National Market Analysis to Inform the 2017/18 MVAC Food Security Response Options
Main Report

Report Submitted
To

The Malawi Vulnerability Assessment Committee
Ministry of Finance, Economic Planning and Development,
P.O. Box 30 136,
LILONGWE.

Assessment Conducted by
Dr. Patrick Kambewa, Dr. Charles Fodya and Dr. Regson Chaweza
C/O/ Chancellor College
P.O. Box 280
Zomba

pkambewa@cc.ac.mw/pkambewa@gmail.com

Final Report

About the cover photo: Maize being kept at a warehouse in Kasungu district.

About the Consultants: The consultants are lecturers at the University of Malawi's Chancellor College comprising two economists (Dr. Kambewa and Dr. Chaweza) and a mathematician, Dr. Fodya.

Table of Contents

List of Tables

List of Figures

List of Acronyms and Abbreviations

ACE	Agricultural Commodity Exchange for Africa
ADMARC	Agricultural Development and Marketing Corporation
AfDB	African Development Bank
AHXL	Auction Holding Exchange Limited
AMIS	Agricultural Marketing and Information System
CBT	Cash Based Transfers
DADO	District Agricultural Development Office
DfID	Department for International Development
DoDMA	Department of Disaster Management Affairs
FAM	Fall Army Worm
GTPAM	Grain Traders & Processors Association of Malawi
HEA	Household Economy Approach
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
INGO	International nongovernmental organization
IPC	Integrated Food Security Phase Classification
MDRRP	Malawi Drought Recovery and Resilience Project
MDTF	Multi Donor Trust Fund
MFERP	Malawi Flood Emergency Relief Program
MT	Metric Tons
MVAC	Malawi Vulnerability Assessment Committee
mVAM	Mobile Vulnerability Analysis and Mapping
NFRA	National Food Reserve Agency
NGO	Non government organization
RVAC	Regional Vulnerability Assessment Committee
SADC	Southern African Development Community
SGR	Strategic Grain Reserve
TA	Traditional Authority
UN	United Nations
USAID	United States Agency for International Aid
USD	United States Dollar
WFP	World Food Program

Acknowledgements

The consultants who carried out this work would like to acknowledge contribution of several individuals in the process of carrying out this work. The guidance from the Malawi Vulnerability Assessment Committee under the leadership of its Chair, Mrs. Victoria Geresomo is very highly appreciated. The past experiences of other members specifically the Technical Advisor of MVAC, key members from the World Food Program (WFP), Ministry of Finance, Economic Planning and Development, OXFAM, Save the Children, United Purpose and others made a significant input in the course of carrying out this work. The Consultants would also like to thank the research assistants for their dedication and sacrifice.

This study benefitted from funds provided by the Department for International Development (DfID) through the SADC Regional Vulnerability Assessment Committee (RVAC) and the World Food Program Johannesburg Regional Bureau. This work could not have materialized without the input of 988 private commodity traders from all districts in Malawi except Likoma. While all efforts were undertaken to correctly represent what we got in the field, all errors contained herein are the responsibility of the consultants. Names and pictures of persons appearing in this report are doing so with owners' consent.

Executive Summary

Introduction

This market assessment is part of the Malawi Vulnerability Assessment Committee's activities towards carrying out the Integrated Food Security Phase Classification process. The survey was carried out in the June-July period of 2017 and was conducted in most parts of the country covering all districts except Likoma district in the north. In all, 988 traders were interviewed.

The assessment was carried out within the context of a good maize harvest in the region as well as Malawi as a country unlike the previous year. Malawi had a maize surplus of 100,000 MT. Although the prevailing maize price was low compared to last year, ADMARC announced that it was going to buy maize at K170/Kg. At the time of the survey, ADMARC had not yet started buying the maize in large quantities forcing some producers to sell their maize to traders at prices as low as K60/Kg in some areas. Despite the surplus maize, Government still maintained the export ban arguing that the ban would be lifted once the strategic grain reserves are filled.

The IPC process identified that about 836,766 people would require humanitarian assistance. All affected districts are in the south and eastern regions. A total of 3,112,000 people are in IPC Phase 2 and would require assistance to build resilience. The analysis has been done at TA level within the regions. The recommendations have taken into account the vulnerability assessment and the market assessment.

Main Findings

1. Trader Characteristics and Agri-business Conditions

The number of traders interviewed was largest in the centre followed by the south and east. There was a good representation of women in trading in the north accounting to almost 50 percent of the respondents compared to the other regions. The average trader was in their thirties. Sources of capital for most traders was from profits from other businesses followed by agriculture and third from savings from salaries and wages. This was similar across the regions. ***This suggests that commodity trading has become attractive over the years enticing people to invest their other incomes into commodity trading.***

The average distance that traders travelled in trading was the longest in the south and shortest in the eastern region. **This implies that traders from the south were going to other regions, predominantly the centre to get maize. Markets in *Ntcheu were the most common source markets mentioned by traders in the south.***

In the eastern region, the short distances mean that there is a lot of intra-regional trade other than across regions. Most traders interviewed were retailers followed by traders who were doing retail and wholesale simultaneously. ***Most sellers preferred to sell using a tin other than using scales for fear of being cheated. It was common for traders to sell more than one commodity and this was the case in all areas.***

