SHAMBA SHAPE UP
SERIES 13

IMPACT OF VIEWING ON FARMERS' KNOWLEDGE, ATTITUDES AND PRACTICES

Survey Data: African Stats LTD

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Acronyms and abbreviations

SSU   Shamba Shape Up

KAP   Knowledge Attitudes and Practices

CATI   Computer Aided Telephone Interviews

CIAT   International Center for Tropical Agriculture

MECS   Modern Energy Cooking Services

GIZ   Deutsche Gesellschaft für Internationale Zusammenarbeit

Executive Summary

Shamba Shape Up (SSU) has been running for the past 13 years in Kenya. It is estimated to have reached over four (4) million households, with a high degree of edutainment success. Lack of information in agriculture has been cited as one of the main challenges regarding improved production.

Data for series 13 was collected only as endline with most of the topics being part of the previous series. The series was 23 episodes long, in English and Swahili. The English episode was aired every Saturday at 1.30pm, and the Swahili one every Sunday at 1.30pm on citizen TV in Kenya - the most popular TV station in the country.

The series 13 Knowledge, Attitudes and Practices Survey (KAP) was based on computer-aided telephone interviews (CATI). Respondents were selected randomly from a database after seeking their consent before the interview. African Stats used its existing database, which was developed using random digit dialling.

For this survey, 2,119 respondents consented to being interviewed. Out of these, 63% claimed to have watched or streamed television within the past 7 days. Male viewers were 61%, females 39% to 41%, while viewing by age was as follows 18-35 (24%), 36-45 (32%) and 46+ (44%) Male viewers were 61% and female viewers 39%, while viewing by age was as follows: 18-35 (24%), 36-45 (32%) and 46+ (44%).

The programme is broadcast on Saturday in English and on Sunday in Swahili on Citizen TV, which is the leading TV channel in the country, and has a total daily viewership of 12 million. Based on the findings of the random sample in this survey, the SSU series 13 is projected to have reached over 4 million households weekly.

Other main agricultural programmes the participants claimed to have watched in the past 6 months were Kilimo Biashara on K24 Television (39%), Mkulima on KBC Channel 1 (23%), and Ukulima ni Ujuzi (13%). Three out of five viewers of SSU 13 (59%) claimed that they had watched at least 1 episode of Shamba Shape Up per week, this is slightly higher, but not significantly different to the 54% with similar claims regarding viewership of SSU 12.

Almost all the persons interviewed watched the programme at home (96%) which is similar to 94% in SSU 12. Watching the programme with other people has increased slightly, with those saying they watched it with 1-2 other people aged 18+ increasing to 47% from 42%.

Only 19% of the current viewers are new to the programme, that is, they have watched if for less than one year. This could indicate a growing new audience, possibly made up of younger viewers. Of the respondents, 5% claimed to have been watching the programme for 10 years, while a majority; 4 out of 10 (42%) said they have watched it in the past 2-4 years, which would be from Series 9 to the current Series 13.

When asked if anything had changed in their lives because of watching the programme, approximately 9 out of 10 (88%) respondents answered in the affirmative. When asked about what topics they would like to see covered in future, about half (52%) of the respondents said they would like to see topics about markets and market access for their products covered in the programme.

In the current series 13, 44% said they would like to see more of "Shamba weather" and other content, and 1 in 5 (22%) said the series is too long, while a third (31%) said they would sign up for it.

A third of the small holder farmers who were aware of "Shamba Weather" said it is very accurate, further, two thirds (67%) said that the information is sometimes accurate. Only 9% claimed to be using iShamba. Most are recent users, with more than half (55%) saying they have been using it in the past 1 year, and 37% in the past 1-3 years. The tracking report from the iShamba platform reveals an impressive engagement with the programmes. In total, 41,607 engagements were recorded with three quarters (74%) as short messages (SMS) questions.

Approximately 4 out of 10 (39%) said that farming is profitable, and one quarter (26%) said they perceived farming as a good employment option for them and 14% said farming is 'cool'. Aa majority of respondents (87%) said they would like to engage in agriculture it as a business. Three quarters (75%) said they would change the crops/livestock they are currently growing or keeping in order to farm as a business, while 58% said they would seek financing to start investing in farming. Only 1 in 10 respondents (10%) said they did not change their minds because of viewing SSU 13

Market access and farming as a business are topics that 4 out of 10 youths, (40%) said would be an important feature in future the programmes, while one third said they would like more advice on the type of crops/livestock to keep in future for good returns (32%) in future. On capital access, respondents said that their main sources for capital for farming included savings (54%) and formal loans (48%).

On chicken farming, 7 in 10 respondents said they learned that a well-constructed chicken house is important (70%), followed by proper feeding to ensure good production (62%). The Kenbro improved Kienyeji chicken was said to give more meat and eggs than the normal Kienyeji chicken by over half of the respondents (52%). Asked on the improvements they would do for dairy cows, deworming the cows every 3 months is important as mentioned by three quarters (75%) of the respondents.

Small holder farmers said all the topics they had watched were interesting. The top three topics were said to be how to diligently follow vaccination schedules for chicken (83%), how to grow/make one's own animal feeds (78%), and how to choose the right type of feeds to give (72%).

Based on the findings of this survey, the Shamba Shape Up programme plays an important role in improving knowledge, attitudes and practices while entertaining the audience. Over the years, viewership has continued to improve with almost 4 in 10 respondents having been viewing the programme for more than 5 years, also, it is important to note that 19% said they only viewed the programme in the past year, which shows continued growth.

In summary, the key points are.

- Population projections for SSU 13 shows that the programme is estimated to have reached over 8-9 million viewers every week.
- Close to 9 out of 10 (88%) viewers who had viewed different agricultural programmes said that they trust Shamba Shape Up the most as a source of agricultural information.
- More than a third (37%) of the women interviewed said that they are involved in decision making on farming activities.
- The Swahili version is the most popular version of the programme. Slightly more than half of respondents (55%) said that they watch the Swahili version only. 21% of respondents said that they watched the English version only. 24% of the respondents said that they watch both versions of the programme.
- There is a small number of people who are watching the programme online (2% of respondents). This an important channel since the viewers do not have to watch at a specified time, data from the YouTube analytics show an average of 2,469 views per each episode.
- Around 9% of viewers say that have signed up to iShamba, which is in line with the iShamba subscription base of 550,000 sign ups.
- Findings from the youth segment show very positive mindset about agriculture: 87% said they would like to engage in it as a business, while three quarters (75%) said they would change the crops /livestock they are currently growing or keeping. Interestingly 92% of those who are not currently farming on their own other than the household farms said that they would like to start farming in the next 3 years. One key area that needs improvement is record keeping as only half (51%) of respondents aged 18-35 said they keep records.

- In future, the content of Shamba Shape Up could include topics on market access (52%), especially for the young viewers, there is an urge to transform agriculture from subsistence to more of a business venture.

1. Introduction

The Shamba Shape Up (SSU) series has been running for the past 13 years in Kenya, and it is estimated to have reached over 4 million households weekly with a high degree of success in improving knowledge, attitudes and practices while entertaining the audience. Lack of information in agriculture has been cited as one of the main challenges facing improved agricultural production. Shamba Shape Up aims to bridge this gap through both meetings its audiences' information needs as well as entertaining them. Generally, the agricultural sector contributes to 51% of Kenya's GDP - 26% directly and 25% indirectly. It also accounts for 60% of employments and 65% of exports. The sector is dominated by small holder farmers with an average of 0.5 to 5 acres[1].

The average age of a farmer in Kenya is 37 years. This is based on the Kenyan Population and Housing Census, 2019, while the mean age of the general population is 15 years. According to the National Council for Population and Development (NCPD), a large share of the population is comprised of children and young adults, with over 80% aged 35 years and below.

Data for series 13 was collected only as an endline survey alone. The series ran across 6 months (March – September 2023) spanning over 23 half hour episodes. Most of the topics were part of previous seasons of the programme. The English episode aired on Saturday 1.30 PM, and the Swahili episode aired on Sunday 1.30 PM on Citizen TV of Kenya, which is the most popular TV station in the country.

1.1. Partners

The below table shows the partners for Shamba Shape Up series 13 and the subsequent topics covered by each partner.

Table 1: Partners for SSU Series 13

Partner	Topics covered in SSU 13
Alliance Bioversity International and CIAT	Climate smart adaption in the dry lands; focus on various crops and livestock
Alliance Bioversity International and CIAT	Livestock, Climate and System Resilience (LCSR), Climate literacy
Alliance Bioversity International and CIAT	Conservation Agriculture (Hello Tractor) Climate literacy
Alliance Bioversity International and CIAT	Beans: Beans management depending on crop stage, Planting Beans of KK8 and good management practice
MECS	Clean cooking: (solar) electric pressure cooker, air fryer

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[1] World Bank Group (2018). Kenya Economic Update, April 2018, No. 17: Policy options to advance the Big 4 Agenda. World Bank, Nairobi. Retrieved from: https://openknowledge.worldbank.org/handle/10986/29676

Plant & Food Research (Olivado)	High health nursery for avocado seedling production
CKL Africa	Livestock, Health, Nutrition, Hygiene
Syngenta	Crop protection-pesticides
Crop Nuts	Soil testing
GIZ Youth	Youth in farming as a business: Poultry, Passion fruit + apiculture, Composting Green Waste, African Leafy Vegetables, Compositing Vermiculture (ProSoil), Agribusiness services, Sweet potato
Kenchic	Setting up a chicken business from scratch, Product focus- Kenbro (day old chicks)
GIZ Soil fertility	Soil fertility management

1.2. Survey Methodology

Series 13 was carried out using a computer aided telephone interviews (CATI) by African Stats. Respondents were selected randomly from a database of Kenya aged 18+ who have been recruited in the past using face to face data collection methodology or Random Digit Dialling. All respondents were asked for consent before the start of the interview.

Data collection was carried out as from the 9th to 28th of September 2023, with the last episode of Shamba Shape Up having aired on the 3rd of September 2023. There was a short time lapse between the end of the airing and start of the survey so respondents' recall on the messaging was high.

The survey targeted only respondents who had viewed at least 1 episode of the series every other week, which is at least 2 episodes in a month. The sample frame was drawn from randomly generated telephone numbers using a method known as RDD (Random Digit Dialling). This is a type of probability sampling where numbers are generated automatically using a software to create samples. This method is highly regarded as an unbiased sample creation method, especially for nationally representative samples and it has been used by major research organisations worldwide. According to the USAID Demographic and Health Survey (DHS), 2022, 95% of households in Kenya have access to a mobile phone, while 56% of households engage in subsistence farming[2].

For this survey, a total of 2,119 respondents consented to being interviewed, and out of these, 63% claimed to have watched or streamed television in the past 7 days, which is how TV viewers is defined. This proportion is similar to other findings from nationally representative surveys, such as the Kenya Measures DHS, 2022, which found that 55% of women and 60% of men watch television on a weekly basis)[3].

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[2] Kenya Population and Housing Census data 2019

[3] KNBS and ICF. 2023. Kenya Demographic and Health Survey 2022. Nairobi, Kenya, and Rockville, Maryland, USA: KNBS and ICF

Table 2: Sample frame details

	Sample demographics (Population with access to mobile phones)	Number	%	Remarks
1	Total Number who consented to the Survey	2119	100%	
2	Respondents whose main household income is from Farming	1800	85%	
3	Households with land Size for farming between 0.5 acre to 10 acres	1695	80%	
4	Are main decision makers or part of main decision makers	1679	79%	
5	Have Watched / Streamed TV in past 7 days	1325	63%	This is defined as "TV viewers"

1.3   Sample profile by gender, age, and location

The sampling methodology was random, however, only respondents who passed the screening criteria were eligible to part take in the survey. Distribution of the sample is a shown in the chart below. Although soft quotas were applied at the end of data collection to improve on the proportion of 18-35 viewers, the attained sample largely mirrors the general audience and the profile of smallholder farmers in Kenya. Comparing the demographics of the data collected in SSU 13 to that of SSU 12 viewers, men made up 61% of the SSU series 13 survey compared to 59% in series 12 and women made up 39% compared to 41%. The age of respondents was as follows: 18-35 (24% vs 31%), 36-45 (32% vs 33%) and 46+ (44% vs 37%).
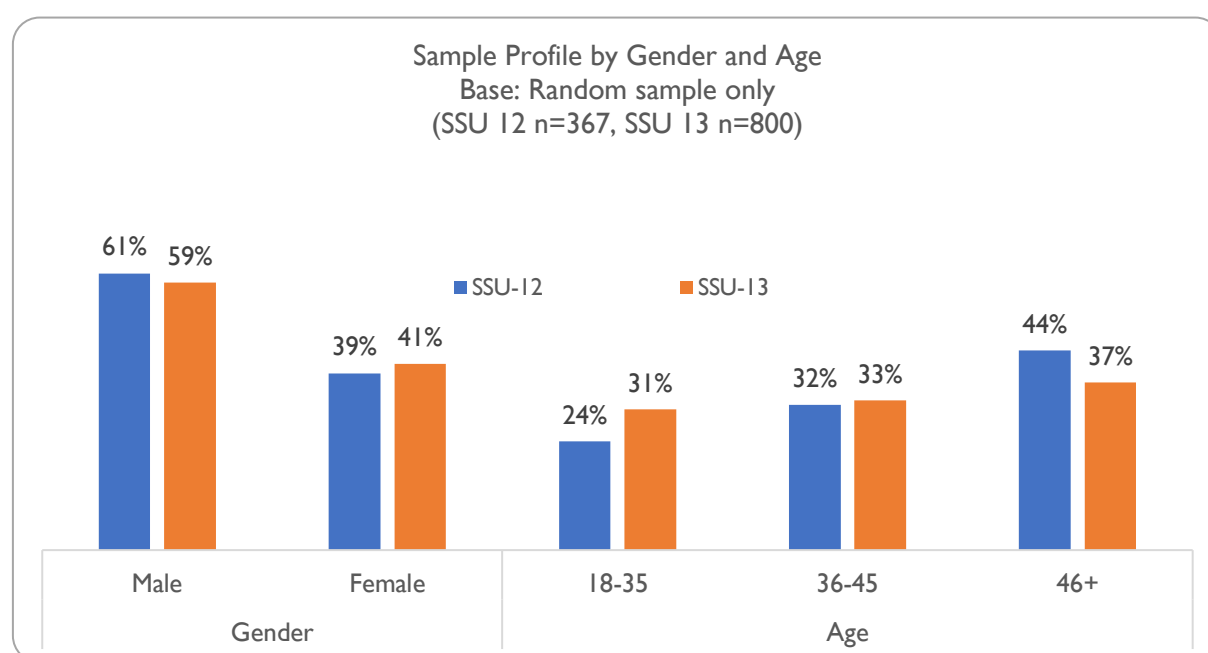
Figure 1: Sample Profile by Gender and Age

Data was collected from all counties in Kenya since the intervention was done through Television. The combination of small holder farmers who had watched television in the past 7 days is skewed more to farmers with access to electricity, which, is over 76%[4] of households in Kenya or can access solar power.

