

# Kasimu Education Fund

## 2020 Annual Report



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**Robert Burns**, President of Kasimu Education Fund, died peacefully at his home in Mountain View, CA, on October 11, 2020. The Kasimu Education Fund Board of Directors are saddened by this event.

<https://www.paloaltoonline.com/obituaries/memorials/robert-bernard-burns?o=6492>

Robert is survived by his 7 children and 14 grandchildren and a great-grandson. Robert became the President of KEF after his wife, Mary's, passing in 2014. Mary was the previous President of KEF.

In 2006, Mary and Robert attended a fundraising concert at St Jerome's in El Cerrito, CA, the church where Robert and Mary were married. The purpose of the fundraising concert was to raise funds for tuition for the Kasimu Schools for the high school students. Mary and Robert spoke with Fr. Peter at that fund raiser and they were very impressed with his mission.

Mary and Robert started the Kasimu Education Fund, a 501(c)(3), in 2006 to raise money for tuition for high school students at the Kasimu School in Manyesa, Malawi. They subsequently raised money to build high school buildings in the village of Manyesa where the Kasimu Schools are located.

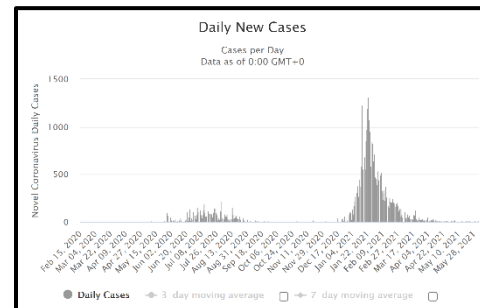


**Kevin Burns**, Robert's oldest son has been elected President of Kasimu Education Fund by the Kasimu Education Fund Board of Directors and has assumed the role of presiding over the operations of the Kasimu Education Fund.

**Closure of Kasimu Schools:** The President of Malawi declared a day of national disaster on March 20, 2020 and ordered the closure of all schools by March 23<sup>rd</sup>, 2020.

**Re-opening of Kasimu Schools:** In early September 2021, deaths from COVID-19 had decreased significantly. The president of Malawi ordered the schools reopened in 2 phases:

- *phase 1 on September 7, 2020 students returned for mandatory examinations*
- *phase 2 on September 20, 2020 when the remainder of students returned to school*
- *a resurgence of coronavirus cases at the end of 2020 resulted in a 3 week closing of Malawi schools.*



**Funding of Kasimu Schools:** The Kasimu Education Fund has continued to provide stipends for teacher and salaries for assistant teachers and support staff throughout the pandemic. Food was provided in March for the 3<sup>rd</sup> term of the 2019-2020 school year. However, the school was closed for the 3<sup>rd</sup> term of the 2019-2020 school year. The food purchased for the 3<sup>rd</sup> term of the 2019-2020 school year is planned to be used for the 1<sup>st</sup> term of the 2020-2021 school year. Food was funded for the 2<sup>nd</sup> term of the 2020-2021 school year in December 2020.

