



Transforming Lives and Growing Prosperous Futures  
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# 2022 ANNUAL REPORT

*"We are delighted to share with you the 2022 Annual Report, where remarkable results have been delivered. We thank God and are so thankful for your support."*

*-The Just Earth Team*



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## THE JUST EARTH MISSION

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**The importance of agriculture in poverty alleviation cannot be over-emphasised given the widespread poverty prevalent in rural areas.** The Kenyan Agriculture sector employs 40 per cent of the total population and more than 70 per cent of Kenya's rural people.

**Just Earth focuses on the rural poor and most vulnerable,** playing a major role in ensuring food security and economic recovery in rural communities, as an expression of God's heart for the poor - as seen in Psalm 113v5-8.

2022 was marked by drought and unpredictability of weather patterns. Notwithstanding, our Farmer Field School (FFS) training had a positive impact on productivity and there was a marked increase in crop yields, food security and incomes across the Just Earth programme areas for which we are hugely thankful.

### **Our Mission:**

To partner with local churches to bring spiritual, economic, social, and environmental transformation.



**Ven Alex Lutta with Just Earth staff on the Emmanuel Mung'ang'a demo plot.**



## THE FOUR STRATEGIC PILLARS OF JUST EARTH

Just Earth partners with local churches in rural Africa to help bring spiritual, economic, social and environmental transformation in impoverished communities.

### The Four Strategic Pillars of Just Earth:



#### Social Pillar

Ensuring school attendance, orphan and widow care as well as nutrition and food safety.

#### Environmental Pillar

Promoting planting of trees, diversification of crops, land and animal care, household climate change adaptation and sustainability.



#### Spiritual pillar

The Kingdom Life Bible study works to change lives in a holistic way. Farmers are facilitated through this course during the two years in a field school.

#### Economic Pillar

A school without walls in which farmers learn better farming techniques to enable them to achieve higher yields, more diversified crops and better income in order to improve their livelihoods.



## MAJOR OUTCOMES IN 2022

- 🌱 **11** FFS were commissioned with a total membership of **373**. The number of direct beneficiaries from FFS training were **2,611** and **10,444** more people benefitted indirectly through JE farmers sharing their knowledge with farming neighbours.
- 🌱 Graduation of **165** farmers in **11** FFS.
- 🌱 **2** Kingdom Life Course workshops for church leaders.
- 🌱 **2** Pastors' Essential Course workshops.
- 🌱 Training of **17** new FFS facilitators.
- 🌱 Planting of **1,377** avocado trees on land provided at the Bishop Muge Mission Centre, Kitale to generate profits to spread farm schools in the region.
- 🌱 **7** Field Days where local communities visited FFS demonstration plots to learn from FFS farmers and about the vision and impacts of JE.
- 🌱 The number of trees planted by FFS members during the year was **18,901**.
- 🌱 Farmers earned **KES 10,258,255** from their sale of crops.



The Rt Rev. Dr. Paul Korir, Bishop of Kapsabet Diocese presides over the graduation of God is Able Kimaam FFS on 17/3/22.



## NEW PLANTING OF AVOCADOS AT BISHOP MUGE MISSION CENTRE KITALE

**Grafted Hass avocados** were planted on a 9-acre piece of land provided by the Diocese of Kitale at the **Bishop Muge Centre** in June. Following a seismic survey, we installed a new borehole and solar-powered pump with elevated storage tanks. This is connected to a drip-feed irrigation system covering the 9 acres.

A total of **1,377** mature avocado seedlings were procured, and their survival rate is **100%**.

**Desmodium** was established between the rows as a cover crop for the control of weeds, prevention of soil erosion and nitrogen fixation. The additional purpose of this planting programme is to enable us to **provide planting material for all our FFS demonstration plots** and their farmers as part of our strategy to introduce all our farmers to **minimum-tillage planting techniques**, which calls for the use of ground cover from desmodium. These techniques dramatically reduce the need for petrochemical fertilisers (which have rocketed in price) and which also significantly reduce the need for labour for soil tillage and weeding.



Mara - Canaan Ropile FFS.

Maseno North Diocese – Neema Wandechi FFS.





## NEW 'HYBRID' SCHOOL IN THE MAASAI MARA

We started a new **'hybrid' FFS** in a Maasai church community based in the middle of the Maasai Mara. The pressure of Mara tourism was restricting their access to land for their cattle. They have been living on milk, meat and blood from their cattle for generations, and the community do not know how to grow horticultural crops within their more restricted land area.

