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Fermented Food for Life: Stories of Inspiration, Struggle & Success

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FERMENTED FOOD FOR LIFE

*Stories of Inspiration,
Struggle & Success*



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ABOUT

FERMENTED FOOD FOR LIFE

“Fermented Food for Life” project aims to improve food and nutrition security by increasing local production, distribution and consumption of health-promoting probiotic fermented yoghurt in Kenya, Tanzania, and Uganda, targeting to reach 250,000 consumers in the three countries by its end in June 2018. A pro-poor value chain-based business model was identified as a common approach to achieve project’s main objective. In Uganda, over 100 production units of probiotic yoghurt are up and running across the whole country reaching at least 60,000 regular consumers. The project supported also the establishment of 58 production units in Tanzania and 37 in Kenya, producing in total around 14,000 litres of probiotic yoghurt per week. In Tanzania and Uganda, 56% of production units are owned by women, and 68% of all people involved in probiotic yoghurt production and sales are female. The project has also provided a unique opportunity for employment of rural youth involved in the distribution of yoghurt. Partners in project’s implementation include Heifer International, Jomo Kenyatta University of Agriculture and Technology, University of Western Ontario and Yoba for Life Foundation. The project is undertaken with the financial support of Canada’s International Development Research Centre (IDRC), www.idrc.ca and

the Government of Canada, provided through Global Affairs Canada (GAC), www.international.gc.ca”.

The Research Drivers

Research is the centerpiece of the FFFL project. It spans across many areas

- Creating a business model that can be used around the world to promote probiotic fermented food production, through gender equality.
- Experiments showing that the probiotic bacteria not only reduce aflatoxin uptake after consumption of contaminated corn, but they can actually degrade these toxic compounds that cause cancer and death.
- Developing ways to use the Yoba and Fiti sachets to produced probiotic fermented grains with high nutritional properties.
- Engaging students from Africa with those from Canada and The Netherlands to improve processes along the value chain and verify progress.
- Create case studies that not only help African communities and support the embedding of fermented food in national food guides, but which also provide important lessons for Canadians.

**OUR WORK IN
TANZANIA**



OUR WORK IN KENYA

These maps show areas of Kenya and Tanzania where production units are being established. The aim is to reach over 100 units making Fiti and Yoba.





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Stories of Inspiration, Struggle & Success

FROM A SCHOOL DROP-OUT TO SUCCESSFUL ENTREPRENEUR

Jovlet Kashemeza, 40, is happily married to Joram Kashemeza, a resident of Ishongororo town council, and is the mother of six children. She is a well-known farmer, producer and supplier of yoghurt in Ibanda district.

Dark Days

Life has not always been good for her. Jovlet dropped out of school after primary 7 and was forced into marriage by poor parents. She started exploring business opportunities and, in 2015, she established a small shop at Atano Namunana in Ishongororo's trading centre to sell soft drinks. She could barely make ends meet, much less make enough to pay for her children's school fees and home improvement expenses.

As a shop attendant, she sustained life with basic needs like food and shelter, but was not sure she would ever achieve her dreams of becoming a successful entrepreneur. Often, she went to bed with an empty stomach.

Then, her life began to change as she explored dairy farming. Jovlet says that although she has learned much from the East African Dairy Development program (EADD) run by Heifer International, the turning point was when she attended a training workshop on value addition in September 2015. This was led by Fermented Food For Life trainer, Nicke Westerik, who taught Jovlet how to ferment raw milk into yoghurt using Yoba sachets.

Jovlet Meets Success

She joined the Ishongororo Cooperative Farmer's Society and participated in training on the 12 Cornerstones through EADD. She focused on Passing on the Gift®, Gender and Family Focus, Animal Health and Nutrition, milk production, pest and disease control, commercial farming, and how to run a successful business enterprise and in yoghurt production.

According to Jovlet, the training in value addition was enriching and relevant to her household work in dairy farming.

“From this training, I zeroed on production and marketing of yoghurt, which has surely changed my life,” she says. “I am no longer the other simple P.7 school dropout. I now produce 1,500 litres of yoghurt weekly, and supply 100 litres of yoghurt weekly to four schools (25 litres per school) in Nyakatukura SSS, Citizen SSS, Ibanda Secondary and Kibubura girls' school. I also supply yoghurt to major restaurants, Pride, Parental, Diners hotel, and Pamoja in Ibanda town. I have been able to do all this because of the support that I get from my husband, Joram Kashemeza, and our children.”



Introduction

“My husband Joram, initially supported me with 50 litres of milk, and a 50-litres milk can. He was able to give me this support for six months, until my business stabilized.”

As an active member of Amakamarungi Dairy Interest Group, she received support from FFFL with a thermometer, lactometer and a stamp.

Jovlet supplies 5 litres of milk daily to Ishongororo Dairy cooperative society and has continuously supported her husband to remain an active member of Ishongororo PO. He supplies the PO with 200 litres of milk daily. Jovlet has used the profits from the yoghurt business to purchase a plot of land in Ishongororo town council worth nearly \$1,900 USD, or UGX 7,000,000. She also pays for school and university fees for her children and supports her family with daily basic needs.

In July 2017, Jovlet purchased a new motorcycle to support her yoghurt business. She uses it to transport raw milk to Ishongololo PO and yoghurt products to the different market centres in Ishongororo and Ibanda town centres. At the community level, Jovlet has mobilized 30 women to form the Amaka Marungi Dairy Interest Group, registered with Ishongororo Farmers' Cooperative Society, and she has bought a group share.

Jovlet is passing on her skills in yoghurt production and marketing to all the members and youth groups in Ishongororo sub-country. She is also a leader at Kigando Church of Uganda. “The success so far in the production and marketing of yoghurt has enabled me to become a PO Board member as Secretary for Women, an advisor on business development matters,” she says.

Jovlet's Advice

“Love your husband and encourage them to support all your programs,” she says. “Involve children in family projects for purposes of sustainability. Besides training other women, I have also trained all my six children in farming, yoghurt production and marketing. They are now the main source of labor for our family business.”

