Standardized baseline development – improved cookstoves case study

Courtney Blodgett

18 April 2012

Africa Carbon Forum

To be defined for standardized baselines development

- Level of aggregation

- Relevant measure(s)
  - Fuel and feedstock switch
  - Technology switch
  - Methane destruction
  - Methane formation avoidance

- Output

- Sector

Hypothetical case study

- Level of aggregation: national, Rwanda
- Sector: cookstoves
- Measure: technology switch (same fuel)
- Output: heat for cooking (TJ)
- Carbon intensity measured in efficiency
  - For fuel switch, would be tCO_2e/TJ energy

stmosfair Rwanda Improved Cook stove PoA

Cookstoves in Rwanda

Stove type	Efficiency*
3 stone fire	10%
Basic metal stove	15%
Metal and clay stove	20%

* Efficiencies are estimates

Ranking of technology types based on increasing efficiency

Stove type	Efficiency*	Ranking
3 stone fire	10%	3
Basic metal stove	15%	2
Metal and clay stove	20%	1

3 stone fires

metal stoves

metal & clay stoves

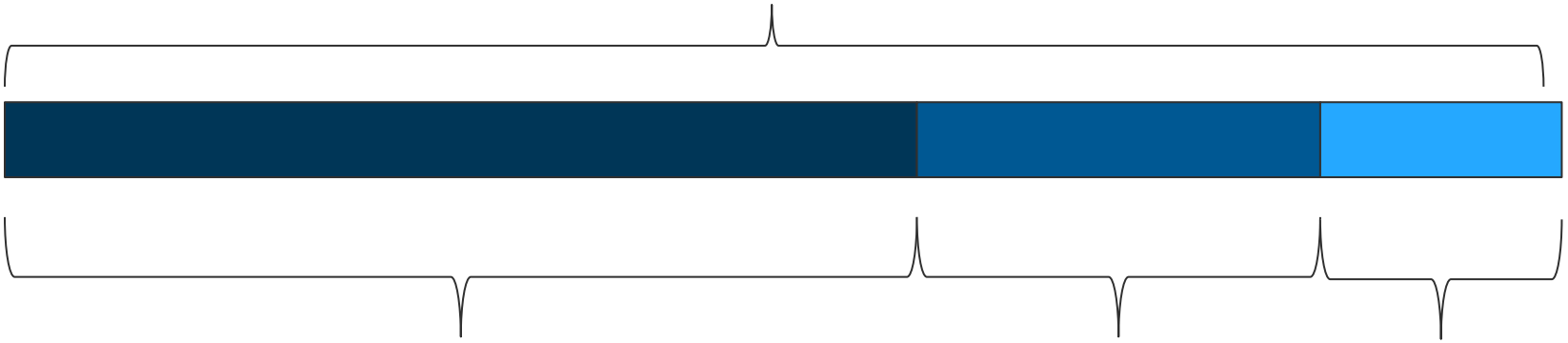
* Efficiencies are estimated

perspectives climate change

Ranking and output

Stove type	% of output*
3 stone fire	75%
Basic metal stove	15%
Metal and clay stove	10%

Cumulative output = 100% of heat for cooking in Rwanda



75% of cooking heat is produced by 3 stone fires

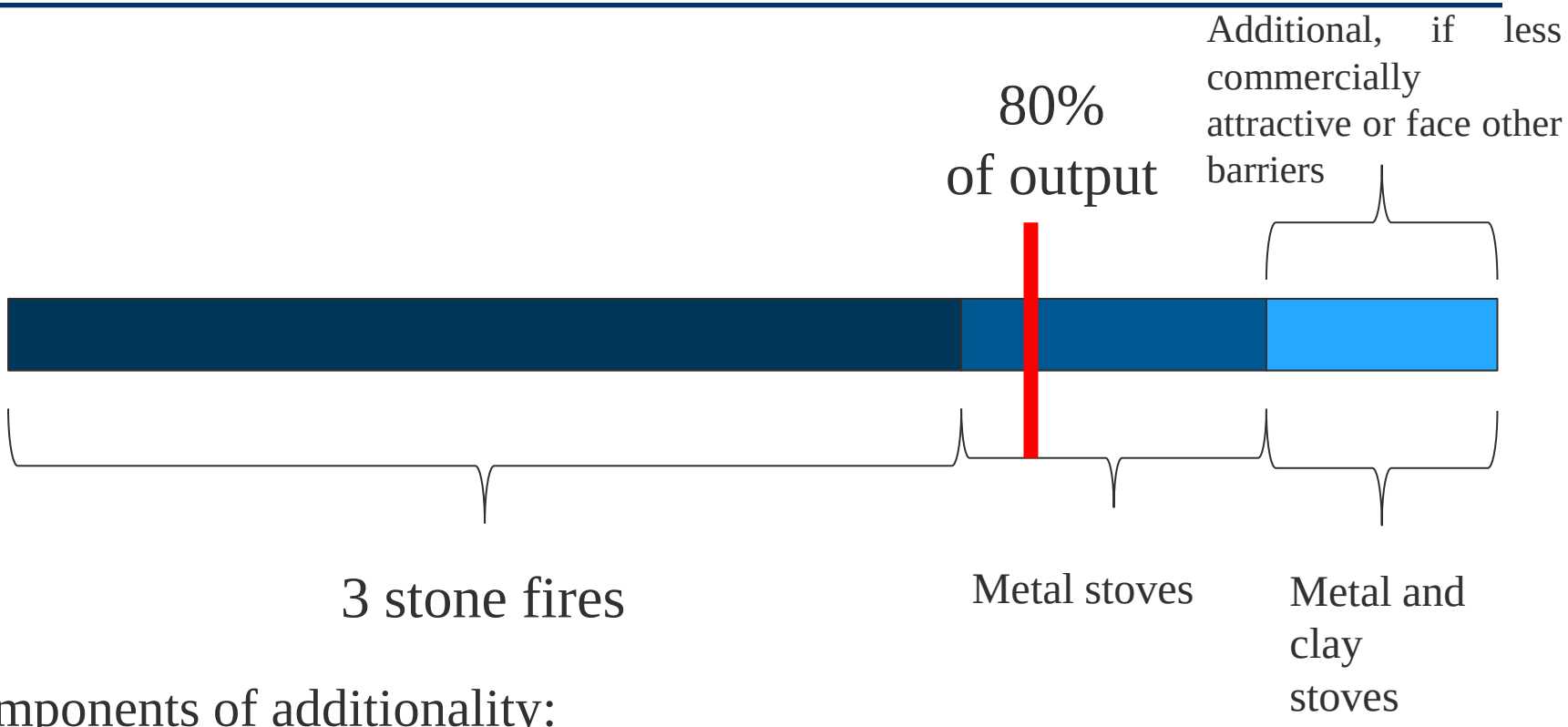
15% of cooking heat is produced by metal stoves

