

Foundation Stichting Afrecooking

Annual Report 2023

April, 2024

Since early 2019 foundation “Stichting Afrecooking” supports the following activities in Sub Sahara Africa (mainly via Promotion of Cleaner Cooking Co.).

A. Mission of the foundation

- a) High efficient cookstoves for households and institutes.
The distribution of high efficient environmental friendly cookstoves for households and institutes. These activities are being coordinated by the “Promotion of Cleaner Cooking Company”, a registered NGO in Malawi. Cleaner cooking saves Money, Lives and Environment.
- b) Promotion of improved charcoal production methodologies.
The presently generally applied charcoal production method is extremely inefficient and is said to be the major source of the deforestation in many countries. Moreover, the production goes along with a tremendous emission of toxic and Green House Gasses.
One of staff members of the “Stichting Afrecooking” is acting as a professional consultant in the field of the improvement of the efficiency of the charcoal production. The use of sustainable biomass to replace indigenous hardwood is one of the spearheads. The projects are handled in cooperation with the private sector, government and NGO’s.
- c) Distribution of used laptops and mobile phones
A group of people in the Netherlands is collecting phones and laptops. After testing and installing the appropriate software the products are being shipped to Malawi. If needed tiny repairs are carried out either in The Netherlands or in Malawi. The products are distributed to students mainly via universities and college's. Incidentally also directly to individual students. In order to cover part of our costs we expect a small financial contribution.

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B. Some accomplishments in 2023

1. The Cookstove Project; Kuphika Kwapheka (Charcoal Stoves)

The core business of the company is the distribution of charcoal stoves (for households) and incidentally (wood) stoves for large groups of people (institutional stoves).

1.1. Household stoves; sales results in 2023

At the beginning of the year we had 422 SmartSavers charcoal and 38 SmartSavers wood in stock. With respect price/performance the SmartSaver charcoal stove was the most popular stove ever. But because of the limited durability (2 to 3 years) Envirofit stopped the production of this particular stove.

Early this year a new shipment arrived: 1,070 Ecostoves and 448 SuperSavers.

We brought these stoves on the market for the following prices:

Ecostove: whole sale: 28,000MK, retail 35,000 MK

SuperSaver: whole sale: 42,000MK, retail 50,000 MK

It should be noted the these prices are lower than 50 % of the costprice (even before the draconic inflation in November 2023).

Practically all smartsavers were sold within a few months.

Sales figures of the other stoves during the entire year were:

SuperSaver: 246 and Ecostove: 106.

Although the price of the SuperSaver is considerably higher people like this particular stove much more than the Ecostove. Nevertheless, the performance of both stoves is about equal but because the Ecostove looks much smaller people are hesitating. A more informative PR campaign which will start in April 2024 might initiate higher sales figures.

1.2. Characteristics of the stoves

Fuel savings 65 %; in view of the increasing price of charcoal (e.g. 20,000 MK for a 50 kg bag) the investment will be earned back within 3 to 5 months, while the total monthly family expenditures drops with about 15 to 25 %. During the lifetime of the stove (5 years) total saving of woody biomass will be about 10,000 kg.

1.3. Pending orders

During the PR campaigns a number of large NGO's got interested to acquire stoves for their beneficiaries. We have preliminary reserved 775 stoves for 4 interested organisations. Stoves will be delivered soon as the payment has fulfilled.

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1.4. Institutional stoves

Unfortunately the production of the classical Envirofit 100 litre pot stove is temporarily on-hold (long-term effect of Corona). However, because of the high demand of stoves for boarding schools, orphanages etc. we need to look for an alternative.

The performance and durability of locally produced stoves is questionably and therefore we will need to look for imported products.

Envirofit India has developed a fan-driven large stove which we will consider to acquire for testing purposes (est. costs including transport and duties \$1,800).

2. PR activities; a summary

In order to expand our market share we had allocated more funds for PR activities.