For the border districts, the price of maize in Malawi higher than its surrounding neighbors of Zambia and Mozambique such that for the border districts maize was being informally imported. In the north, maize was being exported to Tanzania using informal border crossing points. While ADMARC had announced that it was going to buy maize at K170 per Kg very few of their markets reported to have bought any maize at this price. After field work, it was reported that government had given ADMARC some funds to buy maize. Despite the announcement of the buying price by ADMARC, traders were buying at a lower price of K60/Kg in most areas. ***Traders who have capacity to buy are likely to benefit than the smallholders who sell out of distress.***

2. Private Trader Food Trade Activities and Response Capacity

A comparison of maize being bought and sold by traders showed that traders in the north sold more maize than had bought during the previous month. ***This can be an indication that the trading period was more advanced in the two regions compared to the north such that traders had started to offload what they had previously bought.***

In all regions traders expected to sell more in the October-December period and January March periods with the latter period being mentioned by more traders. ***Prices were also expected to increase to an average of K230/Kg in the north, K208'Kg south, K194 east and K178 in the centre. These prices compare with the FEWSNet forecast price of K180/Kg.*** Major factors affecting price of maize was price in the source markets followed by transport cost.

Access to source and destination markets were generally rated to be good to excellent. Trade was done to local people (a majority) followed by fellow traders. ***The mention of fellow traders was especially strong in the centre (40%) implying that they tended to sell to people outside the area compared to the other regions where less than 20 percent of the traders indicated to sell to fellow traders. At the time of the assessment, the trading was from producers to aggregators and it is expected that over time, the trading will be to consumers.***

3. Private Traders' Response Capacity

About 50 percent of traders in the north indicated that they would be able to supply the market if demand increased by 50 percent. ***The amount they would have to increase ranged from about 50 percent in the east to 100 percent in the north.***

Access to loans among the traders was low with 29 percent of traders in the south indicating to have ever accessed loans. This was the highest compared to the other regions. When asked to indicate the type of support they would need in order to increase supply, access to loans was the highest among the factors mentioned. ***Across the regions, the amount of capital traders require was much higher than the amount of loan they accessed. Microloan institutions were the major source of loans for a majority of the traders. There is a need to develop support for the commodity traders through provision of loans to improve their capital bases.***

Experience with selling commodity on loans ranged from 50 percent in the south to about 25 percent in the other regions. December and January were the months where selling commodity on loan was mentioned by a larger proportion of traders across all regions. ***Use of storage facilities was low across the regions although use of rented facilities and dwelling houses was bigger.***

4. The 2017/18 MVAC Response Options

Humanitarian Assistance

Given that the production for maize is above that of last year, and it is also above the five-year average, we expect the market to be able to handle food deficit areas. For the affected districts, the criteria used to determine whether the people would

be given humanitarian assistance in form of cash or in kind was based on the following: For the specific areas, the following were noted during the market assessment:

TA to be under in-kind food assistance is informed by the following: (a) areas with difficult access conditions especially during rainy season, (b) areas with big caseloads, that is above 50,000; (c) areas with limited private traders capacity to supply staple food commodities throughout the 2017/18 season, gauged in terms of numbers of traders, their storage capacity and sources of the commodities.

TA to be under a cash based transfer option is based on: (a) the TA having market centres with active staple food private traders that have diverse and reliable market sources and are able to supply the market throughout the consumption season, (b) market centres with private traders that have sizeable warehouses or storage facilities (c) having caseloads of less than 50,000, and (d) market centres are reachable with accessible road conditions throughout the consumption season.

In the assessment, no TA had a caseload of 50,000. Many markets were deemed to be accessible with vibrant traders. The markets are likely to respond cash transfers for the stressed households while at the same time not be inflationary given that it is very few households that will benefit. Cash-based transfers are not likely to be inflationary to disadvantage households on the margin since the number of affected households is small.

In order to stabilize maize prices Government should support ADMARC in buying maize on the market so that during the lean period the price of maize is not at the mercy of private traders' behavior.

In the long term, government should consider engaging large private traders to disclose the amount of maize they hold so that planning takes these stocks into account. The MVCA should continue monitoring the market, especially as the lean season sets in so that any changes on the market do not take government and its partners by surprise

1.0 Background

In recent past, Malawi has been going through numerous challenges that are negatively affecting the general food and livelihood security status amongst the poor and vulnerable households. The country has experienced weather related hazards ranging from floods to prolonged dry spells that have been affecting crop harvests for the past decade. Last year, Malawi like many Southern African countries experienced the worst El Niño weather condition in over 30 years that resulted in prolonged dry spells in most parts of the south and center while flooding was experienced in the northern districts.