A plot of land was provided by the community in 2021, and through the generosity of First Baptist Church Houston we were able to revive an existing borehole, install water storage tanks and electric fencing to protect crops from wild animals.

**83 local Maasai women** were recruited in late 2021 for launch at the outset of 2022 and were provided with one of JE's most experienced FFS facilitators.

**The FFS has performed remarkably well** and not only are they meeting their own needs for food, but their sale of surpluses to the hotel trade around the Mara has enabled them to purchase **10 sheep and one goat** for their community.



Kapenguria Diocese, newly created from Kitale Diocese – Canaan Lelan FFS Demo plot.

Canaan Lelan – Pauline Lemareng and her husband admire their bumper harvest and are grateful to JE for FFS.







**Field day participants.**

**The water tower and rehabilitated borehole.**



**An empowered woman explaining how to produce and utilize sweet potato.**

**Jubilant members displaying their 10 sheep and 1 goat purchased with proceeds from vegetable sales.**





# ECONOMIC PILLAR

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## MAIZE PRODUCTION AND ACREAGE TRENDS

Acreage planted with maize in Year 1 reduced from 234 to 191 compared to the baseline. But production still increased from 89 to 168 tonnes. This implies **more than double the increase in maize yields** from 0.38 tonnes per acre to 0.88 tonnes per acre, on average, across the regions.

This significant improvement in productivity may be attributed to **adoption of good agricultural practices** learnt by farmers in their FFS and interest-free farm input loans from Just Earth for fertiliser, manure, certified seed and agrochemicals. This support was invaluable because global prices of fertiliser sky-rocketed beyond the reach of vulnerable smallholder farmers.

**Farmers received practical training** on soil sampling, analysis and application of corrective measures, appropriate climate change adaptation strategies and land management practices at farm level including the use of farmyard and compost manure, incorporation of green manure into the soil, crop rotation, intercropping and control of soil erosion.

**Chart 1: Maize production and acreage trend after 1 year of learning**

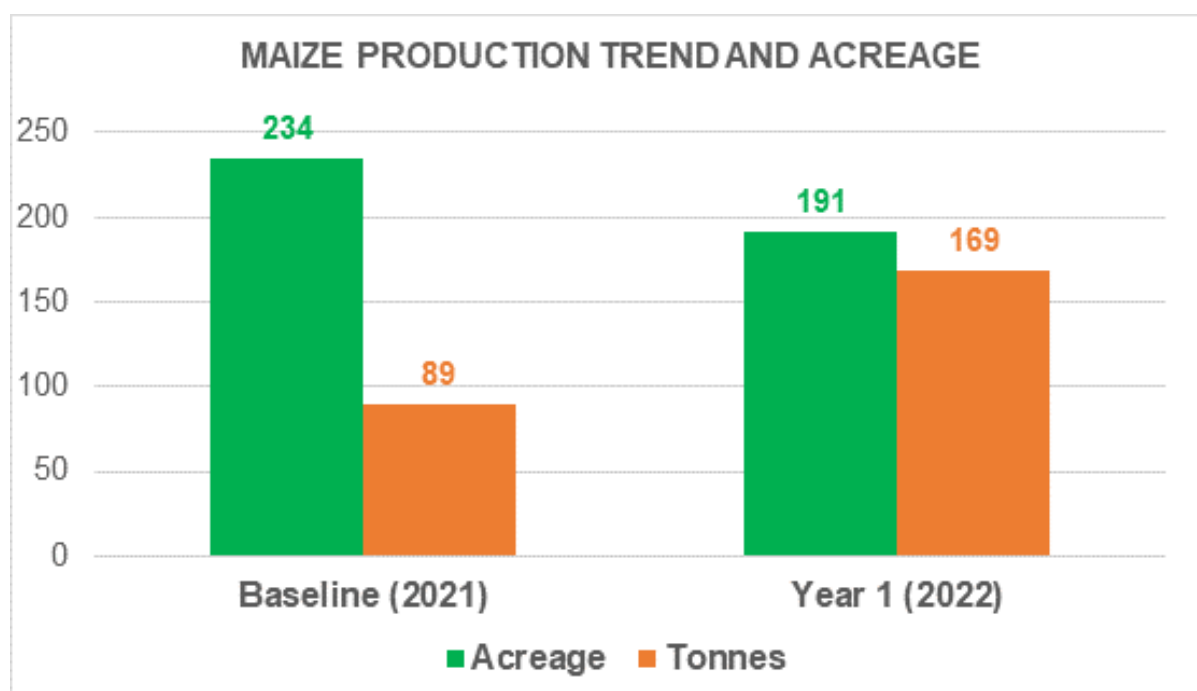




Table 1 below provides a detailed breakdown of the Pre-FFS maize yields and subsequent achievements over the 1 year of learning, by FFS:

