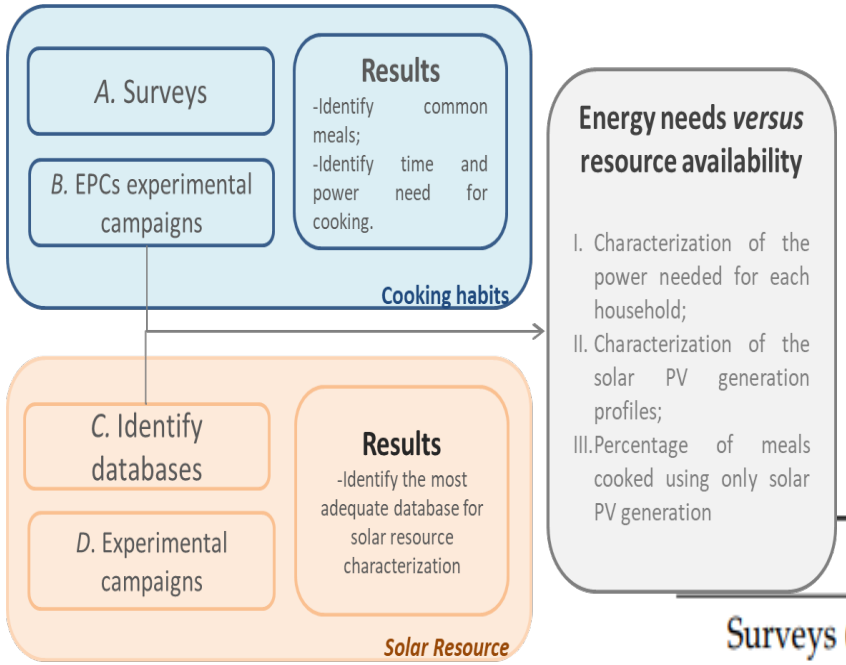
Figure 6. (**left**) Most used fuels and (**right**) cookstoves in the 50 surveyed Rwandan households.



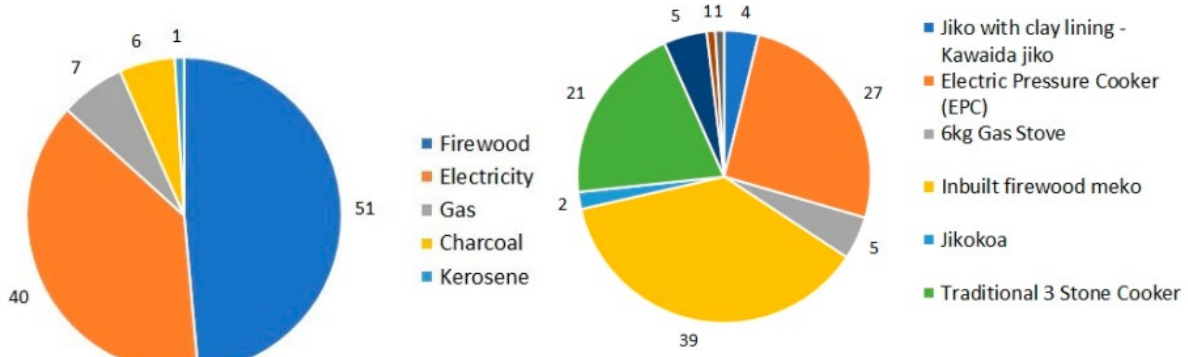
POSITIVE ANALYSIS

Photo: Strathmore

Tool for assessing cooking habits and assess the capability of solar resource to satisfy the energy needed.



