

## The Future Cookstoves & the Role of Carbon Finance




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Presented at EEP –KNOWLEDGE EXCHANGE FORUM on 20<sup>th</sup>  
September 2016 at Hilton Hotel, Nairobi

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## The Alliance



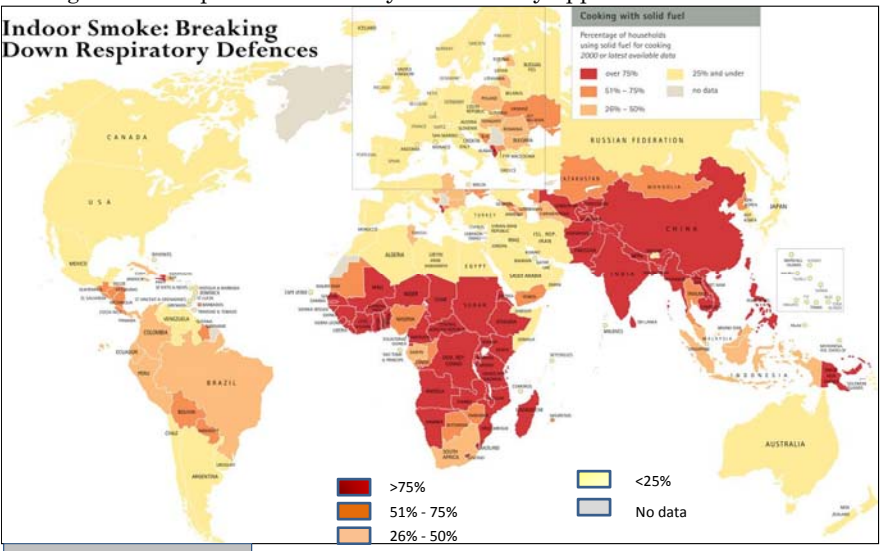
Vision	<ul style="list-style-type: none"> <li>Universal adoption of <b>clean</b> and <b>efficient</b> cookstoves and fuels.</li> </ul>
Mission	<ul style="list-style-type: none"> <li>We believe through clean Cookstoves we:                             <ul style="list-style-type: none"> <li>Can save lives,</li> <li>Improve livelihoods,</li> <li>Empower women, and</li> <li>Conserve the environment</li> <li>Climate change emission reduction</li> </ul> </li> </ul>
Goal	<ul style="list-style-type: none"> <li>100 million households adopt clean and efficient cookstoves and fuels by 2020 (Global level)</li> <li><i>In Kenya &amp; Uganda as a sector, we have a target of 5 Million HH adopting cleaner &amp; more efficient Cookstoves by 2020 (Country level)</i></li> </ul>

## Current Situation




Over 2.8 billion people globally still uses solid biomass fuels for cooking and heating either in open fire or in very rudimentary appliances

### Indoor Smoke: Breaking Down Respiratory Defences




Sources: WHO (2002); IEA (2007)

## The Problem



2 billion tons of biomass burned each year

Exposure to indoor air pollution is estimated to be up to 100 times more than recommended as healthy by WHO



