



Heroine of hope

by Mike Quinn-contributing writer

The heat here is unbearable. I was warned about Southern Zambia in October at the end of the dry season, but this is too much. My skin is cracking and my mouth is crying out for water, which I am unable to find because I am in the middle of a caked farmer's field five kilometres from the only water source in the area. I swear I'd drink river water if I could find it and chance the dysentery, but the rivers are dry. Just to make me aware of the competition, the empty water bottle attached to my backpack is swarming with wasps as if it were a Coke can. They, too, are being pushed to their limits.

Yet Patricia Lumano, walking ahead of me, seems unfazed. Her slender face and vibrant smile radiates from her grandmother-like features nestled below a white headscarf. A yellow, red, and blue patterned cloth called a chitenge is wrapped around her waist like a skirt, as is the custom for a Zambian woman. A cool, blue blouse, no doubt rescued from a used clothing market in the nearby town of Livingstone, is tucked into her chitenge, completing her proud appearance.

"Your people are not used to the African sun," she laughs as I rub sunscreen on my face and neck. Damn this heat, my neck is already burnt.

Lumano, who lives in a drought-ridden place called Sikaunzwe along the southern border of Zambia, laughs again as I suck the last drop of moisture out of my water bottle. In the two days I've spent with her, I haven't seen her take one sip of water yet she seems to be two steps ahead of me, skipping down the dirt path to her farm.

"How do you manage to find time to spend in your fields with all your other commitments?" I ask. "I mean, you seem to always be at community meetings and entertaining visitors like me, yet you are weeks ahead of all the other farmers we have visited." Most have yet to start clearing the brush from their fields while Lumano is only waiting for the first rain to plough behind her two oxen.

"I want to set a good example for other farmers," she replies. "When I go to the farm, I make sure I really work. I start early, at 4:30 am, and I also work in the afternoon when others are resting."

I drag my feet behind in exhaustion, on the verge of collapse.

"I think I need to go back," I reply. "I might collapse if I don't drink some more water soon."

We reach Lumano's field, a stone's throw from one of Zambia's four major paved highways. Her face beams with pride as she shows me her two- hectare, dried-up farm, nearly ready for planting with the exception of a few scattered thorn bushes that will be burned in the coming days. A mirage forms off the black loamy soil as we race toward the only shade provided by the Mukwa tree in the field's centre. The heat is almost audible, as if an electrical power line were buzzing overhead. Otherwise, the backdrop is void of people, sound and colour. Everything is brown and dead.

And who am I? I am a UBC mechanical engineering graduate, here in Zambia on a 16-month volunteer placement with Engineers Without Borders. It's my second placement with EWB, and in this go-around I am trying to convince impoverished smallholder farmers, who eat only what they can grow, to diversify their one-crop menu and start growing a drought-resistant cereal crop called sorghum. But I have learned that I can do nothing without Lumano. She is my backbone, motivation, defence against the heat, and key holder to the fight against hunger in Sikaunzwe. A foreign development worker in rural Africa is a lost soul without both a cultural informant and local champion to take ownership of a project. Without someone like Lumano, there is no hope. But with her, change is not only possible-it might be just around the corner.

I only hope I can keep up with her.

Lumano has spent her life as a subsistence farmer living off the land in rural Zambia. Her home is typical of rural Africa. There are three mud and stick structures with thatched roofs that people sleep in, a grain silo, a chicken coup, an outdoor shower, and a pit latrine. A central round structure houses a newborn dairy calf. Two charcoal braziers are placed on the ground, still smoldering after cooking nshima, and a pile of dishes is stacked next to a bucket of water.

Merely surviving here is tough, and farming is tougher. Tractors are replaced by oxen for those who have them. For those who don't, everything is done by hand, which limits the average size of a plot to around one hectare. Few farmers can afford fertilizers and pesticides, let alone vaccinations for their cattle, resulting in a dramatic loss of livestock to disease. Most of the labour is done by women, and the men tend to marry multiple wives who have many children to meet the labour requirements for their fields. Everyone depends on the rains, which starve their crops in drought years and flood them in good ones. Last season's drought was the worst in a decade. A nearly 100 per cent maize crop

failure crippled the farmers of Sikaunzwe, who rely on the annual harvest for most of their income and all of their food. Many have fallen into destitution and lives are at risk.