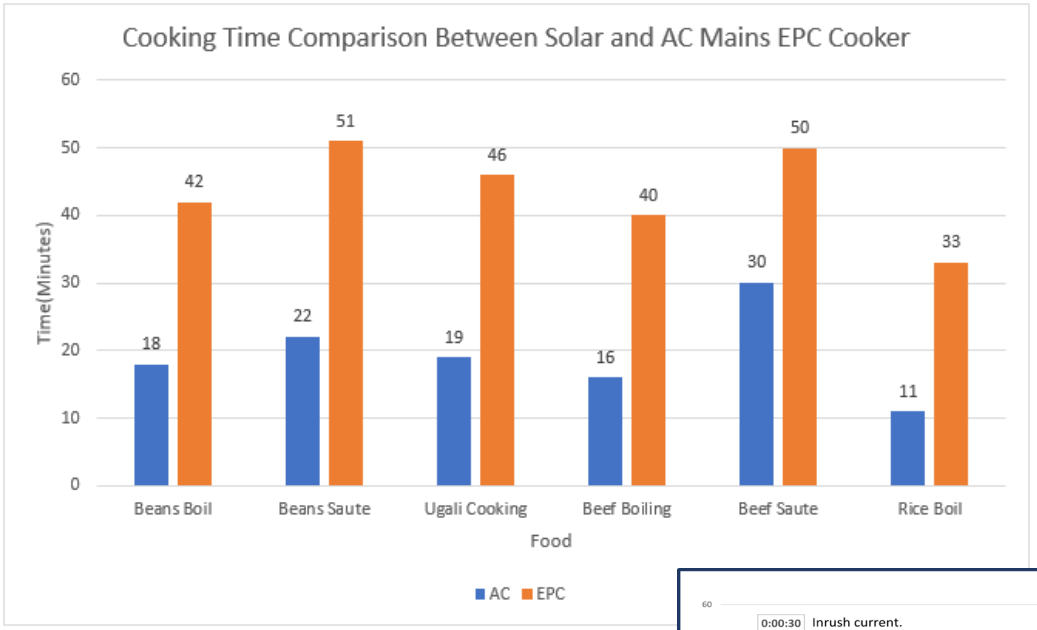
- Results from questionnaires (Rwanda):

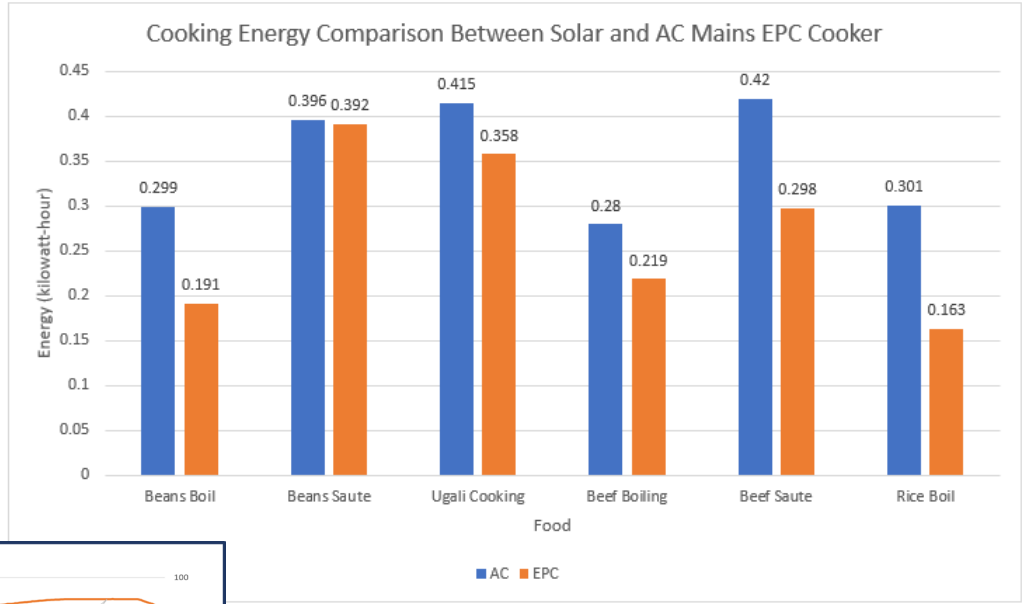


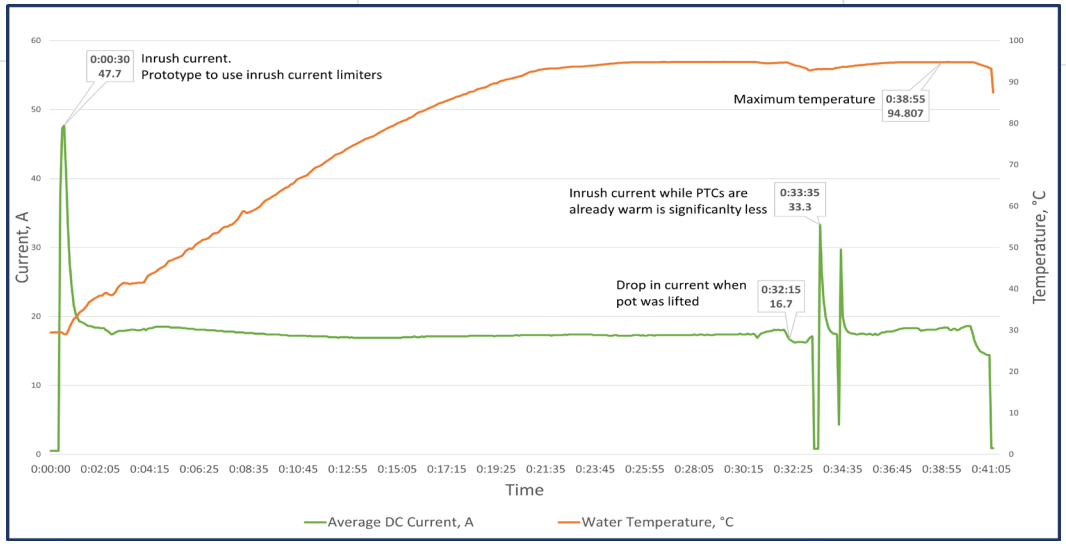
- Cooking time saved when using the EPCs compared with the use of conventional fuels

