

HIGH FIVE CLUB

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Alternative Fuel Initiative, Luangwa Valley, Zambia

Background to the area and it's people: The Luangwa Valley is in Zambia's Eastern Province and is home to world-famous South Luangwa National Park, one of Africa's popular wildlife safari destinations. The people who live there are of predominantly Kunda tribal origin. Other smaller ethnic groups in the area include the Senga, Chewa and the Besa. It is estimated that circa. 50,000 people live in the Lupande Game Management Area, the residential area that borders the national park.



Despite the popularity of the valley for tourism, the majority of people still live in abject poverty. Literacy levels are low, especially amongst women, and few villagers can afford to take preventative measures against malaria such as mosquito nets. In the rainy season the prevalence of malaria amongst the community, particularly children, the elderly and those with compromised immunity

(HIV), is extremely high. Many die of this treatable illness. HIV infection levels in the area are high (circa. 40%).

Few people in the area have formal employment, particularly the women, so most survive on a hand-to-mouth basis as subsistence farmers growing maize and vegetables for relish. The area is very prone to floods in the rainy season and this is making food security an increasingly difficult issue as people's crops are often wiped out during this period. Food aid is a fact of life amongst these people, as is the ever increasing human/wildlife conflicts (particularly from elephants) seen as the local conservation authority (ZAWA) improves conservation measures in this protected area and wildlife numbers increase. This is great for conservation and tourism, but is a growing threat to local people as wildlife eats their crops (a single elephant can eat a person's entire maize field in one night, thereby destroying their food security for the next 6 months) and injures and kills their families.

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Overall purpose of initiative:

- To develop briquettes as an alternative cooking/heating fuel source to firewood in the Luangwa Valley, Zambia, starting with a pilot in 2 villages in Mnkhanya Chiefdom, Mfuwe.
- To sell 'surplus' briquettes to tourism businesses in the area, thereby generating an alternative income generating enterprise for the local women.

Need for initiative: There is much damage being caused to local forests and trees in the Luangwa Valley in Zambia as a result of the daily collection of firewood for fuel by the local women. Additionally, the women responsible for firewood collection are increasingly coming into direct contact, and conflict, with wildlife (particularly elephants) on their daily firewood forays. The women report that they also have to travel much greater distances to collect firewood (because of the deforestation caused by their activities), which is taking them away from their other duties in the village. Critically, the area is incredibly poor with less than 10% of the local community in formal employment (less than 1% of women).

The women in Chief Mnkhanya's area (around Malimba village) have asked for assistance from the High Five Club in acquiring the 'know how' and equipment to manufacture fuel briquettes from waste paper, dry leaves and water in their villages, as an alternative fuel source for their daily cooking needs. Additionally, they have requested support in establishing a briquette-making business whereby they could sell any 'surplus' briquettes to safari lodges in the area as a new livelihood strategy linked to tourism. Many of the lodges currently use firewood for heating the water that supplies clients' rooms and also in their staff accommodation, and this could easily be replaced with briquettes.

This initiative is a natural fit with the High Five Club's objectives of supporting sustainable alternative community livelihood strategies. Seed funding is hence being provided to purchase 2 briquette making machines for 2 pilot village in Mnkhanya Chiefdom and Cheryl and Manny Mvula (High Five Club Founders) will train the women in the village in how to make briquettes on their planned visit to Zambia in July (Manny himself is from this Chiefdom).

Cheryl has successfully trained 200 Maasai women in the Masai Mara, Kenya in briquette making earlier this year as part of her community development work there funded by the UK Travel Foundation.

Cheryl and Manny will also facilitated dialogue between the women and the safari lodges in the area re the sale of excess briquettes and the supply of waste paper from the lodges to the villages, which is essential for briquette production, as is water, along with instructing the women on record

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keeping for their briquette making enterprises so that data can be collected on the scale of production of briquettes, the number of firewood collection runs (and quantity of firewood) that have been replaced by briquette making (hence carbon reduction calculations can be made over time) and the sale of excess briquettes to tourist lodges and others. This system will continue into the future so that the villages can monitor their enterprises effectively.

Cheryl and Manny will link with ZAWA'S CBNRM (Community Based Natural Resource Management) unit in delivering this initiative, so it's community liaison officers can support the community with this initiative into the future to ensure it's sustainability.

High Five Club support:

1. Two briquette-making presses and all the necessary accessories (pistons, mortars and pestles etc.) will be manufactured by hand in the Luangwa Valley and purchased for the community briquette-making enterprise.
2. Cheryl and Manny will conduct a training workshop in briquette making in the community during an already planned visit to Zambia in July. There are hence no costs associated with the training nor in the work they will do facilitating business links between the women and the safari lodges in the area to sell the surplus briquettes. In addition selected ladies who show the aptitude will be given extra tuition so they can train others in the community at a later date.
3. Cheryl will help the women set up the initiative as a community enterprise with women involved in the production earning a good daily wage and with a contribution of the proceeds set aside for community development projects in the wider area. ZAWA'S CBNRM Unit will work with the women to cement this enterprise.



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Photos taken of Cheryl's training workshop held in the Masai Mara, Kenya – we will replicate this in Zambia



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Future potential of initiative:

- Over time the aim of the community's briquette-making enterprise will be to build production capacity to 800 briquettes in one morning (4 hour period) using the 2 presses – as is being achieved in other villages trained in this technology in East Africa. This will involve a team of 6 women working each press.
- Once the women in the villages have built up their experience working the presses and have reached target production they will have surplus production in excess of their own needs. These briquettes will be sold to external users (safari lodges, local organisations and other villages) at 500ZK per briquette (40,000ZK per 50kg sack – 80 briquettes) i.e. £5 a sack. At full capacity 5 sacks can be produced on one press in one morning by 6 women generating a potential income of £25 for the community. Compare this with local labour rates, which are in the region of £1-1.50 a day.
- **For a total spend of £450 this initiative offers excellent value for money for the High Five Club and it is hoped that it can be replicated in other villages in Zambia and elsewhere in the future. This support has been made possible through a combination of H5C Members' monthly donations along with a top up from Luangwa Valley loving H5C Members Maura and Fred Dahnken-Madsen and their friends. Thank you so much!**

For further information on this initiative contact Dr Cheryl Mvula at cdmvula@aol.com