



Potential Energy and the Impact of the Berkeley Darfur Stove on Refugees in Sudan and Uganda

August 2018



Enabling the adoption of improved cookstoves to alleviate poverty and protect the environment.



We believe that every human should have access to safe, clean, efficient cooking technologies;

Yet many still lack access to improved stoves.



Three Billion People

still cook on open fires or rudimentary stoves.





This has massive health, environmental, and economic repercussions



Death from
Pollution



Excessive
Deforestation



Lost Income on
Fuel Expenses



In response to these issues,
Researchers at Lawrence
Berkeley National Labs
developed a solution



The Berkeley-Darfur Stove



The Berkeley Darfur Stove (BDS)

Uses
66%
Less Fuel

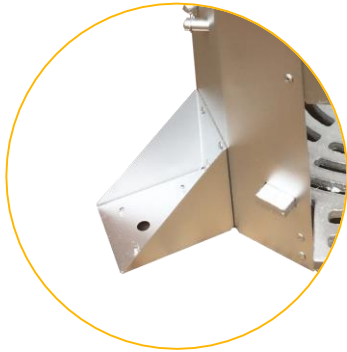
Emits
77%
Less Smoke

Works
100%
Faster

Than traditional open-fire cookstoves



User-Focused Design



Stability Feet
for Balance



Durable Cast Iron
Grate & Stainless
Steel Fire Box



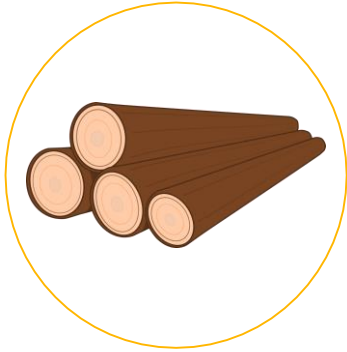
Long-Lasting Mild
Steel Body



Stay-Cool
Wooden Handles



Multiple Fuel Sources



Wood



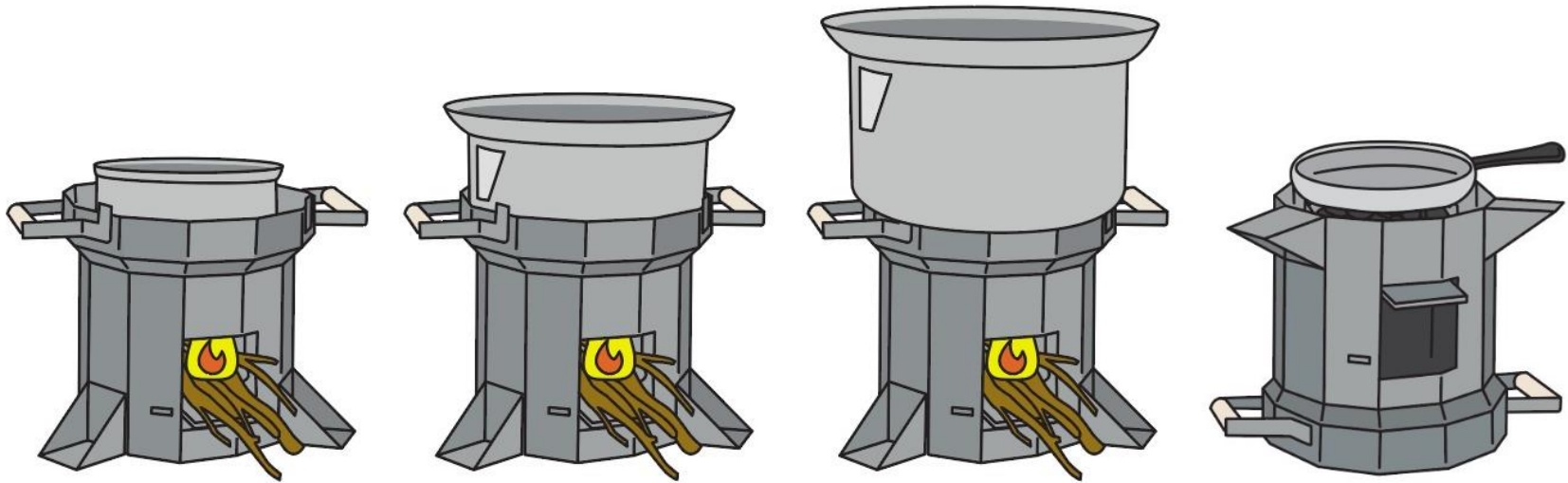
Charcoal &
Briquettes



Biomass



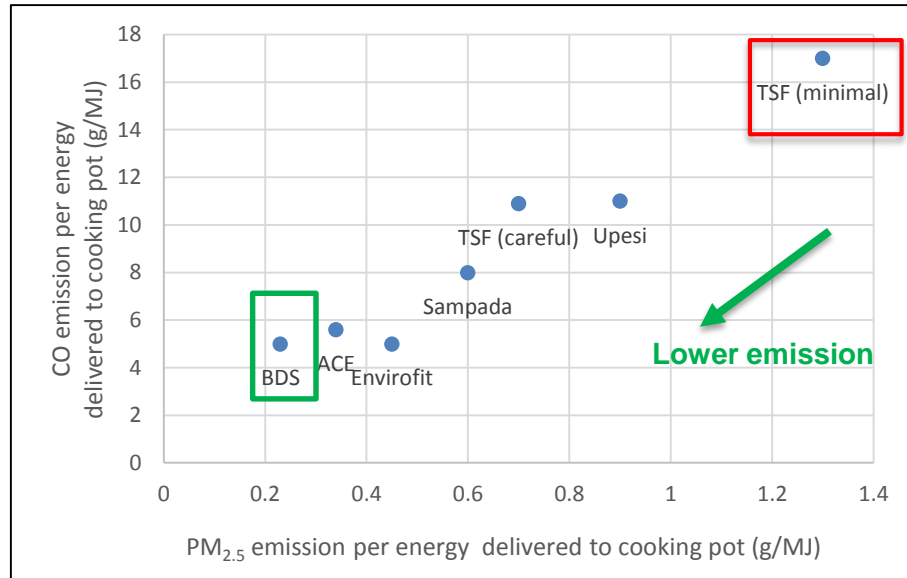
Fits all Size Saucepans





Emissions Reductions

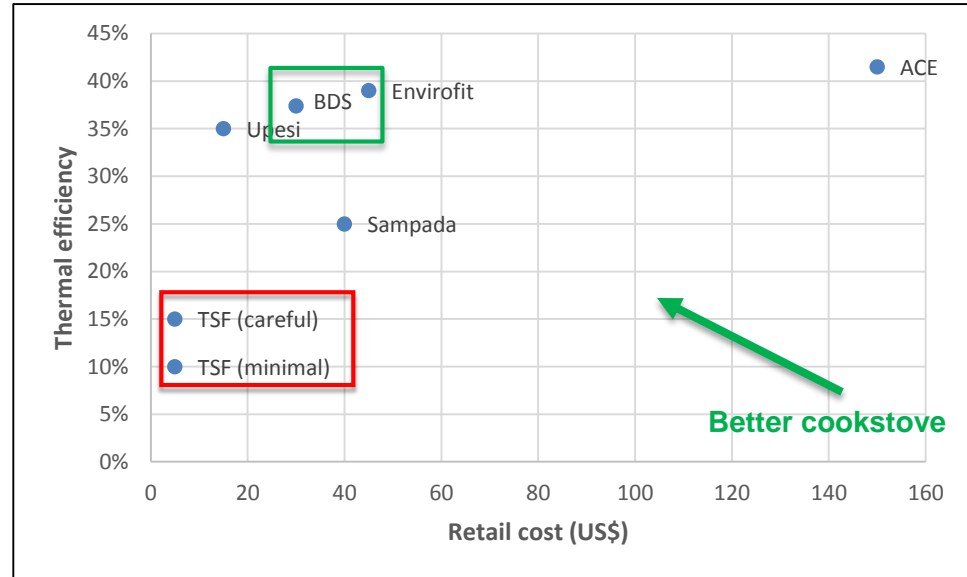
TSF – Three stone fire
BDS – Berkeley Darfur Stove