Future Plans

Dry spells affect milk production and she hopes one day that cereals and juices can be fermented using the probiotic sachets. Jovlet is hopeful of one day constructing a yoghurt factory in Ishongololo town on the land she has purchased. The site plans for the proposed factory have already been submitted and approved by Ishongororo town council authorities

“I am no longer the despised Primary Seven - dropout, but rather a prominent Yoghurt Business Lady”

THE TUKWAMUANE PIONEERS

A story of faith, incredible willpower, and an unstoppable motivational spirit



A pioneer by definition is “to be the first to use or apply a new method, area of knowledge, or activity”.

The Tukwamuane women of Mwanza, Tanzania, are truly the pioneers of our fermented food for life program. They stepped forward in 2004, not knowing us at Western Heads East (Western University, Canada), not knowing probiotics, not sure what we were proposing in terms of their lives. But, they had faith, incredible willpower, and an unstoppable motivational spirit.

Fourteen years later, their impact is being felt across the continent, and through our partners, Yoba-for-life, to other parts of the world.

If what we do does not become personal, we are not doing enough nor the right things. So, when we hear how this has changed lives, of our young students, our faculty and



staff, but most of all the women we serve in Africa, then we know good things have come from our science and ideas.

“I had a small business where I sold clothes. I also sold fish at the market sometimes to make extra money. Later I worked in a Hotel. Now I work at the Jiko La Jamii (Community Kitchen) and I am able to learn many things. I have been able to study business practices, produce probiotic yogurt, and to work with the community. I am a representative that assists in preventing and reducing discrimination against people

who are sick with HIV/AIDS, or people who are different in any way.” – Asha Mohamed.

“I went to Kivulini so that they could help me move forward with starting a good business so that I could support my family. They provided me with some business training. We can all be healthy because we eat the yogurt and I make a small amount of money to buy clothes and notebooks for my children to go to school. The students from Canada are great because they help us with project ideas to expand our business.” – Hawa Rajabu.

“I am helping with all aspects of this project. I am also the kitchen supervisor so I make sure that all tasks are being carried out by the group. I have acquired so many skills and I get to get lots of experience in business. This yogurt project/business is so good for the health of my family and the community, everyone benefits. I feel good because every day I can express my ideas and thoughts and we get to make choices and decisions to run our own yogurt business. This experience has allowed me to be open to other cultures and to meet many people. Since I make a small income from the project, it helps me and my family economically. I do not like to sit around and do nothing; this project gives me lots to do and lots to learn. I am very happy to be involved with this project!” - Sabina Joseph



AMAZING TRAILBLAZERS EMPOWERING WOMEN, GIRLS AND MEN ALONG THE VALUE CHAIN

Three women whose lives have been changed by the Fermented Food For Life (FFFL) program, and whose efforts are emblems of empowerment and hope.

Seven years after being awarded the Tanzanian Woman of Courage by the U.S. embassy, Maimuna Kanyamala continues to plot new paths for women and girls in Africa. It was her leadership in Kivulini Women's Group that led to the first community kitchen producing Africa's first probiotic yogurt in 2004. Now, as the founder of Mikono Yetu (Joining Our Hands), she is continuing her crusade to address gender inequality in land ownership and economically empower women and girls.





Maimuna Kanyamala



Dr. Jaimie Hemsworth



Nieke Westerik



When you meet her, you see her humble mannerism, hear her carefully worded wisdom, and feel her incredible determination. She empowers and impresses all who meet her. Not fazed by impossibilities, she is a reflection of John F Kennedy's famous words, "ask not what your country can do for you, ask what you can do for your country."

Because of the sachets that are integral to the FFFL program, Maimuna plans to build the Fiti Training and Production Centre in Mwanza, Tanzania, employing hundreds of women, producing hundreds of litres of probiotic yogurt per day, and hosting a museum showing the trail-blazing steps that helped us reach this milestone.

Dr. Jaimie Hemsworth has such a vibrant smile and positive attitude to life, she lifts everyone she meets. In 2007, she was an intern of Western Heads East, spending months in Tanzania as part of her Masters in Nutrition Science at Brescia College in London, Ontario. She performed clinical studies in Mwanza and London to show the benefits of Fiti probiotic yogurt for HIV/AIDS patients.

The experience changed her life. She went on to complete a PhD at the famous London School of Hygiene and Tropical Medicine, working on a dietary intervention for infants at risk of undernutrition in Malawi. Partnering her was physician scientist Dr. Ruben Hummelen,

another of Western Professor Gregor Reid's students who worked on Fiti in Mwanza. The collaboration between these two incredibly smart students, led to more than science – their marriage. Along with it, came a commitment to serve vulnerable populations, so much so that they moved to Northern Ontario, having the opportunity to work for remote indigenous communities to grow their capacity to deliver health care and nutritional interventions. The footprints they left in the sand, are like many who have followed under the FFFL program, inspiring other women to become leaders.

Nieke Westerik is tall like many Dutch women, but her African accent and fluency in several of that continent's dialects, tells you where her soul lies.

It has been her insurmountable devotion and knowledge that has led to Nieke being an integral trainer in the FFL program, that now has over 100 probiotic production units in Uganda. She is also a PhD student under Yoba-for-life co-founder Dr. Remco Kort (along with Dr. Wilbert Sybesma), and has helped Heifer International and others to set up training manuals, held community sessions across the country, developed illustrative and educational films, all with a wholesome smile.

But, don't be fooled. She is the epitome of high ethical and operational standards, so don't try taking short-cuts with her around! Many women, girls and families owe their future of hope to this young woman.





MAKING PROFITS FROM RETAILING PROBIOTIC YOGHURT

Shifa Chwa A proud business woman at only 35 years of age

Two hundred and twenty kilometers north-west of Uganda's capital, Kampala, Shifa Chwa sits outside her Sasa Supermarket. Located in Masindi Town, Masindi district, this is the biggest supermarket in Masindi Town.

Shifa is only 35 years old, yet already a proud and respected businesswoman. Her supermarket sells a variety of products ranging from cosmetics, toys, electronics, food stuffs and beverages, including non-probiotic yoghurts, made by Jesa and Fresh Dairy. The yoghurts did not sell well.

