UNITED REPUBLIC OF TANZANIA
MINISTRY OF AGRICULTURE

THE 29TH NANENANE EXHIBITIONS
THE TANIPAC PROJECT PARTICIPATION REPORT





INSIDE

AUGUST 2022

GAFSP
global agriculture & food security program

EXECUTIVE SUMMARY

The Nanenane exhibitions which are celebrated from 1st to 8th August every year to mark the contribution of farmers to the national economy, this year was celebrated nationally in Mbeya region at John Mwakangale grounds under the theme "Agenda 10/30 Agriculture is a business, participate in national census for better plans in Agriculture, Livestock and Fishing". Celebrations were also held in different regions of Tanzania whereby all agriculture stakeholders and farmers showcased their services, products, technologies and innovations to the public.

The TANIPAC project participated in Mbeya celebrations at John Mwakangale grounds, in Zanzibar at Dole Kizimbani grounds and Mwanza at Nyamhongolo grounds. The Mbeya team comprised of several counterparts including technology developers from A to Z Company and one metal silo training beneficiary (artisan) from VETA-Dodoma while Mwanza and Zanzibar teams were accompanied by two counterparts from Tanzania Bureau of Standards.

The teams disseminated knowledge regarding aflatoxin occurrence and mitigation measures along the value chains of maize and groundnuts and promoted aflatoxin smart technologies to about 1,361 individuals in total, whereby 828 were males and 533 were females. About 896 (582 males and 314 females) clients were attended from the pavilion. The project team also conducted side event programs at VETA-Mbeya where 54 students were informed about aflatoxin issues, public campaigns at Inyala Ward reaching about 227 (115 males, 112 females) farmers and at Utengule - Usongwe Ward serving 184 (86 males, 98 females) farmers.

The project also reached the general public through media whereby 7 media prints namely Daily News, The Guardian, The Citizen, Mwananchi, Majira, Nipashe and Uhuru were covered; 4 electronic media;TBC1, ITV, Azam TV and Star TV were covered and 6 social media platforms; IPP, Michuzi blog, Life TV online, Star TV online, Majira online and Global TV were covered. The statistics of clients were taken only from visitor's books and registration forms without considering number reached through media platforms.

CHAPTER ONE

1.0 Introduction

The Nanenane exhibitions also referred to as the agricultural exhibitions is a one week fair and one of the most famous and vibrant public holidays celebrated from 1st to the 8th of August of each year to commend on farmers' contribution into the economy.

During the exhibition week, farmers, agricultural experts and other stakeholders like Universities, Research Institutes, input suppliers, fertilizer producing industries and other innovators use this very important avenue to share knowledge, showcase and disseminate new technologies, ideas, discoveries and alternative solutions concerning the agricultural sector that will enhance economic growth through better production and processing of crop produces, animals and fisheries products and byproducts.

The exhibition, apart from it being celebrated nationally in one of the allocated locations, it is also celebrated zonally i.e in Arusha for Northern Zone; Eastern zone in Morogoro; Lake zone in Mwanza and Simiyu; Southern Highlands in Mbeya; Southern zone in Lindi, Mtwara or Songea; Western zone in Tabora; and Central zone in Dodoma.

1.1 Evolution of Nanenane and Agriculture Prioritization Throughout Different Presidential Regimes:

Tanzania, since independence has implemented a number of innovative initiatives which aimed at improving and transforming the performance of the agricultural sector. The Nanenane exhibitions was one of the initiatives which started long way back in 1963. Every presidential regime had its own contribution into strengthening the agriculture sector.

HE. The Late, Mwl. J.K.Nyerere
1st President of Tanzania

1961

1985

"Siasa ni Kilimo!"

The Tanganyika African National Union (TANU), a powerful political party that led into Tanganyika independence in 1961 was born in July 7, 1954 under the late HE. Mwl. Julius Kambarage Nyerere leadership who later became the first President of Tanganyika and then Tanzania.

The 7th of July of each year, also known as Sabasaba was then used for TANU's birth commemoration date until 1963 where the date graduated into being special for the International Trade Fair in Dar es Salaam. During the trade fair, farmers; in addition to showcasing their produces for promotion of export trade, it was also a way of celebrating their annual agricultural accomplishments.

In 1977, TANU merged with Afro-Shirazi Party from Zanzibar to form the Revolutionary State Party or Chama cha Mapinduzi (CCM).

During his reign, several declarations were made including; (i) The Iringa Declaration of Siasa ni Kilimo - 1974, (ii) Kilimo cha kufa na kupona, (iii) Arusha Declaration, (iv) Vijiji vya Ujamaa (v) Chakula ni Uhali, na (vi) Ukulima wa Kisasa.

HE. Ali Hassan Mwinyi
2nd President of Tanzania

1985

1995

"Mzee Rukhsa"

In 1992, the multiparty system was introduced in Tanzania. During his regime, the Second President of the United Republic of Tanzania, HE. Ali Hassan Mwinyi, in 1992 faced challenges from the opposition parties regarding the date for farmers' day. To resolve that, in 1993, the Nanenane i.e the 8th of August of every year was officially set forth to be special for farmers and other agricultural stakeholders' opportunities to share knowledge and new technologies.

HE. President Mwinyi focused on opening trade gates in international markets including export and imports of agricultural produces through relaxation of import restrictions and encouragement of private enterprises.

HE. The Late, Benjamin William Mkapa
3rd President of Tanzania

1995

2005

"Mtaji wa masikini ni nguvu zake mwenyewe!"

In 1995, it was made clear that the Nanenane exhibitions will be celebrated in the whole country rotationally. 1 region would be for national exhibitions while others would be celebrating zonally. It was also during his reign that the Nanenane day was made a public holiday.

The late HE. President, Benjamin William Mkapa's goal was to eradicate hunger and poverty in the country. Recognizing the role of agriculture sector into realization of his goal, he ordered the agriculture extension officers to go down to the agriculture communities and disseminate knowledge and

Furthermore, he introduced the Tanzania Social Action Fund - TASAF with the objective of enabling poor households to increase incomes and opportunities while improving consumption.

He believed in working hard as the only way of overcoming poverty. The slogan "Mtaji wa masikini ni nguvu zake mwenyewe!" directly pointed at every individual but in the agriculture area, it pointed on the farmers because, since then to date, the majority of the poor live in the rural areas where farmers are also located.

