

The School Food Tree Program.

In 2015, Uganda's Trade and Industry Minister **wept at the sight of hungry children** during a school fundraiser in Mpigi town council at Namabo Primary School in Kafumu Parish¹.

The Ministry of Education through the then Minister of Education Hon. Jessica Alupo asked primary schools from across the country to feed their children in a bid to curb absenteeism and poor performance tagged to hunger².

Owing to the high dropout rates partially fuelled by lack of meals in schools in Uganda, a 2014 report by the United Nations Educational, Scientific and Cultural Organization (UNESCO) established that completion rate is low, affecting access rates to the subsequent cycles. Hunger is one of the main reasons children perform poorly in UPE schools, hungry children have poor concentration, poor mental abilities, absenteeism, bad behavior, poor health and are school drop-outs

Some children drop out of school because they have no food to eat at school and even back at home there is nothing, so staying at home and looking for what to eat seems better than being at school and starving. Above all, students have a hard time retaining information when they are hungry, so in the long run they end up failing and get fed up with school and dropping out³

According to the World Food Program, Some 77 percent of primary schools in Uganda are rural-based with most pupils commuting from home to school daily over long distances on foot. A significant number of these children spend the whole day at school on an 'empty stomach'⁴

According to Ms Santa Ojok, the Ministry of Education focal person for school feeding and Ministry of Education school feeding programme⁵, cabinet approved two proposals which will see children in urban schools under universal education contribute a fee towards their feeding while at school as agreed by the institution's management committee and the board of governors. The rural learners will take food such as maize and beans to their respective schools. There is no money from the ministry and yet we know very well why we should feed children. When they are hungry, they can't concentrate in class and it will have negative effects on their growth but feeding also improves school attendance.

World Vision education specialist John Tereraho asked for how long will the public depend on donors to do basic things like feeding their children after knowing that vulnerable children from Karamoja have been supported by World Food Programme which has now stopped saying they don't have funding.

This therefore calls for a systematically thought through intervention that is viable and sustainable enough to curb the School Food Crisis in Uganda and Girls In School Initiative (GISI) has come up with the School Food Tree (SFT) Program to promote the Jack Fruit food tree planting in schools and communities around as the next generation 'Miracle Food' basket for climate change and disasters in Uganda and as the natural remedy to the school meals crisis.

¹<http://www.newvision.co.ug/news/665022-trade-minister-amelia-weep-for-hungry-pupils.html>

²http://www.newvision.co.ug/new_vision/news/1321283/govt-schools-feed-pupils-fail

³OUT OF SCHOOL CHILDREN STUDY IN UGANDA REPORT 2014 Christine Mbabazi Mpyangu (PhD) et al.

⁴<https://www.wfp.org/stories/wfp-provides-support-government-uganda%E2%80%99sschool-meals-programme>

⁵Ministry of Education & Sports: *Guidelines on Parent-Led School Feeding/Guidelines on School Feeding and Nutrition Intervention Programme*

The Jack fruit.

It is moderately tolerant to drought with means trees can withstand several days of drought. However, drought stress may reduce tree growth and yields⁶ although it can sustain some flood conditions, but many days of heavy flood water or a few days of wet soil conditions can cause the trees sustain heavy damage or be killed⁷, (this is yet to be field tested in this project yet to be taken to the flood land of the Kyoga basin of Uganda.)

Jackfruit heralded as 'miracle' food crop, Researchers say the large, smelly fruit grown could be a replacement for wheat, corn for staple crops under threat from climate change⁸ it could help keep millions of people from hunger.

The World Bank's Dr. Jim Yong Kim⁹ and United Nations [warned](#)¹⁰ [recently](#) that rising temperatures and unpredictable rainfall had already reduced yields of wheat and corn, and could lead to food wars within the decade and jackfruit could help provide the solution.

Jackfruit is the largest known tree borne fruit. Even a small jackfruit weighs in at 10-15lbs (5-7kg), and farmers have recorded specimens of more than 100lbs (45kg)

"It's a miracle. It can provide so many nutrients and calories – everything," said Shyamala Reddy, a biotechnology researcher at the University of [Agriculture](#)¹¹ Sciences in Bangalore, India. "If you just eat 10 or 12 bulbs of this fruit, you don't need food for another half a day."

