atmosfair gGmbH

Coordinating/Managing Entity (CME) experiences:
efficient cook stove PoAs in Africa

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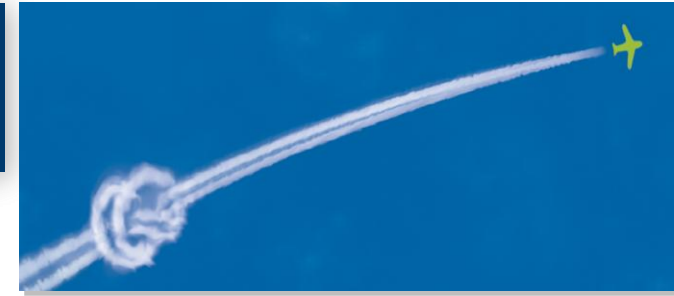
atmosfair profile

✓ Non-profit carbon offset provider

✓ CDM Gold Standard developer, now also implementing own projects

✓ Focus on household based projects, specialized on efficient cook stoves in Africa

Patron Prof. Dr. Klaus Töpfer

Former Executive Director of the
United Nations Environmental
Program (UNEP)

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# atmosfair CDM GS projects

Projects and technologies applied

✓ Cameroon efficient fuel wood cook stoves

✓ India cook stoves

✓ Kenya, biogas

✓ Lesotho, efficient cook stoves

✓ Nigeria, efficient cook stoves

✓ Ruanda, efficient cook stoves

✓ India, biogas

✓ India, electricity from crop residues

✓ India, fuel efficient irrigation pumps

✓ India, solar lamps

✓ Indonesia, composting of household waste

✓ Sri Lanka, small hydro power

✓ Bolivia, electricity from crop residues

✓ Honduras, small hydro power

✓ Nicaragua, wind power

Technologies applied:

✓ Renewable energy

✓ Energy efficiency

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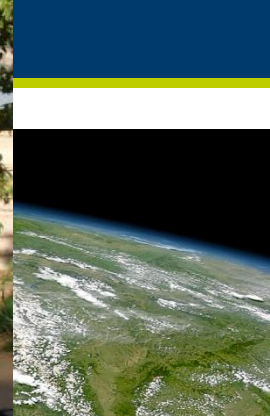
Track record cook stove projects

PoAs (atmosfair is CME)

- ✓ Nigeria (First registered cook stove PoA in Africa)
- ✓ Rwanda (under validation)

CDM SSC projects

- ✓ Nigeria (first registered and first issued cook stove CDM)
- ✓ Lesotho (requesting registration)

Gold Standard Microscale projects in Cameroon and India

Currently PoA-DD consultant for the World Food Program Ethiopia on Mirt stoves

PoA 5067 : Improved Cooking Stoves for Nigeria Programme of Activities	
Other Parties Involved	n/a
Coordinating/Managing Entity	atmosfair gGmbH
DOE	TÜV NORD
Sectoral scopes	3 : Energy demand
Activity Scale	SMALL

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Nigeria - Improved cook stoves PoA

Current partners   DARE (Nigerian NGO, involved also in SSC project), BI Alliance (Nigerian small company)

Target group   100,000 households across Nigeria (>10,000 stoves already distributed under current SSC CDM)

Technology   SAVE80, savings up to 80%, also other models (e.g. Envirofit)

CO_2 reduction   approx. 2.5 t CO_2 per year and stove

Local benefits   less spending for firewood, avoidance of smoke emission and deforestation

Challenges and possible solutions

(Most challenges apply to both household-based SSC projects and PoAs)

Technical challenges

➢ Technology must be proven and ready for mass production and distribution

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Finance challenges

➢ High transaction costs

➢ Low CER prices

➢ Success-based funding where typically grant-funding is used

Approach: Upfront funding from an investor (or atmosfair) who takes the risk

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Mismatch CDM bureaucracy <> LDC reality

➢ Sampling, baseline surveys (100s of households randomly chosen, remote areas, dozens of languages…)

➢ CDM tasks occupy much of local partner's time

➢ CDM is slow – keeps local partners waiting

➢ DOEs less experienced in LDCs

Approach: Keep cool, be pragmatic, avoid baseline surveys, transform CDM requirements into rules for local implementation

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Challenges and possible solutions

Monitoring challenges

➢ Each stoves with unique ID in centralized database

➢ Randomized surveys on stove usage (issue: kitchen is a private place)

➢ Scientific Water Boiling Test in user's households

Approach:

   - Simplify and Standardize

   - Constant spot checks and training

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John West

"Hello, I'm doing a survey on personal privacy."