**Expenses to date**, KEF paid \$42,467 for teacher stipends, assistant teacher salaries and food in 2020.

**The total of Kasimu School expenses for 2021** is projected to be \$50,173.

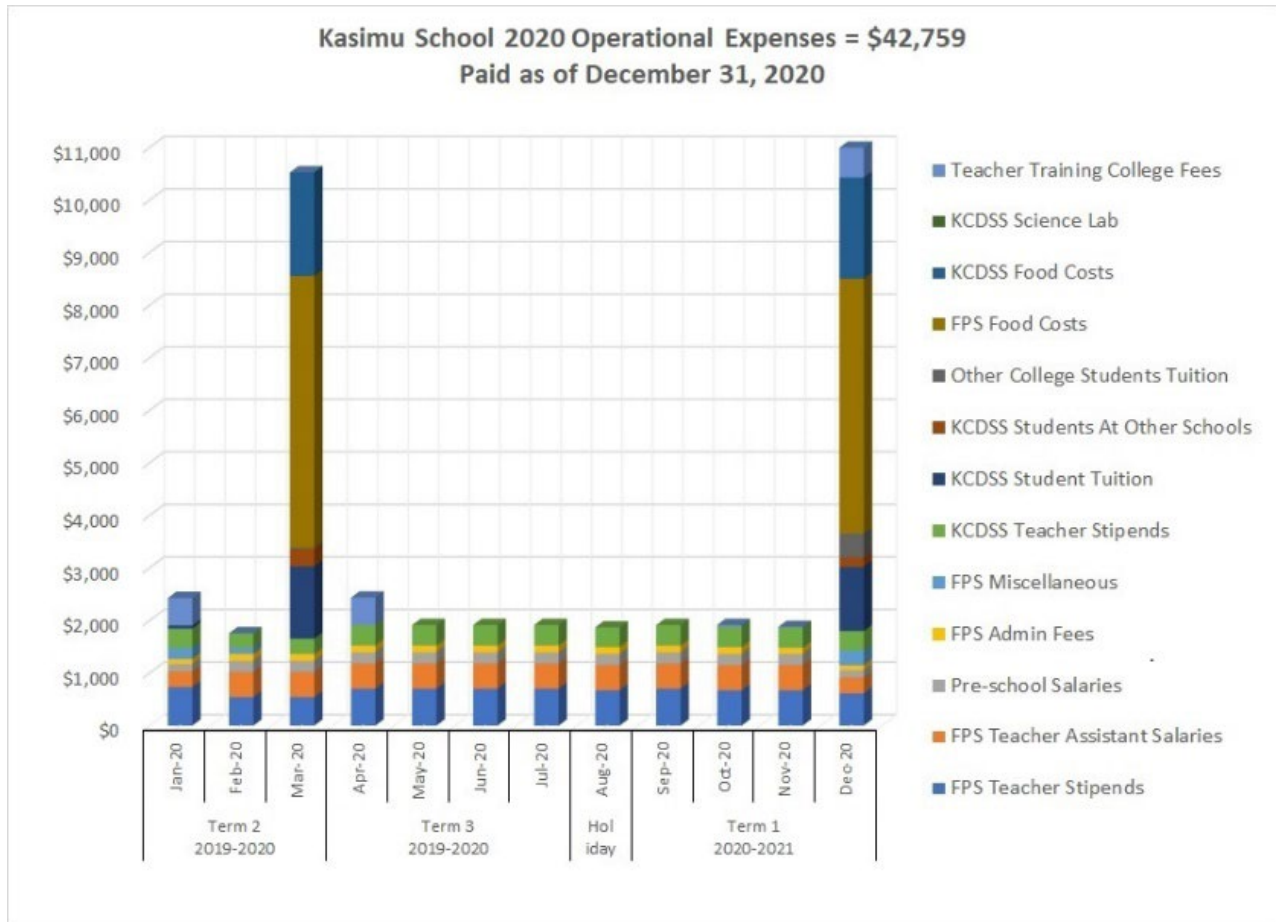
The Kasimu Education Fund Board of Directors has **voted to include support** for **Mother Mary's Children's Center** within the Kasimu Education Fund sphere of influence. The projected cost of support for MMCC for 2021 is \$60,000.

# Kasimu Education Fund

## 2020 Annual Report



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# *Kasimu Education Fund*

## *2020 Annual Report*



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## *Business Profile*

**Our Mission:** The Kasimu Education Fund (KEF) is a non-profit organization established to support the students and operations of the Kasimu School in Manyesa Village, Malawi, Africa; to improve educational opportunities and to maximize the students' spiritual, social, and physical development. It is also KEF's intent that the local communities benefit and improve over time as a result of improved educational opportunities. KEF believes that education holds the key to breaking the cycles of poverty, disease and hunger and has focused its efforts on making a direct impact on the prosperity of the impoverished Manyesa area.

### **Board of Directors:**

Kevin Burns:	President
Debbie Baker:	Vice President
Geralyn Havlicek	Secretary
June Ough	Board Member
Terry Wehner	Board Member

### **Donors:**

Our donors are primarily individuals with donations ranging from \$20 to \$1,500. KEF has, in the past, also received grants from foundations, such as The Katz Foundation, The Loyola Foundation and the Lowney Foundation ranging from \$10,000 to \$15,000. In 2020, Robert Burns donated \$25,201. In 2020, Kevin Burns donated \$70,000 which was provided to support Kasimu School higher education for Secondary School teachers and for equipment to combat the COVID-19 pandemic. The majority of the additional funding was to provide support for Mother Mary's Children's Centers in Chikwawa and Zomba as well as the multitude of college students (typically AIDS orphans) requiring tuition assistance.