HE. Dr. Jakaya Mrisho Kikwete
4th President of Tanzania

2005

2015

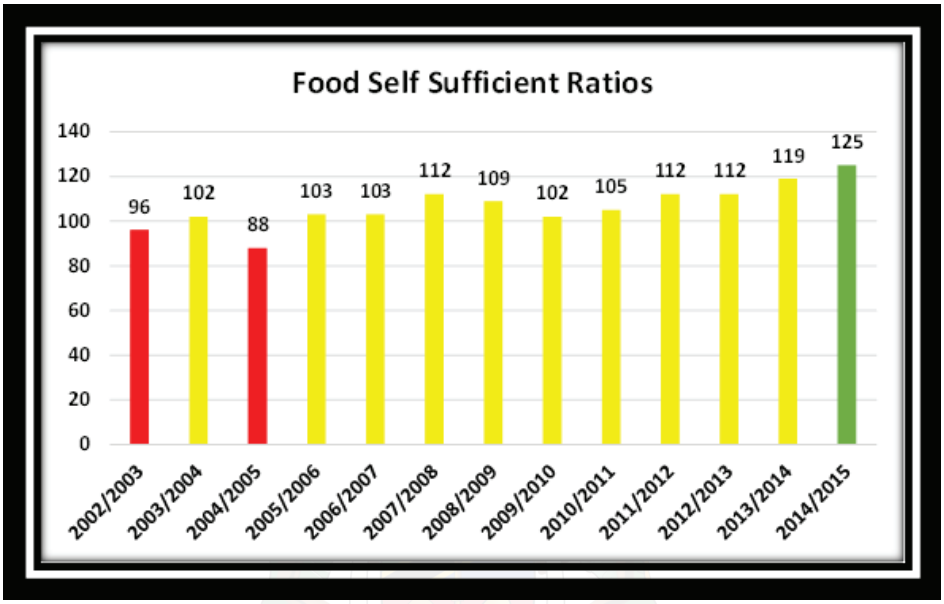
"Kilimo kwanza"

The Fourth President of Tanzania, HE. Dr. Jakaya Mrisho Kikwete found the grounds for Nanenane already cemented by the preceding Presidents and all he had to do was to build on the sector.

He was famously known for his passion to banish hunger from Tanzania.

During his ten years regime, the country was able to attain Food Self Sufficient Ratios (SSR) ranging from 103 to 125 whereas before, the country was below the SSR of 100 i.e food insufficient.

NB: SSR 0-99 Insufficiency (red); 100 – 119 Sufficiency (yellow); 120 and above Surplus (green)



The former President Kikwete's determination to transform the agriculture sector into another dimension was evidenced by His revolutionary Kilimo Kwanza Declaration which he announced during the Nanenane exhibition week; 3rd August, 2009 in Dodoma. The declaration aimed at increasing crop production, livestock husbandry and undertaking fish farming through modernized agriculture.

The declaration was implemented through ten pillars namely:

(i) political will to push agricultural transformation, (ii) enhanced financing for agriculture, (iii) institutional reorganization and management of agriculture, (iv) paradigm shift to strategic agricultural production, (v) land availability for agriculture, (vi) incentives to stimulate investments in agriculture, (vii) industrialization for agricultural transformation, (viii) science, technology and human resources to support agricultural transformation, (ix) infrastructure development to support agricultural transformation, and (x) mobilization of Tanzanians to support and participate in implementing Kilimo Kwanza.

As if it wasn't enough, the retired Hon. President Kikwete introduced the 10 years' Agriculture Sector Development Programme in 2006/2007 which aimed at transforming the agricultural sector (crops, livestock & fisheries) towards higher productivity, commercialization level and smallholder farmer income for improved livelihood, food and nutrition security and contribution to the GDP.

The program strategy was to transform gradually subsistence smallholders into sustainable commercial farmers by enhancing and activating sector drivers and supporting smallholder farmers to increase productivity of target commodities within sustainable production systems and forge sustainable market linkages for competitive surplus commercialization and value chain development.

HE. The Late, Dr. John J.P.Magufuli
5th President of Tanzania

2015

March 2021

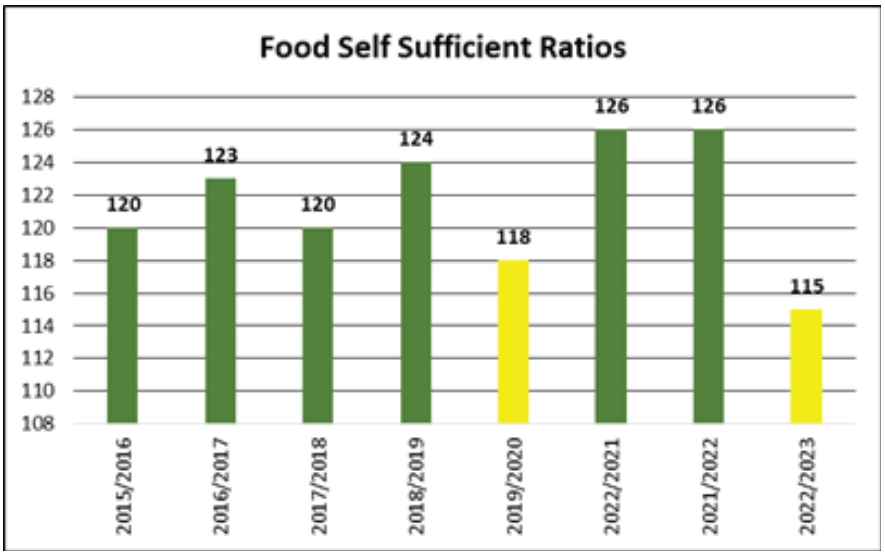
"Tanzania ya Viwanda/Hapa Kazi tu"

HE. The Late President Dr. John Joseph Pombe Magufuli passion was to upgrade the country into a middle income country through industrialization.

To realize his dream, the late President Magufuli focused on improving agricultural trade through improving infrastructure (roads, railways and markets) among others.

The Food Self Sufficient Ratios achieved during his reign has been mainly surplus i.e 120≥ the main contributors being good availability and accessibility of agricultural inputs, the farmers willingness to produce due to ease penetration in domestic agriculture markets and external trades, but also due to favorable climatic conditions.

His close supervision and follow-up style of leadership contributed largely into remarkable achievements not only in the agricultural sector but also in other sectors.



During his election campaigns in 2015, the late President Magufuli promised to strengthen extension services in the country as one of the ways to advance the agricultural sector. In 2021, the former Minister, Prof. Adolf Mkenda cancelled the Nanenane exhibitions and directed all the funds which were meant for the exhibitions to be used to purchase working tools like motor cycles, tablets, printers and soil kits to start with for extension officers in the field. It is a brilliant support to extension officers as they will easily reach farmers and offer technical solutions to problems facing them, disseminate knowledge and technologies developed in the agriculture sector.

Unfortunately before realizing all of his goals, President Magufuli passed on in March 17th 2021.

