Government of Malawi

2021-2022 Agriculture Sector Performance Report: July 2021 - April 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

ADD	Agriculture Development Division
AGCOM	Agricultural Commercialisation Project
AIP	Agricultural Input Program
AIYAP	Agricultural Infrastructure and Youth in Agribusiness Project
APES	Agricultural Production Estimate Survey
ARC	African Risk Capacity
ASF	African swine fever
ASPR	Agriculture Sector Perfomance Report
ASWAp-SP II	Second Agriculture Sector Wide Approach Support Project
BBTV	Banana Bunchy Top Virus
BLADD	Blantyre Agriculture Development Division
BR	Biennial Review
BTB	Bovine tuberculosis
CAADP	Comprehensive African Agriculture Development Programme
CAP-F	Country Agribusiness Partnership Frameworks
CEPA	Centre for Environmental Policy and Advocacy
CSOs	Civil Society Organizations
DAES	Department Of Agriculture Extension Services
DAPS	Directorate of Agriculture Planning Services
DCAFS	Donor Committee on Agriculture and Food Security
DCCMS	Department of Climate Change and Meteorological Services
DMD	Downey Mildew Disease
ECF	East Coast fever
ESCOM	Electricity Supply Corporation of Malawi
EU	European Union
EUS	Epizootic ulcerative Syndrome

FAO	Food and Agriculture Organization
FCDO	Foreign, Commonwealth & Development Office
FMD	Foot and mouth disease
FMDV	Foot And Mouth Disease Virus
FY	Financial Year
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GIZ-BMZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HIV	Human Immunodeficiency Virus
IHF	Integrated Homestead Farming
JSR	Joint Sector Review
KADD	Kasungu Agriculture Development Division
KfW,	Kreditanstalt fur Wiederaufbau
KRADD	Kasungu Agriculture Development Division
KULIMA	Kutukula Ulimi Mmalawi
LADD	Lilongwe Agriculture Development Division
M&E	Monitoring and Evaluation
MADD	Machinga Agriculture Development Division
MAPAC	Malawi Programme for Aflatoxin Control
MCCCI	Malawi Confederation of Chambers of Commerce and Industry
MDTF	Multi Donor Trust
MOU	Memorandum of Understanding
MRDRMP	Malawi Resilience and Disaster Risk Management Project
EPWP	Expanded Public Works Programme
MSE	Malawi Stock Exchange
MT	Metric Ton
MW2063)	Malawi vision 2063

NAIP	National Agriculture Investment Plan
NAIP	National Agriculture Investment Plan
NAMIS	National Agriculture Management Information System
ND	Newcastle Disease
OAF	One Acre Fund
ORT	Other Recurring Transactions
PACA	Partnership for Aflatoxin Control in Africa
PEGGs	Pillar Enabler Coordination Groups of the National Planning Commission
PolSAT	Policy Support for Agriculture Transformation
PRIDE	Programme for Rural Irrigation Development
SDG	Sustainable Development Goals
SFI	Soil Fertility Improvement
SGR	Strategic Grain Reserves
SLWM	Sustainable Land and Water Management
SVTP	Shire Valley Transformation and Irrigation Program
SWC	Soil and Water Conservation
TWGs	Technical Working Groups
UN	United Nations
US	United States of America
USAID	United States Agency for International Development
USCA	University of South Carolina Aiken
WB	World Bank
WFP	World Food Programme
WRSI	Water Requirement Satisfactory Index
WUAs	Water Users Associations (WUAs)

EXECUTIVE SUMMARY

The Agriculture Sector Performance Report (ASPR) is an accountability tool for the sector players towards mutually agreed commitments. ASPR provides an annual sector's account of progress made towards achievements of various results spelt out in the sector's investment and policy frameworks, and other local, continental and international commitments. The ASPR's reference frame has been the NAIP and NAP which are sector's investment framework and overarching policy, respectively. The NAP is further aligned with the Comprehensive African Agriculture Development Programme(CAADP) and the Sustainable Development Goals (2015-2030) of the United Nations. Currently, the NAP is under review and processes are underway to develop the successor policy. The new NAP will be aligned to the Malawi 2063 (MW2063) and Malawi Implementation Plan One (MIP-1). Recently, the ASPR has played a strategic role in generating knowledge and information assessing progress towards achieving development objectives and commitments as spelt out in local, continental and global strategies and policies. For instance, the information generated through JSR feeds into continental and global reviews including the African Union's Malabo Biennial Review and Sustainable Development Goals. Below is a synopsis of the performance of the agricultural sector and key issues in 2021/22 reporting year.

Financing and Investments in Agriculture

The guiding framework for agriculture spending for Malawi remains the CAADP. It proposes that member states should spend at least 10 percent of the national budget on the agriculture sector. It is expected that 10 percent of the budget spending on the agriculture sector would stimulate private sector investments that would translate to annual agriculture growth of 6 percent. Budgetary allocation in the 2021/2022 financial year, like the preceding year (2020/21), surpassed the 10 percent CAADP Malabo target by just one percentage point.

In the 2021/22 reporting period, the overall growth rate for the agriculture sector (including forestry and fisheries sectors) has stagnated at 3.2 percent which is still lower than the set target of 6 percent. The failure to reach 6 percent agriculture GDP despite consistent budgetary allocations of over 10 percent is likely to emanate from high spending on recurrent items in relation to public investment spending. The current spending on recurrent items fails to attract the required private sector to further catalyse the economy.

In 2021/22 financial year (FY), the budget for the Ministry of Agriculture was MK 236,997 billion with a 5 percent decrease from MK 250,747 billion recorded in 2020/21/FY. This shrinkage is mainly due to reduced allocations to the Development Budget. The AIP had the highest proportion of overall agricultural expenditure, taking up to 60 percent of the Ministry of Agriculture's budget. The recurrent Budget had a 7 percent increase whereas the Capital Budget decreased by 29 percent. Development Partners (DPs) disbursed a total of US$332.90 million accounting for 79.58 percent of development budget in the 2021/22 financial year against an annual average commitment of US$418.35. This is higher than the 66.44 percent disbursement rate recorded in FY2020/2021. Civil Society Organizations (CSOs) invested around MK4.7 billion. Relative to the 2020/21 investment of about MK14.2 billion, this represents a decrease of 67 percent. Total financing accruing from direct government budgetary allocation, by the DPs and CSO accounted for 86 percent of the NAIP's Year 4 cost estimate of US$ 640,101,973. 2021/22 resource allocation was totalled US$ 551,814,545 excluding private sector financing. Estimating private sector financing is still a challenge mainly because the private sector platforms such as the Malawi Confederation of Chambers of Commerce and Industry (MCCCI) have not been forthcoming with information towards JSR processes. There is a need to revisit the coordination platform in order to draw and include data from private sector players.

Enabling Environment: Policies, Institutions and Coordination

A conducive legal and policy environment, accountable and effective institutions, and functional coordination mechanisms are prerequisites for achieving the objectives of the NAIP. To create an enabling policy and regulatory environment, the Ministry with support from various sector players facilitated the development, review and enactment of new legislations and development of policies. During the period under review, the National Livestock Development policy was completed and approved by Cabinet and the Seed Bill was enacted in Parliament. Review and development of the new National Agriculture Policy, National Fertilizer Policy and National Land Resources Conservation Policy is underway. There has also been significant progress on development of other policies and Acts such as National horticultural policy, Special Crops Bill, Milk and Milk Products Act and National Agriculture Extension and Advisory Policy.

With support from ASWAp-SP II, the Ministry has also implemented the integrated web-based information management system known as the National Agriculture Management Information System (NAMIS) to improve the M&E system. However, there is need to provide more data collection tools for NAMIS as the ones distributed are mostly out of date and non-functional. Further, in order to operationalize the Malabo Declaration and subsequent quest to mobilize private sector investment in the context of the CAADP, Malawi adopted the implementation of the Country Agribusiness Partnership- Framework (CAP-F). In the year under review, the Ministry engaged a consultant to assess the status of CAP-F operations in Malawi and a report was produced.

To improve agriculture public service delivery, the NAIP seeks to reduce the farmer-to-extension worker ratio from 3,000:1 in 2017/18 FY to 1,000:1 by 2022/23 FY. During the period under review, the farmer-to-extension worker ratio was at 2,017:1, which is slightly higher than the ratio of 1929:1 ratio recorded last year. Staff attrition mainly due to retirements and slow recruitment by the government is the reason for the ever-increasing farmer-to-extension worker ratio. There is need for more recruitment in order to improve the extension coverage. At the same time, improving frontline staff mobility and other welfare aspects could enhance extension service delivery amidst the current high farmer to extension-worker ratio.

Resilient Livelihoods and Agriculture Systems

Under this area, the ASPR has captured information on the population of food-insecure households, area under sustainable land and water management and building resilience against pests and diseases. The 2021/22 season was characterised by prolonged dry spells, floods and hailstorms. The combined effects of floods, dry spells, hailstorms, pests and diseases compromised agriculture production in 2021/22 season compared to that of 2020/21. The annual vulnerability assessment and analysis also revealed that the number of food insecure households increased to 1.65 million people in 2021/22 season compared to 1.4 million people in 2020/21 season representing 9 percent of the total Malawi population. Additionally, 16 districts including Chikwawa, Nsanje, Mulanje, Thyolo, Blantyre and Phalombe were affected by Tropical Storms Ana and Gombe which caused heavy flooding. Approximately, 71,716 hectares belonging to

91,016 households were severely affected by the floods and 36,803 combined livestock species owned by 12,655 livestock keepers were either killed or injured.

In 2021/22, just like the previous season, the country continued to be hit by pest and diseases such as Fall Armyworm, Banana Bunchy Top Disease, Foot and Mouth Disease, African Swine Fever, Lumpy Skin Disease, Rabies, East Coast Fever, Newcastle Disease, Bovine Tuberculosis and Heart-water Disease. However, the hectarage affected by army worms decreased from 296,898 ha in 2020/21 to 217,543ha in 2021/22 season. Despite the reduction in area under infestation, Fall Armyworm infestation still remains over and above NAIP's baseline mark and target of 5,300 ha and zero hectares, respectively. Aflatoxins is still one of the challenges that need to be addressed by the sector. In the year under review, a total number of 860 samples were brought to Chitedze Aflatoxin Laboratory by various clients for analysis. The aflatoxin analysis results show that more than 70 percent of samples recorded a positive results. Further, 24 and 69 percent of the samples analyzed exceeded 20ppb and 4ppb of aflatoxin respectively.

In 2021/2022 season, the Government reaffirmed its participation under the African Risk Capacity. Significant changes were made to the customize of the model to ensure that it performs to the interests of the population in the country. The customisation further refined the drought risk model for Malawi's potential participation in ARC's drought risk pool for the 2021/22 agricultural season. The major changes included the removal of protected areas from the calculation mask and the use of five years average data on seed uptake to determine the share of the long and short-maturing maize varieties cultivated at district level.

As a result of the aforementioned customization, the Malawian Government, with the financial assistance from its partners, obtained a drought insurance policy for the four ADD clusters. Consequently, after monitoring the season, all four insurance policies had triggered playouts in these four ADD clusters amounting to US$14,249,46100. The resources are to be allocated in accordance with the Malawi Vulnerability Assessment Committee's assessment, which has determined the number of households affected by various threats during the season.

In addition to government commitment, several stakeholders in the sector contributed to crop insurance programmes. For instance, WFP in collaboration with the Ministry of Agriculture under the Adaptation Fund Programme provided crop insurance coverage for 64,709 people in 8 districts (in the Southern Region). Farmers are insured by the Area Yield Index insurance policy, which protects farmers against different hazards. By the time of publication of this report, Pay-Out Report for the 2021/22 season had not yet been published. However assessments were still being conducted to determine whether or not there will be pay-outs for the most recent season.

One Acre Fund is also working on insurance cover for farmers and pay-outs are only triggered when maize harvests in the insurance region fall below 70 percent of the historical yield for pay-outs. A total of MK37,379,095 was compensated to about 10,382 farmers affected by Cyclone Ana which affected bean production, and groundnut yield. Each farmer received between MK885 and MK27,000 in compensation.

The performance of main Sustainable Land and Water Management (SLWM) technologies has slightly improved compared to last year. Overall, the aggregated area achieved under SLWM is 348,637 ha representing an area increase of 32 percent from the 2020-2021 growing season. The increase has been attributed to increased prices of inorganic fertilizers, intensification of catchment management campaigns and increased farmers' knowledge of the effects of climate change on crop productivity and livelihoods.

Production and Productivity for Growth

In terms of production and productivity of a diversified agriculture sector, all cereals registered a decrease in production in the year under review. Specifically, maize production in 2021/22 decreased by 18.9 from 4,581,524 metric tons produced in 2020/21. Production of rice decreased from 155,433 metric tons to 136,083 metric tons, a value below the 220,000 metric tons /season target in the NAIP. Moreover, production for millet, sorghum, and wheat decreased by 2.9 percent, 1.2 percent and 46.0 percent respectively. The productivity of maize, rice and wheat declined by 20.0 percent, 14.3 percent and 25.0 percent respectively while productivity of millet and sorghum remained constant when compared to 2020/21 season. Besides, the productivity of maize, rice, millet and sorghum are also below the NAIP targets of 4 metric tons /ha, 2 metric tons /ha, 1 metric

tons /ha and 1.5 metric tons /ha, respectively. This is hugely attributed to the adverse weather conditions particularly the late onset of rainfall which was followed by prolonged dry spells and floods hence affecting crop yields.

In contrast, production of most legumes improved in the year under review with groundnuts, pigeon peas and soya beans registering increases of 7.9 percent, 1.7 percent and 14.6 percent respectively. This is due to increased availability of improved seed, market availability and the weather outturn favoured the legumes as opposed to cereals.

In terms of livestock, development, the population of cattle in 2021/22 increased from 1,959,101 to 2,054,208, representing 4.9 percent increase. The population of goats, sheep, pigs and chickens also increased by 10.2 percent, 8.4 percent, 14.9 percent and 6.3 percent, respectively. In addition, the population of goats and pigs surpassed the NAIP targets of 10 million and 4 million respectively while the population of chickens is almost double the NAIP target of 110 million and the population of cattle has now slightly surpassed the NAIP target of 2 million. The increases in livestock production are attributed to the rise in births as a result of improved management practices which include good housing, feeding and breeding; and disease control. Furthermore, there is an increase in the number of households keeping livestock due to the Government and stakeholder injections and pass-on programmes.

Fisheries production was also affected by the weather shocks which resulted into drying up and flooding of fish ponds and reduced fish efforts in the case of capture fisheries. Consequently, overall fish production has reduced from total production of 182,092 metric tons to 180,238 metric tons in 2022. NAIP targets aquaculture fisheries to hit 10,000 metric tons. In the year under review, aquaculture production was 9,913 metric tons up from last year's 8,860 metric tons.

Markets, Value Addition, Trade and Finance for Transformation

In 2021, Malawi's export earnings continued to be dominated by agricultural products with tobacco alone contributing about 37 percent (USD 408.4 million) of total exports down from 51 percent reported in the previous season. Sugar and Tea exports contributed 7 percent and 6 percent of total exports, respectively. The three products have claimed 50 percent of total exports in the

2021/22 season. In the 2021/2022 financial year, Government facilitated exports of 157,684 metric tons of Soybeans valued at MK 82,888,715,803.87 to various countries including China. This has demonstrated the potential for Soybeans as the emerging export commodity complementing the country's major forex earner tobacco.

Lessons learns and conclusions

It is emerging that the devastating weather events of the year under review did not have equal effects across the subsectors of agriculture. It is important to note that within the crops subsector for instance, legumes and horticulture products had done well compared to cereals. In addition, livestock subsector also experienced remarkable growth within the year despite some losses. This is indicative of opportunities and areas for potential interventions and effective response programming that always ensure resilience after any weather-related shock. The disproportionate nature of the impact of the weather pest and disease shocks within the agriculture sector, therefore, provides the basis for specific and tailor-made interventions as opposed to blanket response approaches.

The 2021/22 season however further continues to expose the fragility of the agriculture sector in the wake of weather and climatic shocks. It is therefore important to focus on the resilient building of the agriculture sector considering its centrality to the economy of the country. There is need for more infrastructure development within the sector that guarantee maximum returns from any investments in the wake of exogenous shocks. In addition to the infrastructure, there is need to embrace agriculture insurance more widely and stimulate private sector involvement in order to expand coverage. More investments in research to deal with pest and diseases will have to be promoted as well.

Apparently, financing for the year from sector players whose data was captured in this report (Government, DPs and CSOs), points towards a favourable funding space. The sector was funded 86 percent of the NAIP's year 4 financing target. This is besides the fact that that there is a challenge in accounting for private sector contribution continued to be the challenge in consolidating the progress of the sector. There is, therefore, need for proper coordination amongst sector players to harness the disjointed efforts to deliver on the sector's targets. At the same time, this sector financing begs the question of financing efficiencies and effectiveness considering that

despite the seemingly adequate financial space for 2021/2022, the sector's growth still stagnated. This revelation, besides the inefficiencies in financial allocations within the sector, further reinforces the argument for building the resilience of the agriculture sector.

The 2021/2022 ASPR further reveals the need to review hectarage under cultivation. This has been prompted by the amount of fertilisers especially under AIP in relation to the hectarage captured under Agriculture Production Estimate Survey (APES) report. The smaller traditional hectarage figures are resulting into high figures of country's fertiliser amount per hectare which is in contrast to the evidence on the ground. The complication emanates from APES design gaps which do not cover an emerging category of medium-scale farmers who are increasingly engaging in agriculture. The data gaps call for updating of the sector's data generation processes and therefore strengthening the need for the sector players to support the National Agriculture Management Information System (NAMIS). The NAMIS aims to providing a sector-wide single source and web-based data platform for sector players.

CHAPTER 1

INTRODUCTION

1.1 Malawi Country Context

Malawi is home to about 20 million people, and is classified as low-income country. 85 percent of its population live in rural areas and relies on rain-fed agriculture for employment and livelihoods. The country experiences high levels of vulnerability coupled with growing differentials between men and women, urban and rural population, and regions. Ninth of the rural households rely on subsistence agriculture as the major source of livelihood, cultivating small and fragmented land with uncertain customary tenure security. The estate farms generate about 80 percent of the country's exports mainly from tobacco, tea and sugar. Commercial estate farms are largely run by multinational companies that run out-grower schemes that contract smallholder farmers.

Malawi's real per capita GDP has stagnated over the previous two decades and is currently behind its regional counterparts (World Bank, 2020). This is partly attributed to low levels of total investment averaging 14.9 percent of the GDP since 2000 compared to neighbouring Tanzania at 24.5 percent and Zambia at 34.7 percent. Growth and investment have been largely undermined by macroeconomic instability. External shocks are the major driver of the macroeconomic instability. Specifically, natural disasters and weather shocks, terms of trade shocks, and sudden reduction of capital inflows have significantly contributed to instability.

1.2 Situation of the Agriculture Sector in Malawi

Agriculture remains key to the realization of national development objectives of wealth creation, job creation, and food security. The sector generated 22.4 percent of the country's Gross Domestic Product (GDP) in the year under review, down from 23.4 percent in 2020/21. (Annual Economic Report, 2022). The sector contributes 64 percent of employment in the nation. The Malawi 2063 (MW2063) identifies agriculture as one of the key priority areas to anchor the national development agenda. As such agricultural productivity and commercialization is the first pillar in the MW2063.

The sector has over the years been characterized largely by the smallholder and estate subsectors and it is however, experiencing growing a category of medium smallholder farmers. This category

is engaging in specialized agriculture enterprises such as livestock, fish farming, horticulture, and legumes. The scale and subsequent economic space covered by this category need to be documented.

1.3 Agriculture Sector Performance Reports

Agriculture Joint Sector Review (JSR) is the key platform for operationalizing mutual accountability, facilitating dialogue, and building consensus around key issues affecting the sector. The Agriculture Sector Performance Report (ASPR), on the other hand serves as the foundation for JSR meetings, which enable a broader range of stakeholders to discuss the sector's performance over the reporting year. It gives an annual account of the sector's progress toward achieving the targets outlined in its investment frameworks. The National Agriculture Investment Plan (NAIP) served as the guiding foundation for the creation of the Agricultural Sector Performance Report (ASPR) which are key in reporting the sector performance to CAADP. The ASPRs also contribute to the development of the nation's Biennial Review (BR) reports. It is essential to note that this ASPR was developed in an inclusive and consultative manner. It entailed establishing a secretariat composed of CSOs, Development Partners, the business sector, and government organizations, under the direction of the Directorate of Agriculture Planning Services (DAPS). However, private sector participation has been limited and remains a challenge to date.

1.4 Outline of the report

This ASPR has 8 chapters, organized according to NAIP's four program areas and cross-cutting issues. Chapter 1 provides an introduction and, Chapter 2 gives details about the level of financing in the Sector. A detailed outline of milestones for enabling policy, institutions, and coordination is provided in Chapter 3. Chapter 4 provides an account of interventions for building resilient livelihoods and agriculture systems. This follows production and productivity in Chapter 5. Chapter 6 gives details on markets, credit availability, value addition, commodity exchanges, spot market prices and, volatility, and foreign trade. Chapter 7 wraps up with progress on mainstreaming key cross-cutting issues, especially Gender, HIV/AIDS, and nutrition-sensitive agriculture. Finally, Chapter 8 concludes the report and provides recommendations.