Findings from the 2017 pre-harvest assessment conducted by **Malawi Vulnerability Assessment Committee** (MVAC) in March point to a rebound in maize production, especially in southern and central areas, compared to the previous cropping season. Furthermore, the third-round crop estimates forecast maize production of 3.46 million metric tons, an increase of 46.2 percent compared to the same round last year. This implies that there is a projected national surplus of about 100,000 metric tons maize over the requirement for human consumption, seed, industrial use and feed. However, it (the report) notes that a fall armyworm (FAW) infestation was reported in almost all districts across the country. In January, Government reported that 2,000 hectares of crop was in nine of the country's 28 districts[1]. Another report indicated that the FAW affected following ADDs, Blantyre, Machinga, Kasungu. Mzuzu and Karonga[2]. Another report shows that enormous infestations were noted in the districts of Salima, Balaka and Chikwawa[3].

This report presents findings of a market study that was carried out in the June to July 2017 period is some parts of country in all districts with the exception of Likoma district in the north. The findings were to assist in understanding and predicting market functionality during the 2017/18 consumption season. Further, the

[1] http://www.reuters.com/article/us-malawi-grains-armyworm/malawis-armyworm-outbreak-destroys-2000-hectares-minister-idUSKBN14Y0DK

[2] http://www.mw.one.un.org/fao-partners-team-up-against-fall-armyworm-outbreak-in-malawi/

[3] http://allafrica.com/stories/201708070641.html

assessment was going to assist in identifying areas that will be most suitable for adoption of market-based response (cash based transfers (CBT)) or in-kind food transfers during any necessary food assistance program during the 2017 to 2018 lean season, based on the MVAC IPC recommendations.

1.2 Objectives of the Study

The **overall objective** of the market assessment is to examine the appropriateness of food assistance programming that is based on cash, voucher or in-kind transfers and to furnish the humanitarian actors with essential information for decision-making in the context of deploying either or a combination of the above transfer modalities during the course of the implementation.

More specifically the study:

1. Identified and sketched the **supply chain of key staple commodities** that are critical to food security of vulnerable households.
2. Analyzed the **historic and current availability** of staple food commodities on local markets including potential recent changes and patterns of **seasonality**.
3. Analyzed the overall **market environment** in which food commodity trade takes place, including relevant government policies and regulations, the (current) socio-political situation, security, road and transport infrastructure;
4. Described the **market structure** in terms of actors and institutions of relevant supply chains, barriers and **constraints** to enter trade or maintain and increase levels of supply, as well as market catchment areas.
5. Analyzed the **market conduct**, i.e. price setting behaviors, weights and standards including the transparency of transactions, competition and potential corruptive behavior.
6. Identified key market outcomes such as seasonality and volatility patterns of prices, market integration with supply sources, including physical flow of commodities.
7. Analysed the market's **potential for responding** to demand increases, e.g. storage facilities, duration of stocks, stock replenishment lead-time, and expected price developments due to increased levels of demand. And to determine any potential inflationary risks associated with increased local demand arising from the use of market based interventions.

8. Provided/collected price data and develop **price scenarios** for different **food commodities** to be used in developing potential food baskets and transfers values, and to support cost efficiency/effectiveness analysis, that can facilitate decisions if and when to switch between different transfer modalities or food baskets depending on seasons.
9. Analyzed affected populations' **demand conditions**: their **physical and economic access** to local markets (including inflation patterns of food and non-food commodities, households' purchasing power, livelihood and market participation behaviors, self-sufficiency and resilience statuses, and preferences).
10. Formulated and mapped food market related **recommendations** on i) **suitable areas**, ii) **periods** of the year and iii) **scale** conceivable to support either cash/voucher or in kind based interventions as well as iv) how to **address identified bottlenecks** for traders to meet increased demand and strengthen respective supply chains.
11. Mapped out potential irregular factors that may affect normal seasonal trends of market behavior.

1.3 Organization of the Report

The rest of the report is organized as follows. Chapter 2 presents methodology, survey process, data analysis approaches that were used in conducting this assessment. Chapter 3 presents a regional and national food security context for the 2017/18 consumption year. Chapter 4 discusses the trader characteristics and the agri-business environment from the assessment. The activities that traders undertake and their capacity to respond to a change in demand are presented in Chapter 5. In the same Chapter, projected prices from the survey, FEWSNet and Consultant's own calculations are presented. Chapter 6 presents the traders' response capacity and their experience with use of other trade instruments such as loans, vouchers and coupons. Chapter 7 presents the proposed 2017/18 MVAC response options given the IPC results and the market assessment. The report concludes with Chapter 8.

1.4 Study Limitations

Compared to previous studies, the current assignment had a high number of respondents. Lessons learnt from previous surveys might have contributed to this high figure of respondents. However, the problem of having two markets with same market day within a district and therefore having to choose which market to visit on the said market day and leave out the other still posed a challenge. Secondly, a week before fieldwork commenced, ADMARC announced that it was going to purchase maize at K170 per kg against a prevailing price of K60 to 70 per Kg in most markets. This disrupted the trading of maize as some producers and small traders resorted to hoarding waiting to take advantage of ADMARC's high prices. During this period, ADMARC members of staff were on strike, therefore access to officials in the markets was a challenge. Finally, trading of maize in the northern region was yet to pick up compared to the other regions. Cooperation from the large grain traders was compromised because of complications from the 2016 maize imports from Zambia in which some of them were implicated. Securing interview with GTA members was difficult.

