

Economic Empowerment of Women in Malawi through Green Brick Making



The setting up of a pilot Vertical Green Brick Kiln (VSBK) in Malawi to arrest deforestation and provide good quality bricks has opened up employment opportunities for women in the brick-making sector.

The project was implemented by Development Alternatives and funded by the Government of UK's Department for International Development (DFID). Under the project, one pilot kiln was set up, creating jobs for 145 persons, including **50 women**.

Estimates indicate that there is potential to set up **1,000 VSBKs** to meet the brick demand. This could translate into jobs for **50,000 women**. Most rural women in Malawi work as subsistence farmers, with low wages and minimal land ownership.

This technology has potential to provide employment opportunities to women in other African countries as well.

About Virtual Shaft Brick Kiln (VSBK)

VSBK is an energy efficient technology for brick production. Greenhouse gas emissions are less, making it an obvious choice for the carbon market. No burning of wood is required. **Compared to traditional bricks, VSBK bricks**

- Use **half** the energy and are **twice** as strong
- Reduce deforestation: **30 tonnes** of fuel-wood are saved per 100,000 bricks
- Have potential to **cut** greenhouse gas emission
- Save **20-30%** on construction costs per housing unit.

The potential of VSBK

Estimates indicate that 1.7 billion units of burnt clay bricks will be annually required for walling alone to meet the increasing urban demand in Malawi. If traditional brick making methods are used, this volume will be produced at the cost of 850,000 MT of wood. At this rate, **Malawi was staring at complete deforestation in 30 years.**

This technology has the potential to transform the housing sector by creating supply of Improved and consistent quality bricks. This technology also gave **opportunities to train women and deepen their engagement in the construction industry.**

Formula for successful technology transfer

Market assessment report

Engagement of all stakeholders

Identification of appropriate entrepreneur

Identification of appropriate technology and technology transfer partner

Capacity building through structured trainings, manuals and exposure visits

Piloting the technology and trouble shooting

Involvement of government for policy influencing

Outcomes after one operational year in Malawi

- Women employed: 50
- Monthly salary: MK 45,000 (USD 60), **Three-fold increase**
- No. of jobs created: 145
- Fired bricks produced: 800,000
- Bricks sold: 590,000

VSBK potential in Malawi

- Creation of more than 1,000 small to medium enterprises
- Employment opportunities for 50,000 women
- Annual saving of fuel wood: 850,000 tonnes
- Improved quality housing and 40% cost savings from bricks and mortar
- Poverty reduction through job creation

Women's Voices



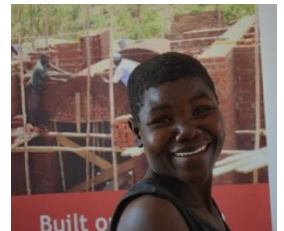
"I am 27 years old and this is my first job. I really like to work with machines and want to explore the brick sector."

To acquire a job in a country where the Human Development Index is 0.414 (UNDP, 2013), Elita Kwisongole considers herself to be fortunate.

Through her salary, she supports her family and takes care of her grandfather. Her life exemplifies the increasing number of women preferring to work in the construction sector. Brick making in Malawi has always been male centric. Women are seen working on fields or at small road side shops, besides their daily household chores and responsibilities. Breaking the gender bias in the construction sector and getting trained in a new technology Elita testifies the efficiency and capability of women in this domain.

Ruth aged 37 works at the Vertical Shaft Brick Kiln (VSBK) in Mthyoke, Malawi. "All my life I have been taking care of my family. I was married at the age of sixteen...this is my first job," says Ruth. "Today I am economically empowered and take my own decisions in life. I am investing in agricultural fertilisers and buying construction materials to build a house of my own."

"I have been associated with VSBK since the time the foundation was laid. I have seen it grow gradually. It is now an integral part of my life, supporting me and my family"



Informs **Iness Chimpeni**, "I had a business of my own, where I used to sell doughnuts and earn MK 5,000

"I would like to have my own brick business, but not the regular type of kilns that I see. There are for men. In the future I will have my own small VSBK, producing and selling bricks and even building houses"

per month." After seeking employment in the VSBK kiln, 21 year old Iness earns MK 45,000 per month. Residing with her family at Satzima village near the VSBK site she explains, "I live with my parents, seven sisters and one brother. Although I did complete my primary school I couldn't pursue secondary education as it was not only supports her family but also invests in

She grows tobacco, groundnut and other vegetables in her field. "I invested in fertilisers and rearing pigs to generate extra income. It helps me lead a life of independence," says the budding entrepreneur.



Women at work in the VSBK kiln, Malawi

KPP is a South-South cooperation programme promoting knowledge sharing in the areas of Food Security, Resource Scarcity and Climate Change; Health and Disease Control; Trade and Investment; and Women and Girls. KPP is funded by the Government of UK's Department for International Development (DFID) and managed by a consortium led by IPE Global Limited under its Knowledge Initiative. The main objective of KPP is 'Gathering and uptake of evidence on issues central to India's national development that have potential for replication in LICs and impact on global poverty'.



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