

Cookstove Project

GS 002446

Project Type: Energy Efficiency

Location : Malawi

This project involves the distribution of energy efficient cook stoves around Malawi. Many households are still relying on open fires to cook and purify water. This project aims on improving / lessening the natural energy requirements of as many communities as possible through the efficiency of the design.

It is one of the most cost effective ways of improving the lifestyle and sustainable development of the many communities in the region as possible.

Primarily objectives

- 1.** To lessen the impact on the natural environment and demand for wood and associated carbon (CO₂e) emissions, whilst also freeing up time for innovation, and contributing towards a sensitive approach towards proactive development.
- 2.** To address and improve the localised air quality for each household.

These stoves have been designed to utilise efficient rocket technology and will be manufactured, distributed and installed by local people.



Initial testing has shown these stoves to be more than 50% more efficient than traditional models as well as it reduces the indoor smoke about 80%. These stoves will be using less firewood and emitting less smoke.

Climate change and health are inexorably linked. The WHO estimates that 7 million premature deaths annually are linked to air pollution and between 2030 and 2050 climate change is expected to cause approximately 250,000 additional deaths per year, with direct damage costs to health estimated at between US\$2-4 billion/year by 2030. If climate change is not brought under control, health problems from unclean air, major depletion of natural resources, water unsafe to drink, insufficient food and lack of secure shelter will only be exacerbated, leaving those developing countries that are most exposed least able to cope.

Stable Farming Environments:

- Project stoves save up to 50% firewood compared to an open fire.
- Households can save on average 1 tonne of wood per year.
- With less firewood demand, there is also less pressure on the local natural environment which can result in reduced soil erosion.



- Biodiversity and forest resources are enhanced and local farming benefits greatly.
- Stoves will be built locally in the surrounding area.
- Greatly reduces the amount of time needed to gather sufficient wood.

Safer childhoods

The vast majority of hospitalised burn victims in Africa are under the age of six years old. Hot liquid scalds and open flame burns are the most common type of injury. The project's improved cookstoves are safer than traditional cooking methods because the stove's structure shields the fire to contain heat and so protects against burns.

Air pollution

The World Health Organisation reports that household air pollution is the number one risk factor for burden of diseases. Improved cookstoves are associated with reduced smoke, which can lessen exposure to indoor air pollution, reduce asthma, long term respiratory problems and generally improve immune system health.

Download project document :

https://impact.sustain-cert.com/document_files/63306

https://impact.sustain-cert.com/public_projects/375



SUSTAINABLE DEVELOPMENT GOALS

UN Sustainable Development Goals (SDG's)

CERTIFIED SDG IMPACTS



This project fulfils the criteria of nine of the United Nation's Sustainable Development Goals, helping to improve many aspects of the local area, as well as combatting climate change.



1 NO POVERTY



Globally, the number of people living in extreme poverty declined from 36 per cent in 1990 to 10 per cent in 2015. But the pace of change is decelerating and the COVID-19 crisis risks reversing decades of progress in the fight against poverty. New research published by the UNU World Institute for Development Economics Research warns that the economic fallout from the global pandemic could increase global poverty by as much as half a billion people, or 8% of the total human population. This would be the first time that poverty has increased globally in thirty years, since 1990.

More than 700 million people, or 10 per cent of the world population, still live in extreme poverty today, struggling to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. The majority of people living on less than \$1.90 a day live in sub-Saharan Africa. Worldwide, the poverty rate in rural areas is 17.2 per cent—more than three times higher than in urban areas.

For those who work, having a job does not guarantee a decent living. In fact, 8 per cent of employed workers and their families worldwide lived in extreme poverty in 2018. One out of five children live in extreme poverty. Ensuring social protection for all children and other vulnerable groups is critical to reduce poverty.

2 ZERO HUNGER



After decades of steady decline, the number of people who suffer from hunger – as measured by the prevalence of undernourishment – began to slowly increase again in 2015. Current estimates show that nearly 690 million people are hungry, or 8.9 percent of the world population – up by 10 million people in one year and by nearly 60 million in five years.

The world is not on track to achieve Zero Hunger by 2030. If recent trends continue, the number of people affected by hunger would surpass 840 million by 2030.

According to the World Food Programme, 135 million suffer from acute hunger largely due to man-made conflicts, climate change and economic downturns. The COVID-19 pandemic could now double that number, putting an additional 130 million people at risk of suffering acute hunger by the end of 2020.

With more than a quarter of a billion people potentially at the brink of starvation, swift action needs to be taken to provide food and humanitarian relief to the most at-risk regions.

At the same time, a profound change of the global food and agriculture system is needed if we are to nourish the more than 690 million people who are hungry today – and the additional 2 billion people the world will have by 2050. Increasing agricultural productivity and sustainable food production are crucial to help alleviate the perils of hunger.

3 GOOD HEALTH AND WELL-BEING



Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. Currently, the world is facing a global health crisis unlike any other — COVID-19 is spreading human suffering, destabilizing the global economy and upending the lives of billions of people around the globe.

Before the pandemic, major progress was made in improving the health of millions of people. Significant strides were made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. But more efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging health issues. By focusing on providing more efficient funding of health systems, improved sanitation and hygiene, and increased access to physicians, significant progress can be made in helping to save the lives of millions.

Health emergencies such as COVID-19 pose a global risk and have shown the critical need for preparedness. The United Nations Development Programme highlighted huge disparities in countries' abilities to cope with and recover from the COVID-19 crisis. The pandemic provides a watershed moment for health emergency preparedness and for investment in critical 21st century public services.

5 GENDER EQUALITY



Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world.