However, after August, 2016 when Shifa started selling probiotic Yoba yogurt



through the Fermented Food For Life project, that things started to happen. Buyers got to know the immense benefits of probiotic yoghurts, mainly through consumer referrals and yoghurt packaging that informed people that consumption could reduce ulcers, diarrhea and boost immunity in children. Sales started increasing.

Indeed, sales catapulted from a mere 10 (ten) packs a week in 2016 to now 300 packs a week. These packs include 200 pouches and 100 cups of probiotic yoghurt with a volume of 500ml respectively.

She attributes the increase in sales to attractive packaging which competes very well with packaging from big yoghurt industries. She currently sells Kent Fresh Probiotic yoghurt manufactured by Kent Dairy Farm also located in Masindi.

Approximately 80% of the sales are to regular consumers who buy probiotic yoghurt at least once every week. She sells the yoghurt pouch at Shs. 2000 and cup at Shs. 3000, which results in a profit of Shs. 500 per sale. This comes to Shs. 150,000 per week from yoghurt sales amounting to Shs. 600,000 per month. She uses this money to pay her four employees at the supermarket and also cater for some utility bills like electricity.

She is very optimistic about the sales of probiotic yoghurt. “The sky is the limit”, she says. With an aggressive marketing campaign, she forecasts that sales will soar because there are many potential consumers who will respond favorably when they are informed about the health benefits of the Yoba yoghurt, and when they enjoy the wonderful taste.

“I am very grateful to the Fermented Food For Life project, and for the people of Heifer International and Yoba-for-life Uganda, for empowering a local dairy to produce yoghurt locally that enables me to make a good profit. I am proud to sell a product locally made in Masindi for the people of Masindi,” she said smiling from her growing business.

‘A journey of a thousand miles must begin with single step’



AMURIA UNITED FARMERS' COOPERATIVE SOCIETY YOGHURT BUSINESS LEAVES A MARK IN THE COMMUNITY

Improved quality, improved profits, improved health of consumers

In Eastern Uganda (which includes Amuria district), 25% of the children < 5 years of age have been found to be stunted, and 5% wasted (Uganda Bureau of Statistics (UBOS), 2012). Milk production and consumption in this part of the country is alarmingly low.

In response to this, in 2013 Heifer Project International placed 50 cows with farmer groups in Amuria district. The resulting increase in the production of milk led to the constitution of Amuria United Farmers' Cooperative Society (AMUFaCoS) 2014, which helped the farmers in collective marketing of their milk among others. However, the demand for fresh milk was still low in this area, even though the supply was constantly on the rise. It started looking like the placement of cows helped to increase nutritional status, but not the economic status of the farming households.

The cooperative members, however, were not easily defeated. The introduction of the Fermented Food for Life (FFFL) project in 2015 provided a way to develop a new market for dairy farmers, with income for the processors, and a refreshing, healthy product for consumers.

Prior to FFFL project, yoghurt production of 20 liters per day looked promising, though challenging as product quality and safety were not optimal, and the cooperative registered losses every now and then as a result of spoilages. The price of the culture (conventional yoghurt culture) was high, the culture had to be bought from Kampala, which is a 9-hour journey, and this culture had to be kept frozen to maintain its activity. With regular power outages that could last for several days, the production was hampered.

Things turned around for AMUFaCoS when they received training on the optimal production methods and appropriate hygiene procedures from the FFFL staff, in combination with the use of Yoba culture. Grace Asio, production coordinator who has worked with AMUFaCoS since its constitution testifies: 'The improved production methods in combination with the use of Yoba culture have virtually reduced our spoilages to zero. Besides, the quality of our yoghurt has greatly improved. Consumers really like the taste of Yoba yoghurt. As for myself, I never used to take milk or yoghurt, and the previous yoghurt AMUFaCoS used to give me diarrhoea. After hearing all the benefits of Yoba yoghurt, I decided to give it a chance, and now I am a regular customer. I couldn't do without'.

Over the past two years, the production volumes of AMUFaCoS have increased from 20 liters per day to 120 liters per day. The yoghurt is packed in professionally branded polythene bags of 300ml and 500ml and sold at 1000 UGX and 1500 UGX respectively. The smaller packaging size is the most popular. The cooperative has its own outlets in Amuria town and in Lira town (which is over 100 km away!), supplies 15 retail shops in Amuria district, and has two wholesale agents in Abim and Kotido district. Additionally, they do direct sales on market days in different parts of Amuria district for 5 days per week. Ten people (4 women, 6 men) are employed in production, marketing and management. The demand for the yoghurt often exceeds what

the quantity per pack is slightly more. In addition, AMUFaCoS marketeers penetrate new areas by first convincing shop owner to stock their product, then subsequently by recommending consumers go and purchase the yoghurt from that shop. Visitors to the cooperative (which includes district government officials and NGO representatives) are always offered a free pack of yoghurt, and their awareness of the product has opened new doors for AMUFaCoS.

AMUFaCoS has seen changes in their community as a result of the probiotic yoghurt. Grace Asio, the production coordinator testifies: 'I am an important testimony myself. I used to suffer severely from ulcers. If you could just have seen all the syrups and medicine I took in a week to combat that condition... When I heard that Yoba yoghurt could help against ulcers, I decided to try it, even though I did not use to consume yoghurt. And I can testify: since the day I started taking this yoghurt, I no longer needed other medicine and supplements, and I never suffered from ulcers again. I have not even taken a Panadol (painkiller) since. My family members asked me what happened to me'.

There is a similar case of a teacher who participated in the school feeding study. He also testified that after daily intake of probiotic yoghurt for over 5 weeks, he did not feel the pain of ulcers like he used to feel. Other examples include an old man (Mzee) who lives near the production unit and buys two packs of yoghurt each and every day.

He is HIV positive. But since he has been taking the yoghurt, the redness of his lips has reduced, his skin rashes have reduced, he seems to have gained weight, and he is strong enough to walk up to town, which he had not been able to do before. Grace continues "there was also a parent whose child looked sickly, with a swollen belly. I advised the parent to let the child consume yoghurt. The parent has been buying yoghurt for the child every day for the last two months, and the child looks very fine now."

