



Update on Cookstoves Research Platform and International Standards Development Process

October 12, 2012



The Global Alliance for Clean Cookstoves

The Global Alliance for Clean Cookstoves is an innovative public-private partnership to create a thriving global market for clean and efficient cookstoves and fuels.

Save Lives



Improve Livelihoods



Empower Women



Combat Climate Change



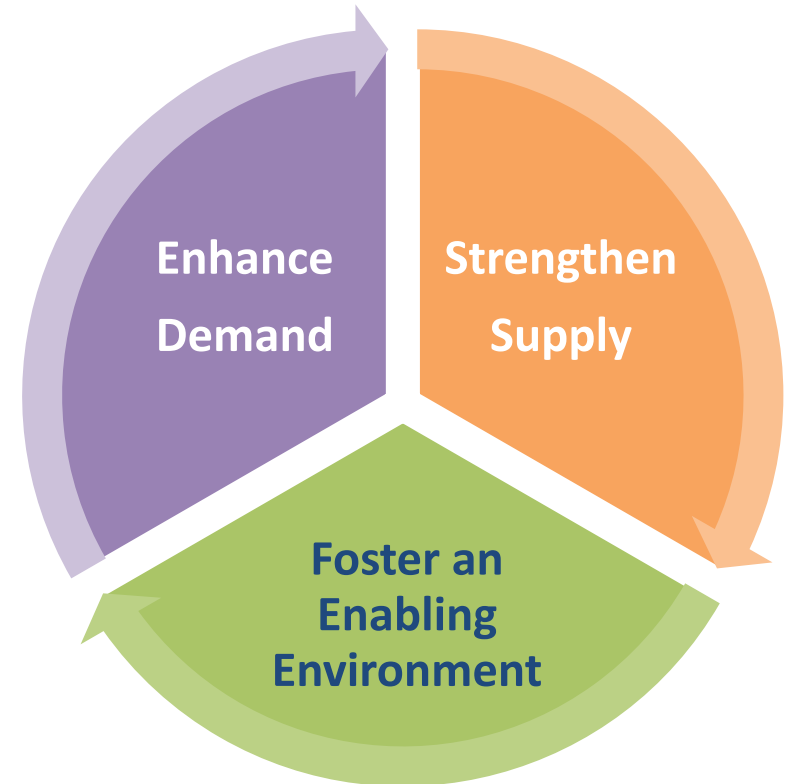
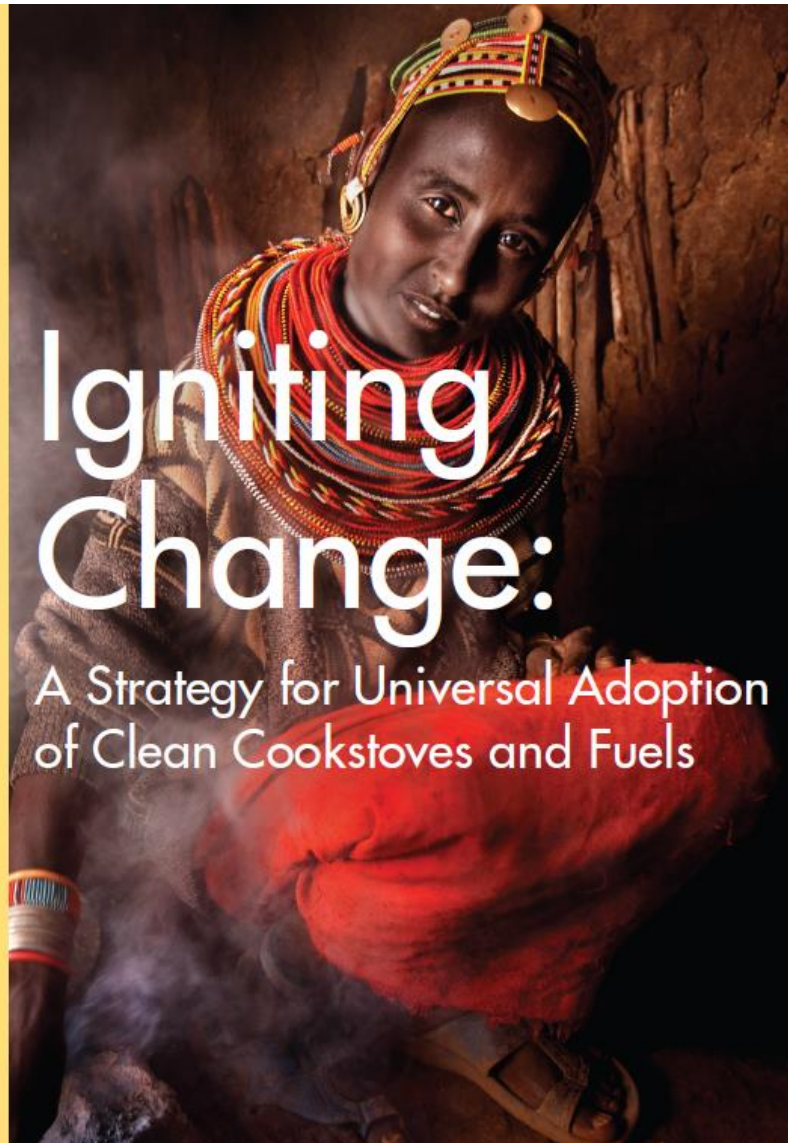
Key Milestone

