



Household Energy & Clean Air

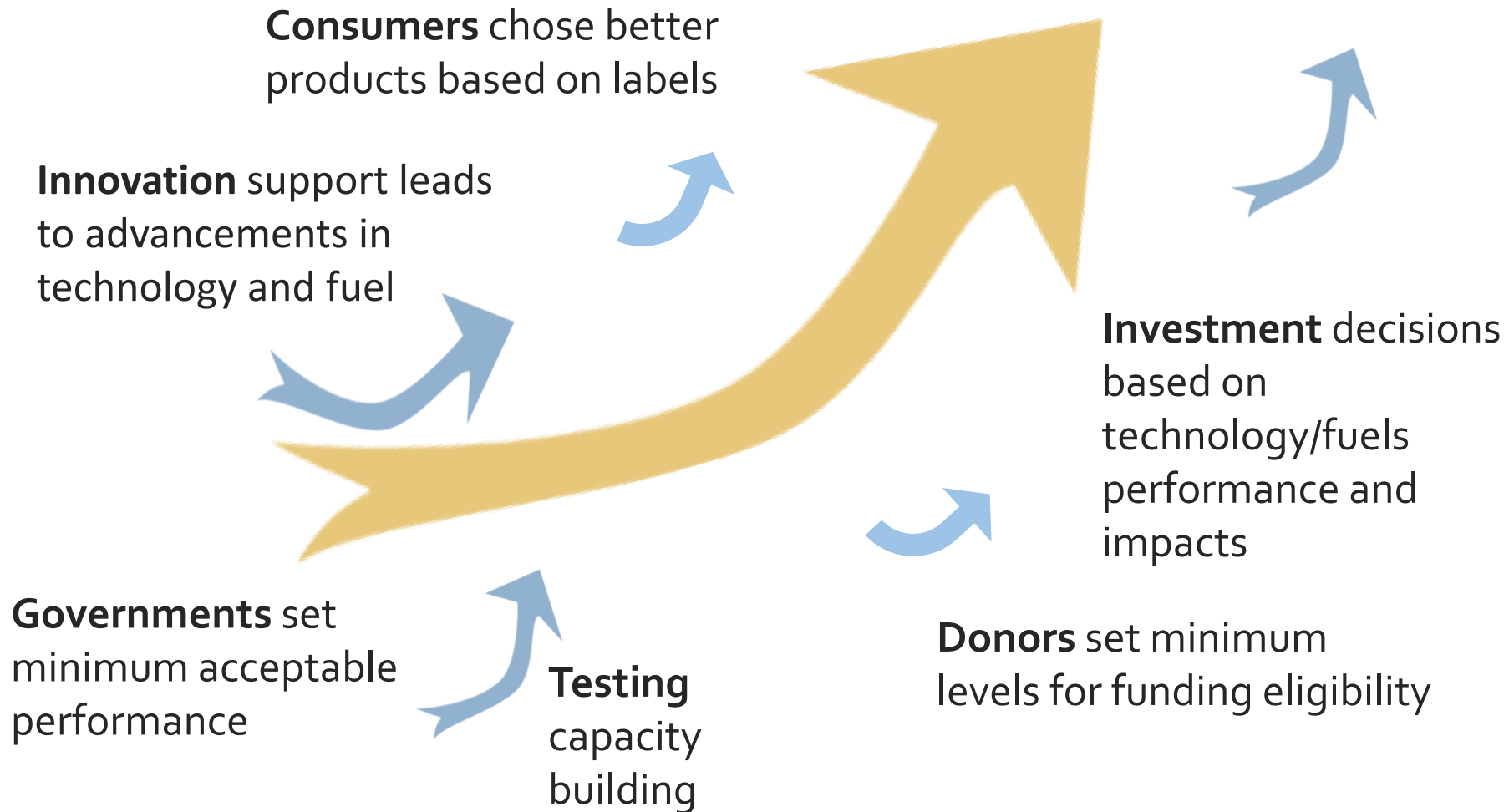
Promoting Clean and Efficient Cooking & Heating in the Developing World



