



# Standards and Labelling: Benefits and Approaches for Cookstoves

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# Presentation Overview

- Overview of CLASP and our work on cookstoves
- Approaches and benefits of standards and labels
- Application and benefits of S&L to cookstoves and fuels



# CLASP improves the environmental and energy performance of appliances & equipment

Policy design & implementation

Promoting highly efficient products

Monitoring & evaluation

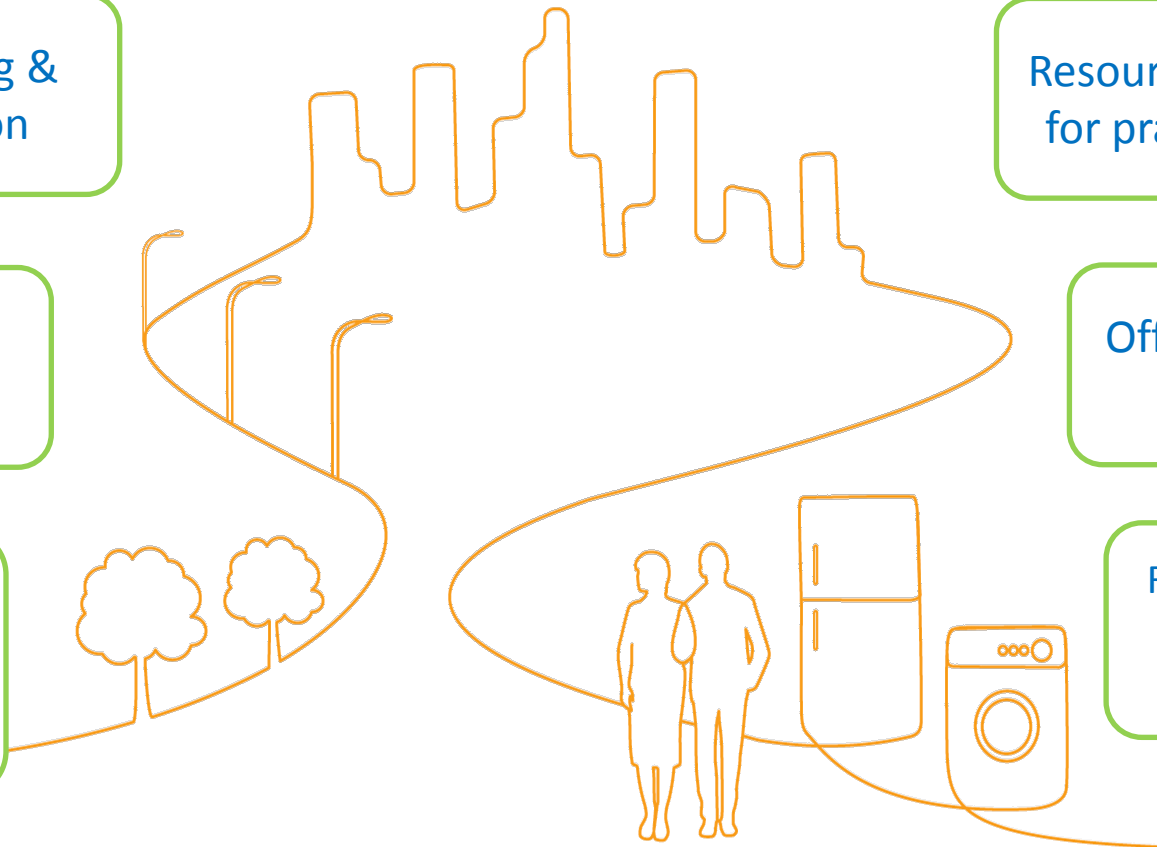
Resources & tools for practitioners

Training & capacity building

Off-grid & energy access

Phasing down HFCs and high GWP refrigerants

Raising consumer awareness & comprehension



# CLASP's Clean Energy Access Program

CLASP's Clean Energy Access program focuses on leveraging our experience with S&L and energy efficiency to:

*I. Enhance the Development of Appropriate Access Product Markets*

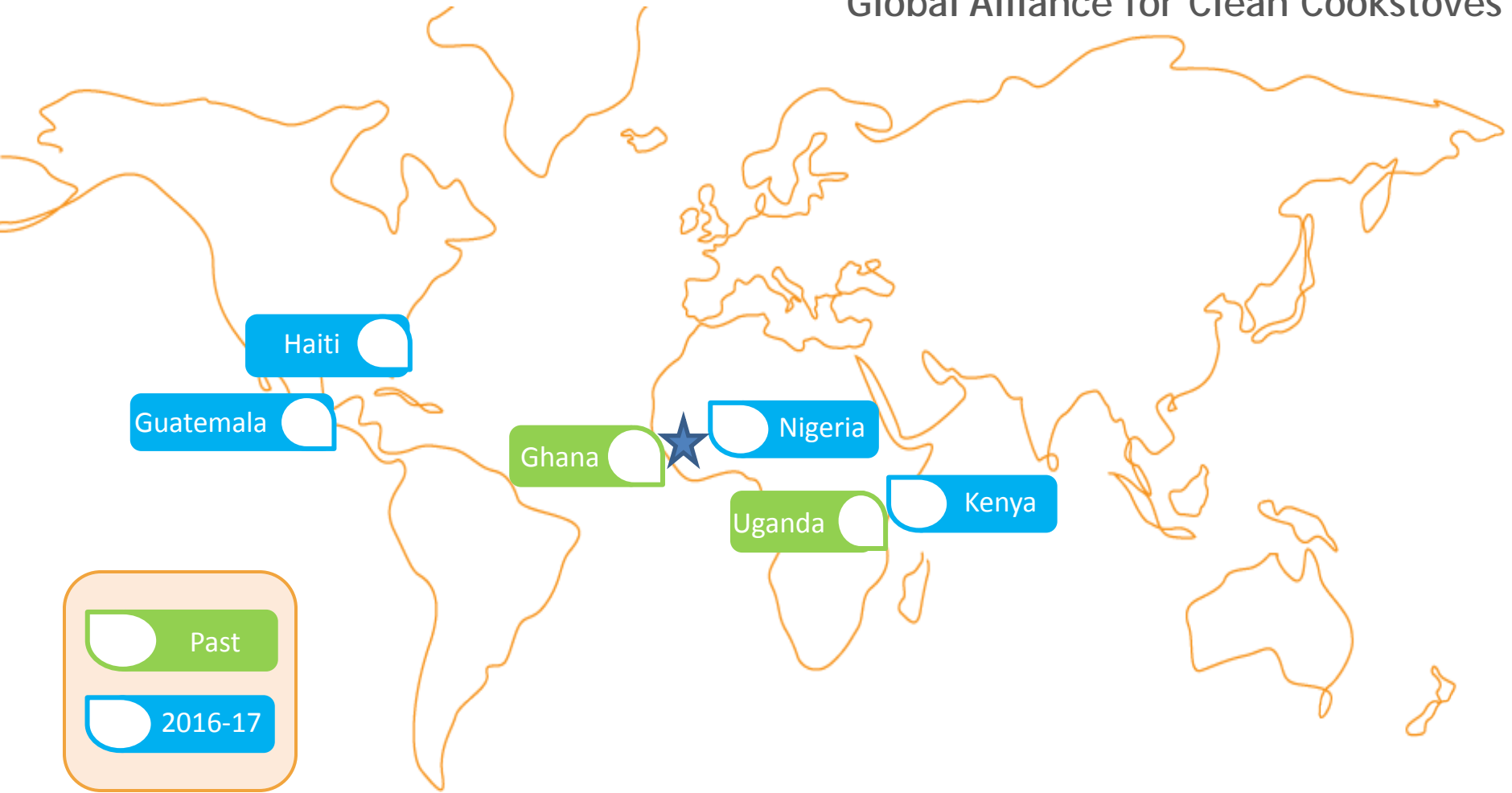
*II. Elevate the Role of Energy Efficiency in Energy Access*





