# PCIA Stove Training in Mauritania

Peace Corp / NEDWA

EPA

Aprovecho

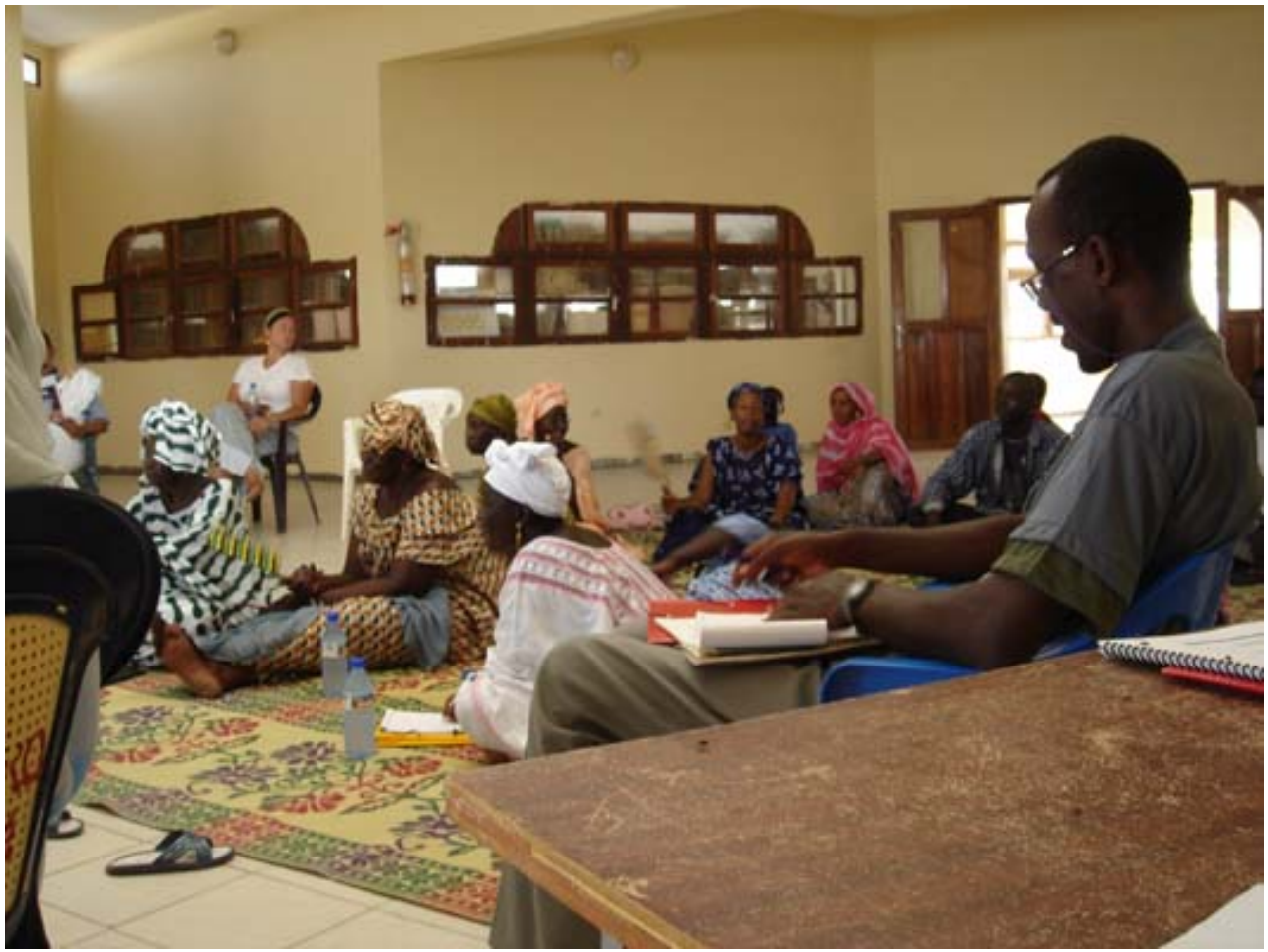
# Goals

- 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<br>• 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