	Ugali	Rice	Tea
Surveys (hh:mm)	00:43	00:38	00:32
EPCs (hh:mm)	00:20	00:14	00:29
Time saved (%)	54	64	9

DC vs AC PRESSURE COOKER COMPARISON



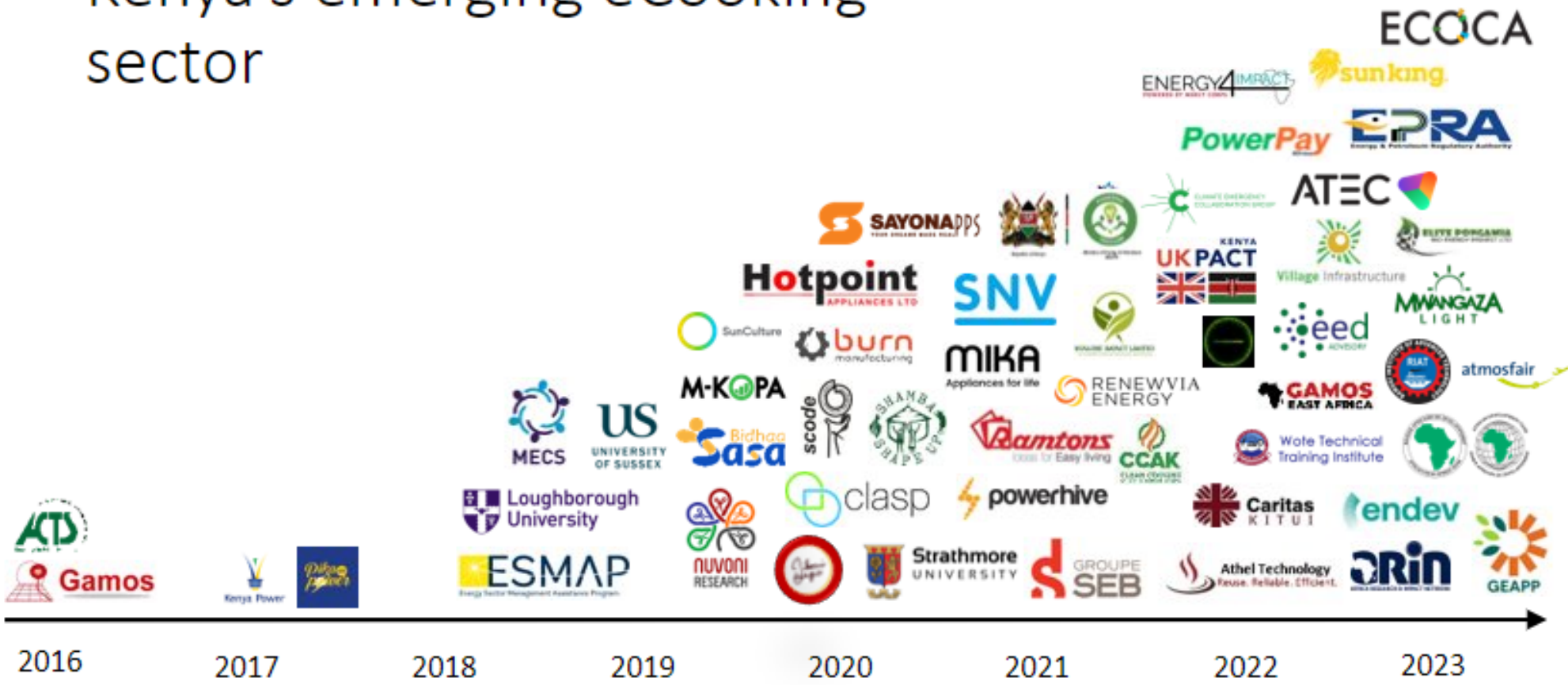




Policy Contribution - KNeCCS

LEAP-RE

Building momentum in Kenya's emerging eCooking sector