### **Risk Factors:**

The COVID-19 a resurgence of coronavirus cases has slowed the educational advances.

#### **Risk Mitigation:**

- **COVID-19**
  - Facial Masks
    - i. *KEF funded fabrication of cloth masks in Malawi for 2,200 Kasimu School children and staff*
    - ii. *MMCC fabricated masks using fabric and sewing machines provided by KEF*
  - Infrared forehead thermometers (Via Amazon/FedEx)
    - i. *KEF provided 14 thermometers to the Kasimu Schools*
    - ii. *KEF provided 12 thermometers to Mother Mary's Children's Centers in Chikwawa*
  - Handwashing stations
    - i. *KEF provided locally purchased equipment for handwashing stations for all students at the Kasimu Schools*
- **Famine**
  - *The KEF monitors the Famine Early Warning System Network (FEWS NET) to identify food needs in southern Malawi.*

# Kasimu Education Fund

## 2020 Annual Report



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### 3. Agriculture Project

- Goal:
  - Provide the resources to the Kasimu schools to produce food for a daily meal for all students
    - i. *The Kasimu school purchases 40,500 kg of maize, rice and peanuts each year to feed 190 pre-school, 2,000 primary school students and 280 secondary school students.*
- Parcel for planting of crops for the Kasimu School Food Program
  - Parcel Sharing Agreement Reached:
    - i. *Mulomole family will use their 7-acre plot from Nov to Apr, during the rainy season*
    - ii. *KEF plans to use the Mulomole 7-acre parcel from May to October, during the dry season, using water from the well drilled by KEF on the Mulomole parcel.*
- Analysis:
  - Quantity of grain currently required to provide one meal per student per day.
    - i. *40,500 kg of maize, rice and peanuts are consumed by the Kasimu schools each year*
    - ii. *The output of the 7-acre parcel would have to be 40,500 kg/7 acre → 5,800 kg/acre*
    - iii. **Required: 14.3 tonnes/hectare for one growing season.**
  - Comparison of nutritional allocation for students (Table 1)
    - i. *The Kasimu pre-school, primary school and secondary school lunch meal nutrition (see Table 1) is based on the total amount of food purchased; assuming 190 preschoolers, 2,000 primary school students and 290 secondary school students attending for 205 school days per year.*
    - ii. *An agricultural project, similar to the Kasimu School food program, has been proposed by the FISD in Malawi*
      - *Kondwani Nanchukwa is the Program Director for the Foundation for Irrigation and Sustainable Development (FISD) associated with the Food and Agriculture Organization (FAO) of the United Nations in Malawi.*  
*(<http://www.fao.org/fsnforum/member/kondwani-nanchukwa>)*
      - *Kondwani is piloting a “Sustainable model for home grown school meals in Malawi”.*
      - *Kondwani’s plan to cultivate a one-acre school garden that would provide lunch meals for an average of 1,500 children.*
        - *100g/child/day requires 11 tonnes/hectare with 1 harvest per year*
        - *200g/child/day requires 11 tonnes/hectare with 2 harvests per year*
      - *An estimate of the nutrition provided by Mary’s Meals was obtained from the article by the organization “Determined to Develop”iii. Mary’s Meals was used as a standard for lunch meals in the comparison in Table 1.*

# Kasimu Education Fund

## 2020 Annual Report

### 3. Agriculture Project – (continued)

#### iii. Comparison of feeding programs, see Table 1

- Kondwani's approach<sup>i</sup> 213g 747 Calories
- Mary's Meals<sup>ii</sup> 213g 800 Calories
- Alternate to Maize: Cassava, cooked & soybean meal<sup>iii</sup> 213g 422 Calories
- Kasimu Pre-school (based on qty purchased/term) 58g 230 Calories
- Kasimu Primary School (based on qty purchased/term) 71g 253 Calories
- Kasimu Secondary School (based on qty purchased/term) 229g 820 Calories
- Observations:
  - These lunch meals provide approximately ½ of a child's daily nutritional needs:
  - Kondwani's approach was increased to 213 grams per day to match the number of grams in Mary's Meals
  - Mary's Meals contain the greatest lunch nutrition per gram
  - Kasimu pre and primary school students don't receive enough calories (<25% RDA)
  - Secondary school students appear to be receiving adequate lunch nutrition (50% RDA)

