



# Global Initiatives on Clean Cookstoves and Fuels: What Works?

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GLOBAL ALLIANCE FOR  
CLEAN COOKSTOVES



# The Global Alliance for Clean Cookstoves will create a thriving market for clean cookstoves and fuels.

## PROBLEM

Every day,  
**3 BILLION  
PEOPLE**  
(500 million households)  
rely on solid fuels to  
power their rudimentary  
stoves



which leads to...

- 4,300,000 deaths annually
- Wasted productivity
- Climate, forestry & other environmental degradation
- 21% of global black carbon emissions
- Health & economic burdens that disproportionately impact women & girls



## MISSION

- SAVE LIVES
- IMPROVE LIVELIHOODS
- EMPOWER WOMEN
- PROTECT THE ENVIRONMENT



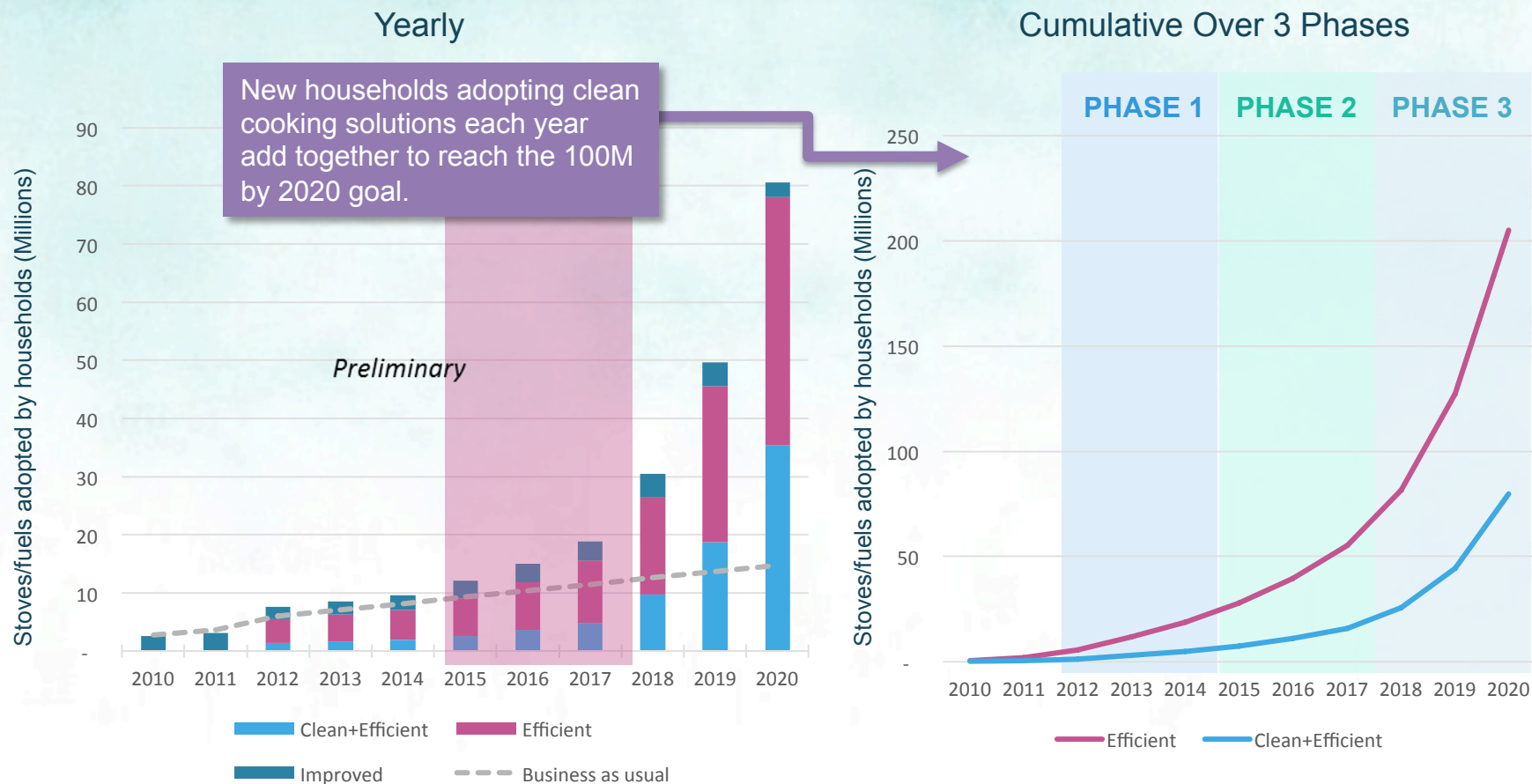
## GOAL



**100  
MILLION  
HOUSEHOLDS  
ADOPT** by 2020  
**CLEAN AND  
EFFICIENT  
COOKSTOVES &  
FUELS**

# Strengthening Supply, Increasing Demand, and Creating an Enabling Environment to Facilitate Access to Cleaner and More Efficient Cookstoves and Fuels

