

# Overcoming Energy Poverty

## Pathways to Scaling-up Clean(er) Cooking

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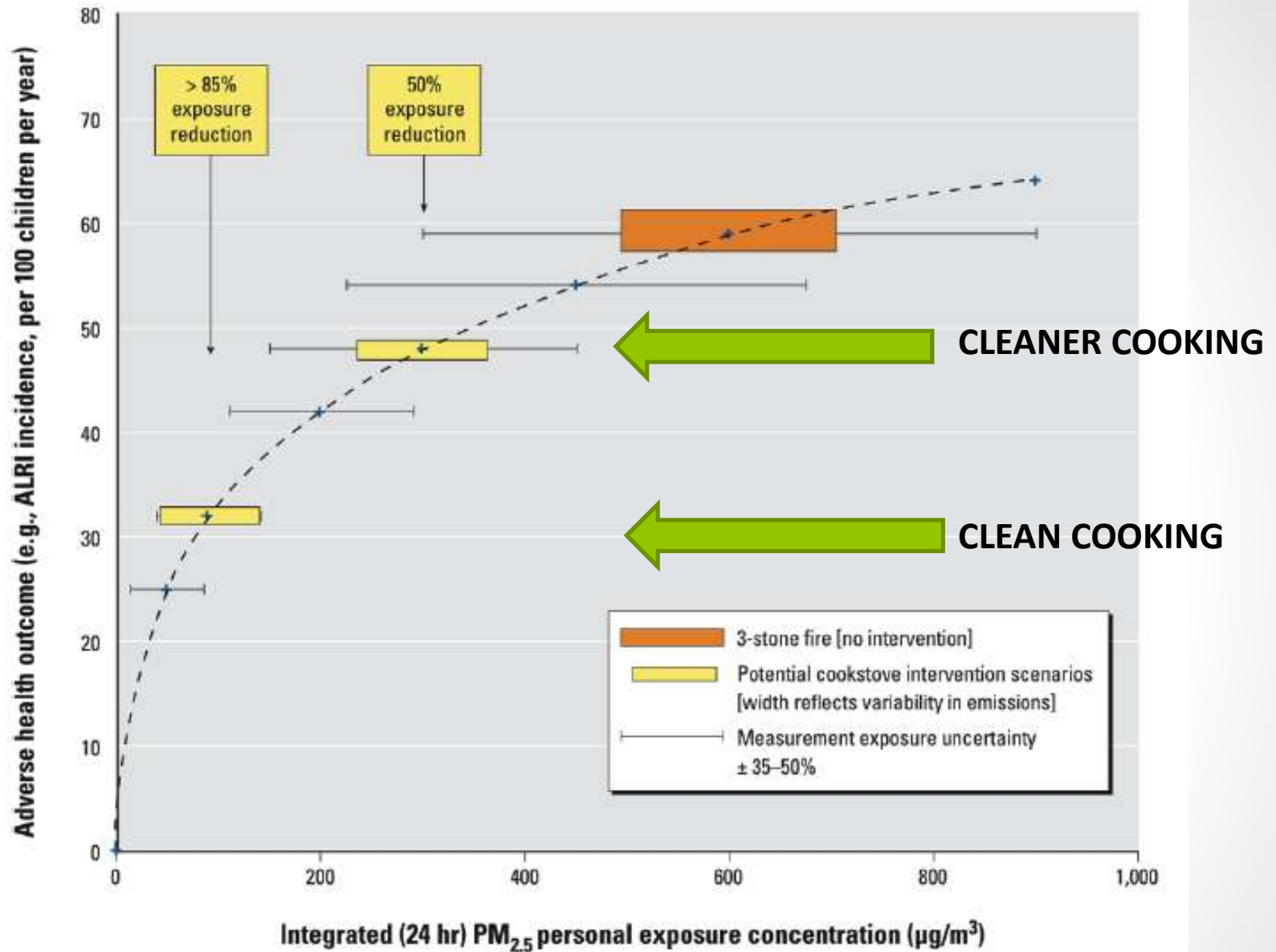
School for Environment and Sustainability

Pathways to Clean Cooking

Wexford, Ireland

May 2019





Need large HAP reductions to realize health benefits (Clark et al. 2013)

