

Project Summary: Safe Water Project Western Province, Zambia

Introduction

ECHO Zambia and CO2balance are developing a project which will support the provision of safe water to rural communities across Zambia's Western Province through the rehabilitation of around 500 broken water points for a minimum of 5 years, benefiting thousands of households. By providing safe water, households will no longer need to boil water to purify it. Therefore, the project will ensure that households consume less firewood and charcoal during the process of water purification and as a result there shall be a reduction of carbon dioxide emissions.

The project will ensure ongoing maintenance and operation of the water points, regular water quality testing, water, sanitation and hygiene (WASH) training as well as minor maintenance training for communities are carried out. This small-scale project will be developed under the Gold Standard Foundation, which in addition to verifying and issuing the carbon credits, also measures local social, environmental, and economic impacts towards the UN Sustainable Development Goals (SDGs) for a minimum of 5 years from project start.

Technology

Examples of the borehole technology that will be renovated as part of the project include the Afridev and India Mark II & III handpumps, and the U3 modified pump, example shown below. Other handpump models that utilise the same basic design may also be included in the project. The project is not limited to any particular handpump, boreholes will be rehabilitated according to local needs.



Sustainable Development

In addition to supplying clean and safe water and reducing greenhouse gas emissions, this project will create positive social, economic, and environmental impacts:

- Result in less biomass fuel used by households, which will reduce pressure on local ecosystems
- Reduce time spent collecting water and gathering biomass fuel to boil water
- Reduce the incidence of illness caused by unsafe water and household air pollution
- Reduce expenditure on biomass fuel, leaving money free for other household expenses
- Train communities in water, sanitation, and hygiene (WASH) techniques

This project aims to contribute to the following United Nations Sustainable Development Goals:

Sustainable Development Goals (SDGs)	United Nations Targets	CO2balance Indicator
	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and, air water and soil pollution and contamination	Provide safe water for consumption to all project beneficiaries
	SDG 5.4 Recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	Reduce time spent collecting firewood and water
	SDG 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	Provide safe water for consumption to all project beneficiaries
	SDG 13.B Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	Realise CO ₂ emission reductions by removing the need to boil water for purification

Project Implementation

The **Baseline Study** was conducted between March and April 2021. This captured the baseline scenario of communities' water access and purification methods prior to project implementation. This forms the base of the project from which the emission reductions will be calculated.

The **Local Stakeholder Consultation (LSC)** will be held in Mongu, Western Province in May 2022. This involves bringing together various stakeholders such as end users, local and international NGOs, Women's Groups and local officials to discuss the project. The Project's potential impacts and the **UN Sustainable Development Goals** will be discussed, and attendees will be asked how best to enhance the positive effects and mitigate any negative effects. Comments and suggestions will be considered when implementing and monitoring the project.

To be involved within the project, the community must agree to transfer rights to the emission reductions generated from their water point. This will be fully explained during the LSC and to community representatives when their boreholes are being assessed so they fully understand and voluntarily agree. Each borehole rehabilitated by the project will be branded with a unique ID number for the lifetime of the project to prove its involvement.

Project Monitoring will take place annually. A random selection of households will be visited to complete surveys. This will show the water usage and access habits of end users. The data collected here is used to calculate the emission reductions. Once this is complete the **Gold Standard Foundation** will review and certify the carbon savings.

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