4.3 million people globally die prematurely from IAP exposure

Burns and scalds from open fires & unsafe stoves

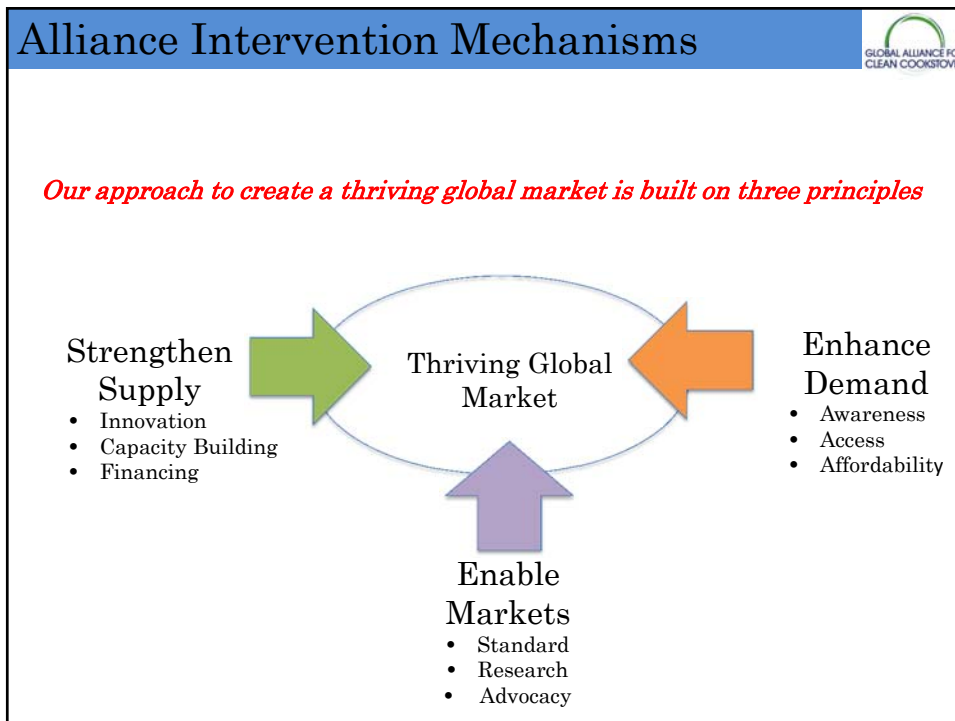
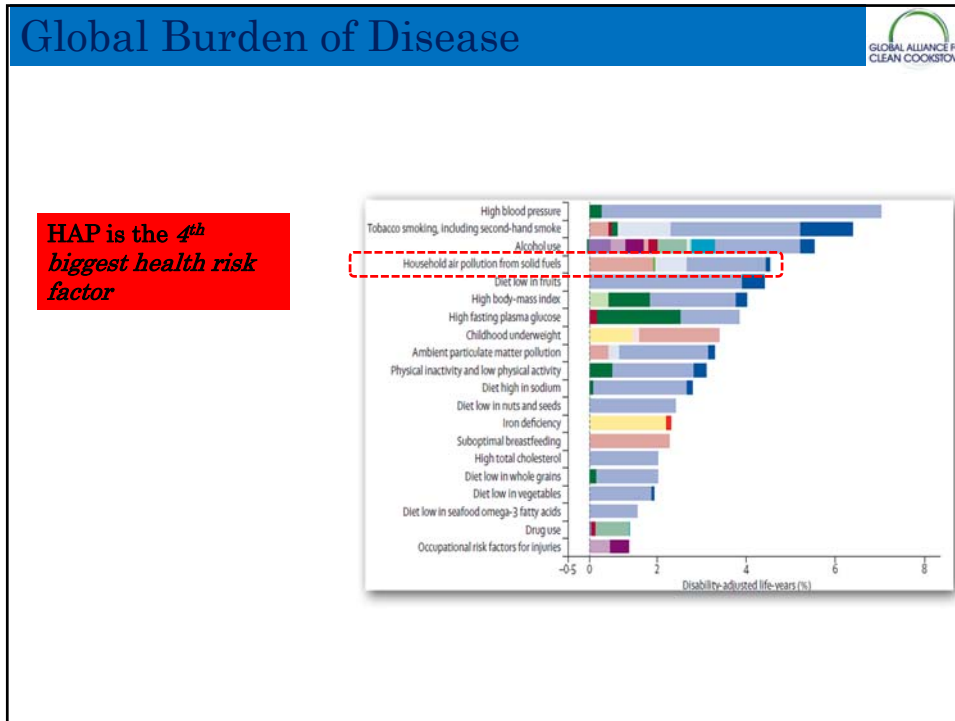
Pneumonia, heart disease, lung cancer, cataracts, and eye injuries

In Kenya alone, over 15000 people dies prematurely from IAP

About 50% of all pneumonia deaths among children occur as a result of smoke exposure







## Sector Challenges



- Fragmented and uncoordinated
- Lack of standards
- Artisanal – jua kali
- Inability to attract investments
- Lack of recognition as a critical sector in socio-economic and environment development
- Poor distribution
- Lack of awareness on the value of clean cooking