*100 million households adopt clean
and efficient stoves and fuels by 2020*

> 400 Partners and Growing

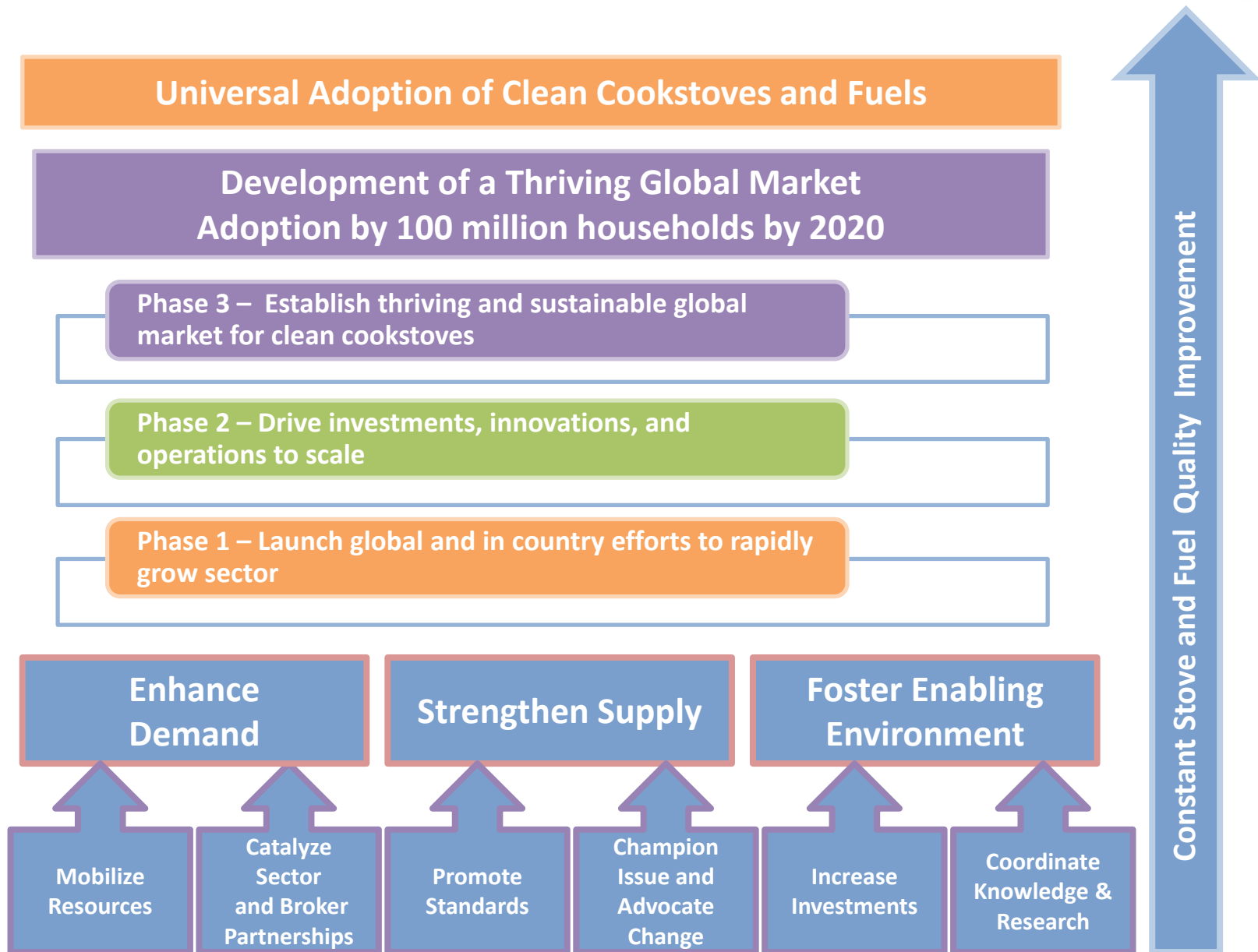
Donor Countries	Private Sector Donors	NGO and MFI	National Partners
Canada			Afghanistan
Denmark			Bangladesh
Finland			Burkina Faso
Germany			Cambodia
Italy	Morgan Stanley		China
Ireland	Deloitte.		Colombia
Malta			El Salvador
Netherlands	B/S/H/		Ethiopia
Norway			Ghana
Spain			Guatemala
Sweden			Kenya
United Kingdom			Laos
United States			Lesotho
			Mexico
			Nepal
			Nigeria
			Rwanda
			Tanzania
			Peru
			Viet Nam
			Uganda
			&
			Central American
			Integration System