# CLASP Cookstove Activities

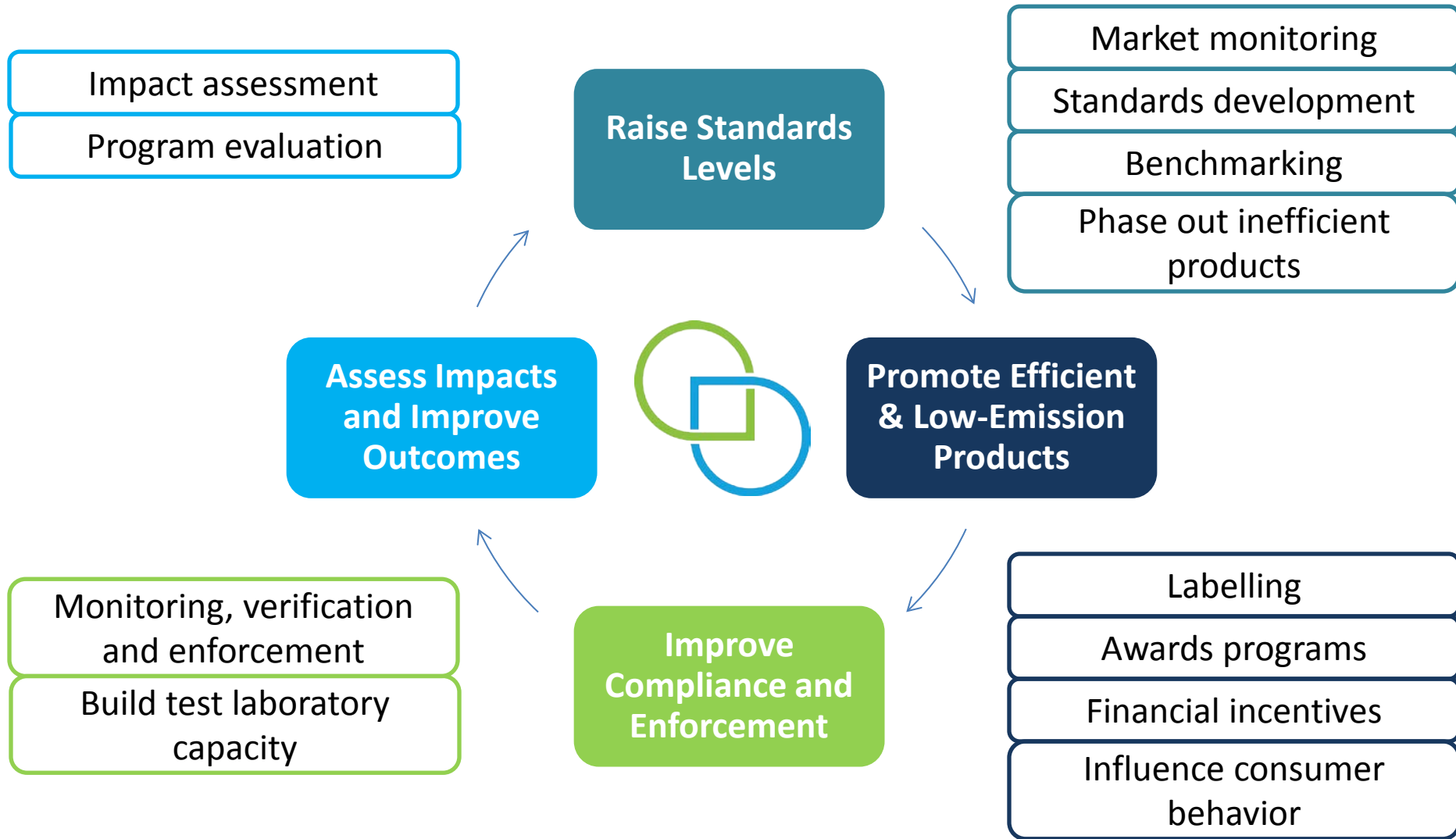
Round Robin Testing and developing S&L strategies with the  
Global Alliance for Clean Cookstoves