AMUFaCoS' immediate future plans are concerning the issue of supporting farmers to increase production through training and the introduction of improved cattle breeding. Currently, the profits of the yoghurt business have helped the cooperative to expand in other areas: within the past year, the cooperative has opened a restaurant in Amuria town, has bought a car, and is even operating a fuel station which serves motorbikes. Thanks to the probiotic yoghurt production, which is the major activity and the cash cow, and other activities which can be seen as spin-offs of the yoghurt, Grace testifies that 'AMUFaCoS has really left a mark in our community. Everybody has heard of our name. We do no longer have to spell our name when a shop attendant writes us a receipt'.



YOBA, THE “CRAZY” CULTURE

Yoba culture distribution

Michael Byamukama of Dotcom Chemical Investments describes Yoba culture as the “crazy culture” because of its rapid and wide growth by consumers all-over western Uganda. People travel from as far as Kiruhura, Kamwengye and Kibale to buy Yoba culture, because of the Fermented Food For Life project.

Dotcom Chemicals Investments is located in Mbarara district municipality at Liverpool house off Kakoba road.

Dotcom sells between 250 and 300 sachets of Yoba per month. Dotcom makes 450.000 UGX gross profits from Yoba alone per month. Michael is however quick to say Yoba was well-marketed but informing final consumers of the product of the price limit is a challenge.

Other services

Dotcom was selected because he deals in other processing inputs for yoghurt and other products. Ever since he started selling Yoba he has had orders for sweetener, flavours, thickener and packaging material go high. He has made kavera design and ordered for packaging material for two Production Units (PUs), Viema probiotic yoghurt and Sheka Yoghurt brands. These are PUs which don't have enough capital to invest in packaging materials. The PU pays for the plate and Michael invests his own money in the packaging material (12,000UGX/Kg) and the PUs buy from him at 16,000UGX/Kg

Recent developments

Until recently, Michael had refused to purchase Yoba directly from Kampala citing limitations on the sale price by the suppliers. But due to high demand by customers, he contacted Heifer Offices for direct delivery of the sachets to him and he pays the transport costs. He remarked, **"I don't want to lose my customers. Yoba sells more than other cultures here!"**

Yoba yoghurt customers have also motivated Michael to start a packaging material line/shop selling bottles and polyethene papers.

Support to community.

Michael Byamukama now links producers to stakeholders, including trainers, who inform others about the packaging materials, now that Michael has added a packaging material line/ shop selling bottles and polyethene papers.

The business now employs 2 more people as a result of the Fermented Food For Life Yoba yoghurt distribution. That's not crazy, that's cool business!



GENDER EQUALITY AT ITS VERY BEST

“We struggled as wife and husband to make two ends meet. Life was not easy for us. Then we got information about probiotic yoghurt training by the Fermented Food For Life program, and everything changed”.

These are the powerful words of 29-year old Ronald Kyeyune, from Masaka, Uganda.

Ronald was originally employed at MADDO dairies in Masaka but his pay was too low and his new wife – 23 year old Kettie Namayanja had just qualified from a catering course at one of the local vocational training centers. “We decided I would resign from my job in 2010, my wife and I would start selling milk as well as the lovely baked goods she made at our rented house”.

But, in 2013, MADDO dairies got support from Heifer International under the East Africa Dairy Development (EADD) project for some sponsored dairy-related trainings and a friend mentioned that Heifer would soon initiate trainings of farmers in yoghurt making.

“In 2016, a dream came true,” said Ronald, “when I was amongst those thought of for the probiotic yoghurt making. By that time, Kettie and I had accumulated working capital of USD155.6 that we used to invest in our yoghurt business”.

Within just one year, Ronald and Kettie have expanded their business, to an extent that they produce 800 liters per week with monthly net profits of USD482.8. This is triple his investment on a monthly basis!

Kettie said, “we’re proud our yoghurt product, which we named ‘DOVEK Yoghurt’. It is sold in over 50 retail shops, supermarkets and schools.



They chose the name Dovek, as the word Dove symbolizes a person who advocates for peace and goodness for others, and the letter K is for Kettie’s name. Now, that’s a real loving partnership!

As a family, they have acquired a piece of land, motorcycles, and a highly respected reputation within the communities, as a result of their yoghurt production. “People wonder how we are in position to out-compete industrial yoghurt. Our secret to them has always been: the product quality and healthy benefits, are the master keys”, concludes Kettie.



THE RISE OF ODUPA DAIRY

*A story of Determination, Passion
and Unlimited Potential*

“The village which is not discussed is not built”, so goes the Maasai saying. The same can be said of ODUPA Dairy, a budding Fiti probiotic yoghurt production unit in Narok County, Kenya, with a very promising future. Though established in November 2017, the business idea is not new. Julia Nayonia KoiKai, the founder of the unit, was among the first lot of small scale dairy producers in Narok County to be trained by the Fermented Food For Life (FFFL) Project in July 2016. However, she took quite some time to start yoghurt production, citing family commitments and unfavourable political environment in 2017 which was an emotive election year in Kenya.

“The training by the FFFL Project opened my eyes to the business opportunity in Fiti probiotic yoghurt production and the wider social good especially the health benefits to the consumer”, Julia Koikai.

When the time to start the business came, Julia together with her business partner, Christine Nkoitoi, did it like they meant it. After procuring the necessary equipment for yoghurt production and recruiting support staff, Julia reached out to FFFL Project for onsite training of her team. The project promptly dispatched an experienced trainer to the unit for training of the entire team. Among those trained were Christine, Julia’s partner, and two

young men newly recruited. The trainer helped the team to produce and package the first 20 litres of yoghurt, as well as mother culture for subsequent production.

Having packed all the yoghurt in 250ml units (about 80 bottles), the team hit the road to the nearest trading centre, Ololulunga Market. They did not need to move further than the market, as the product became an instant hit, leaving them without any stock for the next day. The introduction of the product had been planned to fall on Ololulunga market day which pulls together traders from different parts of the county. In the second round of production, Julia and her team increased the quantity to 40 litres and the stock moved just as fast as the first batch.