2.0 Methodology of the Study

The assessment used a mixed methods approach. These ranged from individual interviews with commodity traders, key informant interviews, and analysis of secondary data. The study team was instructed to check with local sources and most importantly the district agricultural office to identify key markets in the TAs in a given district. At least one key market per TA was sampled and in most cases, one key market served several TAs and in some cases including those from an adjacent district. However, if there were numerous key markets that were operating in a given TA, utmost two key markets were sampled.

2.1 Literature Review and Secondary data Collection

Secondary literature review was conducted for various food and nutrition security assessments, market assessment reports, external supply/value chain assessments, economic and financial reports, policy documents and briefs, and other regulatory. The assessment report include MVAC reports, UN and INGO reports. These included both national and regional documents.

2.2 Secondary data review

a. Analysis of maize price was done to identify seasonality, market integration and undertake price forecasting. The data used was from Agriculture Marketing and Information System (AMIS) for price forecasting, mobile Vulnerability Analysis and Mapping (mVAM) conducted by WFP for developing seasonality trends and FEWSNEt data for assessing market integration..

b. Analysis of the regional supply chain, trade networks, price controls and stock levels.

2.3 Primary Data Collection and Analysis

Primary data collection in both primary and secondary (i.e. accessible and remote) markets that serve the food insecure population in form of trader surveys, market questionnaires (Appendix I), focus group discussions as well as with key informants and consumers/beneficiaries was carried. The coverage for the primary data collection was in key markets in the TAs as advised at the district level.

The modules on the questionnaire included modules on supply, trade volumes, transportation, storage, market response capacity and trader constraints. In addition, the need to estimate the lead time of maize purchase, more especially the need to change modality from cash/voucher to in-kind or vice versa.

a. Apart from the direct actors in the maize market (traders-plans and stocks, transporters, NFRA, ADMARC, GTPAM, ACE, AHXL, IFPRI) the key informants included humanitarian actors that form the cash working group.

2.4 Sampling

Interviews with key informants included traders of food commodities (wholesalers, retailers and growers selling their own produce) buyers of the food commodities from the affected areas; ADMARC, NFRA, District Agriculture Development Officers, transport operators ferrying food commodities among others at the markets in the affected areas. Interviews were also conducted in key source markets.

The survey included a sample of remote areas and interview traders and residents of these areas. This entailed interviewing traders in tiny markets where traders were selling a few tins of maize. While a majority of the trading involved traders who were aggregating the maize in some areas, vendors were buying to sell to other traders outside the area as well as selling to consumers within the vicinity. This was observed in areas that are near urban centers and food deficit area such as the Lower Shire. It involved talking to the people living in these areas and asking them how food availability and prices change over the course of the year. It also entailed

looking at the non-market ways in which people acquire food: gifts, loans, purchases from neighbors/friends/family.

2.5 Survey Process, Data Collection & Entry

Four teams of 16 research assistants (four in each team) and four supervisors were assembled to assist with data collection. The questionnaire for the Market Assessment Study of the 2016-17 consumption year was adapted for use in this survey. Training for this activity was done from 22nd June to 24th June 2017 at Crossroads Hotel in Lilongwe City. Training involved going through the questionnaire, question by question and in vernacular language. Where appropriate, changes were made to improve the efficiency of the tool. The research assistants were also trained on how to use the Android tablets to collect data. This was followed by pretesting at Nsundwe market which is 20 km on the Lilongwe Mchinji road.

The four teams were assigned to four zones namely the northern zone team which interviewed all districts in the north except Likoma but including Kasungu. The central region team visited all districts in the region except Kasungu and Ntcheu. The eastern team was responsible for districts of Ntcheu, Balaka, Mangochi, Machinga, Zomba, Chiradzulu and Phalombe. The southern team visited the districts of Blantyre, Neno, Mwanza, Chikwawa, Nsanje, Thyolo and Mulanje.

By using the tablets, data was uploaded in the WFP server and made available to the consultants in Microsoft Excel Program. The coordinates collected during interviews were entered into the GIS to produce maps showing all markets visited and the attendant road networks.

2.6 Data Analysis and Report Writing

Initial analysis was conducted using Microsoft Excel program and the Statistical Package for Social Scientists (SPSS Version 20). Further analysis was done by plotting the coordinates of markets visited into the Malawi map in order to show the coverage of the study and access of the markets. The main analysis was done using frequencies and means. Initial results were presented and discussed at a workshop convened at Hippo View Lodge in Machinga district from 11th to 14th July 2017. Reports from the teams covered the number of markets visited, the trends and dynamics of commodity trade observed and forecast for the rest of the season. The workshop was attended by team leaders and supervisors from the respective zones,

the consultants and some MVAC members. Preliminary findings from the field were discussed and recommendations were made to be taken on board when writing the final report.

The consultants submitted their input to the IPC analysis workshop which took place in Blantyre from 31st July to 4th August 2017. The report indicated the stock of commodities that traders had i.e. bought and sold within the previous month, the prices of the various commodities and the ability of the traders to respond to emergencies. The report writing was ongoing during this period.