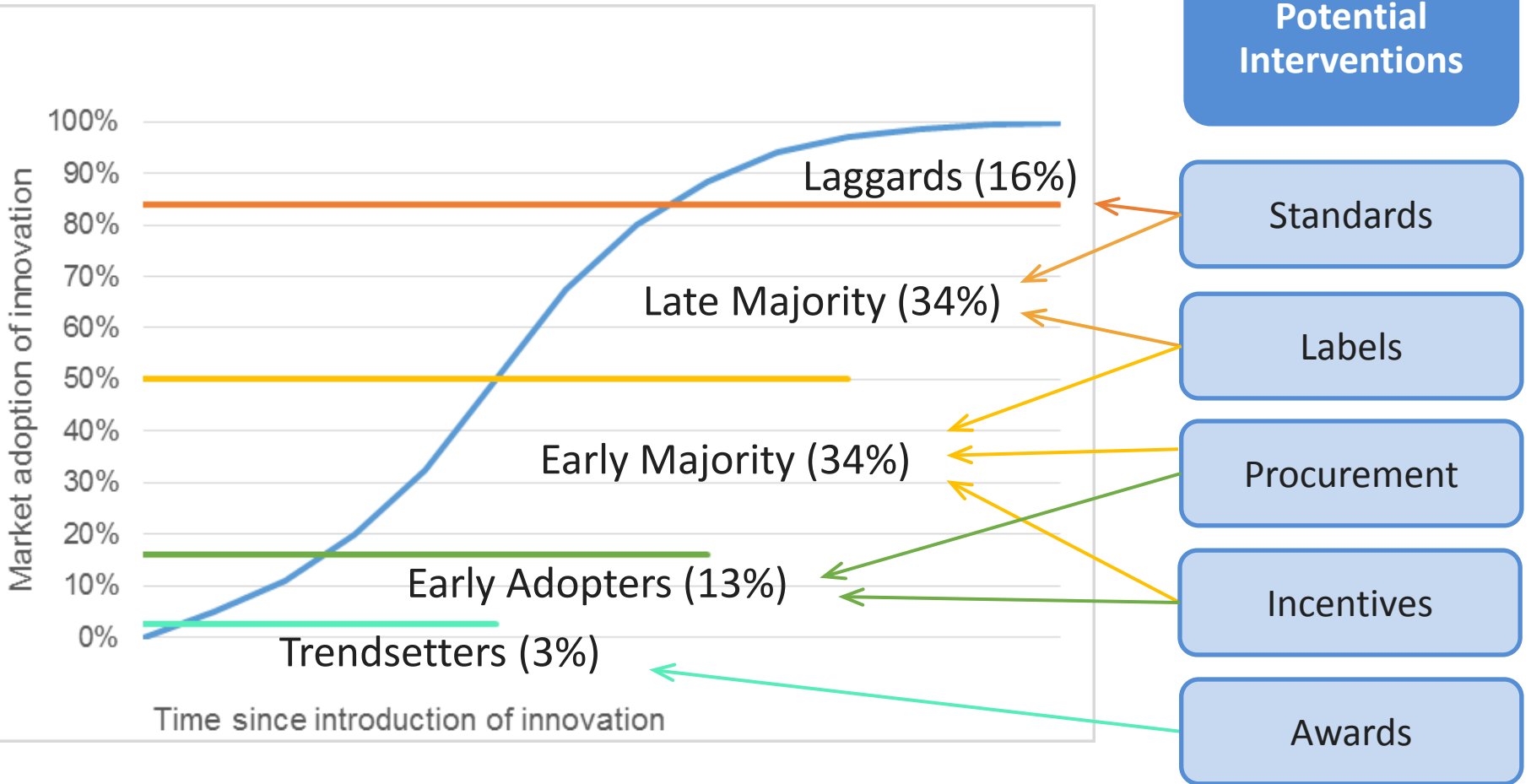
★ Supporting ECOWAS regional cookstove standards and labelling efforts with the  
Clean Energy Solutions Center



# The Virtuous Cycle of Standards and Labelling Programs



# Potential Interventions for Market Transformation



## Standards

Regulations specifying the minimum allowable energy and/or emissions performance for a product.

Removes the highest emitting and energy-using products from the market.

## Labels

Aim to shift markets for cookstoves toward improved energy efficiency and emissions.

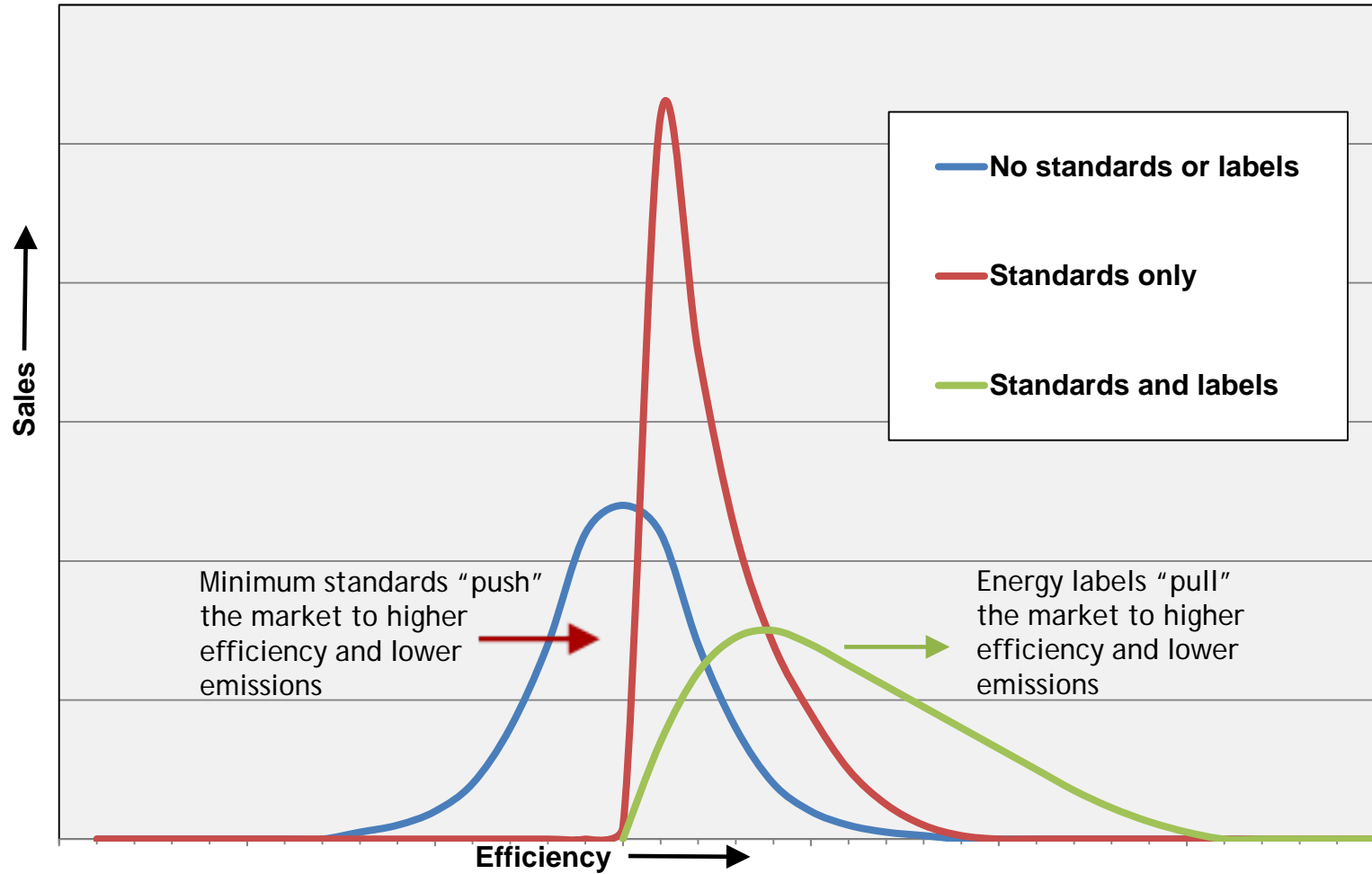
Powerful tools that provide product information to consumers at the point of purchase.

Give manufacturers of high quality products a competitive edge for attracting savvy consumers.