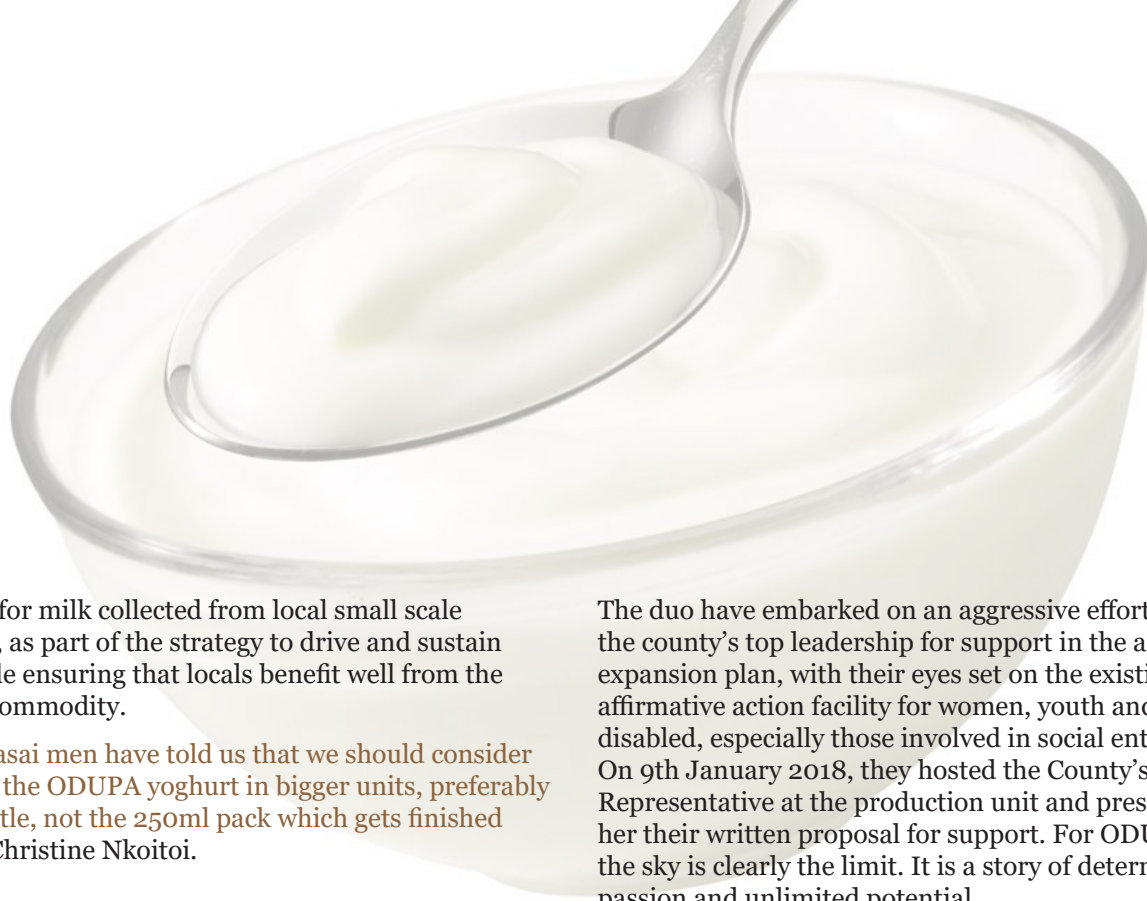
Moving into the fifth week of Fiti probiotic yogurt production, ODUPA Dairy maintained a daily production rate of 40-60 litres (40 litres on a normal day and 60 litres on market days). Their target is to reach 100 litres by the 3rd month as they expand their market reach to Narok town. The number of special orders by neighbouring households and walk-in customers, is also on the rise. In 2018, the unit broke new ground by securing two big orders at Ashnil Mara and Matira camps in Maasai Mara Game Reserve. They have also



been able to sell over 200 units of the 250ml pack in the wider Mara business centre, with very positive feedback coming from consumers about the product quality.

Considering the fast growing business volume and promising returns, Julia and Christine have decided to make yoghurt production a fulltime occupation. A teacher by profession, Christine has already resigned from her teaching job at Ole Ntutu Arid Zone Primary School to be able to concentrate on developing the business. From every 250ml unit sold, they make a profit of ksh.15/-. Thus, their net income from the daily sales of 40-60 litres, ranges between Ksh.2,400 and 3,600 (USD 24-36), excluding the special orders. Christine finds this much more fulfilling and promising than her teaching job and cannot have two ways about it.

They are acquiring certification by the Kenya Bureau of Standards (KEBS) and introducing more packing options for the consumer, to extend reach to new outlets including schools, colleges, hospitals, hotels, guest houses, supermarkets and other retail outlets in Narok town and its environs. They have already launched and paid for KEBS certification and obtained barcodes for vanilla and strawberry flavours (500ml, 250ml and 150ml packaging units). They also plan to set up a big production plant in 2018 and offer a more competitive



gate price for milk collected from local small scale producers, as part of the strategy to drive and sustain scales while ensuring that locals benefit well from the essential commodity.

‘Some Maasai men have told us that we should consider packaging the ODUPA yoghurt in bigger units, preferably 500ml bottle, not the 250ml pack which gets finished quickly.’ Christine Nkoitoi.

The duo have embarked on an aggressive effort to lobby the county’s top leadership for support in the ambitious expansion plan, with their eyes set on the existing affirmative action facility for women, youth and the disabled, especially those involved in social enterprises. On 9th January 2018, they hosted the County’s Women Representative at the production unit and presented to her their written proposal for support. For ODUPA Dairy, the sky is clearly the limit. It is a story of determination, passion and unlimited potential.

CHILDREN AT KIPENGERE ORPHAN CENTRE, TANZANIA ENJOY YOBA PROBIOTIC YOGHURT

Nothing pulls the heart string more than orphaned children. Along with dedicated partners across the Fermented Food For Life network, we are trying to bring some good nutrition to these children.



At Kipengere Orphan Centre in Tanzania, little Julia Lupenza, aged 10, is excited when she says, “Yoba yoghurt is so delicious. I cannot compare it with fresh milk. God bless sister Faraja who makes sure I get a glass of yoghurt everyday.”

The Kipengere Orphan Centre Children’s supervisor, Ms. Faraja Longo was trained on Probiotic Yoghurt production by the Fermented Food for Life (FFFL) project on April 28th, 2017. She started producing yoghurt immediately after the training. Since then, the children at the orphanage have enjoyed drinking Yoba.