Table 3: Sample Distribution among counties

	County	% of sample			County	% of sample			County	% of sample			County	% of sample
1	Baringo	16		13	Kiambu	47		25	Marsabit	3		37	Samburu	-
2	Bomet	25		14	Kilifi	16		26	Meru	43		38	Siaya	24
3	Bungoma	32		15	Kirinyaga	11		27	Migori	16		39	Taita Taveta	6
4	Busia	21		16	Kisii	28		28	Mombasa	14		40	Tana River	1
5	Elgeyo-Marakwet	8		17	Kisumu	30		29	Murang'a	30		41	Tharaka Nithi	11
6	Embu	26		18	Kitui	19		30	Nairobi	66		42	Trans-Nzoia	17
7	Garissa	3		19	Kwale	6		31	Nakuru	47		43	Turkana	1
8	Homa Bay	11		20	Laikipia	17		32	Nandi	17		44	Uasin Gishu	32
9	Isiolo	2		21	Lamu	3		33	Narok	21		45	Vihiga	25
10	Kajiado	16		22	Machakos	35		34	Nyamira	10		46	Wajir	-
11	Kakamega	45		23	Makueni	20		35	Nyandarua	20		47	West Pokot	6
12	Kericho	21		24	Mandera	2		36	Nyeri	15				

1.3.   Main source of income

By design, all the participants had farming as the main source of income for their households. About 8 out 10 (79%) claimed that they earn from both crop and livestock, while 17% do only crop farming. The remaining 3% engaged in livestock keeping only. With the balanced focus of the series on both crop and livestock farming, each viewer had an opportunity to learn.

These farming activities happen in portions of land size of 0.5 and 10 acres. One third of the farmers (32%) said they farm in land between 0.5 and 1 acre. A similar proportion (33%) farm in 1 to 2 acres, while the rest have farm sizes which are more than 2 acres (34%), which is like the general profile of small holder farmers in Kenya.

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[4] ENERGY & PETROLEUM STATISTICS REPORT 2022: EPRA KENYA
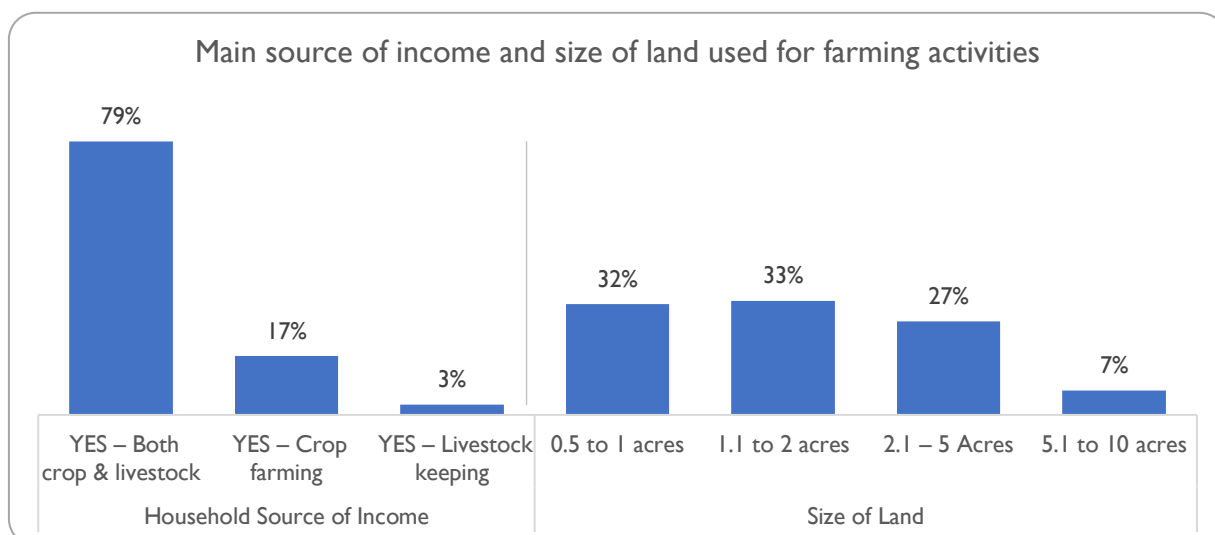
Figure 2: Source of income and size of land used for farming activities.

1.4. Decision making

While half of the farmers said that they make decisions on their own, approximately 53% said they make decision as couples. It is important to note that of those who said they make decisions on their own, 46% are women. Combined with those who said they make decisions with their wives, this showed that 37% of women are involved in decision making on farming activities.
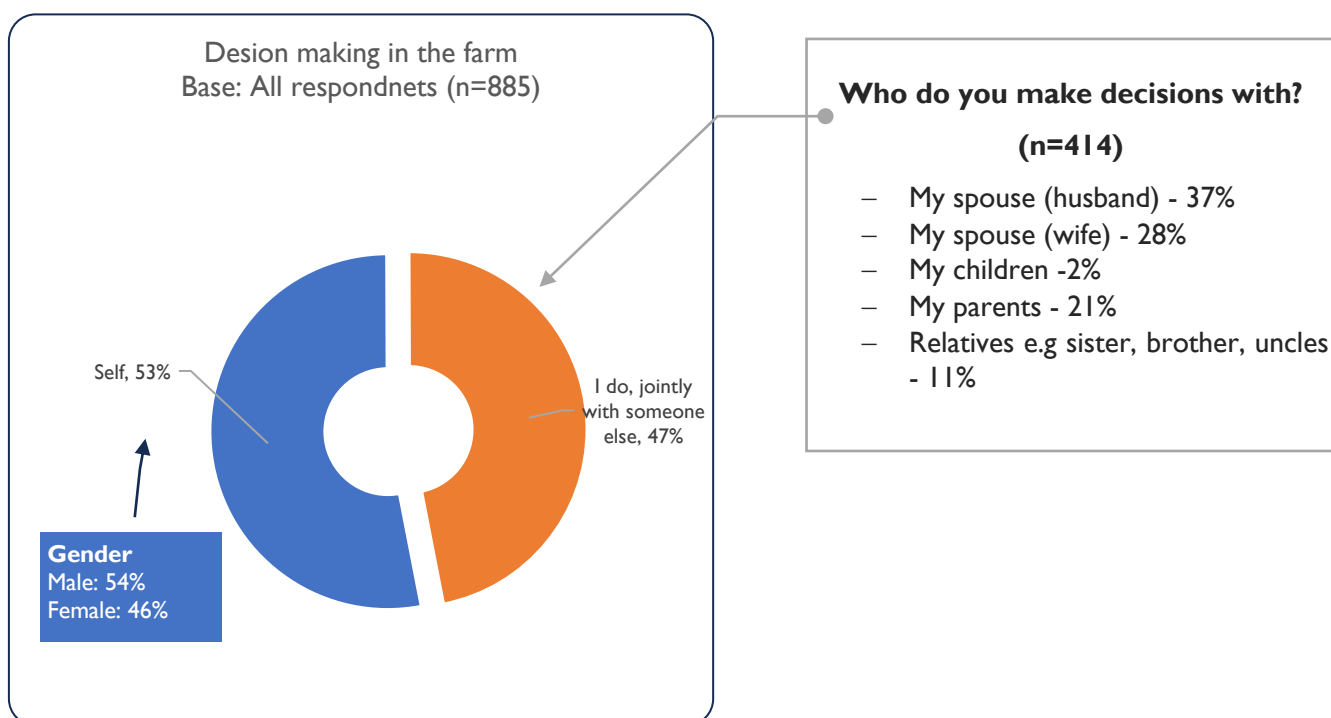
Figure 3: Who makes decisions in the farm?

2. Main Findings

2.1. Viewership of Shamba Shape up 13

The programme is broadcast on Saturday in English and on Sunday in Swahili on Citizen TV, which is the leading television channel in Kenya with a total daily viewership of 22 million[5].

A total sample for 2,119 respondents consented to the survey, the study design had various screening criteria for the respondents, the table below shows that 1,325 (63%) of all sampled respondents claimed to have watched Television in the past 7 days, hence being the universe of TV viewers as per the definition. Further 996 viewers said they had specifically watched Shamba Shape Up, this is 47% of the total sample, but 75% of the TV viewers.

Table 4: Screener questions

	Sample demographics (Population with access to mobile phones)	Number	%
1	Could you please spare some time for the interview? Are you willing to participate? - *Respondents who said "Yes"*	2119	100%
2	Is your household's main source of income from farming? - *Respondents who said "Yes"*	1800	85%
3	How much land does your farm cultivate/keep livestock? State amount in acres. - *Households with land Size for farming is "Between 0.5 acre to 10 acres"*	1695	80%
4	Who makes decisions or influences decisions on your farm? – *Respondents who are main decision makers or part of main decision makers*	1679	79%
5	Have Watched / Streamed TV in past 7 days. - *Respondents who said "Yes"*[6]	1325	63%
6	Which of the following programmes about agriculture have you watched in the last 6 months - from March to September of this year? – *respondents who said "Shamba Shape Up"*	996	47%

Findings from the survey show that of these 996 respondents who had watched the SSU program, in the past 6 months about 9 out of 10 (89%) watched 1 episode every other week, or at least 2 episodes a month. As per the methodology design, these are regarded as viewers of the programme.

Table 5: Incidence of watching SSU among sampled TVs viewers.

1	Have Watched Shamba Shape Up	996	100%
2	Watched SSU - One episode every other week 2 episodes a month (considered a viewer) – Random sample	798	80%
3	Watched SSU - One episode every other week 2 episodes a month (considered a viewer) – Random + Boost sample[7]	883	89%

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[5] GeoPoll Audience research Data utilized is for the past 30 days as of October 17th, 2023.

[6] By definition, these are considered to be the "Television Viewers" – Having viewed Television in the past 7 days

[7] Due to the small proportion of small holder farmers aged 18-35, 85 respondents of this age group were purposively sampled, that is this for this portion of data collection, only respondents aged 18-35 were interviewed while all the rest were dropped even if they had consented and were qualified for the survey.

2.2.   Projection of SSU Viewership to general population

The Kenya Population and Housing Census, 2019, reveals that the number of people above 18 years of age in Kenya is 25,640,188. Since mobile phone access in households has been established to be at 95%, the universe of this survey would be similar in nature to the national population. Using the finding of the random sample in this survey, as per the table below, the SSU Series 13 is projected to have reached between 9 million Kenyans aged 18 years and above. Accounting for two person per household, this is equivalent to approximately 4.5 million households.

Table 6: Projection of SSU 13 to general population viewership

Projection of viewership of SSU 13 to general population	
Population aged 18+	25,640,188
Respondents who consented to the survey	2,119
Proportion of SSU Viewers (at least 2 episodes in a month)	798
% of the viewers to entire sample	38%
Projected SSU 13 Viewership to general population	**9,655,908**

Data for the past 12 series[8] has shown a constant improvement of audience from a 1.7 M per episode to 3.7 M in Series 12. Further, figure 5 below shows that close to half (47%) watched the programme with 1-2 people, and 24% watched with 3-4 people while 8% watched with 5-8 people. If we apply these findings to the regular Audience Measurement Survey figures we can also estimate an audience reach of over 4 million households.

These two combined sources and trends give an estimated viewership of between 8-9 million.

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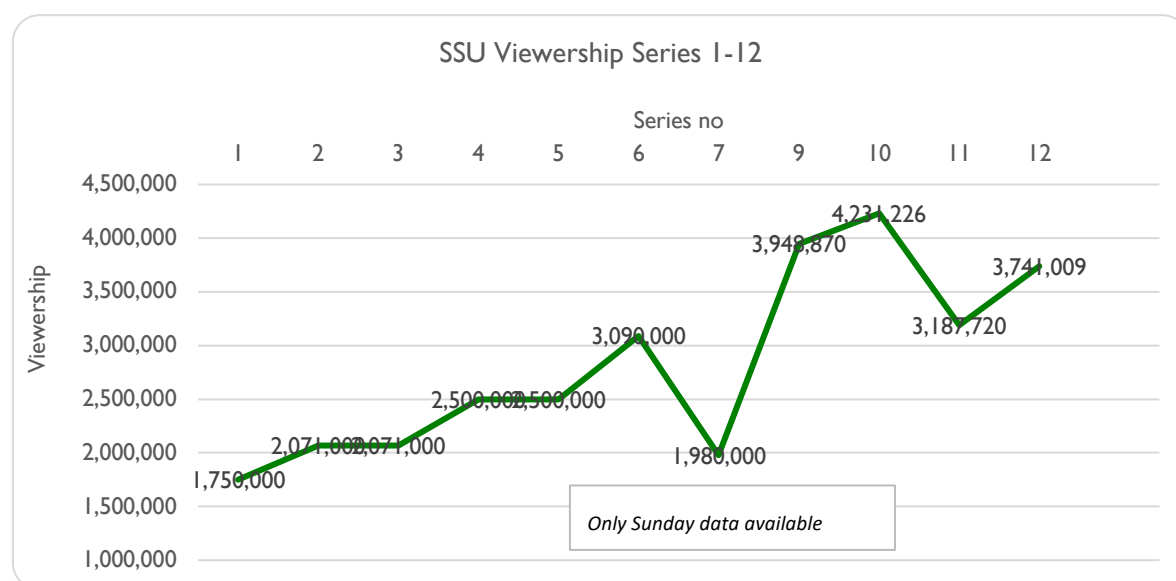
[8] Viewership information for series 13 was not available by the time of reporting on this survey.

Figure 4: Series 1-12 viewership treads

How many other prople aged 18+ did you watch the programme with?

I watch alone	1 - 2 other people	3-4 other people	5-6 other people
21%	47%	24%	8%
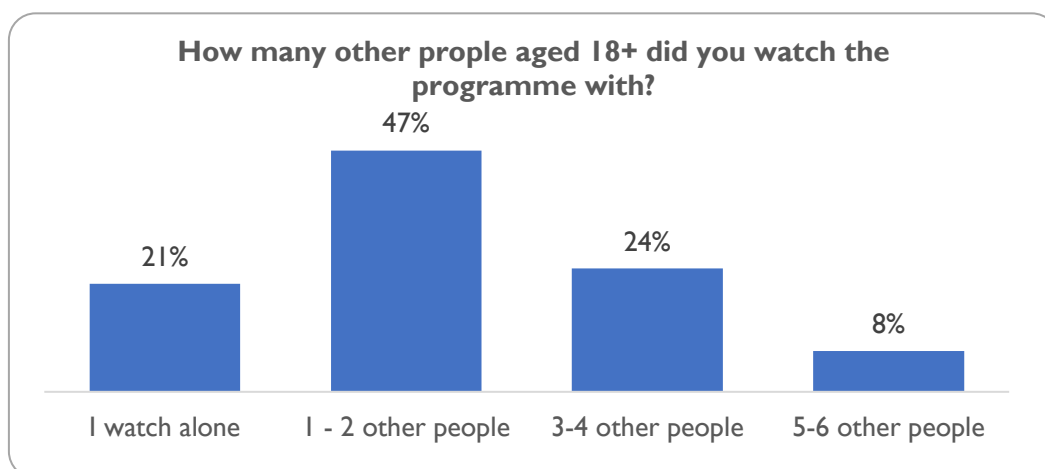
Figure 5: Other people aged 18+ who watched the programme with the respondent.