HE. President Samia Suluhu Hassan
6th President of Tanzania

March 2021

To Date

"Agenda 10/30 - Kilimo ni Biashara"

The constitution of the United Republic of Tanzania, Chapter 2, "The Executive of the United Republic", Part 1 "The President", 37.(5)states; " Where the office of the President becomes vacant by reason of death, resignation, loss of electoral qualifications or inability to perform his functions due to physical infirmity, or failure to discharge the duties and functions of the office of President, then the Vice-President shall be sworn in and become the President for the unexpired period of the term of five years and in accordance with the conditions set out in Article 40, and after consultation with the political party to which he/she belongs, the president shall propose the name of the person who shall be Vice-President and such appointment shall be confirmed by the National Assembly by votes of not less than fifty per centum of all the Members of Parliament".

After the demise of HE. President Magufuli, the Vice-President Samia Suluhu Hassan was sworn the new President of the United Republic of Tanzania, and Hon. Dr. Philip Isdory Mpango the Vice – President.

Despite that her presidential time started in the middle of the crisis; the corona virus pandemic which affected the World economy and the on-going Russia – Ukrainian war which has and still is affecting international export trades and oil prices, her leadership still believes in a remarkable agriculture transformation through implementation of Agenda 10/30.

Agenda 10/30 focuses on achieving agricultural growth of 10% by 2030. This agenda will reduce poverty by up to 50% as the sector is the major employer in the country. To reach that goal, the Government has planned to; (i) Achieve food security and strengthen export trade, (ii) Increase export value from $1.2 Billion to $5 Billion by 2030, (iii) Increase the number of block farms/commercial farms from 110 in 2020 to 10,000 by 2030, (iv) Expand irrigated area to 8,500,000 hectors equivalent to 50%, this will increase production from irrigated farms from 10% to 50%, (v) Create employment for women and youths to 1 million by 2025, (vi) Increase availability of raw materials for value addition industries to 100% by 2030, (vii) Increase accessibility of loans from financial sectors from 9% in 2022 to 30% by 2030,

(viii) Reduce post-harvest losses from 35% to 5% by 2030, (ix) Eradicate cooking oil deficit by strengthening sunflower production and palm oil, (x) Increase annual horticultural crops export trade value from USD 750M to USD 2B by 2030, (xi) Increase to self-sufficiency in the production of fertilizers; and (xii) Involvement of private sector in the production of seeds to Self-sufficiency and surplus for export

CHAPTER TWO

2.0 The 2022 Nanenane Exhibitions

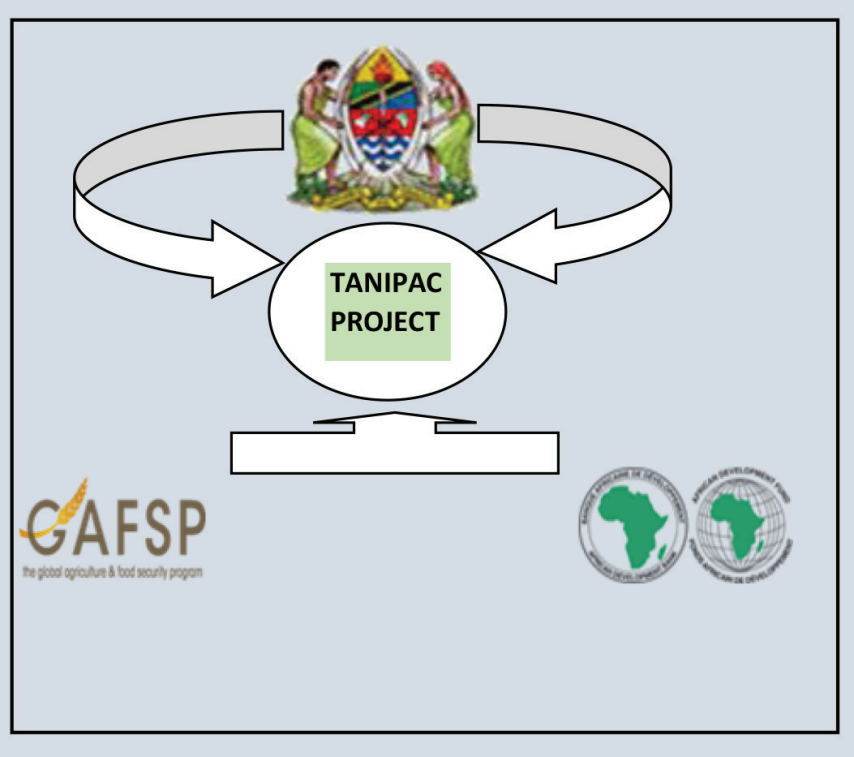
The 29th Nanenane exhibitions were celebrated nationally in Mbeya region at John Mwakangale grounds. To mark the contribution of farmers to the national economy, as always, the celebrations lasted for 8 days, from 1st to 8th August. The event was also held in other regions of Tanzania, to name them, Arusha representing the Northern zone, Tabora representing the Western zone, Mwanza the Lake zone, Lindi the Southern, Dodoma the Central and Morogoro the Eastern whereby, government and other agriculture stakeholders presented their services, innovations and technologies to the public. The fair was largely supported by the Government of Tanzania through the Ministry of Agriculture and its agencies in collaboration with private sectors and UN Agencies.

The 29th Nanenane exhibitions theme was **"Ajenda 10/30 Kilimo ni Biashara, Shiriki Kuhesabiwa kwa Mipango Bora ya Kilimo, Mifugo na Uvuvi"** (Agriculture is Business, Participate in National Census for Better Planning in Agriculture, Livestock and Fishing). The event brought together farmers, entrepreneurs, research institutes, input suppliers, agencies, agriculture practitioners, government officials, diplomats, political leaders who had opportunities to showcase their new technologies, ideas, discoveries and alternative solution concerning the agriculture sector, learn and appreciate efforts that are being made by the agricultural sector as whole.

Opening Remarks

The Vice President of Tanzania, Dr. Philip Mpango officially opened the Nanenane exhibitions on 1st August, 2022 at John Mwakangale grounds. He also visited few representative pavilions to see different activities implemented by the agricultural stakeholders and financial institutions. During his speech, he instructed the Ministry of Agriculture to continue putting in place strategies to ensure agricultural extension officers are deployed to provide services to the small and middle scale famers across the country. Moreover, he tasked the research institutions to strengthen their research on Agriculture and Livestock productivities. For financial institutions, he urged them to support the government on the agriculture sector by softening their conditions for issuing agricultural loans, since the sector plays a crucial role in the economy by having employed about 80% of Tanzanians directly and/or indirectly.