Our PR activities at fairs, cooking demo's and flea markets have covered nearly the whole country while regular adverts in newspapers and radio spots has reached another public.

Regular activities during the whole year

- Flea market Lilongwe
- TV spots and advert in the newspaper
- Game Complex (July – December)
- MCHF cooking demonstrations

Incidental demonstrations

- Kasungu
- Mdzalanyama
- Ntcheu district hospital
- Relief organisation (s) Which one?
- Capital Hill
- Find your Feed and Surcord (Nkhatabay) wanted Smartsavers
- Malawian Defence Force (Mzuzu)
- Oxfam
- Blantyre Arts Festival
- Segal Foundation
- Biz Market Expo
- Tumaini Festival Dzaleka
- Special project near Mangochi.

Website renewal

With the indispensable input of an enthusiastic volunteer, the website has been completely redesigned. The so-called donor knob has already attracted some donors.

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3. Sustainable Charcoal Production

3.1. Ecological Retort System (prototype) successfully started.

As mentioned in the previous report our company has designed a modern charcoal production unit. This ERS (Ecological Retort System) is now fully operational in Chikwawa. And as expected no noxious emissions at all and high quality charcoal!!! An additional number of internal vessels will increase the annual yield with a factor of 3.

3.2. Country wide replacement of the classical charcoal production

Upon request of the Ministry of Energy we made a brief cost estimate. Presently the charcoal consumption in Malawi is estimated to be 450,000 tonnes annually. Replacement of the classical Njiko charcoal burner by an ultra-efficient charcoal stove will save 60 % of the charcoal. This means that in due time the charcoal consumption drops to about 200,000 tonnes annually. The capital requirements for a semi-industrial charcoal production based upon the assumption that the Malawian population needs is 200,000 tonnes depends upon the availability of various types of biomass.

a. Sustainably harvested woodlogs, deadwood and prunes.

In total about 650 ERS are needed for a production of 200,000 tonnes annually. Investment costs for these units is in total about \$ 10 million.

b. Loose material like peanut shells, sawdust, grasses etc.

Total equipment costs including densification equipment will be \$20 to \$30 million. The degree of contribution of both options entirely depends upon the availability and the cost price of both types of feed stock.

3.3. Possible involvement of the private sector

A number of small enterprises are investigating the possibility to convert their agricultural and forestry residues into charcoal. Dead wood, prunings, maize cobs, grasses are valuable candidates.

3.4. Sustainable Development Goals

In September 2021 Malawi's Sustainable Development Goals related to "Cleaner Cooking" have been formulated in the Malawi SDG 7 Cleaner Cooking Energy Compact.

A selection of the specific goals:

- ✓ *30% of urban households transitioned to ultra-efficient charcoal stoves by 2030*
- ✓ *75% of charcoal makers commercially growing and using alternatives to natural trees for charcoal production.*

Via the Ministry of Energy we have offered our expertise in this sector.

The Envirofit ultra-efficient stoves combined with sustainably produced charcoal using our ERS (Ecological Retort System) can play a crucial role in meeting these ambiguous goals.

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4. Contacts with the scientific world

Lilongwe University of Agriculture and Natural Resources (LUANAR)

Some initial contacts with leading professors both at the NRC campus (nearby Lilongwe) and at the Bunda campus.

5. Possible grants (ongoing)

Although we offer the stoves at below costprice the stoves are hardly affordable for a large part of the population. More people have to experience the advantages themselves.

A temporarily financial injection is needed to have a country wide distribution. And therefore we regularly apply for subsidies.

5.1.Modern Cooking Facility for Africa

Interesting program, however charcoal stoves are excluded. Obvious reason might be the lack of knowledge. Charcoal will be a widely-used fuel for the next decade and can be produced sustainably using technology which is affordable!!