When I ask Lumano her age, she looks at the sky and ponders for a moment. "I think 1948," she replies, illustrating the relative insignificance rural Zambians attach to dates versus age. That would make her 57 years old, give or take, which is 24 years past the average Zambian life expectancy because of an AIDS pandemic. She lists off her leadership achievements in the community. She is the chairperson of the local Area Management Committee, which oversees all development projects and the distribution of food relief in Sikaunzwe's three dozen villages. She is also the vice-chairperson of the Sikaunzwe Multi-Purpose Cooperative, which was formed with the assistance of CARE International, a non-governmental organization managed by CARE Canada that EWB has partnered me with. On top of all that she is a mother of six grown children and the only wife to an elected politician in the local level of government.

Zambia is a male-dominated society. Women are the secret backbone of rural Africa, providing the majority of household and farming labour while carrying babies, both on their backs and in their bellies. But their voices are repressed. In contrast, Lumano's rings out loud and clear. In the early stages, when we were signing up volunteer farmers to participate in our project, some men demanded they be placed on the list to receive free seeds, even though they had ignored the initial sign-up period. Before I had a chance to respond, Lumano jumped in front of me. "We will not consider you until everyone on the list has received seeds and you prove to us that you are serious farmers," she told them. It wasn't what she said that was groundbreaking, it was the fact they listened to her.

Getting farmers to grow sorghum is no easy task, and it's no secret that Zambians like their maize. It's the sole ingredient in their staple food called nshima. There is a common saying here that if you haven't eaten nshima, then you haven't eaten at all. I have a neighbour in Livingstone who turned down what I thought was a delightful pasta meal I made for the Zambian family I live with because I failed to include nshima. I find this infatuation with nshima baffling because it is odourless, tasteless. The flavour of Zambian cuisine comes from the relish that accompanies the nshima, yet the relish can be substituted at will without any complaint so long as there is adequate salt for the salt-crazed Zambians to drench it with.

It wasn't always like this. Sorghum was the crop grown in Sikaunzwe prior to Kenneth Kaunda's government, which replaced the British colonialists at the time of independence in 1964. Kaunda wanted to unite the infant republic's 73 tribes, and picked English as a common language and maize as a common crop. He succeeded in his aim, as Zambia has never experienced a coup or war, which is a lot more than most of its eight neighbouring countries can say. But farmers abandoned traditionally grown crops in exchange for dreams of getting rich from maize. The government indulged them by handing out free fertilizer and seeds and setting up massive state-run infrastructure to purchase and store maize. Years of economic decline followed, along with eventual market liberalization that halted the subsidies and climate change that affected rainfall patterns. Now the farmers must diversify away from maize because they can no longer rely solely on it.

Today, Lumano and I are visiting farmers near her home in Zambwe village. Zambwe is 90 kilometres from Livingstone and the thundering natural wonder of the world, Victoria Falls. After parking my Honda 125cc motorcycle, we set off on foot so that I can get a better perspective of the place. The village is tiny, with a few mud and stick huts and empty grain silos grouped together and surrounded by dried-up farmland. The stillness is broken by a scrawny dog that takes a break from its slumber to acknowledge our presence with a yelp. But it is short-lived; a child promptly throws a stick at him and he retreats to the shade and flops down. The lack of water has forced most people to migrate with their cattle to the Zambezi River 20 kilometres away. They will return in the coming weeks when the rains start falling, once again missing out on the crucial early rains and relying on fate for a decent harvest in April. Life is slow and simple, yet everyone seems busy. Women wash clothes, prepare meals, sweep the dirt in front of their huts. Chickens wander around until a human hand threatens to smack them away. This is a village in Africa.

We approach a group of farmers waiting for us under a tree. They are separated along gender lines—the women sit on the ground on one side and the men in plastic lawn chairs on the other. I make a presentation. Lumano fills in the gaps caused by my poor ability in Lozi, their language, and their basic English. Lack of trust is apparent. I am immediately asked by one of the men why I have not been seen in the past month. I explain that the fuel crisis that has gripped the entire nation has left my motorbike gas tank empty and grounded me in the office in Livingstone, but I can tell he remains skeptical.