## Household Adoption of Stoves/Fuels



# Receptive Policy Environment

8 Alliance Focus Countries Carry ~ 65% of Disease Burden

Ghana: Optimal Convergence of Research and Government Commitments

- Cleaner Biomass Stoves
- 50% Clean Fuels (LPG) by 2020

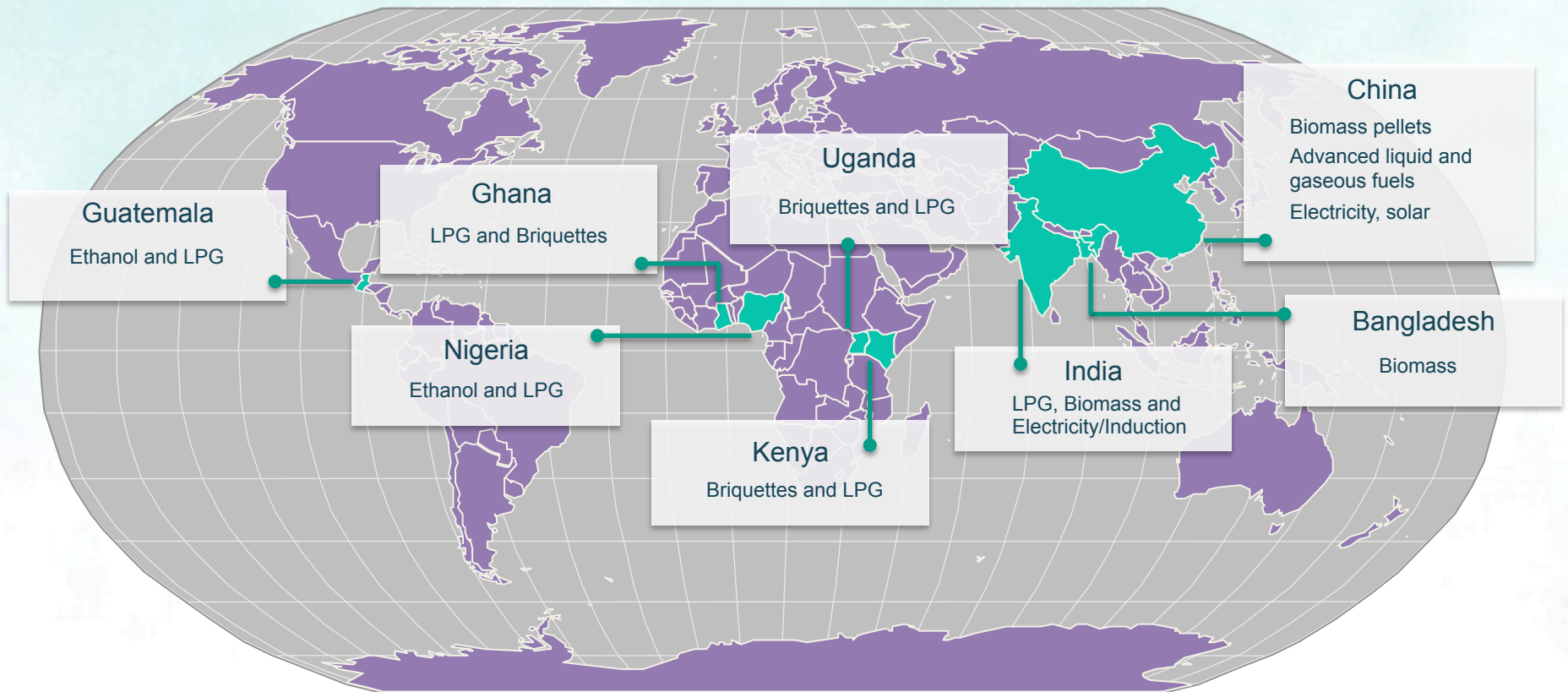


India: Government and Private Sector Committed to Scaling Up Cleaner Cooking

- Biomass Stoves
- LPG
- Electric (Induction) Stoves



# Continue to utilize a focused geographic strategy to achieve rapid and sustainable impact of fuels



# Challenge: Measuring Progress Towards Adoption of Higher Performing Options (and Associated Benefits)

## Transformative Tools for the Sector

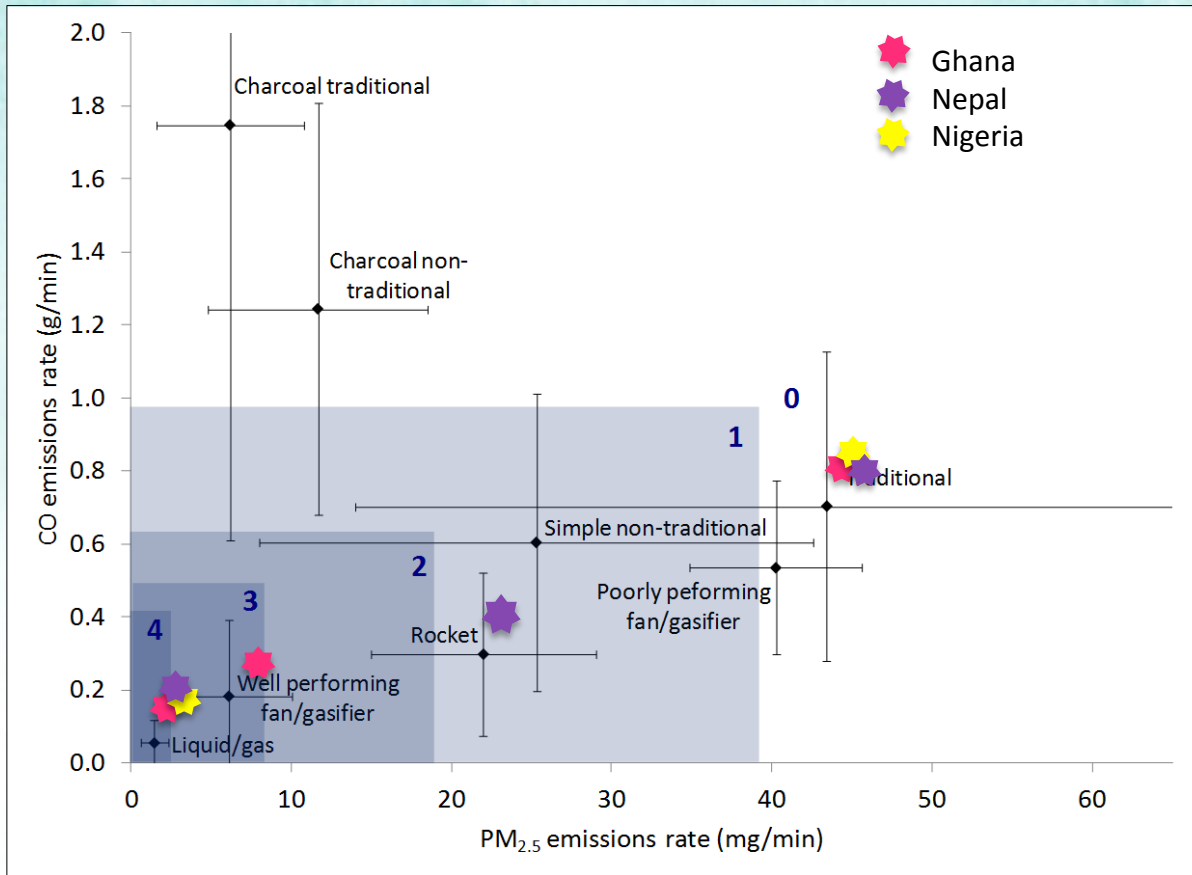
- *Interim tiered performance standards ISO International Workshop Agreement (IWA)*
