

Malawi: Providing boreholes and cookstoves



Certification:



Key Facts



Background

Malawi is among the world's least developed countries and depends heavily on outside aid to meet its development needs. Since there has been a significant drop in foreign aid over the last decade, the situation is exacerbated even further. One of the most urging problems, however, is the lack of safe water available. Dowa and Kasungu Districts are among the least served in Malawi, with water supply coverage estimated at 41% and 61% respectively. One-third of the few existing boreholes are broken or no longer functional.

The lack of safe water, along with poor sanitation and hygiene means a serious health risk for the local population, as water-borne diseases pose a major threat. To minimize the risks, water needs to be boiled. Boiling water and collecting wood fuel to power the stoves is an exhausting and time-consuming task that is usually undertaken by women. Therefore women benefit in particular by gaining access to safe water.



The Project

The project activity consists of the restoring boreholes to provide access to safe water. To prevent malfunctions in the future, locals are being educated in the set-up, maintenance and in operating the boreholes. In addition to direct health benefits, families no longer have to boil the water, saving firewood and thereby preventing carbon emissions from being released. Furthermore, the project creates a funding mechanism for communities that further ensure the long-term maintenance of the boreholes. In addition to this, the project disseminates efficient cookstoves among locals meaning that in comparison to previous methods firewood is used much more efficiently.

Location:

Dowa and Kasungu Districts, Malawi

Project type:

Energy Efficiency

Total emission reductions:

» 100,000t CO₂e p.a. «

Project standard:

Gold Standard

Project start date:

October 2013

Sustainable Development

By supporting this project you'll contribute to the following Sustainable Development Goals:



SUSTAINABLE DEVELOPMENT GOALS

While focusing on reducing greenhouse gas emissions, all our projects also generate multiple co-benefits. These are supportive of the United Nations Sustainable Development Goals.



No poverty

Access to clean water reduces the need to boil it, which saves fuel consumption. Furthermore, the addition of cookstoves means that burning wood in general is done more efficiently. Both of these factors combined will significantly reduce wood consumption and therefore will allow families to save money.



Good health and well-being

Improved access to clean water reduces the occurrence of water-borne diseases. Additionally, boiling water with traditional cook stoves exposes residents to harmful indoor air pollution that causes respiratory diseases. The new cookstoves produce notably less pollution, thus improving local health.



Gender equality

Women are disproportionately affected by water demands. Sourcing, carrying, and purifying contaminated water is very time consuming and exhausting. Reducing the amount of firewood needed for cooking frees up time for more productive activities.



Clean water and sanitation

As part of the project, basic sanitary facilities, i.e. latrines with tippy-taps for hand disinfection, are installed in the villages. Together with a reliable supply of clean drinking water, this is an efficient measure to prevent infectious diseases.



Industry, innovation and infrastructure

The project activity strengthens the local infrastructure by installing modern water pipes and providing safe water supply. Additionally, the cookstoves introduce a new concept to cooking and heating, which can be developed and passed through generations.



Life on land

Access to clean water helps to reduce deforestation and desertification rates by reducing the use of firewood to boil water. More efficient cookstoves reduces the need even further. Slowing deforestation yields direct benefits like slowing soil erosion, the destruction of natural habitats, and loss of biodiversity.



Technology brief – how it works

The technology behind this project is rooted in the rehabilitation of community boreholes that are no longer functional. The boreholes are restored to fully functional condition, and the project develops maintenance programs to ensure the on-going operation of the restored water source. Once the borehole is in operation, it utilizes a hand pump and provides access to clean water without the need to boil it for purification. Carbon credits are generated based on the fuel savings - avoided fuel usage which would normally be used for boiling.

In addition to this, the project activities involve the distribution of new, energy efficient cookstoves. In conventional fireplaces, the combustion of fuel – and thereby conversion to heat - is incomplete. Advanced designs use the so-called smoke-stack effect. Rising hot air induces an updraft, sucking fresh air into the stove. The excess supply of oxygen raises the combustion temperature, which allows for a quicker and cleaner burning of fuel.



Project Standard



The Gold Standard is an award winning certification standard for results based project finance and is recognised internationally as the benchmark for quality and rigour in certifying environmental and socio-economic project outputs. Established in 2003 by the World Wide Fund For Nature (WWF), the Gold Standard today is trusted and endorsed by NGOs, governments and multinationals including United Nations agencies worldwide.

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