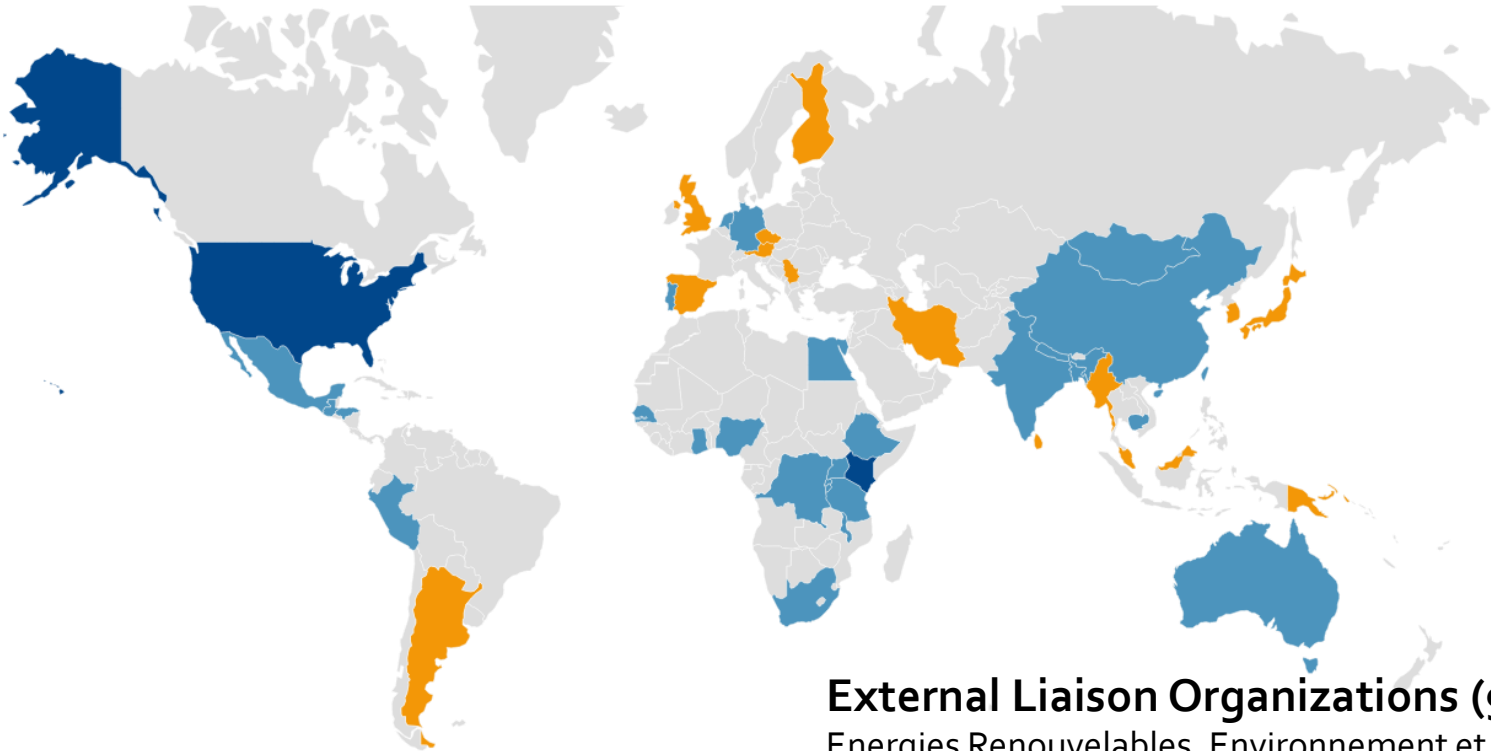
BAQ 2018



Implementing Standards – Opportunities to improve cookstoves and fuels sector



Participation in TC 285



Participating Countries (29)

Observing Countries (14)

Secretariat Countries (2)

External Liaison Organizations (9)

Energies Renouvelables, Environnement et Solid

Global Alliance for Clean Cookstoves

Groupe arités

Gold Standard Foundation

International Cryosphere Climate Initiative

United Nations Children's Fund

World Bank

World Health Organization

World LPG Association

TC285 – A Portfolio of standards products that work together


- **Working Group 1** – *terms and definitions; conceptual framework* for testing and common metrics and definitions
- **Working Group 2** - improvements to *lab protocols* to address multiple stove/fuel combinations, cooking practices, emissions, efficiency, safety, durability
- **Working Group 3** - guidance on suitable *field testing* methods
- **Working Group 4** - guidelines for *social impact* assessment
- **Fuels Task Group** - evaluating existing standards for *fuels* for relevance and gaps
- **Communications Task Group** – **communicating** TC 285 work within committee and to external audiences

Components of the Laboratory Testing Standard

- Standard test sequence – phases for operating stove and fuel
- Emissions methods (PM_{2.5}, CO, BC)
- Efficiency methods
- Safety and durability methods
- Equipment (including maintenance and calibration)
- Reporting test results

Voluntary Performance Targets

Table 1 - Voluntary performance targets - default values^a

| | Tier ^b | Thermal efficiency (%) | Emissions | | Safety (score) ^c | Durability (score) ^d |
|---|-------------------|------------------------|-------------------------|---|-----------------------------|---------------------------------|
| | | | CO (g/MJ _d) | PM _{2,5} (mg/MJ _d) | | |
| Better performance  | 5 | ≥50 | ≤3,0 | ≤5 | ≥95 | <10 |
| | 4 | ≥40 | ≤4,4 | ≤62 | ≥86 | <15 |
| | 3 | ≥30 | ≤7,2 | ≤218 | ≥77 | <20 |
| | 2 | ≥20 | ≤11,5 | ≤481 | ≥68 | <25 |
| | 1 | ≥10 | ≤18,3 | ≤1030 | ≥60 | <35 |
| | 0 | <10 | >18,3 | >1030 | <60 | >35 |

^aFor non-default values, see Clause 6.

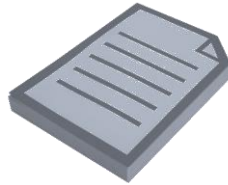
^bThe tier level for each performance metric shall be reported separately. See example in Table 2.

^cSafety protocols (Clause 7 in ISO 19867-1 [1]) cover solid-fuel stoves and solar cookers only.

^d Durability protocols (Clause 8 in ISO 19867-1 [1]) evaluate common material failures in biomass cookstoves. The protocol is not comprehensive of all failures that might be found in the field, nor are the tests found in the durability protocol applicable for all cookstoves. Instead the durability protocol seeks to cover the most prevalent durability concerns found across a range of cookstove technologies and construction materials.

Two Phases for Standards

Developing Standards



GLOBAL HARMONIZATION

COMBINING EXPERTISE

Definitions

Methods

Indicators

Reporting

Implementing Standards



ADAPTATION TO LOCAL CONTEXT

SUPPORTING DECISIONS

ENFORCEMENT

Certification

Financial
incentives

Policies

Labeling
Testing
Awards

Enforcement

Consumer
awareness