  - *Performance-based standards*
- *WHO Air Quality Guidelines*
  - *Emission rate targets needed to achieve exposure-based standards*



Table R1.2: Emission rate targets (ERT) for meeting WHO air quality guidelines for PM<sub>2.5</sub>, including a less stringent intermediate ERT for which 60% homes would meet the guideline

Emissions rate targets (ERT)	Emission rate (mg/min)	Percentage of kitchens meeting AQG (10 µg/m <sup>3</sup> )	Percentage of kitchens meeting AQG IT-1 (35 µg/m <sup>3</sup> )
<b>Unvented</b>			
Intermediate ERT	1.75	6	60
ERT	0.23	90	100
<b>Vented</b>			
Intermediate ERT	7.15	9	60
ERT	0.80	90	100

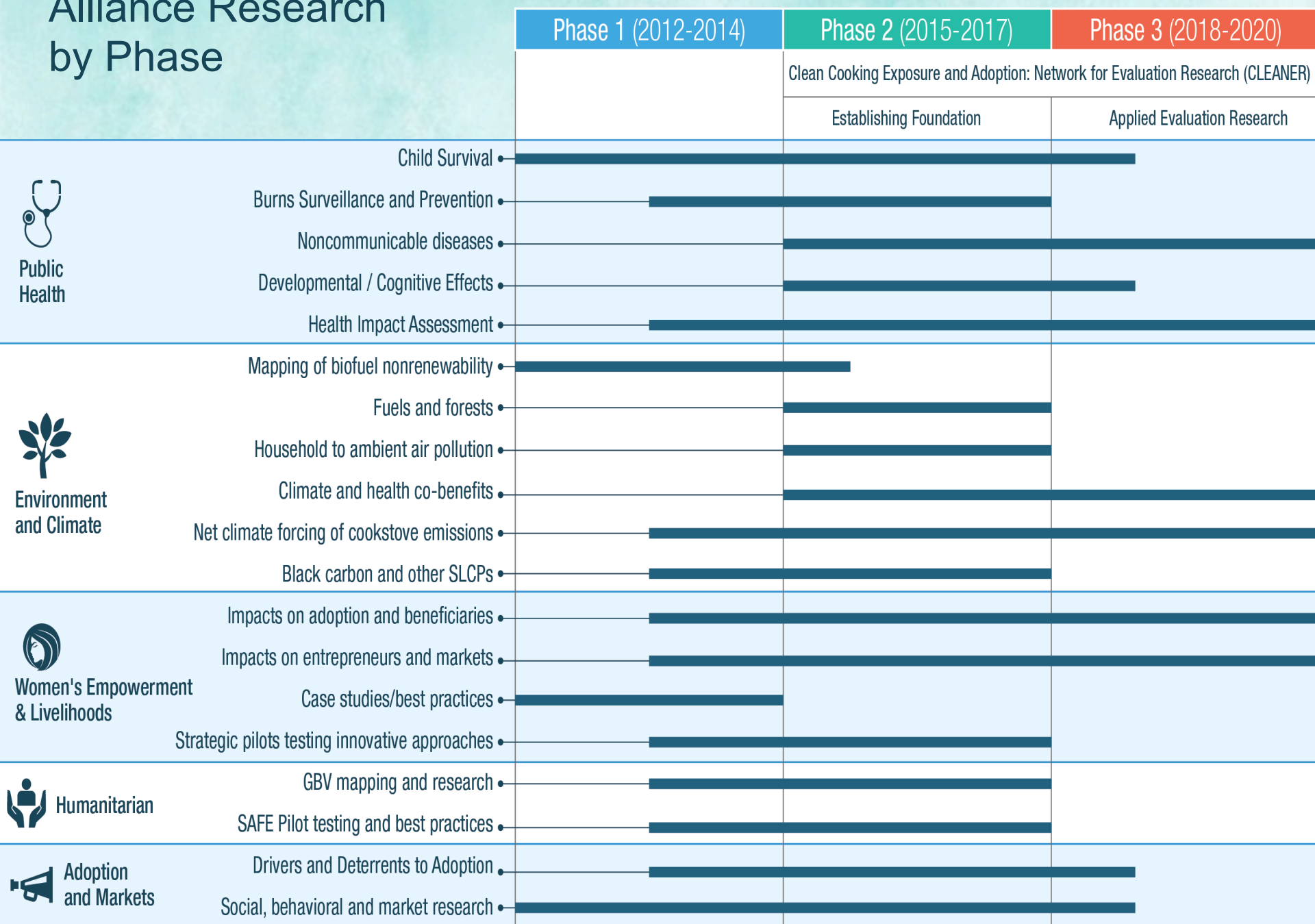
# What Are the Available 'Clean' Stove and Fuel Interventions?