2.3. Other agricultural programmes watched by SSU 13 Viewers

Beside SSU, other main agricultural programmes the participants claimed to have watched in the past 6 months include: Kilimo Biashara on K24 Television (39%), Mkulima on KBC Channel 1 (23%), and Ukulima ni Ujuzi (13%). While all other programmes have similar viewership by males and female respondents, Kilimo Biashara is significantly watched by more males than females (42% compared to 35%). Since most of the respondents had watched more than 1 programme, when asked about which one was the favourite, 8 of 10 (83%) viewers said Shamba Shape Up (SSU). This had a similar rating among males and females (83%) but particularly more interested were people aged 46 years and above, where 86% said SSU was the favourite.

Figure 6: Agricultural programmes watched.

TV programmes about agriculture watched in the last 6 months - from March to September 2023

Programme	%
Shamba Shape Up	100%
Kilimo Biashara	39%
Mkulima	23%
Ukulima Ujuzi	13%
Mugambo wa Murimi	11%
Seeds of Gold	9%
KTN Farmers	7%
Ramogi tv	2%
Refused	1%
Smart farm	1%

Which of these programmes is your favourite?

Programme	%
Shamba Shape Up	83%
Kilimo Biashara	8%
Mugambo wa Murimi	4%
KTN Farmers	2%
Mkulima	1%
Ukulima Ujuzi	1%

① 18-35 (n=262, 81%)
② 36-45 (n=221, 82%)
③ 46+ (n=251, 86%)

2.4.   Frequency of watching SSU

Three out of five viewers of SSU 13 (59%) claimed that they had watched at least 1 episode per week. A further 13% said they watched about 3 episodes in a month, while the remaining 16% watch at least 1 episode every 2 weeks, that is, 2 episodes per month. Of the respondents, 10% said they watch only 1 episode per month, and this is categorised as non-viewers.
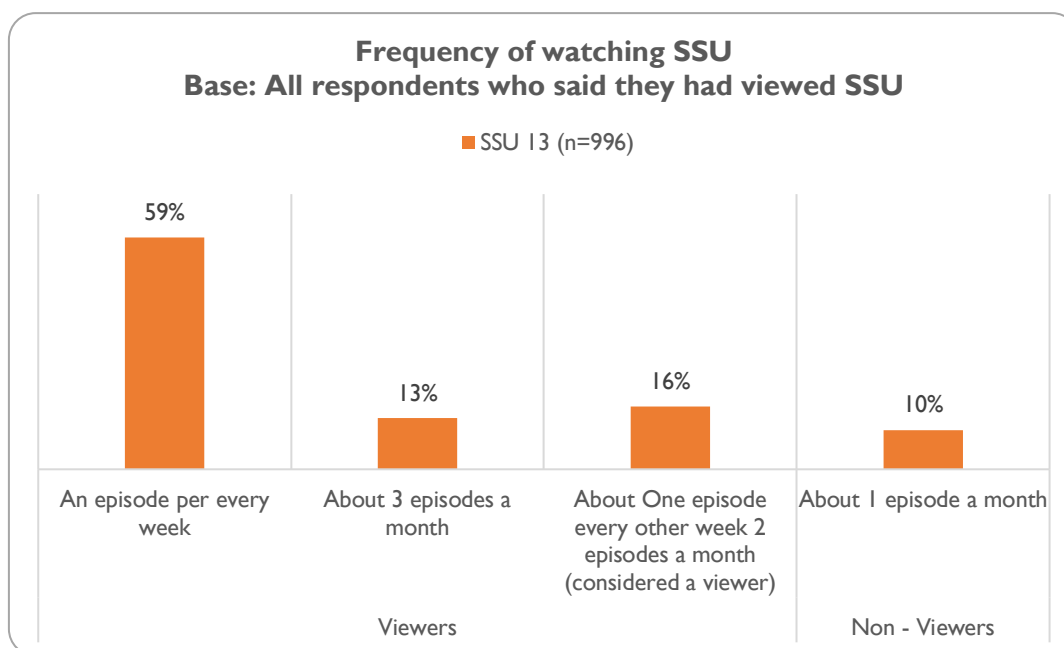
Figure 6: Frequency of watching SSU

2.5.   Source of information in agriculture

Eight out of 10 respondents (83%) claimed that they trust TV most as a source of agricultural information, followed by the Internet (30%). When asked about the most important, cumulatively, TV was mentioned by the same proportion (83%). Interestingly, while SSU is not a media channel, 24% mentioned it amongst channels as the most important source of information. Specifically, among programme viewers, 88% mentioned SSU as the most trusted source of agricultural information.

Which information source do you trust most for getting agricultural information

Source	%
TV	83%
Internet	30%
Radio	25%
Shamba Shape Up	24%
Family/Friends	14%
Agricultural/ vet officer	11%
Agro dealer or agent	6%
Books /Newspaper/magazine	5%
Agricultural shows	4%
SMS message from company	1%
Other	2%

Which is the most important - Channels

Channel	%
TV	83%
Internet	29%
Radio	25%
Shamba Shape Up	24%
Family/Friends	14%
Agricultural/ vet officer	11%
Agro dealer or agent	5%
Newspaper/magazine	4%
Agricultural shows	4%
SMS message from company	1%
One Acre Fund	1%

Which agricultural programme do you trust most for getting agricultural information?	n=882
Shamba Shape Up	88%
Kilimo Biashara	4%
Ukulima Ujuzi	1%
Other	5%

Figure 8: Most trusted source of agricultural information

2.6. Crops and livestock

The 4 most important crops were maize (80%), beans (57%), kales (30%), and fruits (21%), which were the same crops mentioned in SSU 12. Other crops which were cultivated are vegetables such as potatoes, cabbages, tomatoes, green grams, and sweet potatoes and onions. For livestock, as with SSU 12, the most important are dairy cows (58%), chicken (Kienyeji, layers, broilers, and improved Kienyeji) (57%), goats (57%), and sheep (16%). While the most important livestock in SSU 12 included pigs, with 15% of viewership, and ranked at position 5.

Four Most Important Crops

Crop	%
Maize	80%
Beans	57%
Kales	30%
Fruit Name fruit - i.e. - Bananas/ Watermelon/ passion fruit/ paw paw	21%

Important Livestock in the farm

Livestock	%
Dairy Cows	67%
Chicken (Kienyeji, Layers, Broilers, Improved Kienyeji)	57%
Goats	55%
Sheep	16%

① Chickens – Kienyeji (36%)
② Chickens / Layers (19%)
③ Chickens and Broilers (5%)
④ Improved Kienyeji (1%)
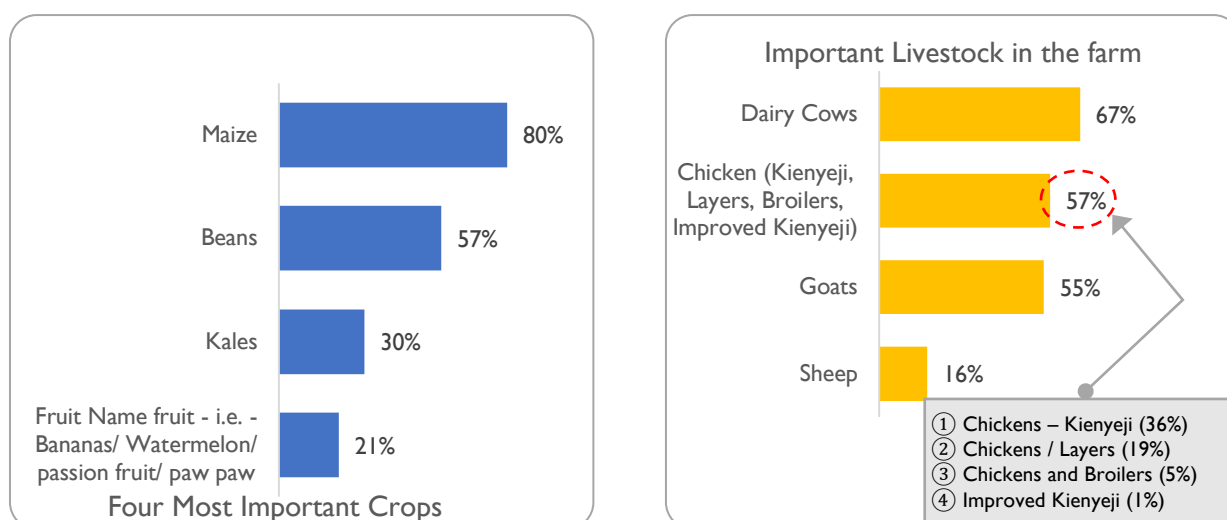
Figure 9: Most important crops and livestock

2.6.1. iShamba Traffic: Crop management (Syngenta)

The content filmed and aired about crop management was aimed at educating farmers on how they can prevent, control, and stop pests and diseases in their farms and as a result, this would improve crop production. It also touched on the importance of safe use of farm chemicals.

Following the broadcasts of episodes covering the issue of crop management, iShamba received a total of 973 questions around the various topics covered. Two thirds (64%) of the questions centred on the right insecticides to use, followed by fungicides (19%) and herbicides (9%). There were few general questions directed at Syngenta, which were on tomato seed varieties, seed treatment and the best nematicides to use. There was an impressive reach on Mediae's social media channels over 130,000 posts reached and engagements across Facebook, Twitter, and Instagram.

Social media traffic on crop management		
Channel	**Total Reach/ Impressions**	**Total Engagements**
Facebook	121,949	9,034
Twitter	7,637	273
Instagram	815	53
Totals	**130,401**	**9,360**

iShamba Traffic: Crop management (Syngenta)
Base: 973

- Right insecticides to use — 64%
- Fungicides — 19%
- Herbicides — 9%
- General questions on who Syngenta — 8%
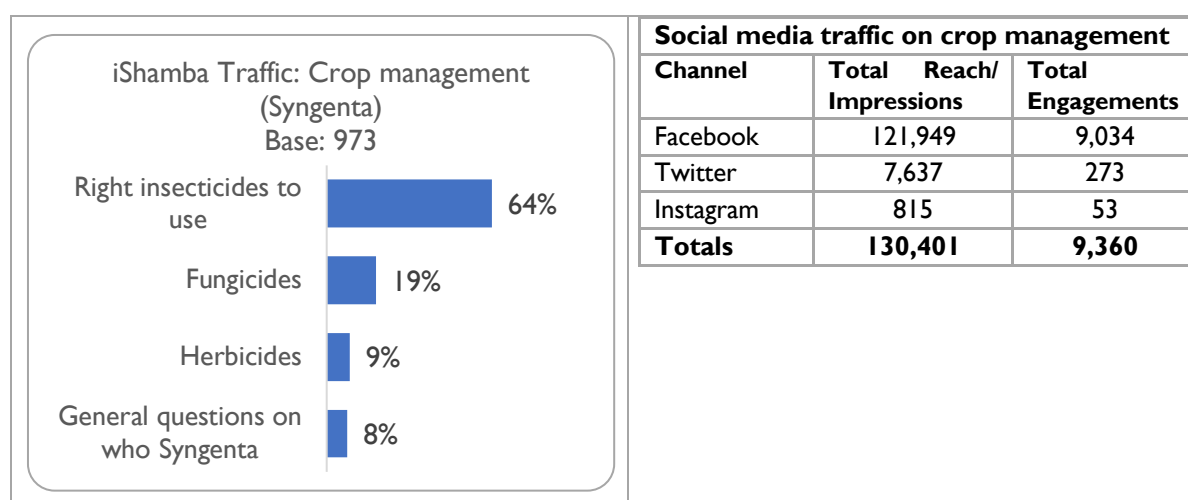
Figure 7: iShamba and social media traffic on crop management

2.7. Time and day of watching SSU

Slightly more than half of respondents (55%) said that they watch the Swahili Version only. 21% of respondents said that they watched the English version only. 24% of the respondents said that they watch both versions of the programme. This means that the Swahili version is more popular of the program.
Interestingly, the English version is preferred by young viewers: 18-35 years old (22%), 36-45 years old (20%), and 45+ years old (19%). Data from YouTube analytics show that an average viewership of 2,469 persons per episode.

When do you mostely watch SSU?

- Citizen Tv in English [Saturday] — 21%
- Citizen Tv in Kiswahili [Sunday] — 55%
- Citizen Tv in English and Swahili [both days] — 24%
- You watch it online whenever

Where do you watch SSU Online? (n=18)
① You Tube (n=14)
② Citizen online (n=4)
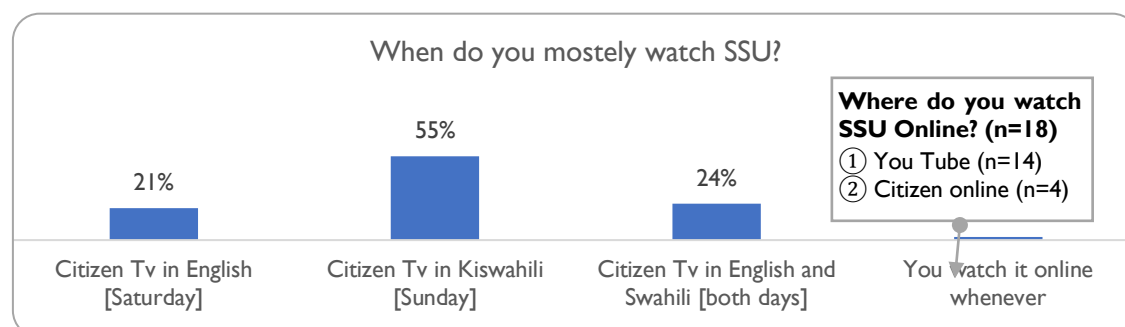
Figure 8: When do you mostly watch SSU

2.8. Place of watching SSU

Almost all the viewers watched the programme at home (96%). The findings show that close to 8 viewers (79%) watch the program with others. This is likely to elicit discussions about the programme and its content.
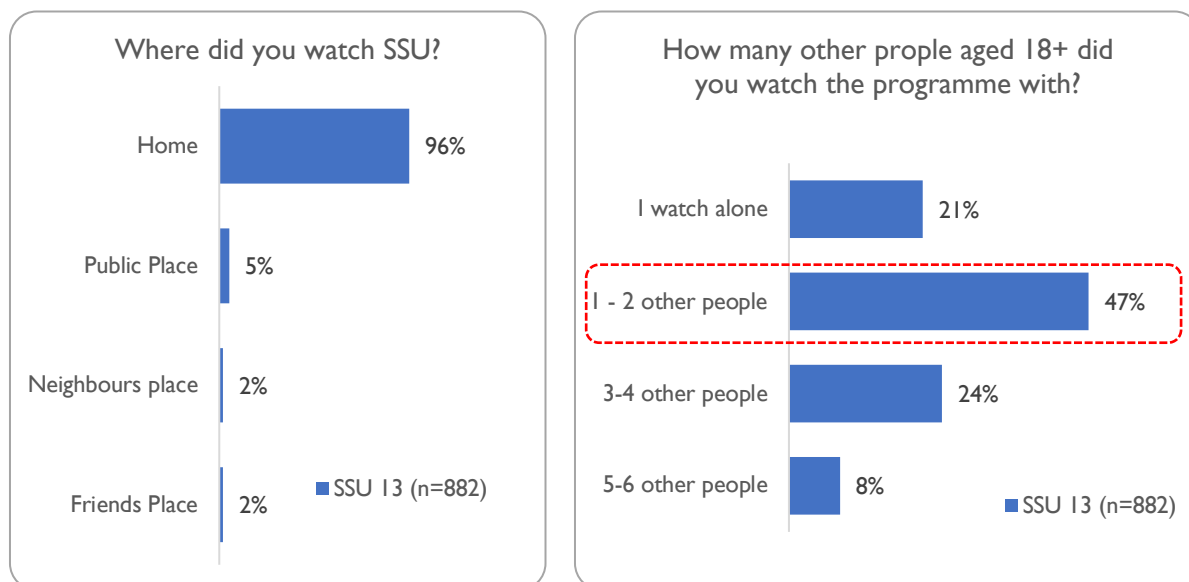
Figure 9: Where did you watch the programme and who did you watch it with?