Components of Feeding Program	Qty	Calories	Protein	Total Fat	Dietary Fiber	Sugar	Total Carbohydrate	Calcium	Copper	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Zinc	Vitamin B <sub>6</sub>	Vitamin C
<b>Kondwani's Meals (4-8 yo, assumed)</b>																		
Maize, Whole Grain, White	137g	493 kcal	9.5g	5.3g	10.0g	0.87g	104.9g	10mg	0.31mg	3.2mg	127mg	0.63mg	371mg	430mg	7mg	2.4mg	0.51mg	0mg
Soybeans, meal	53g	172 kcal	27g	0.6g	9.2g	8.6g	17.8g	127mg	2.13mg	4.9mg	152mg	0mg	354mg	1,250mg	11mg	1.3mg	0.30mg	0mg
Sugar	21g	82 kcal					21g											
Salt	3g														1,163mg			
<b>TOTAL</b>	<b>213g</b>	<b>747 kcal</b>	<b>36g</b>	<b>5.9g</b>	<b>19g</b>	<b>30g</b>	<b>123g</b>	<b>136mg</b>	<b>2.4mg</b>	<b>8.1mg</b>	<b>279mg</b>	<b>0.63mg</b>	<b>725mg</b>	<b>1,679mg</b>	<b>1,180mg</b>	<b>3.7mg</b>	<b>0.81mg</b>	<b>0mg</b>
<b>RDA</b> Recommended Dietary Allowance		1,200-1,600 kcal	19g	130g	16.8g	< 74.7g	130g	1,000mg	440mg	10mg	130mg	1.5mg	500mg	3,800mg	< 1,900mg	5.0mg	0.6mg	25mg
<b>Mary's Meals (4-8 yo, assumed)</b>																		
Likuni Phala (80% whole maize meal & 20% soybean)	50g	199 kcal	8.0g	3.85g	4.7g	1.9g	30.8g	26.9g	0.50mg	1.9mg	52mg	0.18mg	176mg	364mg	4.0mg	0.94mg	0.21mg	0mg
Maize, Whole Grain, White	100g	361 kcal	6.9g	3.9g	7.3g	0.64g	76.9g	7.0mg	0.23mg	2.4mg	93mg	0.46mg	272mg	315mg	5.0mg	1.73mg	0.37mg	0mg
Soybeans, meal	50g	164 kcal	26g	0.6g	8.8g	8.2g	17.0g	121mg	2.0mg	4.6mg	145mg	0mg	337mg	1,190mg	10.0mg	1.2mg	0.29mg	0mg
Oil, MCT	10ml	77 kcal		9.3g														
Salt	3g														1,163mg			
<b>TOTAL</b>	<b>213g</b>	<b>800 kcal</b>	<b>41g</b>	<b>17.7g</b>	<b>20.7g</b>	<b>10.7g</b>	<b>93.8g</b>	<b>128mg</b>	<b>2.3mg</b>	<b>7.0mg</b>	<b>238mg</b>	<b>0.46mg</b>	<b>609mg</b>	<b>1,869mg</b>	<b>1,182mg</b>	<b>3.9mg</b>	<b>0.86mg</b>	<b>0mg</b>
<b>RDA</b>		1,200-1,600 kcal	19g	< 80g	16.8g	< 80g	130g	1,000mg	440mg	10mg	130mg	1.5mg	500mg	3,800mg	< 1,900mg	5.0mg	0.6mg	25mg
<b>Cassava 70% / Soybeans 30%, Alternate to Maize (4-8 yo, assumed)</b>																		
Cassava cooked	140g	225 kcal	1.9g	0.4g	2.5g	2.39g	53.5g	21mg	0.13mg	0.36mg	28mg	0mg	34mg	343mg	7.0mg	0.45mg	0.11mg	18.8mg
Soybeans, meal	60g	196 kcal	31g	0.7g	10.5g	9.8g	20.3g	145mg	2.4mg	5.5mg	174mg	0mg	404mg	1,428mg	12.0mg	1.5mg	0.34mg	0mg
Sugar	10g	39 kcal					10g											
Salt	3g														1,163mg			
