

## Improved Cooking Stoves for Nigeria Programme of Activities

### - Key Project Information –



### 1. Purpose and General Description

The aim of the PoA is to enhance the penetration of efficient cookstoves by offering cost-effective efficient stoves. The carbon revenues are utilised to recover the balance of costs.

Fuel Wood Consumption is one of the main drivers of land use change and deforestation in Nigeria. Traditional cooking stoves do not use energy efficiently and require large quantities of non-renewable fuel wood, hence leading to greenhouse gas emissions. Improving the efficiency of fuel wood consuming appliances is therefore crucial to combat deforestation and tackle greenhouse gas emissions in Nigeria, but a large-scale adoption of improved appliances has not yet taken place. The market penetration rate of clean fuels and technologies for cooking in Nigeria is approximately 5%, including e.g. biogas digesters, solar cookers, ethanol gel stoves, biomass gasifiers, and other clean and improved cooking solutions. The Draft Renewable Energy Master Plan for Nigeria states: “Enhancing economic efficiency of energy use is vital to achieve the best utilization of biomass resources and to protect the environment, and should be given a high priority.” However, the plan also states that despite Research & Development efforts, “improved wood stoves have not gained any significant foothold in any part of the country.”

In this light, the Improved Cooking Stoves for Nigeria Programme of Activities is an initiative to promote dissemination of improved cooking stoves to households in the Federal Republic of Nigeria.

### 2. Technology

The PoA is generally open for different technologies that allow energy efficient cooking with biomass.

One improved cook stove disseminated under the PoA will be the “SAVE80”, a portable stove made of stainless steel, developed and prefabricated by a German manufacturer and assembled locally to create employment and income. The initial model has a specified thermal efficiency of 52,7% and nominal effective thermal power of about 1.5 kW. As per specification of the manufacturer, the SAVE80 needs only about 250 g of small brittle sticks of wood to bring 6 litres of water to the boil, 80% less than traditional fire places. The design ensures preheating of the air and a complete combustion with no visible smoke and only small amounts of ash.

The SAVE80 system also consists of custom-fit pots, pans and a heat retaining box (‘Wonderbox’), where food can be transferred after reaching the boiling temperature, and where it will continue to simmer until it is well cooked. The Wonderbox allows important energy savings in addition to the savings by the Save80.

The project is currently working towards the establishment of local fabrication of the cook stove, to shift the entire value chain to Nigeria.



Figure 1: Save 80 B-Model and hear retaining Wonderbox.

3. Management system

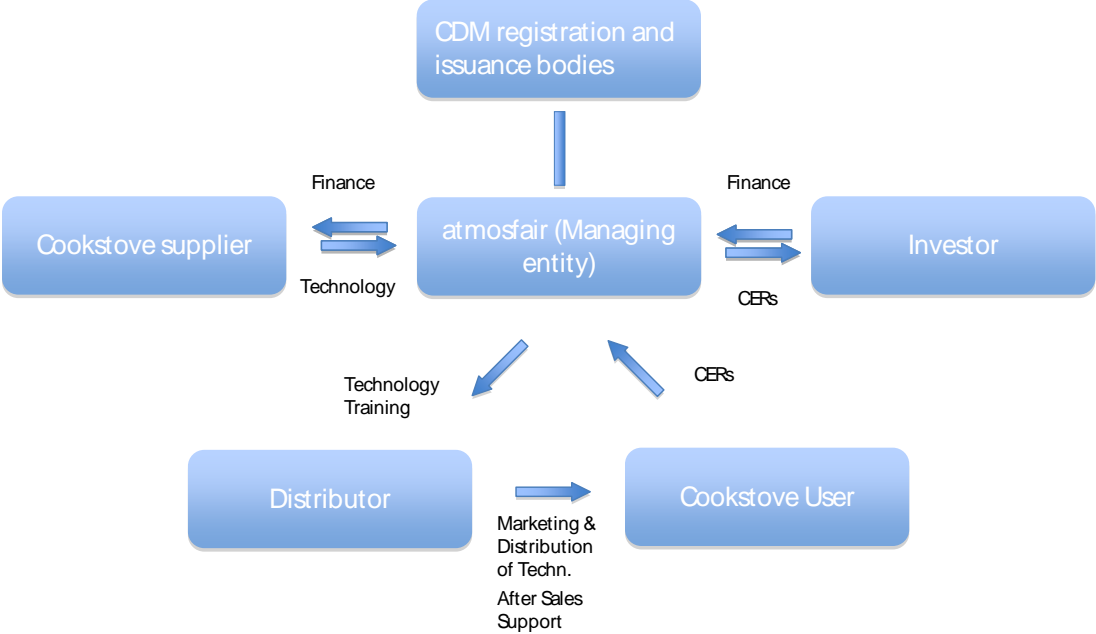


Figure 2: Organisational chart showing the stakeholders involved in the PoA

Managing entity

atmosfair is the coordinating managing entity (CME) and sole focal point which communicates with the UN, including on matters relating to the distribution of Certified Emission Reductions.

Other tasks of the managing entity include:

- Partnering with and contracting of stove suppliers and distributors
- Stove procurement, i.e. order and shipment (if applicable) to the distributors
- Development of numbering procedures for the stoves to avoid double counting
- Assignment of auditors for project evaluation and extension

### Distributors

The project is open for interested stove distributors, Project implementers and investors.

Tasks of distributors may include:

- stove assembly, if applicable
- Training of stove assemblers, if applicable
- Numbering of stoves, if applicable
- Stove promotion, incl. trainings and demonstrations
- Stove sales
- Customer support
- Monitoring data collection (e.g. contact details from stove users as required for the monitoring), processing and storage

### **4. Terms of Project Activity Inclusions to the PoA**

Each CPA to be included into the PoA will be checked by the CME against eligibility criteria. The responsible person at the CME will check the following:

- a) Overall general completeness of the CPA documentation (technology, institutions involved, additionality, etc.)
- b) Technical review of the proposed CPA, focused on:
  - technology and baseline
  - integration in centralized monitoring system
  - CDM eligibility criteria as specified in the generic CPA-DD
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### **5. Project's social, economic and environmental benefits and impacts**

Besides saving greenhouse gases, the programme aims to

- bring wood consumption down so as to allow natural recovery of forests and/or reforestation to take place,
- diminish Indoor Air Pollution from wood smoke and avoid its harmful health consequences,
- diminish the fuel wood bill for households,
- preserve wood resources so as to avoid inter-communal and/or inter-religious conflict over resources.

### **6. Contact:**

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