The TANIPAC Project Participation



The United Republic of Tanzania through the Ministry of Agriculture is implementing a five-year project (2019-2024) goes by the name Tanzania Initiatives for Preventing Aflatoxin Contamination (TANIPAC) which aim at minimizing aflatoxin occurrence in maize and groundnuts value chains. The project is funded by the Government of Tanzania in partnership with the Global Agricultural and Food Security Program (GAFSP) and the African Development Bank (AfDB).

The project implements three components which include Infrastructure Development; Awareness Creation and Institutional Strengthening; and Project Coordination. The awareness creation component focuses on creating understanding to the public on; (i) aflatoxin occurrence, (ii) associated effects in human health, animals, food security and trade, (iii) mitigation measures by the use of aflatoxin smart technologies throughout the maize and groundnuts' value chains and (iv) institutional strengthening for sustainability, among many.

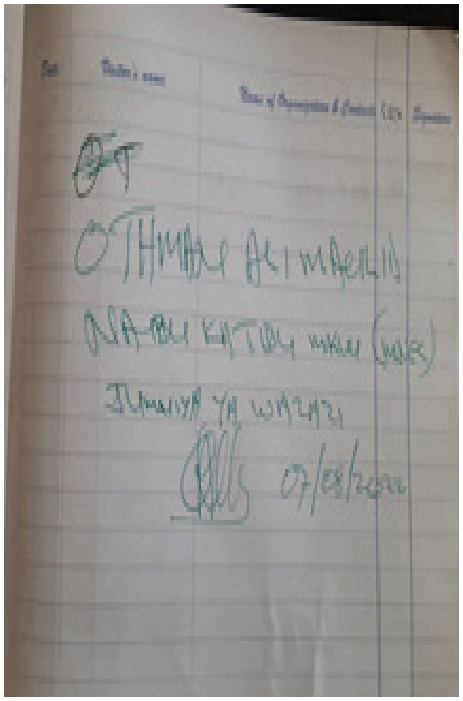
Awareness creation is the component which carries about 75% of the total role weight, the rest (25%) being in other interventions including infrastructure development. As the way of implementing the project objectives under awareness creation component, the project participated in the 29th Nanenane exhibitions with the aim of disseminating Aflatoxin knowledge to the public through physical engagements with clients and media.

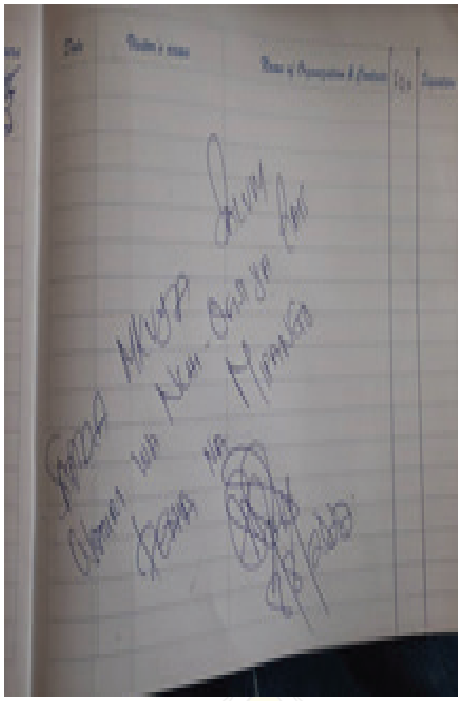
The exhibitions theme "Agenda 10/30 Agriculture is a Business, Participate in National Census for Better Plans in Agriculture, Livestock and Fishing" corresponds to the project goals; ensuring food security, improving public health, improving income levels and increasing export earnings.

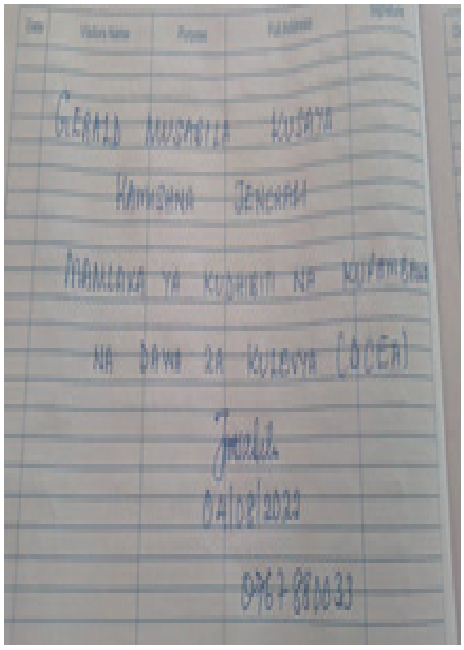
The project team under the Leadership of Clepin B. Josephat (Project Coordinator) which participated in different locations was composed of Mohamed Kombo (Project Engineer), Mercy Butta (Ass. Food Safety Specialist), Eli Balongo (Financial Specialist), Irene Nyinge and Salma Omari (Accountants) Hussein Aboubakar (Project Quantity Surveyor) Halima Yusuph and Monica Msanjila (Office Administrators) Pendo Nsanya, Hilda Sheghembe and Rose Michael (Trainees), Ronald Komanga (Environmental Specialist), Salma Omari (Accountant) Wilbert Oisso (Procurement Officer) and Kassim Msuya (Monitoring and Evaluation expert). Kassim Msuya participated in Zanzibar while in Mwanza, Ms. Mwanaidi Kiya (DNFS) also participated. The three teams were accompanied by other experts from; TBS (Ally Kingazi – Mwanza and Zena Issa - Zanzibar), VETA-Dodoma (Vicent Ndigomo-benefited artisan), Smart Projector (Lilian Sambu – Mbeya) and AgroZ experts.

Visitors

Amongst key visitors in Mbeya were Permanent Secretary for Ministry of Agriculture, Mr. Andrew Masawe, Commissioner General for Drug Control and Enforcement Authority, Mr. Gerald Musabila Kusaya, the Director General for Tanzania Agriculture Research Institute (TARI) Dr.Geofrey Mkamilo, Mr. Othman Ali Maulid, Naibu Katibu Mkuu, Jumuiya ya Wazazi and Honorable Saada Mkuya Salum, Minister of State – President's Office Finance and Planning Zanzibar.