CHAPTER 2

FINANCING AND INVESTMENTS IN AGRICULTURE

2.1 Government Financial Commitments

The 2021/22 financial year (FY) budget for the Ministry of Agriculture decreased by 5 percent from MK 250,747 billion in 2020/21 FY to MK 236,997 billion in 2021/22. This shrinkage is mainly due to reduced allocations to the Development Budget. As can be observed in Table 1, the Recurrent Budget had a 7 percent increase whereas the Capital Budget decreased by 29 percent.

Table 1: Distribution of Agriculture Budget Allocations

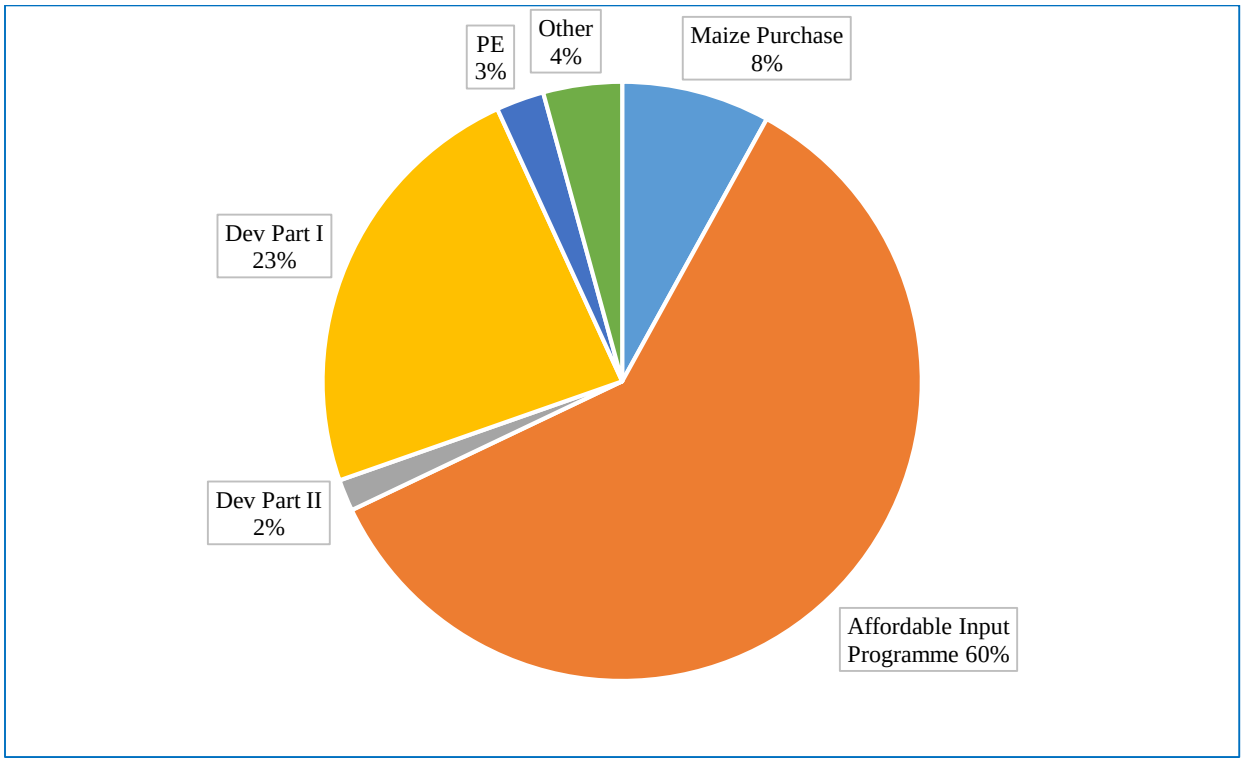
	2020/21		2021/22		
	Approved MK millions	**Revised MK millions**	**Approved MK millions**	**Revised MK millions**	**Percentage Change (%)**
Recurrent	182,208.00	165,942.00	163,691.00	177,200.00	7
Capital	63,446.00	84,805.00	59,797.00	59,797.00	-29
Total	**245,654.00**	**250,747.00**	**223,488.00**	**236,997.00**	**-5**

Source: MoA Budget Documents

2.2 Budget Allocation in the Ministry of Agriculture

Figure 1 shows that AIP accounted for up to 60 percent of the Ministry of Agriculture's budget, the greatest proportion of all agricultural expenditures. Development Part I budget, which received a 23 percent allocation of the entire Ministry budget comes next. The proportion of the Ministry's budget allocated to maize purchases increased from 4 percent in 2020/21 to 8 percent in 2021/22. These allocations demonstrate that government budget expenditures to the agriculture sector continue to favour input subsidies meant to improve agricultural production and productivity.

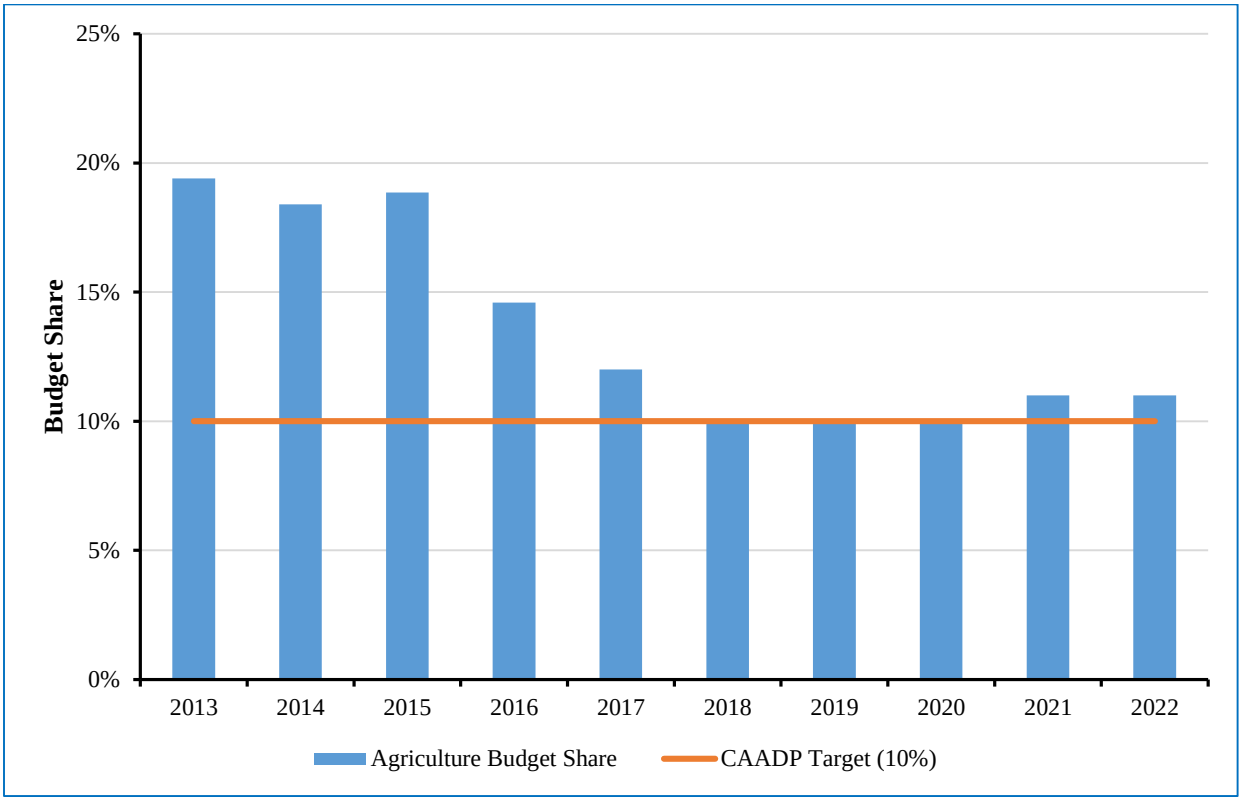
Figure 1: Distribution of Agriculture Budget Allocations



2.3 Share of Agriculture budget to the national budget.

The Malabo Declaration upheld the Comprehensive African Agriculture Development Programme (CAADP) as a mechanism to stimulate productivity and promote food security among the continent's populace. The CAADP requires at least 10 percent of the national budget to be committed to agriculture in order to achieve a 6 percent increase in the agrarian economy. Despite a downward trend in the proportion of the national budget allocated to the agriculture sector, the 10-percent minimum requirement has been maintained throughout the past decade, as shown in Figure 2. During the reporting year, for instance, and similarly to the previous year (2020/21), the agriculture budget exceeded the 10 percent CAADP Malabo goal by one percentage point. The fiscal allocation of the sector over the past decade is depicted in Figure 2.

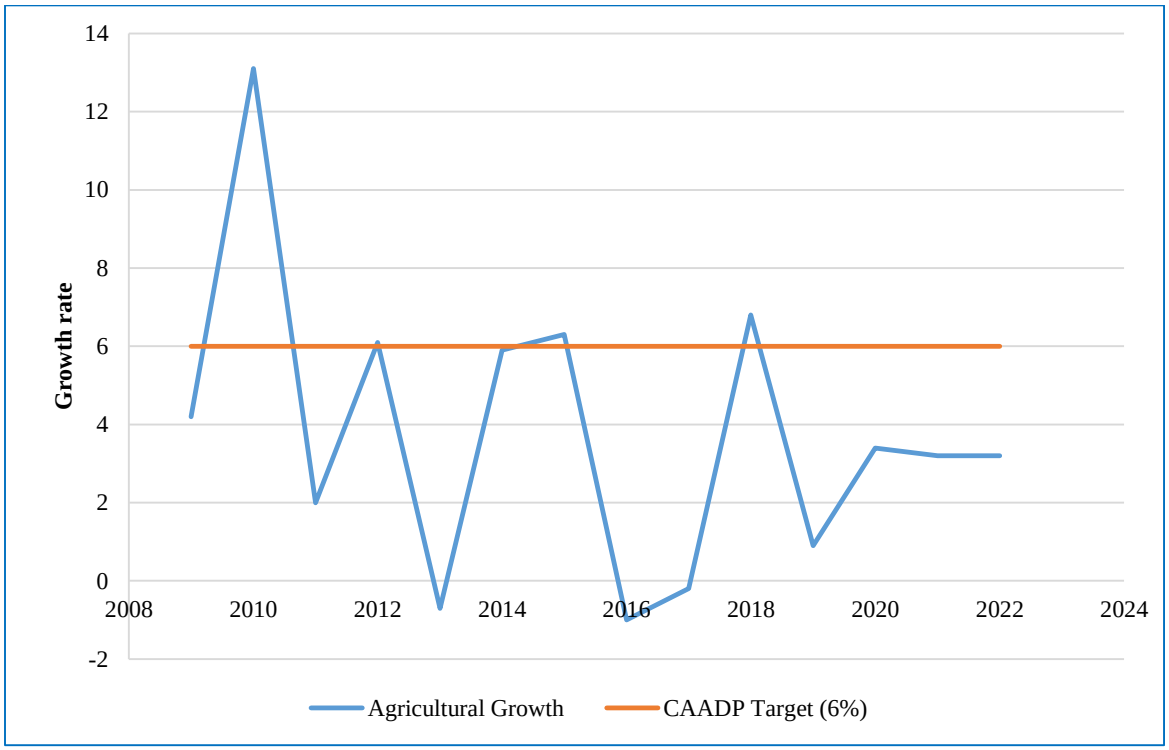
Figure 2: Agriculture budget share



2.4 Agriculture GDP Growth

In terms of agriculture's contribution to the national GDP, the Agriculture sector's (including Forestry and Fishing) overall growth rate has stalled at 3.2 percent, which is lower than the CAADP framework's aim of 6 percent (Figure 3). There has been no change from the 2020/2021 agriculture GDP growth estimate, which at the time of reporting was also 3.2 percent. In terms of agricultural and animal output (excluding Forestry and Fishing), agriculture grew by 3.9 percent during the period under review, a decline from the 4.5 percent recorded in 2020. Forestry (forestry and logging) and Fishing (fishing and aquaculture) both exhibited modest growth. Forestry and logging decreased from -2.6 percent to -1.2 percent, while fishing and aquaculture decreased from -13.6 to -11.3 percent. Only in 2012, 2014, 2015, and 2018 have the 6 percent GDP growth target for agriculture been met over the past decade. Larger expenditures on recurrent goods relative to investments such as irrigation, research, and marketing systems are considered to be the primary reason for the inability to sustain the 6 percent agriculture GDP growth.

Figure 3: Agriculture GDP growth rate



Source: Computed by MoA from Annual Economic Report 2022

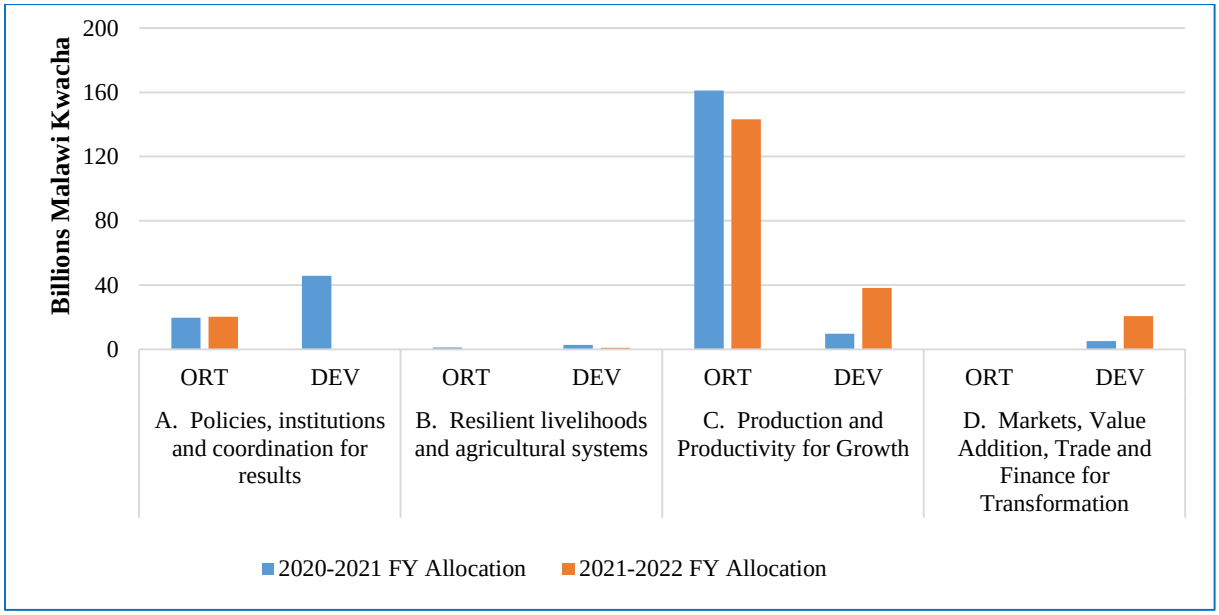
2.5 Alignment of the Ministry's Budget with the NAIP

2.5.1 Budget Allocation to NAIP Programs

The Ministry formulated the 2021/22 budget based on the NAP, which is implemented by the NAIP. Figure 4 illustrates the distribution of the Ministry's approved budget for 2021/22 across the four NAIP projects. Similar to the previous fiscal year, Program C (Production and Productivity for Growth) earned the largest portion of the Other Recurring Transactions (ORT) funding in the 2021/22 fiscal year. This is the result of a huge allocation to AIP, which accounted for 60 percent of the Ministry's budget. From 2020/21 to 2021/22 fiscal year, the Development Budget increased by almost 290 percent under the same programme. This is mostly attributable to the Ministry's implementation of a number of initiatives throughout the reviewed period. Similarly, the ORT allocation to programmes B (Resilient Livelihoods and Agricultural Systems) and D (Markets, Value Addition, Trade, and Finance for Transformation) continues to receive the smallest allocations, even though in the 2021/22 fiscal year, Program D registered an increase of allocation of approximately 302 percent while Program A registered almost the same allocation

with an increase of approximately 3 percent. This is due to the fact that the majority of the Ministry's resources are earmarked for production and productivity. About one percent of the resources are subject to the discretion of the Ministry.

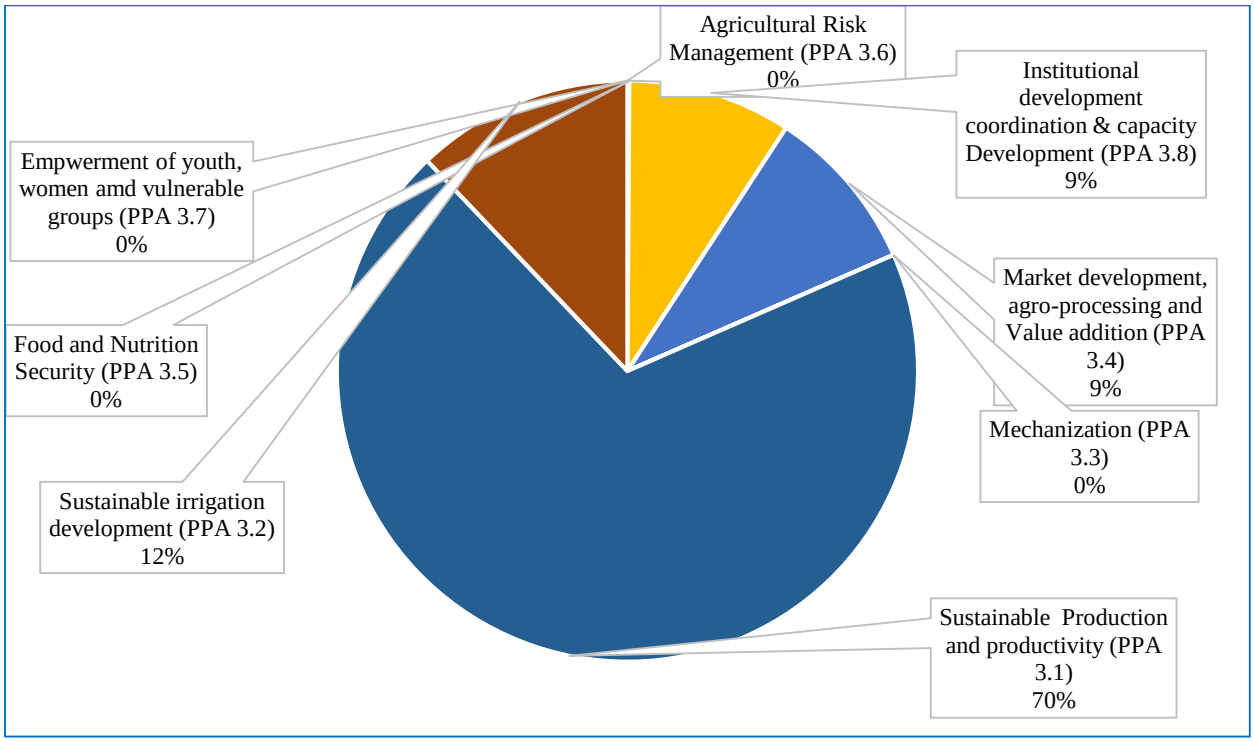
Figure 4: Alignment of NAIP Programs with 2020/21 and 2021/22 Approved Budget



2.5.2 Allocation to NAP Priority Areas

The budgetary allocations for the eight NAP priority areas are displayed in Figure 5. Two of the eight priority sectors got large amounts from both the recurrent and development budgets of the Ministry. Significant funds (70 percent) have been dedicated to Sustainable Agricultural Production and Productivity, whereas Sustainable Irrigation Development has received only 12 percent. The allocation for Institutional development, coordination, and capacity development decreased from 22 percent in 2020/21 to 9 percent in 2021/22. The Institutional Development, Coordination, and Capacity Development and Market Development, Agro-Processing, and Value Addition Policy Priority Areas each had a 9 percent budget allocation.

Figure 5: Budget Allocation by NAP Priority Areas



2.6 Development Partners' Financial Commitments and Expenditures to the Agriculture Sector – FY2021/22

2.6.1 Total Funding Commitments and Expenditures

Donor Committee on Agriculture and Food Security (DCAFS) has for the past 15 years remained a coordination group of Development Partners in the agriculture sector DCAFS is comprised of 22 member agencies (Bilateral and Multilateral Donors; UN Agencies; Alliances; and CGIAR Institutions) with a shared mission to deepen dialogue, coordination, and cooperation among Development Partners and between these partners and the Government with respect to Agriculture and Food Security to enhance the quality of partnership and effectively supporting the NAIP, Mw2063 and other agriculture development strategies. The funding contribution of the DPs to the agriculture sector is reflected in the comprehensive DCAFS database, which covers, among other things, all programmes and initiatives together with their associated budgets, objectives, timeline, disbursements, and geographic coverage.

Analysis of the database reveals that the total commitment of DPs to the industry grew in 2021/22 compared to 2020/21. The current total financing commitment from Development Partners through

various initiatives with an average duration of four years is $1.93 billion (compared to $1.70 billion secured during the same period in 2020/21 – representing a difference of $236,47 million).

This support for the agriculture sector comes from donor-funded projects inside the development budget and discrete programmes outside of the budget. Currently, 103 donor projects are in operation (compared to 105 in 2020/21 and 95 in 2019/20). This increase in overall financing volume and a minor decline in the number of projects is indicative of a good trend toward a reduction in transaction costs associated with the administration of projects. This increase in overall funding volume and minor decrease in the number of projects may be indicative of a trend to concentrate money on a small number of large and influential initiatives, hence reducing the transaction costs incurred by the government for their management and oversight. This trend deserves additional encouragement.