10% of cooking heat is produced by metal & clay stoves

* Output % are theoretical

perspectives climate change

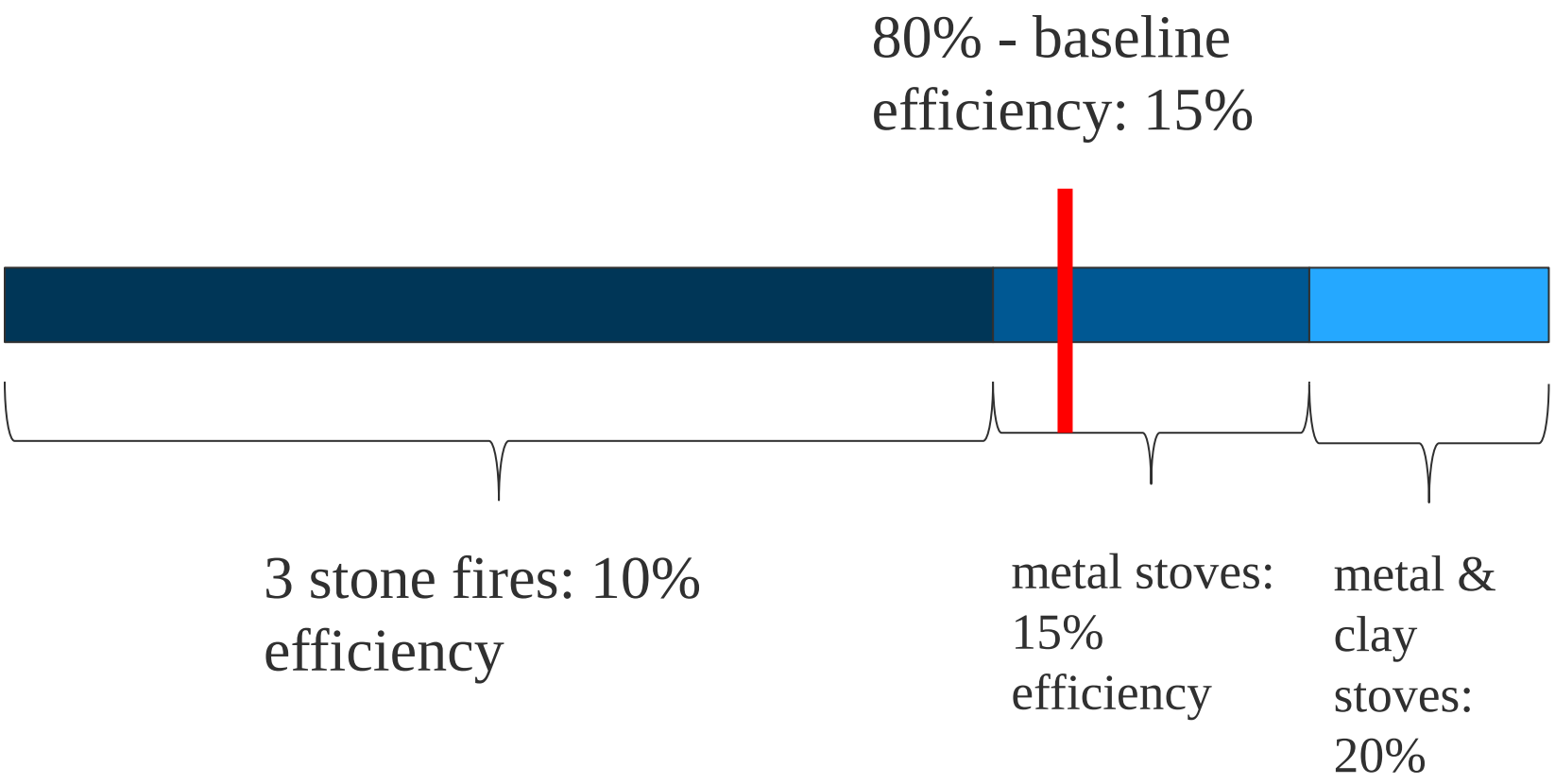
Additionality threshold: set at 80% of output



Components of additionality:

- Above threshold
- Less commercially attractive or other barriers
- No national or sub-national enforced regulation mandating the use of the technologies

Baseline efficiency: set at 80% of output



Summary

- Stove types that are additional:
  - Metal & clay stoves
  - Any other stoves with > efficiency

- Baseline efficiency: 15%

- Work needed for standardized baseline development is significant but improved cookstove projects will be greatly facilitated

Thank you!

Courtney Blodgett
Blodgett@perspectives.cc