Only 19% of the current viewers are new to the programme, that is, they have watched if for 0-1 year. Based on the findings, the programme has been gaining traction in the past few years. There is a 5% proportion of respondents who claimed to have been watching the programme for the past 10 years, while a large portion (42%) - said they have watched it for 2-4 years, which would be from series 9 to 13.
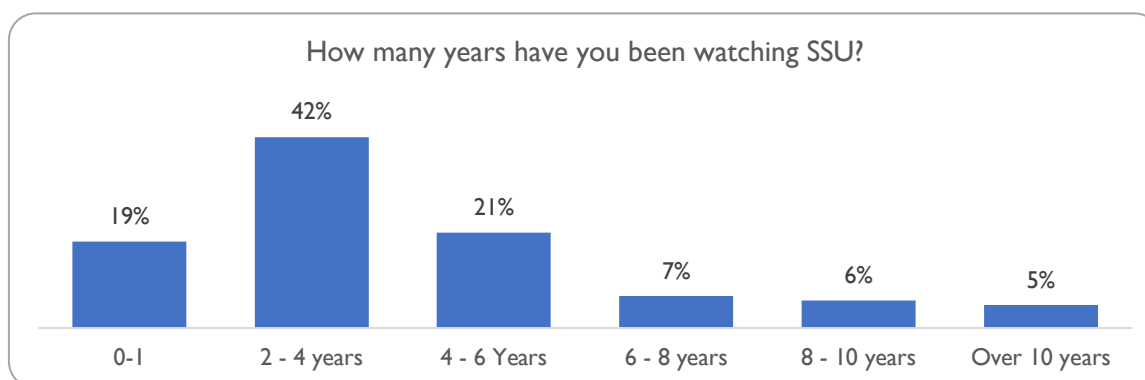
Figure 10: For how many years have you been watching SSU?

When asked on the most useful topics of the programme, 4 out of 10 respondents said general farming practices (43%), while 36% said daily livestock and 33% chicken. Young people said dairy livestock was more useful (49% of those aged 18-35, as compared to 35% of those aged 46+). On the other hand, older viewers mentioned that maize farming was more useful; 27% of those aged 46+ compared to 19% of those aged 18-35.

Which topics in particular, have you found most useful?

Topic	%
Farming practices	43%
Dairy Livestock	36%
Chicken	33%
Maize	23%
Soil Fertility	17%
Safe use of Chemicals/ Pesticides	17%
Pests and Diseases	14%
Information learned from Shamba Shape Up	12%
Seeds Procurement	7%
Tomatoes	6%

Dairy Livestock (36%) → 18-35 (49%), 36-45 (43%) 46+ (36%)

Maize (23%) → 18-35 (19%), 36-45 (21%) 46+ (27%)
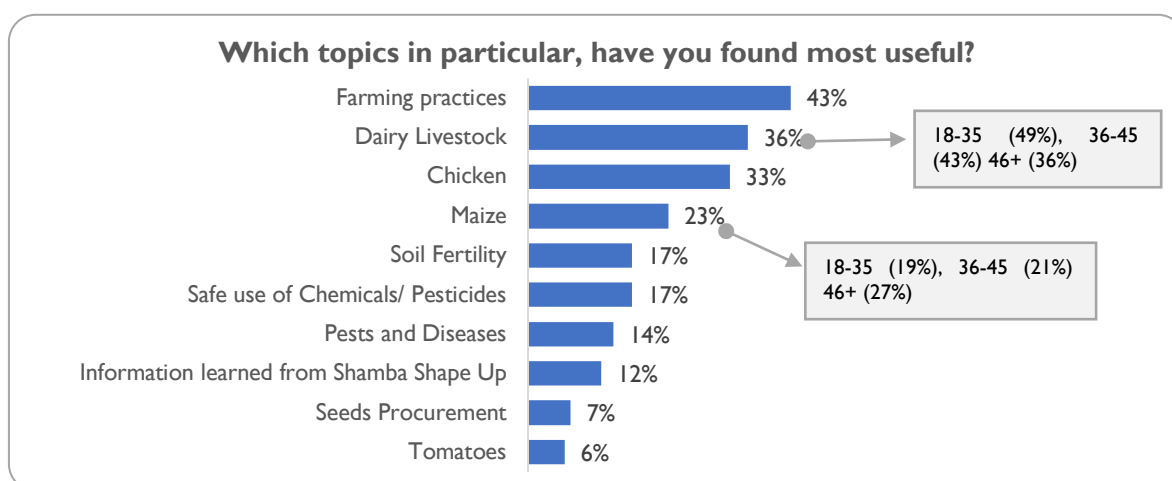
Figure 11: Topics described as most useful.

2.9.   Perceived Impact of the programme

When asked if respondents made any change because of watching the programme, nearly 9 out of 10 (88%) respondents agreed. This has a similar rating across different age groups as well as men and women. Main changes were how to grow different crops (14%), use of chemicals on the farm (11%), and use of manure (10%). All the small holder farmers interviewed said they were happy with the changes they have gone through.

Have you made any changes to your farm because of something you have learnt on Shamba Shape Up?

Yes, 88%

No, 12%

What was the change/changes you made?	n=777
How to grow different crops	14%
How to use chemicals in farm	11%
How to use manure	10%
Poultry keeping	9%
How to make homemade manure	7%
Use of fertilizer	7%
Spacing while planting	7%
Crop rotation	6%
Good housing for poultry & livestock	6%
Learned about improved farming	6%
Certified seeds to plant	5%
Soil fertility	5%
Right food to give poultry and livestock	5%

Figure 12: Changes made due to watching SSU.

2.10. Preferred topics

When asked what they would like to see in future, about half (52%) of the respondents said they would like to watch topics about markets and market access for their products. Further, about a quarter (27%) were interested in chicken rearing, while another 23% would like to get more information about cows. Although men and women have similar interests, there are some variations

on age. Young respondents (viewers aged 18 – 35 years) were particularly interested in getting more information on markets and market access (55%) compared to 50% for their counterparts aged 46+. Older viewers (aged 35 years and above) were more interested topics about livestock, that is cows (30% and 29% for those aged 26-45 and 46+ respectively, as compared to 23% (18-35)), while 24% aged 46+ and 26% aged 36-45 years are interested in chicken and as compared to 19% of those aged 18-35.
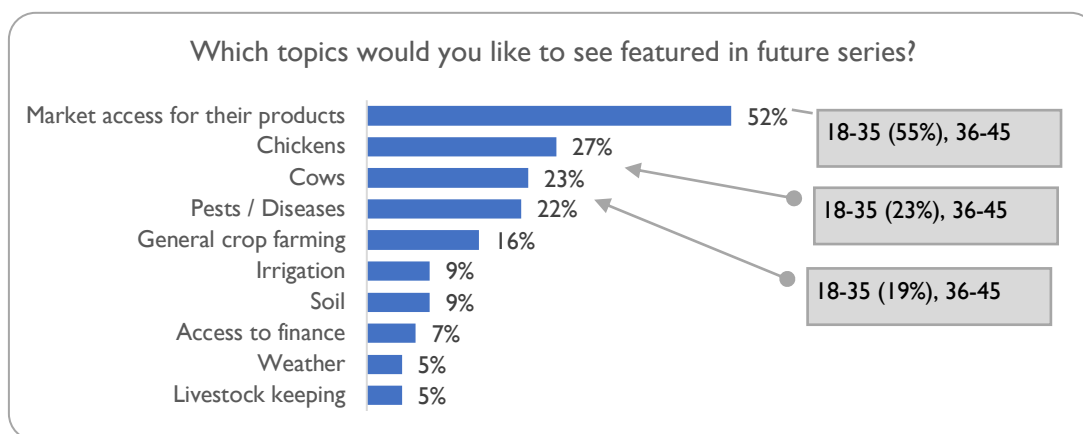
Figure 13: Topics of interest in future

2.11. Shamba Shape up Weather

Shamba Shape Up weather is a component in each of the episodes in which the weather forecast for the week ahead is presented in 2 minutes. The weather forecast is done by a live presenter and a moving weather map is used as well. Moreover, relevant advisory is given depending on the prediction, e.g., if the seasonal weather predictions shows that there will be a lot of rain ahead, the programme may recommend that farmers can start planting. In the current season 44% of respondents says they have noticed this segment. Almost all those aware, said they would like to see more of the "Shamba weather" as well as more information, one in five (22%) said it is a bit long and a third (31%) said they would sign up for iShamba to receive more information on weather at their locations.
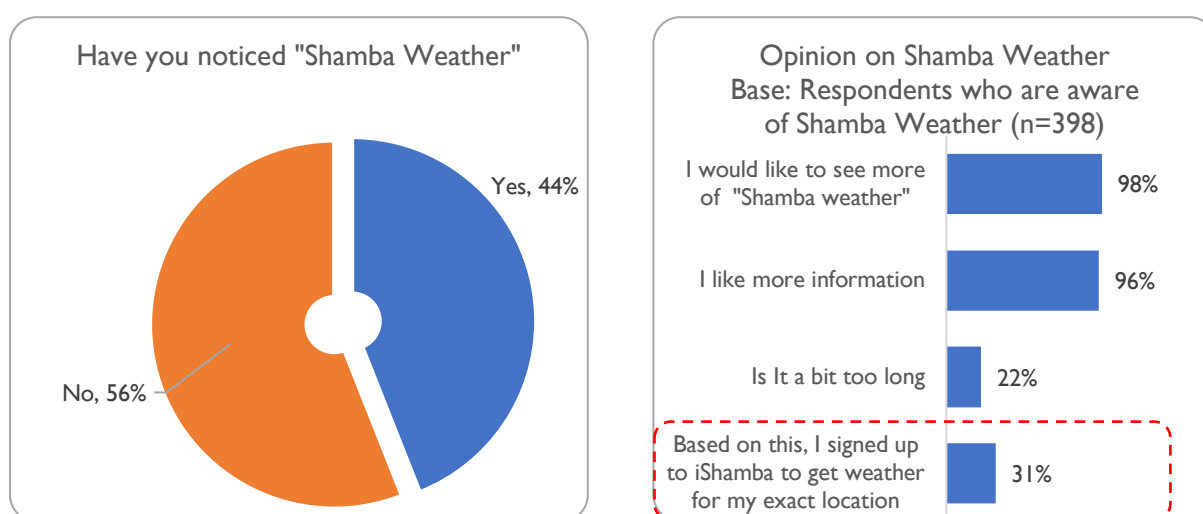
Figure 14: Awareness and opinions on Shamba Weather

For the viewers who were aware of "Shamba Weather" one third (30%) said it is very accurate, while two thirds (67%) said that the information is sometimes accurate. When asked which information they would like presented, the top three included something around rainfall, namely: the start of rains (86%), amount of rain (86%) and the end of the rain season (86%).
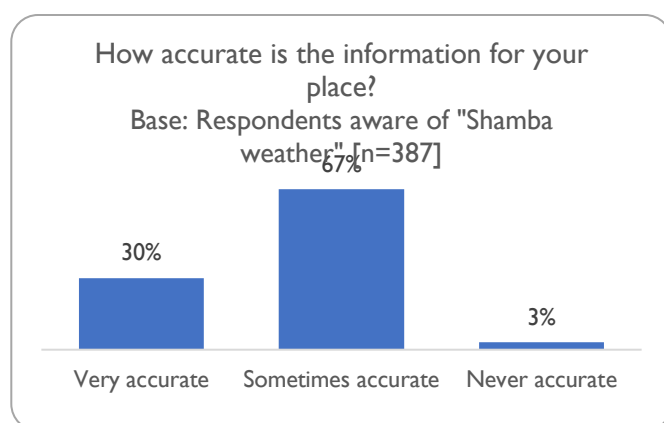
What do you NEED to know about the weather?	n=719
The start of the rains	86%
How much it is going to rain	86%
When the rain will stop	86%
What to plant in different seasons	7%
About dry season	4%
How to cope with weather patterns	3%
When to plant & harvest	2%
What to do during el nino/ heavy rain	1%
When to do prior planning	1%

*Figure 15: Accuracy and information needs on "Shamba Weather".*

Content on climate smart agriculture and focused on key issues around conservation agriculture, selection of location relevant seeds, water management, soil management, including making compost, and fodder preservation in the form of silage making. Other episodes also talked about financial inclusion and how to plant high iron and Nyota beans.

iShamba received 514 questions on the topics linked to climate smart agriculture. A large part of the questions (41%) covered Climate Smart Agriculture (CSA) in general, with farmers asking specific questions around how they can adapt followed by compost making (15%) drought tolerant crops which farmers can plant (14%).