Table 2 provides an overview of the consolidated donor financial resources committed to the sector and disbursements for the 2021/22 fiscal year. In the fiscal year 2021/2022, a total of $332.90 million (79.58 percent) was disbursed out of an average yearly commitment of $418.35 million. This is greater than the 66.44 percent distribution percentage recorded for FY2021/202.

Table 2: Development Partner total commitments and disbursements for ongoing programs.

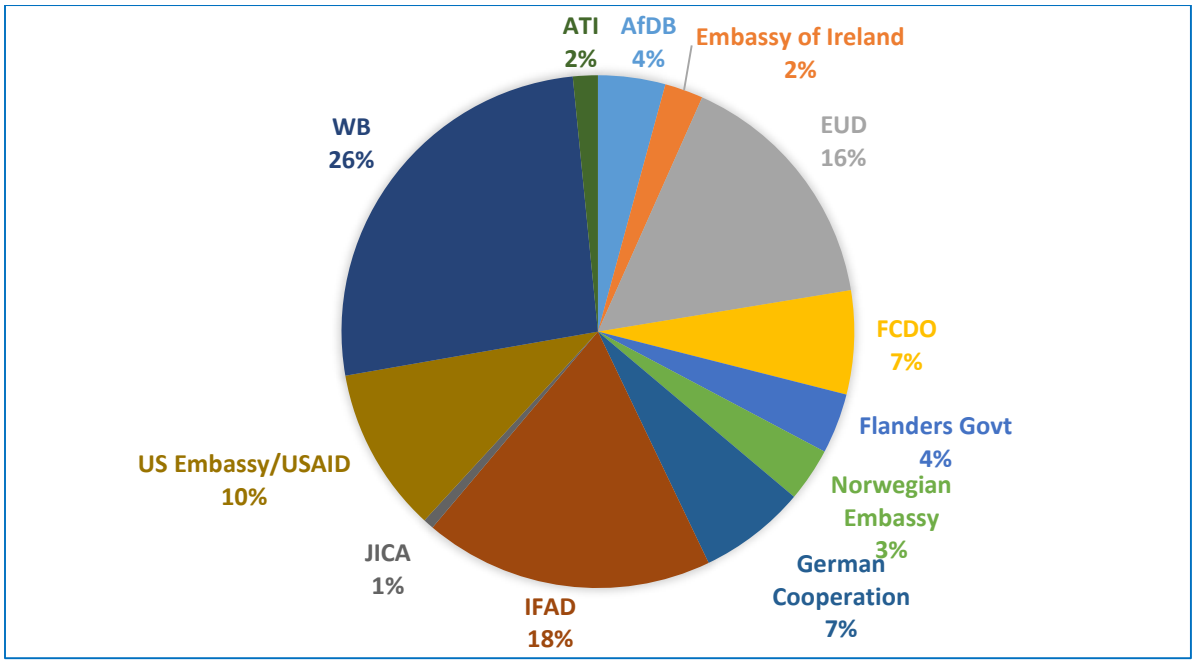
Development Partner	No. of Projects	Total Budget for all projects (US$ Millions)	percentage to the total DPs Budget for the sector	Average total Investment per year DP(in Million US$ Dollars)	Disbursement 2021/22
AfDB	7	81.17	4.2	16.23	33.9
Embassy of Ireland	4	46.38	2.4	23.19	11.57
EUD	7	301.29	15.5	60.26	52.59
FCDO	1	125.1	6.4	25.02	26.6
Flanders Govt	9	72.75	3.8	18.19	28.16
German Cooperation	7	129.24	6.7	32.31	23.31
IFAD	5	349.58	18.0	69.92	23.68
JICA	5	12.77	0.7	6.39	8.01
Norwegian Embassy	9	64.84	3.3	12.97	20.94
US Embassy/USAID	21	199.38	10.3	49.85	48.49
WB	7	501.03	25.8	83.51	35.63
ATI	5	29.98	1.5	9.99	16.95
FAO	16	26.34	1.4	10.53	3.07
Grant Total	**103**	**1939.85**	**100**	**418.36**	**332.90**

Source: DCAFS database. Note that numbering is not in order of priority for funding levels

2.6.2 Contribution ratio of each DP to the Agriculture Sector

Figure 6 shows the proportionate contribution of each DP to the agriculture sector through various projects. It is essential to note, however, that the Malawi Government receives a combination of grants and loans from multilateral institutions (the World Bank and the African Development Bank).

Figure 6: Percentage of Donor Investment Distribution to the Agriculture Sector



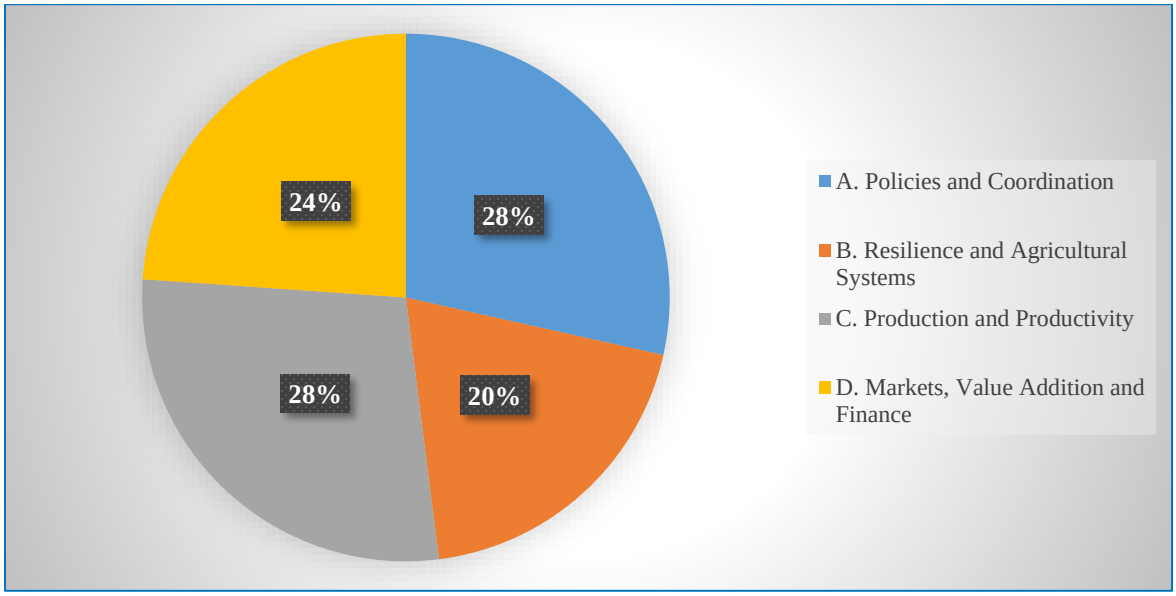
2.6.3 DPs Budget Alignment and Distribution to NAIP Priorities

Development Partners continue to support the NAP and its implementation instrument, the NAIP, in a coordinated fashion. The DCAFS recognizes the need for both public and private to strive to align and re-balance investments to the NAIP priorities. An analysis of DPs' alignment to NAIP Programmes and NAIP Intervention Areas was undertaken and results are presented in Figure 7.

According to Figure 8, Development Partners allocated almost the same amount of funds to NAIP Program A and C (Policies, Institutions and Coordination and Production and Productivity). Program B (Resilience Livelihood and Agriculture Systems) was the least financed NAIP program in the year under D (Markets, value addition, trade and finance has witnessed an increase of funding in the year reporting compared to the past years three years. This increase is a result of the

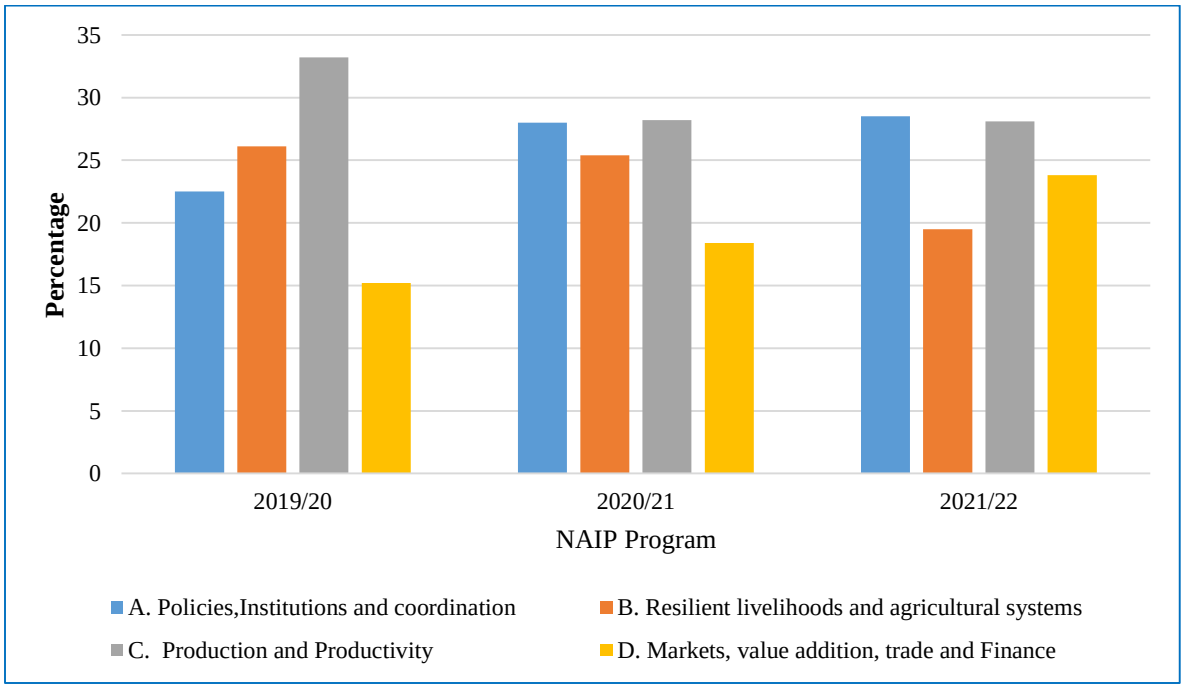
renewed focus to Agriculture Commercialization resulting to a number of projects recently developed inclined this Program Area. Figure C below compares funding to NAIP Programs in the past three years:

Figure 7: Percentage of Budget Distribution to NAIP Program Areas



Source: DCAFS database

Figure 8: Trend of DPs' Funding to NAIP Programs (Three years)



Source: DCAFS database

2.6.4 Funding Arrangement

During the reporting period, the majority of DP funding for the NAIP came from discrete projects, joint programme funding, and Sector Wide Support via a Multi-Donor Trust (MDTF) administered by the World Bank. The current programmes and values of jointly donor-funded programmes are displayed in Table 3. In the agriculture sector, the Multi-Donor Trust (MDTF), in which five DPs (EU, Irish Aid, Royal Norwegian Embassy, Flanders Government, and USAID) pool resources to support government priorities, has been a success. This is regarded as a success for three primary reasons: (a) As a tool for aid coordination, (b) as a means of strengthening the national system, and (c) as a financing mechanism for increasing harmonised funding.

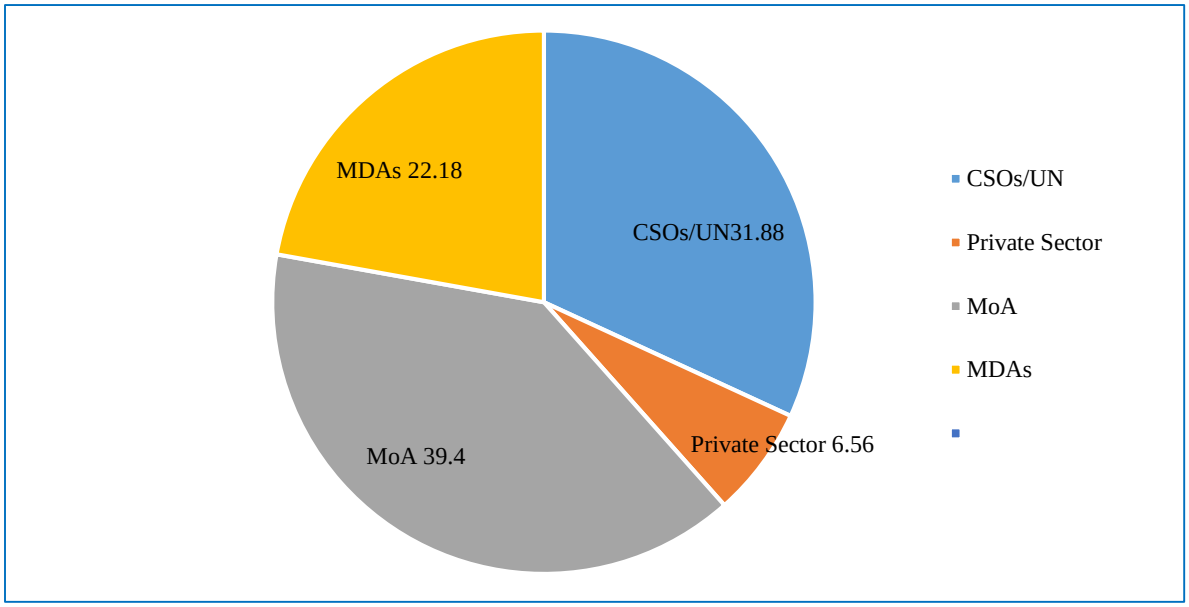
Table 3: Joint Funded Programs by the DPs

Name of Project	Donors	Total Budget (USD million)	Period of the Project
Second Agriculture Sector Wide Approach Support Project (ASWAp-SP II) - World Bank is the Fund Administrator	Irish Aid, Flanders, USAID, EU, Royal Norwegian Embassy	55.00	Approved Date: 6th April 2018; extended from 31 December 2019 to December 2022
AFIKEPO	EU, GIZ-BMZ and	84.55	2017 to 2023
KULIMA	EU, GIZ-BMZ and	124.51	2017 to 2023
Total		**264.06**	

2.6.5 Implementing Partners

Implementing partners of Donor funded projects range from Government Ministries and Departments, Civil Society Organizations, UN Agencies, Civil Society Organizations and the private sector. Figure 9 shows the distribution of projects and related funding to implementing partners. See the diagram below;

Figure 9: Percent of funding to implementing partners



2.7 CSOs Contribution in Agriculture for 2021/2022

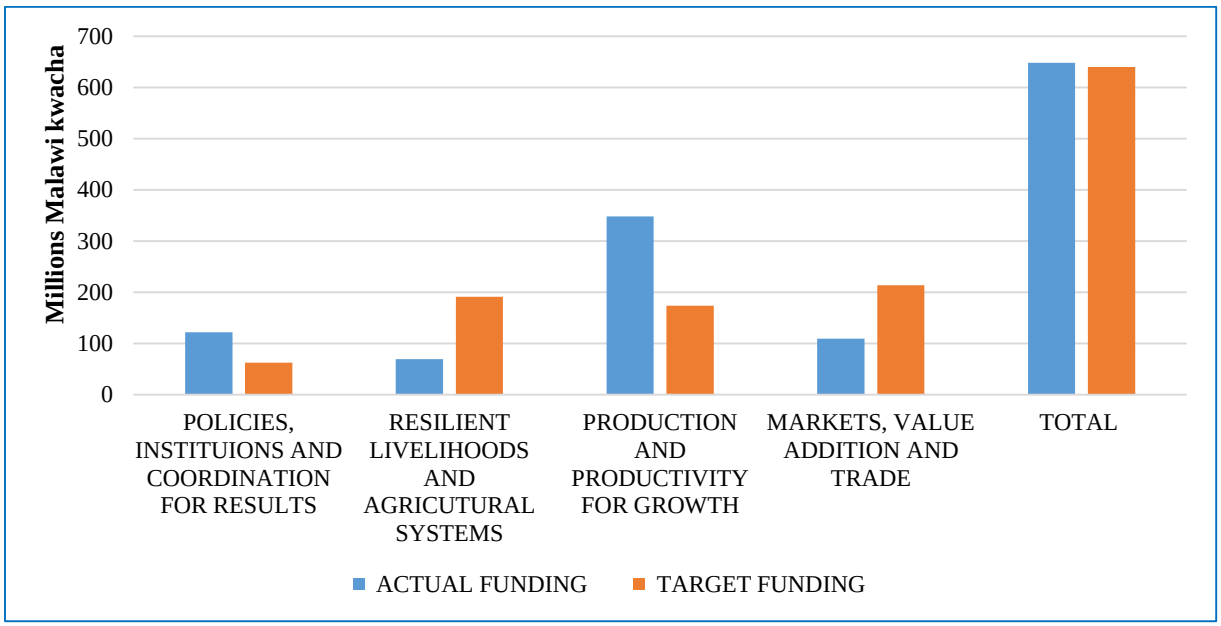
CSOs played a complimentary role to government in the implementation of various interventions in the agriculture sector. In the year under review, a CSOs invested around MK4.7 billion. Relative to 2020/21s investment of about MK14.2 billion. With consideration to a huge decline in CSOs investment by 67 percent in the year under review relative to 2020/21. Figure 5 presents the funding decline distributed across all four NAIP programs. Generally, the investment amounts have decreased in all the NAIP programs with program B and D registering huge investment cuts at 81percent and 84 percent respectively. The table below also shows that program C enjoyed the lion's share of about 71 percent, followed by B, D and A of about 18, 8 and 2 percent respectively.

Figure 10, summarizes overall 2021/22 financing towards the agriculture sector inter alia financing from the development partners, CSOs and government. Generally, total financing accrued to the sector surpassed the NAIP 2021/22 target. When the funding is disaggregated by NAIP programme Area, the amount allocated to programme A (policies, institutions, and coordination) and Programme C (production and productivity for growth) surpassed the target by almost 100 percent. Conversely, amount allocated to programme B (resilient livelihoods and agricultural systems) and programme C (markets, value addition and trade) fell short by 50 percent of the target.

Table 4: CSO investment performance between 2020/21 and 2021/22

NAIP Program	Investment Amount (in Malawi Kwacha) 2021/22	Investment Amount (in Malawi Kwacha) 2020/21	Percentage Change	Investment Percentage
Policies institutions and coordination for results	113,156,200.00	371,537,752.92	-69.54	2%
Resilient Livelihoods and agriculture systems	851,266,320.00	4,626,500,000.00	-81.60	18%
Production and Productivity for growth	3,355,810,000.00	6,630,642,090.00	-49.39	71%
Markets Value Addition and Trade	400,612,335.00	2,517,819,370.00	-84.09	8%
Total	**4,720,844,855.00**	**14,146,499,213.00**	**-66.63**	**100%**

Figure 10: share of finances towards NAIP program area for 2021/22 financial year



CHAPTER 3

ENABLING ENVIRONMENT: POLICIES, INSTITUTIONS, AND COORDINATION FOR RESULTS

A conducive legal and policy environment, accountable and effective institutions, and functional coordination mechanisms are necessary to achieve the NAIP's objectives. NAIP Program A addresses the need for legal, regulatory, and policy reforms, as well as effective coordination mechanisms between various actors—public, non-state, and private. Program A of the NAIP intends to enhance the policy and regulatory environment, stakeholder coordination, and accountability. In particular, the programme aims to strengthen implementation capacity for service delivery at all levels by, among other things, increasing staffing levels, infrastructure, and funding, as well as strengthening farmer organisations. In addition, Program A focuses on monitoring progress and enhancing the availability and quality of data necessary for effective NAIP implementation.

This chapter highlights progress made under Program A of the NAIP, which has the following five outcomes: strengthened capacity for evidence-based planning, implementation, and review of policies and programmes; effective and inclusive policy design, implementation, and review; improved coordination between public and private stakeholders; enhanced public agricultural service delivery capacity; and improved enabling environment for agribusiness investments.

3.1 Enabling Legal and Regulatory Environment

The Sector, led by the Ministry of Agriculture and supported by the Policy Support for Agriculture Transformation (PolSAT) project, FAO, and other partners, planned to formulate and review a number of policies, strategies, and legislations with the goal of establishing an enabling legal and regulatory environment. Table 6 provides a summary of the reviewed and enacted policies, strategies, and laws during the specified period and level of progress.

Table 5: **Policies, Strategies and Legislations**

Policy/Bill/Strategy	Objective/Intended Purpose	Status
National Agriculture Policy	Sustainable agricultural transformation that will result in significant growth of the agricultural sector, expanding incomes for farm households, improved food and nutrition security for all Malawians and increased agricultural exports.	The Ministry hired consultants to review the previous policy
National Agriculture Extension and Advisory Policy	Harmonised approaches and improved coordination amongst stakeholders in the delivery of extension services	The Ministry finalized the consultations and intends to hold a National Validation Workshop
National Livestock Development Policy	Regulated and standardised delivery of livestock extension and veterinary leading into increased livestock production and exports	Policy was completed and approved by Cabinet
National Fertilizer Policy	Well-coordinated fertilizer industry that is able to attract investors in the industry.	Completed and launched in April, 2021.
National Land Resource Conservation Policy	Sustainable land use reduce land degradation	The Ministry hired a consultant to review the previous policy.
National Horticulture Policy	Increased horticultural Crop production and productivity	The draft Policy is in place waiting for consultation meetings with stakeholders
The Seed Bill	Seed harmonization in the SADC and COMESA blocks hence opening our seed markets in the two blocks thereby increasing farmers' access to high-quality seed leading into increased agriculture production.	The Bill was enacted in parliament

Special Crops Act and Agriculture General Purposes Act	Well-regulated agriculture production and marketing environment	The Ministry opened up consultations on the draft crops bill from stakeholders
Milk and Milk Products Act	Increased nutrition, high milk quality and increased agro-based incomes	Draft Establishment Order for the Milk and Milk Products is now ready and the Ministry will proceed with subsequent development processes

3.2 Sectoral Coordination

In terms of sectoral coordination for NAIP implementation, the 2021/22 fiscal year has not deviated from previous fiscal years. The sector still utilised a 2018-established NAIP coordination structure. NAIP coordination structures include, among others, the Cabinet Committee on the Economy, Executive Management Committee, NAIP Troika, Joint Sector Reviews, Sector Working Group, and five Technical Working Groups[1] for the four NAIP programmes. With the implementation of the Malawi 2063 coordination framework, the 2021/22 sector coordination arrangements overlapped with the Malawi 2063 Pillar Enabler Coordination Groups of the National Planning Commission (PECGs). In the year under review, the sector had not institutionalised the PECGs setup, and the two coordination frameworks were operating concurrently. In the interim, the transition process is in progress.

