

Kitchen Laboratory Report - Zambia

Initial testing for the MECS Zambia eCookbook
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Kitchen laboratory tests investigate the potential energy, time, and cost savings from using efficient cooking devices. This research tested four devices (**Mbaula Stove, Electric Hotplate, Electric Pressure Cooker, LPG Stove**) on five popular Zambian dishes (**Nshima, Chicken Stew, Bean Stew, Porridge, Rape Vegetables**)

(Credit: CEEEZ)

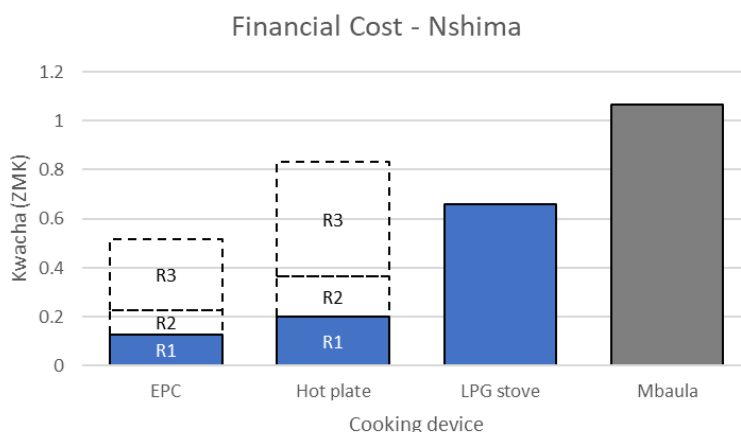


The Electric Pressure Cooker (EPC) is the cheapest, quickest, and most efficient way to prepare each of the 5 dishes



Even at the highest tariff tier (R3), EPC cooking is cheaper than cooking with LPG or charcoal

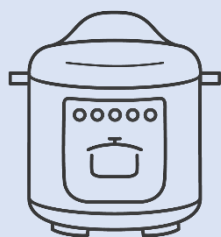
At this higher tariff, LPG stoves are cost competitive compared to inefficient electrical appliances (e.g., electric hotplate)



If a household cooks nshima twice a day for a month, the cost would be:

31 kwacha (EPC) 40 kwacha (LPG) 50 kwacha (Hotplate) 59 kwacha (Mbaula)

If a household cooks breakfast, lunch and dinner using an EPC and LPG stove, they could save **7 kwacha per day** compared to using charcoal for all 3 meals



Electric Pressure Cookers and LPG stoves generate significant cost savings for households, and these savings could be used to finance the purchase of the appliances over a 12-month period