A three-pronged strategy has been developed to spur the clean cookstove market.



- Promote international standards and rigorous testing protocols, including WHO Air Quality Guidelines
- Champion the sector to build awareness
- Strengthen the evidence base (health, climate, and gender)
- Engage national and local stakeholders
- Develop credible monitoring and evaluation systems

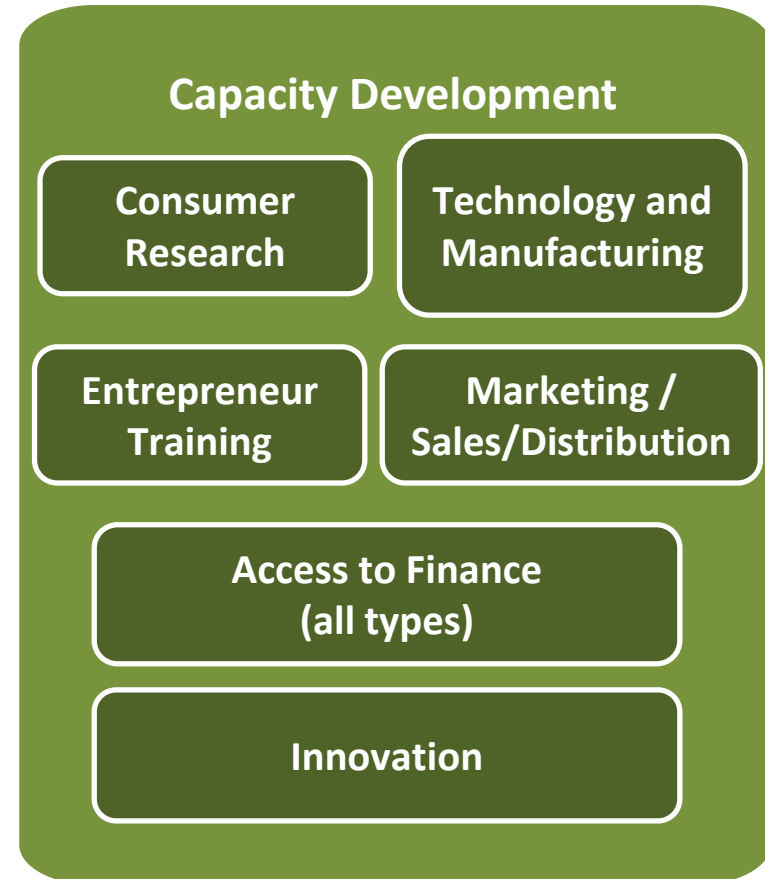
The Alliance's Theory of Change



The Alliance will deploy a two track approach to enable markets in priority countries.



Activities for the public good that benefit the entire sector



Tailored support that focuses limited resources on driving scale

Alliance Country Selection



After undertaking a robust data driven approach to select potential countries of prioritization for its first phase, the Alliance engaged in consultations in over 18 countries and commissioned 16 market assessments in an effort to further prioritize its engagement.

Alliance is taking a “portfolio” approach in its effort to prioritize countries.

- Priorities determined based on size of impacted population, maturity of market in each country, magnitude of need, strength of partner (including government) commitment, and ability to contribute to Alliance goals
- As a portfolio these countries have diversity in cookstove design, manufacturing, assembly, distribution, marketing, sales, and financing models and lessons can be drawn from each country for other “like” partner countries to ensure exponential growth of the market in Phase 2 and Phase 3.
- Government role, type of fuel, customer segments engaged all vary from country to country within the portfolio, providing even further learnings for the portfolio at large and other partner countries.

Alliance has prioritized engagement in 6 countries immediately, with the potential of up to 4 more in Phase 1.



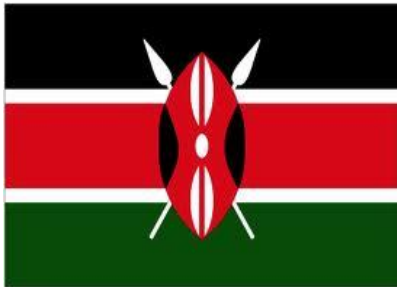