**Table 1: Long Season Maize Production for Year 1 FFS**

Diocese/ Region	FFS Name	2021 (Baseline)			Year 1 (2022)		
		Acres	Tons	Yield (T/A)	Acres	Tons	Yield (T/A)
Kitale	Ebenezer Kaptama	26.3	19.9	0.8	20.3	35.6	1.8
Kitale	Eden Namanjalala	31.3	19.4	0.6	30.0	44.9	1.5
Kapsabet	Canaan Koyo	32.5	9.3	0.3	29.0	28.0	1.0
Mumias	Emmanuel Mung'ang'a	15.5	7.2	0.5	13.3	12.7	1.0
Mumias	Colossians Kamashia	20.8	6.3	0.3	15.3	12.6	0.8
Mumias	Ephesians Imakale	25.0	6.2	0.2	20.0	11.9	0.6
Maseno North	Neema Wandechi	26.0	6.1	0.2	21.0	13.7	0.7
Maseno East	Blessed Migingo	23.5	6.1	0.3	22.5	3.2	0.1
Maseno East	Faith Yogo	33.5	8.8	0.3	19.8	6.5	0.3
TOTAL		234.4	89.3	0.4	191.2	169.1	0.9

While most of our FFS's have seen significant improvements in yields since joining our programme, a **severe drought** has significantly impacted the yields of our farmers in the **Maseno East region**. Table 1 shows that yields have actually fallen during the year, which is something we have never experienced before and goes to illustrate the ongoing challenge we face as the effect of climate change gains momentum.



## INCOME FROM CROP SALES

Farmers earned a total of **KES 10,258,255** from sale of surplus and new crops. Maize, beans, and vegetables were their main source of income.

Other crops grown by farmers are sorghum, millet, and cassava. These are **traditional high value crops** which should be promoted more vigorously - especially in drought and heat-prone areas such as Maseno East.

**Short-season varieties** that farmers had not previously embraced in lowlands include lentils and certain varieties of sweet potato. The demonstration plots provide farmers with sweet potato vines sourced.

Table 2 presents the income earned from crop sales by farmers:

**Table 2: Income Earned from Crop Sales**

Name of FFS	Maize	Beans	Sorghum	Millet	Cassava	Potato	Sweet potato	G/Nuts	Veg	Total Income
	KES	KES	KES	KES	KES	KES	KES	KES	KES	KES
Ebenezer Kaptama	1,925,000	91,850	30,000	34,500	0	173,500	0	0	36,600	2,291,450
Eden Namanjalala	2,179,500	50,000	0	11,000	0	2,000	2,000	0	42,670	2,287,170
Canaan Lelan	0	15,250	0	0	800	118,700	0	0	26,150	160,900
Canaan Koyo	1,754,300	67,300	0	7,500	0	17,500	0	6,000	24,180	1,876,780
Emmanuel Mung'ang'a	663,800	11,600	600	0	0	0	9,000	12,100	3,450	700,550
Colossians Kamashia	641,200	31,600	0	0	2,300	0	600	16,000	14,700	674,800
Ephesians Imakale	582,000	18,500	0	0	0	0	8,500	0	3,000	612,000
Neema Wandeche	842,800	23,800	0	0	3,000	0	2,000	700	19,610	891,910
Blessed Misingo	225,090	35,085	15,100	0	0	0	0	0	6,000	299,025
Faith Yogo	400,340	20,480	12,900	0	8,000	0	4,000	0	17,950	463,670
<b>TOTAL</b>	<b>9,214,030</b>	<b>365,465</b>	<b>58,600</b>	<b>53,000</b>	<b>14,100</b>	<b>311,700</b>	<b>26,100</b>	<b>34,800</b>	<b>194,310</b>	<b>10,258,255</b>



## LIVESTOCK DATA

Livestock and crop farming are practised in **all programme regions**. FFS training focuses on pasture and fodder production and general livestock management issues, including feeding, housing, breeding, and disease control. Chicken and dairy farming remain the key livestock enterprises.