Faraja said, “Since I started producing the Yoba yoghurt, I have seen even the children who were not taking fresh milk are now demanding for yoghurt. Even children who used to vomit after drinking fresh milk, because of being lactose intolerant, they never vomit with taking the Yoba. Many thanks to Heifer International for introducing this yoghurt at our Centre.”

The Kipengere Mission Orphan Centre produces 55 litres/Week of yoghurt daily, which is given to the 53 orphans, of whom 22 are females. Each child gets 1 glass of yoghurt every day.

Faraja Longo is proud of having the skills in yoghurt production as this contributes a lot to the children ‘s good health. “Ever since they started drinking probiotic yoghurt their health has improved.”

Julia is passing on the good news to other children. “Whenever I tell some of the youngest children that this is milk, they say it is not milk, it is yoghurt. Now they know the difference. Yoba yoghurt is so delicious and tasty; every child likes Yoba yoghurt. It makes us healthier as well!” Happily, explained Julia Lupenza.

The FFFL project (March 2016 - June 2018) objective is to improve food and nutrition security by increasing local production, distribution, and consumption of health-promoting probiotic fermented foods. In southern Tanzania, the The Kipengere Mission Orphan Centre is one of 40 producers in the regions of Mbeya, Songwe, Njombe, and Iringa where 3500-4000 litres of Yoba are being produced per week. By reaching vulnerable small children, the project is impacting malnutrition, stunting and diarrhea that are common in these regions of Africa.





REACHING THE UNREACHED

YOUTH FUN DAYS: *the magic of Probiotic Yoghurt*

On 16th December 2017, the Fermented Food for Life (FFFL) project co-sponsored a major youth event in Ogero Village in the neighborhood of Goldvine and Emuhaya West dairies, which are leading Fiti probiotic yoghurt producers in Vihiga County of Western Kenya. Billed as “**Youth Fun Day**”, the event brought together over 2,000 people, the majority being youth and children.

The objective was to create community awareness about youth development, with emphasis on health and economic wellbeing. The event was organized by the Centre for Documentation and Communication Interventions (CDCI) and supported by several other organizations including the Network for Adolescent and Youth of Africa (NAYA), Kenya Red Cross, African Medical and Research Foundation (AMREF), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and the Kenyan First Lady’s Beyond-Zero Campaign to Improve Maternal and Child Health.

In addition to recreational activities such as football, volleyball, netball, short races, dancing competition and face painting for children, key features of the event were public health promotion and exhibitions.

These showcased successful local youth-led development activities, and promoted products, services and innovations arising from the youth-led activities especially in agribusiness. A running theme in the exhibitions was value addition to local agricultural produce/products through modern technology use.

For the FFFL project, the event offered a unique opportunity to showcase Fiti probiotic yoghurt as a highly nutritious milk-based product with a wide range of health benefits to the consumer and economic potential to the producer. The project also had a chance to introduce the Fiti yoghurt to a community which would have otherwise not had a chance to taste it.

Accordingly, the project facilitated participation of Goldvine and Emuhaya West dairies in the event, and distributed Fiti branded T-shirts to some of the participants. Moreover, FFFL Kenya took care of the event publicity, face painting for about 500 children, and hiring of a bouncy castle and trampoline for recreation. This level of participation gave the project significant visibility at the event and enabled many young people and children to identify closely with the Fiti probiotic yoghurt.

For Golvine and Emuhaya West Dairies, it was a harvest moment! They easily sold 100 litres of Fiti in barely three hours, packed in 250ml plastic bottles. Many children tasted the yoghurt for the first time and were left yearning for more.

The youth fun day event came hot on the heels of the FFFL regional peer review meeting held in August 2017 in Mbeya, Tanzania, which underscored the need for demand creation for the Yoba/Fiti probiotic yoghurt through awareness campaigns, with specific attention to schools as an important marketing channel, and packaging of the product in smaller more affordable units for increased access by the consumer.

The project's focus on the youth and children is informed by the fact that 80% of the 47 million people in Kenya are below 35 years of age. Those aged 15-30 years constitute 32% of the total population, while 42.2% are below 15 years of age. Adolescents (young people aged 10-19 years) comprise 24% of the population. Thus, by every indicator of a young person, Kenya is truly a "youthful" nation.

As part of the youth focused demand creation activities, FFFL Kenya plans 11 more youth fun day events spread out across the 6 project sites in 2018. These will be exclusively Fiti market activation activities implemented in collaboration with local stakeholders, mainly Fiti production units and relevant county officials. The fun





- ✓ **Regulates Digestive System**
- ✓ **Maintains Respiratory Functions**
- ✓ **Lowers Cholesterol**
- ✓ **Boosts Immunity**
- ✓ **Reduces Inability to Fully Digest Milk Sugar**



day events will be complemented with school-based “Fiti Health Quiz” and a subsidy program for children in 6 public primary schools and 6 orphanages (one school and an orphanage per county).

The event of 16th December 2017 was a trailblazer, and clearly demonstrated a platform in promoting the product and reaching the unreached consumers.



PROBIOTIC YOGURT: A SOLUTION TO MALNOURISHED INFANTS AND CHILDREN IN TANZANIA

At the Crisis Center of Foundation Karibu Tanzania (FKT) there are more than 30 children survivors of violence who have been rescued after the horrific violence such as burning, beaten, deprived of food, etc. In addition to these acts of violence by their parents/ caregivers, many of these children are also suffering from severe malnutrition.



In Tanzania, malnutrition is one of the most serious health problems affecting infants and children. In 2015, more than 2.7 million Tanzanian children under 5 years of age were estimated to be stunted and more than 600,000 were suffering from acute malnutrition, of which 100,000 were severe cases (UNICEF 2016).

Fortunately, the employees of Foundation Karibu Tanzania (FKT) were educated on the importance of probiotic yogurt (popularly known as Fiti in Kiswahili) and also trained in making it. Therefore, malnourished children receive special Fiti nutrition supplement thrice a week. Employees say they make 20 litres of probiotic yogurt once a week and ensure infants and children are given 250 mls three days in a week.