This effort to develop the growing of jack fruit coincides with a global push to expand food production, especially in developing countries which are expected to face growing challenges to feed their people in the coming decades.

Jackfruit can fill the gap on a number of counts, said Danielle Nierenberg, president of [Food](#)¹² Tank, which works on sustainable agriculture. "It is easy to grow. It survives pests and diseases and high temperatures. It is drought-resistant," she said. "It achieves what farmers need in food production when facing a lot of challenges under climate change. "The fruit is rich in potassium, calcium, and iron, said Reddy, making it more nutritious than current starchy staples.

The fruit is rich in potassium, calcium, and iron, making it more nutritious than current starchy staples the fruit can be processed into products as diverse as flour, noodles, papad and ice cream. Jackfruit is also canned and sold as a vegetable for export, also many food products with longer shelf life that can be made from jackfruit.

In addition to its high nutritional value, the fruit is very versatile. The seeds, young fruit, and mature varieties are all edible. The timber from jackfruit trees is also valuable; It is just not being utilized, we have to explore some of these alternatives to make sure we are going to be able to nourish people.

⁶<http://www.growables.org/information/treeselectionfordroughttolerance.htm>

⁷<http://www.growables.org/information/documents/DroughtFlood.pdf>

⁸<https://www.theguardian.com/environment/2014/apr/23/jackfruit-miracle-crop-climate-change-food-security>

⁹<https://www.theguardian.com/environment/2014/apr/03/climate-change-battle-food-head-world-bank>

¹⁰<https://www.theguardian.com/environment/world-on-a-plate/2014/mar/31/ipcc-environment-climate-change-food-security-crops>

¹¹<https://www.theguardian.com/science/agriculture>

¹²<https://www.theguardian.com/environment/food>

On the continual credit of Wangari Maathai, this is why conserving forests and promoting planting the right type of trees is so important. The diversity that exists is able to help us solve major problems from food security and medicines to alternative ripening times and also increase our desire through differing tastes¹³.

Our proposal; In view of the fruit's likely use as a supplement for staple crops, it is necessary to start large-scale cultivation of jackfruit, particularly on high grounds as the current varieties of the plant can't survive on wet soil. It is also necessary to conduct research to further improve its nutritional values, to increase the yield, to develop new varieties which can be resistant to flood and salinity and to find ways for preservation of the fruit for consumption throughout the year¹⁴.

School feeding programs as a way to help poor children get enough to eat while giving them an incentive to be in school. A proper lunch can ward off hunger, Children who aren't hungry can focus better in school as such programs should be designed to encourage children to enroll in school while helping boost their daily nutritional intake. There are possibilities and limitations of school feeding programs: when properly implemented, they can raise enrollment and possibly lead to better learning. But even then, feeding programs are unlikely to make up for the cognitive and physical lags that result from poor nutrition during pregnancy and the first two years of life.¹⁵

Most guardians and parents have failed to fulfill their responsibility of feeding their children while they are at school; and reducing hunger and malnutrition is a critical element in improving attendance.

Feeding at school is an essential component of a child friendly school, and not feeding a child at school is a violation of children's rights under the United Nations Declarations on the Rights of the Child, and other international protocols and conventions to which Uganda is signatory¹⁶.

Targeted partners.

- ✓ **Ministry of Education & Sports; School Feeding Program.**
- ✓ **The Uganda National Forestry Authority.**
- ✓ **The World Bank.**
- ✓ **World Food Program.**
- ✓ **Straight talk Foundation Uganda (Tree Talk).**
- ✓ **Ministry of Environment and Natural Resources.**
- ✓ **Environment support organizations. (Local and International).**
- ✓ **Schools and Neighboring communities.**

Project Funding.

- ✓ The project is to initially be financed by Girls In School Initiative through its members, friends and volunteers this is the targeted first 10 schools in Wakiso or Mukono districts for the first rains of 2017.
- ✓ When the project will be required to scale out to further places in the country (more districts), that's when more financial support partners will be consulted and brought on board.

¹³<http://artlife.co.ke/under-appreciated-fruits-jackfruit/>

¹⁴<http://www.thedailystar.net/a-poor-mans-fruit-now-a-miracle-food-41297>

¹⁵ The World Bank from a note series on learning what works, from the Human Development Network 2012

¹⁶ *Ministry of Education & Sports: Guidelines on Parent-Led School Feeding*

The Project.