**Table 3: Livestock Data**

S/N	Region Diocese	Name of FFS	Livestock Data					
			Cattle	Sheep	Goats	Chicken	Pigs	Beehives
1	Kitale	Ebenezer Kaptama	80	44	11	212	-	9
2	Kitale	Eden Namanjalala	24	24	3	68	-	0
3	Kitale	Canaan Lelan	279	383	37	437	-	2
4	Kapsabet	Canaan Koyo	50	18	5	122	-	-
5	Mumias	Emmanuel Mung'ang'a	39	4	4	243	3	0
6	Mumias	Colossians Kamashia	32	2	7	234	3	1
7	Mumias	Ephesians Imakale	29	-	-	178	-	0
8	Maseno North	Neema Wandechi	43	6	24	212	-	0
9	Maseno East	Blessed Migingo	43	46	19	277	-	0
10	Maseno East	Faith Yogo	71	138	45	266	-	0
TOTAL			690	665	155	2,249	6	12

- = data unavailable

All demonstration plots have a major component through **livestock pastures and fodders** including fodder legumes and fodder trees. Livestock provides the bulk of manure that is used in crop farming. Crop residues, such as maize stovers, are used to prepare livestock rations. The number of livestock kept by FFS members is presented in Table 3 above.



# ENVIRONMENTAL PILLAR

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## TREES PLANTED BY FARMERS FIELD SCHOOLS

To **promote environmental resilience**, promotion of tree planting was done in all programme areas. Each farmer was encouraged to plant **25 trees** of which 5 were required to be fruit, in order to improve household nutrition.

A total of **18,901 trees** were planted by FFS members, bringing the total of trees planted through Just Earth intervention to **168,605**.

A breakdown of the total trees planted by FFS's is presented in Table 4 below:

**Table 4: Tree Planting by Farmers**

S/N	Region/ Diocese	FFS Name	Trees Planted in 2022				
			Indigenous	Exotic	Fruit	Agro- forestry	Total
1	Kitale	Ebenezer Kaptama	772	974	190	567	2,503
2	Kitale	Eden Namanjalala	492	1,675	258	702	3,120
3	Kitale	Canaan Lelan	610	398	166	656	1,830
4	Kapsabet	Canaan Koyo	523	1,088	205	360	2,176
5	Mumias	Emmanuel Mung'ang'a	398	510	313	171	1,372
6	Mumias	Colossians Kamashia	854	1,282	281	176	2,593
7	Mumias	Ephesians Imakale	220	927	69	185	1,416
8	Maseno North	Neema Wandeché	501	631	260	298	1,690
9	Maseno East	Blessed Migingo	348	99	278	479	1,204
10	Maseno East	Faith Yogo	400	226	125	246	997
TOTAL			5,118	7,810	2,145	3,840	18,901





**Just Earth Founder Director Rev. Bruce Collins plants a tree during his visit to Blessed Migingo FFS, Maseno East on 11/5/22.**

**Trees grown alongside crops on Mrs Benter Odida's kitchen garden – Blessed Migingo FFS, Maseno East.**





## CLIMATE ALTERATION ADAPTATION STRATEGIES

FFS farmers were trained upon **household climate change adaptation strategies**, such as organic farming, soil erosion control, contour farming, mulch farming, conservation tillage, planting of fallow crops and grazing land management.

Table 5 below presents some of the climate change farm level adaptation strategies that farmers adopted in 2022, which also helped in soil and water conservation.

The most adopted climate change adaptation strategy was the use of compost and farmyard manure, mulching and the use of terraces to control soil erosion.

**Table 5: Climate Change Adaptation Strategies**

S/N	Diocese/ Region	Name of FFS	Climate Change adaptation strategies					
			Terraces	Contours	Fallow crops	Compost FYM	Zero Tillage	Mulching
1	Kitale	Ebenezer Kaptama	5	6	3	8	2	7
2	Kitale	Eden Namanjalala	4	3	4	12	4	5
3	Kitale	Canaan Lelan	6	5	1	14	0	0
4	Kapsabet	Canaan Koyo	1	4	1	2	0	4
5	Mumias	Emmanuel Mung'ang'a	6	6	4	12	1	6
6	Mumias	Colossians Kamashia	8	10	6	15	1	13
7	Mumias	Ephesians Imakale	8	2	-	9	-	2
8	Maseno North	Neema Wandechi	13	8	5	16	10	8
9	Maseno East	Blessed Misingo	14	2	2	9	1	7
10	Maseno East	Faith Yogo	17	5	3	14	3	57
TOTAL			82	51	29	111	22	109