After I tell the farmers we have secured a sorghum market and guaranteed price for this coming season, an old, tough grandmother with penetrating eyes pipes up in Lozi and addresses the crowd.

"What you say today will be different tomorrow," she says. "CARE will cheat us."

The old grandmother has a right to her concern. Last year, these same farmers were involved in a similar project under CARE that failed because they couldn't sell the sorghum they produced. Farmers were encouraged to grow without establishing a guaranteed market. When a buyer was found, the price was very low and most of the sorghum was rejected because it was of poor quality. The cooperative was also bypassed in favour of an informal farmer's association that was not properly trained in quality control and accountability. Farmers got angry when they weren't paid. Accusations of corruption circulated within the farmer's association. One of its leaders was jailed for a week.

But Lumano, who speaks elegantly and passionately, offers motherly reassurance. There is silence when she speaks and she revels in the limelight. She steps forward and explains how the cooperative, not CARE, will purchase the sorghum from the farmers, and that I have come to help them become more self-sufficient and no longer reliant on food relief. I also do my best to ease everyone's concerns, and explain how Zambian Breweries signed a contract with Lumano's cooperative to buy 100 metric tonnes of sorghum for its

new Eagle beer. This is a modest amount that the cooperative farmers can produce and only a fraction of the total demand. Our message is heard.

After the presentation, we walk another kilometre to Bbilibisi village to visit a farmer named Geoffrey Nawa. He is a quiet man wearing a black T-shirt and earthy denim pants who claims to have been born 10 years later than Lumano. He immediately fetches us two plastic lawn chairs, as is the Zambian custom to accommodate visitors, and we sit under the shade of a tree next to a few mud huts. An unlucky and bony chicken is snatched up by his wife, who leaves to prepare nshima for us.

Lumano identifies Nawa as one of the project's lead farmers because he sees the potential for sorghum and is anxious to plant it. I'm not sure what to think of him because of his wide bloodshot eyes and the strong smell of alcohol on his breath. The rate he is consuming local opaque beer during our conversation does nothing to alleviate my concern. But he is also insightful.

"If you offer me an airplane for free then I'm going to accept it, but this doesn't mean I want it or know how to manage it," he offers when I probe him about the culture of dependency in rural Zambia and the development industry's tendency to solve complex problems with simple technological handouts. "What I really need is a bicycle because I know it costs 20 pin [20,000 Kwacha or \$5] for a tire and I know how to repair it. But if you give me an airplane I won't refuse."

He thinks of this project as a bicycle because we are giving him free seeds. As a farmer he knows what to do with them. He has also seen how well sorghum grows in Sikaunzwe and is coming off of a season where he didn't harvest a single cob of maize.

"Why didn't you grow sorghum before?" I ask.

"There was no market," he replies. "But now you have brought us the market and the seeds so farmers will grow."

His optimism resonates with the vast majority of the farmers I have visited, contrary to what I was expecting given the failure of last year's project. And with the cooperative to control for quality and market the sorghum, the chances of success this year and sustainability in the future are much higher.

It will take a few months yet to determine if we are successful or not with this group of test farmers as the growing season stretches into late March. The stakes are high given the increasing severity of the hunger crisis in Sikaunzwe. I have been told by experienced colleagues within CARE that it takes farmers three consecutive years of success to change a habit or tradition. In the meantime though, we will try to build momentum and steadily increase the number of farmers who adopt sorghum as a regular crop while focusing on improving yields and quality.

Our task in the coming months will be to train the farmers to meet the quality requirements demanded by Zambian Breweries. I will also be training Lumano and the cooperative executive in simple business and entrepreneurship skills so that they become better equipped to market their crops in future years without my or CARE's assistance.

Lumano's leadership is the key. By building local leaders within the cooperative and ensuring that the cooperative operates profitably, farmers in Sikaunzwe will gain more control over their lives.

And Lumano is confident the farmers won't disappoint. "They will grow it," she says about the sorghum. "The price is fair and CARE has given them the seeds."

Founded in 2001, Engineers Without Borders Canada has sent over 150 volunteers overseas and has a national membership of over 10,000 members at chapters across the country, including three chapters in the Lower Mainland.

To learn more, see www.ewb.ca.