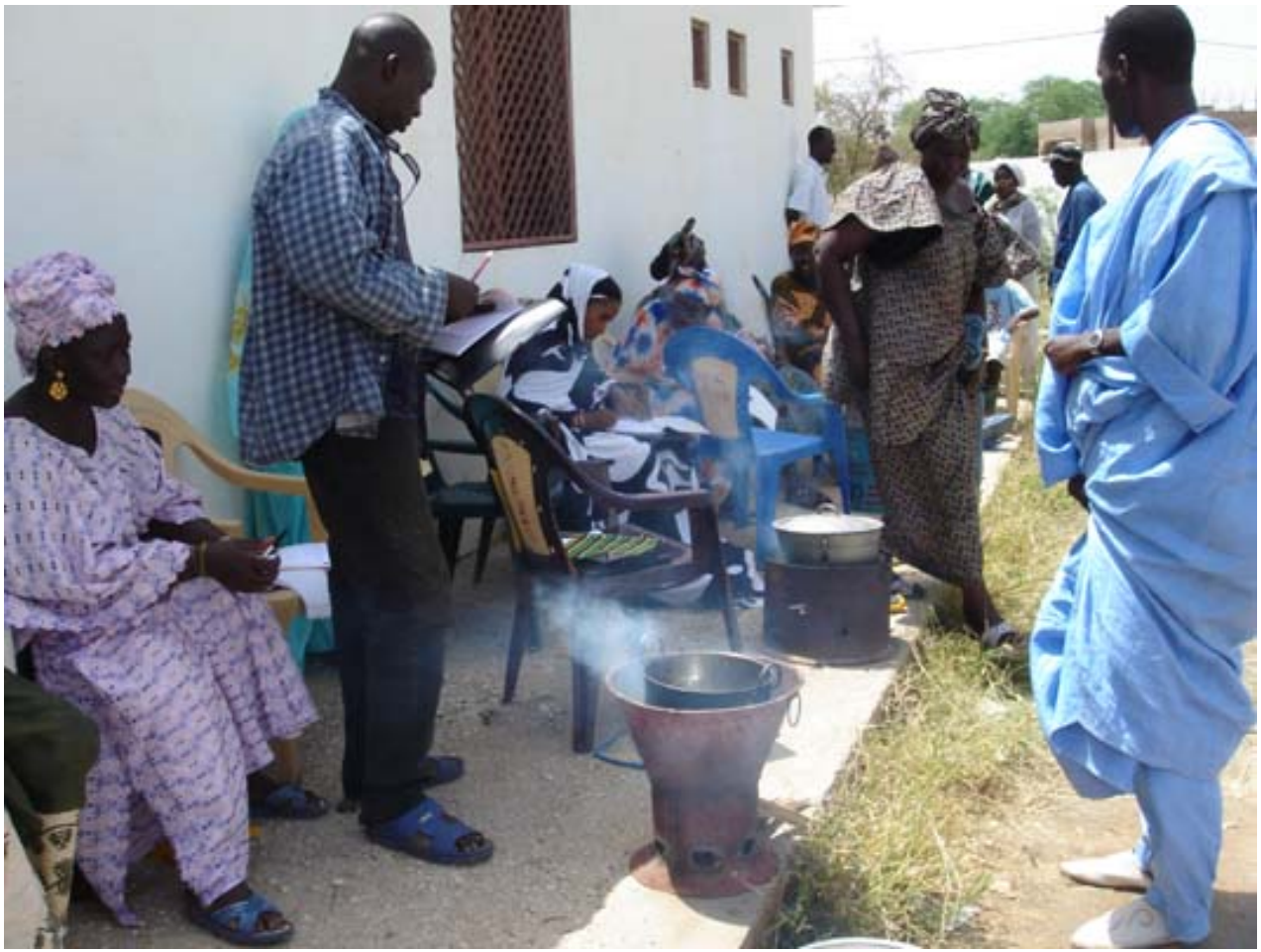
- ***DAY ONE***

1. Combustion Theory Lecture/Discussions
2. Design Principles / Discussions
3. Build VITA and Rocket Pre-Made Stoves

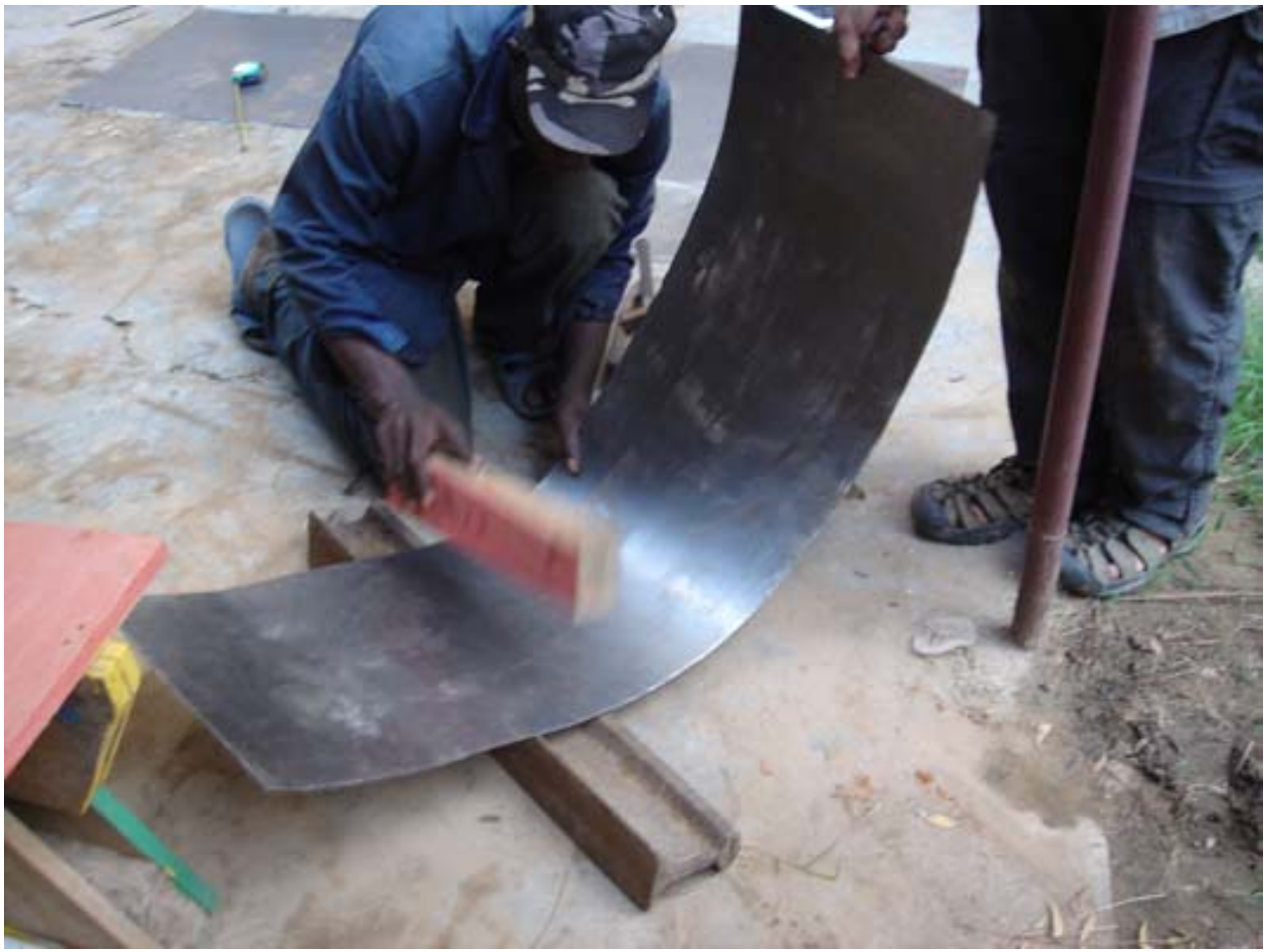
- ***DAY TWO***

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

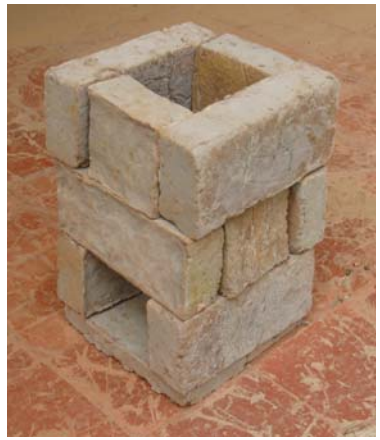