The Ministry was able to organise two meetings of the Sector Working Group and one Joint Sector Review using both physical and virtual platforms. The focus of the Joint Sector Review meeting was the Agriculture Sector Performance Report for 2020/21. Conversely, Technical Working Groups (TWGs) were not active during the 2021/22 season, primarily due to the Ministry's delayed transition to facilitate the migration to Malawi 2063 coordination structures. This left the TWGs

[1] Agricultural policies and regulation TWG, Resilience and agriculture systems TWG, Agriculture inputs and finance TWG, Agriculture technologies and service delivery TWG, Agricultural market, trade and value addition TWG.

in limbo, as they must be reconfigured in accordance with the new sector coordination structure.

3.3 Evidence-Based Planning, Implementation and Review of Policies and Programs

A robust Monitoring and Evaluation (M&E) system is essential for achieving agriculture transformation via evidence-based programming. Even though M&E pitfalls still exist, the sector continues to make substantial progress in enhancing the M&E system. Notable is the implementation of a web-based integrated information management system referred to as the National Agriculture Management Information System (NAMIS). This platform intends to facilitate the development of the Agricultural Sector by providing timely, high-quality data to all stakeholders at each level of the Agricultural Sector. During the period under review, the Ministry, with the assistance of ASWAp SPII, implemented six of the twelve NAMIS modules[2] in twelve districts, including Ntcheu, Zomba, Mzimba, Lilongwe, Dedza, Ntchisi, Mchinji, Kasungu, Chitipa, Phalombe, Mulanje, and Thyolo. Centre for Environmental Policy and Advocacy (CEPA) assisted the ministry in rolling out one module in Rumphi. In addition, 1,172 staff members have been trained in data collection, transmission, and analysis.

With the implementation of NAMIS in the thirteen districts, the Ministry can generate data on food security and agricultural marketing in a timely fashion. NAMIS has also simplified access to agricultural data and enhanced its management and storage. As a result of resource constraints, NAMIS is implemented in only 13 districts, limiting the usability and applicability of generated data at the national level.

3.4 Country Agribusiness Partnership- Frameworks

Malawi adopted the implementation of the Country Agribusiness Partnership- Framework in order to operationalize the Malabo Declaration and subsequent efforts to attract private sector investment within the context of CAADP (CAP-F). The desired outcome of CAP-F is to encourage the private sector investment required to achieve national and continental agriculture sector objectives. The anticipated result of a country's CAP-F process is a collection of flagship agribusiness partnerships that allow companies, governments, and farmers to strengthen priority value chains in a country.

[2] Farmer organisation (household registration and lead farmer registration), trade and marketing (AMIS), resource mapping, meteorology (rainfall data), food security (fortnightly food situation), extension and nutrition (model villages).

During the period under review, the Ministry, with the assistance of PolSAT, hired a consultant to assess the status of CAP-F operations in Malawi and produced a report. Specifically, the report provides an analysis that led to:

(i) Identification of six priority agricultural value chains (pigeon peas, soy beans, chilies, berries, macadamia and groundnuts) based on existing literature and stakeholder consultations

(ii) Business case analysis of the six priority value chains based on their commercial potential (profitability), agro-ecological production potential, and social impact; and

(iii) Scoped potential investment finance for these six prioritized agricultural value chains.

In addition, a detailed value chain analysis was conducted, which identified pigeon peas, soy beans, and groundnuts as the three most important value chains for Malawi. However, the report recommends that CAP-F adopts a broader view of private sector actors with which it can engage, not limited to those working in the prioritised value chains. In addition, the report found that some agriculture sector stakeholders are aware of the CAP-F objectives, activities, expected outputs, and outcomes.

3.5 Enhancing Public Agricultural Service Delivery Capacity

The NAIP aims to reduce the farmer-to-extension-worker ratio from 3,000:1 in the 2017/18 fiscal year to 1,000:1 in the 2022/23 fiscal year in order to improve the delivery of public services to the agriculture sector. During the year under review, the ratio of farmers to extension agents was 2,017 to 1 and this was slightly higher than the ratio of 1,929:1 recorded last year. Despite being lower than the baseline, this ratio remains high considering that the target of NAIP is at 1,000:1. A high vacancy rate continues to impede the delivery of extension services, but the ratio of farming households increased. The dilemma is exacerbated by the inability of frontline personnel to reach farmers in remote areas, which could have been handled by a separate extension officer. Government continues to solicit partners' assistance in acquiring motorcycles and to encourage district councils to hire more extension workers. In the meantime, a variety of platforms, including electronic media, tablets, and mobile phones, are being utilized as agriculture extension channels.

CHAPTER 4

RESILIENT LIVELIHOODS AND PRODUCTION SYSTEMS

NAIP recognizes the development of resilient livelihoods and agricultural production systems as a Program B priority in response to the difficulties posed by climate change. The objective of Program B is to sustainably utilize the natural resource base for agricultural output and to improve the standard of living for farming households. Its efforts encourage the sustainable use of land, water, fisheries, and forest resources, including adaptation measures to lessen the impact of climate change and support for production systems and methods for sustaining livelihoods. It is anticipated to produce the following results: increased dietary diversity and reduction in food insecurity; improved food safety and sanitation environment; improved natural resource management for sustainable agriculture and livelihoods; and reduced incidence and impact of pests and diseases on crop, livestock, and fisheries production.

4.1 Seasonal Outlook

The 2021/22 rainfall was affected by a weak La Nina, with normal to above-average rainfall across much of the nation. The La Nina weather trend is characterized by average to above-normal conditions, resulting in torrential rainfall and flooding throughout the country. However, the majority of the country, particularly the southern and central regions, saw a delayed commencement of precipitation. In January 2022, the majority of districts got rainfall. In the majority of the country, precipitation decreased between the end of March and mid-April of 2022. End of April, however, was the conclusion for northern areas. This season featured less months of precipitation from January to April than a typical season from November to April. According to the Department of Climate Change and Meteorological Services (DCCMS), the last season's October to December period, during which protracted dry spells were recorded, was the country's driest period since 1971. Comparing the 2021/22 season to the 2020/21 season, the combined effects of floods, droughts, hailstorms, pests, and diseases reduced agricultural output.

16 districts, including Chikwawa, Nsanje, Mulanje, Thyolo, Blantyre, and Phalombe, were heavily flooded by Tropical Storms ANA and Gombe during the season. The floods badly impacted 71,716 hectares of land belonging to 91,016 households. In terms of livestock, the floods caused the death

or injury of 36,803 animals belonging to 12,655 livestock keepers. The storms also damaged livestock housing buildings, leaving the surviving animals without or with inadequate accommodation.

4.2 Food Production Systems

A food production system is comprised of all the inputs, processes, and outputs necessary to feed a specific population. During the 2021/2022 agricultural season, the Affordable Inputs Programme was one of the government's primary initiatives to enhance maize and animal production.

AIP targeted 3,762,926 beneficiaries during the season of 2021–2022. The programme package included 50 kilogrammes of NPK (23:10:5+6S+2.0Zn), 50 kilogrammes of Urea, and 5 kilogrammes of maize seed. The farmer's payment for a bag of fertiliser was set at MK7,500, and the government compensated suppliers MK19,500 for each bag redeemed. The government's contribution to seed packages was set at MK3,365.00, and farmers paid the difference between the government's contribution and the market price for each type of seed they selected.

In addition to providing crop inputs, the Government implemented a livestock project in the districts of Chikwawa and Nsanje in which a total of 60,000 female goats were to be redeemed by 30,000 farming households. Each household was allotted two female goats at an additional cost of MK7,500, while the government donated MK19,500.00 per goat. In contrast to the 2020/2021 season, network connectivity during the 2021/2022 agricultural season implementation phase improved significantly. Utilizing an electronic system in conjunction with national identification cards to redeem subsidised inputs enabled the legitimate recipients to obtain the inputs. As of the program's conclusion on March 15, 2022, 85 percent of the targeted beneficiaries had accessed subsidized fertilizer, 71 percent had redeemed seeds, and 80 percent had redeemed goats. However, the 2021/22 AIP was plagued by a restricted number of vendors, delayed fertilizer delivery, and expensive maize seed prices.

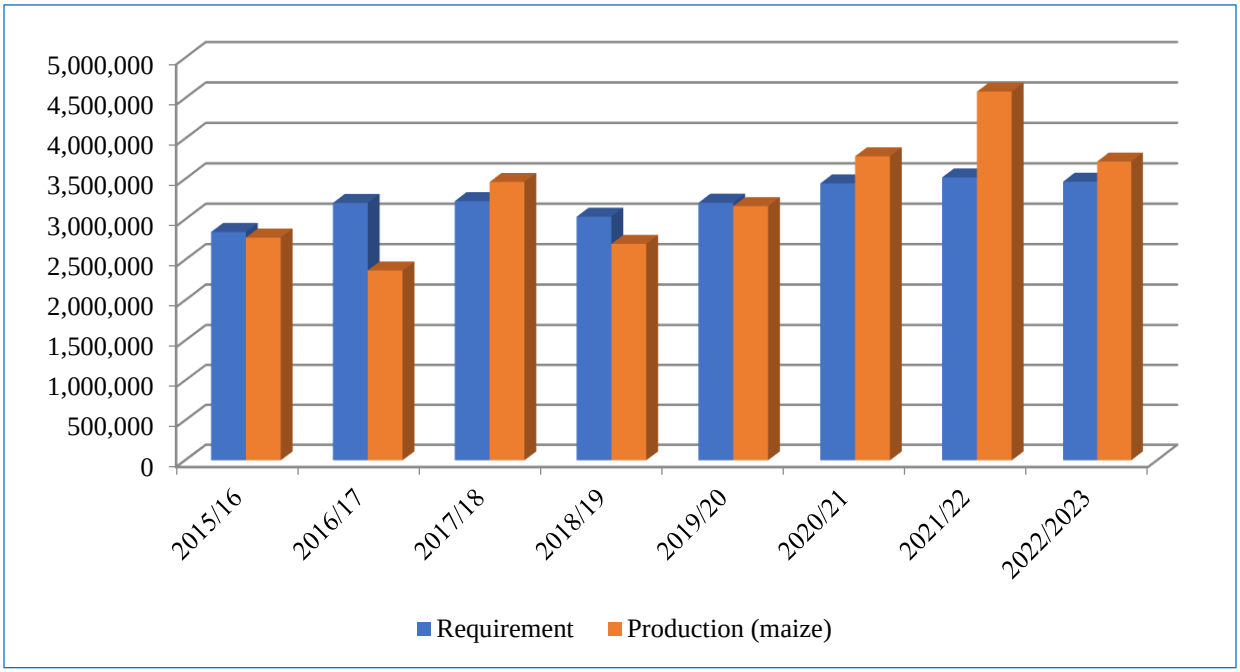
4.3 Food Situation

Due to late rains, dry spells, and heavy flooding, the 2021/22 season was marked by poor germination and the loss of most crops, livestock, and fish. While the rains returned later in the season with greater intensity, most farmers had already lost significant portions of their value

chains. As a result, the Agriculture Production Estimate Survey (APES) report for 2021/22 revealed a decrease in all staple production. Maize output fell by 18.9 percent (from 4,581,524 MT to 3,716,479 MT), while rice, millet, and sorghum output fell by 12.4 percent, 2.9 percent, and 1.2 percent, respectively.

Reduced staple production has reduced total cereal surplus from 1,324,012 mt in 2021 to 659,595 MT in 2022. The surplus of maize has been reduced from 1, 032,469 MT to 387,197 MT. Figure 10 depicts the maize requirement and production.

Figure 11: Yearly Maize Requirement and production



To cushion households, the humanitarian response focused on assisting households in managing their food needs through modalities based on the direction of the Humanitarian Response Committee for both urban and rural populations. The Lower Shire livelihood zone received purely cash assistance, as opposed to the other areas, which received either cash or in-kind assistance based on market functionality. Each beneficiary household received a full monthly ration (or cash equivalent) of 50 kg maize, 10kg pulses, and 2liters of cooking oil. This programme lasted from January to March of 2022. Development partners and the government contributed approximately MK16.09 billion in cash and in-kind resources. The government provided 29,168 metric tonnes of maize from the Strategic Grain Reserves (SGR) valued at MK6.56 billion, as well as the logistical

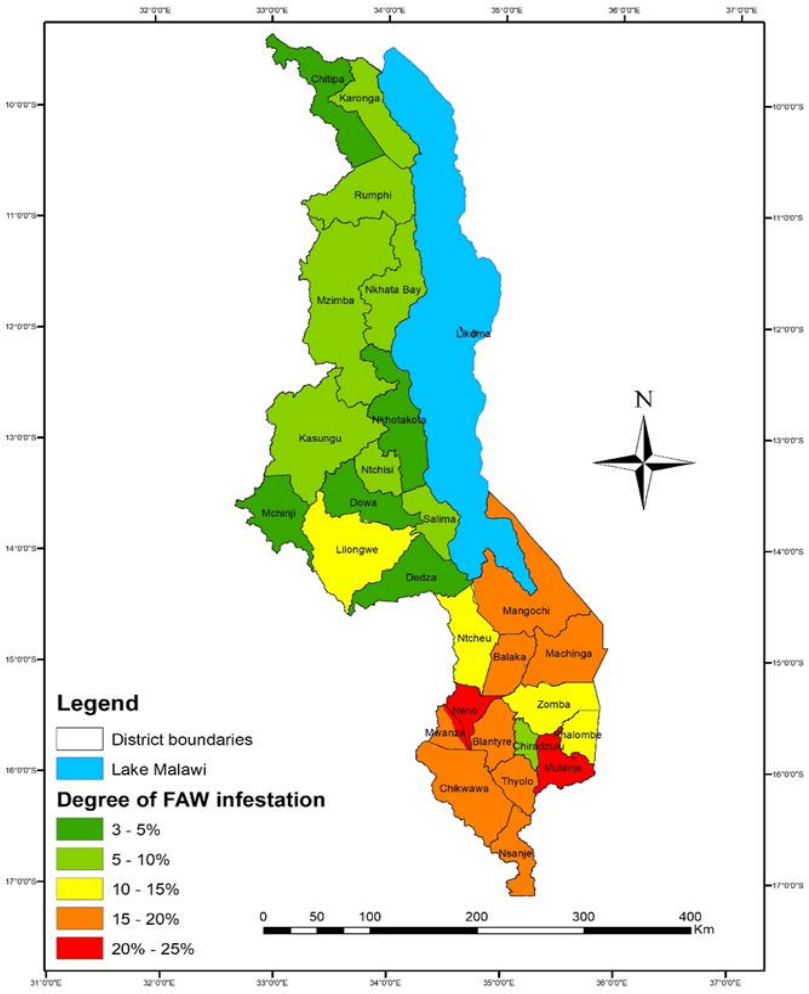
costs for maize distribution.

4.4 Pests and Disease Risk Management

4.4.1 Fall Armyworm

The major field pests for maize in the country are Fall Armyworm (*Spodoptera frugiperda* Smith/ FAW) and African armyworm (*Spodoptera exempta* Walker). In the reporting period there has been outbreaks of African Armyworm and Downey Mildew Disease (DMD) in addition to FAW in some parts of the country. About 217,543ha, 150ha, 41ha for maize, sorghum, and millet respectively were affected nationwide by FAW, impacting about 573,233 farm families as compared to 681,786 farm-families during the 2020/21 season. Cumulatively, the total area infested with FAW in the period under review was about 217,734 ha which was less when compared to 2020/21 season (296,898 hectares).

Figure 12: Distribution of fall worm infestation



Farmers managed to spray 59,405 ha of crop area to control the pest. The level of infestation ranged from 3 percentage to 26 percent in most parts of the country as shown in the map in the right box (Figure 12). In some districts, infestation level surpassed 20 percent, especially in the hotspot areas like Phalombe (25percent), and Blantyre (22percent). Blantyre ADD was the most affected ADD. Staggered planting is probably one of the causes of high infestation because of the delayed onset

of rainfall which made farmers plant at different dates. Maize which was planted late was the most affected by FAW in the hot spot areas.

To mitigate against the impact of the infestation, Ministry of Agriculture distributed Proclaim Fit and Snowmectin to all ADDs. Farmers affected by the pests accessed these pesticides from EPA offices for free to help them control migratory pests. Some farmers in the districts having knowledge of the lifecycle and the devastating effects of the pest were using cultural, physical and indigenous methods in control of FAW such as the use of botanicals e.g., neem (*Azadirachta indica*), *Tephrosia vogelli* extract, *Mucuna* extract, ground tobacco and birds eye chili solution and hand picking and crushing as well as using sand or ash. Districts with high infestation levels were supported by the government by giving them additional pesticides through monitoring and surveillance visits of the pest in hot spot areas.

DMD was spotted and verified in summer maize in all 7 districts of Blantyre ADD. However, the most infected districts included Blantyre, Mulanje, Chiradzulu and Thyolo. DMD has infected a total estimated area of 8,245ha under maize belonging to 59,264 farming households. Out of the total DMD affected area 1,413ha was uprooted. The level of infection was generally mild becoming severe in most fields from the four most infected districts.

Farmers were being advised to uproot and burn all infected plants, although they are resistant to following the advice, especially in cases where infection levels were very high. This calls for enhanced Sensitization and awareness campaigns, Staff and farmer capacity building on identification and management options of DMD.

4.5.2 Banana Bunchy Top Virus Disease

The Banana Bunchy Top Disease has heavily affected banana production levels over the years. This has resulted into a decline in yields with farmers getting on average less than 10 metric tons per hectare against an achievable yield of 50 metric tons per hectare. Malawi is currently importing on average 20,000 metric tons of banana fruits per year, notably from Tanzania and Mozambique.

Therefore, revamping the banana industry which has in the past been negatively affected by the Banana Bunchy Top Virus (BBTV) Disease remains a priority. To this end, the Ministry facilitated the uprooting of infected plants and the provision of banana suckers to farmers.

In the 2021/22 agricultural season, about 3,557 hectares of land were uprooted and burnt countrywide against the affected 7,483 hectares, (Table 7). The Ministry through different programmes, such as Agriculture Sector Wide Support Programme II (ASWAP-SP II), Kutukula Ulimi M'Malawi (KULIMA) project supported by the European Union and other sources has supplied farmers with over 1,009, 746 clean planting materials enough to replace about 929 hectares of banana orchards countrywide. The lack of clean planting materials was singled out as a hindrance to control BBTV. Similarly, the replacement of banana orchards with clean planting materials has seen the farmers increase their yields to at least 25 metric tons per hectare. Efforts to promote the use of clean planting materials will continue in order to restore the lost glory of the banana industry.

Table 6: banana production data and areas affected by BBTV

ADD	Total production area (Ha)	Area affected by Bbtv (Ha)	Area uprooted (Ha)	Area re-planted (Ha)
Blantyre	31,239	6,079	2,568	369
Machinga	3,602	101	52	26
Shire Valley	90	7	2	1
Lilongwe	3,289	782	690	290
Salima	179	100	81	29
Kasungu	4,565	182	40	73
Mzuzu	13,408	189	118	115
Karonga	1,641	42	6	27
Total	**58,013**	**7,483**	**3,557**	**929**

4.4.3 Foot and mouth disease (FMD)

Foot and mouth disease (FMD) is a viral disease caused by foot and mouth disease virus (FMDV) which impacts heavily on the socio-economic well-being of cattle farmers as well as affects the consumers and other stakeholders along the value who derive their livelihoods from the beef industry. During the reporting period, there were 2 FMD outbreaks in Mchinji in February 2022

and Lilongwe west. Ring vaccination was done using a bivalent vaccine (SAT2,O) from Bovine Tuberculosis Infections (table 12). Booster vaccinations were conducted in these districts.

Table 7: FMD Outbreaks for 2021-2022 and Vaccination of animals to control spread of the disease

ADD	District	Serotype	FMD cases	At risk	Vaccinated
LADD	Lilongwe West	Not typed	100	4,320	7,798
KADD	Mchinji	Type O	339	17,777	11,277

4.5.4 African swine fever (ASF)

African swine fever is endemic in most parts of the country and in the reporting period, there were 3 outbreaks with 215 cases and 175 deaths (table 17). In general, Chiradzulu recorded the highest number of cases (165) seconded by Mzimba (32), this can be attributed to farmers accessing pigs from markets to their homesteads for slaughter and lack of proper housing.