There was considerable traffic on the Shamba Shape Up Facebook, Twitter and Instagram accounts, with over 550,000 posts reached and over 41,000 engagements.
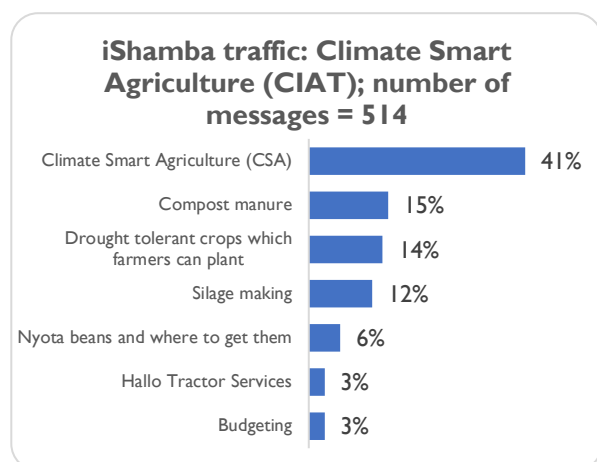
Social media traffic on climate smart agriculture

Channel	Total Reach/ Impressions	Total Engagements
Facebook	526,803	40,291
Twitter	20,984	950
Instagram	2,293	157
Totals	**550,083**	**41,398**

Figure 19: iShamba traffic: Climate Smart Agriculture

2.12. iShamba

Launched in March 2015, the free iShamba service is a mobile-based farmer information service that disseminates relevant and timely agricultural information to farmers direct to their mobile phones. The platform currently has 540,000 registered users. Given that Shamba Shape Up has an approximate audience of 9 million, this represents 6% of its audience.

In the survey 9% of respondents said that they use iShamba, which is quite a good representation of the iShamba user. Most of the users are very recent, with more than half (55%) saying they have been using it in the past one year, and 37% in the past 1-3 years.

How long have you used the service for?	n=75
0-12 months	55%
1-3 years	37%
3-5 years	4%
5 years +	4%
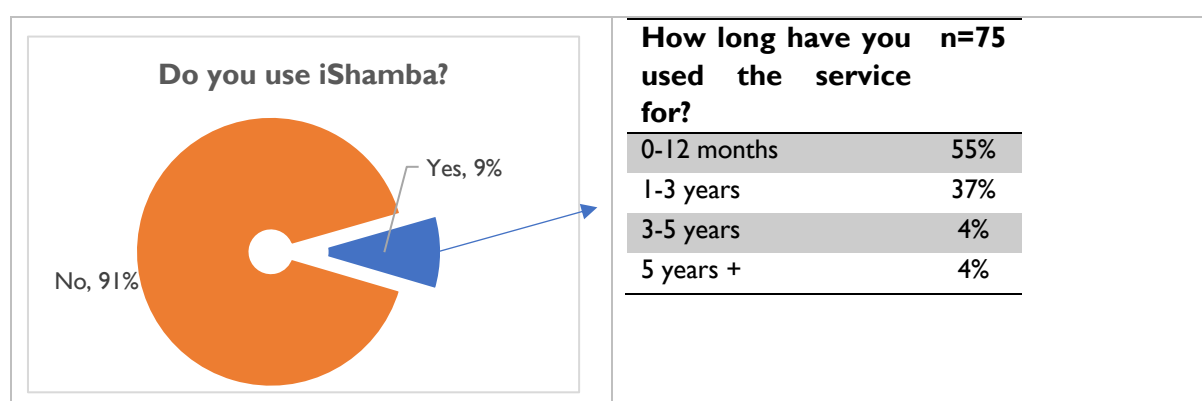
Figure 16: Awareness and how long viewers have used iShamba

Looking at the tracking report from the iShamba platform shows an impressive engagement during each of the shows with a total 41,607 engagements being recorded. Of these three quarters (74%) were SMS questions, 15% were incoming call, and the remaining 11% were WhatsApp questions. A detailed report on interaction during each episode is annexed in this report.

Table 7: Engagements from iShamba Platform

Item	Number	Percentage
SMS Questions received	30,942	74%
Incoming Calls received	6,110	15%
WhatsApp questions	4,555	11%
Total	**41,607**	**100%**

2.13. SSU Podcast

The SSU podcast is available on the Citizen TV website and can be downloaded to phones and other digital gadgets. Of the respondents, 37% said they had listened to the podcast. Specifically, the main topics included crop farming (16%), poultry farming (14%) and livestock keeping (12%). All respondents said it was useful, with about half (51%) claiming it was very useful.

Have you listened to the Shamba Shape Up Podcast on Citizen?

Yes, 37%

No, 63%

How useful did you find it?	n=317
Very Useful	51%
Useful	48%
Neither Nor	1%

Which topics would you like to have covered in future podcast?
Base: Respondents who are aware of Poscast [n=326]

Topic	Percentage
Crop farming in general	16%
Poultry farming	14%
Livestock keeping	12%
Types of pesticides to use	10%
Farming practices	10%
Weather prediction	7%
Marketing strategy	5%
Fertilizers to use	5%
Soil fertility	5%
Certified seeds to plant	4%
Animal feeds	4%
To visit farmers at their…	3%

Figure 17: Shamba Shape Up Podcast

3. Focus on Youth (Viewers aged 18 – 35 years)

3.1. Behavioural change because of viewing SSU 13

This section applied to participants between 18 and 35 years of age. The focus was on behavioural, and attitude change towards agriculture, regarding viewing it more as a source of employment and a business.
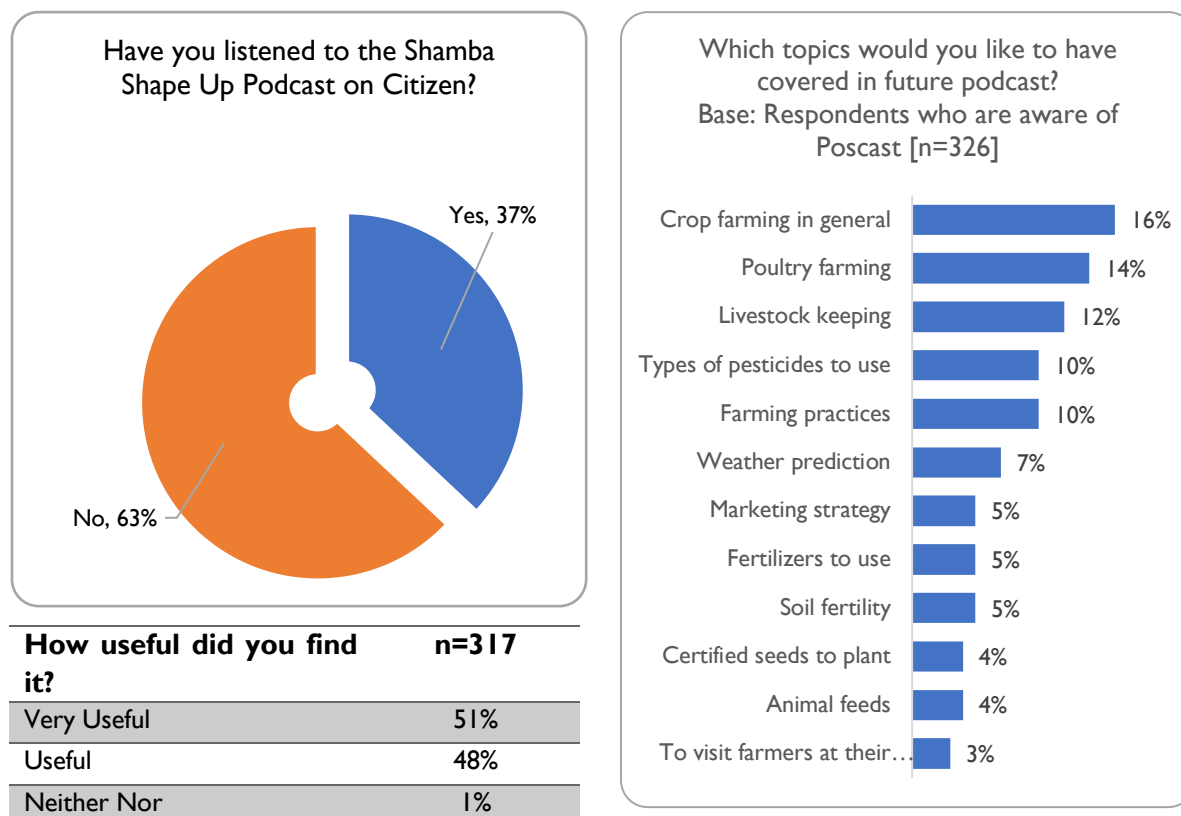
Kenya has about 13.7 million youth, which accounts for 35.4% of the total population and constitutes 60% of the total labour force, of which only 10% are directly participating in the agricultural sector[9]. 90% of respondents said they had some sort of mind change because of watching the programme. Of this 4 out of 10 (39%) said that farming is a profitable enterprise, one quarter (26%) said they perceived farming as a good employment option and 14% said farming is 'cool'.

Did you change your mind on any of the topics because of watching Shamba Shape Up this year?
Respondents aged 18-35 [n=307]

Yes, I think farming can be profitable	39%
Yes, I think farming can be a good employment option for me / youth like me	26%
Yes, I think farming is cool	14%
Yes, I think farming is not only for old people	8%
No, I haven't changed my mind set	10%
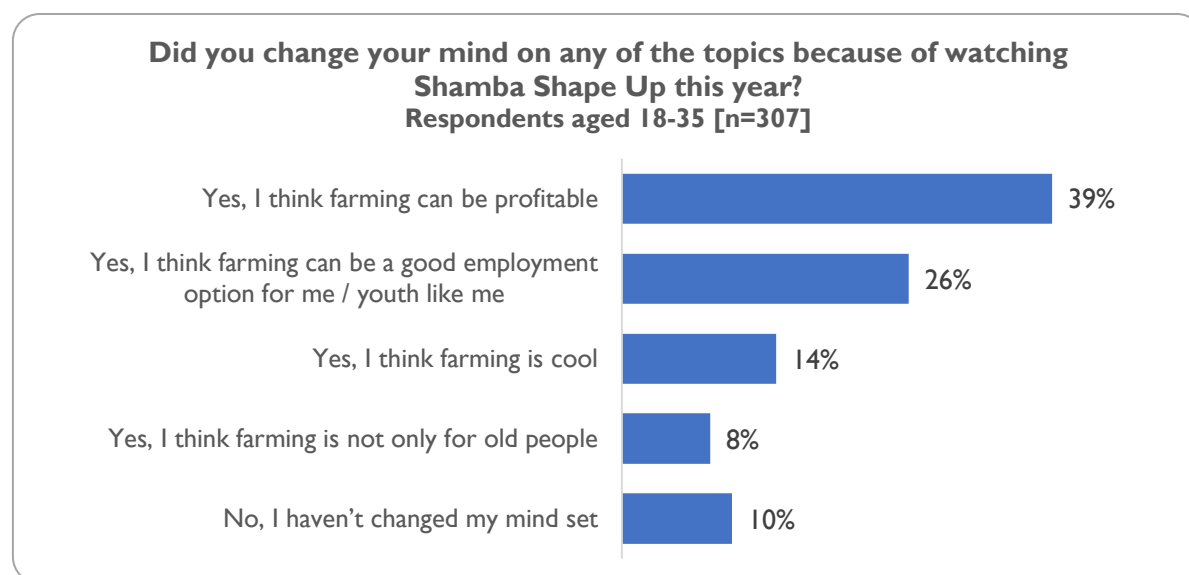
Figure 18: Attitude change because of watching SSU 13

On the call to action to engage in farming, more than half were positive about engaging in agriculture in one way or another, with a majority (87%) saying they would like to engage in it as a business. Three quarters (75%) said they would change the crops /livestock they are currently growing or keeping, while 58% said they would look for a loan to start farming. One of the factors of success on agriculture is record keeping, notably, 56% said they would start keeping records and for those who do not yet own land, more than half (53%) said they were willing to request for land from relatives to begin farming.

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[9] Kenya Youth Agribusiness Strategy, 2018 -2022; Ministry of Agriculture, Livestock, Fisheries and Irrigation

Do you intent to do the following?
Respondents aged 18-35 [n=307]

I want to go in to farming as a business	87%
I will change the crops/livestock I am growing to be more profitable	75%
I will take a loan to kick off my farming business	58%
I will start keeping records	56%
I will ask my family to allow me to farm on their shamba	53%

Figure 19: Actions to be taken as a result of watching SSU

3.1.1. Intentions for future farming

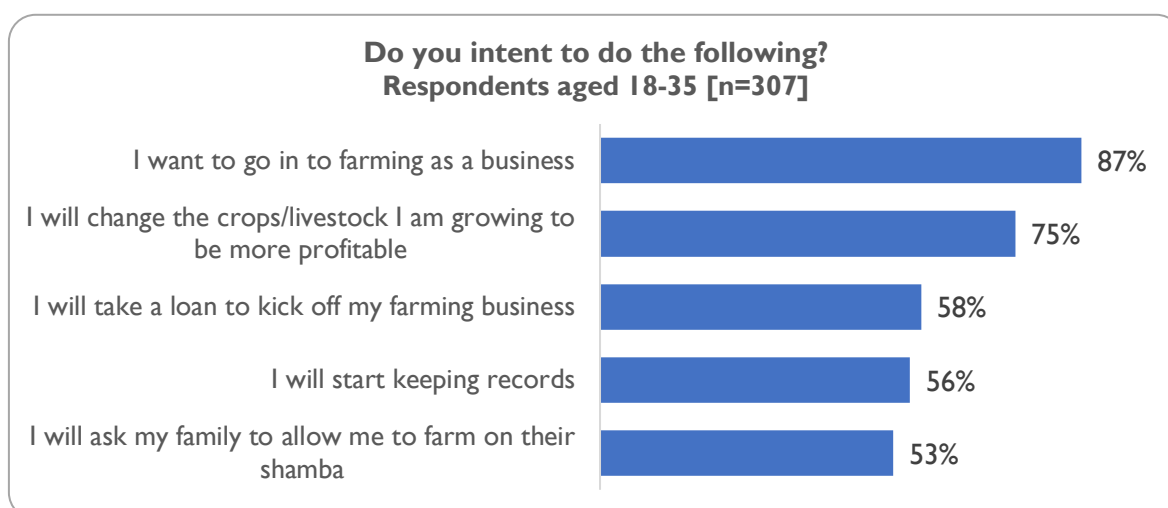For those who are not currently farming, almost all of them 9 out 10 (92%) said they would like to take up the practice in the next 3 years, out of these, half (51%) said they keep farm records. The specific type of records are crop production records (63%) of the participants while 28% said they keep livestock production records.