# Testing: Key message of workshop



# Local Tooling: mostly hand tools



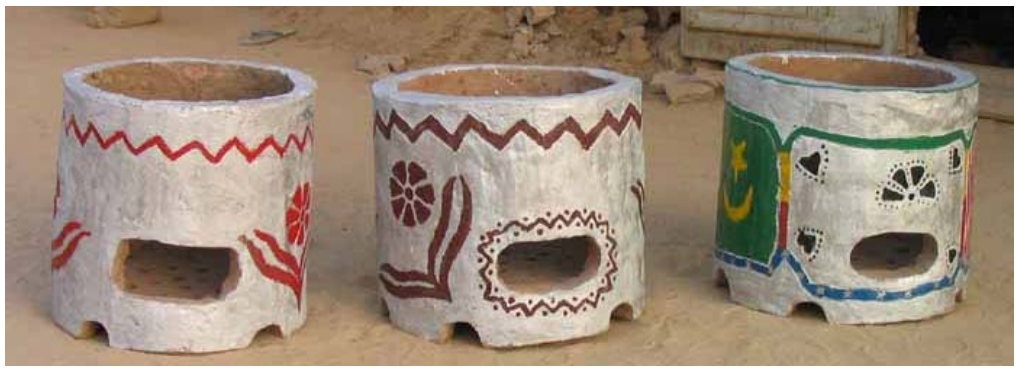
# Local Prototype Development



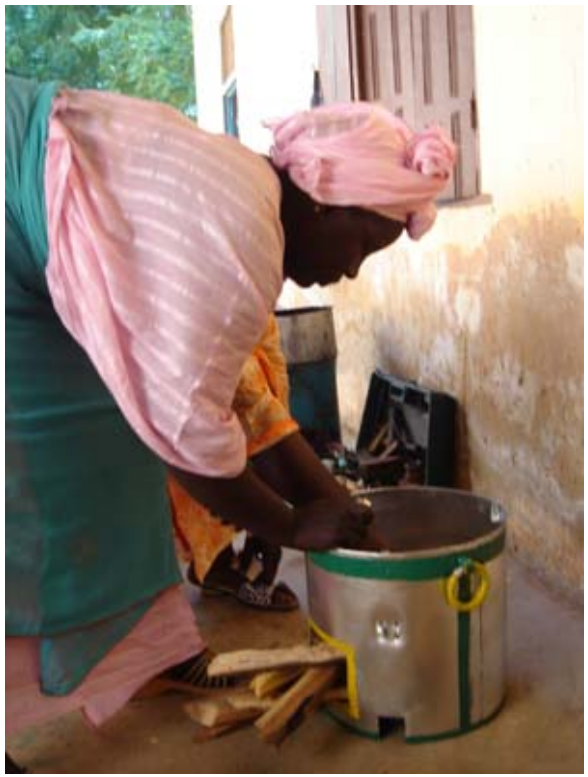
Rocket stove + removable skirts for different size pots

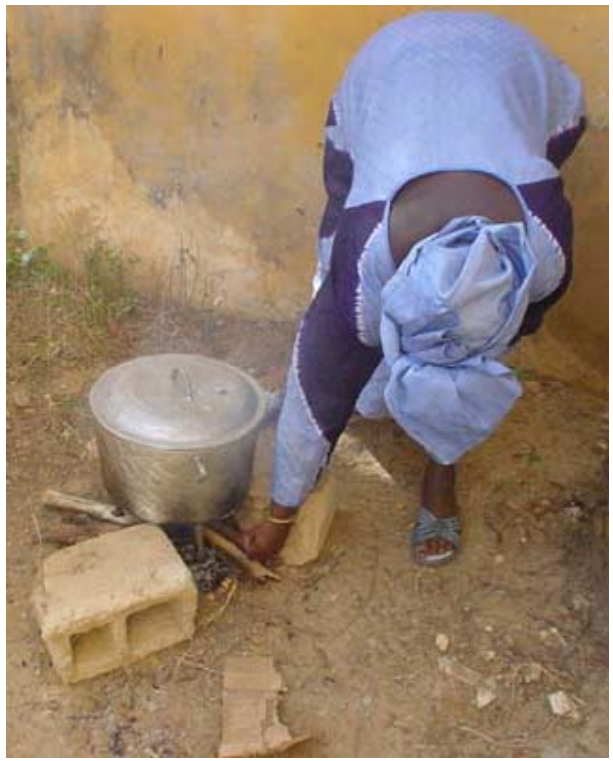
# Stove Selection: build ‘most promising’ stoves

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 litters 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 litters 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

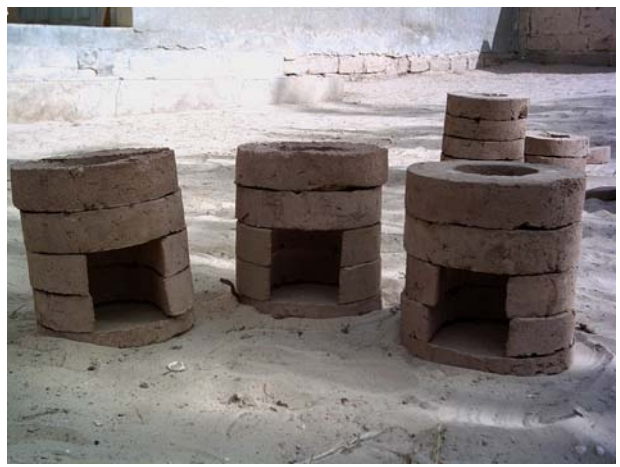
# First Testing Cycle: Production of 6 Stoves

# 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