# Energy Efficiency Standards and Labels

Standards and labels work together to “push” and “pull” the market toward greater energy efficiency.



Efficiency standards “PUSH” the market towards greater energy efficiency by removing inefficient products from the market.

- **Minimum Performance Standards** require that a manufacturer achieve in each and every product a minimum efficiency (or maximum energy consumption); but does not require a specific technology or design.
- **Prescriptive Standards** require that a particular feature or device be installed in all new products.
- **Class-average Standards** specify the average efficiency of a manufactured product, allowing each manufacturer to select the level of efficiency for each model so that the overall average is achieved.



- Advantages

- Provides predictable effects of eliminating low-performing products
- Easy to ratchet levels periodically
- Can be designed to maximize consumer benefits
- Very low per unit transaction costs
- Technology costs borne by consumer who also receives energy and emission savings benefits

- Disadvantages

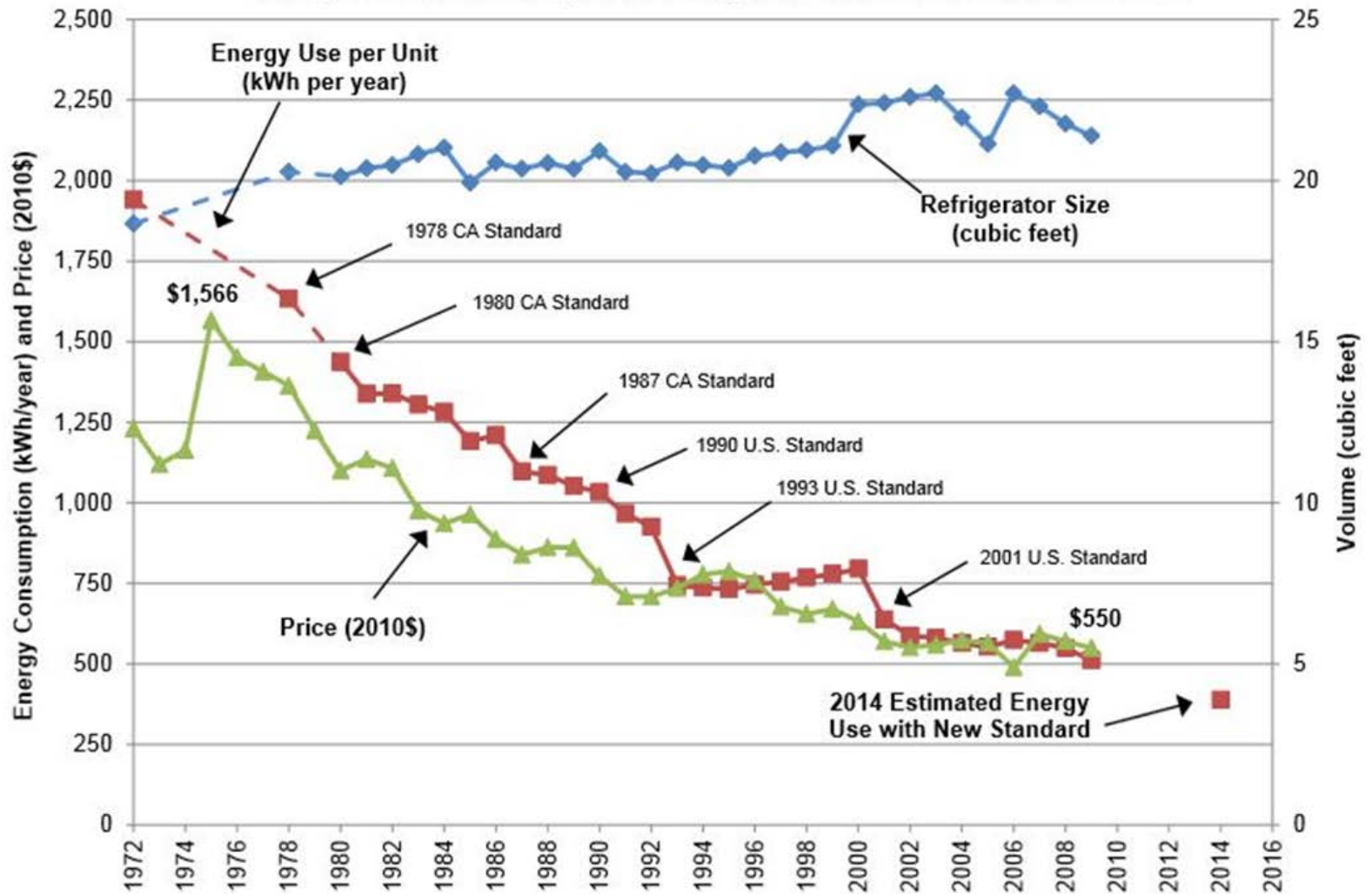
- Usually a mandatory program – requires consensus/cooperation among multiple stakeholders
- Can incur some up-front costs for consumers
- Requires good enforcement policy

- Major Stakeholders

- Manufacturers, environmental groups, consumer groups

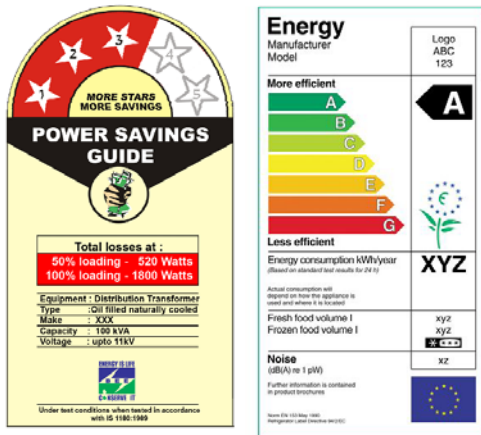


# Impact of Refrigerator Standards in US



Source: Appliance Standards Awareness Project (ASAP)

## Comparative Labels



- Tiers of efficiency
- Compare different products
- Displays more information

## Endorsement Labels

- Set efficiency level
- Simple design
- “This product is efficient”