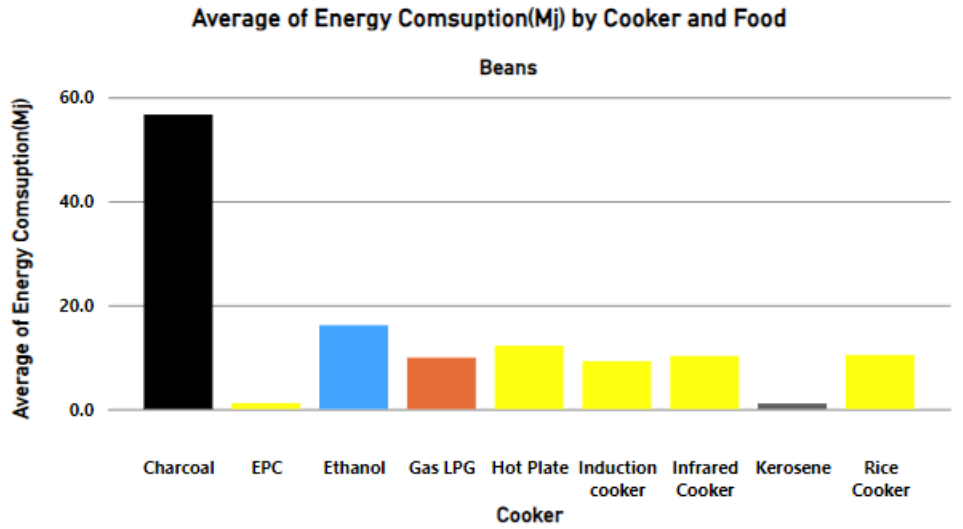


Development of the Kenya National Clean Cooking Strategy

INCEPTION REPORT

Policy Contribution– ECap Appliance Comparison

Source: KPLC



Source: KPLC

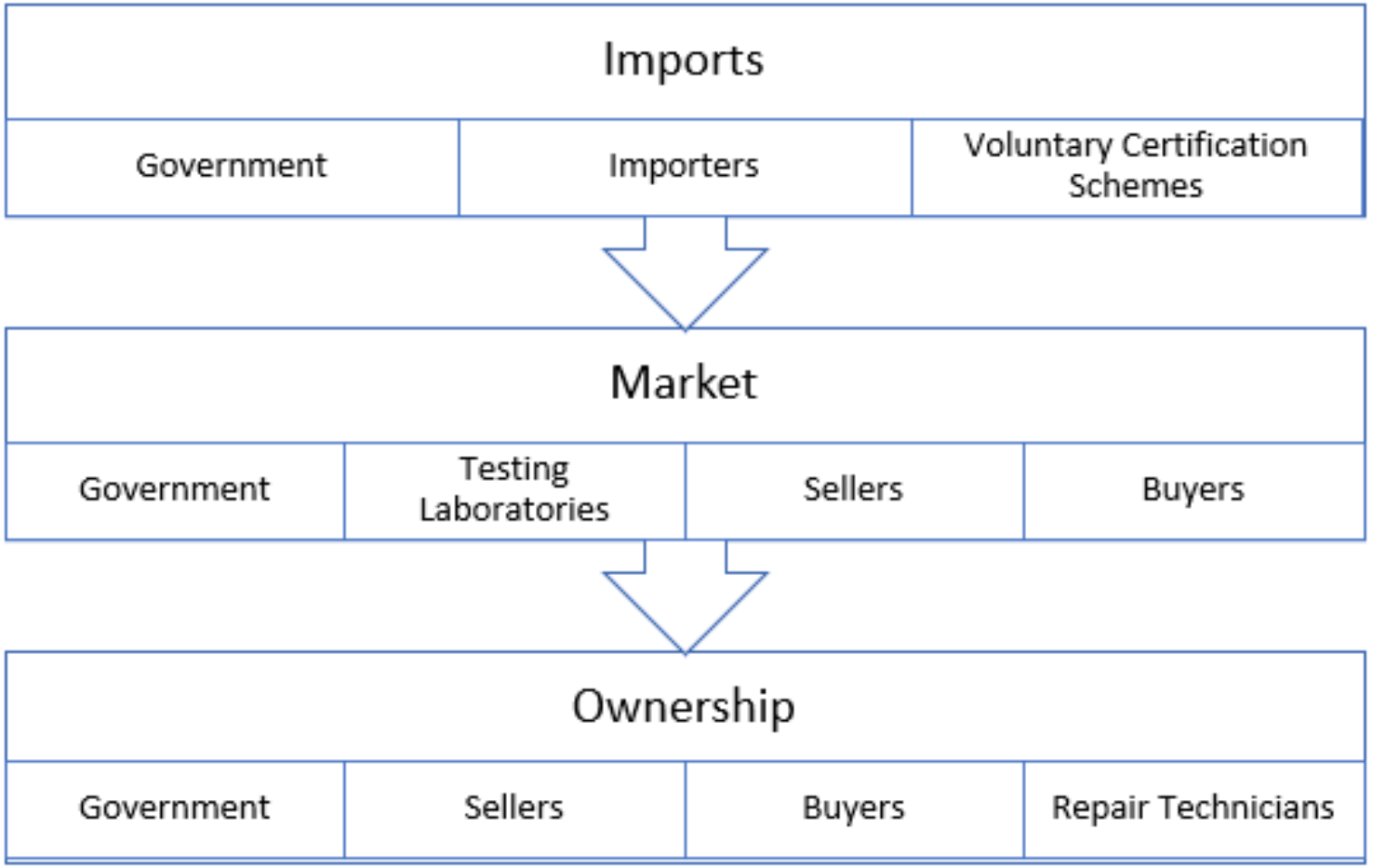
Policy Contribution– Quality Ecosystem of Appliances