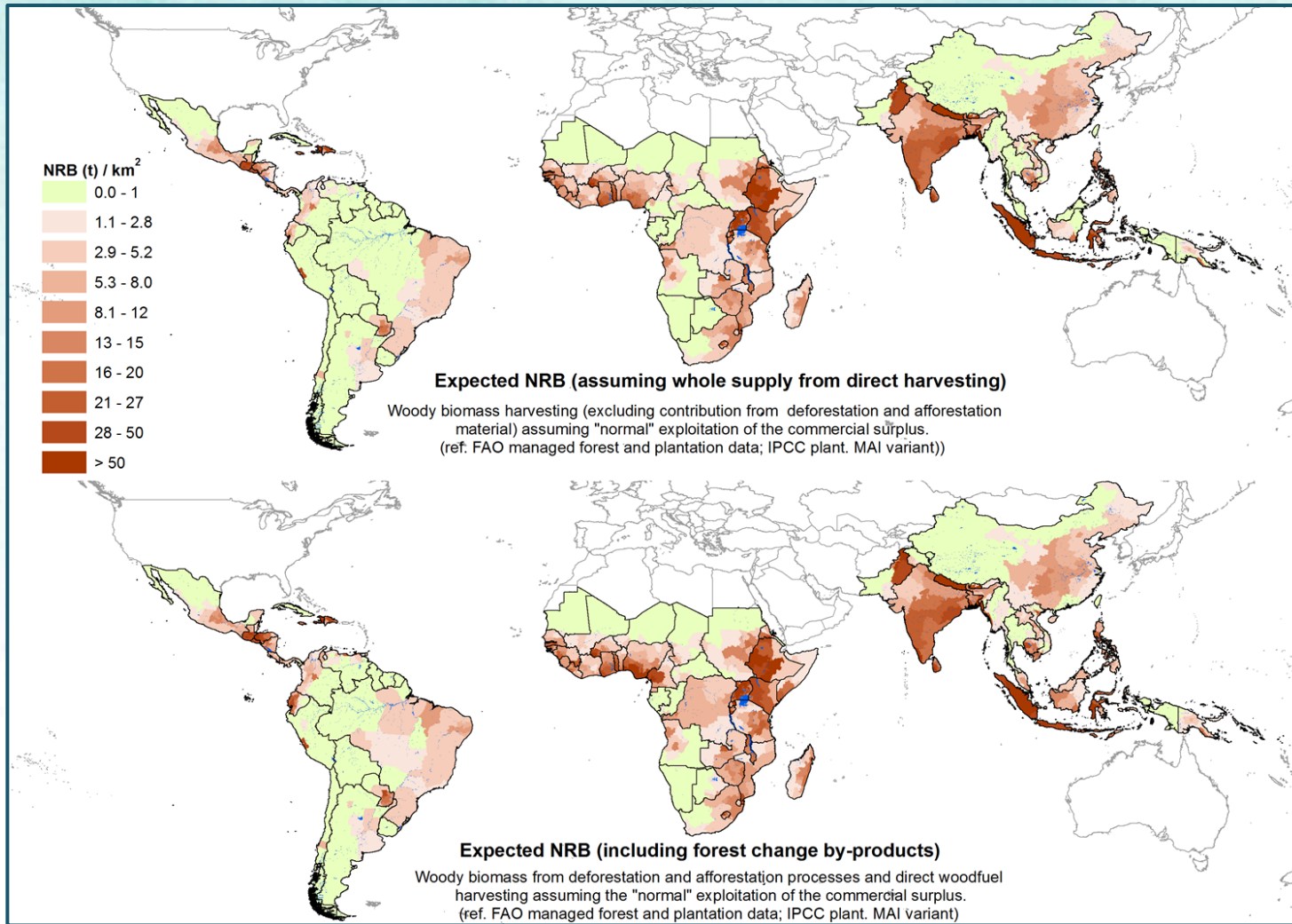
## 🏠 Tier 3 and 4: Indoor Emissions

For complete list of stoves, visit [catalog.cleancookstoves.org](http://catalog.cleancookstoves.org)