The high yielding potential, high nutrients value, almost drought resistance ability and ability to feed a large group of people is seen as the best immediate option for school food supplies in Uganda in the times when the world's staples grippe down due to climate change and disasters.

The fruit when ripe can feed a big number of students for mid-morning and lunch meals/break where by 5-10 bulbs taken with a sip of water can be enough to keep child in class throughout the school evening time ready to learn other than being on an empty stomach.

Project Objectives.

1. Promoting school enrolment and attendance and reducing short-term hunger leading to School Drop outs;
2. Promoting in-class concentration, cognition and other performance of the children;
3. Improving nutritional and health status of school going children;
4. Promoting community participation and commitment towards the reducing of school dropouts especially in times of hunger for school going children,

What we want to do;

GISI and its partners through the School Food Tree Program would like to plant 5 Jack Fruit Trees around the entire school compound which trees will work as a substitute school basket when tides change and drought affects the school feeding programs.

How to involve the community;

10 jack fruit trees will be planted around the school immediate community by the school neighbors, this is targeted to act as a reserve food store for the school when the school five tree stock empties and also as most the students in the school are the same community children, it is also to act as a home food supply where students can find something to eat at home when they get back home from school.

This also is aimed at securing a fruit and food supply to the school neighboring community so as to deter the community encroaching on the school fruits because they have no.

And also its aimed at directly involving the community to take responsibility of the school feeding programs of the children and also help the children and their communities learn basic agro forestry principles that are to be the world's safe guards from the climate change and disasters.

The community will be coordinated throughout; first the school Parents and Teachers association members who are immediate neighbors of the school and also through the Boy-Talk Moments and the community engagements of GISI, we are to select Girls' Education Support community champions who will be planting and taking care of the trees so as to benefit a lot from them.

Initial target for 2017.

Initial target for the first year (2017), in the Mid-year rainy season is to plant 100 trees in 20 schools in a sample two or one districts and 1,000 trees for the surrounding communities. This therefore brings the total of 1,500 trees to act as a sample projectile for the bigger extension of the project to other parts of the country.

How we plan to have the project accepted and protected by the entire school community.

One, we are to have 5 classes of the school each, represented by its students and class teacher plant 1 tree of their own and this goes with a mandate and full responsibility of the entire class to look after this tree, water it, mulch and guard from small animals and pests and as they go on further the academic/class level, they go and grow with their trees.

For example, pupils in Primary 1 will plant a tree and by the time they reach Primary Five or Six, they will be eating the first fruits of their sweat.

For the classes higher than Primary One, they are to be trained of the importance of planting a tree and as part of their science classes, they learn about how to care for these trees and they can dedicate the trees to another class when they have reached Primary Seven and they are leaving the school.

Guidelines.

GISI together with its partners on this will design and print tree care guide book to be used by the students and the communities to learn on the simple steps they can undertake so as to properly grow their trees. These guidelines will be supplied to the schools and community at no cost.

Follow-up and periodic project visits.

GISI together with its partners and coordinators/volunteers across the participating schools and communities will carry out a monthly visit to the school trees for the first 3 months and a bi-monthly visit for the presiding months until the trees are one year old. This is aimed at cementing a good relationship with the participating institutions and communities and also periodically monitoring the growth and progress of the trees and make necessary recordings and observations to be used in evaluating and re-organizing the project before its fully rolled out to the entire country.

In-due linking of the Project to its several uses

Although the project is a School Food targeting initiative, it cuts across many other uses that are to be also developed and made well known to the project implementers (the students). Importance's like the environmental ones of Wind breakers, micro-environment modification at the school and many others. Also the wood and firewood provision to the school and community, the shade in heavy sunshine, and also immediate fodder for the animals (goats, sheep and cows) that may be reared in the school so as to further increasing the income and nutrition value.

The processing to other products.

This is a plan that will be further developed in future may be after 5 years of the project so as to develop further the Jack fruit and commercialize it so as to benefit the communities more than just eating the ripe bulbs. Other fine processed products include flour, juice and other products as they are being researched and produced in India and Bangladesh latterly.

Our timelines for the year 2017.

Presenting of the project to the IGENAES Global symposium & Learning Exchange: **23rd – 25th January 2017** in Lusaka Zambia.