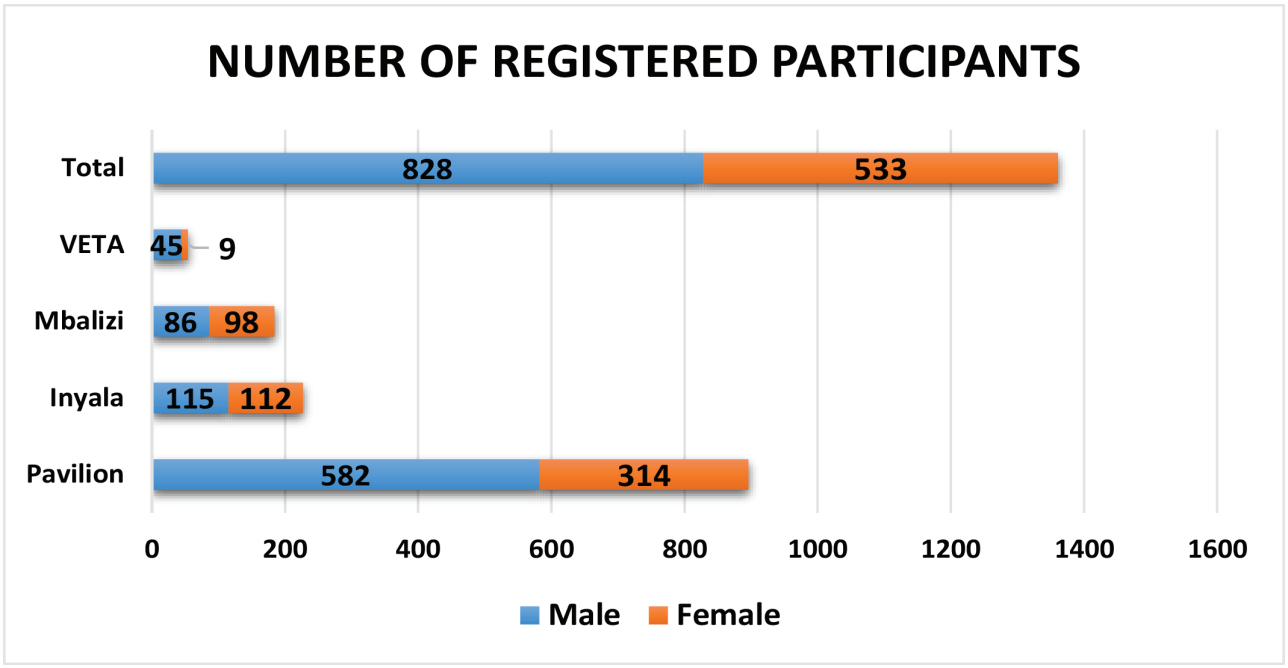


They all received the project progress and were impressed by all initiatives taken by the Ministry to achieve project goals. Mr. Gerald Kusaya however, showed a little concern on high metal silo costs that farmers may not be able to afford and advised that special pricing considerations should be made so that it may be affordable to many.

Key visitors together with other 896 visitors (830) were attended. Presentation on the on-going implementation of various activities to mitigate aflatoxin contamination problem was made. They expressed their satisfaction with detailed explanation they got from the exhibitors but also recommended for more use of media to reach a wider range of people.

Achievements

The teams disseminated knowledge regarding aflatoxin occurrence and mitigation measures along the value chains of maize and groundnuts and promoted aflatoxin smart technologies to about 1,361 individuals in total, whereby 828 were males and 533 were females. About 896 (582 males and 314 females) clients were attended from the pavilion. The project team also conducted side event programs at VETA-Mbeya where 54 students were informed about aflatoxin issues, public campaigns at Inyala Ward reaching about 227 (115 males, 112 females) registered farmers and at Utengule - Usongwe Ward serving 184 (86 males, 98 females) registered farmers as shown in the graph below.


NUMBER OF REGISTERED PARTICIPANTS
Total
828
533
VETA
45
9
Mbalizi
86
98
Inyala
115
112
Pavilion
582
314
0
200
400
600
800
1000
1200
1400
1600
Male
Female


JAMHURI YA MUUNGANO WA TANZANIA
WIZARA YA KILIMO
IDARA YA USALAMA
TARI


JAMHURI YA MUUNGANO WA TANZANIA
TARI


WIZARA YA KILIMO
MRADI WA KUDHIBITI SUMUKUVU TANZANIA (TANIPAC)
SUMUKUVU
NINI MKULIMA ANAPASWA KUFANYA KUZUIA SUMUKUVU SHAMBANI
AFYA YAKO, UTAJIRI WAKO, MAISHA YAKO!!!
Mambo ya kuzingatia
Mambo ya kuepuka

CHAPTER THREE

3.0 IMPLEMENTED ACTIVITIES

Traditionally, public awareness during such exhibitions is created to clients who visit the pavilion through direct engagements and consultations, arranged classes but also through dissemination of fliers, posters and brochures. Topics delivered to farmers and triggered for useful questions and recommendations were;

i. Causes, Symptoms and Effects of Aflatoxin;

ii. Prevention of Aflatoxin to Food crops before and after harvest;

iii. Prevention of Aflatoxin to Livestock and their products; and

iv. Prevention of Aflatoxin during Maize and Groundnuts Processing

This year, to reach a wider range of clients, the project went an extra mile and arranged three side events involving conducting aflatoxin awareness creation campaigns in public gatherings, face to face interviews with farmers, focus group discussions concerning adoption to Good Agriculture Practices on Maize and Groundnuts along the value chains and introducing the metal silo aflatoxin smart technology to VETA - Mbeya students.

3.1 Distribution of ICE materials

Distribution of ICE materials which contained key messages on conditions that may lead to the occurrences of Aflatoxin in grains along their value chains, effects of aflatoxin in human health and its consequences economically and mitigation measures. A total of 328 brochures and fliers were distributed.

ICE distribution in Mbeya

3.2 Demonstration and promotion of aflatoxin smart technologies

Demonstration and promotion of aflatoxin smart technologies such as metal silo, hermetic bags, aflasafe, tarpaulin, and dry cards. Participants were explained in details the usage and importance of aflatoxin smart technologies.

Hermetic bag technology demonstrated

A metal silo technology explained

TANIPAC team raising awareness to visitors at the pavilion

Awareness creation in Mwanza (left) and Zanzibar (right)

3.3 Media

Media like blogs, magazine and TV Programs were used as the best way to reach the public at large where exhibitors gave general overview of the TANIPAC project, aflatoxin occurrence and its mitigation measures but also demonstration of aflatoxin smart technologies.