LEAP-RE

Strathmore

MECS Modern Energy Cooking Services

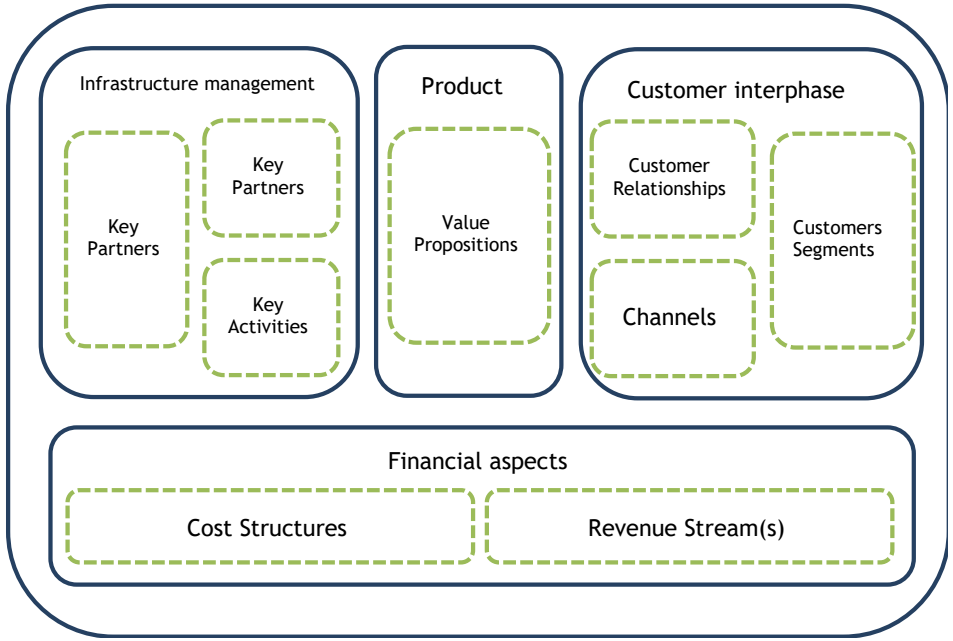
KEBS Kenya Bureau of Standards
Standards for Quality life



Policy Contribution– Market Facilitation

The BM for PURAMS takes into consideration several aspects related with the product that will be disseminated.

CANVAS platform is being used and will be the basis for the BM to deliver that will take into consideration several aspects focusing on the costs, the affordability of the users and the propoed funding schemes.



RWANDA ENERGY ACCESS AND QUALITY IMPROVEMENT PROJECT

Component 3b Increasing Access to Clean Cooking Solutions Operations Manual Ver 03/06.04.2022

THANK YOU

CONTACT US FOR MORE INFORMATION

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