# Alliance Research by Phase



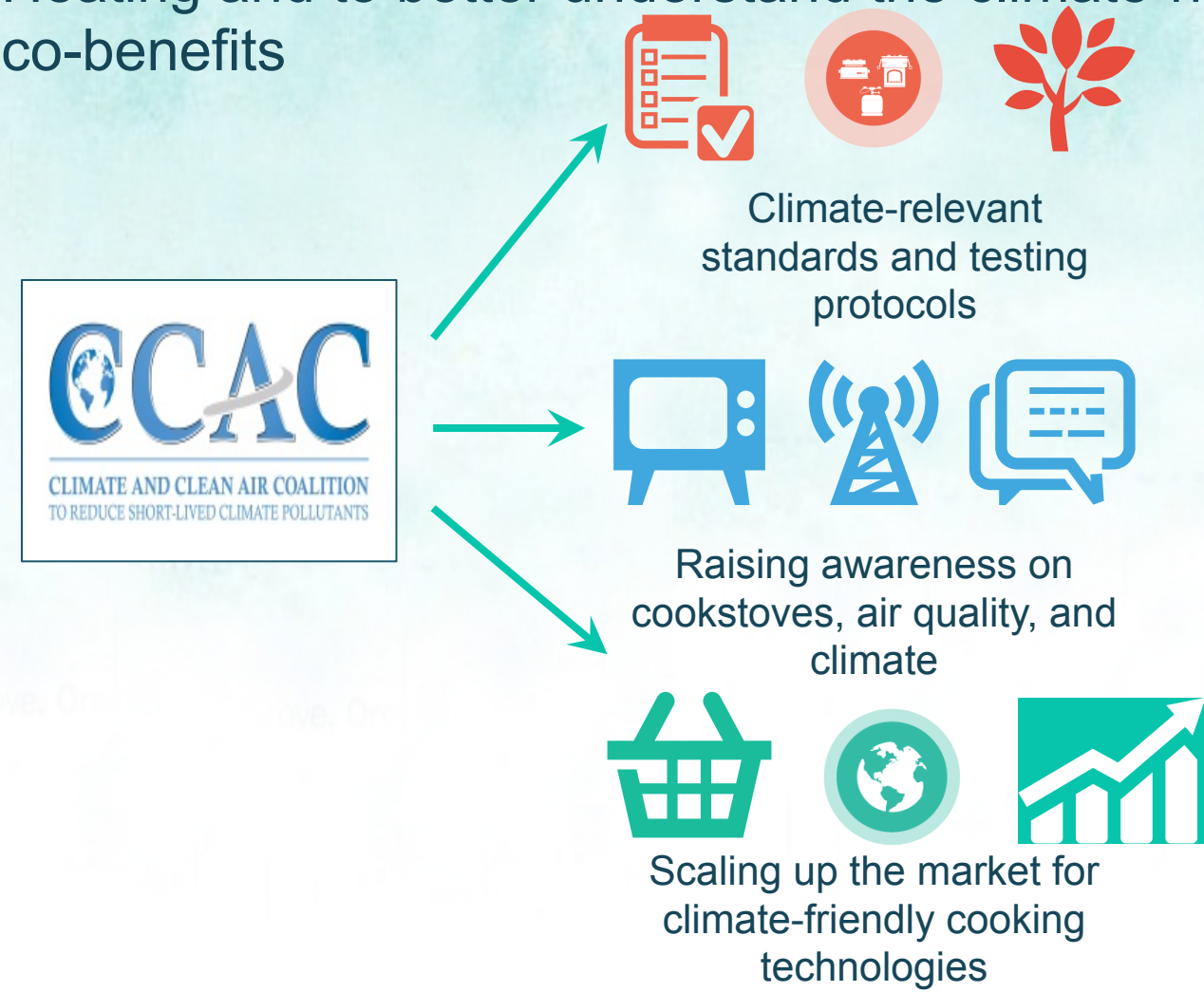
# Phase 1 Climate Research Emphasis: Strengthening the evidence base on nonrenewability of biomass



**276 million rural people experience scarcity of subsistence energy!**

**Widespread interest already expressed in applying these estimates within and beyond the sector!**

# Research Will Inform the Climate and Clean Air Coalition's Efforts to Reduce SLCPs from Cooking and Heating and to better understand the climate-health co-benefits



# India's success at a glance

*India's business community is primed to scale up its stove sector, including the extension of clean fuel supply chains for LPG and induction stoves*

- PAHAL - Direct Benefit Transfer (DBTL) Scheme for LPG
  - *India's Vision 2015 strategy to release 55 million new LPG connections by 2015 and achieve a minimum 75% penetration of LPG across India, including rural areas*
- Over 1600 new microentrepreneurs in 2013
  - **66% women**
- Induction cookstoves' estimated market size already double to 6 – 7 million units sold in 2012 – 2013