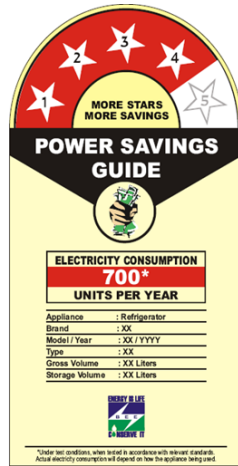


Good Stove - Better Cooking

# Evolution of Standards & Labelling in India

**2001-2002**

Energy Conservation Act and establishment of the Bureau of Energy Efficiency



**2010**

Mandatory labeling for 4 products



**2014**

14 products with labeling and more to come

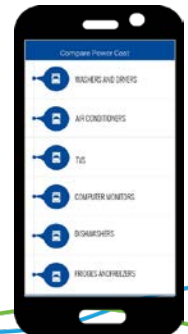
**2006**

Voluntary labeling program for refrigerators

**2011**

Launch of the Endorsement Label

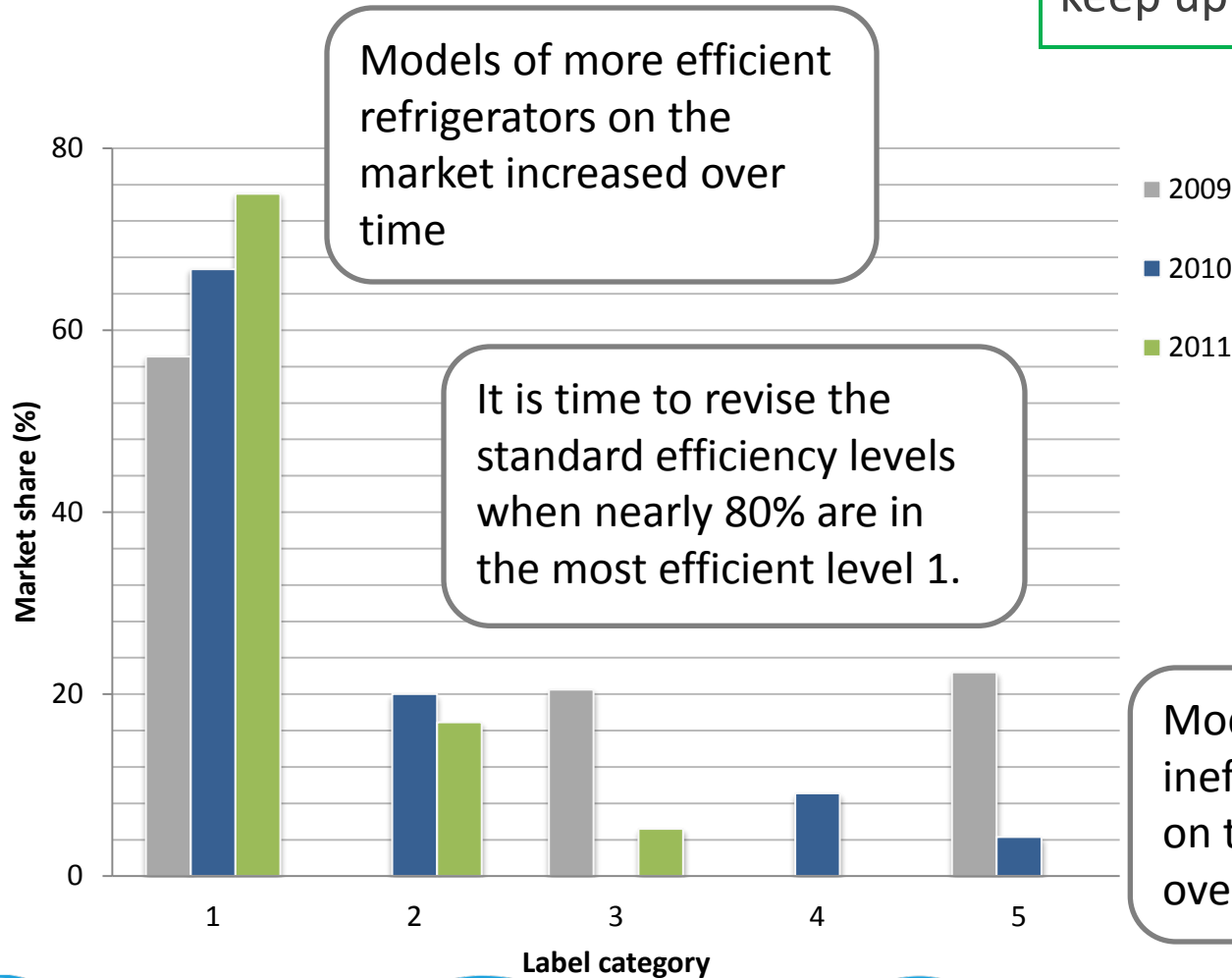
**2016**



# Revising Energy Labels Over Time

## China Refrigerators Energy Efficiency Level Distribution by Model Type

Efficiency levels should be ratcheted up after a cycle to keep up with market trends



Models of more efficient refrigerators on the market increased over time

It is time to revise the standard efficiency levels when nearly 80% are in the most efficient level 1.

Models of more inefficient refrigerators on the market decreased over time





Reliable test procedures and test facilities are the foundation of successful standards-setting and labeling initiatives.

Test procedures need to:

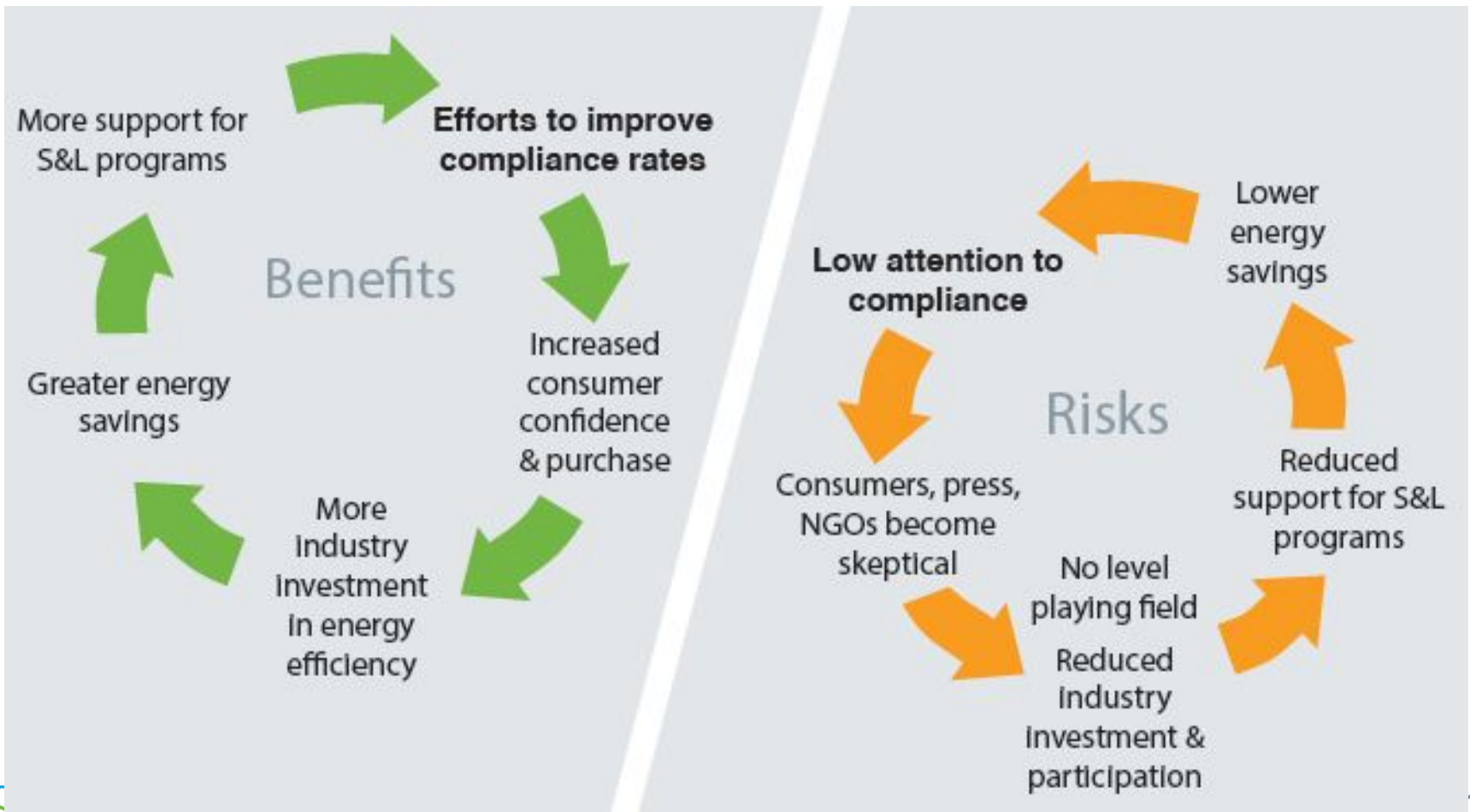
- Reflect typical usage;
- Yield repeatable and accurate results;
- Be relatively inexpensive to perform;
- Test procedures can be developed either in country or **adopted from an international body**;
- Testing should be conducted in an accredited laboratory to ensure that tests are being conducted properly.