Specific challenges for a CME in PoAs

➢ CPA inclusion (possibly for third parties using the PoA as a framework)

➢ Liability for possible erroneous issuances (should be the DOE, but they do not accept it)

➢ Multinational PoAs: Coordinate with all DNAs
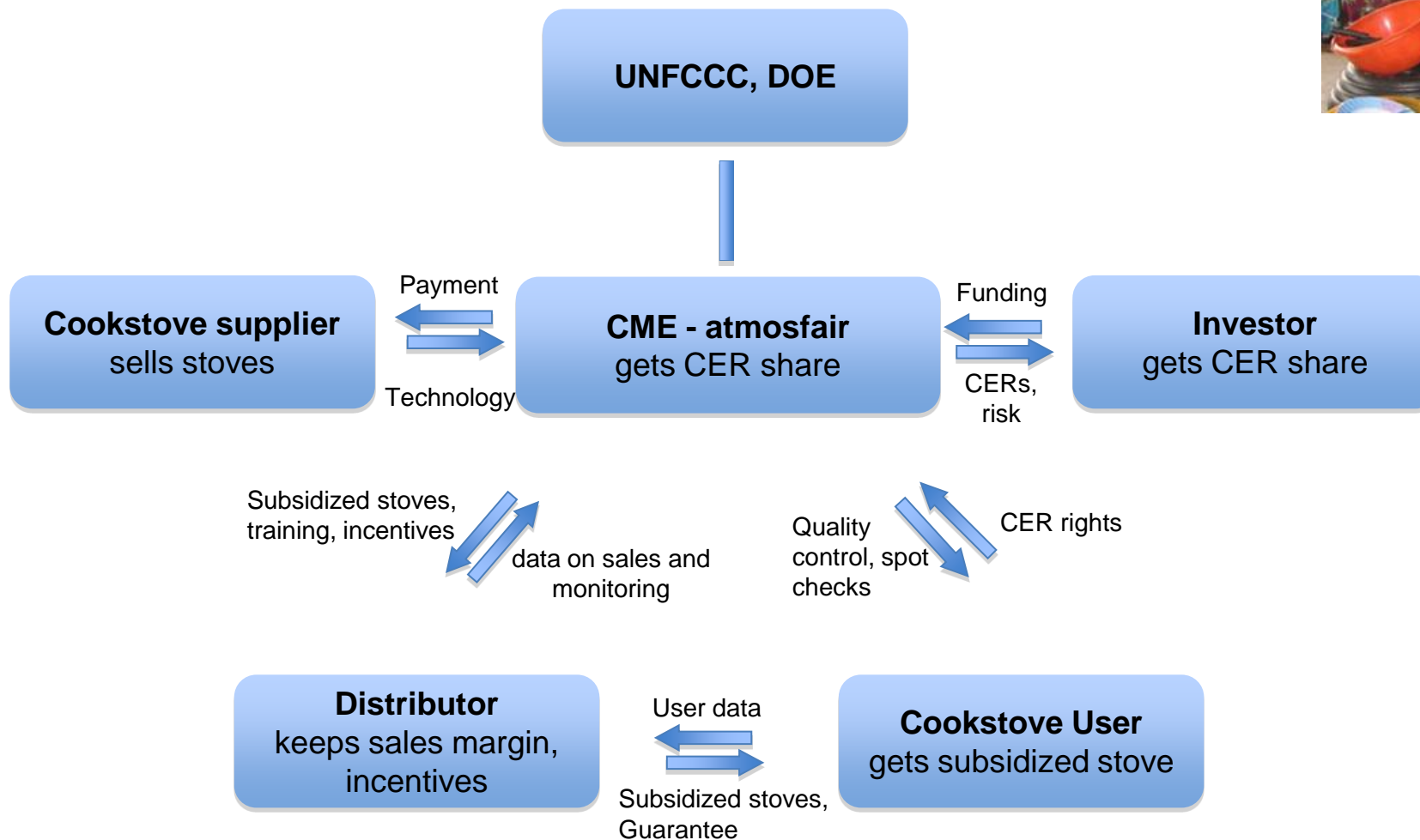
➢ All more complex, higher cost