Bangladesh



China



Ghana



Kenya



Nigeria



Uganda

Up to four more countries from the following – Cambodia, Ethiopia, Guatemala, India, Indonesia, Mexico, Nepal, Peru, Rwanda, Tanzania and Vietnam.

Country Prioritization at a Glance

	Bangladesh	China	Ghana	Kenya	Nigeria	Uganda
Greatest Need	✓			✓		✓
Greatest Potential Impact	✓	✓	✓	✓	✓	✓
Contribution to 100 million (% of goal)	Moderate	High	Small	Small	Moderate	Small
Testing Innovative Interventions	✓		✓	✓	✓	✓
Leveraging Resources and Partnerships	✓		✓	✓		
Consumer Segment Focus	Rural	Rural	Urban/Peri Urban	Urban/Peri urban	Urban	Rural
Fuel Intervention Focus	Biomass	Transition from coal	LPG and improved charcoal	Ethanol	LPG/improved charcoal	Biomass
Government Engagement	Strong, Energy and Environment driven	Strong, rural and provincially driven	Strong, Energy and Environment Driven	Strong – interministerial but private sector driven	Light govt/ Primarily small enterprise driven	Strong renewable energy goals
Mission Statement Primary Focus	Empower Women; environment	Health; environment	Energy access & livelihoods	Livelihoods/ health/ environment	Empower women/ livelihoods	Environment

Kenya – Summary of Alliance Engagement

Cookstove sector

- Strong SME driven sector with engagement from traditional and new actors
- Strong international govt and investor interest in Kenya (Energy +, WBank, AfDB)
- Government Kerosene Free Kenya initiative prioritizing cookstoves and established interministerial coordination group
- Strong potential for ethanol and LPG
- GOAL of 5m stoves by 2020

Alliance Market Development Efforts

- Target two customers segments – urban slum; peri urban slum segments paying for wood/charcoal
- Test efficiency of ethanol supply chain and pilot clean fuel interventions
- Provide support to entrepreneurs along the value chain (finance, marketing, technology, distribution, etc.)