If you are not currently farming, do you intend to take it up in the next three years?
n=307

Yes — 92%
No — 8%

Do you keep farm Records

Yes — 51%
No — 49%

Which farm records do you keep?	n=163
Yes, crop production	63%
Yes, livestock production	28%
Both crop & livestock records	6%
Financial statements records	1%
Income statement	1%
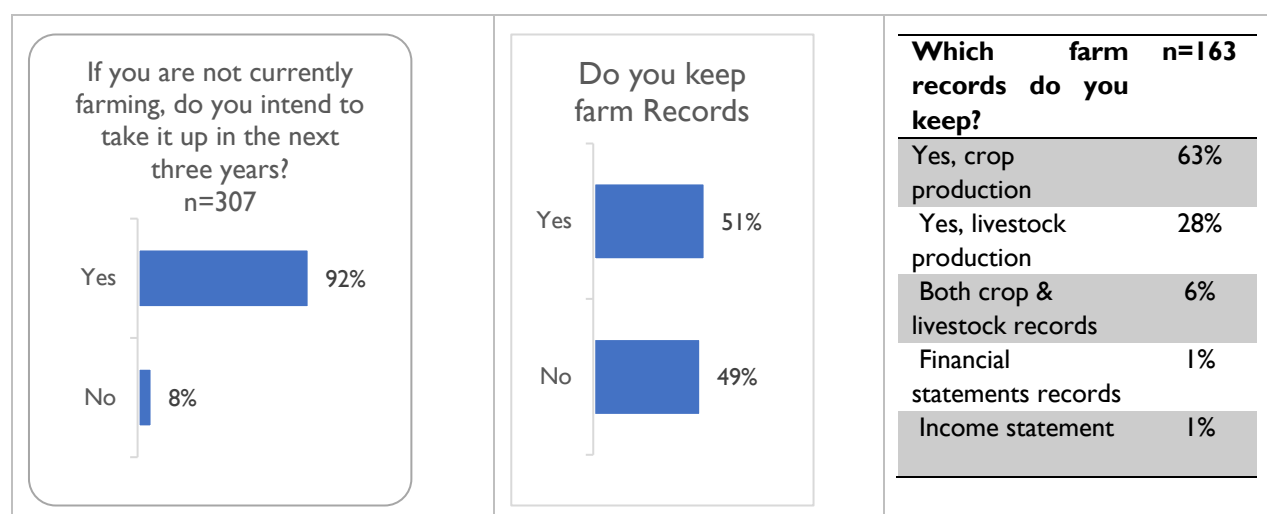
Figure 20: Future intervention to farm and keeping records.

3.1.2. Expectation on future content and source of capital

In terms of important topics in future programmes, 4 out of 10 (40%) youths would like to see content on market access and farming as a business, further, a third said they needed advice on the type of crops/livestock to keep for good monetary returns (32%). Regarding capital, main sources mentioned included savings (54%) and business loans (48%).

What would you like to see more of?
Base: Respondents aged 18-35 (n=307)

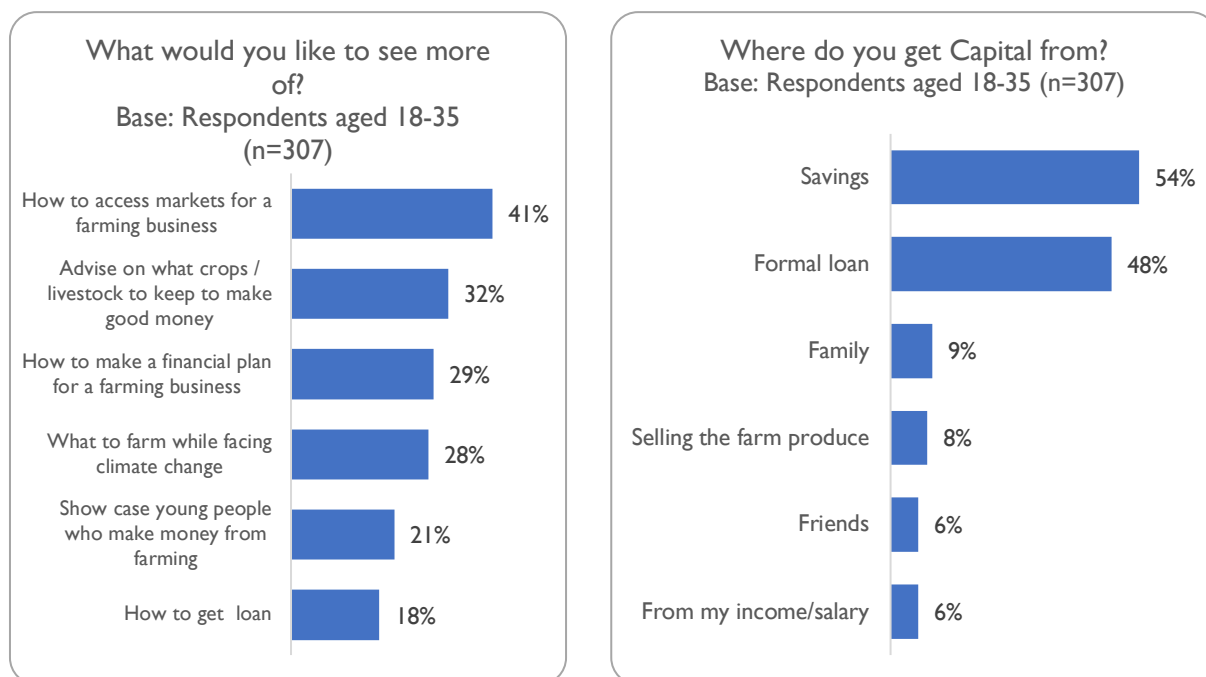|	
How to access markets for a farming business	41%
Advise on what crops / livestock to keep to make good money	32%
How to make a financial plan for a farming business	29%
What to farm while facing climate change	28%
Show case young people who make money from farming	21%
How to get loan	18%

Where do you get Capital from?
Base: Respondents aged 18-35 (n=307)

Savings	54%
Formal loan	48%
Family	9%
Selling the farm produce	8%
Friends	6%
From my income/salary	6%

Figure 21: What they would like to see more of and Source of Capital

3.2. Livestock Keeping

3.2.1. Chicken farming

On chicken farming, 7 of 10 respondents said they learned that good housing is important (70%) followed by proper feeding as a factor for good production (62%). Others learning included following vaccination schedules (52%) and the importance of proper brooding for the survival of chicks (40%).
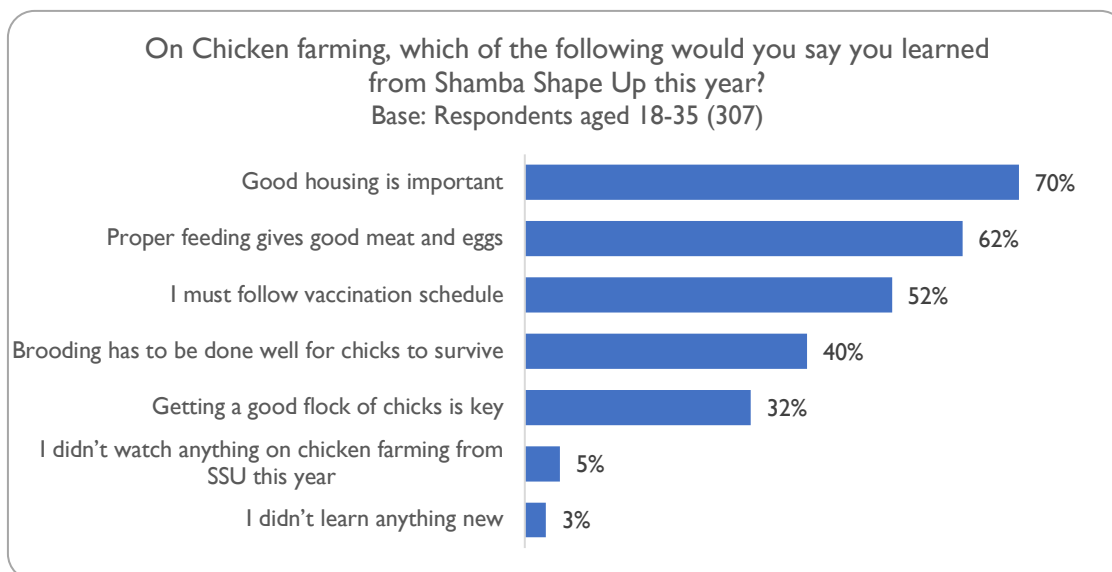

On Chicken farming, which of the following would you say you learned from Shamba Shape Up this year?
Base: Respondents aged 18-35 (307)

Good housing is important	70%
Proper feeding gives good meat and eggs	62%
I must follow vaccination schedule	52%
Brooding has to be done well for chicks to survive	40%
Getting a good flock of chicks is key	32%
I didn't watch anything on chicken farming from SSU this year	5%
I didn't learn anything new	3%

Figure 22: Lessons from SSU 13 on chicken farming.

3.2.1.1.   Kenbro chicken

Kenbro improved Kienyeji chicken are said to give more meat and eggs that the usual chicken (52%), while 9% of the respondents said these chickens need a lot of care. Another 5% said they learned that they are hardier than the broilers or layers, with 15% saying they did not learn anything new.
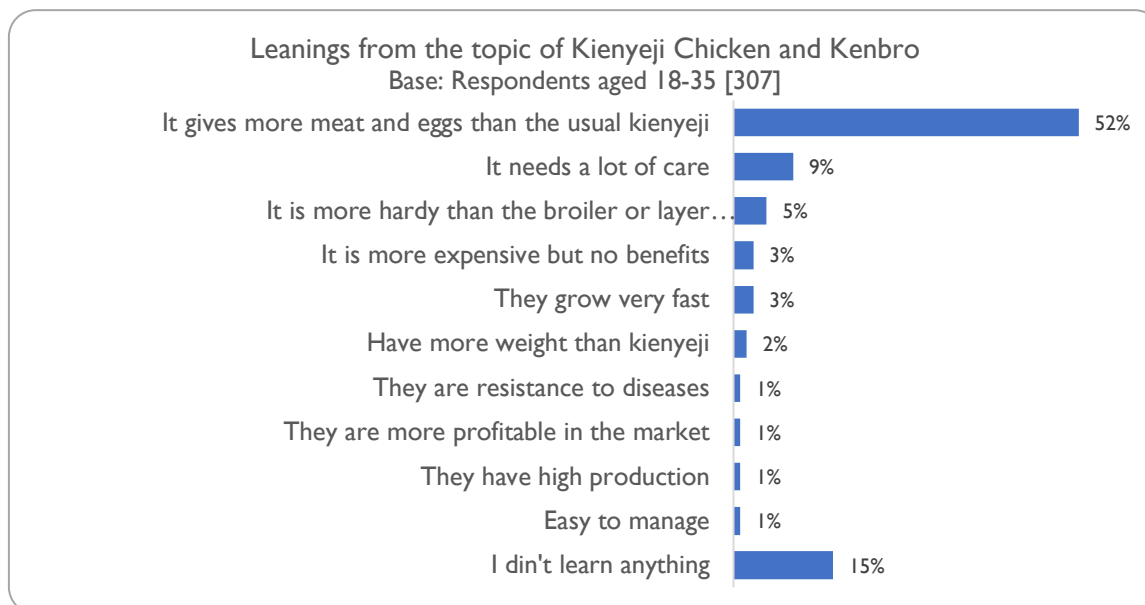

Figure 23: Leanings from the topic of Kenbro improved Kienyeji chicken

3.2.1.2.   Chicken and Dairy housing Husbandly

Husbandry is an important factor in both chicken and dairy farming. It helps in preventing pests and disease, improving general livestock welfare, and increasing productivity. On the topic of chicken and dairy housing the key take-aways included ensuring the house has good air flow (61%), cleaning housing daily (60%), and ensuring that the animals and comfortable (57%).
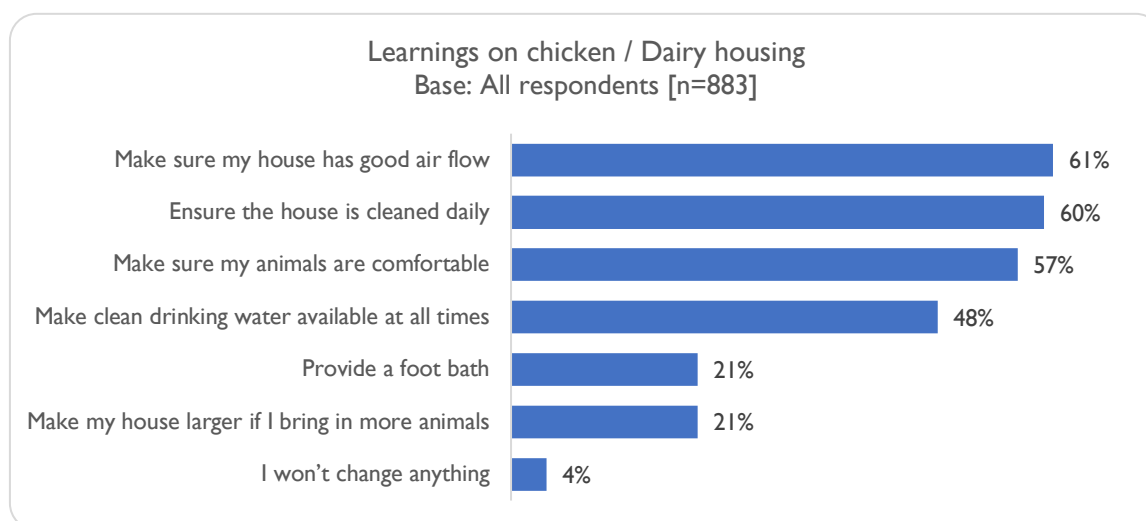

Figure 24: Learnings on chicken and dairy husbandry

3.2.2. iShamba traffic: Poultry farming (Kenchic)

The content on poultry farming was on the importance to source quality, vaccinated day-old chicks for a successful chicken business. It also covered good management habits for a profitable chicken business, such as setting up a good brooder, biosecurity, chicken vaccination and proper housing.

During these episodes, iShamba received a total of 689 questions. Two thirds (66%) of these questions were on where to source the chicks, price per bird and the minimum order one can make. A few farmers asked general questions like what Kenbro is, where they can watch videos with more information on the birds, the difference between Kenbro and other breeds etc. the social media traffic had an engagement of reach / impression of 202,992 and total engagements of 13,168.
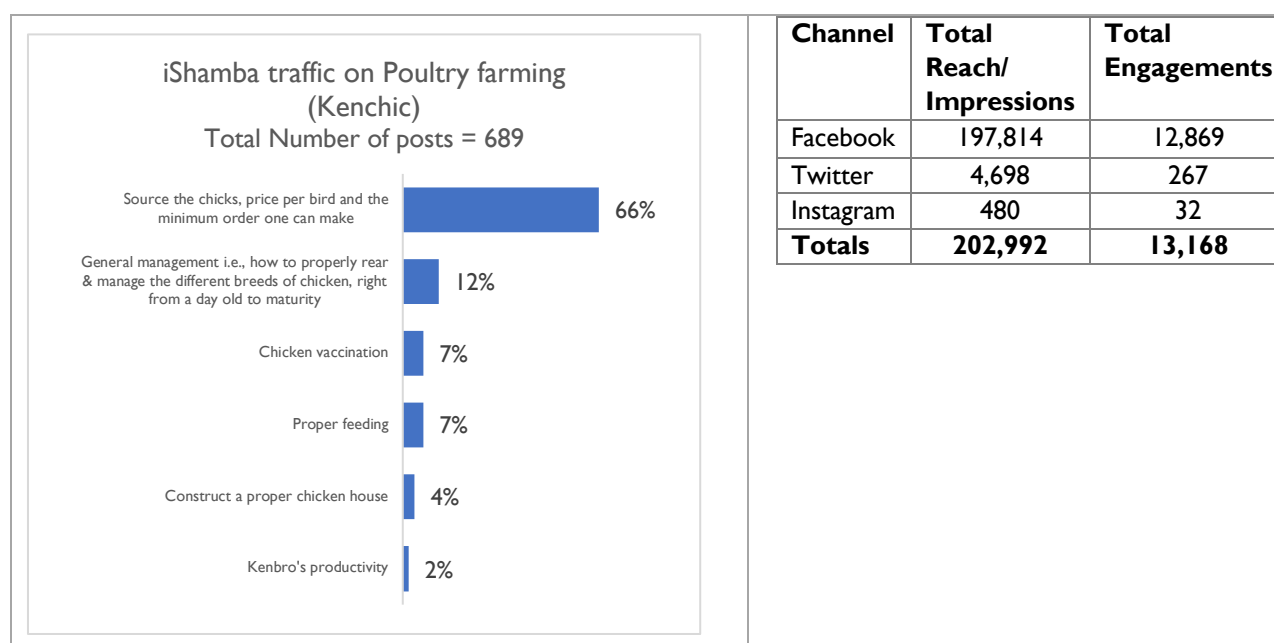

Channel	Total Reach/ Impressions	Total Engagements
Facebook	197,814	12,869
Twitter	4,698	267
Instagram	480	32
Totals	**202,992**	**13,168**

Figure 25: iShamba and social media traffic: Poultry farming (Kenchic)

GIZ had also sponsored consent educating farmers on different topics including such as how to make compost manure, Passion fruit farming, Poultry, Indigenous vegetables, how to get market for your chicken and passion fruits. Some episodes also taught farmers about beekeeping, how to grow sweet potatoes and vermiculture.