Table 8: African swine fever outbreak by ADD

ADD	District	ASF Cases	Death	At risk	Destroyed
BLADD	Chiradzulu	165	125	320	20
BLADD	Blantyre	18	18	24	0
MZADD	Mzimba	32	32	8000	15
	Total	**215**	**175**	**8344**	**35**

4.5.5 Lumpy skin disease (LSD)

Six (6) cases of Lumpy skin disease outbreak was reported in MZADD in the year affecting cattle of all ages and 76 were at risk

4.5.6 Rabies

Rabies is a viral infectious disease of mammals, including humans, characterised by the development of severe symptoms of the nervous system that result in paralysis and death. The disease is endemic throughout the majority of the country, occurring annually in nearly all areas. After getting the disease, each of the 43 dogs that were known to have been infected was euthanized. It is crucial to remember that the majority of rabies cases in rural areas go unreported and cannot be quantified due to a lack of education and understanding of the reporting channels.

In addition, the vaccination numbers are not provided to the EPI Unit from the many stakeholders involved in canine mass vaccinations in different regions, resulting in difficulties in tracking the data on rabies vaccine.

Table 9: Rabies occurrence in the districts for the 2021/2022 season

ADD	District	Rabies Cases	Destroyed	At risk	Vaccinated
BLADD	Neno	10	10	50	No record
BLADD	**Blantyre**	**17**	**17**	**600**	**211**
	Chiradzulu	6	6	112	no record
	Thyolo	4	4	114	no record
MADD	Zomba	4	4	109	no record
MZADD	Mzimba	2	2	300	no record
	Total	**43**	**43**	**1285**	**211**

4.5.7: East Coast fever (ECF) and other tick-borne diseases

Despite the fact that the vaccine is developed in this country, tick-borne diseases continue to kill animals in Malawi. ECF is one of the most lethal TBDs, and its prevalence in the central and northern regions is attributable to tick infestation. During the 2021-2022 season, a total of 36 cattle were infected by the diseases, and 12 animals died from them. Vaccination and tick-reduction strategies can be used to prevent and control the disease. During the reporting period, no additional tick-borne illnesses were documented.

Table 10:Occurrence of East coast fever during the 2021/2022 season

ADD	District	Cases	Death	At risk	Vaccinated
KRADD	Chitipa	3	0	19	Not reported
MZADD	Mzimba	5	1	53	Not reported
KADD	Kasungu	3	2	27	Not reported
LADD	Lilongwe	25	9	162	Not reported
	Total	**36**	**12**	**261**	

4.5.8: Newcastle Disease (ND) in indigenous chickens

In most areas of Malawi, Newcastle disease is endemic and causes predominantly acute respiratory sickness, depression, neurological symptoms, and diarrhoea. Although a vaccine is available at the Central Veterinary Laboratory to prevent the disease, many farmers do not vaccinate their chickens in time to prevent poultry deaths. During this reporting period, a total of 3,322 hens perished from the disease, while only 5,300 birds were reported to have been vaccinated in districts that reported an epidemic. In addition, efforts are underway to ensure that at least 80 percent of the country's chicken population is vaccinated against the disease in order to prevent further losses.

Table 11: occurrence of Newcastle disease in chickens 2021/202

ADD	District	Cases	Death	At risk	Vaccinated
SVADD	Chikwawa	1,761	1,661	2,017	1,600
MZADD	Mzimba	1,261	1,261	2,600	2,700
KRADD	Chitipa	300	300	1,231	1,000
	Total	**3,322**	**3,322**	**5848**	**5,300**

4.5.9: Bovine tuberculosis (BTB) in domestic ruminants

Bovine tuberculosis is a bacteria-caused disease in cattle that is one of the causes of tuberculosis in humans. Largely, the disease is discovered during meat inspections in the fields where livestock is slaughtered for human consumption. 9 cases of BTB were documented during the reporting period in the districts of Chikwawa (6) and Kasungu (3), and 313 cattle were at risk.

4.5.10 Heart-water disease in domestic animals

Heart-water disease was reported in 2 ADDs, namely MZADD and BLADD. A total of 20 cases were recorded and all cases led to death of the domestic animals.

4.6 Aflatoxin Levels in Different Crops

The Malawi Programme for Aflatoxin Control (MAPAC), which is aligned to the Partnership for Aflatoxin Control in Africa (PACA), coordinates aflatoxin control in the country since 2015. MAPAC seeks to improve the health and standard of living of Malawian farmers and

consumers through the management and control of aflatoxin-related risks. Chitedze Aflatoxin Laboratory and the Malawi Bureau of Standards are equipped in Malawi for comprehensive aflatoxin testing.

A wide variety of food and feed commodities are contaminated with aflatoxins, including the Malawian staple foods maize, groundnuts, sorghum, millet, and cassava, as well as their by-products. Aflatoxin has detrimental effects on agriculture, commerce, and the health of humans and cattle. In accordance with their rules, countries such as the EU and the United States reject agricultural products containing levels of aflatoxin that exceed specific thresholds.

Table 13 displays the findings of the aflatoxin analysis performed at the Chitedze Aflatoxin Laboratory. In the reviewed year, a total of 860 samples were presented to the laboratory for analysis by a variety of clients. The Farmer Field Schools at Tchuchila (Mulanje), Lisasadzi (Kasungu), and Mzuzu Residential Training Centres gathered 46 samples (22 for groundnuts and 24 for maize) from their study plots. Clients, including Export Traders from Lilongwe, Dedza, Mchinji, Dowa, Kasungu, and Ntchisi districts, brought 814 samples of groundnuts to the laboratory for analysis. More than seventy percent of samples tested positive for aflatoxin, as shown by the aflatoxin assay findings. Moreover, 24 and 69 percent of the samples analysed surpassed 20ppb and 4ppb of aflatoxin concentrations, respectively.

To avoid aflatoxin contamination, farmers are encouraged to employ excellent crop management methods such as early planting, additional irrigation, water harvesting, manure application, and Aflasafe application. In addition, post-harvest management procedures, such as correct harvesting, drying, sorting, removal of damaged kernels, proper transportation, and storage in well-ventilated facilities, decrease aflatoxin contamination and its associated effects.

Table 12: Aflatoxin analysis at Chitedze Soils Laboratory

Year of sampling	Number of samples	Positive sample	Max. contamination (ppb)	Samples exceeding the given maximum limit (percent)	
				4ppb	20ppb
2015/16	103	95	800	41	17
2017/18	255	62	520	34	28
2018/19	18	18	900	100	0
2019/20	-	-	-	-	-
2020/21	70	70	49	49	44
2021/22	860	620	78	69	24

Source: Chitedze Aflatoxin Laboratory

4.7 Africa Risk Capacity Insurance and Micro Insurance

The impacts of drought are far-reaching to the agricultural productivity of the country, thereby affecting the overall performance of the economy. In addition, floods, insect infestations, and disease outbreaks continue to erode the gains made in developing household resilience over time. The NAIP emphasises the significance of enhancing the resilience of livelihoods and the protection of natural resources as accelerators for achieving household resilience. In order to achieve this, the country must adopt a financial protection mechanism against drought risks, such as parametric insurance.

In the 2021/2022 season, the government confirmed its commitment to the African Risk Capacity. To ensure that the model performs according to the needs of the people, significant modifications were made to its customisation. The modification improved the drought risk model for Malawi's anticipated participation in the ARC's drought risk pool for the 2021/22 crop season. Important modifications included the removal of protected areas from the computation mask and the use of five-year average seed uptake data to assess the proportion of long and short-maturing maize types cultivated at the district level.

In addition, the Water Requirement Satisfactory Index (WRSI) aggregation method was changed to "Average" to correspond with model performance and ground practice. In terms of trigger points, another change was the transition from national to cluster aggregation. Four clusters were identified for defining risk transfer parameters at a sub-national level, thereby dividing the country into four zones (based on agro-ecological zones): Lower Shire Cluster (Shire Valley ADD),

Southern Cluster (Blantyre and Machinga ADDs), Central Cluster (Lilongwe, Salima, and Kasungu ADDs), and Northern Cluster (Karonga and Mzuzu ADDs).

As a result of the aforementioned customization, the Malawian government, with the financial assistance of its partners (KfW, FCDO and Swedish Development Cooperation), obtained a drought insurance policy for the four ADD clusters. Consequently, after monitoring the season, all four insurance policies have triggered playouts in each of the four ADD clusters for a total of US$14,249,46100. (fourteen million, two hundred and forty-nine thousand, four hundred and sixty-one US dollars). The resources will be allocated in accordance with the Malawi Vulnerability Assessment Committee's assessment, which will determine the number of households affected by various threats during the season.

In their separate complementary responsibilities, several significant stakeholders in the sector contributed to crop insurance programmes. WFP collaborated with the Ministry of Agriculture under the Adaptation Fund Programme to provide crop insurance coverage for 64,709 people in 8 districts (Southern Region). From 67,276 households in 2020/21 to 64,709 households in 2021/22, there was a modest fall in the number of farmers supported. Farmers are insured by the Area Yield Index insurance policy, which protects farmers against different hazards. The Pay-Out Report for the 2021/22 season has not yet been published, however, assessments are still being conducted to determine whether or not there will be pay-outs for the most recent season.

One Acre Fund (OAF) also provides insurance to farmers from extremely bad corn harvests. In the event of a bad year, insured farmers receive reimbursement for their inputs, which allows them to offset losses and effectively reduces the risk associated with their farm investments. Under OAF, farmers are insured in groups based on climatic, soil, and altitude conditions (ecological zones) in the locations where they operate.

In accordance with the OAF micro-level insurance, pay-outs are only triggered when maize harvests in the insurance region fall below 70 percent of the historical yield for pay-outs. The insurance compensates for a portion of the cost of inputs, not the total crop value. 62,000 farmers were covered by the Area yield weather index product for the 2021/22 season. A total of MK37,379,095 was compensated to about 10,382 farmers affected by cyclone Ana, bean production, and groundnut yield. Each farmer received between MK885 and MK27,000 in compensation.

4.8 Sustainable Land and Water Resources Management

Sustainable agriculture land and water resources management are defined by the amount of land devoted to soil and water conservation strategies, soil fertility management, and conservation agriculture practises.

4.8.1 Area under Soil Fertility Improvement and Agroforestry technologies

Soil Fertility Improvement (SFI) technologies are promoted by the Ministry of Agriculture This is a direct response to the decline in soil fertility on farmlands, which has caused a drop in agricultural productivity, an increase in fertiliser costs, and a general decline in crop production's profitability. In comparison to 2020/21, the performance of key SFI technologies has improved marginally in the current year. The total area achieved under SFI is 348,637 hectares, a 32 percent increase from the 2020/21 growing season. Enhanced pricing of inorganic fertilisers, intensified catchment management efforts, and increased farmer knowledge of the implications of climate change on agricultural productivity and farmers' livelihoods have been ascribed to the expansion of SFI.

4.8.2 Soil and Water Conservation

Table 15 shows the annual achievements of selected SWC technologies in 2021/22 season. The findings indicate that more than 100 percent achievement was recorded for Gully reclamation and the lowest was recorded for Box Ridging.

Table 13: Annual Achievements of selected SWC technologies in 2021-22 season

Technology	National Target	Annual Achieve	% Achieve
Marker Ridges (Ha)	47,354	27,085	57.00
Ridge Realignment (Ha)	36,853	21,499	58.30
Box Ridging (Ha)	45,538	22,555	49.53
Gully Reclamation (Number)	8,667	10,239	118.14
Vertiver Hedgerows	1,736	1,197	68.95

4.8.3 Watershed/catchment Modelling and Management

The Ministry of Agriculture has institutionalized the watershed/catchment as the entry point for implementation of all SLM technologies, and a 3D landscape design for each catchment has been adopted as a reference guide and platform for SLM implementation. The technique has been adopted by a number of sustainable land management organisations and programmes. n 2021/22 season, the Ministry in collaboration with and support from projects such as MWASIP, MRDRMP, EPWP, some FAO funded Projects and the ADAPTATION Fund has managed to delineate about 507 micro catchments across the country. Under the same initiatives, several SML treatments have been conducted on a total land area of 126,750 ha from previously delineated micro catchments.

CHAPTER 5

PRODUCTION AND PRODUCTIVITY FOR GROWTH

Agriculture production and productivity for growth is Program C of the NAIP with a specific objective of increasing the production and productivity of a more diversified agricultural sector. The main outcomes include; increased productivity and production of priority value chains; increased access to and control over productive assets; enhanced and timely access to a broader range of quality inputs; increased access to sustainable mechanization services; increased adoption of GAPs and technologies; and a sustainable increase in diversified crop production and production under irrigation. The Chapter provides highlights of production and the key drivers of productivity.

5.1 Outlook of the 2021/22 Agriculture Production Season

In the year under review, crop production declined due to adverse weather conditions and a decline in inputs uptake and use as a result of higher prices as well as inputs scarcity under AIP. According to the Annual Economic Report of 2022, the fishing sector contracted by 0.9 percent as compared to the previously assumed growth rate of 10.2 percent. On the other hand, livestock production increased by 10.9 percent, up from 4.1 percent in the 2020/21 season. This was attributed to the rise in births as a result of improved management practices which include good housing, feeding and breeding; and disease control. Furthermore, there is an increase in the number of households keeping livestock due to the Government and stakeholder injections and pass-on programmes.

5.2 Cereal Production and Productivity

Results of the 2021/22 Agriculture Production Estimate Survey (APES) indicate that all cereals registered declines in production (Table 14). Specifically, maize production decreased by 18.9 percent from 4,581,524 mt in 2020/21 to 3,716,479 mt in the reporting period. Production of rice decreased from 155,433 mt to 136,083 mt, a value below the 220,000 mt/season target in the NAIP. Moreover, production for millet, sorghum, and wheat decreased in the season under review by 2.9 percent, 1.2 percent and 46.0 percent respectively due to a reduction in area planted emanating from a scarcity of improved seed and lack of markets, prompting farmers to shift to other crops.

The productivity of maize, rice and wheat declined by 20.0 percent, 14.3 percent and 25.0 percent respectively while the productivity of millet and sorghum remained constant when compared to

2020/21 season. Nevertheless, the productivity of maize, rice, millet and sorghum are also below the NAIP targets of 4 mt/ha, 2 mt/ha, 1 mt/ha and 1.5 mt/ha, respectively.

Table 14: Cereal Production and Productivity

Crop	Production (MT)			Productivity (MT/ha)			NAP/ NAIP Target (MT/ha)
	2021/22	2020/21	Annual % Change	2021/22	2020/21	Annual % Change	
Maize	3,716,479	4,581,524	- 18.9	2.0	2.5	- 20.0	4.0
Rice	136,083	155,433	- 12.4	1.8	2.1	- 14.3	2.0
Wheat	163	302	- 46.0	0.9	1.2	- 25.0	-
Millet	41,071	42,289	- 2.9	0.7	0.7	0.0	1.0
Sorghum	116,918	118,351	- 1.2	1.0	1.0	0.0	1.5

Source: Agricultural Production Estimates Survey, June 2022

Further analysis of the 2021/22 production of maize shows that all ADDs experienced a decrease in maize production this season as compared to 2020/21 season. Karonga ADD recorded the highest decrease in maize production, 33.8 percent, while Shire Valley registered the lowest decline of 11.2 percent.

Table 15: 2021/22 Maize Production by ADD

ADD	2021/22 Third Round (MT)	2020/21 Third Round (MT)	% Change Against Third Round 2020/21
Karonga	158,812	239,851	- 33.8
Mzuzu	365,684	434,543	- 15.8
Kasungu	1,085,782	1,242,221	- 12.6
Lilongwe	847,021	964,852	- 12.2
Salima	175,373	210,857	- 16.8
Machinga	389,784	488,609	- 20.2
Blantyre	575,788	867,491	- 33.6
Shire Valley	118,235	133,100	- 11.2
National	**3,716,479**	**4,581,524**	**-18.9**

Source: Agricultural Production Estimates Survey, June 2022

Even though production figures for maize, rice, sorghum, and millet declined in the period under review, they were still above the five year averages with sorghum registering the greatest

improvement of 4.9 percent. However, the production of wheat dramatically declined by 74.5 percent against the five-year average (Table 17).

Table 16: Comparison of 2021/22 Cereal Production against 5-Year Average Production

Crop	2021/22 Third Round (MT)	Five-Year Third Round Average (MT)	% Change against Five-Year Average for Third Round
Maize	3,716,479	3,584,252	3.7
Rice	136,083	132,829	2.4
Wheat	163	638	- 74.5
Millet	41,071	39,897	2.9
Sorghum	116,918	111,480	4.9

Source: Agricultural Production Estimates Survey, June 2021

5.3 Cash Crop Production

Production of tobacco, cotton and sunflower decreased during the 2021/22 season by 28.4 percent, 1.9 percent and 2.2 percent, respectively (Table 17). In addition to unfavourable weather conditions experienced in the 2021/22 season, the decrease in tobacco production is also attributed to a higher grower dropout. Similarly, the production of sunflower declined by 2.2 percent due to unfavourable weather. Moreover, lack of better markets for cotton and scarcity of cotton seed compelled farmers to resort to less productive local cotton varieties or shift to other crops hence cotton production declined by 1.9 percent. When compared to 2020/21 season, the productivity of cotton registered a decline of 9.1 percent while the productivity of sunflower remained constant.

Table 17: Cash Crop Production and Productivity

Crop	Production (MT)			Productivity (MT/ha)			NAP/NAIP
	2021/22	2020/21	Annual % Change	2021/22	2020/21	Annual % Change	
Tobacco	88,579	123,700	(28.4)	-	-	-	-
Cotton	20,666	21,075	(1.9)	1.0	1.1	(9.1)	-
Sunflower	20,884	21,356	(2.2)	1.1	1.1	0	2.0

Source: Agricultural Production Estimates Survey, June 2022

5.4 Legume Production

Production of most legumes has also improved in the year under review, with groundnuts, pigeon peas and soybeans registering increases of 7.9 percent, 1.7 percent and 14.6 percent respectively.

This is due to increased cultivation area under legumes arising from price incentives from the previous season and , the availability of improved seed from various projects. However, the production of groundnuts still remains below the NAIP target of 700,000 MT/season. The production of beans declined by 3.9 percent particularly due to adverse weather conditions. In terms of productivity, all leguminous crops are still below NAIP targets and remain unchanged when compared to 2020/21 season.

Table 18: Legumes Production and Productivity

Crop	Production (MT)			Productivity (MT/ha)			NAP/NAIP Target (MT/ha)
	2021/22	2020/21	Annual % Change	2021/22	2020/21	Annual % Change	
Groundnuts	434,762	402,993	7.9	1.0	1.0	0.0	2.0
Pulses	1,038,086	1,001,739	3.6	1.0	1.0	0.0	2.0
Beans	218,889	227,795	- 3.9	0.6	0.6	0.0	1.0
Pigeon peas	428,609	421,402	1.7	1.6	1.6	0.0	2.0
Soya beans	303,084	264,372	14.6	1.2	1.2	0.0	2.0

Source: Agricultural Production Estimates Survey, June 2022

5.5 Horticulture Production

Horticultural crops indicate that production of sweet potatoes, cassava and potatoes increased by 0.6 percent, 1.5 percent and 1.6 percent respectively due to the availability of planting materials. Besides, production of avocado pears, bananas, onions, oranges, tangerines and tomatoes registered increases of 19.2 percent, 8.2 percent, 2.4 percent, 1.4 percent, 1.1 percent and 0.5 percent, respectively, as compared to the final round of 2021/22 season due to increased number of bearing plants. However, production of mangoes, pineapples, cabbages and lemons declined by 6.1 percent, 1.7 percent, 1.6 percent and 1.3 percent due to a decrease in the number of bearing plants, price disincentives and unfavourable weather.

Table 19: Horticulture Production in 2021/22

Crop	2021/22 Production (MT)	2020/21 Production (MT)	% Change
Cassava	6,193,001	6,101,396	1.5
Sweet Potato	7,491,115	7,448,247	0.6
Potato	1,442,661	1,419,527	1.6
Pineapples	363,444	369,796	- 1.7
Mangoes	1,310,964	1,395,925	- 6.1
Oranges	93,114	91,834	1.4
Avocado Pears	124,237	104,197	19.2
Tomatoes	710,162	706,448	0.5
Banana	935,429	864,849	8.2
Cabbage	228,231	231,989	- 1.6
Onions	270,600	264,147	2.4
Tangerines	259,201	256,373	1.1
Lemons	19,273	19,522	1.3

Source: Agricultural Production Estimates Survey, June 2022

5.6 Livestock Production

During the reporting period, the population of cattle increased from 1,959,101 to 2,054,208, representing a 4.9 percent increase. The population of goats, sheep, pigs and chickens also increased by 10.2 percent, 8.4 percent, 14.9 percent and 6.3 percent, respectively (Table 21). In addition, the population of goats and pigs surpassed the NAIP targets of 10 million and 4 million respectively while the population of chickens is almost double the NAIP target of 110 million and the population of cattle has now slightly surpassed the NAIP target of 2 million. The increases are attributed to the rise in births as a result of improved management practices which include good housing, feeding and breeding; and disease control. Furthermore, there is an increase in the number of households keeping livestock due to the Government and stakeholder injections and pass-on programmes.