Enabling Environment Interventions

- Cutting edge testing center enabled in Uganda and Kenya as a “spoke” will have its own center for stove improvement
- Climate mapping study to include Kenya
- Advocate government to ensure East African free trade zone applies to cookstoves and fuels; interest rate incentives for renewable energy use

Other Front Burner Issues in Kenya

- Strong entrepreneurial activity at the base of the pyramid

Alliance will build a solid evidence base with research that shows correlation between clean cookstoves and improved outcomes.

	Phase 1	Phase 2	Phase 3
Health	child survival and development		
	burns surveillance		
	noncommunicable diseases		
	understudied diseases of public health relevance (TB, adult pneumonia, cancers, asthma, etc)		
			measuring impacts
Environment / Climate	mapping of nonrenewability of biofuels		
		modeling of GHG emissions from cookstoves	
	research on net climate forcing of cookstove emissions		
			measuring impacts
Women's Empowerment & Livelihoods	opportunity cost impacts and women entrepreneur adoption impacts		
	case studies and best practice		
	strategic pilots testing innovative approaches		
			measuring impacts
Humanitarian	impacts for refugees, IDPs, and vulnerable people		
	pilot testing and measuring best practice		
			measuring impacts
Adoption and Markets	social marketing for increasing consumer awareness and demand		
	Adoption Research		
	Attracting Social Investment		
	Driving innovation and enterprise development		
			measuring impacts
Standards and Testing	Testing protocols		
	Research and standards meetings		
	Lab and field testing		
	Developing online stove performance inventory		
	Social, behavioral and market research		
			measuring impacts
Fuels and Technology	benefits, impacts and costs of different fuel options		
			measuring impacts

Cookstoves and Child Survival (RFA 12-1)

- Desired: studies which fill key gaps in the existing evidence on the use of traditional cookstoves and open fires as they relate to child survival, with a focus on:
 - Adverse pregnancy outcomes, including low birth weight, pre-term birth, and birth defects; and/or
 - Severe respiratory illness, including pneumonia and other acute lower respiratory infections (ALRI) in children under five years of age.
- Alliance is funding studies in Ghana, Nigeria, and Nepal

Other Health Priorities

- Alliance Burns Work Group
 - Better Data for Burn Injury Surveillance and Registries (starting with India case study)
 - Improved Survey Instruments for Community and Hospital Based Data
 - Improved Population Based Data
- Cookstoves and Chronic Disease
- Consistency across evidence for combustion risk factors
- Demonstrating impacts on health of interventions with proven acceptability, capacity to substantially reduce exposure in laboratory and field settings, and safety.
- Strengthening evidence for risks of important/high burden diseases for which there is currently only weak and/or inconsistent evidence (e.g. tuberculosis, adult pneumonia, other cancers, and asthma).

Global standards can benefit...



Consumers and users

by providing information to make informed choices and purchases



Designers and manufacturers

by affirming their product quality and driving innovation



Policy makers, donors, investors, programs

by establishing a credible basis for comparing stove performance and safety



All stakeholders

by providing common terminology for communicating, understanding, and improving stove performance and adoption

Standards and Testing Strategy to evaluate, communicate and improve performance and adoption

Develop International Standards

- Formalize and expand standards for cookstoves and fuels, working with national and international standards bodies and multiple stakeholders
- Standardize reporting and labeling
- Implement certification of standards