## Progress & Future outlook of Clean Cooking



- The past 5 years have seen sector transform more than what has happened in the past 30 years
- Recognition of clean cooking sector as core to energy access agenda
  - SE4All Action agenda
  - Kenya Climate Change Plan
  - National energy policies
- In Kenya the past two budgets, the Minister of Finance has put measures that address the clean cooking adoption
  - 2015/2016 – Government removed excise duty on denatured ethanol
  - 2016/2017 –
    - Government removed VAT on LPG
    - Reduction of import duty from 25% to 10% on clean Cookstoves
    - Removal of VAT on clean Cookstoves and parts

## Testing, Standards & labelling



- Foundation for sector growth
- At global level, have ISO TC that involve global stakeholders
- At National level working with stakeholders to review the Cookstoves stds

### **Aim:**

- Enhance fair trade as the sector move toward maturity
- Reflect the current dynamics and evidence
- Build the confidence of the consumers

### **Labelling:**

- Alliance to support the process of labelling systems starting from Q4 of this year in conjunction with the stakeholders;
- **Aim:** help consumer make informed choices when purchasing Cookstoves
- This initiative is taking place in Kenya and Uganda in EA.

## Clean Cookstoves Association of Kenya (CCAK)

- **CCAK (Clean Cookstoves Association of Kenya),**
  - It is the Voice of clean Cookstoves sector & recognized by the government
  - Its mission is to facilitate the scaling up of the clean cookstoves and clean fuels markets in Kenya
  - It has 34 members comprising representatives from government, academia, private sector, donor agencies, NGOs and individuals active in the clean cooking sector.
- In Uganda we have an equivalent association called Uganda National Alliance for Clean Cookstoves (UNACC)

## Investment and Financial institutions on board

- Diverse financial instruments in place
- Equity & debt
- Smart grant with an aim of making enterprise become investment ready
- The investment has taken place in the past three years: - either in form of grant, equity or debt
  - Burn
  - Ugastove
  - Green Bio-energy
  - Envirofit
  - Ecozoom
  - SCODE
  - Wisdom
  - Ecostove
  - Africa Energy Stove (AES)
  - KENCOCO
  - Briquettes manufacture in Thika

## Alliance Investment vehicles



The Alliance has various funding mechanisms targeted at Cookstoves enterprises at different stages of growth.:

- **Spark fund** - target enterprises that are investment ready – Burn & GBE
- **Pilot Innovation Fund** - Target enterprises that have an innovative idea that if it succeeds will have significant socio-economic impacts on the society – Ecozoom
- **Women Empowerment Fund:** Target a woman led enterprises or a company that focusses on woman empowerment - we have two grantees of this fund: Bidhaa sasa and Livelyhood & in Uganda – AEST & Solar sister
- **Catalytic Small Grant** - this targets small Cookstoves and fuel enterprises with strong growth potential. Currently there are 3 beneficiaries of this fund: SCODE (Cookstoves manufacturing Co.), Wisdom Innovation (Gasifiers & Pellets production Co.) & Kencoco (briquettes Co.) & in Uganda 4 –Ecostove, AES, Ugastoves & Wana



## Policy & Regulatory framework



- Government strong support & a listening ear
- Significant progress toward making clean cooking solutions a reality for many