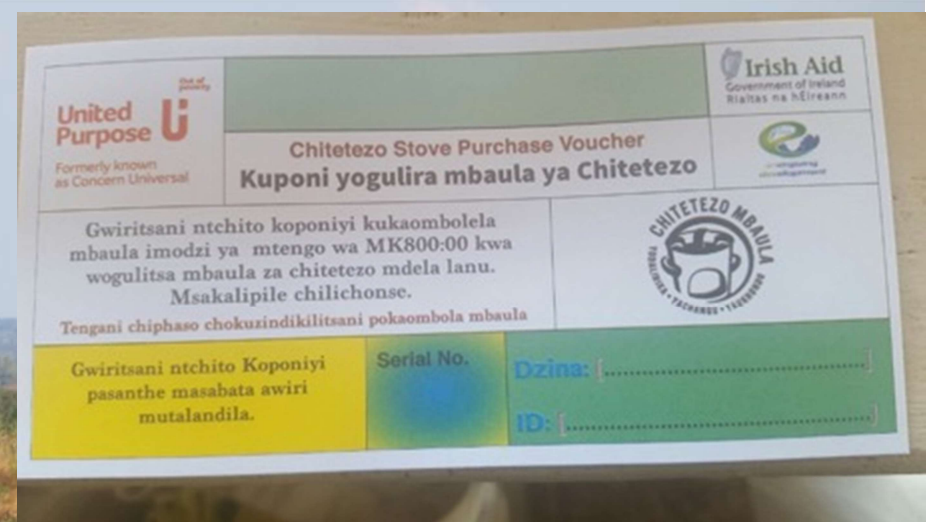
# Social Protection Programs and Stove in Malawi

Malawi is coupling of cookstoves with their social cash transfer program

Focus on delivering ICS to the ultra-poor

Could lead to **rapid scale-up** for a traditionally underserved and hard to reach population

Given the vulnerability of very poor households, the welfare benefits of stoves may have a **bigger marginal impact**





# Inyenyeri, Rwanda

## Biomass pellets and fan microgasification stoves

### Reductions in:

- Carbon monoxide exposures
  - Shortness of breath
  - Systolic blood pressure
  - Time spent cooking
  - Charcoal purchases
- 
- Not the poorest who are adopting



# Private Sector Efforts in Lusaka, Zambia



**VITALITE**

**COOK HEALTHY**  
Less coughing, less sore throats & less headaches.

**SAVE MONEY**  
Cook with less charcoal and save 70%.

**COOK ECO-FRIENDLY**  
Reduce harmful emissions & make Zambia healthier.

1. Place a small amount of charcoal inside the stove. Light the stove from the top.
2. Keep the airvent open to promote lighting.
3. Add more charcoal and start cooking!
4. While cooking, shake the ashes out to maintain air flow.

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stove by **ecozoom**



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**SupaMoto**  
The Clean Malasha

**LUSAKA residents only!**

✓ MimiMoto stove: fast, economical and clean.  
 ✓ Supamoto® monthly pellet subscription.  
 ✓ 2 years warranty on MimiMoto stove.

**PAYMENT PLANS**

Product	Down payment	Monthly payment	Payment period	SupaMoto Bags
MimiMoto Stove + 20kg SupaMoto per month	K150	K100	26 Months	26
MimiMoto Stove + 20kg SupaMoto per month	K300	K150	12 Months	12

**PAY BY:** airtel money

**(NO CASH)**

GET FREE K30 TALKTIME WITH EVERY PERSON REFERRED

FOR MORE INFO CALL  
**2233** (TOLL FREE WITH A AIRTEL)  
 OR 0972 859 637

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SupaMoto® by Emerging Cooking Solutions Zambia Ltd, 9160 Lunsemfwa road, Kalundu, Lusaka



# There are complex dimensions to cooking energy transitions

- Take-up is often (but not always) low (~30-60%)
- Sustained use is short (2-3 months)
- Stacking of stoves and fuels is common
- Supply chains for processed wood fuels are difficult to manage
- Imported stoves are expensive
- It takes time to foster new systems!

Jagger et al. (2019);  
Jagger and Das (2018)



# Three Questions

1. **Can we close the gap** between the community here and the public health community and work towards feasible and effective pathways to clean(er) cooking?
2. Improved biomass stoves likely play an important role in the transition to clean cooking – but we don't really know if this is true – **Will we leapfrog – or is incremental change something we should strive for?**
3. Lots of new models emerging – many are private sector led. The time to achieve success/profits is long – **how can there be better support for experimentation over the long run?**





# FUEL Lab Themes

- Poverty and environment dynamics
- Environmental governance
- Energy poverty

[www.fuel.seas.umich.edu](http://www.fuel.seas.umich.edu)