Print Coverage:

Daily News

The Guardian

Citizen

Mwananchi

Majira

Nipashe

Uhuru

+

Electronic Coverage:

TBC 1

ITV

AZAM TV

STAR TV

Media Coverage:

Michuzi Blog: https://issamichuzi.blogspot.com/2022/08/mradi-wa-tanipac-kuimarisha-usalama-wa.html?=1

Star TV online: https://fb.watch/elZdqOKOe-/?mibextid+cobsDW

LifeTV online: https://youtu.be/dHioR9IydY

Majira online: https://timesmajira.co.tz/wizara-ya-kilimo-kuja-na-teknolojia-itakayodhibiti-sumukuvu/

IPP media: https://wwww.ippmedia.com/sw/biashara/serikali-kutekeleza-mradi-wa-kudhibiti-sumu-kuvu-kwa-kutoa-elimu

Global TV: https://youtu.be?-mkh170IjcE

CHAPTER FOUR

4.0 SIDE EVENTS

The side events which took place in three different locations meant to measure the level of awareness and improve their knowledge regarding aflatoxin issues in Mbeya.

4.1 Technology Transfer at VETA - Mbeya

On the 4th of August, the fourth day of exhibitions, the TANIPAC team visited Vocational Education and Training Authority (VETA) in Mbeya for the same purpose of disseminating aflatoxin prevention knowledge to all students and introducing metal silo aflatoxin smart technology to artisans.

A group photo at VETA-Mbeya

Director of National Food Security Department in the Ministry of Agriculture (above picture) gave project overview and speech on aflatoxin problem and its preventive measures. He explained on the reality of its effects in human health, food security, trade and livestock and urged VETA students to be ambassadors of aflatoxin prevention by spreading the news to others starting with their local communities.

VETA students listening keenly to aflatoxin lecture and asking questions

Common practices for suspected contaminated maize and groundnuts:

- Used for local brews
- Used for human food
- Used for animal feed
- Mixed with the good produces for trade
- Left at the farm to be fed to grazed animals
- During harvesting, the produces are left on the soil

Issues raised:

- Early harvesting is a challenge because of prolonged rains
- No time for sorting/winnowing

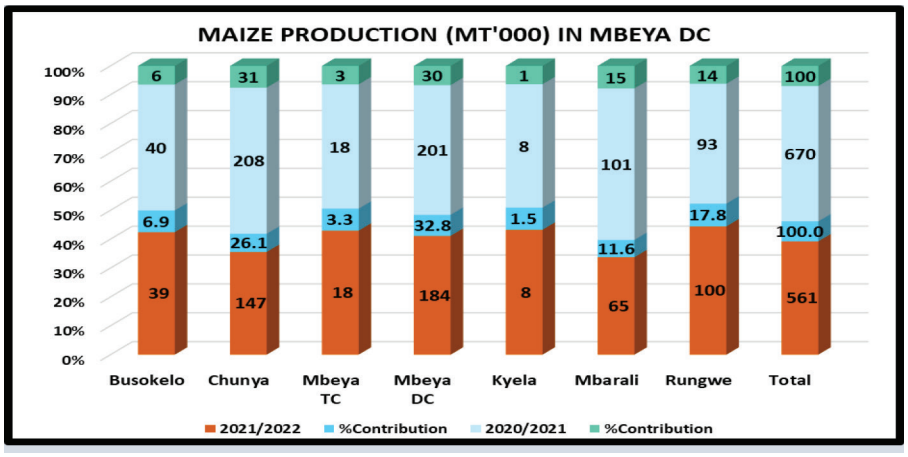
After a class lecture, students dealing with welding activities had the opportunity to visit the TANIPAC pavilion for more details on the metal silo technology. This was more like a study tour because the benefited artisan also got ideas to improve the efficiency of the metal silo produced.

Artisans receiving metal silo construction knowledge by one of TANIPAC benefited artisan

Artisans receiving metal silo construction knowledge by one of TANIPAC benefited artisan

4.2 Awareness Creation Campaign in Mbeya DC

The decision for Mbeya DC was reached after consultations with the Regional Office and by considering production volumes and distance from Juma Mwakangale grounds. Based on its production competitiveness compared to the rest, in the past two production years of 2020/2021 and 2021/2022 for example, Mbeya DC has led production (MT'000) of 201 (30%) and 184 (32.8%) respectively.



Source: Food Crop Forecasts

4.2.1 Awareness Creation Campaign - Inyala Ward

Inyala ward is one of giant maize producers in Mbeya DC. It is located along Iringa road, about 24 kilometers away from Uyole town. The event took place on the 5th August, 2022 whereby, before the event, the TANIPAC team in collaboration with officers from MATI – Inyala the Ward Agriculture Office interviewed farmers on their normal agricultural practices and usage of their produces to find out their awareness on aflatoxin problems and mitigation measures. Afterwards, a public gathering for aflatoxin awareness creation took place at the Mitiyombo grounds. The Inyala event served about 227 people, 115 males and 112 females.

Interview 1

Ms. Zena was asked to introduce herself and describe steps she follows from farm preparation to usage of the final product. "My names are Zeno Modesto, I am a farmer, mainly dealing with horticultural and cereal crops production.

I normally start land preparation in August or September by collecting the harvest residues at one point and then burn them, then I plough my farm by using oxen. In November, I draw lines ready for planting and at the end of November, I plant my certified improved seeds with fertilizer while observing advised spacing and wait for the rain. I use these seeds because re-usage of harvested grains doesn't give good yield compared to the new ones. I apply herbicides soon after the first rains, and then wait until the grasses grow again and apply again. At each stage growth, I apply fertilizers, three time per season. I use seed varieties that have bending cob characteristics when reaching maturity stages but also, looking

at the maturity time that is written on the package, I know the right time to harvest. During harvesting, I prepare a place usually at the middle of the farm and set up a tarpaulin, then I harvest and shell by using a machine, pack in bags and continue with drying process at home for one or two days, I apply storage powder pesticides and store them. Before, I used to apply actellic super until extension officers told us not to use it. To make sure that the grains are ready for storage, I use local methods especially biting, to sense how dry they are. When asked about sorting, this is what she said; "What I normally do during harvesting, I check for the good cobs, I leave behind the bad ones but if I shell right there, it is difficult to separate them. If I come across the rotten ones, I remove them and later process and use them as animal feeds for animals like chicken, goats and pigs"

Interview 2&3

Mr. Adam Mbuga (left)

Mr. Emmanuel Mwalyego (right)

Mr. Adam Mbuga's main economic activity is farming and livestock keeping. He produces maize and beans and practices dairy farming. He starts land preparation in August by collecting all the farm residues and burn them before ploughing. He normally use oxen to plough his farm and like Zena, sow and at the same time, applying fertilizer before the start of the rains, apply herbicides soon after the first rainfall and before germination, and then continue with the rest of the practices until they are ripe for harvest. For him, his farm is his office so regular inspection of his farm helps him realize when the produce are ready. "I normally observe the cob and the stem!" For him, theft is the main trigger for his on-time or early harvest. "I make sure I harvest within one day otherwise they will be stolen", he said. Once shelled, I do not winnow my maize, I apply storage pesticide and store".