## Other success stories: LPG in Indonesia

- Kerosene to LPG Conversion Program
  - *Started in May 2007 when the Government of Indonesia initiated the program*
    - In collaboration with Pertamina, the state run oil and natural gas corporation
  - *Aim was to transfer 50 million consumers of kerosene over to LPG by giving them initial package consisting of 3 kg cylinder, stove set and initial gas for free*
  - *For individuals the savings is huge. In the average household, 84% of expenditures went to fuel but in households now using LPG, this percentage has been reduced to just over 58%*
  - *Strong governmental policies accelerated the program, and an effective business model for the execution aided in its success*



Source: Tempo.co

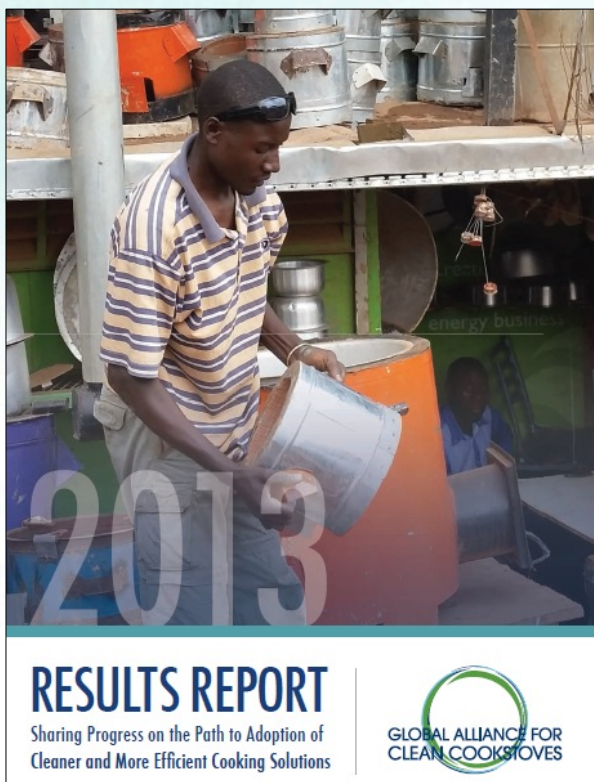
## Other success stories: Cambodia

- Sustainable Green Fuel Enterprise (SGFE) was a start-up company that had the capacity to produce 20 tons of char-briquettes per month, providing a sustainable supply of cleaner fuel to approximately 200 families per month
- Received a Pilot – Innovation Fund (PIF) Grant from the Alliance
  - *Identified distribution as a bottleneck*
- After award, doubled capacity to 40 tons of char-briquettes per month
- Received a Spark Grant from the Alliance
  - *Now on track to produce 100 tons of char-briquettes per month*



# Evaluating Success

- Results Report
  - *Partner Surveys*
  - *Clean Cooking Catalog*
- Clean Cooking Exposure and Adoption: Network for Evaluation Research (CLEANER)



- Coordinated, multi-country applied research
- Coordinated evaluations of scale up
  - exposure and health effects

A collection of logos is displayed on a blue background. It includes the CDC logo, the Global Alliance for Clean Cookstoves logo, the flag of Kenya, the Indian flag, a globe icon, the National Institutes of Health logo, the WHO logo, the MRC Medical Research Council logo, the flag of China, and the flag of Ghana.