Table 20: Livestock Production by Type

Type of Livestock	2021/22 Third Round	2020/21 Third Round	% Change Against 2020/21 Third Round	NAP/NAIP Targets
Cattle	2,054,208	1,959,101	4.9	2,000,000
Goats	12,238,382	11,104,382	10.2	10,000,000
Sheep	404,956	373,715	8.4	-
Pigs	10,698,418	9,312,073	14.9	4,000,000
Chickens	230,056,331	227,140,227	6.3	110,000,000
Guinea Fowls	2,276,913	2,785,288	- 18.3	-
Turkey	436,342	216,342,218	14.7	-
Doves/Pigeons	11,7498,822	10,494,914	12.0	-
Ducks	4,438,063	3,719,461	19,3	-
Rabbits	3,861,884	3,458,230	11.7	-
Guinea Pigs	777,418	729,107	6.6	-

Source: Agricultural Production Estimates Survey, June 2022

5.7 Capture Fisheries and Aquaculture Production

Sources of local fish production in Malawi include capture fisheries and aquaculture. Capture fisheries refers to fisheries management, conservation and utilization in their nature environments such as lakes, lagoons, swamps, rivers, floodplains and dambos, among others. On the other hand, aquaculture is mainly concerned with the growing of the fish species commonly through earthen fish ponds and through cages which are currently placed in the southern Lake Malawi. A total fish production of 180,238 metric tons was estimated for the year 2021 as detailed in subsections 5.7.1 and 5.7.2 below.

5.7.1 Capture fisheries

As of the year 2021, overall fish production from the capture fisheries was estimated at 170,325 metric tons (Table 23) where small-scale fishers contributed 168,481 metric tons and the remainder from the large-scale fishers. The large-scale fishers include pair-trawlers and stern-trawlers. These are currently concentrated in the southern Lake Malawi mainly in Mangochi, Salima and

Nkhotakota districts. The small-scale fisheries are all over the country's major waterbodies. Such waterbodies include Lakes Malawi, Malombe, Chilwa and Chiuta. In addition, the Shire River System is also considered as one of the major waterbodies.

Table 21: Fish Production from Capture fisheries as of the year 2021

Month	Small Scale	Large Scale	Total
Jan	13,241.34		13,241.34
Feb	13,832.69		13,832.69
Mar	15,090.99	257.63	15,348.62
Apr	13,338.89	261.73	13,600.62
May	11,559.69	323.49	11,883.18
Jun	10,148.01	245.83	10,393.84
Jul	11,920.53	185.51	12,106.04
Aug	15,361.97	174.97	15,536.94
Sep	20,965.98	142.84	21,108.82
Oct	17,059.54	114.27	17,173.81
Nov	15,164.95	136.59	15,301.54
Dec	10,796.54	1.05	10,797.59
Total	**168,481.12**	**1,843.91**	**170,325.03**

Source: Department of Fisheries

5.7.2 Aquaculture

The overall aquaculture production was estimated at 9,913 metric tonnes (Table 24) where small-scale farmers using earthen fish ponds accounted for 4,611 metric tons. The large-scale farmers mainly through cage culture were responsible for the 5,302 metric tons.

Table 22: Fish production from Aquaculture as of the Year 2021

Month	Small Scale Fish production	Large Scale Fish production	Total Fish Production
Jan	370.61	498.40	869.01
Feb	300.01	520.80	820.81
Mar	290.22	516.00	806.22
Apr	356.16	504.00	860.16
May	174.20	0.00	174.20
Jun	461.15	494.00	955.15
Jul	586.31	616.00	1202.31
Aug	334.10	504.00	838.10
Sep	390.45	768.00	1158.45
Oct	407.84	338.67	746.51
Nov	560.53	380.89	941.42
Dec	379.49	161.20	540.69
Total	**4611.07**	**5,301.96**	**9,913.03**

Source: Department of Fisheries

Overall Fish production has reduced from 2021 total production of 182 092 metric tons to 180 238 metric tons.

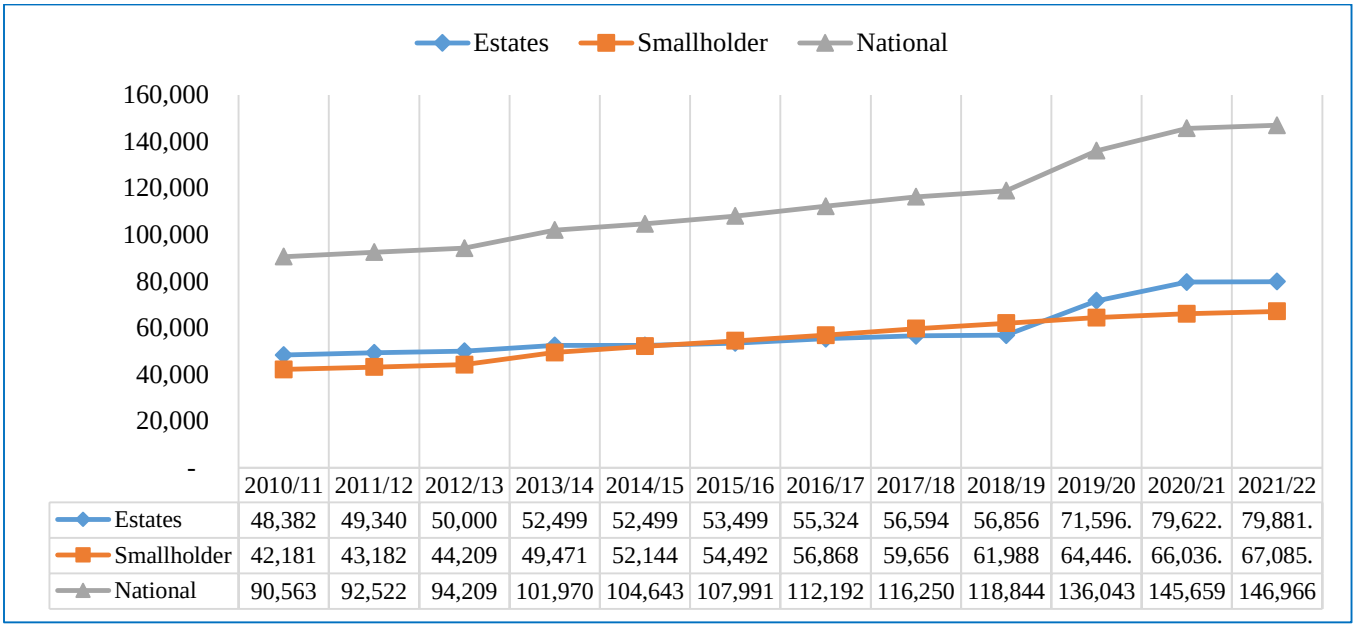
5.8 Drivers of Agriculture Production and Productivity

5.8.1 Irrigation Development

Implementation of all irrigation activities in Malawi is guided by Master Plan that aims at irrigating 220 000ha by 2035 and the National Irrigation Policy (2016). Since the commencement of the IMPIF, a total of 42,322.19 hectares have been achieved within the first 7 years of its implementation. In the 2021/22 season, the Ministry has facilitated the development of a total of 1,306.5 ha. Overall as of 2021/22 the Ministry has achieved 146,966.42 ha Cumulative area developed representing 36 percent of the total irrigable potential which stands at 407,862ha. Out of the total developed area of 146,966.42 ha, the estates contributed 79,881.26 ha while smallholder farmers developed 67,085.14. In the previous financial year out of a total 145,569 ha developed, the private sector mostly under estates developed 79,622 ha and 66,036 ha were developed by smallholder farmers. About 79percent of the developed area is utilized compared to 80 percent utilization in the previous financial year.

The major contributor to increasing the smallholder irrigation area in Malawi is through partnership or financing from development partners. The Shire Valley Transformation Programme (SVTP) financed by the World Bank, African Development Bank, Global Environmental Facility and Malawi Government, (AIYAP) funded by the African Development Bank and European Union and Program for Rural Irrigation Development (PRIDE), were some of the major projects that supported irrigation development within the year.

Figure 13: Irrigation development trend

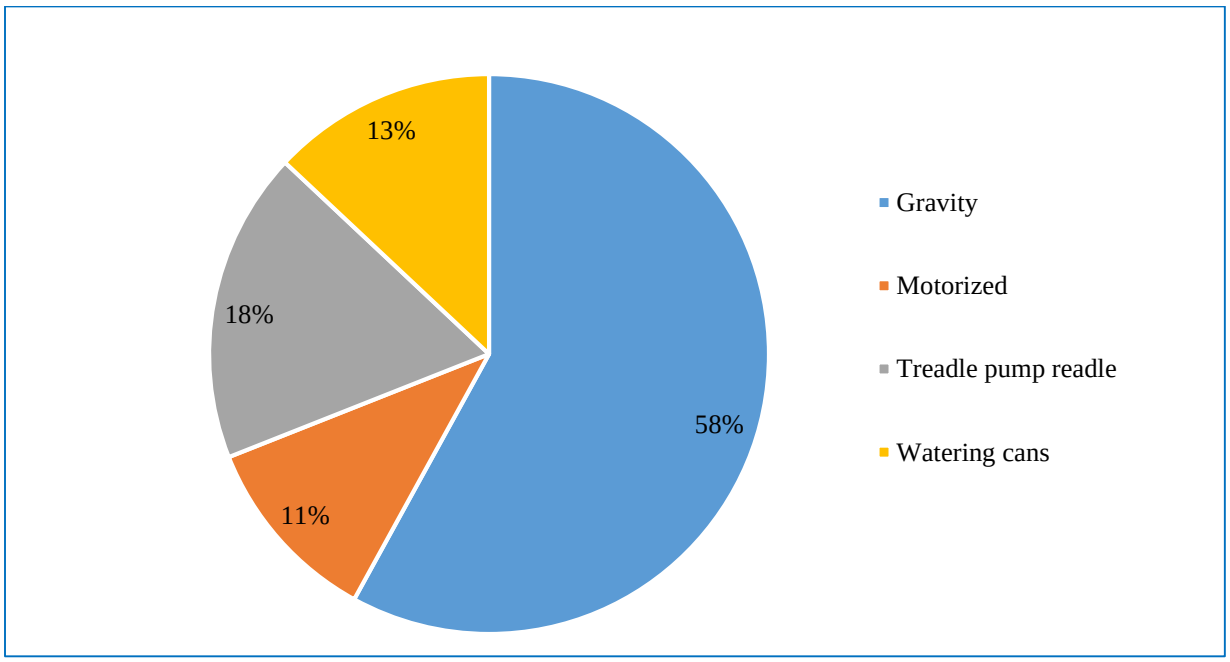


	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Estates	48,382	49,340	50,000	52,499	52,499	53,499	55,324	56,594	56,856	71,596.	79,622.	79,881.
Smallholder	42,181	43,182	44,209	49,471	52,144	54,492	56,868	59,656	61,988	64,446.	66,036.	67,085.
National	90,563	92,522	94,209	101,970	104,643	107,991	112,192	116,250	118,844	136,043	145,659	146,966

In 2021/22 season, the Ministry supported beneficiary communities in rehabilitating a total of about 803.82 ha against a target of 1,000 ha representing more than 80.4 percent of the target. In order to further ensure that irrigation schemes are sustainably managed, the Ministry implemented activities aimed at developing farmer organizations. Farmers were trained in relevant fields that ensure farmer cohesion, operations, maintenance and water management. Farmer organizations are legally called Water Users Associations (WUAs). These take over all the responsibilities of managing irrigation schemes. This includes operation and maintenance of the developed areas as well as planning for crops to be irrigated. To date, 97 WUAs have been registered of which 3 WUAs were registered during the year under review.

During the reporting period three main technologies were promoted, namely; gravity, treadle pump and motorized pumping (includes solar, diesel, petrol and main grid power from ESCOM). Farmers were also using watering cans for small land holdings. From Figure 3, motorized pump based is the least technology used while gravity-fed is the most used technology. Watering cane technology is used more especially when farmers have less than 0.1ha of land. Gravity technology is commonly used because of the less operational cost among the technologies. The gravity-fed technology contributes about 58 percent, treadle pump contributes about 18 percent, watering cans 13 percent and motorized pump-based irrigation technology 11 percent.

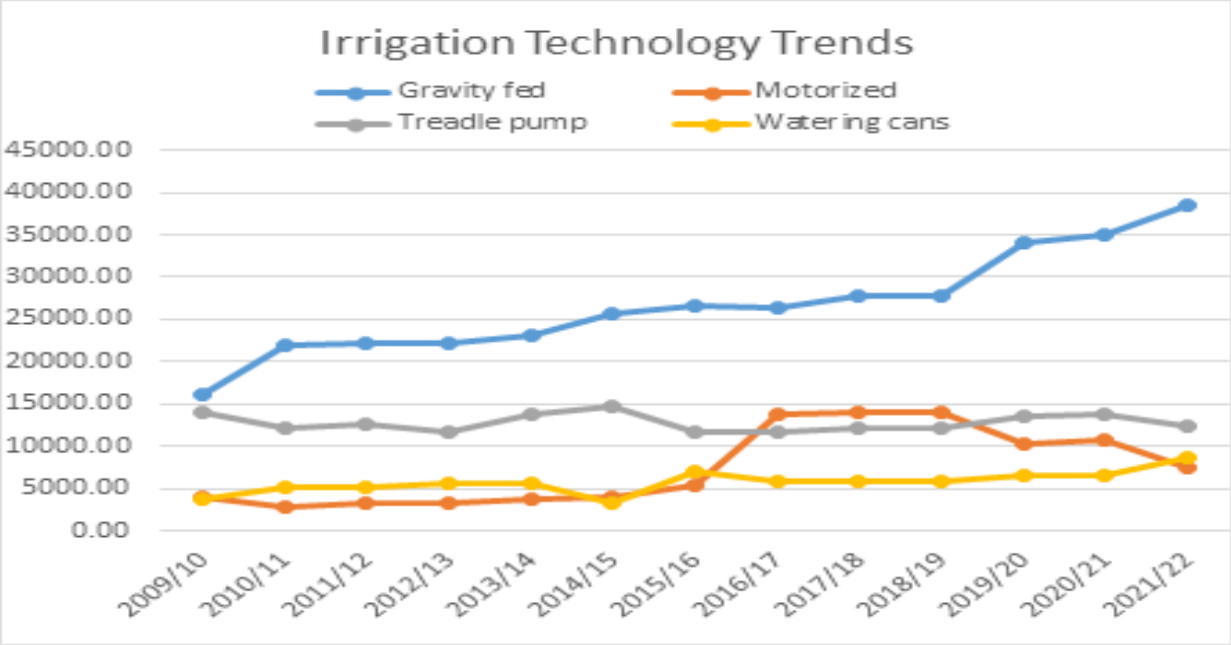
Figure 14: Percent Share of Each Technology in Developed Area



In the past decade, treadle pump technology has remained a stagnant technology, while gravity-fed is increasing at an increasing rate. Watering cane has decimally increased over time. Motorized-based technology is the least technology used. This low use of motorized-based technology could be attributed to the recent trend in farmers' preference for low-cost technologies in the wake of the high cost of fuel and grid tariff charges that maintain uniform charges for both the smallholder farming entities and mainstream industries. Figure 14 shows irrigation trends in the past decade.

Out of this total area under smallholder, 38,556.85 hectares was under gravity, about 7,565.80 hectares were under motorized pumps, 12,353.87 hectares were under treadle pumps and 8,608.62 hectares were under watering can irrigation technology.

Figure 15: Trends of irrigation area developed by technology



5.8.2 Agricultural mechanization

The major objective of this program is to reduce the drudgery of farm work and to ensure that farm activities are carried out on time. Any interruption in carrying out any one farm activity disturbs all other planned activities and ultimately the productivity of the crops. There are mainly three services that are provided under agricultural mechanization: ploughing, ridging and harrowing. In the 2021/22 agricultural season, demand for harrowing, ploughing and ridging services went up by 1.88, 3.63 and 7.31 percent respectively over that for 2020/21 (table 28). This is mainly because of increased awareness by the public on the availability, use and importance of the equipment.

Table 23:Progress or demand of services under agricultural mechanization

Indicator	2018/19	2019/20	2020/21	2021/22	% Change
Area harrowed (ha)	1,347.00	1,362.00	1,386.00	1,412.00	1.88
Area ploughed (ha)	2,896.00	2,968.60	3,249.00	3,367.00	3.63
Area ridged (ha)	1,664.00	1,820.70	1,942.00	2,084.00	7.31

However, there is still need to increase awareness on the program and improve on data management including recording of hectarage achieved under the program by ADDs. There is also need to increase the number of tractors in each ADD to match with the demand.

5.8.3 Improved Seed Use

Improved Seed remains very key to increased crop production and productivity objective. Access and availability of improved seed has been a challenge for many smallholder farmers. For 2021/22 season, uptake of improved maize seed used was estimated at 15,794 MT which was less than 24,207 MT accessed by farmers in 2020/21 season. Higher prices and the unavailability of preferred seed were some of the major reasons for low maize seed uptake. On the other hand, improved legumes seed uptake registered an increase from 15,309 MT in the 2020/21 season to 18,043 MT in the 2021/22 season as shown in Table 24. Legume seed promotion programs such as Sustainable Agriculture Production (SAPP) and ASWAp SPII are steadily increasing the availability of improved legume seed.

Table 24: Seed Use by Maize and Legumes in 2020/21 and 2021/22 seasons

	Seed Use (Metric Tonnes)		
	2021/22	2020/2021	Percentage change
Maize	15,794	24,207	-34.75
Legumes	18,043	15,309	17.86

5.8.4 Fertilizer Use

The demand for fertilizers by smallholder farming is estimated at around 400,000 metric tons based on the AIP requirement. The Government of Malawi continued with implementation of the AIP in

the 2021/22 season targeting all farmers. A major component of AIP is fertilizer. During the reporting period, a total of 371, 411 MT were supplied targeting 3,744,105 farming households.

In terms of commercially distributed Fertilizers, it is estimated that about 150,000 MT is taken up for commercial sales and goes to tobacco, tea, coffee and sugar. With an estimated cultivable land of about 4,000,000 hectares, the fertilizer use per hectare was estimated at around 75kilogram per hectare during the year under review. The amount of fertilizer per hectare has dropped from 86 estimated last year. This is attributed to the lower uptake of the AIP during the year under review.

Despite the amount of fertilizer per hectare being above the NAIP target of 60 kilograms per hectare, there is a need to review the area under cultivation. The calculations are based on the APES figures which only cover smallholder farmers and some estates, especially on plantations. The emerging category of town farmers who usually cultivate on the outskirts of their residential areas are not captured under the APES methodology. Going forward, there is a need to update the APES methodology to capture emerging farming categories.

5.8.5 Fingerings

During the reference period, a total of 15 million fingerlings were produced from government and private hatcheries. The government hatcheries include National Aquaculture Centre at Domasi in Zomba, Kasinthula Fisheries Station in Chikwawa and Mzuzu Aquaculture Centre in Mzuzu. The private hatcheries include those at LUANAR (Bunda Campus), Maldeco Aquaculture Limited and private fish farming investments. These fingerlings were all stocked in over 10,000 earthen fish ponds across the country. Some fingerlings were stocked in about 16 cages belonging to Maldeco Aquaculture Limited in southern Lake Malawi.

CHAPTER 6

MARKETS, VALUE ADDITION, AGRO-PROCESSING, TRADE AND FINANCE FOR TRANSFORMATION

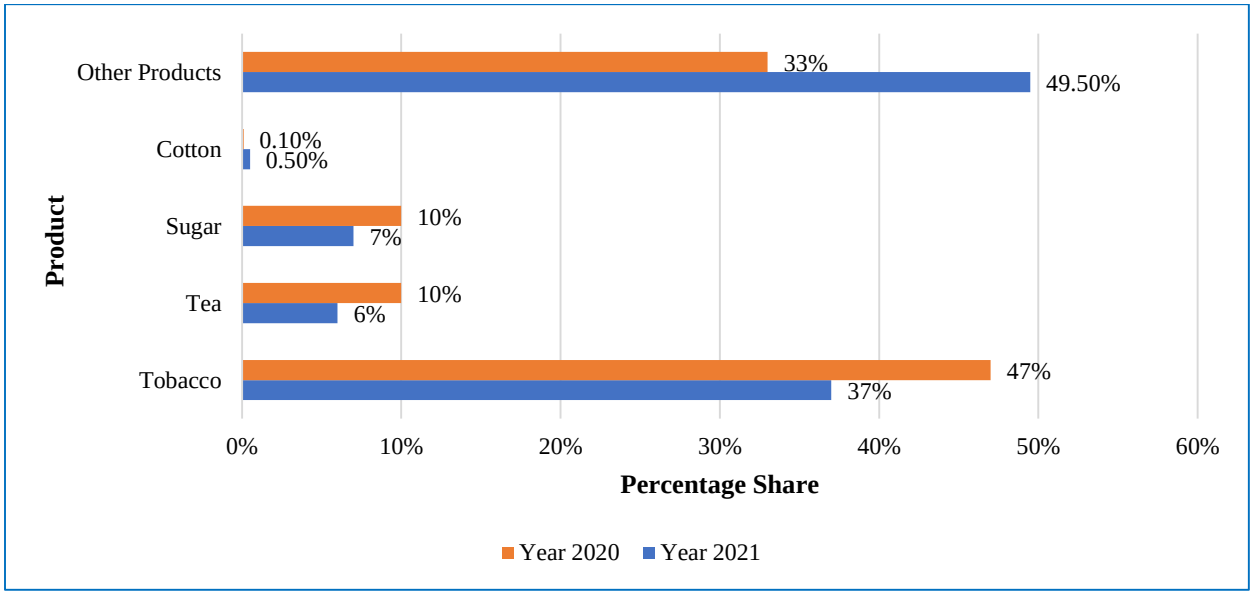
6.1 Agricultural Trade and Marketing

Markets, value addition, trade, and finance is Program D of the NAIP, with the explicit purpose of promoting market access, value addition, trade, and access to finance. The primary outcomes of this programme include: Enhanced efficiency and inclusivity of agricultural markets and trade; Increased agro-processing, value addition, and domestic market investments; and Improved access to agricultural finance for all target groups. The chapter provides an overview of downstream and upstream value chain activities in the agriculture sector, including the value addition of agricultural output, agricultural trade (both domestic and international) aimed at improving domestic markets, and building competitiveness to acquire and maintain access to regional and global markets.