Mr. Emmanuel's and Ms. Marsela's practices were not different from the other two. For them, during harvesting them, re-uses bags for fertilizers after washing them. They further said, they store their grains in a store outside the main house, and for Marsella, they own a warehouse that they use to store their produces. Emmanuel admitted applying both liquid and powder storage pesticides in grains. For him, winnowing is not a common practices, he stores right after shelling. "I do not remove the rotten grains, we mix them with the rest of the grains, or we feed chicken". Marsella also uses rotten grains to feed chicken.

When asked about aflatoxin, they both said they have heard about it but have no in-depth knowledge about it. None of the however reported to hear it from the extension officers from their localities but from one under a private company.

About instruction on how to use pesticides, they said they normally get from the sellers, "But at times you need to add more mills for better results" Emanuel said.

Interview 4, 5 & 6

Mr. Saja Mwakanyamale

Ms. Agnes Mngeleza

Ms. Joyce Msonoka

Interviews at Iyawala village involved three farmers. The purpose was to find out their agricultural practices from land preparation to storage techniques.

The three interviewed farmers reported farming to their main economic activity but Joyce, she is also an entrepreneur. They mainly focus on maize, beans and groundnuts production. They all start land preparations from August to September by collection of the farm residues and burn them. Afterwards, ploughing by oxen follows and then drawing of lines ready for planting follows. Just like practices at Inyala village, they sow and apply fertilizers then wait for the rains. They also apply herbicides to control grasses.

During harvesting, they all use tarpaulins during harvesting and during shelling, then storing them in bags.

Ms. Joyce practices conservation agriculture whereby she doesn't need to plough her farm but moving straight to drawing lines. Because she likes eating stiff porridge from semi-milled maize flour (dona), she uses hermetic bags to store her grains and for the rest, she applies proper storage pesticides to preserve the rest.

"This year, I prepared my farm and sow my seeds very early because I heard from the weather news that there will be fewer rains this season. Before storing, I sort my grains and store only the good grains because if I mix them and sell, it is my child who is going to consume or any other innocent person. I avoid selling them because I know their effects in human health and in animals"

When asked about aflatoxin, Ms. Agnes Mr. Saja said they have never heard of it.

Lessons learned from Interviews:

i) Inyala farmers are aware of GAP but adhering to it is still a problem,

ii) Aflatoxin awareness is required and need to be emphasized,

iii) Use of actellic super is still in place,

iv) Farmers are willing to learn and take what they learn into practice;

v) Weather forecasts are helpful to farmers

The Campaign:

The campaign started at around 04:30pm at Mitiyombo grounds whereby, Village leaders from four targeted villages, i.e Iyawaya, Inyala, Darajani and Imezu participated. The leaders included Chairpersons, Village Executive Officers, Village Agricultural Officers, a Ward Executive Officer, a Ward Agricultural Officer, Village chiefs, CCM representatives and religious leaders.

Ward and Village leaders participated

The campaign was officially opened by the Village chairperson of Inyala on behalf of Hon. Councilor by thanking everyone for showing up and urged all to learn and ask questions for better understanding. The topics taught and in-depth explanation of each one based on the interviews as well as the physical observations

Mr. Fidelis Mabena Inyala Village Chairperson officially opening the gathering

Villagers listening to the lectures keenly

Farmers volunteering during lecturing by holding posters for others to read

Farmers sharing their experiences and asking questions

Registration going on

Mr. Ahazi Mkoma, AT MATI - Inyala answering questions

In his lecture, Mr. Ahazi (Senior Agriculture Tutor) insisted on good storage practices and urged farmers, traders and the whole Council leadership to observe them while giving a vivid example of poor storage practices at Inyala market and collection centre as shown in the picture below.

Storage practices at Inyala Collection Centre/Market

A smart projector technology

An expert from TANIPAC giving a lecture

4.2.2 Awareness Creation Campaign at Utengule Usongwe Ward

On the 6th of August, 2022, the TANIPAC team, accompanied with officers from MATI – Inyala and Utengule Usongwe ward office interviewed two farmers and conducted a focus group discussion to understand their knowledge on aflatoxin problems and mitigation measures. Afterwards, a public gathering for aflatoxin awareness creation took place at the Mahubiri grounds. The Mbalizi gathering served about 184 people, 86 males and 98 females.

Interview 1:

Mr. Gasto Simayombo

Mr. Gasto prepares is a farmer focusing on production of maize, beans, coffee and horticultural crops. "I start land preparation in October of every year and by 15th November, the rains start. By the time the rainfall starts, I normally already have seeds and fertilizers. I use lines for planting and use fertilizers at the same time. I weed by using hand hoes when the time comes and apply fertilizer again. I observe the color of the cobs, if they are brown in color then I know they are matured enough to be harvested although not all of them are dry, therefore I continue drying them at home. I use tarpaulin for drying and then shelling them by hand or by using machines. I do not use sticks because they can damage my grains and it is also difficult to sort them. Before storing, I make sure they are dry, then I apply pesticides as advised for selling, but for consumption, I use hermetic bags or a plastic metal silo to store".

"About aflatoxin, yes I have heard about it and I know it affects humans as well as animals. Knowing that, I don't feed my animals' rotten grains"

Focus Group Discussion:

At the focus group discussion, one of the farmers said they are being advised by the extension officers not to burn the farm residues but to bury them down and then use herbicides to control weeds. Others burn residues and plough their farms prior to planting. The majority use rotten grains as animal feeds and sometimes, they leave them in the farms. However, some of the farmers and traders are not faithful because they mix the rotten grains with the good on trade purposes. The most common method for measuring moisture content is a bottle. Most of them use hermetic bags to store maize for daily food consumption. When asked about aflatoxin, majority said they have heard about it but need to know about it. One of the farmers claimed to hear it just a day before through Star TV but he did not pay attention. The TANIPAC team were sharing aflatoxin knowledge through media on that's same date. After intensive discussions, the farmers were taught about aflatoxin causes, effects and prevention measures.

Testimonial interview:

The training has taught me many things. I learnt how to do land preparation and the effects of aflatoxin in human health especially liver and esophageal cancer. Back then before the training, we used to prepare land before planting but not like the way we were taught yesterday. For us as farmers, we normally do not have cash in hand for agricultural activities, we normally rely on loans from SACCOS or from One Acre Fund, an organization that supply loans through input supplies then farmers payback upon harvest. Because the loans have interests and we do not want interests to increase as we delay to pay them, we are forced to harvest our produces before maturity time.