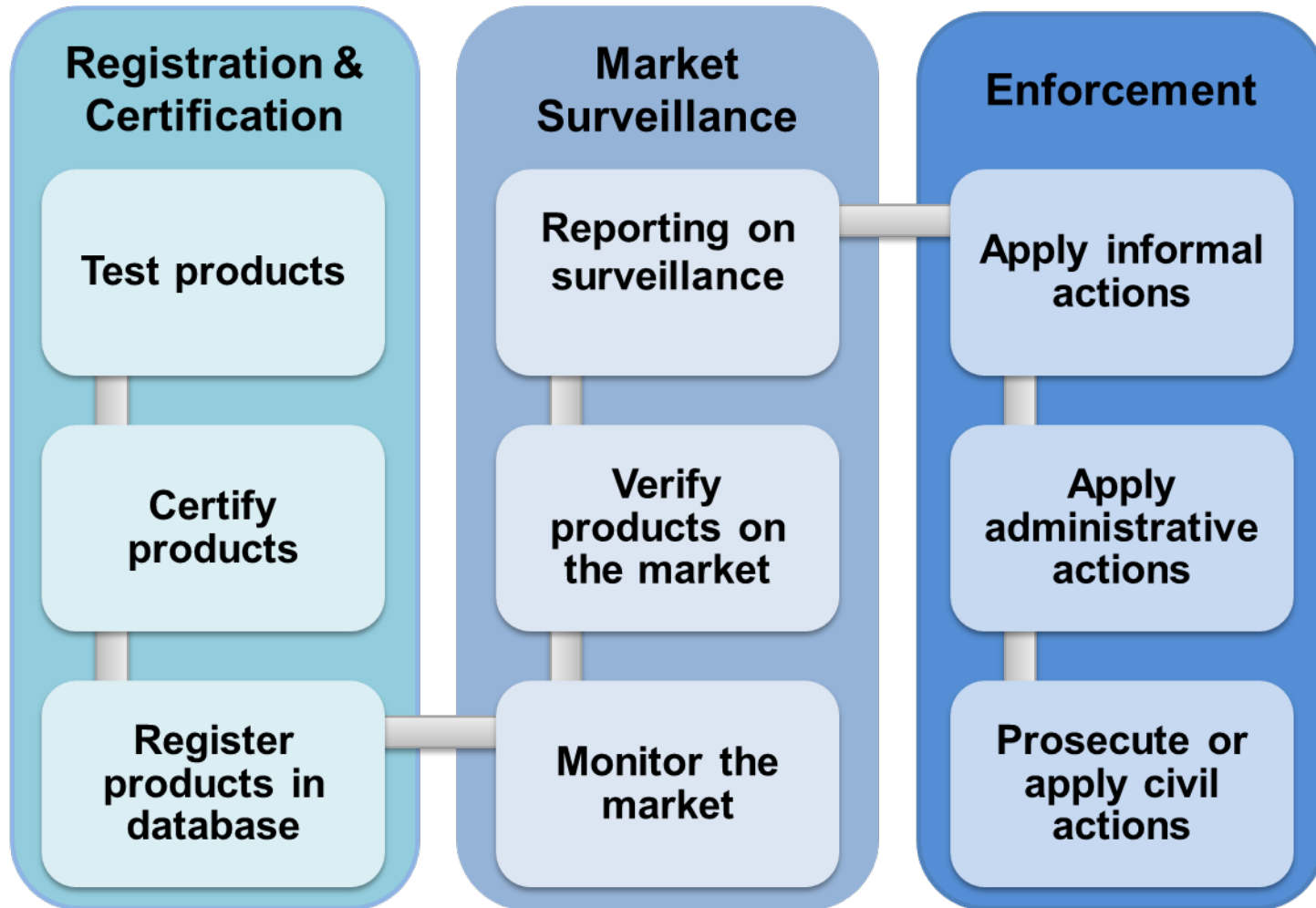


# Monitoring, Verification & Enforcement

Monitoring, verification, and enforcement (MV&E) policies safeguard the energy savings and emissions reductions of S&L programs by ensuring products meet S&L policy requirements and live up to their energy efficiency claims.