<b>TOTAL</b>	<b>213g</b>	<b>422 kcal</b>	<b>33g</b>	<b>1.1g</b>	<b>13.0g</b>	<b>22.2g</b>	<b>74g</b>	<b>166mg</b>	<b>2.6mg</b>	<b>5.9mg</b>	<b>202mg</b>	<b>0mg</b>	<b>438mg</b>	<b>1,771mg</b>	<b>1,182mg</b>	<b>1.9mg</b>	<b>0.46mg</b>	<b>18.8mg</b>
<b>RDA</b>		1,200-1,600 kcal	19g	< 42g	16.8g	< 42g	130g	1,000mg	440mg	10mg	130mg	1.5mg	500mg	3,800mg	< 1,900mg	5.0mg	0.6mg	25mg
<b>Kasimu Pre-School (4-8 yo)</b>																		
Likuni Phala	58g	230 kcal	9g	4.4g	5.4g	2.2g	36g	31mg	0.6mg	2mg	60mg	0.21mg	204mg	421mg	4.62mg	1.1mg	0.24mg	0mg
<b>RDA</b>		1,200-1,600 kcal	19g	< 23g	16.8g	< 23g	130g	1,000mg	440mg	10mg	130mg	1.5mg	500mg	3,800mg	< 1,900mg	5.0mg	0.6mg	25.0mg
<b>Kasimu Free Primary School (9-13 yo)</b>																		
Maize, Whole Grain, White	27g	99 kcal	1.9g	1.1g	2.0g	0.18g	21.1g	1.9mg	0.06mg	0.65mg	25.5mg	0.13mg	75mg	86mg	1.4mg	0.47mg	0.10mg	0mg
Rice, Cooked, NFS	18g	18 kcal	0.49g	0.05g	0.07g	0.009g	5.1g	1.8mg	0.01mg	0.22mg	2.20mg	0mg	7.9mg	6.4mg	44.8mg	0.09mg	0.02mg	0mg
Peanuts	22g	124 kcal	5.7g	10.8g	1.9g	1.04g	3.5g	20mg	0.25mg	1.01mg	37mg	0.42mg	83mg	155mg	3.95mg	0.72mg	0.08mg	0mg
Sugar	2.9g	11 kcal				2.9g												
Salt	1.02g														397mg			
<b>Total</b>	<b>71g</b>	<b>253 kcal</b>	<b>8.1g</b>	<b>12g</b>	<b>3.9g</b>	<b>4g</b>	<b>30g</b>	<b>23.9mg</b>	<b>0.33mg</b>	<b>1.88mg</b>	<b>65mg</b>	<b>0.55mg</b>	<b>165mg</b>	<b>248mg</b>	<b>447mg</b>	<b>1.3mg</b>	<b>0.19mg</b>	<b>0mg</b>
<b>RDA</b>		1,600-1,800 kcal	34g	< 25g	22.4g	< 25.3g	130g	1,300mg	700mg	8mg	240mg	1.6mg	1,250mg	4,500mg	< 2,200mg	8.0mg	1.00mg	45mg
<b>Kasimu Community Day Secondary School (14-18 yo)</b>																		
Maize, White	76g	273 kcal	5.2g	2.9g	5.5g	0.48g	58.2g	5.3mg	0.17mg	1.80mg	70.4mg	0.35mg	206mg	238mg	3.8mg	1.31mg	0.102mg	0mg
Rice, Cooked, NFS	63g	61 kcal	1.68g	0.18g	0.25g	0.032g	17.7g	6.3mg	0.04mg	0.76mg	7.57mg	0mg	27mg	22mg	155mg	0.31mg	0.017mg	0mg
Peanuts	76g	429 kcal	19.5g	37.3g	6.4g	3.57g	12.2g	70mg	0.87mg	3.47mg	127mg	1.46mg	285mg	534mg	14mg	2.48mg	0.076mg	0mg
Sugar	14.1g	55 kcal				14.1g												
Salt	5.0g														1,955mg			
<b>Total</b>	<b>229g</b>	<b>819 kcal</b>	<b>26g</b>	<b>40g</b>	<b>12g</b>	<b>18g</b>	<b>88g</b>	<b>81mg</b>	<b>1.08mg</b>	<b>6.03mg</b>	<b>205mg</b>	<b>1.8mg</b>	<b>518mg</b>	<b>794mg</b>	<b>2,127mg</b>	<b>4.1mg</b>	<b>0.19mg</b>	<b>0mg</b>
<b>RDA</b>		1,800-3,200 kcal	46g	< 82g	22.4g	< 81.9g	130g	1,300mg	890mg	15mg	360mg	1.6mg	1,250mg	4,700mg	< 2,300mg	9.0mg	1.2mg	65mg