3.0 Regional and National Food Security Context

3.1 Regional Food Security Situation[4]

The Draft Southern African Development Community (SADC) Regional Vulnerability Assessment and Analysis (SADC RVAA) Synthesis Report for 2017) showed that central and southern parts of the region received well above normal rainfall during the 2016/17 rainfall season (SADC, 2017). Thus, excellent crop production was reported in most countries in the region. A new pest, fall army worm[5] invaded 11 countries in the region but this was suppressed by the excessive rainfall between the months of January and March 2017. Uncontrolled, this pest can cause up to 100% crop loss. Flooding occurred due to cyclones namely Dineo for Botswana, Mozambique and Zimbabwe, and Cyclone Enawo for Madagascar, Angola, Malawi, Namibia and South Africa. Some parts of the region received rainfall below average. The areas that were affected are central and western Angola, north-eastern Tanzania, much of Madagascar and western South Africa.

Data from ten member states excluding DR Congo, Madagascar, Mauritius, Namibia and Seychelles showed that the region had 43.22 million MT of cereal production for the 2017/18 consumption year compared to 28.03 million MT the previous season. This represents a 54% increase over the previous year. The following countries almost doubled their production compared to the previous year: Angola, South Africa, Zambia and Zimbabwe. Cereal production for Lesotho and Swaziland did not change much. The supply-demand analysis from ten countries (Angola, Botswana, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe) shows that the region has an overall surplus of 8.5 million MT for the 2017/18 consumption year. This is in comparison to the deficit of 9.3 million MT the previous year. The only countries that reported a cereal deficit are Lesotho, Swaziland and Botswana.

Because of the favorable situation, international cereal imports have seized. Maize prices have been decreasing in most countries. With the exception of Zambia and Tanzania, the other countries had below average prices with Malawi, Mozambique and

[4] Much of the facts reported here were extracted from the SADC report cited in the section.

[5] *Spodoptera frugiperda,* is a migratory pest, a native of Americas and it prefers grass species such as maize, wheat, rice and sugarcane.

South Africa being the cheapest in USD terms. For the 2017/18 consumption year, surpluses from within the region are expected to flow towards food deficit countries within the region. South Africa and Zambia are expected to export internationally to such countries as those in the east African region.

3.2 National Economic and Food Security Context

3.2.1 National Economic Environment

In 2016, economic activity was low at 2.7% from 3.3% in 2015. This followed the floods caused by La Niña weather pattern in 2015 and prolonged dry spells due to El Niño in 2016 (Malawi Government, 2017). The agricultural cumulative output reduced by 35% in 2016. The other major sectors; manufacturing, energy and water also declined during this period. According to the Budget Statement of 2017, the Malawi Government noted that signs of recovery started showing in the second half of 2016 when the inflation started declining during the 2016-17 season (Malawi Government, 2017). The Graph below shows trends in Malawi's inflation and Malawi's food inflation.

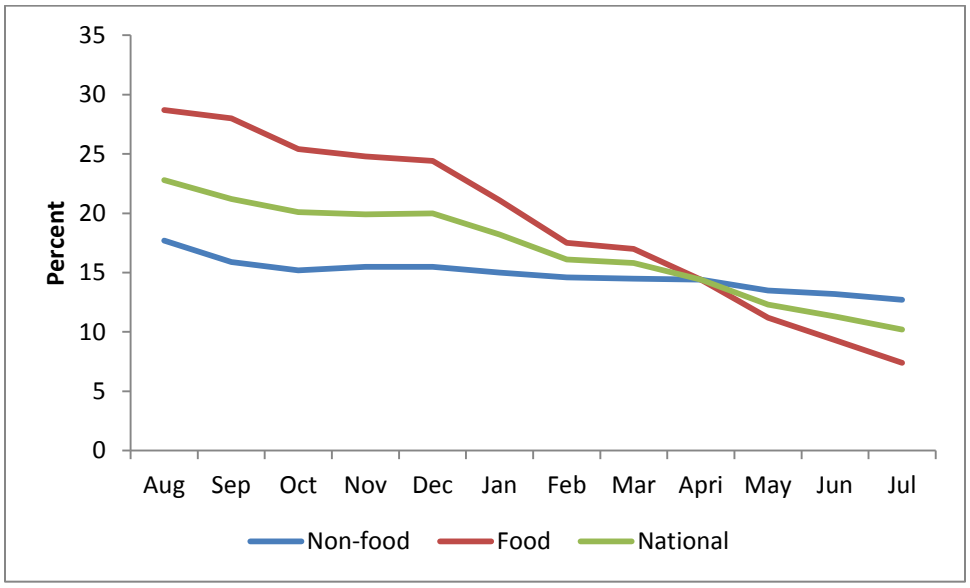

Figure 1: Malawi's Food, Non-food and National Inflations August 2016 to July 2017

Inflation rates and specifically food inflation has been declining from August 2016 to July 2017. The decline of inflation rates is mainly affected by the decline in maize prices over the period and also the fact that the 2016/2017 maize was being harvested during the months of April to July 2017. During the second half of the 2016/17 consumption season, inflation reduced because of Government's importation of maize. Most traders were in a panic mode to offload their maize stocks such that the private traders ended selling their maize at a lower price than ADMARC's price. The exchange rate remained fairly stable in the second half of 2016 up to May 2017 depreciating by only 2.0 percentage points against the US dollar between June 2016 and mid May 2017 (Malawi Government, 2017).