- = data unavailable



# SOCIAL PILLAR

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## SHADRACK RONO'S STORY

### GOD IS ABLE KIMAAM FFS- KAPSABET

Shadrack Rono is a member of God is Able Kimaam FFS. His local church is ACK St. Joseph's Kabirer, Kimaam Parish, Kapsabet Diocese. Aged 37 years, Rono is married with 2 children. He owns 1 acre of land. Before joining FFS, he used to harvest 3 (90kg) bags of maize from the half-acre he used to grow maize. After FFS training, he learnt how to make and utilise Farmyard and Compost Manure which has tripled his maize yield to 9 bags from his farm. He has also planted, banana, avocado and tea. To utilise his acquired knowledge, he diversified into horticulture and grows cabbage, tomato, and local vegetables for sale on a piece of land hired from a neighbour, where he uses irrigation and mulching during the dry season.



**Dairy Goats.**



**Maize mill bought in 2021 from farm produce sales.**

To conserve the environment, he has planted 150 trees since joining FFS, which is a mix of exotic (Blue Gum and wattle), indigenous (Syzigium) and fruit (Fuerte avocado).

Rono keeps 2 cows, goats, and some indigenous chickens. From the sale of his crops, Rono has put up livestock structures and bought 8 dairy goats, a chaff cutter, and a maize milling machine to generate income. Rono says that he and his wife are now fully employed on the farm, and he is grateful to Just Earth



for the knowledge he has and farm inputs for maize farming. He has trained several neighbours and 3 have adopted good agricultural practices in vegetable growing and climate change adaptation practices such as mulching and intercropping.

His testimony on the Kingdom Life Course is touching. He says the course has enabled him to learn how to share his farm produce with those who have no food and live well with his neighbours.



**Rono's vegetable farm.**



## **RAEL KORIR'S STORY**

### **GOD IS ABLE KIMAAM FFS- KAPSABET**

Rael Korir is a member of God of is Able Kimaam FFS. Her local church is ACK St. Michael and All Angels Kabongwa, Kimaam Parish, Kapsabet Diocese. Aged 51, Rael is married with 2 children. Through FFS training, Rael has adopted good agricultural practices that has improved maize yields in a quarter acre from 3 to 10 (90kg) bags. She engages in tissue culture banana farming; vegetable growing and applies recommended techniques - e.g., use of multi-storey kitchen gardens for climate change adaptation. Income from sale of farm produce and FFS training has enabled Rael to start a pig-keeping project. She uses manure from the piggery to produce biogas for use in her kitchen.



**Rael's tissue culture bananas.**



**Strawberries growing on a multi-storey garden.**

Rael is grateful for the Kingdom Life Course which she says has made her a more responsible steward of God's resources. As a Lay Reader in the Anglican Church, Rael says the course has equipped her with more knowledge of God and His word, which enables her to reach out to more people. FFS training has made her a role model in her community, and she has trained more than 50 people on her farm.





Rael established her pig project with income from sale of her crops.

Pig manure produces biogas.



Cheaper and cleaner biogas makes life better in the kitchen.



Organic vegetables fed on biogas plant manure.





## ALBERT ASHITIVA'S STORY

### GENESIS MWIYENGA- MASENO NORTH

Albert Ashitiva is a member of Genesis Mwiyeanga FFS. His local church is St. Andrews Embale, Mwiyeanga Parish, Maseno North Diocese. Aged 48, Ashitiva is married with 2 children. FFS farming has equipped Ashitiva with good farming skills. Before joining FFS, he used to harvest 8 (90kg) bags per acre. After receiving FFS training, his maize yield increased to 18 bags per acre. He attributes this to skills he has acquired on preparation and utilisation of compost manure, as well as correct plant spacing. The farmer has diversified into growing of vegetables such as Kales, black nightshade, cow peas and crotalaria for



**Compost making and utilization has increased farm productivity.**



**Income from sale of farm produce has enabled Ashitiva to put up a better house next to his old house.**

consumption and income generation. From crop sales he educates his two children in secondary school and has cemented and extended his house. Ashitiva is also a livestock farmer who keeps cows and geese. To prevent soil erosion, he has made terraces across his farm and planted Napier grass along the terraces which he uses to feed his cows. He has also planted 60 indigenous trees to conserve the environment.