The chart below shows that iShamba received a total of 115 questions on the different topics. One fifth questions (21%) were on how to make compost manure and another 21% on passion fruit farming. A few farmers were curious to know what vermiculture is and where to buy the worms.
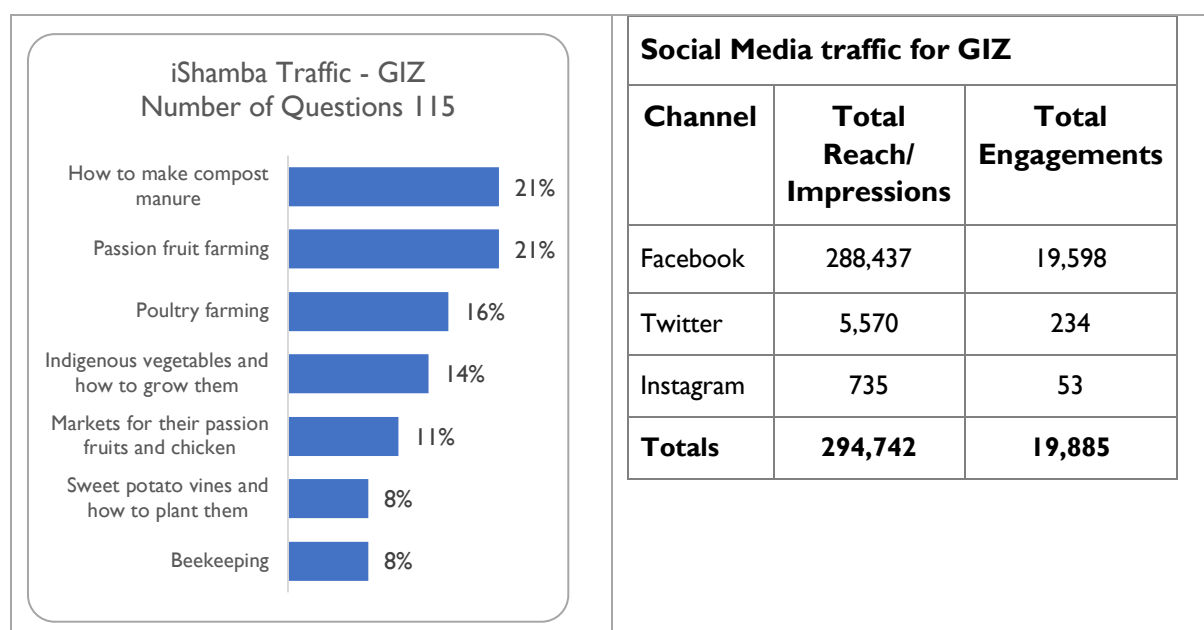
iShamba Traffic - GIZ Number of Questions 115		Social Media traffic for GIZ		

Chart: iShamba Traffic - GIZ, Number of Questions 115

- How to make compost manure — 21%
- Passion fruit farming — 21%
- Poultry farming — 16%
- Indigenous vegetables and how to grow them — 14%
- Markets for their passion fruits and chicken — 11%
- Sweet potato vines and how to plant them — 8%
- Beekeeping — 8%

Social Media traffic for GIZ

Channel	Total Reach/ Impressions	Total Engagements
Facebook	288,437	19,598
Twitter	5,570	234
Instagram	735	53
Totals	**294,742**	**19,885**

Figure 26: iShamba and social media traffic for GIZ

3.2.3. Dairy farming

3.2.3.1.   Improvements on Dairy Farming

When asked about what improvements they would carry out for their dairy cows the three most popular responses were: deworming the cows every 3 months (75%), giving salt lick (74%), and providing the cows with supplements (71%).
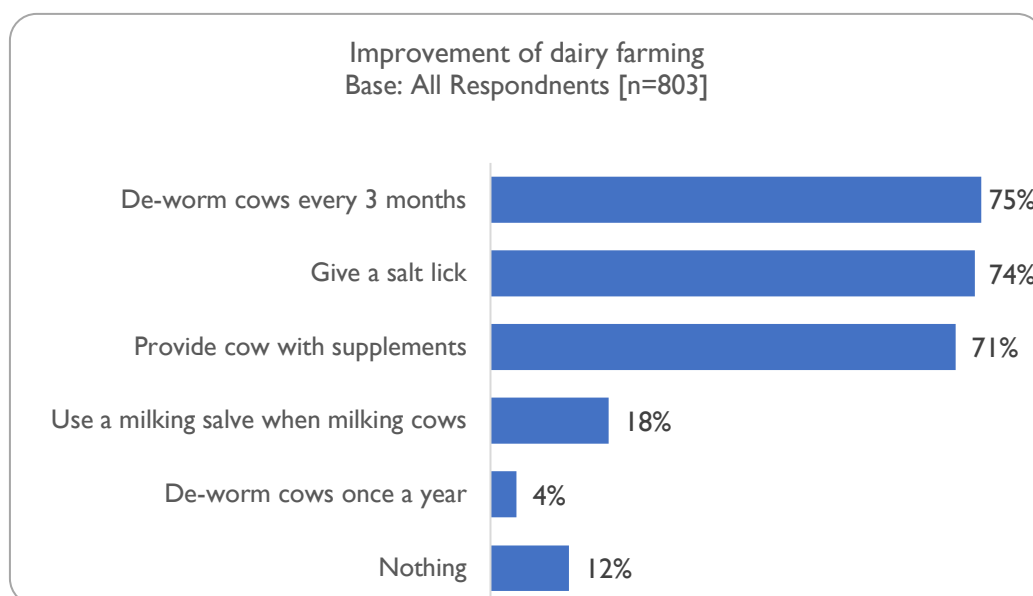
Improvement of dairy farming
Base: All Respondnents [n=803]

- De-worm cows every 3 months — 75%
- Give a salt lick — 74%
- Provide cow with supplements — 71%
- Use a milking salve when milking cows — 18%
- De-worm cows once a year — 4%
- Nothing — 12%

Figure 27: Improvements to be done on daily cows.

3.2.3.2.   Supplements on cows

Supplements help animals in improving the amount and quality of products, according to the programme viewers, the key responses provided for supplementing cows with vitamins were to

make them more productive with milk (72%), to make them stronger (60%), and to make them more resistant to diseases (52%). These concerns align with the initiatives of the programme.
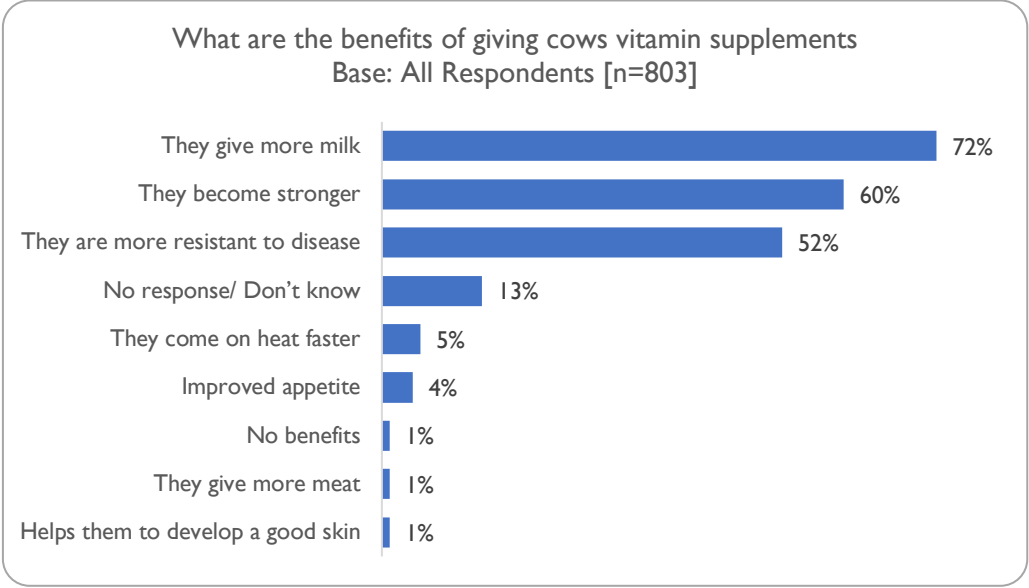

Figure 28: Benefits of giving cows Vitamin Supplement

3.2.4. iShamba: Livestock management (CKL Africa)

The content on livestock management by CKL Africa was on educating dairy cow and chicken farmers on how they can improve their livestock production. The topics covered were good breeding habits for dairy cows, calf & heifer management, feed additives for chicken, beef cattle, proper housing and general nutrition.

From the episodes, iShamba received a total of 712 questions from farmers, around the different topics. A quarter (26%) of the questions were on the right de-wormers for livestock, some few questions were on dairy goats, mineral supplements, heifer management, proper housing and effective termiticides to use. Few farmers asked general questions such as prices for some of the products and where they can be found near them.
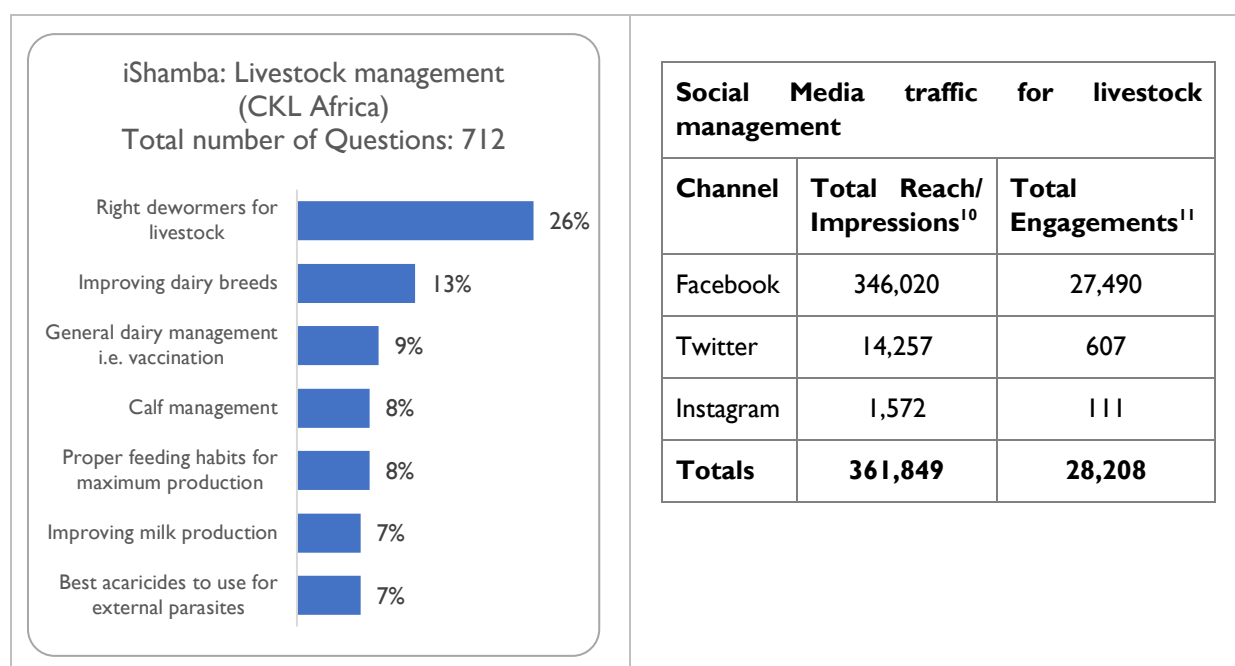
iShamba: Livestock management (CKL Africa)
Total number of Questions: 712

Topic	Percentage
Right dewormers for livestock	26%
Improving dairy breeds	13%
General dairy management i.e. vaccination	9%
Calf management	8%
Proper feeding habits for maximum production	8%
Improving milk production	7%
Best acaricides to use for external parasites	7%

Social Media traffic for livestock management		
Channel	Total Reach/ Impressions[10]	Total Engagements[11]
Facebook	346,020	27,490
Twitter	14,257	607
Instagram	1,572	111
Totals	**361,849**	**28,208**

Figure 29: iShamba and social media traffic for livestock management (CKL Africa)

3.2.5. Content of interest

On livestock, more than half of the survey participants said they are interested in getting more information on the topics presented, of particular interest were how to follow vaccination schedules for chicken (83%), how to grow/make animal feeds (78%), and which feeds to use (72%).
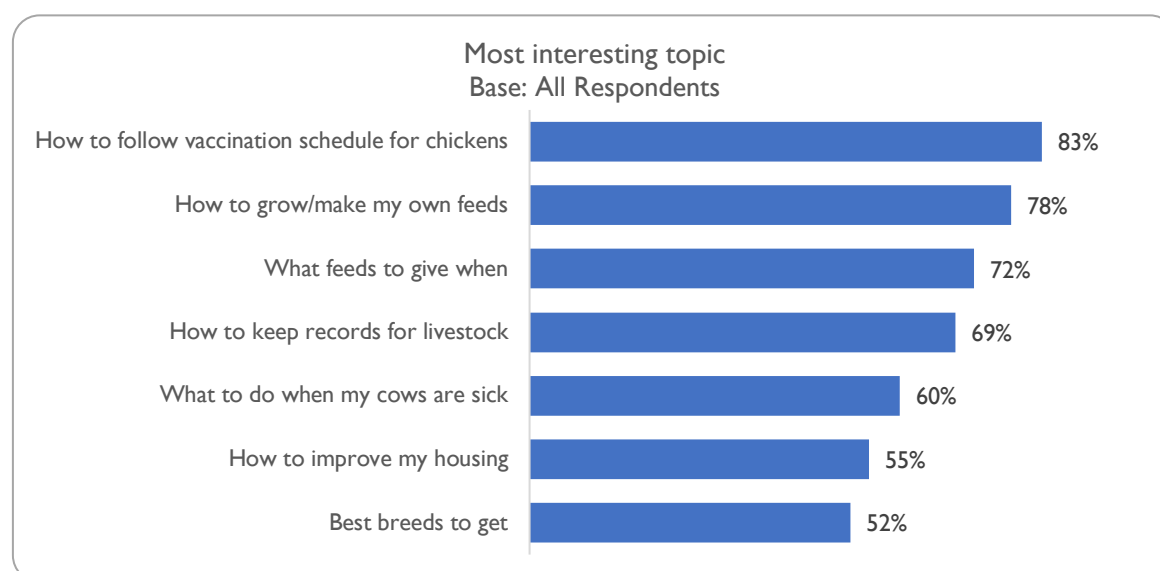
Most interesting topic
Base: All Respondents

Topic	Percentage
How to follow vaccination schedule for chickens	83%
How to grow/make my own feeds	78%
What feeds to give when	72%
How to keep records for livestock	69%
What to do when my cows are sick	60%
How to improve my housing	55%
Best breeds to get	52%

Figure 30: Most interesting topics

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[10] Reach & Impressions are the number of people who have seen the posts on their timelines.