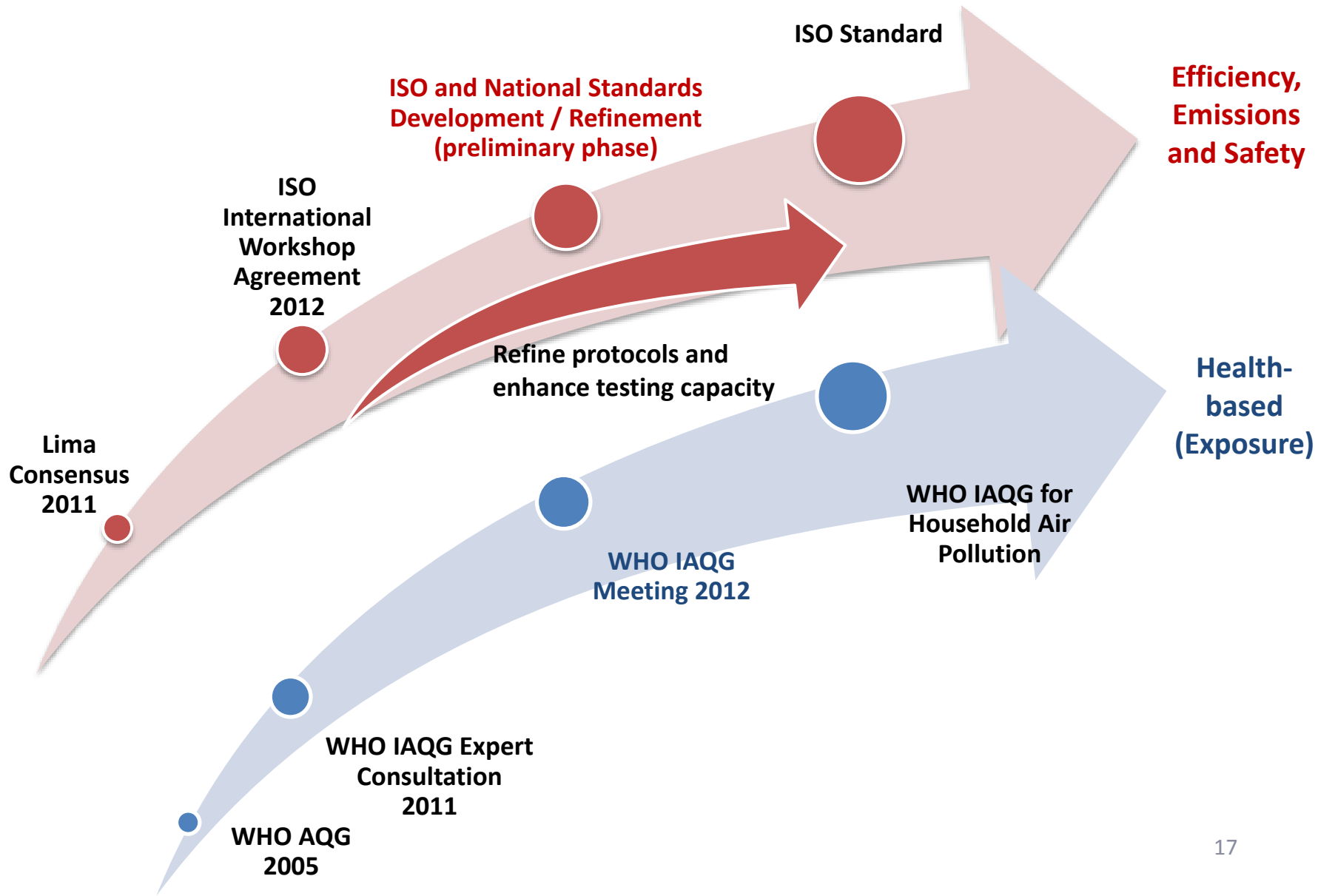
Develop and Refine Testing Protocols

- Establish a consensus-based process to develop protocols that address a broad range of stoves, fuels and indicators