# Compliance Strategies



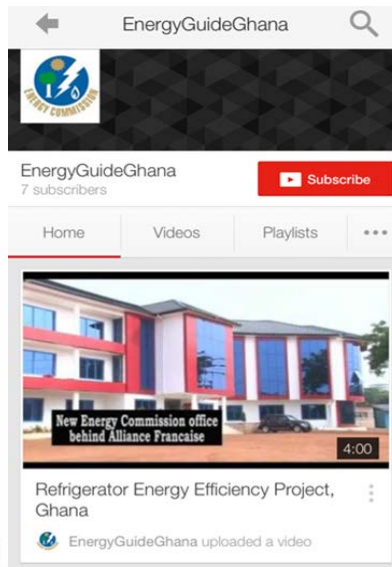
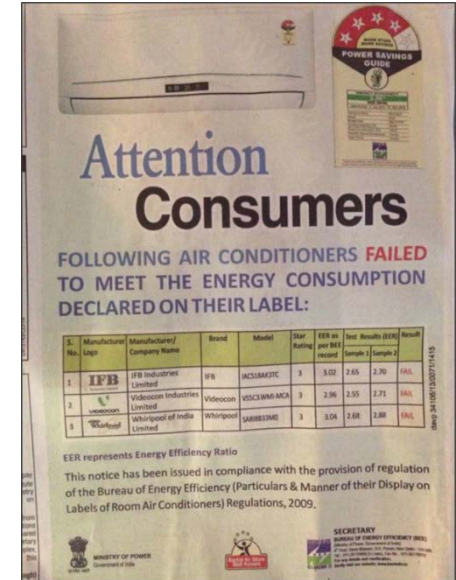
**Communication** - target all stakeholders on the market

**Monitoring and Evaluation** - understand what works and how to improve

Include a communications campaign at the outset of the design of any market transformation program...

...to educate and mobilize consumers, industry and retailers





## S&L benefits

Strengthen domestic markets through product differentiation

Innovation leads to greater variety of available products

Labels can convey lifetime costs

Can be used to create qualification criteria for subsidy program

Labels can compare among different technologies and usages

## Market Transformation outcomes

Improved product quality and innovation will improve consumer confidence and value proposition

Increased availability of appropriate products for different circumstances - increased demand for alternative fuels

Lifetime savings can increase awareness and consumer willingness to pay

Subsidy programs can lead dissemination and demonstration of quality stoves/fuels

Labels can increase understanding of stove, fuel, and usage options together, leading to more informed decisions

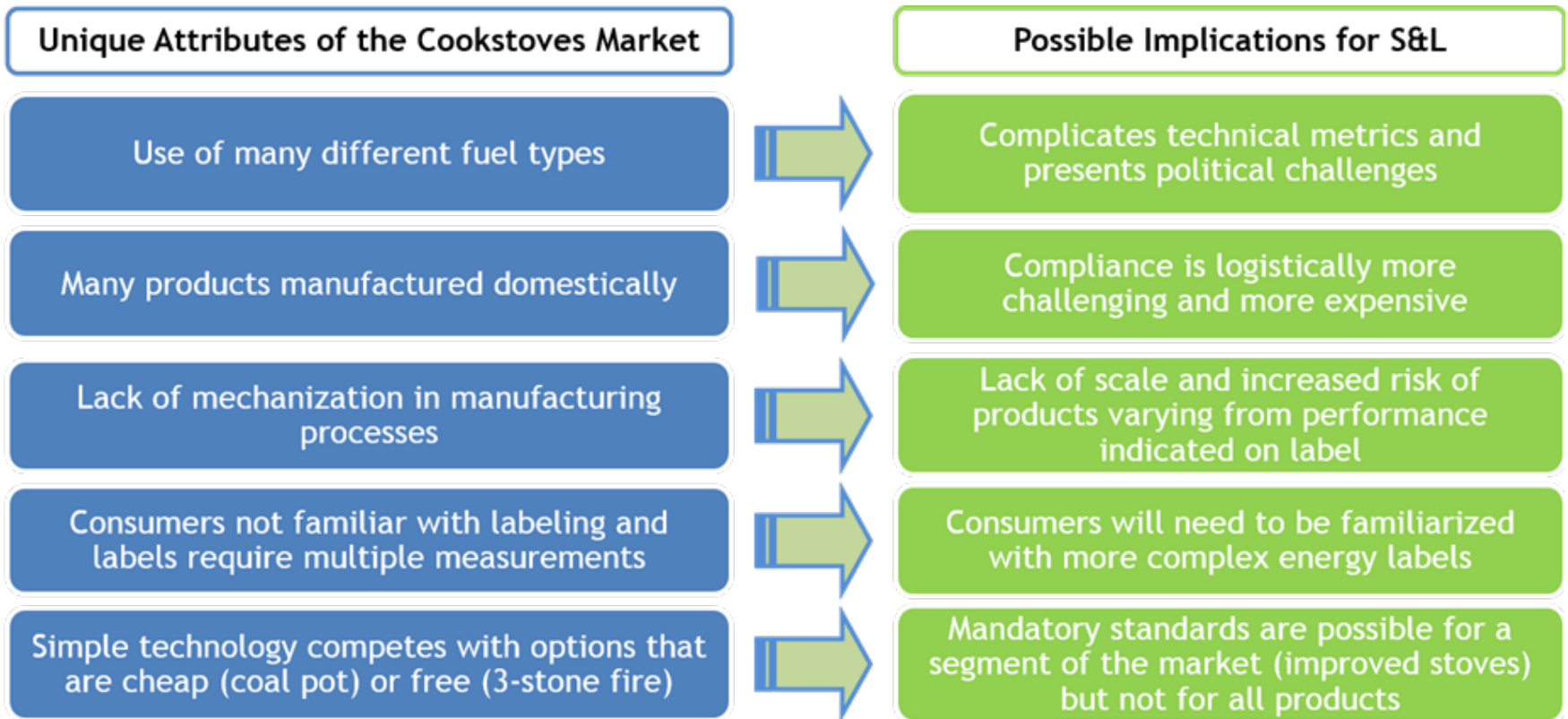
## Overall Benefits

- ✓ Enhanced consumer welfare (Indoor air quality; less time/cost gathering fuel)
- ✓ Reduced emissions to help meet public health and climate change goals
- ✓ Averted urban/regional pollution



# Implications for Cookstove S&L in Uganda

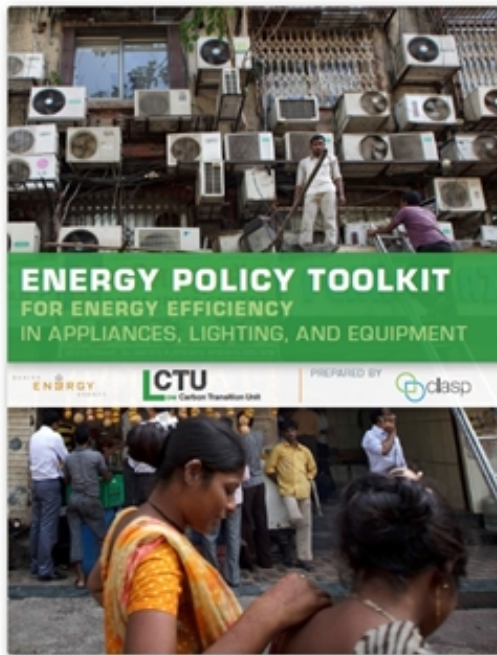
Cookstoves present some unique challenges to successful program implementation



