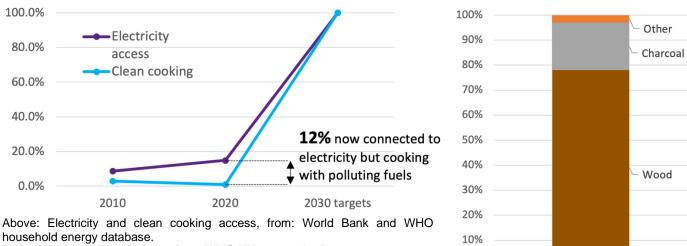


0%

### Current Situation: Electricity Access, Clean Cooking

- 14% have access to electricity.
- 97% primarily cook with polluting cooking fuels, wood and charcoal, which are harmful to health and the environment. 19% primarily cook with charcoal.



Right: Primary cooking fuel use, from: WHO HH energy database.

## Potential for eCooking

- 12% of people are connected to electricity and not cooking with it. Urban centres (15.6% of population<sup>1</sup>) have higher rates of electricity access and some use electric cooking appliances (electricity used by up to 23.5% of urban households)<sup>2</sup>.
- Despite challenges with adequate supply and reliability, eCooking is a familiar and cheap way of cooking. Electricity is seen as more desirable cooking fuel than charcoal and firewood<sup>3</sup>.
- Promoting **highly efficient eCooking appliances** like electric pressure cookers (EPCs) and rice cookers would make eCooking cheaper and less energy intensive for the grid.
- There is a well-developed policy framework (e.g. National Energy Policy 2018; Renewable Energy Strategy; National Charcoal Strategy) around energy access and clean cooking and the importance of modern energy cooking services, for fuels such as LPG and electricity, is recognised in the political environment<sup>4</sup>.
- Malawian cuisine, like neighbouring countries, is likely to be **highly compatible with energy-efficient EPCs**, although further evidence is needed.

#### <sup>1</sup> NSO 5IHS 2020 Report

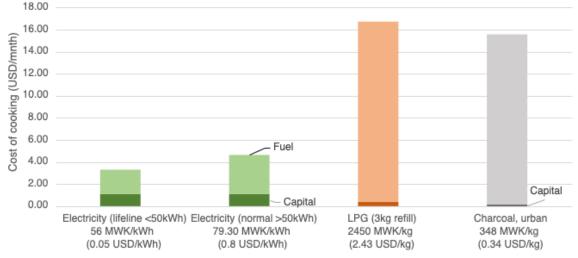
<sup>2</sup> Modern Cooking for Healthy Forests (MCHF) in Malawi, Urban Cooking Energy Consumer Market Research (2020)
<sup>3</sup> Coley et al, Market assessment for modern energy cooking services in Malawi (2020)
<sup>4</sup> <u>https://www.project-syndicate.org/commentary/africa-electrification-and-clean-cooking-integrated-strategy-by-ibrahim-matola-and-damilola-ogunbiyi-2022-10</u>







# Cost of Cooking, Malawi



Cost of cooking over a month, using international averages for cooking energy demand from ESMAP (2020)<sup>5</sup> and local electricity prices from <u>Escom</u>, LPG price from <u>265 energy</u>, charcoal price from Ministry of Natural Resources, Energy and Mining of Malawi Technical order charcoal valuation. Cost of appliance levelized over stove lifetime. Electric appliance assumed to be an EPC.

## **MECS Programme Activity**

- MECS research has demonstrated that low levels of electricity access and unreliable supply in grid-connected areas puts off consumers. Although positive change is likely in 5-10 years, in the short-medium term high electrical demand requirements of grid-eCook could exacerbate this issue
- MECS TRIID fund partner Kachione LLC works with women's groups creating shops selling solar technology items, using lithium batteries to offer a forever light, and engaging with men in the community by offering solar pumping so solar based eCooking is available throughout the day
- NGO Atmosfair initiated a mini-grid pilot and is still actively promoting the provision of electric hotplates as part of this initiative.
- Further research is currently being undertaken by the MECS team in Malawi in collaboration with local partners. Whilst this has yet to be published, there will be updates on the MECS news pages over the coming weeks and months and we look forward to sharing our findings with you.

This material has been funded by UKAid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.

<sup>5</sup> Energy Sector Management Assistance Program. 2020. Cooking with Electricity: A Cost Perspective. World Bank, Washington, DC. © World Bank. License: CC BY 3.0 IGO.