Recently, the World Bank resumed its budgetary support to Malawi Government following confirmation by the IMF that the country is on track in its pursuance of fiscal management reforms. The European Union's budgetary support resumption is expected. The Reserve Bank of Malawi reduced its policy rate to 22 percent in March 2017 from 27 percent at its peak. In July, the Reserve Bank further reduced the base rate to 18 percent resulting in some commercial banks reducing their interest rates. However, other banks have taken a-wait-and-see approach.

3.2.2 National Food Security Situation

The SADC report for the 2016/17 rain season, notes that Malawi received normal to above normal rainfall for the country as a whole although there was a delay of onset of rainfall in the north. The late onset in the north had no impact on overall agricultural production. There were minor floods in some parts of the country such as Karonga and this increased the water levels to support rice production.

Dry spells were experienced in the south especially in Nsanje, Machinga and Zomba districts. In the centre there was a dry spell in Dedza which lasted 2 weeks but was not destructive.

There was above average production of most crops except tobacco. Maize production increased by 6% compared to 5-year average. As a result of poor prices of tobacco last year, farmers shifted to producing soybeans such that hectarage planted to

soybeans increased by 23% with that of tobacco falling by 42%[6]. Fall army worm attacked maize in all regions with varying intensities and the north was mostly affected due to late onset of rains. The affected districts in terms of low tobacco production included Lilongwe, Kasungu, Ntchisi, Dowa, and Mchinji in centre and Rumphi and Mzimba in the north.

The 2017/18 consumption year is more promising than the previous two years as shown in the table below.

Table 1: A Comparison of 2016/17 Crop Production with the Previous Three Seasons

	Rainfall Season				
Commodity	2013/14 Final Estimates	2014/15 Final Estimates	2015/16 Final Estimates	2016/17 Final Estimates	% Change of the previous year
Maize	3,978,123	2,776,277	2,369,493	3,464,139	1.46
Rice	132,002	108,690	83,711	121,079	1.45
Cassava	5,102,692	5,012,763	4,996,843	4,960,558	0.99
Sweet Potato	4,209,699	4,324,873	4,463,710	5,472,013	1.23
Irish Potato	1,023,981	1,065,833	1,043,338	1,226,603	1.18
Sorghum	93,187	79,327	58,192	90,370	1.55
G/nuts	397,503	296,497	274,8760	386,319	1.41
Pulses	716,163	711,354	723,133	958,898	32.6
Beans	n/a	188,745	157,769	198,486	25.8
Pigeon peas	n/a	335,165	371,114	470,653	26.8
Soya beans	n/a	120,952	136,910	208,556	52.3

Sources: Crop estimates from Agricultural Marketing Information System, Ministry of Agriculture, Irrigation and Water Development

[6] Calculations from APES data

The production of the major food commodities of maize and rice increased by almost 50% that of the previous year. Production of maize generally increased in all areas. While hectarage of maize increased by only 2% nationwide, production increased by 46 percent implying that much of the increase in production was as a result of increased productivity i.e. output per unit area. Apart from maize, the production of alternative or supplementary food commodities has tremendously increased this year. While production of cassava almost remained the same, the other important food crops had increased production as follows: sweet potatoes (23%), Irish potatoes (18%), sorghum (55%) and groundnuts (41%).

Given that the national requirement of maize is estimated at 3.37 million MT, and the production this year is 3.5 million MT, the country has a crude surplus of about 130,000 MT. According to MVAC IPC analysis, the estimated population that is in IPC Phase 3 and requiring humanitarian response is estimated at 836,766 people. This is in sharp contrast to last year when 6.5 million people were food insecure due to effects of the El Nino. Given that there is food surplus, any assistance to be given to food deficit households will not require food imports.

3.2.3 Available Food Stocks and Planned Stocks Purchases

The current available maize stocks in the country are affected by the production of last year. In response to the government's declaration of a State of National Disaster in 2016, the country imported maize from Zambia through ADMARC. Government planned to buy maize for the National Food Reserve Agency (NFRA). Table below shows the state of maize stocks of the strategic grain reserve (SGR) as at 1st July 2017.

Table 2: SGR Maize Receipts and Drawdown from July 2016 to July 2017

Depot	Total SGR (MT)			SGR Drawdowns (MT)							
	Carryover stock 1/7/16	2016/17 SGR Receipts	Total SGR	DODMA	WFP/DODMA	ADMARC	Total Drawdowns (MT)	SGR Losses Dust/Chaff (MT)	Actual SGR Balance (MT)	Committed Balance (MT)	Available Balance (MT)
1. Lilongwe	11,963.113	92,335.797	104,298.910	2,540.23	72,813.236	-	75,353.469	205.33	28,740.111	206.291	28,533.8
2. Kazomba	1.49	2,272.34	2,273.834	-	2,264.503	-	2,264.503	7.18	2.147	-	2.147
3. Mangochi	11.25	-	11.248	-	-	-	-	11.25	-	0	-
4. Mzuzu	7.54	-	7.542	-	-	-	-	7.54	-	0	-
5. Limbe	8,575.00	-	8,575.000	1,821.62	6,442.650	-	8,264.274	0.36	310.366	-	310.366
6. Luchenza	-	-	-	-	-	-	-	-	-	-	-
7. Bangula	-	560.17	560.174	285.70	273.395	-	559.093	0.22	0.866	-	0.866
Total	**20,558.397**	**95,168.311**	**115,726.708**	**4,647.555**	**81,793.784**	**-**	**86,441.339**	**231.879**	**29,053.490**	**206.291**	**28,847.**