## Next steps to address these challenges

- Launch voluntary endorsement label to motivate industry to improve cookstove and fuel efficiency, supported by additional market transformation efforts (incentives, procurement, etc)
- Build on lessons learned from UNBS standards development, certification and quality mark to inform S&L for cookstoves
- Review international best practice to support program implementation
- Engage with stakeholders – seek inputs, understand impacts on different market actors, regular dialogue and consultation
- UNBS working with CLASP and the Global Alliance for Clean Cookstoves to identify effective program implementation mechanisms in 2016-2017

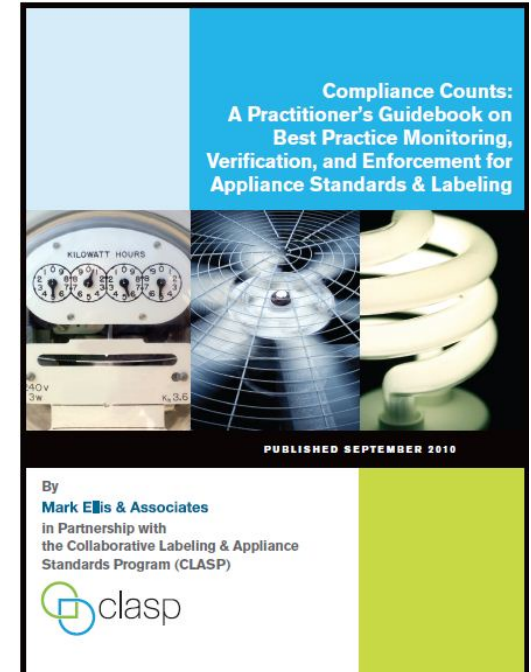
# CLASP S&L Resources and Tools for Policymakers



Energy Policy Toolkit



Standards & Labeling Guidebook



MV&E Manual







**Thank you!**

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The first stamp of approval for laptops save 0.2 TWh of electricity and avoid emissions of 0.2 million tons of CO<sub>2</sub>e per year by 2020



CLASP provides technical support to BEE for label design (refer to specifications for computers

ENERGY STAR 5.2)

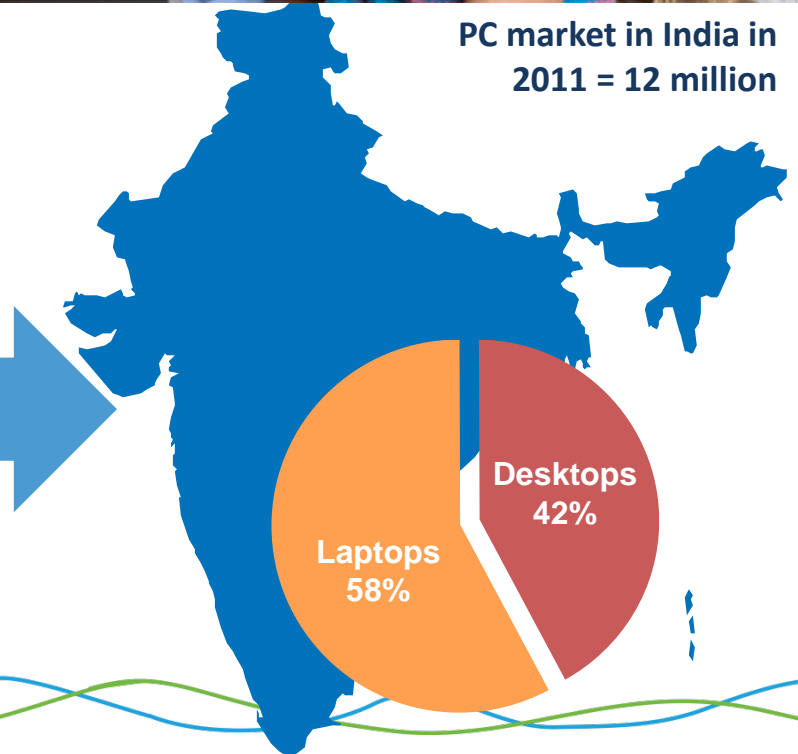
**2010–2011**



**March 2011**

BEE launches the first seal of approval in India

PC market in India in 2011 = 12 million



# S&L program in Brazil is implemented through several programs



- **Brazilian Labeling Program** (*PBE for Programa Brasileiro de Etiquetaje*) established in 1984

Mandatory comparative label for 21 products



- **National program for conservation of electricity (PROCEL)** established in 1985

Endorsement label for electrical equipment

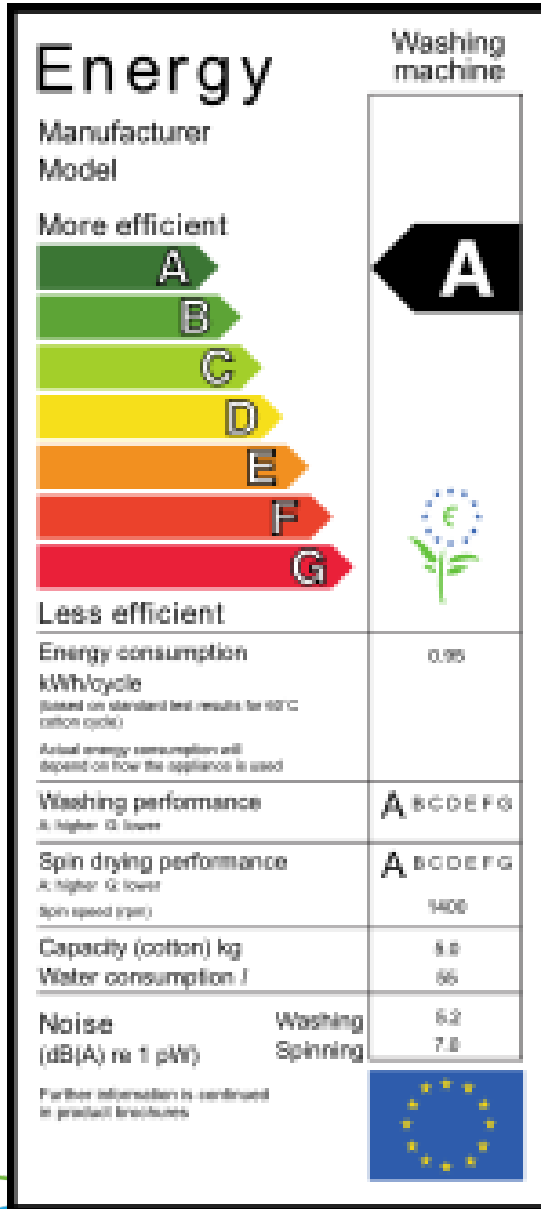


- **National program for the rational use of fuels and natural gas (CONPET)** established in 1991

Endorsement label for equipment using natural gas



# Washing Machine Labels in Europe: Conveying information without words



Old label  
(before  
2010)



New  
label