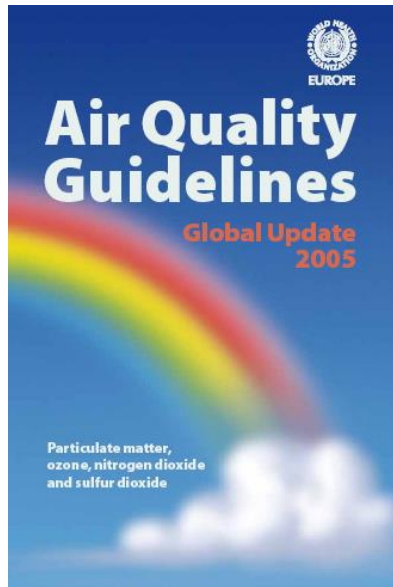
Enhance Global Testing Capacity

- Support a global network of regional testing and knowledge centers
- Establish best practices to standardize results
- Organize and host trainings and workshops to build human capital

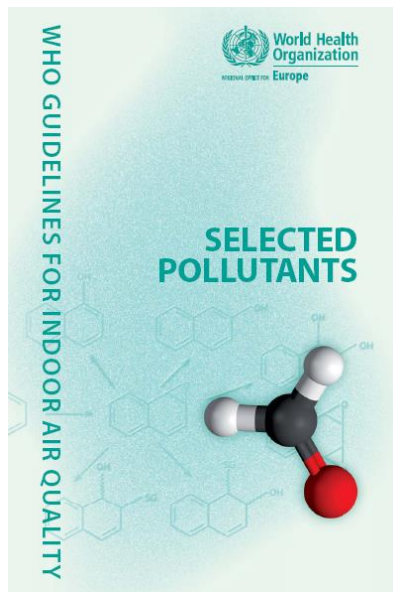
Standards development process



WHO Indoor Air Quality Guidelines: Household Fuel Combustion



- Key topics:
 - Emissions from range of stove/fuel options
 - Levels of HAP and exposure
 - Health impacts of HAP (including exposure-response for pneumonia, COPD, lung cancer, CVD, etc.)
 - Burns and poisoning
 - Impacts of interventions on HAP/exposure (field studies)
- Due for publication early 2013