Table 1. - Comparison of Feeding Programs

# *Kasimu Education Fund*

## *2020 Annual Report*



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### **3. Agriculture Project – (continued)**

#### *iv. Comparison of feeding programs Conclusions– (continued)*

- Kondwani's plan does not appear to be feasible because it would require a crop yield of 11 tonnes/hectare. The maize production in Malawi in 2018 was 1.6 tonnes/hectare (see Figure 2).
- A literature search found a study that looked at maize replacement with cassava. An assessment of the nutrition from 200 grams of the recommended 70% cassava and 30% soybeans as presented in Table 1. However, this appears to provide a reduced nutrition/gram content.
- In order to produce enough food from the 7-acre parcel to provide a daily lunch meal for the primary and secondary school students, the crop yield would have to be 14.3 tonnes/hectare.
- The maize, rice and ground nuts (peanuts) yields shown in Figures 2 -6, KEF could only produce 9% of the food required for the preschool, primary school and secondary school assuming a crop yield of 1.6 tonnes/hectare.
- KEF's plan is to continue with development of the Mulomole Family 7-acre parcel with one harvest in the dry season and research methods to increase crop yields.

#### ○ Crop Yields in Malawi

##### *i. Comparisons of crop yields with surrounding African countries, the US and the United Arab Emirates are presented in Figures 2 through 6*

- Maize (Figure 1)
  - *Malawi's maize yield in 2018 was 1.6 tonnes/hectare. This is probably due to growing only one crop in the rainy season.*
  - *The US yielded 11.86 tonnes/hectare in 2018. KEF is investigating how this was achieved.*
  - *The United Arab Emirates (UAE) yielded 28.47 tonnes/hectare in 2018. This yield is possible because the UAE uses hydroponics in climate-controlled multi-floor buildings.*
- Soybeans ( Figure 2)
  - *Malawi produced 0.98 tonnes/hectare in 2018*
- Rice (Figure 3)
  - *Malawi yielded 1.5 tonnes/hectare in 2018*
- Groundnuts (Figure 4)
  - *Malawi yielded 1.06 tonnes/hectare in 2018*
- Cassava (Figure 5)
  - *Malawi's yield of cassava increased to 22.7 tonnes/hectare in 2018*

# Kasimu Education Fund

## 2020 Annual Report



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### 3. Agriculture Project – Continued