Thermal Efficiency & Value

TSF – Three stone fire
BDS – Berkeley Darfur Stove





Our Approach



Stove designed by Berkeley Labs



Distributed by local community organizations



Stoves assembled in local workshops and sold



Visit customers and collect feedback to ensure satisfaction



Competitive Analysis

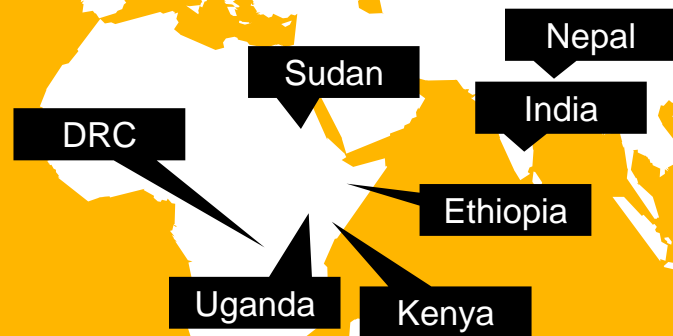
	Efficiency & Fuel Savings	Emissions/ Reduced Smoke	Fuel Type Versatility	Cultural Compatibility/ Pot Size	Easy to Light and Feed	Light-weight/ Portable	Durability	After Sales Service, Warranty & Guarantee	Price
Potential Energy's Stove	Strong	Medium	Strong	Strong	Strong	Strong	Strong	Strong	Medium
Three Stone Fires/Traditional Charcoal Stoves	Weak	Weak	Weak	Strong	Strong	Weak	Medium	Weak	Strong
Mud & Brick Stoves	Medium	Medium	Weak	Strong	Medium	Weak	Weak	Weak	Strong
Clay & Metal Clad Stoves	Strong	Medium	Weak	Strong	Strong	Weak	Medium	Weak	Strong
Local Gasifier Stoves	Strong	Strong	Weak	Weak	Weak	Strong	Weak	Weak	Medium
Other Imported Stoves	Strong	Strong	Weak	Weak	Weak	Strong	Medium	Medium	Weak



Impact



Where we work





Impact in Sudan

230,000
people served

345,000 tons
of carbon
reduced





Potential Impact in Uganda

1,065,094
refugees*

1,597,641 tons
of carbon
reduced



*Source: Office of the Prime Minister.

From UNHCR http://data2.unhcr.org/en/situations/southsudan#_ga=2.169494753.1307392337.1534169868-1496225665.1495532462



Customer Satisfaction Survey

Adjumani, August 2018

Settlements visited	People interviewed	Haven't used the stove
Pagirinya	4	1
Baratuku	7	
Maaji I	5	
Mireiyi	9	1
Total	25	2
Percentage	100%	9%





Customer Satisfaction Survey

Adjumani, August 2018

Settlements visited	People interviewed				
		Both	Firewood	Charcoal	Biomass
Pagirinya	4	7	3	1	
Baratuku	7	3		2	
Maaji I	5	6		1	1
Mireiyi	9	16	3	4	1
Total	25	67%	12%	17%	3%
Percentage	100%	Both	Firewood	Charcoal	Biomass





Customer Satisfaction Survey

Adjumani, August 2018

Settlements visited	People interviewed	Fuel Saving			
		60%	50%	30%	Less
Pagirinya	4	2	1		
Baratuku	7		2	3	2
Maaji I	5		2	1	2
Mireiyi	9	2	5	1	
Total	25	4	10	5	4
Percentage	100%	17%	43%	22%	17%





Customer Satisfaction Survey

Adjumani, August 2018

Settlements visited	People interviewed	Time Saving		
		60%	50%	30%
Pagirinya	4	1	1	1
Baratuku	7		7	
Maaji I	5		4	1
Mireiyi	9	6	2	1
Total	25	7	14	3
Percentage	100%	30%	60%	10%





Customer Satisfaction Survey

Adjumani, August 2018

Settlements visited	People interviewed	Overall Satisfaction	
		Very Happy	Indifferent
Pagirinya	4	3	
Baratuku	7	6	1
Maaji I	5	5	
Mireiyi	9	8	
Total	25	22	1
Percentage	100%	96%	4%





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