Source: National Food Reserve Agency. 2017

The SGR has seven storage facilities in Lilongwe (Kanengo silos), Mzimba (Kazomba silos), Mangochi, Mzuzu, Limbe, Luchenza and Bangula. As at July 1st 2017, the SGR had maize stocks amounting to about 29,000 MT being kept at Kanengo, Kazomba, Limbe and Bangula facilities. During the previous year, the Agency completed maize purchases with US$15 million from Malawi Flood Emergency Relief Program (MFERP) funds with a total tonnage 52,599.55 MT. The Agency also completed maize purchases worth K16 billion from Malawi Government. Total tonnage procured was 63,815.96 MT. Additionally, funds amounting to US$947,270 from the African Development Bank (AfDB) were used to procure maize for the Department of Disaster Management Affairs (DoDMA). This amounted to about 2,647.63 MT. All the tonnage has been drawn by DoDMA i.e. ADMARC did not draw down any maize from the SGR.

The Agency completed maize purchases with US$7.5 million Malawi Drought Recovery and Resilience Project (MDRRP) funds. Total tonnage procured 22,343.7 MT. On 19 September 2016, the World Food Program (WFP) started drawing maize from their first authorization of 60,000 MT in the 2016/17 fiscal year. On 21 November 2016, the Agency started receiving government's relief maize under the Multi Donor Trust Fund (MDTF). As at 1st July 2017, receipts had been completed and total tonnage received was 3,817.214 MT. Government authorized a second drawdown of 24,000 MT through a letter dated 12 December, 2016. Out of this tonnage, 21,000 MT was drawn by WFP and the remaining 3,000 MT by DoDMA.

During the 2016/17 season, ADMARC imported maize from Zambia amounting to 4,500 MT. At the beginning of the consumption season, it had about 100,000 MT. Government has given ADMARC K5 billion to buy maize in order to restock the SGR. An announcement has been made that the current maize ban will remain in place until the SGR facilities are full. Information on the stocks held by the private sector in general and the Grain Traders Association (GTA) in particular remains elusive. According the FEWSNet Report, ADMARC has a carryover stock of 100,000 MT and the SGR stocks of about 30,000 MT (FEWSNet, 2017).

3.3 Summary of Food Stocks

The regional food situation has improved over the previous year such that save for few countries, most countries in the region will be food self-sufficient. The region expects to export maize especially to the east African region. For Malawi, production of major food crop increased over the previous year. From maize imports of last year, there is potential to export. The government is planning to restock it SGR before lifting a ban on maize exports. The food inflation has been falling since last year August. Malawi's development partners have started to support the national budget and this is expected to stabilize the economy.

4.0 Trader Characteristics and Agri-Business Conditions

4.1 Spread of Markets Visited for the Assessment

The assessment while not attempting to cover all the markets and traders, an attempt was made to cover the major markets in each TA. Information from the District Agricultural Development Offices (DADO) guided this process. Figure below shows the market points that were visited.