Full of joy, employees say they have no problems feeding Fiti to these children because they love it very much. The employees confessed “through Fiti feeding we are already seeing some significant health improvement in terms of reduced illness and increased weight”.

Health improvement has been recorded in other groups of people using Fiti. At Mwanza city centre, the owner of Yuni Supermarket says a man has given public testimony that he no longer experiences stomach-ache after using Fiti regularly. In Mapalala village in Shinyanga region, Medical Sister confirmed that she was recovering more quickly from malaria.

To ensure Fiti becomes sustainable in Mwanza community particularly among poor families whose children are at the rescue center, FKT is planning to educate parents/caregivers about the benefits of Fiti. They said, “We will train parents so that they make Fiti as a business to increase household income as well as improve family and community health.”

It therefore goes without saying that using Fiti is very much contributing to the government’s efforts to fight and eradicate malnutrition in Tanzania which is responsible for more than 130 child deaths every day, making it the greatest contributor to under-five deaths in the country (USAID 2017). Beyond individual human suffering, malnutrition is the major impediment to economic growth and development. Therefore, Fiti has enormous contributions to the government and global efforts towards the fight against infants and children malnutrition.

In Mwanza, FKT a non-governmental organization, is the first and up to now the only organization in Tanzania that opened a rescue centre (temporary shelter) for domestically abused children providing them with the needed medical, psychological care and feeding them with Fiti. FKT has a vision to enable a society in which every child is safe at home and enjoys their rights.



A BUSINESS LESSON ON MILK

Opio Peter is one of the bigger farmers in Amuria district, with 39 cows and 32 goats.

A few years ago, Peter only milked 9 of the cows, due to capacity. From these, he only collected 5 liters of milk in the dry season, and a maximum of 8 liters in the wet season. In the afternoon, he or his 14 year-old son would cycle their as much as 14 km (7 km going, 7 km coming back) to a trading centre to sell their milk and earn some income.

During a 2017 school feeding study organized by the Fermented Food For Life project in Amuria District, AMUFaCoS yoghurt producers delivered probiotic yoghurt on a daily basis to the school where a number of Peter's children were attending. Peter took note of the well-being of his children during this large study of 467 children.

At a parents' meeting, AMUFaCoS called upon all parents who had cows at home, to unite themselves in a Dairy Interest Group (DIG). Peter decided to act!

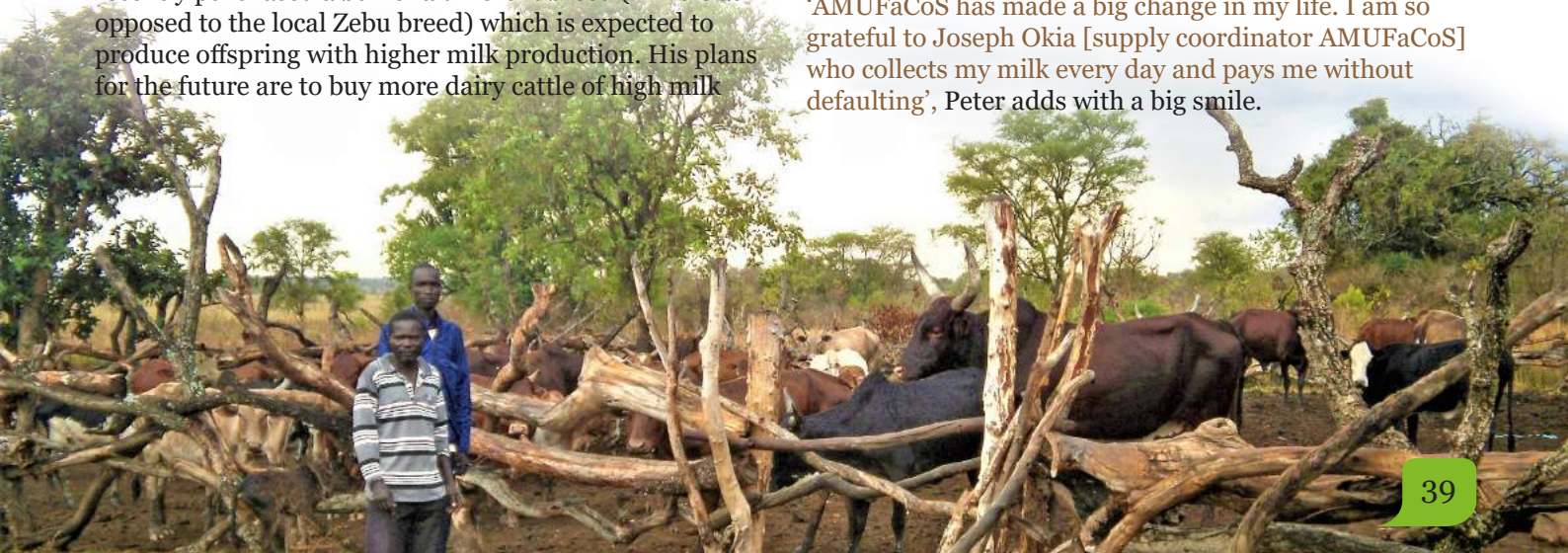
From that time onwards, AMUFaCoS has been picking up the milk from Peter's home every day and using it for the production of Yoba yoghurt. This has been a Godsend. It saved Peter and his son from having to cycle the long and time-consuming daily journeys, and now allows them to have more time to develop his farm, and for his son to do homework and excel at school.

In addition to this, AMUFaCoS has been conducting trainings for this newly established DIG, and Peter's eyes have been opened to new farming techniques. He has recently purchased a bull of a different breed (Ankole as opposed to the local Zebu breed) which is expected to produce offspring with higher milk production. His plans for the future are to buy more dairy cattle of high milk

producing breeds, whereby his dream is to get at least five Friesian cows on zero-grazing.

Peter Opio and his son now earn 1.000 UGX for every liter of milk. He uses this money to pay school fees and buy school books for his 10 children, and to improve the diversity of the diet in his household. The changes that AMUFaCoS' yoghurt business has brought by saving him time and increasing his production in the future, will enable him to send more children to higher educational institutions.

'AMUFaCoS has made a big change in my life. I am so grateful to Joseph Okia [supply coordinator AMUFaCoS] who collects my milk every day and pays me without defaulting', Peter adds with a big smile.





