

PROJECT BRIEF

Efficient Cook Stoves in Zambia

Country	Zambia
Sector/Sub-Sector	Energy efficiency in households / Efficient cookers
Saved Emissions	200.000 t CO ₂ per year

Project description

The project promotes the distribution and installation of 50.000 to 80,000 efficient cooking stoves for households in rural Zambia. The stove model is mainly made of materials available at the village level (bricks, clay and dung mortar); nevertheless, some metal parts have to be brought in from local manufacturing centres in Zambia and Malawian cities to ensure high efficiency. Target group of the project is the poor population in rural regions.



- **Energy efficiency:** The efficient stoves substitute the currently common cooking on open fires both indoors and outside of houses, and thus reduce the consumption of firewood, due to a lower heat loss and a better heat conduction. Gathering of firewood from surrounding woodlands is almost completely eliminated because the new stove makes use of twigs, small branches and crop residues available in or near the village community;
- **Local production:** The cookers are assembled by the users, under instructions of the project partner. For that purpose, molds for the production of bricks are provided to them, as well as the required metal parts.

Partner

The project is implemented under the direction of C-Quest Capital, a social impact investment firm with extensive experience in the area of climate protection and carbon finance, focused on providing energy services to the poor in developing countries. Local partner is the co-operatively managed NGO Community Markets for Development (COMACO), which currently has a member base of about 90.000 local farmers. Technical support comes from Total Land Care Green (TLCG). TLC developed the stove type that is being used in this project and is distributing it in East Africa since 1999.

Ecological and socioeconomic potentials

In the rural areas of Africa, people primarily cook with firewood. This often occurs in a very ineffective and emissions-intensive manner on open fire. The population spends significant time collecting

wood, largely contributing to the national deforestation. The need for firewood in households is in many African countries the most important factor for a rapidly progressing deforestation and land degradation, and the catastrophic ecological and social consequences deriving from it.

In addition to contributing to reduced deforestation rates, the project improves the livelihood of the population. The strong production of smoke from conventional fires in closed rooms leads to serious health defects, especially for women and children. These can be reduced by the use of efficient cookstoves. Besides, it is expected that women and girl children in the project area will save 2-3 hours per day now used gathering firewood and can use this saved time more productively in family care, farming and schooling. In particular, the situation of women and girl children is improved in a truly transformational way by the project.

Implementation and financing

The project appeals to a target group with minimal purchasing power so that financial contribution of the users can hardly be expected. In order to reduce the investment need as far as possible, the cookers are predominantly made out of locally available materials and are produced by the users themselves. The project implementer provides the molds for the bricks and guides the implementation. Employees go to the villages to instruct the users and accompany the construction of the stoves. The imported metal parts and the running costs of the project implementation are met through returns from emission reductions. The Foundation 'Future of the Carbon Market' makes a special contribution by pre-financing the project implementation with an advanced payment on the future delivery of Certified Emission Reductions.

Due to the lack of 'starting capital', many of such programmes cannot be initiated at all - and valuable potential for the reduction of greenhouse gases gets lost. The project exemplifies that it is often the small measures which, taken as a whole, achieve a big effect.

Integration into national politics

- The distribution of efficient cookers is an important component of the national energy policy of Zambia which was adopted in 2008.
- The PoA received the Host Country Approval of the Ministry of Land, Natural Resources and Environmental Protection in which the contribution of the project to sustainable development of Zambia is confirmed.
- COMACO has common employees with the Ministry of Agriculture and closely collaborates with the forest authority and the Zambia Wildlife Authority. Also at the municipal level, COMACO is closely interwoven with the national authorities and there are committees for the supervision of the implementation at the level of the provincial government.
- The project is integrated into the Landscape Carbon Project which is implemented by the World Bank in Zambia within the scope of the BioCarbon Fund. This opens no additional financing, but creates a stronger visibility and a bigger political weight.

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