There has been progress over the last decades: More girls are going to school, fewer girls are forced into early marriage, more women are serving in parliament and positions of leadership, and laws are being reformed to advance gender equality.

Despite these gains, many challenges remain: discriminatory laws and social norms remain pervasive, women continue to be underrepresented at all levels of political leadership, and 1 in 5 women and girls between the ages of 15 and 49 report experiencing physical or sexual violence by an intimate partner within a 12-month period.

The effects of the COVID-19 pandemic could reverse the limited progress that has been made on gender equality and women's rights. The coronavirus outbreak exacerbates existing inequalities for women and girls across every sphere – from health and the economy, to security and social protection.

Women play a disproportionate role in responding to the virus, including as frontline healthcare workers and carers at home. Women's unpaid care work has increased significantly as a result of school closures and the increased needs of older people. Women are also harder hit by the economic impacts of COVID-19, as they disproportionately work in insecure labour markets. Nearly 60 per cent of women work in the informal economy, which puts them at greater risk of falling into poverty.

The pandemic has also led to a steep increase in violence against women and girls. With lockdown measures in place, many women are trapped at home with their abusers, struggling to access services that are suffering from cuts and restrictions. Emerging data shows that, since the outbreak of the pandemic, violence against women and girls – and particularly domestic violence – has intensified.

7 AFFORDABLE AND CLEAN ENERGY



The world is making progress towards Goal 7, with encouraging signs that energy is becoming more sustainable and widely available. Access to electricity in poorer countries has begun to accelerate, energy efficiency continues to improve, and renewable energy is making impressive gains in the electricity sector.

Nevertheless, more focused attention is needed to improve access to clean and safe cooking fuels and technologies for 3 billion people, to expand the use of renewable energy beyond the electricity sector, and to increase electrification in sub-Saharan Africa.

The Energy Progress Report provides global dashboard to register progress on energy access, energy efficiency and renewable energy. It assesses the progress made by each country on these three pillars and provides a snapshot of how far we are from achieving the 2030 Sustainable Development Goals targets.

8 DECENT WORK AND ECONOMIC GROWTH



Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards.

COVID-19 has disrupted billions of lives and endangered the global economy. The International Monetary Fund (IMF) expects a global recession as bad as or worse than in 2009. As job losses escalate, the International Labor Organisation estimates that nearly half of the global workforce is at risk of losing their livelihoods.

Even before the outbreak of COVID-19, one in five countries – home to billions of people living in poverty – were likely to see per capita incomes stagnate or decline in 2020. Now, the economic and financial shocks associated with COVID-19—such as disruptions to industrial production, falling commodity prices, financial market volatility, and rising insecurity—are derailing the already tepid economic growth and compounding heightened risks from other factors.

13 CLIMATE ACTION



2019 was the second warmest year on record and the end of the warmest decade (2010- 2019) ever recorded.

Carbon dioxide (CO₂) levels and other greenhouse gases in the atmosphere rose to new records in 2019.

Climate change is affecting every country on every continent. It is disrupting national economies and affecting lives. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme.

Although greenhouse gas emissions are projected to drop about 6 per cent in 2020 due to travel bans and economic slowdowns resulting from the COVID-19 pandemic, this improvement is only temporary. Climate change is not on pause. Once the global economy begins to recover from the pandemic, emissions are expected to return to higher levels.

Saving lives and livelihoods requires urgent action to address both the pandemic and the climate emergency.

The Paris Agreement, adopted in 2015, aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. The agreement also aims to strengthen the ability of countries to deal with the impacts of climate change, through appropriate financial flows, a new technology framework and an enhanced capacity building framework.

15 LIFE ON LAND



Nature is critical to our survival: nature provides us with our oxygen, regulates our weather patterns, pollinates our crops, produces our food, feed and fibre. But it is under increasing stress. Human activity has altered almost 75 per cent of the earth's surface, squeezing wildlife and nature into an ever-smaller corner of the planet.

Around 1 million animal and plant species are threatened with extinction – many within decades – according to the 2019 Global Assessment Report on Biodiversity and Ecosystem Service. The report called for transformative changes to restore and protect nature. It found that the health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever, affecting the very foundations of our economies, livelihoods, food security, health and quality of life worldwide.

Deforestation and desertification – caused by human activities and climate change – pose major challenges to sustainable development and have affected the lives and livelihoods of millions of people. Forests are vitally important for sustaining life on Earth, and play a major role in the fight against climate change. And investing in land restoration is critical for improving livelihoods, reducing vulnerabilities, and reducing risks for the economy.

The health of our planet also plays an important role in the emergence of zoonotic diseases, i.e. diseases that are transmissible between animals and humans. As we continue to encroach on fragile ecosystems, we bring humans into ever-greater contact with wildlife, enabling pathogens in wildlife to spill over to livestock and humans, increasing the risk of disease emergence and amplification.

17 PARTNERSHIPS FOR THE GOALS



The SDGs can only be realized with strong global partnerships and cooperation.

A successful development agenda requires inclusive partnerships — at the global, regional, national and local levels — built upon principles and values, and upon a shared vision and shared goals placing people and the planet at the centre.

Many countries require Official Development Assistance to encourage growth and trade. Yet, aid levels are falling and donor countries have not lived up to their pledge to ramp up development finance.

Due to the COVID-19 pandemic, the global economy is projected to contract sharply, by 3 per cent, in 2020, experiencing its worst recession since the Great Depression.

Strong international cooperation is needed now more than ever to ensure that countries have the means to recover from the pandemic, build back better and achieve the Sustainable Development Goals.