# Backup Slides

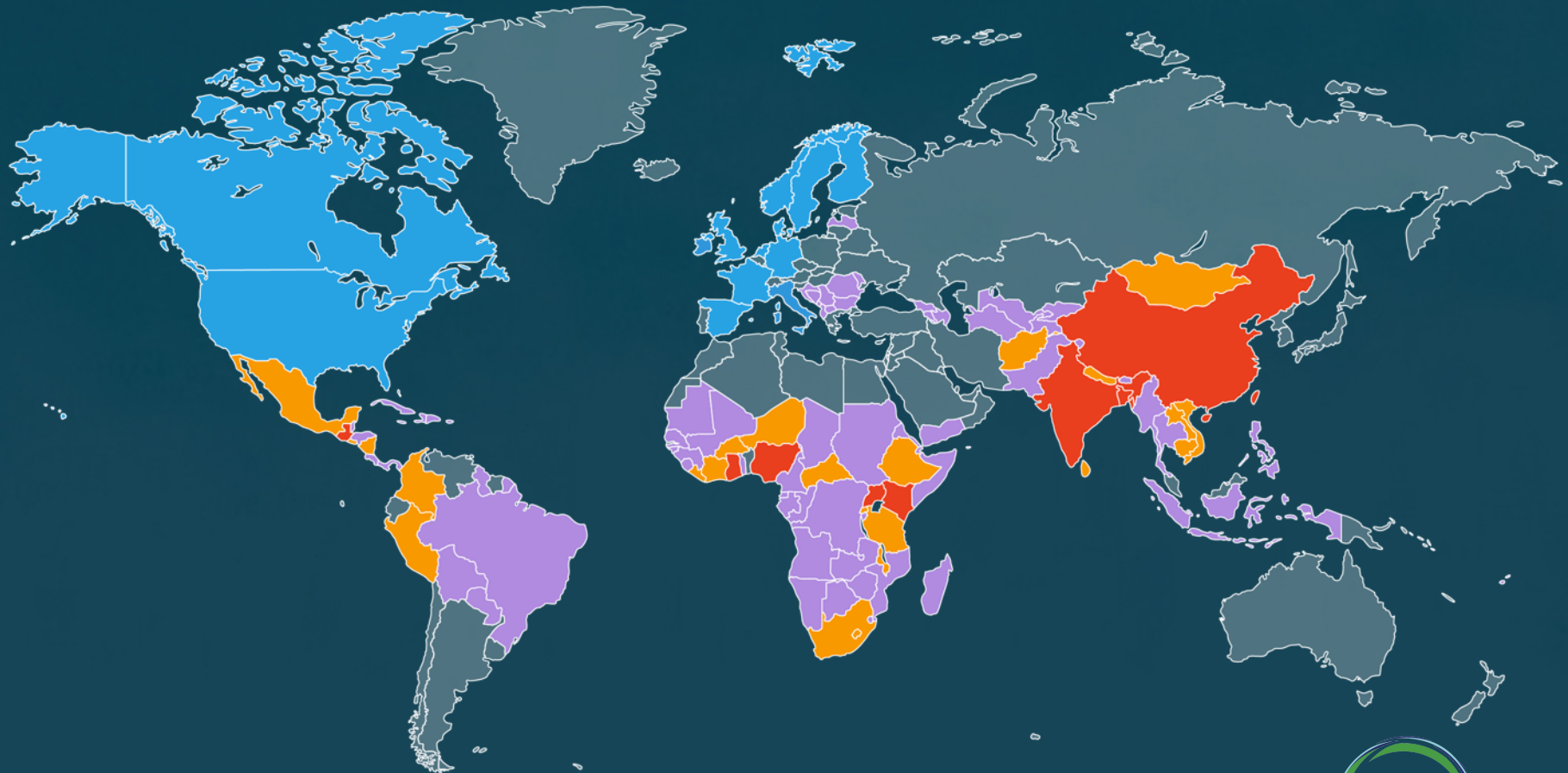
# Our market based approach is built on three core strategies ...



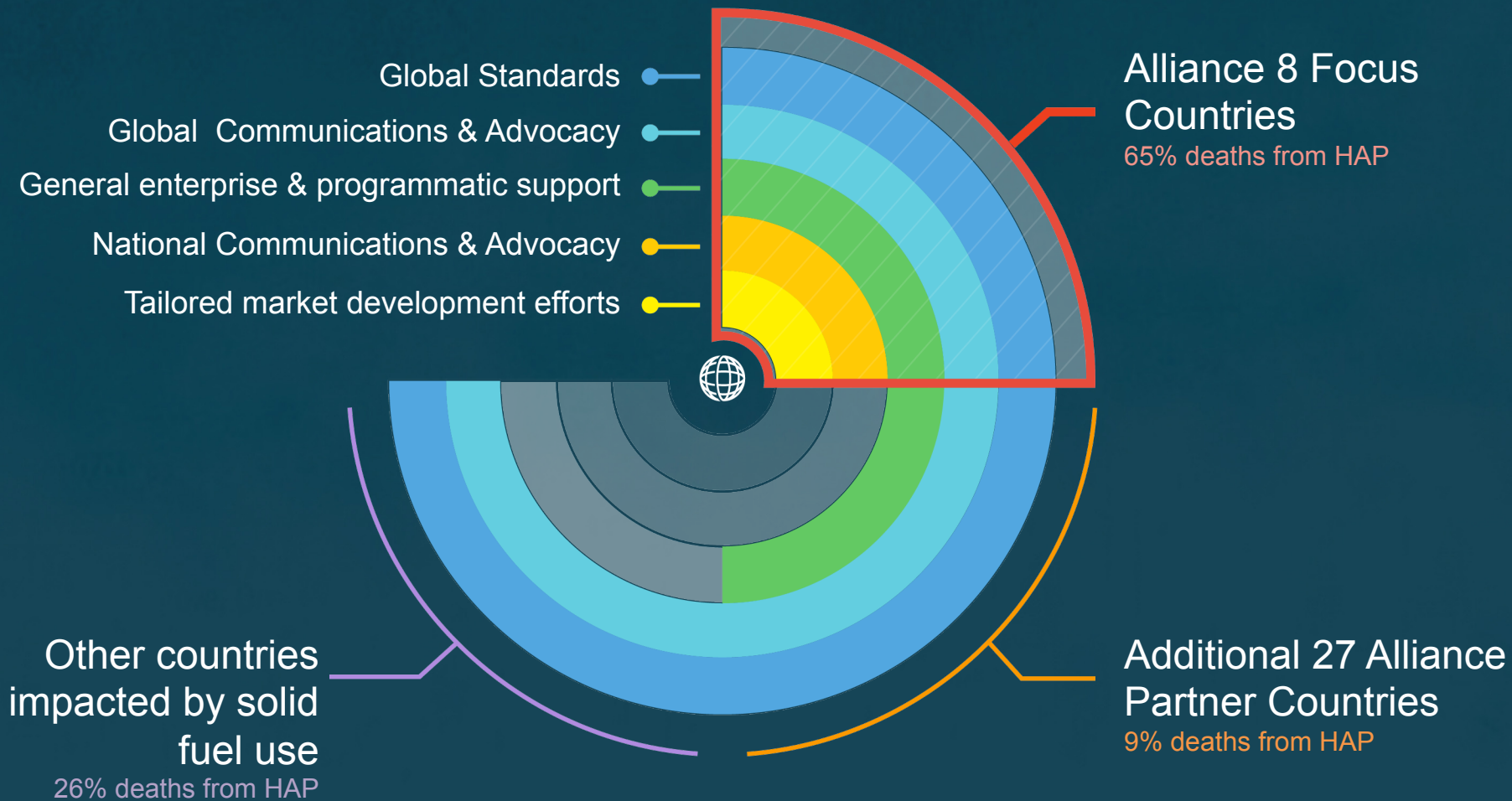
...and is being pursued in three phases.