6.1.1 Exports Earnings

In 2021, agricultural products continued to dominate Malawi's exports, with tobacco alone accounting for over 37 percent (USD 408.4 million) - see graph below. 7 percent and 6 percent of total exports were comprised of sugar and tea exports, respectively. These three items account for fifty percent of overall exports.

Figure 16: Malawi's main export products



Source: National Statistical Office & RBM

Limbe Leaf Tobacco Limited (MK 101 billion), Alliance One Tobacco (Malawi) Limited (MK 95.7 billion), JTI Leaf Malawi Limited (MK 62.2 billion), Illovo Sugar Malawi Limited (MK 60.2 billion), Premium TAMA Tobacco Limited (MK 31.5 billion), K U Distributors Limited (MK 20.2 billion), and Kilindi Agro-Dealers (MK 16 billion) were among the major exporters of agricultural products.

6.1.2 Malawi's Trade Agreements

The government of Malawi continues to acknowledge the importance of commerce to the nation's economic progress. As a result, the nation is a signatory to a number of bilateral, regional, and international trade agreements, including preferential trade arrangements. The trade agreements are intended to increase market access for Malawian goods and facilitate trade through various trade facilitation activities.

During the year under review, the Ministry of Trade negotiated a number of agricultural trade-related agreements, memoranda of understanding, and export accords in an effort to increase the availability of Malawian commodities and services across international borders. The pages that follow describe the status of Malawi's signed contracts and memorandums of understanding.

a) MoU with the Government of South Sudan

The Malawi Government, through the Ministry of Trade, signed a memorandum of understanding with the Republic of South Sudan to explore opportunities to enhance trade and investment between the two countries. Malawi would export $295 million worth of commodities, including maize, maize flour, sugar, rice, groundnuts, and beans, under the terms of the agreement. On the fringes of the 2021 Intra-African Trade Fair in Durban, South Africa, an extra deal for maize, beans, and rice worth $168 million was reached for these commodities. Malawi has already transported 50 loaded 30-ton trucks of Maize Flour (1,500 MT) and Rice (557 MT) valued at $1.4 million to South Sudan on September 28, 2021.

b) MOU with Indian Government on Export of Pigeon Peas

Malawi recently signed a Memorandum of Understanding (MoU) with the Indian government to export 50,000 metric tonnes of pigeon peas annually for the next five years, with an annual review. To date, Malawi has shipped 23,060 metric tonnes (MT) of pigeon peas to India, which represents 46 percent of the overall export quota.

c) Exports Deals of Soya to Various Countries

During the fiscal year 2021/2022, the government supported the shipment of 157,684 metric tonnes of soy beans worth MK 82,888,715,803.87 to other countries, including China. This demonstrates the potential for soya to supplement the country's largest foreign exchange earner, tobacco.

6.1.3 Trends in Agricultural Prices

To regulate the selling of prioritized agricultural commodities the Ministry of Agriculture sets minimum farm gate prices for agricultural produce every year. This is in accordance with the Agricultural General Purposes Act 1987 Cap 65.05 of the Laws of Malawi. The minimum farm gate prices are determined by the cost of production, market forces, price trends for the previous years, and export parity prices, as well as consultations with key stakeholders in the agricultural sector. During the year under review, Minimum farm gate prices set by the Ministry were below the annual average market prices for most agriculture commodities as shown in figure 15. For instance, the minimum farm gate price for groundnuts in the year under review was 740 Mk/Kg against the average market price of 1162 Mk/Kg. Similarly, average market prices for sorghum, finger millet, pigeon peas and soybeans were higher compared to government-set minimum prices both in the year under review and 2020/21. However, the average market price for maize was below the government-set minimum farm gate price of MK 220 per kg. Generally, this reflects inadequate enforcement mechanisms and that prices are mainly determined by market forces.

Figure 17: captures monthly average prices for cereals in the quest to understand the price movement of maize in comparison to other cereals in the period under review. The emphasis was on maize given the fact that it is an important crop for Malawi evidenced by Government efforts through the AIP. On average, maize prices were below the government-set minimum farmgate prices from July 2021 to June 2022. On the other hand, rice fetched favourable prices for farmers in the same period.

Figure 17: Malawi's main export products

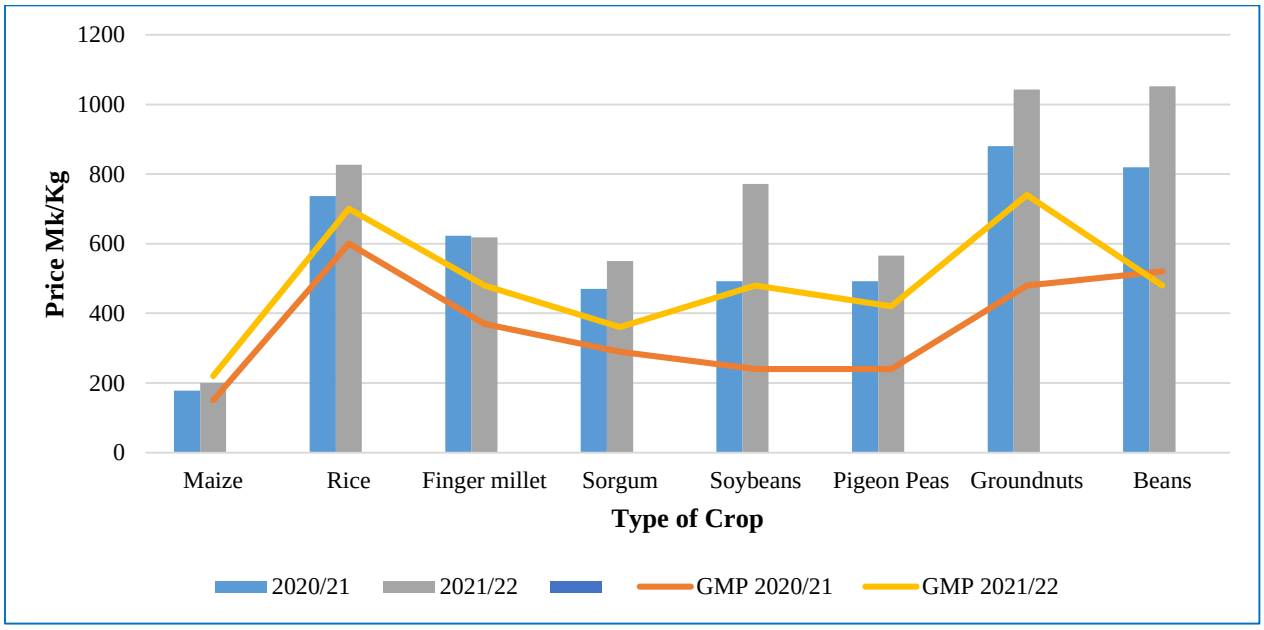
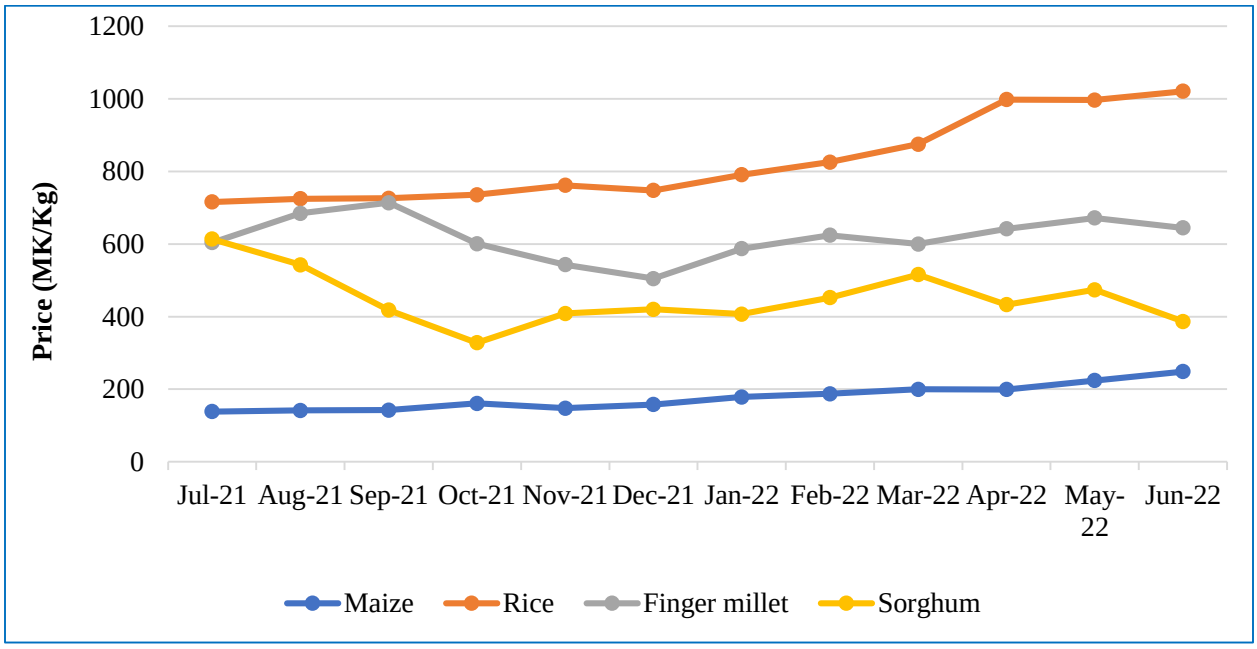


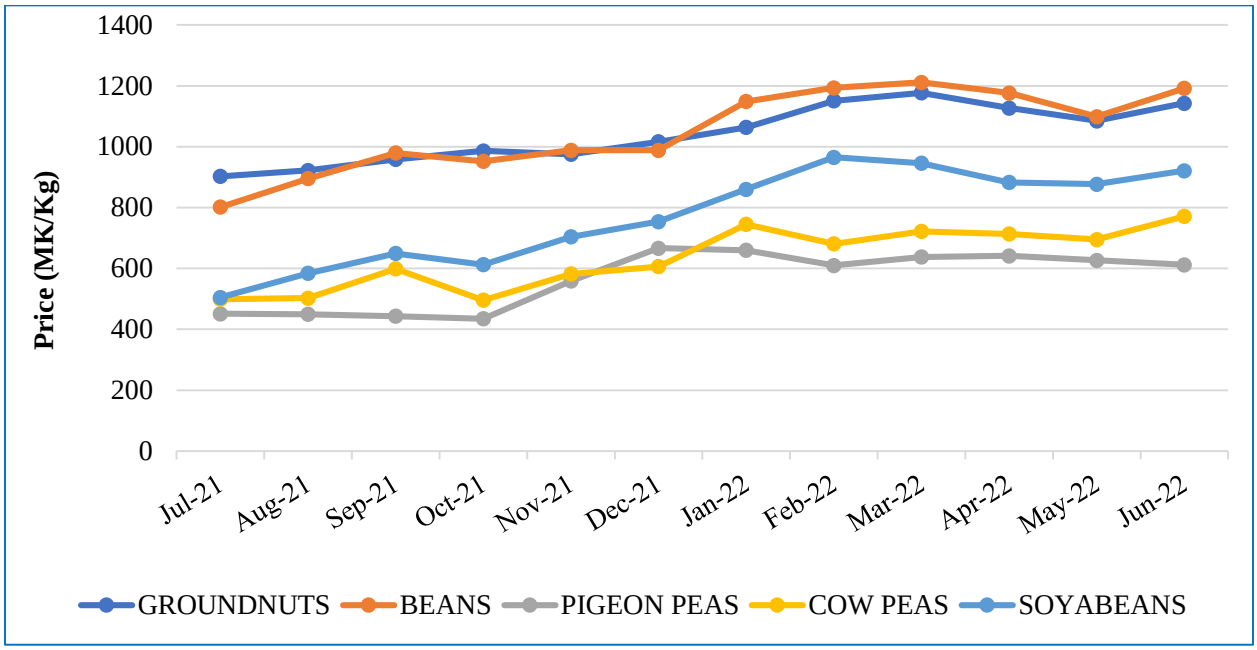
Figure 18: Cereal Prices (2021/2022)



Source: Ministry of Agriculture - NAMIS

Among legumes, the average price for groundnuts and beans was the highest, followed by that of Soya beans, while the average price of pigeon peas was the lowest

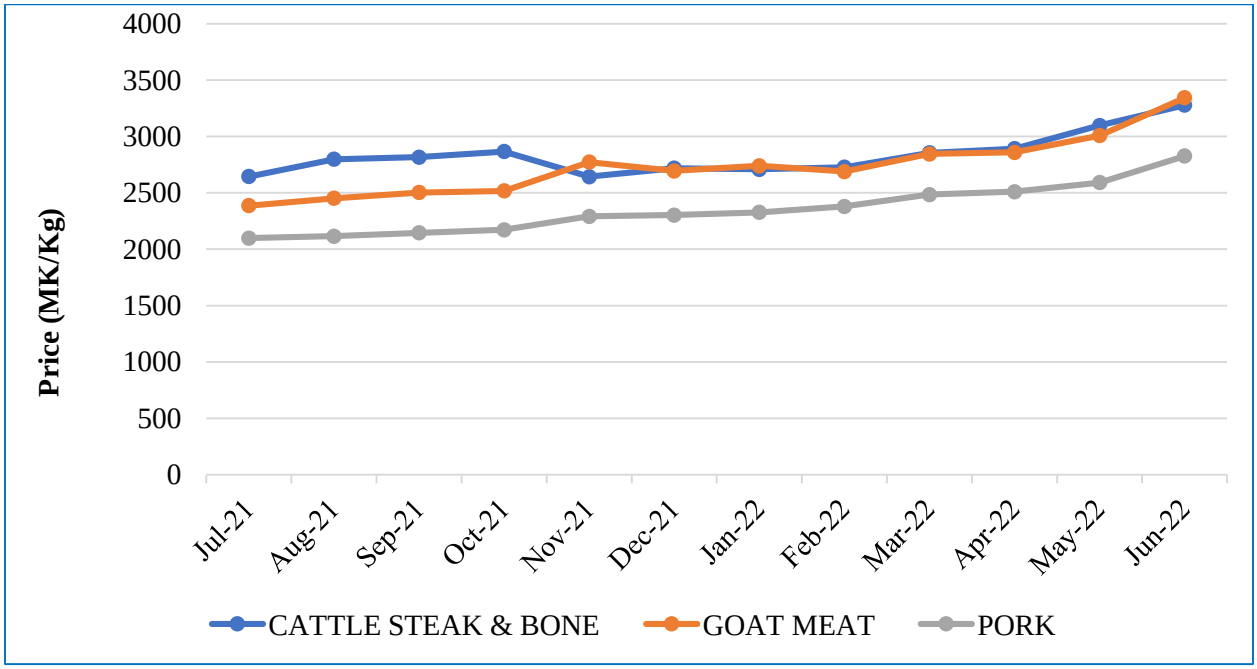
Figure 19: Legume Prices (2021/2022)



Source: Ministry of Agriculture -NAMIS

Prices of livestock products are captured for goat and cattle skin, chicken, chicken eggs, and live cattle, pig, and goat. Figure 31 displays the prices of meat products from July 2021 to June 2022, revealing a generally increasing trend for average meat product prices.

Figure 20: Prices of Meat Products



Source: Ministry of Agriculture (DAPS)

6.1.4 Farmer's Participation in Agricultural Markets.

Significant growth has occurred in the number of farmers producing for the market. This is in part a response by farmers to the rising prices of some agricultural products, such as legumes and cereals. There are also initiatives to link farmers with off-takers/buyers, which has encouraged farmers to produce for the market. However, the Ministry of Agriculture and other sector stakeholders have inadequate data on the number of farmers producing for markets.

The notion of contract farming has expanded throughout the years from conventional crop enterprises such as tobacco to other crop enterprises. Through the AGCOM project, the Ministry of Agriculture has linked 276 Producer Organizations with Off takers in, to name a few, the soy, macadamia, coffee, groundnuts, honey, pig, and dairy value chains. During the year under review, the Cannabis Authority registered 77 organizations/cooperatives. These organisations have been granted 113 licenses. Invegrow and the United States Cannabis Authority are the two most important purchasers (USCA). The tobacco sector has reported the following grower licenses: burley 18,413, flue-cured 2,178, and dark fire-cured 708, for a total of 21,299.

6.2 Value addition, agro-processing and post-harvest losses

Apart from increasing the value of agricultural commodities, value addition and agro-processing also increases the shelf life. For the reporting, value addition and agro-processing consisted 45% share percentage of high-value processed products in agricultural exports (MSE). On the other hand, estimates showed that almost 17% of the production of maize is lost after harvesting. The table below highlights postharvest losses in terms of dry weight loss.

Table 25: Post Harvest Loses (Dry Weight Loss) 2021

Region	Maize	Rice	Sorghum	Millet	Wheat
Central Region	16.93	13.61	12.59	11.89	12.97
Northern Region	17.24	13.00	12.79	11.08	
Southern Region	17.31	13.43	10.63	11.17	13.23
Malawi	**17.16**	**13.35**	**12.00**	**11.38**	**13.10**

Source; https://www.aphlis.net/en/data/tables/dry-weight-losses/MW/all-crops/2021?metric=prc

The average Dry Weight Post Harvest Loses for cereals in 2021 was 17.16 for maize followed by millet at 11.8, sorghum at 12.0, wheat at 13.1 and rice at 13.5. while at the regional level, the southern region recorded the highest loss for Maize (17.31) while the northern region was the lowest at 16.93.

Table 26: Dry Weight Losses by stage of processing (value chain)- 2021

Crop	Harvesting/ field drying	Further drying	Threshing and shelling	Winnowing	Transport from field	Household-level storage	Transport to market	Market storage
Maize	6.32	3.98	1.36		2.38	4.32	1.65	2.65
Rice	4.40		3.14	2.50	1.25	0.13	1.00	2.65
Sorghum	4.55		3.60	0.00	2.17	0.00	1.00	2.65
Millet	3.50		2.00	2.50	2.50	0.62	1.00	2.65
Wheat	4.43		3.50	0.00	2.50	2.83	1.00	2.65

Source; https://www.aphlis.net/en/data/tables/dry-weight-losses/MW/all-crops/2021?metric=prc

CHAPTER 7

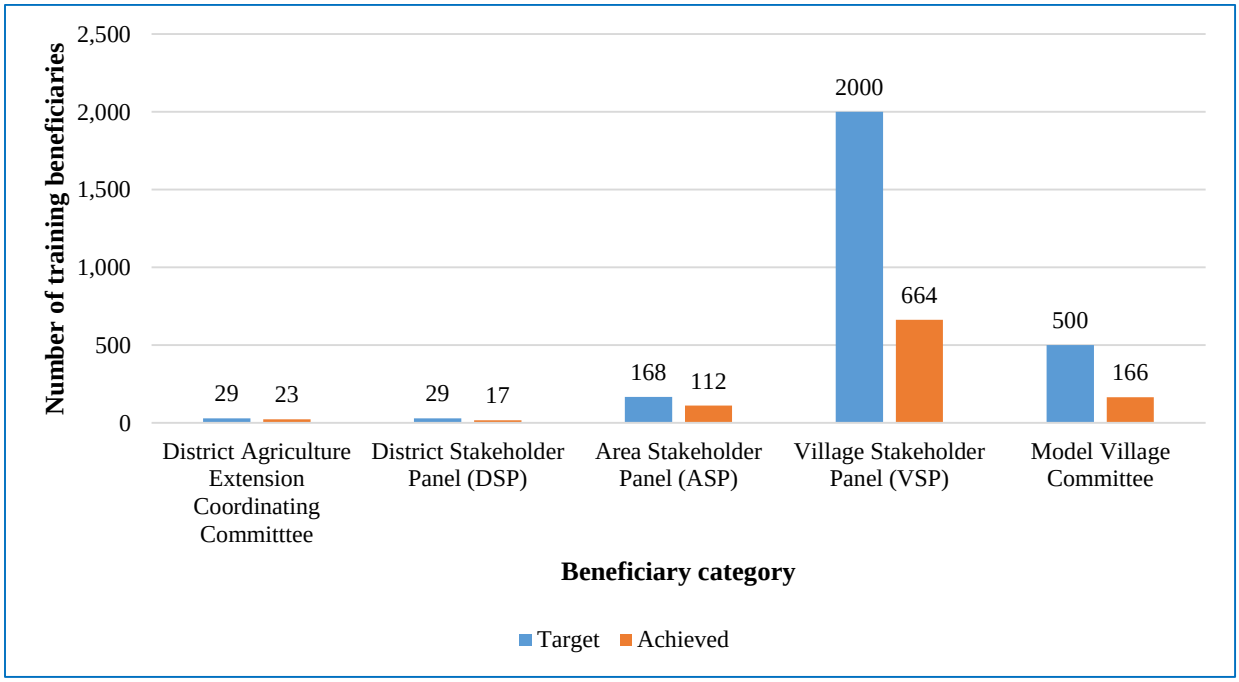
CROSS-CUTTING ISSUES

NAIP emphasizes the significance of mainstreaming cross-cutting issues such as nutrition, gender, youth development, and empowerment of persons with disabilities, management of HIV/AIDS, environmental management, disaster risk reduction, and good governance at all levels in order to promote active and inclusive participation of all categories of people in all development interventions in the agriculture sector.