### E.g.

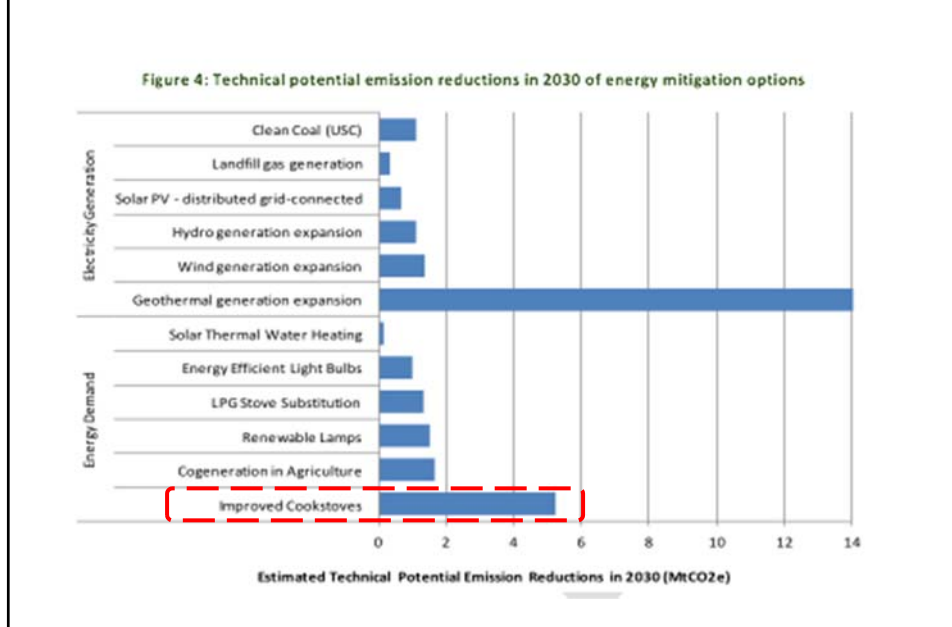
- *Reduction of import duty on clean Cookstoves from 25% to 10%*
- *Removal of VAT on LPG*
- *Removal of excise duty on denatured ethanol*
- *Ongoing now is the proposed removal of VAT on Cookstoves*
- **Inter-ministerial Committee on Clean Cooking (IMCC) – a platform for lobbying and advocating clean Cookstoves**

## Role in climate Change Mitigations



- Kenya is a signatory to the NDC
- It has committed to reduce emissions by 30% by 2030 from BAU scenario of 143MtCO<sub>2</sub>eq (based on the Kenya's NCCAP)
- Under the energy sector Cookstoves is the second most significant sector in emissions reduction after geothermal

## What does Cookstoves mean for the energy sector in emission reduction



## Role of Carbon Finance in Dissemination



- Little research has been done on the impacts of carbon financed Cookstoves initiatives;
- The sector is at an early stage/on run-way – need enough momentum to be able to take off, hence need for “patient capital”
- Many Cookstoves businesses are faced with:
  - *Lack of access to credit for working capital*
  - *Low profit margins*
  - *High upfront capital costs*
- This gaps can be covered by the carbon finance
- Carbon finance would be ideal to provide a “*transitional crediting*” to enable the business become self sustaining


*Cont.*

- **Carbon finance could be of valuable support to cookstoves businesses and has been used to provide:**
  - After sales support to HH and repair or replace broken stoves
  - R&D– i.e. new stove models, enter new markets or hone the design of the current model to better fit their customers' needs
  - Establishment & development of distribution networks
  - Promotional schemes to kick-start sales & then phase it out
  - Scale up the stove businesses to become commercially viable
  - Provide price subsidy – with caution – *is smart subsidy being applied?*
  - MRV – ensure long uptake of stoves & better understanding of the users
  - Leverage external finance & provide finance option for end-users;
  - Prospect of being able to sustain implementation over a longer period of time *esp where they are on project basis*

*Cont.***But there are risks in over-reliance on carbon finance:**

- **Uncertainty about the future demand for carbon credits:**- demand for credits is hinged not only on ambitious climate mitigation targets, but also a willingness from countries and companies to use international credits to meet these goals;
- **Mismatch:**- between the efficiency needs of a carbon project and the complexities and cultural sensitiveness required for a successful improved Cookstoves intervention
- If **business model** applied wrongly, it can hinder market transformation of the sector or kill business e.g. when prices of carbon dropped!!
- Changing **national policy** environment – e.g. LPG program
- Uncertainty around stove uptake and usage rate

**As Alliance we believe that.....**




- 1.9 billion trees will be saved
- 17% reduced woodfuel emissions
- 1.6 billion metric tones of CO2 saved (Equivalent to that of 340 million passengers vehicles)

**Cookstoves non-carbon impacts/co-benefits**

- 640,000 lives saved including 17000 children
- 2.1 million sector jobs created
- 6.2% of household income saved
- 102 hours saved annually per hosedhold collecting firewood

.....by reaching our 100 million HH by 2020

**More details**



**Thank you**

For more information visit:  
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