A PIONEER OF PROBIOTIC YOGURT IN MWANZA WON A US EMBASSY AWARD IN TANZANIA!

In 2014, Joyce Stephano Nyembe a pioneer of probiotic yogurt in Mwanza won the Tanzanian Woman of Courage Award presented by the U.S. Embassy. Joyce was the eighth recipient of the Tanzanian Woman of Courage Award since the U.S. Embassy began this recognition in 2008.

While presenting the award, the chargé d'affaires, Virginia M. Blaser of US Embassy said, "Joyce was honored for her perseverance and leadership fighting for the rights of women and children and especially those living with HIV and AIDS, and victims of gender-based violence... Ms. Nyembe has been able to find solutions for the benefit of all, such as reducing the stigma towards people living with HIV and AIDS, and providing educational and economic empowerment training to women and youth.

In Mwanza, Tanzania, Joyce is one of the 12 Tukwamuane women who pioneered probiotic Fiti production in 2004 thanks to Western Heads East at Western University in Canada, and laid the foundation for the Fermented Food For Life (FFFL) project. Four years later, Joyce branched off from the group to train more than 300 women from her community on business skills and yogurt production.

In her own remarks, Joyce says, “I saw the importance of spreading the knowledge of making Fiti to other women particularly those survivors of violence because the majority of them fail to have decisions on their own lives. Arming them with economic power through probiotic yoghurt production they can step out from violence, become leaders in their community, support other women survivors of violence, improve nutrition, send children to school, decide when to give birth and have a decision on the money they make. This belief drives my passion to ensure women are economically empowered through Fiti production”.

Neema, is Joyce’s daughter who confessed that operating a fiti kitchen has helped her to step away from violence, ensures food security, build a house as well as send her children to school.

Furthermore, Joyce also supported establishment of Vijana Simama Imara (VSI) group that comprises of more than 30 vulnerable youth trafficked from villages to be domestic workers. Unfortunately, most of them were abused by their handlers, but fortunately they were rescued and Joyce took them into her home. In Joyce’s hand, she trained them on Fiti production. At the city centre of Mwanza, she set up a kitchen for them. The group performed so well to the extent of building their own houses and raising funds to pay for school fees.

In another development of improving health, for 5 months, Joyce through her newly established women’s group supplied Fiti to 500 under malnourished children in 4 health centers in two districts of Ilemela and Nyamagana. Consuming Fiti, improved the health of these 500 children as they were closely monitored by health officers through weight gain.

The provision of educational and economic empowerment training to women and youth contributed to Joyce being recognized by U.S. Embassy to win this prestige award.

Joyce remains a well-known community health activist.



A WIDOW BUILDS A FAMILY BUSINESS

Theresia Fidelis Mwalwisi is a widow aged 57 years old. She lives in Ilomba ward in Mbeya City, Tanzania. After his husband's death in March, 1995, Theresia was left with his three sons who all depended on her for their daily needs. The sons were in schools and therefore it was her responsibility to provide for their school fees and all other needs.

Theresia's life became full of struggles after her husband's death. One day in 1997, she was gifted a cow by her family friends. She was so grateful for getting this gift. In 1998 the cow reproduced and hence she started selling milk. She sold 1 litre of milk at a price of 700 Tshs. Theresia was not happy with this price and she wished she could sell the milk at a higher and better price.

“For so many years, I sold one litre of milk for around 700 Tshs. But, it was never enough to meet our family's daily needs. I researched different ways to maximize profit from milk selling, but nothing ever emerged. Until, thanks to God I met Heifer in 2016”, with all smiles explained Theresia.

Theresia attended a meeting that was organized by Heifer International Tanzania's Fermented Food For Life (FFFL) project in

October 2016 at Mbeya City. The meeting gathered the Isanga milk seller group members of which Theresia was among them. They received training on probiotic Yoba production and its business. This also included how they could sell and keep their business records.

Theresia was so happy to get the probiotic yoghurt production and business skills, as it had been her longtime dream. She explained that after getting the skills she decided to share the knowledge with her sons so that they could work together in the business.

“I have 3 sons and they liked this business idea, so I taught them how to produce probiotic yoghurt. They have been helping me throughout to ensure that we have constant production and market access,” explained Theresia.





From December 2016 Theresia started her probiotic yoghurt business and immediately made a profit from it. Contrary to when she was selling some fresh milk, she now sells 1 liter of probiotic yoghurt at a price of 2500 Tshs.

Theresia started the business by producing the Yoba at home and selling in streets. On seeing how profitable the business was, she opened a yoghurt shop at Sae street, along Zambia highway road. The shop has been branded by the FFFL project. It is called Lwisi Milk Shop. and she is currently producing plain, sweetened and strawberry flavoured yoghurt. She packs her yoghurt in different volumes in plastic containers that are labelled to include 250 ml, 500ml, 1 litre and 5 litres. Theresia branded her shop and packaging and bought a fridge for storing and displaying the products. This has added enormous value to her business because her customers know exactly where to get probiotic yoghurt and they come to buy from the shop.

Additionally, Theresia supplies probiotic yoghurt in some offices, schools and hospitals in Mbeya City.

She even transports the yoghurt to other regions including Dodoma, Songwe, Njombe and Dar es Salaam. Imagine = 816 km away!!!

Together with her sons, Theresia produces over 1,500 liters per week. To date, Theresia's monthly income is 6,400,000 Tshs.

Theresia looks forward to supplying Lwisi Milk probiotic yoghurt to the whole Tanzania and even across the borders.

The FFFL project targeted reaching at least 50,000 and 100,000 consumers with the Yoba yoghurt in Tanzania and Uganda, respectively. Given the reach of Lwisi, Theresia feels these numbers have already been exceeded.



Fermented Food for Life Stories of Inspiration, Struggle & Success

A collection of stories by

Alex Kayiwa

Arnold Onyango

Bernard Neema

Dan Bazira

Gregor Reid

John Malisa

Lazaro Kapella

Maimuna Kanyamala

Marwan Owaygen

Nelson Arinda

Nieke Westerik

Remco Kort

Robert Ssebandeke

Wilbert Sybesma

William Matovu