7.1 HIV/AIDS

To lower the prevalence of HIV and AIDS among agricultural households and to mitigate its effects, the sector endeavoured to integrate HIV and AIDS into all development programmes and procedures. During the reporting period, the sector provided trainings on HIV and AIDS mainstreaming and HIV in the workplace to its employees. In addition, the sector educated farmers about HIV and AIDS, agricultural production, and the mainstreaming of HIV and AIDS. Figures 33, 34, and 35 depict the quantity and type of individuals trained.

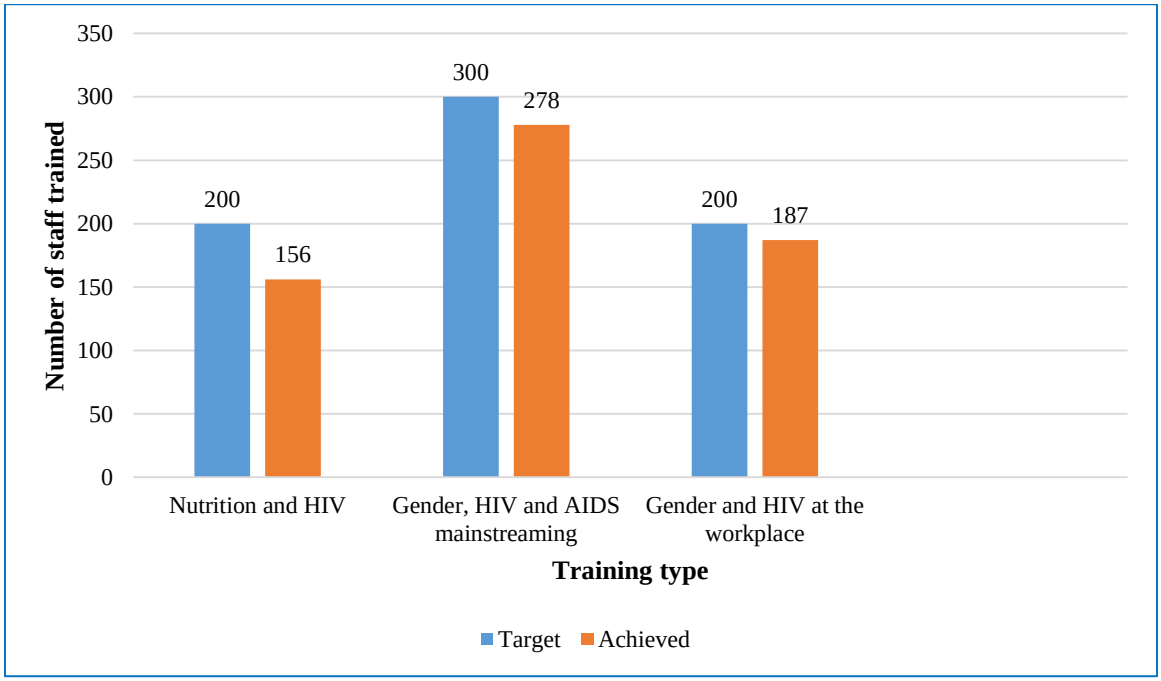
Figure 21: DAESS Structures and Model Villages Committees Trained



The sector implemented 166 of the intended 500 gender and HIV/AIDS-responsive action plans in model villages during the 2021-2022 season. The data indicates that model villages achieved 33 percent (33 percent) of their scheduled training activities during the reporting period, compared to 19 percent (19 percent) for the 2020/21 season. 664 of the projected 2000 village stakeholder panels were trained by the sector, reflecting a 33.2 percent success rate. This is significantly lower than the 66.7 percent accomplishment rate for the local stakeholder panel, where 112 out of the planned 168 were trained.

Figure 33 presents information on the DAES structures and model village committees trained on HIV and AIDS mainstreaming. Other interventions achieved in the reporting period include staff and farmer training as presented in Figures 34 and 35 below.

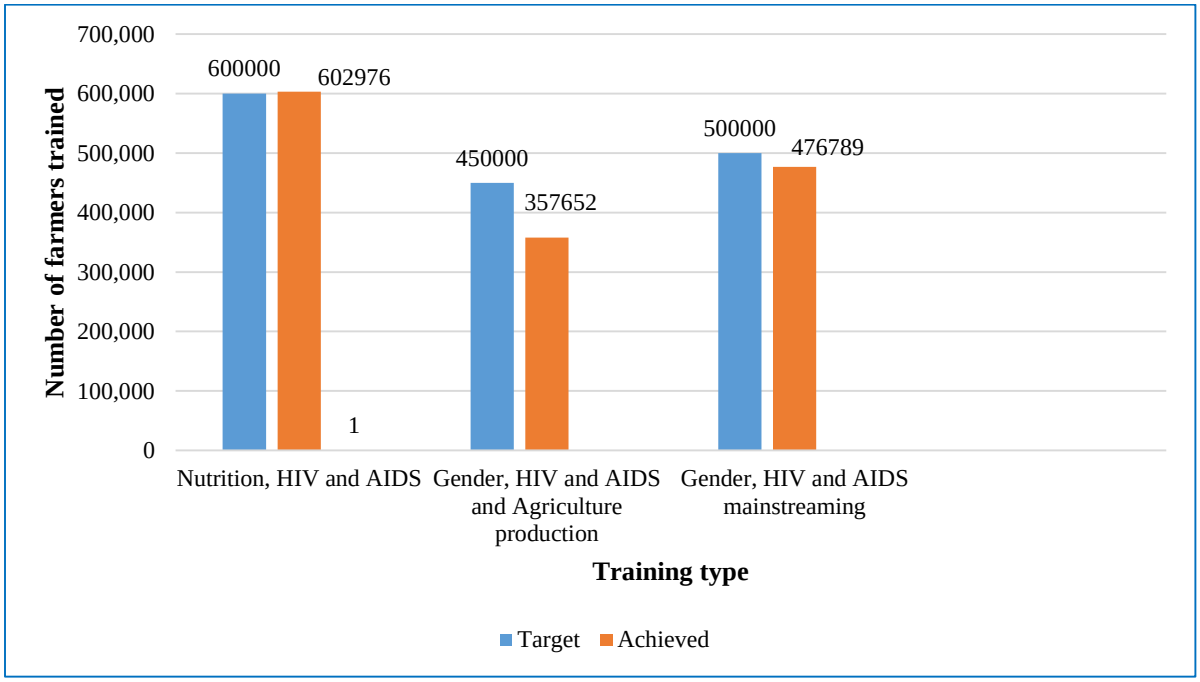
Figure 22: Number of Staff Trained



In the 2021/22 season, the sector continued to provide employees with the tools necessary to mainstream gender, HIV/AIDS, and all other programme and project initiatives. The sector exceeded its goals for the number of workers trained in various gender and HIV/AIDS-related areas. The sector was able to teach two hundred (200) staff employees in nutrition and HIV, surpassing its goal of 156. On addition, 300 staff people were taught in gender, HIV and AIDS mainstreaming as compared to the aim of 278. Although the sector had intended to train 187

employees on gender and HIV in the workplace, 200 employees were trained, a 107 percent success rate.

Figure 23. Farmer trainings on HIV and AIDS



Regarding agricultural production, the sector enhanced the nutritional, gender, HIV/AIDS, and AIDS capacities of farmers. During the reporting period, 602 796 farmers received nutrition, HIV and AIDS training, while 357 652 and 476 789 farmers were reached with gender, HIV and AIDS and agriculture production and gender, HIV and AIDS mainstreaming, respectively.

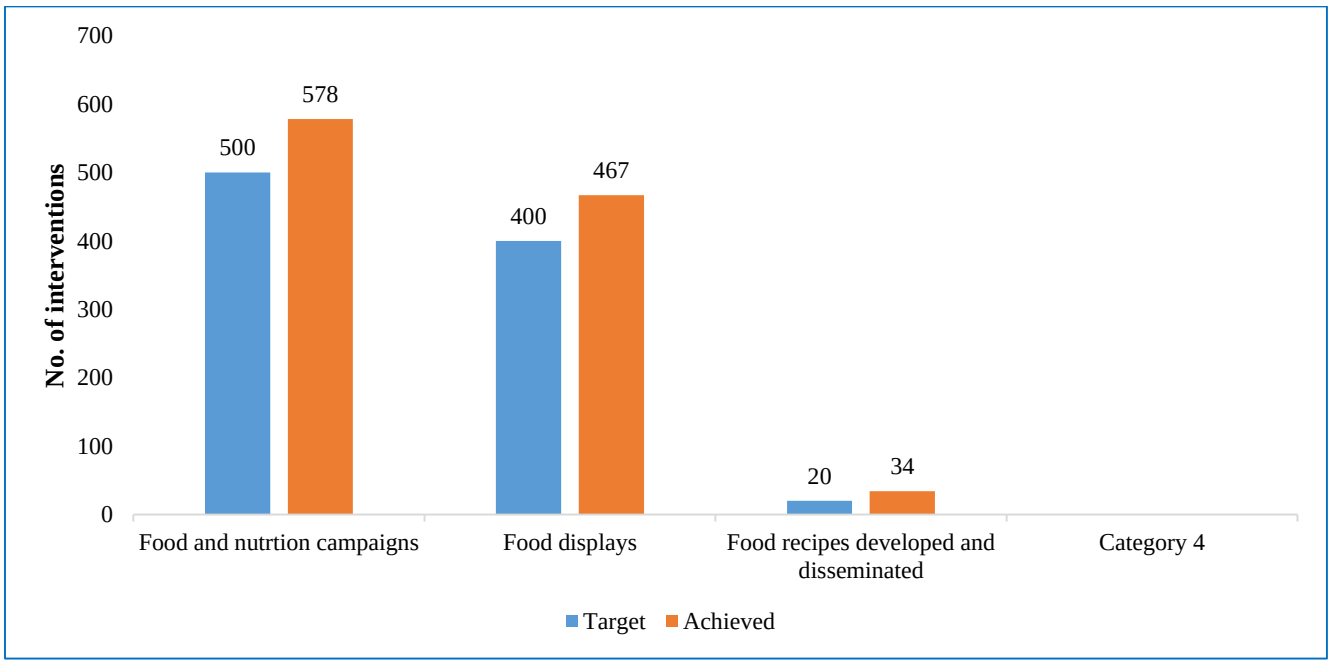
7.2 Nutrition

The agricultural sector understands the harmful impact that malnutrition has on an individual's physical, mental, social, and economic skills. Although the prevalence of stunting among children under the age of five has reduced from 37.1 percent to 35.5 percent, as reported by the MDHS and MICS, respectively, it is still significantly higher than the average of 25 percent for developing countries. To encourage access to and consumption of diversified foods, particularly among young children and pregnant women in order to improve nutritional outcomes, it is essential to promote initiatives that strengthen the livelihoods and resilience of farming households.

To prevent malnutrition and promote adequate nutrition, the sector employs a variety of interventions to provide families with the information and skills necessary to process and prepare

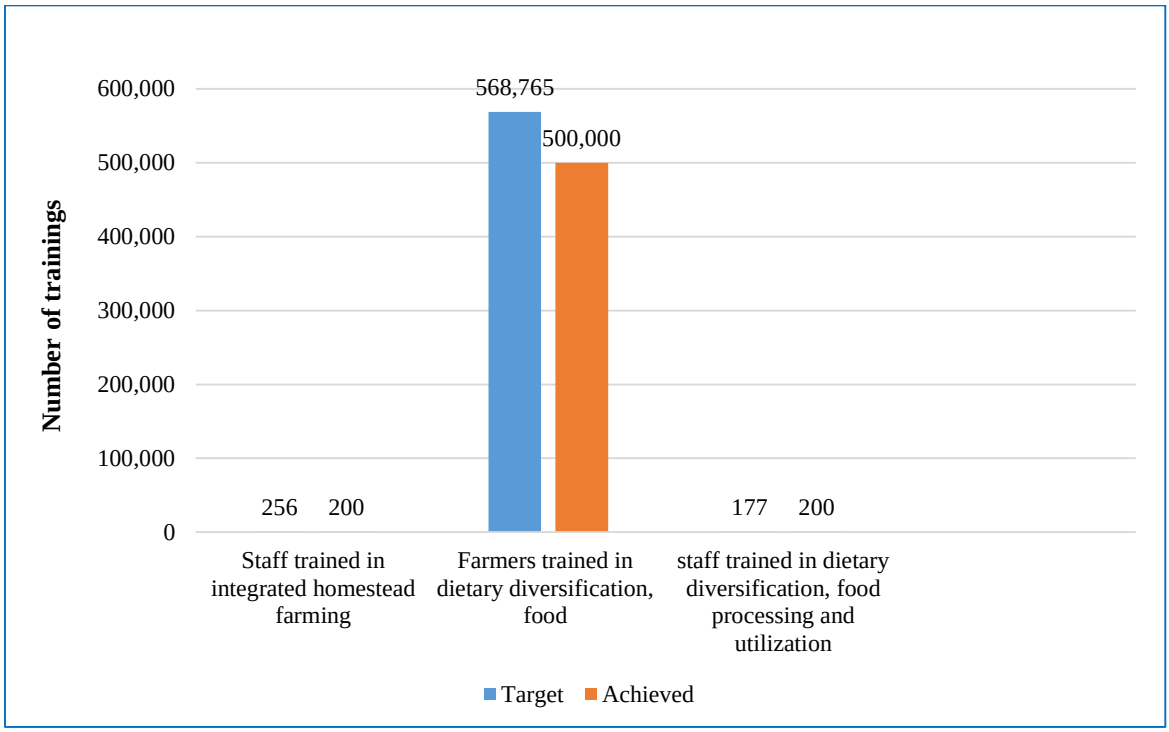
diverse and nourishing meals. These initiatives include staff and farmer trainings on food and nutrition, food and nutrition campaigns, the development and dissemination of food recipes, and food displays. During the reporting season of 2021/22, the industry exceeded its goals for food displays and food and nutrition initiatives. The industry had intended to run 500 food and nutrition initiatives, but completed 578 instead, achieving 115.6 percent of its goal. The industry had a 116.8 percent success rate by erecting 467 food displays as opposed to the aim of 400. As a contrast to the 2020/21 season, all of the sector's food display mounting and food and nutrition promotion goals were satisfied.

Figure 24: Food and Nutrition Interventions



The sector provided trainings to staff on integrated homestead farming and on dietary diversification, food processing and utilization to both staff and farmers. A total of 200 staff members were trained on integrated homestead farming (IHF) representing a 78. 1 percent achievement rate as 256 was the target to be reached. The sector reached out to 568,765 farmers on dietary diversification, food processing and utilization representing a 114 percent achievement rate. Similarly, the sector surpassed its target of training staff in dietary diversification, food processing and utilization as 200 members of staff were reached out against the targeted 177 representing 112.9 percent achievement rate.

Figure 25: Food and nutrition interventions mainstreaming

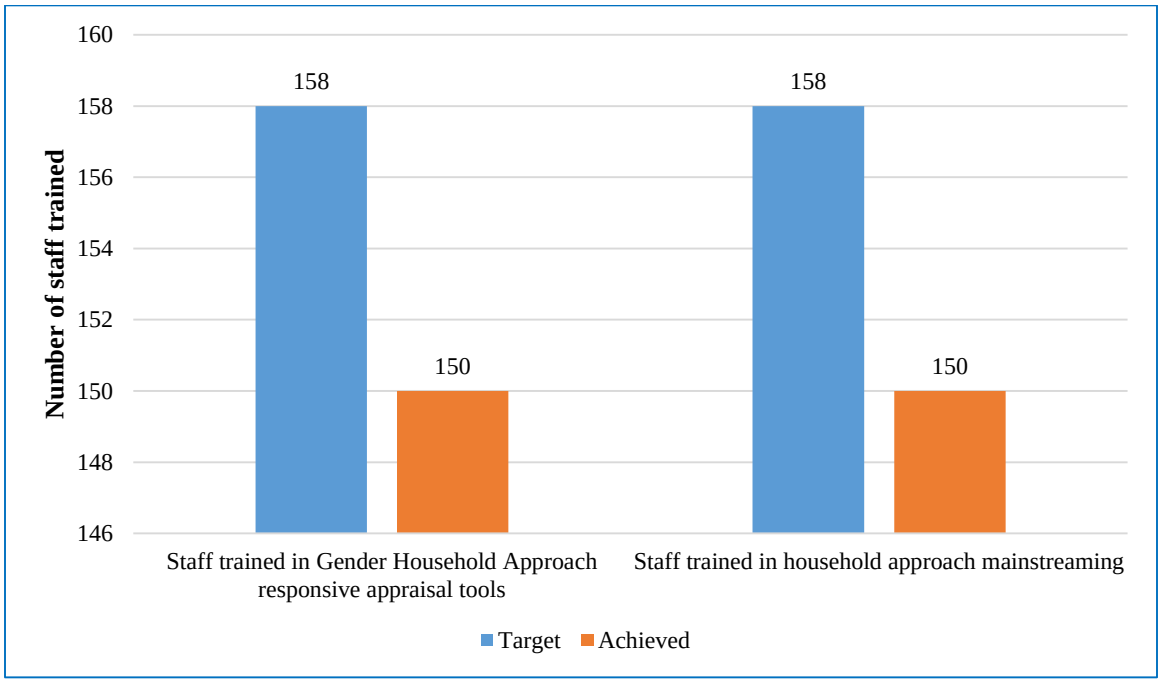


7.3 Gender

Strengthening gender equality as well as the empowerment of women and girls is critical to influencing decisions at the household, community, and national levels. Although women dominate in undertaking agricultural activities and with over 45 percent of farming households are headed by women (Ministry of Agriculture, 2021), most women still do not own and have no control over productive assets such as land, machinery, and capital. Women also do not fully profit from their agricultural produce because of challenges in accessing good and reliable markets.

To ensure gender equality in agriculture, the sector uses the Household Approach which empowers households to have a collective vision that is shared by all members of the household, regardless of their gender roles, rights, and responsibilities. To advance efforts to decrease the gender gap in the 2021/2022 season, the sector trained 158 staff against the target of 150 in gender household approach responsive appraisal tools and household approach mainstreaming representing 105.3 percent achievement rate.

Figure 26: Number of staff trained in gender



CHAPTER 8

CONCLUSION

The 2020/21 ASPR reveals that despite declining contribution to the country's GDP, agriculture remains central to the economy of the country. The sector's contribution remains high and therefore re-affirms the potential of the sector in driving the economy towards the national goals and objectives.

Unlike last season when COVID -19 pandemic was raging with accompanying public health guidelines affecting various operations within the sector, the weather was favourable for agriculture. The 2021/22 season, however, experienced the late onset of the rains and other devastating weather shocks such as dry spells and cyclones that led to floods. The impact of adverse weather directly hampered general agriculture production, especially for major staples and cash crops resulting into reduced food surplus. The weather effect was exacerbated by the late delivery of AIP inputs coupled with the high price of maize seed. This has resulted into an increasing number of households requiring humanitarian assistance in 2021/22. On the other hand, legume and livestock production was not significantly affected by adverse weather relative to cereals and fish production. The contrasting situation within the same year points towards understanding the dynamics of any shock and responding accordingly. The increase in the production of legume seed manifests the positive impact of various legume promotion programs that have been and are continuing to be implemented by all sector players.

It is also evident that despite dwindling production levels of tobacco, it remains the main foreign exchange earner while Soybeans had also registered an increase in their contribution to export earnings. Meanwhile, tea and sugar had dropped in their forex earnings. The sector's accounting structure needs to be updated to cover as many players as possible in the sector. There is a growing band of town farmers whose agriculture activities are quite significant but are not reported. At the same time, Government needs to clearly identify categories of farmers by their land holding size. There seem to be no officially available cut-off points in terms of hectares for those categorized as Small Scale, Medium Scale and Large-Scale farmers. Proper categorization will enhance accounting for the sector activities in terms of its contribution to the economy. In this regard, it is imperative for the sector to embrace and support the data generation initiatives that are being

implemented such as the NAMIS.

It is also important to note that weather remains the main determinant of favourable annual agriculture growth. Years of favourable weather also result in generally favourable agriculture production that positively impacts food security and the general economic development of the country. Consequently, resilience building remains very key to sustaining the gains made in the sector. Agriculture insurance policies will have to be entrenched and promoted by the government as they provide immediate financial relief. At the same time, there is a need to develop infrastructure that should absorb the shocks or ensure recovery.

The ASPR has also revealed the need to strengthen sector coordination mechanisms to ensure efficiency and effectiveness in resource allocation. With 86 percent of the targeted sector financing disbursed, the sector had adequate resources for obtaining the sector's goals and objectives. In addition, there is continued limited private sector engagement which has resulted into underreporting especially on financing and progress made in various aspects. Furthermore, despite the CSOs contribution to developing the report, the NGO constituency also remains underrepresented. The Ministry will have to enhance coordination mechanisms for sector players to adequately account for the sector’s performance.

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