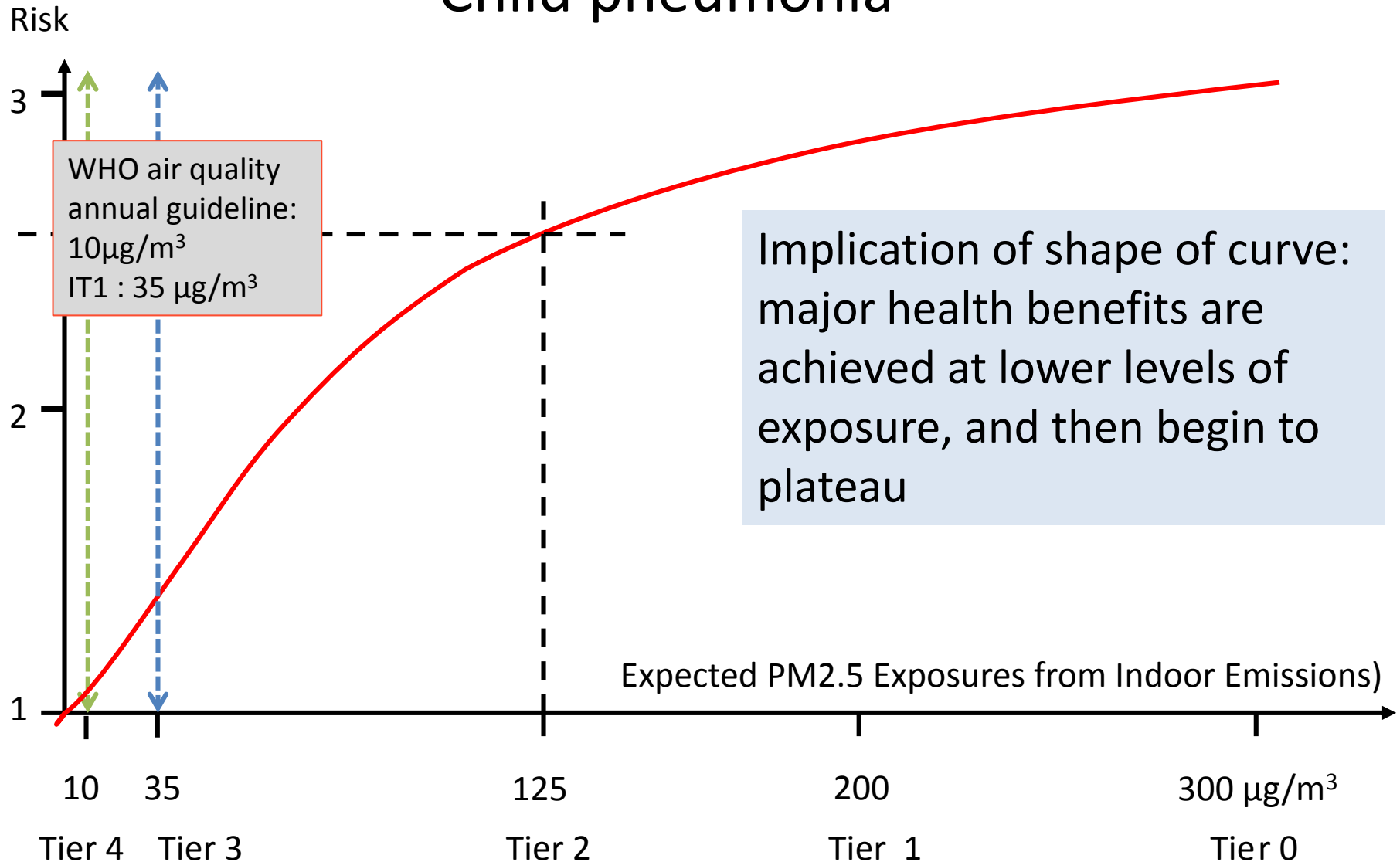


Our ISO Workshop in 2012 made strong progress towards the development of international standards.

- **Multiple performance indicators**
(Efficiency, Emissions, Indoor Emissions, Safety)
 - Programs can select stoves based on their priorities
 - Demonstrate strengths and weaknesses of each stoves
- **Stepped tiers**
(Tier 0 to Tier 4)
 - Recognize advances that have been made
 - Set aspirational targets based on WHO guidelines to achieve additional needed improvements
- **Accommodate multiple protocols**
(“Rosetta Stone” to harmonize protocols)
 - Address multiple stove types and regions
 - Different players can meet regulations and use familiar tests while being able to translate results

Example: exposure-response relationship

Child pneumonia



Agreed to definitions now in place for “Clean” and “Efficient” Stoves and Fuels for Phase I.

- Efficient
 - Stoves that meet the efficiency requirements for Tier 2 or above will be considered ‘efficient’
 - Sets aspirational target while recognizing that all fuel saved is important
 - Many technologies have progressed to Tier 2 or better
- Clean for the environment
 - Stoves that meet the total emissions requirements for Tier 3 and above will be considered ‘clean for the environment’ and will count towards the 100M target
- Clean for health
 - Stoves that meet the indoor emissions requirements for Tier 3 and above will be considered ‘clean for health’. Existing body of evidence suggests that to achieve powerful reductions in child pneumonia, clean stoves and fuels must have very low indoor emissions.
 - The stoves that are considered clean will be updated based on future research updates.

Contact Information

- Sumi Mehta, Director of Programs
smehta@cleancookstoves.org
- Ranyee Chiang, Senior Technical Manager
rchiang@cleancookstoves.org