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Set-Up Nigeria PoA

UNFCCC, DOE

Payment → / Technology ←

Cookstove supplier
sells stoves

CME - atmosfair
gets CER share

Funding ← / CERs, risk →

Investor
gets CER share

Subsidized stoves, training, incentives ↑ / data on sales and monitoring ↓

Quality control, spot checks ↓ / CER rights ↑

Distributor
keeps sales margin, incentives

User data ← / Subsidized stoves, Guarantee →

Cookstove User
gets subsidized stove

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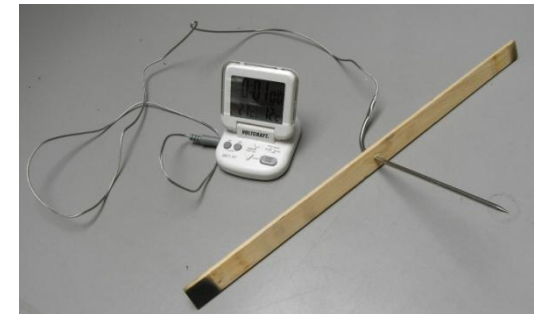
Monitoring

Standardize and Simplify:

✓ Water Boiling Test toolkit standardized for all distributors

Water Boiling Test (WBT) Instruction and Data Entry Form

The Water Boiling Test is a test necessary to determine the **efficiency of stoves**, disseminated within a project. Please stick to the following preparation guidelines and keep exactly to the instructions provided. The test has to be carried out by two trained persons who are **authorized by atmosfair**.

- **Tester 1** will read out the instructions, record the results in the dedicated fields on the data sheet and take pictures. **Tester 1** will lead the team and has the overall responsibility.
- **Tester 2** will conduct the test in a practical way according to the instructions and guidance received by tester 1.

1. Prepare the test

(Please tick when done)

TASKS TESTER 1:

1. **Windless Location:** -- ☐
   Search for an appropriate place where the test can be conducted (Testing should be done indoors in a room that is protected from wind, but with sufficient ventilation to prevent harmful stove emissions or outside at a windless location – use a windbreak if possible)

   ✎ *Mark where the test is conducted:* ☐ inside ☐ outside

2. **Record the Stove ID:** --- ☐
   ✎
   > 1

3. **Write down the Local Boiling Point:** ----------------------------- ☐
   ✎
   > 2

4. **Record the date:** -- ☐
   ✎
   > 3

5. **Record the material you will use to start the fire:** ----------------- ☐
   ✎
   > 4

6. **Take pictures (in that order!)** --------------------------------------- ☐
   📷 ... of the **stove and stove ID** *(check readability of the number on the screen)*
   📷 ... of the **wood pieces** that will be used

Now read the following tasks to **Tester 2** and check that **Tester 2** is performing all preparation tasks correctly. Write the outcomes in the prepared fields.

TASKS TESTER 2:
Please tick when done)

1. Prepare the **testing location:** Make sure that you have **enough space**. ---------- ☐

2. Install the **scale** in an as **dust-free place** as possible and make sure that the scale is positioned on a **flat level surface** ----------------- ☐

3. **Clean the pot:** Remove the soot residue from the bottom of the pot ----------------- ☐

4. **Clean the stove:**
   Turn the stove around and remove all charcoal and wood residues ----------------- ☐

5. Weigh the **empty pot** you will use for the test **WITHOUT LID** ----------------- ☐
   ✎
   > 5   g

6. Weigh the **empty metal tray** ----------------------------------- ☐
   ✎
   > 6   g

7. Measure the **air temperature** with the thermometer ------------------------------- ☐
   ✎
   > 7   °C

2. Conduct the test

TASKS TESTER 1:
Read the following tasks to Tester 2 and check that Tester 2 is performing all preparation tasks correctly. Write the outcomes in the prepared fields.

TASKS TESTER 2:
Please tick when done)

1. **Weigh** out about 700g of the prepared **wood** including the material that will be used to start the fire --- ☐
   *Write down the **exact amount of wood including starting material:***
   > 8   g.

2. **Put the other wood and material to start the fire** that you will *not* use aside, Do not mix it up with other wood used during the test ------------------------------- ☐

3. Put the **heat resistant pad** on the scale and place the empty pot **WITHOUT LID** on top --- ☐

1

2

Monitoring

Standardize and Simplify:

✓ Online data transfer to CME central database

Conclusions – lessons learned

- ➢ CME should coordinate und understand even details, not outsource too much

- ➢ Keep close contact with all levels, including end users

- ➢ Keep risk related to upfront funding and CDM away from local partners

- ➢ Monitoring is crucial, try to standardize as much as possible

- ➢ Make sure that all stakeholders have vital interest in successful implementation and monitoring

- ➢ Excellent local partners needed

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Thanks for your attention!!

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