

PCIA Stove Training in Mauritania

Peace Corp / NEDWA

EPA

Aprovecho

Goals

- Train a stove committee
 - Cooks (8 women)
 - metal workers (3)
 - Potter (1)
 - project managers (2)
- Assist in development of local prototype

Visit Agenda

Day 1	• Workshop for stove committee
Day 2	
Day 3	• Field visit
Day 4	
Day 5	• Development and construction of new prototypes • Manufacturers training
Day 6	
Day 7	
Day 8	
Day 9	
Day 10	• Prototypes Testing by stove committee
Day 11	• Production of stoves for first Kitchen Performance Testing 'cycle'
Day 12	

Workshop for Stove Committee



Workshop Training Agenda

- ***DAY ONE***
 1. Combustion Theory Lecture/Discussions
 2. Design Principles / Discussions
 3. Build VITA and Rocket Pre-Made Stoves
- ***DAY TWO***
 1. Harmful Effects of Smoke / Solutions
 2. Combustion Chamber and Insulation
 3. Testing in Stove Projects
 4. Water Boiling Test: traditional stoves, and improved stoves

Testing: Key message of workshop



Local Tooling: mostly hand tools



Local Prototype Development



Rocket stove + removable skirts for different size pots

Stove Selection: build 'most promising' stoves



1. Metal VITA
2. Metal Rocket
3. 'Light' Ceramic Rocket
4. Cement-Clay VITA



Stove Selection: Testing by cooks



Stove Selection: Field Test Results

Pot Weight/Amount of water used	Stove	Time to Boil	Wood Used
7Kg/ 10 liters of water	Three stones	36 min	2.0 Kg
	Rocket Metal	18 min	0.7 Kg
4Kg/ 5 litter of water used	Three stones	22 min	0.9 Kg
	Rocket metal	15 min	0.6 Kg
	Rocket Bricks	26 min	0.5 Kg
	Vita metal	21 min	0.9 Kg
1.5Kg/ 2 liters of water used	Three stones	13 min	0.5 Kg
	Rocket Metal	9 min	0.4 Kg

Users' Comments

- **Why selecting the stove 'Masse-coono'?**
 - It is good because it can take three different pots
 - It is cooler for cook (hot weather)
 - I can wear my nice clothes while cooking, look good while having guests
 - Easier and more comfortable to tend fire
 - Less smoke
 - Cooking areas remains clean
 - Use less wood
 - It is attractive

First Testing Cycle: Production of 6 Stoves



Lessons learned

- Training workshops for cooks is an excellent investment!!
- Make workshop 'even' more hands-on ... no lectures!!!
- Allow for time in the field before workshop to 'customize' material to local environment (pots, material, etc.)

Local work continue ...

- Adjustable skirt
- Naming the stove, Logo, Slogan, T-Shirt, User's guide flyer
- Insulative bricks replace metal combustion chamber
- 2nd Test cycle
 - 60 stoves, 14 villages , +860 families trained and tested
- Things to do:
 - Kiln
 - Cost reduction (materials and production)
 - Manufacturing scale up



Insulative bricks for rocket combustion chamber