[11] Engagements refer to any reactions made on the posts. Reactions are likes, shares, reposts, comments etc.

4. Conclusions and Recommendations

Based on the findings of this survey, the Shamba Shape Up programme plays an important role in improving knowledge, attitudes and practices while entertaining the audience. Over the years, viewership has continued to improve with almost 4 in 10 respondents having been viewing the programme for more than 5 years, also, it is important to note that 19% said they only viewed the programme in the past year, which shows continued growth.

Population projections and SSU 13 viewership data from audience tracking survey by GeoPoll shows that the programme is estimated to have reached over 9 million weekly viewers through television weekly and an average of 1,500 viewers per online episode. There is a room for the show to reach even more users via online platforms.

Close to 9 out of 10 (88%) viewers who had viewed different agricultural programmes said that they trust Shamba Shape Up the most their most trusted source of agricultural information. This is important because it gives credibility, it's important to maintain the integrity of the content and delivery.

More than a third (37%) of the women interviewed said that they are involved in decision making on farming activities. Since women are largely involved in farming and contribute especially their time, labour and resources, it is crucial that an agricultural Tv programme like SSU addresses them and their informational needs.

Cumulatively, the Swahili version is watched by 64% of the viewers, there is an emerging category of people who are watching the programme online (2%), this an important channel since the viewers do not have to watch at a specified time.

About nine out of ten (88%) claimed that they had made changes to their farming activities due to watching SSU. Since most of the changes are on diversification or crops, use of chemicals and manure, which improve production it can be inferred that the programme is also improving yields, incomes and quality of life for small holder farmers.

One in ten viewers (9%) claimed to be currently subscribed to iShamba, the survey findings show that more than 80% of the viewers are very interested on information about rain, which is part of the information provided through iShamba, this platform would therefore be very useful to such these farmers.

Findings show that the youth watching the programme are having an increasingly positive mindset about agriculture. Among youth respondents 87% said they would like to engage in agriculture as a business, while three quarters (75%) said they would change the crops /livestock they are currently growing or keeping. Although the sampled respondents were from households whose main income was from farming activities, most of the youths reported to be decision makers or part of the decision makers, but they may not be owning the farms; Interestingly 92% of those who are not currently farming saying that they would like to start in the next 3 years. One key area, which SSU should focus on to further support youth in farming is around record keeping, since only half (51%) said that they keep records.

There is also an interest in content around the topic of market access (52%), especially for the young viewers, there is an urge to transform agriculture from subsistence to more of a business venture.

5. Annex

5.1.1. Annex 1: Programming

Episode	Focus
Series 13 - Ep 1: Soil testing, Minimum Tillage, Herbicide, Climate Literacy and Solar Electric Pressure Cooker	– How to clear your field of weeds before planting maize. – Learning how to understand climate. – Minimum tillage with a tractor – Using solar to cook with the electric pressure cooker
Series 13 - Ep 2: Soil testing, Minimum Tillage, Calf Care, Climate Literacy and Cooking with an Air Fryer	– How rip your land for planting potatoes using minimum tillage. – How make sense of changing climate Calf Care. – Cooking with an air fryer.
Series 13 - Ep 3: Poultry, Finances, Pest & Disease Management, Managing Climate Risk with Silage making	– Taking care of your chicken. – How to reduce climate risk by making Silage. – How to safely control pests & diseases. – Managing your finances.
Series 13 - Ep 4: Electric Pressure Cooker, Minimum Tillage, Dairy Breeding and Fall Army Worm	– How to breed you dairy cows. – How to till your land using minimum tillage. – How to control fall army worm. – Cooking with the electric pressure cook as a young bachelor.
Series 13 - Ep 5: Avocado - Phytophthora root rot disease and Nursery Construction	– What does it look like? – How do you set up a Phytophthora-free nursery and manage it? – The best method to plant avocado seedlings.
Series 13 - Ep 6: Soil Test, Calf Care, Potato, Financial Literacy and Electric Pressure Cooker	– Importance of Soil testing – Calf management – Turning your farm in to a profitable business – How to protect your crops from pest and diseases – A quicker and cheaper way to cook your meals
Series 13 - Ep 7: Cattle, Pest & Diseases, Fodder, Goats and Climate Literacy	– Cattle parasite and disease control. – Proper fodder storage. – Goat rearing and management. – How has climate change affected the rains.
Series 13 - Ep 8: Climate Literacy, Dairy Cow, Intercropping and The Electric Pressure Cooker	– Dairy cow management. – Climate Literacy around soil moisture. – Cooking fast, while saving energy and money. – How to get a good harvest in a dry semi-arid area.
Series 13 - Ep 9: Beef Calf, Silage, Banana and Financial Literacy	– Rearing calves for beef. – How to make silage. – The proper way of planting bananas. – Turning your farm into a profitable business.

Series 13 - Ep 10: Beef Cattle, Dryland Crops, Pests & Diseases in Tomatoes and Climate Literacy	– Beef cattle management. – How to protect tomatoes from pest and diseases. – Adapting to the changing climate. – 4. Best bean variety for dry areas.
Series 13 - Ep 11: Financial Literacy, Chicken, Climate Literacy and Soil health	– Setting up a good chicken business. – Managing farm finances. – How to read a weather forecast and plan. – Soil health in dry areas
Series 13 - Ep 12: Chicken Farming	– Chicken farming
Series 13 - Ep 13: Climate Literacy	– Changing climate
Series 13 - Ep 15: Organic Fertiliser, Dry Cow/Cow in Calf, Iron-rich Beans and Contract farming	– Importance of a Soil test. – Organic fertilisers: How using the right organic fertiliser can improve your yields. – Youth in Agri Business and Contract farming: Chicken Basket – Contract farming – Iron-rich Beans: Good Planning management – Dry Cow/ Cow in calf management
Series 13 - Ep 16: Orange Fleshed Sweet Potato	– How to plant and harvest Orange Fleshed Sweet Potato. – Importance and nutrition benefits of Orange Fleshed Sweet Potato. – How to get best price at the market.
Series 13 - Ep 17: Dairy Cow, Broiler Chicken, Beans and Climate Change	– Dairy Cows: How to improve milk production. – Broiler Chicken management. – Adapting to climate change. – A bean variety that has high production.
Series 13 - Ep 18: Soil testing, Compost, Brooding Chicks and Passion fruit	– How to get the most from your shamba by testing the soil and – Making your own compost: Organic Fertiliser and improving soil health. – How new technology can help chicken brooding – Farming passion fruits for the market
Series 13 - Ep 19: Composting Green Waste, Improved Kienyeji Chicken, African Leafy Vegetables and Bag garden	– Improved Kienyeji Chicken management. – Compost: How to make Compost manure. – Growing healthy vegetables in small spaces
Series 13 - Ep 20: Bees, Apiary, Fertiliser, Beans, Sweet potato & Soil Test	– Apiary Management: How get the best out her bees and her passion fruits. – Importance of Soil testing. – How organic fertilizer will help produce a bumper crop. – How to manage your young bean crop. – How to maximise your income when growing sweet potatoes.
Series 13 - Ep 22: Dairy Cow, Improved Kenbro Chicken and Beans	– Dairy cow hygiene and breeding. – Keeping improved Kienyeji Chicken for eggs and meat. – We learn how to best grow beans and their nutrition value

Series 13 - Ep 23: Dairy Cow - Hygiene and Breeding, Chicken Brooding, Beans	– Dairy cow hygiene and breeding. – Chicken Brooding: How to manage Chicks. – We learn more about beans and how to handle them during harvest.

5.1.2. Annex2: iShamba traffic SSU Series 13

Timeframe: March 2023-September 2023

Episode	Date of broadcast	No. of New farmers	SMSes received following the broadcast	Incoming calls following the broadcast	Average duration of call (Sec)	Total Traffic (SMS & Calls)
		Span of 1 week	*Span of 1 week*	*Span of 1 week*	*Span of 1 week*	*Span of 1 week*
1	11/03/2023	420	2,589	255	35	2,844
2	18/03/2023	130	1,041	125	21	1,166
Re-Air (Ep 2)	25/03/2023	118	609	104	21	713
3	01/04/2023	96	748	68	19	816
Re-Air (Ep 3)	08/04/2023	171	1,614	123	30	1,737
4	15/04/2023	158	3,158	103	18	3,261
5	22/04/2023	428	955	602	22	1,557
6	29/04/2023	235	883	342	25	1225
7	06/05/2023	147	804	235	29	1039
Re-Air(Ep 7)	13/05/2023	103	477	102	30	579
8	20/05/2023	145	1,079	232	25	1,311
9	27/05/2023	140	743	157	78	900
10	03/06/2023	236	707	299	33	1006
11	10/06/2023	133	466	184	29	650
Re-Edits	17/06/2023	230	805	325	36	1130
Re-Edits	24/06/2023	514	7,990	241	22	8,231
12	01/07/2023	233	1,239	306	35	1,545
13	08/07/2023	220	621	309	36	930
Re-Edits	15/07/2023	159	514	278	36	792
14	22/07/2023	143	483	177	38	660
15	29/07/2023	174	346	267	29	613
16	05/08/2023	129	465	165	24	630
17	12/08/2023	176	406	274	34	680
18	19/08/2023	398	1,027	298	44	1,325

19	26/08/2023	333	896	224	52	1120
20	02/09/2023	231	277	315	29	592
Total		5,600	30,942	6,110	830	37,052
Average		280	1,547	306	42	1,853

b) Summary of iShamba Traffic

SMS Questions received	30,942
Incoming Calls received	6,110
WhatsApp questions	4,555
Total	41,607

c) Summary of iShamba traffic per week

SMS Questions received per week (Average)	1,547
Incoming Calls received per week (Average	306
WhatsApp questions received per week (Average	569
Total	2,422

d) iShamba customers

Subscription Type	
Freemium farmers	547,389
Premium farmers (Active)	929
Total	548,318

iShamba: Clean cooking (MECS)

MECS episodes educated farmers on the importance of embracing fast & clean cooking methods such as solar e-cooking and the use of an electric pressure cooker. Farmers got to see how they can save money as well as time using these modern ways of cooking.

From the episodes, iShamba received **53** questions. **59%** of the questions were on the electric pressure cooker(EPC). Farmers wanted to find out where they could buy one and the prices. **28%** were on solar e-cooking and how they can get this system in their homes. **9%** of the remaining questions were on the Air fryer and the **4 %** on the induction stove.

Social media traffic

We had posts to promote the episodes on our social media platforms i.e the Shamba Shape Up Facebook, Instagram and Twitter accounts.

Below is a breakdown of the social media figures:

Channel	Total Reach/Impressions	Total Engagements
Facebook	96,632	9,111
Twitter	17,901	2,173
Instagram	731	49
Totals	**115,264**	**11,333**

- Reach & Impressions are the number of people who have seen the posts on their timelines.
- Engagements refer to any reactions made on the posts. Reactions are likes, shares, reposts, comments etc.

iShamba traffic: Soil health (Cropnuts)

Cropnuts had several episodes that focused on teaching farmers the importance of doing a soil test. These episodes explained how a soil test is done and what the farmer gets from the test. Based on the farm's results, the farmer is advised on how they can improve their soil's fertility and what crops will do well in their farms.

Following the broadcasts, iShamba received a total of 264 questions around soil health. Of these questions, 58% were on soil tests i.e., where to do a soil test, how to take a sample or how much it costs. 23% were on how to know the soil's pH and correct their soils' acidity level. 17% were on how to improve soils' fertility so as to improve their yields. The remaining 2% were general questions on who Cropnuts are, soil conservation and water testing.

Social media traffic

We had posts to promote the episodes on our social media platforms i.e., the Shamba Shape Up Facebook, Instagram and Twitter accounts.

Channel	Total Reach/Impressions	Total Engagements
Facebook	186,169	15,039
Twitter	6,010	201
Instagram	510	62
Totals	**192,689**	**15,302**

- Reach & Impressions are the number of people who have seen the posts on their timelines.
- Engagements refer to any reactions made on the posts. Reactions are likes, shares, reposts, comments etc.

iShamba traffic: Avocado management (Plant & Food research, Olivado)

Plant & Food research together with Olivado had a special feature on Series 13. The episode focused on the importance of buying clean Avocado seedlings that are free of phytophthora from certified nurseries like Olivado and how to set up a high health Avocado nursery.

From the episode, iShamba received a total of **306** questions on Avocados and management. Of these questions, **32%** were on where to source healthy avocado seedlings, **27%** on general management of Avocado i.e., remedies for pest & disease outbreaks, manure application etc. and **22%** on how to plant the seedlings, how big the holes should be and reading materials on how to grow & manage the fruit trees.

 7% were on how to establish a healthy Avocado nursery. **5%** of the remaining questions were on the different Avocado varieties available and which will do well in their area. **3%** were on how to graft avocado & where to get the market for their Avocados **(3%)**.

Social media traffic

We had posts to promote the episodes on our social media platforms i.e. the Shamba Shape Up Facebook, Instagram and Twitter accounts.

Channel	Total Reach/Impressions	Total Engagements
Facebook	25,138	1,761
Twitter	290	16
Instagram	89	3
Totals	**25, 517**	**1, 780**

Below is a breakdown of the social media figures:

● Reach & Impressions are the number of people who have seen the posts on their timelines.
● Engagements refer to any reactions made on the posts. Reactions are likes, shares, reposts, comments etc.