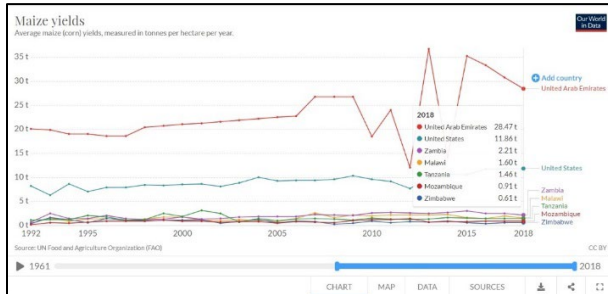


Figure 1 – Malawi Maize Yield in 2018 = 1.6 tonnes/hectare

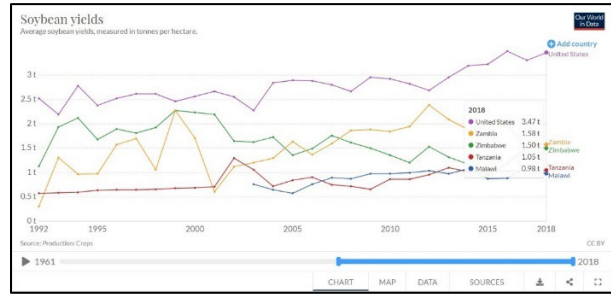


Figure 2 - Malawi Soybean Yield in 2018 = 0.98 tonnes/hectare

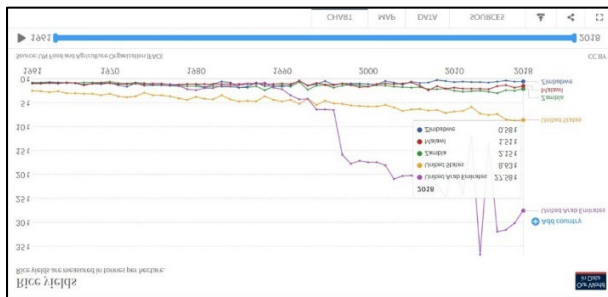


Figure 3- Malawi Rice Yield in 2018 = 1.5 tonnes/hectare

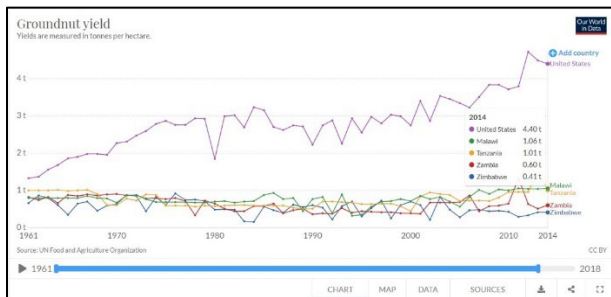


Figure 4 - Malawi Groundnut Yield in 2018 = 1.06 tonnes/hectare

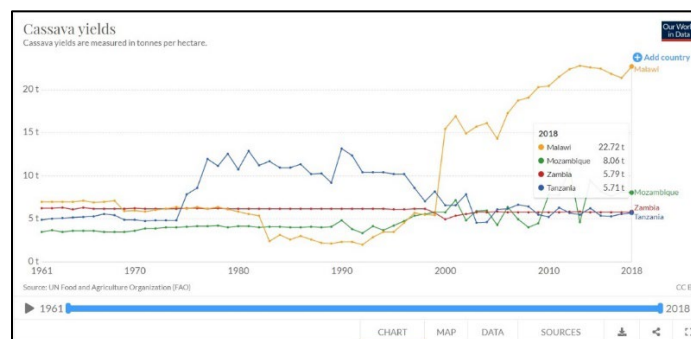


Figure 5 - Malawi Cassava Yield in 2018 = 22.7 tonnes/hectare

# Kasimu Education Fund

## 2020 Annual Report



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### 4. Grind Mill Project

- KEF purchased 5 shipping containers for a maize grind mill and teacher housing. The shipping containers are sitting in South Africa.
- KEF would like to transport the shipping containers to Kasimu School, but we have been told that the roads to the Kasimu School are “impassible”.
  - KEF asked 2 contractors for a quote to repair the road. What we got was quotes to replace the bidge shown in the pictures below.
    - i. *Quotes to repair this bridge:*
      - Potahmfanye Contractors \$12,815.83
      - KB Civil Contractors \$13,065.97
    - ii. *Quote to create a path around the bridge*
      - KB Civil Contractors \$7,839.31 (@MWK 730/\$) (MWK 5,723,062.50)
      - ½ of \$7,839.31 has been sent to KB Civil Contractors to start construction
  - KEF’s goal in Malawi is not the repair of bridges
  - KEF has requested a quote from KB Civil Contractors to grade the roads and grade a path around the bridge (shown in the pictures below) in the dry season starting in May so that the tractor trailers delivering the shipping containers can traverse this section of road.



<sup>i</sup> <https://www.enonline.net/nex/5/pilothomegrownmealmalawi>

<sup>ii</sup> <https://www.marysmealsusa.org/>

<sup>iii</sup> <https://www.cabi.org/gara/FullTextPDF/2008/20083325248.pdf>