5.2.Green Economic Transition Facility (GETF)

“Expression Of Interest” submitted.

a. Charcoal stoves: 3,500; requested capital \$228,000

b. Charcoal production

Year one; Woody biomass

Charcoal production 800 tonnes per year

Requested capital: \$ 123,000

Year two: Loose biomass

Charcoal production 1,300 tonnes per year

Requested additional capital: \$ 92,000

6. Carbon finances.

In short carbon financing refers to funding mechanisms that puts a monetary amount on carbon emissions, allowing, for example, companies wishing to offset their GHG emissions to buy carbon credits earned from sustainable organizations and their projects.

Depending upon the local circumstances Envirofit stoves can generate an annual Carbon Emission Reduction of 3.5 to 4.0 tonnes. Expected value at least about \$5 to \$20 per tonnes.

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6.1.KLIK foundation

A bilateral agreement between the Malawian and Swiss governments which establishes the legal framework for the implementation of climate mitigation activities. Emission reductions achieved with Swiss funding are transferred in accordance with the bilateral agreement and used toward meeting Switzerland's emission reduction target under the Paris Agreement.

Promotion of Cleaner Cooking Company passed round one. But because of the apparently more favourable conditions of the SHA project (see next paragraph) we focussed on the this company for the time being.

6.2. Self Help Africa SHA in cooperation with MCHF

SHA will (at least partly) cover the costs for

- Registration

- Validation and verification

- Issuance fees

- Projects financial sustainability challenges

Expression of Interest will be issued early 2024.

7. Company registration

We have been advised to convert the company into a trust. Being a trust in will be easier to obtain tax exemption when importing biomass stoves and humanitarian goods (laptops etc.).

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8. Distribution laptops/ phones / miscellaneous

Transported to Malawi (own transport and container transport)

Unfortunately in the course of 2023 the organizer of the container transport has stopped his activities. This means unless we find a comparable alternative we will not be able anymore to bring heavy items like sewing machines, TV sets and desk top computers into the country. Furthermore we experienced that the tax regime has been changed. The consequence is that we will not have any more the advantage of the tax exemption which we obtained in the combined transport.

a. Transport by plane (3 trips; private transport)

Tablets / iPads: 32
Laptops: 32
Cell phones: 53
Smartphones: 40 (about 70 % possibility to handle WhatsApp.)

b. Container transport (the volume of the products in the 2023 was 5 m3!!)

Dell "All in three" desktop computers. In total 22 units, seven of them went to Madisi hospital for setting up an IC network.

Monitors: 8

TV sets: 6

Satellite antenna

A variety of laptops: In total 44 (24 of them needed to be repaired in Malawi)

Mixed phones: mainly cell phones

Sewing machines

Electrical 6 + one Locker machine

Manual 4

Pedal machines 3

Desktop computers: 3

Sound system (450 W!!)

Miscellaneous: routers, Mini Wifi adapters, keyboards....

Giel de Pooter / Mercy Mkandawire

April 10, 2024

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2023 Authorized condensed financial report of the cookstove project			
Turnover cookstoves	16,365	Fixed assets	1,500
Costs of sales cookstoves	-28,524	Inventory	19,325
Third party donations	2,837	Debtors	4,278
Total Revenue	-9,322	Other Assets	3,960
		Bank and cash	6,493
Personal	2,870	Total assets	35,556
Depreciation	500		
Housing/Storage	3,306	Equity	33,056
PR/Communication	7,974	Creditors	
Transportation	6,177	Debt De Pooter	2,500
Other costs	6,991	Total liabilities	35,556
Uncollectable debtors	75		
Financial results	14,740	Cashflow	
Total costs	42,633	Revenu	-23,672
		Delta assets (excl. liq.)	10,138
Operating Result	-51,955	Delta liabilities	-
		Total cashflow	-13,534
Donations De Pooter	30,134		
Charcoal project	938		
Laptops / Phone project	-2,789		
Total incidental revenue	28,283		
Overall Revenue	-23,672		

Giel de Pooter / Elsbeth de Feijter

May 5, 2024