## REBECCA LOTTEE'S STORY

### BARAKA CHEPARERIA FFS - KAPENGURIA

Rebecca is married to Francis Lottee, a member of Baraka Chepareria FFS, Kapenguria Diocese. Through the FFS training received by her husband, Rebecca has acquired skills in management of chickens, dairy cows, and goats. She keeps records to monitor the profitability of her farm. Among the records kept are crop expenses, daily milk production data and vaccination schedules for her chickens.

The couple has also learnt about making and utilising compost manure, spacing of crops, intercropping. Their maize yield has increased from 5 to 12 (90kg) bags per acre. They have established Napier grass, Rhodes grass and hedges of protein rich Calliandra and Sesbania fodder trees for feeding their livestock. Maize husks are preserved too for dry season feeding as a strategy for climate change adaptation.

The Kingdom Life Course received by her husband and shared with her has helped them grow spiritually and live well with other people.



**Maize stalks for dry season feeding.**



**Calliandra as a source of livestock protein.**

**Fruit trees for nutrition and environmental conservation.**





# SPIRITUAL PILLAR

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## USE OF DEMO PLOT INCOME

The church leaders ensure that 80 per cent of the income from sales of crops from the demonstration plots are used to **support the vulnerable** - mainly orphans and widows. The beneficiaries are members of the community where the FFS is located, identified by FFS members. Reports from the field indicate that the support provided is either in the form of food, school fees or money to purchase household items.

Table 6 highlights the income acquired by FFS members from sale of demonstration plot produce in 2022 and how 80% of that income was utilised.

**Table 6: Demo Plot Income and Utilisation**

Diocese	Name of FFS	Income from demo plot	80% remitted to church	How the 80% was utilized
Maseno East	Faith Yogo	10,200	8,160	Support the needy
Maseno East	Blessed Migingo	6,355	5,085	Support needy family
Maseno North	Neema Wandeché	8,720	6,970	Support the poor
Mumias	Emmanuel Mung'ang'a	27,000	19,200	Support vulnerable families
Mumias	Ephesians Imakale	3,615	2,890	Assist needy child
Mumias	Colossians Kamashia	5,910	4,430	Support the needy
Kapsabet	Canaan Koyo	9,030	7,170	Help an orphan
Kitale	Ebenezer Kaptama	13,050	10,440	Assist Orphans
Kitale	Eden Namanjalala	16,230	12,984	Assist an orphan
Kitale	Canaan Lelan	7,800	6,420	Support the elderly
Narok	Canaan Ropile	55,385	55,245	Purchase 11 sheep and 1 goat
TOTAL		163,295	138,994	



# CHALLENGES AND DEVELOPMENTS

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## 2022 CHALLENGES

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2022 has seen a number of challenges both within and without Just Earth's ability to influence and control, the key ones being:

-  **Drought** - Negative effects of climate change and climate variability resulting in erratic rains, crop pests, diseases, and now significant periods of drought, which has had a real impact on JE farmers in many regions. Maseno East, in particular, was badly impacted by drought, which explains some of the reported output figures above. This is being mitigated/managed through application of on-farm adaptation and mitigation strategies such as tree planting, use of appropriate crop varieties, crop rotation, intercropping, mulching, ridging etc. Zero- or minimum-tillage planting techniques, organic farming, and transition from rain-fed to irrigated agriculture would provide a lasting solution.
-  **Global Inflation** - Significantly higher cost of farm inputs as a result of global inflation. Farmers are being advised to embrace organic farming by utilising farmyard manure and compost manure which will substantially reduce their input costs.
-  **Variable attendance**, attributable to time management and weakness in the local recruitment process.
-  **Variable (good/average/poor) loan repayments** by churches and inadequate reporting/updating attributable to perceptions, expectations, provision methodology and discipline; impacted by consequences of drought and increased input costs.



## GOING FORWARD INTO 2023

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- 🌱 2023 is planned to be our biggest year yet with more and more rural families to be raised out of poverty into sustainable futures.
- 🌱 We are hugely grateful to all our generous partners for their wonderful support and pray that the Lord will bless each for their generosity.
- 🌱 Please continue to pray for our JE team, the churches, and farmers that we serve.







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**THANK YOU**