Interviewer: "Good afternoon"

Interviewee: "Good afternoon"

Interviewer: "Can you kindly introduce yourself?"

Interviewee: "My names are Arnold Msemwa from Inyala ward, Makwenje village"

Interviewee: "On 5th August, the TANIPAC project had an opportunity to create awareness on aflatoxin issues in your Ward, if you were one of the participants, can you kindly share with us what you learnt and how it is going to benefit you?"

Anorld: "Yes, I was one of the participants who received training yesterday.

What we do is, as soon as the time to pay back the debt arrive, the maize is harvested, with their leaves attached to the cobs, then the machine shells and measured, then the organization takes maize equivalent to the debt, the rest remains at farmers' hands. About winnowing and sorting, it is difficult to go through that step because by nature, nothing is thrown away. Even if we are to sort, the grains with rotten signs are taken to process partially and they are used to feed animals like chicken, goats, pigs and cows also they are used for preparation of local brews.

As an individual, I have seen that I have been sinning against my body and also animals by feeding them feeds from contaminated grains. Also, we have been committing grave mistake to other humans by using contaminated grains to prepare local brews. Since I am now educated about aflatoxin issues, I will be an ambassador and educate others on this."

Interviewer: "Thank you very much for your time!"

Interviewee: "Thank you!"

The team, while walking towards the Mahubiri grounds passed through a street full of groundnuts processors. They got an opportunity to interview one of the processors about her choices of raw material to the processing techniques and this is how the interview was;

Neema Ashley Mfikwa

"My names are Neema Ashley Mfikwa, I started this business last year (2021) September and I chose groundnuts because they pay off quickly. I sell groundnuts as whole nuts but I also process them (grind) by using a machine, I normally buy in bulky from Songwe region and since I go there by myself, I get to choose the quality ones although that does not mean I do not find the rotten ones or broken ones. I do sort my groundnuts before processing, the best quality are for roasting and the broken and rotten ones are grinded to be used as a seasoning in vegetables or other types of stews".

Groundnuts for processing/grinding

Groundnuts for roasting

She went on and saying; "I face some challenges in my business including high machine renting cost, I pay 60,000 TZS per month which is very high. When it rains, the rain water enter into my building and that is why I store groundnuts up the tables. My wish is to increase my capital so that I can buy my own machine. When asked about aflatoxin, she said she has never heard of it.

The Campaign:

The campaign started at around 04:00pm at Mahubiri grounds whereby about 184 participants were registered. The leaders included the Chairperson, Village Executive Officers, Agricultural Officers, a Ward Executive Officer, Village chiefs, CCM representatives, opposition party leaders and religious leaders.

TANIPAC expert lecturing at the gathering

Aflatoxin demonstration

Farmers asking questions and giving their opinions

Farmers asking questions and giving their opinions

CHAPTER FIVE

5.0 CHALLENGES, QUESTIONS AND RECOMMENDATIONS

5.1 Challenges

i. Some visitors refused to register in visitors book hence reducing the actual number of attendees captured;

ii. Some of the visitors were worried about the price of mitigation technologies such as Aflasafe TZ01 and storage hermetic bags, that the price was too high to some low-income farmers.

5.2 Questions and Recommendations

S/N	Questions / Recommendations	Response
01.	How can one prevent aflatoxin contamination when the time for harvesting arrives and it still rains thus hindering drying process?	Climate change is real, and yes there is still a big challenge on drying technologies. However, there is a drying technology that uses solar power or electricity. It is still a new technology in the country but efforts are still ongoing to ensure it is made affordable and disseminated.
02.	Is there a cure for aflatoxicosis?	No, it is not curable, the best way is to prevent its occurrences
03.	Why is the government quiet on fertilizer prices?	The government is not quiet on fertilizer prices, the problem started at the global market and in this new financial year, the government has set forth about 150 billion for fertilizer subsidies.
04.	How do we solve the problem of fake seeds?	There is a special institute (TOSCI) that deals with Certification and promotion of quality agricultural seeds produced or imported into the country for sale to safeguarding farming communities from poor (fake) seeds from vendors of farm inputs. When you buy seeds, keep the bag as evidence.
05.	Is there medication to remove aflatoxin after its consumption?	No, Once it is consumed it cannot be taken out, it is like any other poison, the best way is to avoid it.
06.	What is the difference between metal silos and the plastic drums?	With plastic drums, you cannot order the desirable size and durability is not the same as the metal silo. Metal silos have a long shelf life up to 25 years if maintained well, can be made at a customer size and have no risk of ease damage.
07.	What is the government take about liquid pesticides that we use to preserve grains?	The Government role is to create awareness to farmers on GAP including good storage techniques. The liquid pesticide is better be used to spray the empty warehouse before storing grains. If used straight to the grains, it is difficult to remove it hence increase pesticide residue in human food.
08.	Which kind of foods do we need to consume to avoid aflatoxin?	There are no special foods to consume. What is needed is to adhere to aflatoxin smart-GAP throughout the value chain to avoid it.
09.	Maize reserved in pics for a long time, can they germinate if planted?	They won't germinate. However, the Government is encouraging farmers to use improved seeds because replanting harvesting maize lowers their productivity.

S/N	Questions / Recommendations	Response
10.	The topics were very educative, arrangements should be made to reach other Wards	Advice taken.
11.	Fertilizers are very expensive, the Government should come with a mechanism to produce organic based fertilizers	Agenda 10/30 which aims at strengthening local fertilizer industries and spearheads construction of new ones.
12.	How can one determine aflatoxin contamination in maize that has not reached maturity?	The only way to confirm aflatoxin contamination is through laboratory testing. However, primary signs of contaminated maize is grain coloring (brownish, bluish, greenish, goldish or black).
13.	Where can one get aflasafe?	A to Z company is responsible for producing and distributing aflasafe. Contacts for Mbeya dealer was provided.
14.	Some of the seeds we buy mature before the end of the season and it becomes difficult to harvest them because of the ongoing rains, what should we do?	It is important to be conversant with the type of seed to buy, for Inyala, the best is long maturity time varieties because of long rain seasons.

CHAPTER SIX

6.0 CLOSING

The President of Tanzania, HE. Samia Suluhu Hassan was the guest of honor for the 2022 Famers Day exhibitions closing ceremony. Before delivering her speech, HE. President Samia witnessed the signing of 21 contracts which will see investors injecting 182bn/- in the agriculture sector.

During her speech, she accentuated on her government's devotion to improve the agriculture sector, starting with injecting 150 billion TZS in the agriculture crop sector for subsidizing fertilizers. For financial institutions, she insisted on softening their loan access restrictions so that farmers can have easy access of loans and at lower interest rates.

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