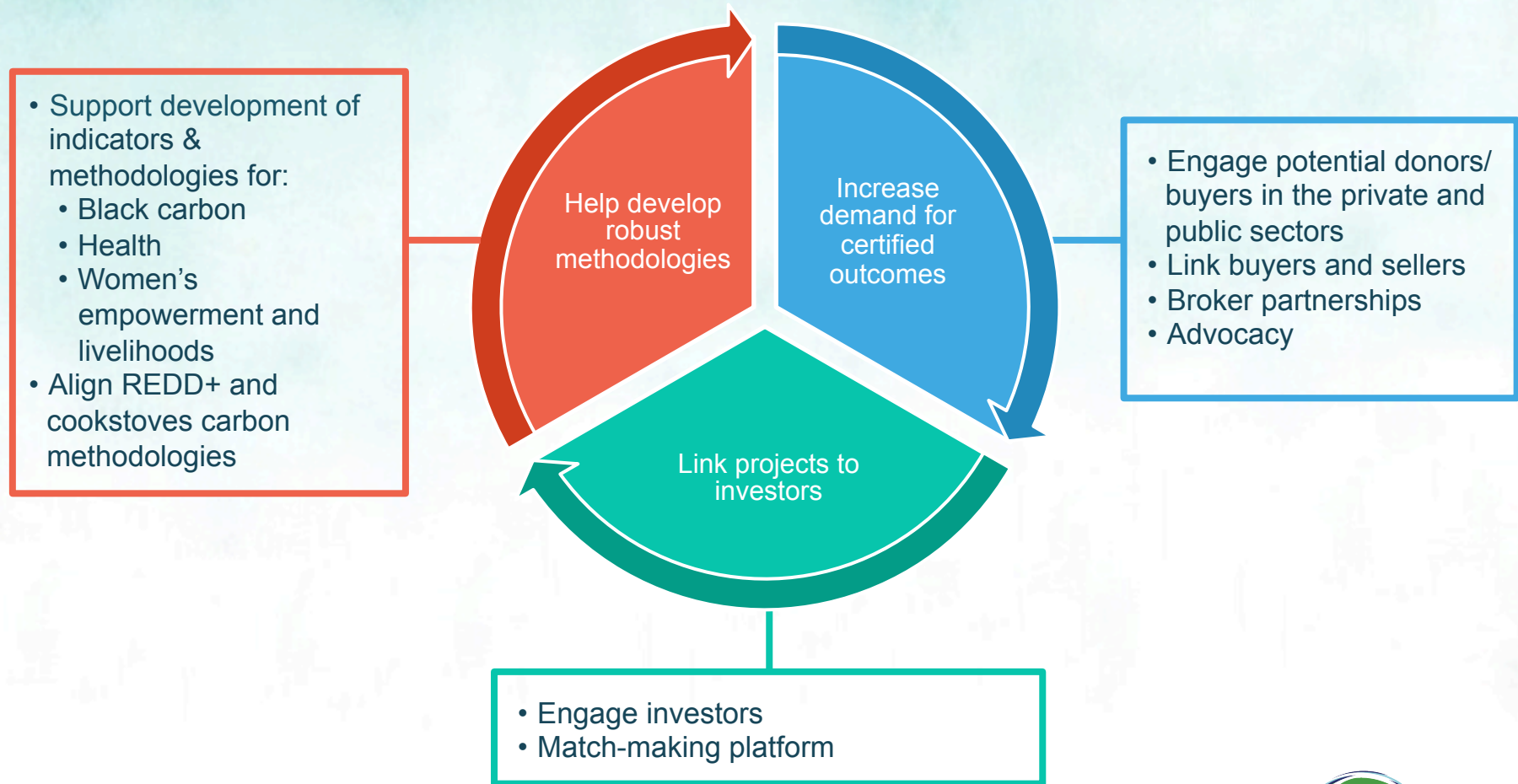
■ Alliance Focus Countries
 ■ Alliance Partner Countries
 ■ Donor partner countries
 ■ Other countries impacted by solid fuel use



...to achieve rapid and sustainable impact.



# Results Based Financing: How will Alliance increase access to RBF for our partners?



# Results Based Financing

- Demonstrating that Clean Cooking is a Cost-Effective Public Health Intervention



- Increasing Demand for Carbon Offsets
- Piloting a new BC Accounting Methodology