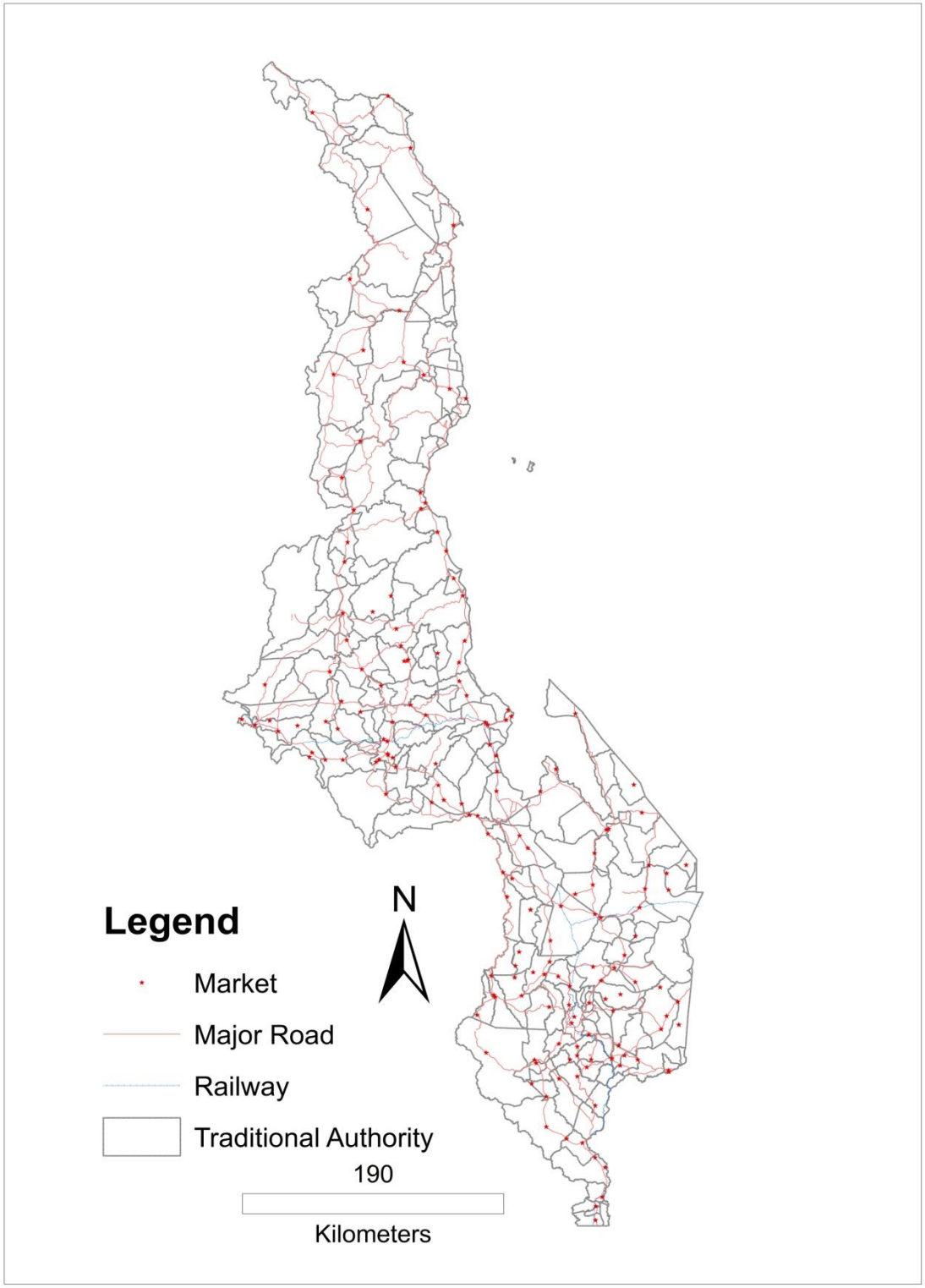

Figure 2: Markets Visited during the Assessment

The map above shows that most markets visited were in the central, east and southern regions with very few in the north. It was suspected that there were few markets in the north trading in maize on the account that they had just started harvesting therefore trading was yet to pick. Additionally, the lower population in the region would suggest that maize is not traded as much as in the other regions where food deficit households tend to traditionally rely on the market.

4.2 Respondent Traders Characteristics

This section presents selected characteristics of traders that were interviewed during the nationwide market survey. In all, 898 traders were interviewed. Among the respondent traders interviewed, about one half of them were from the central region (46%) with the south accounting for 23 percent, the east 14 percent and the north 16 percent of the total sample.

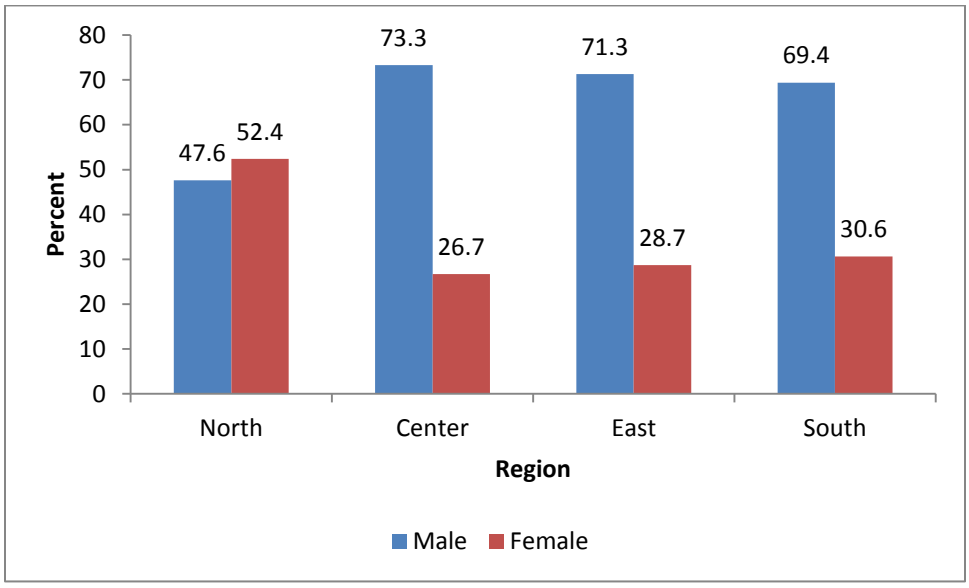

Figure 3: Gender of Commodity Traders by Region

It is difficult to explain why there was a high percentage of women engaged in trading commodities as compared to the other regions. This could be the case because commodity trading was not yet vibrant in the region compared to the other regions as harvesting had just started.

The average age of the traders was 35 years. The average ages of traders were not different across the regions. In the north, the average age was 35.2 years, the center 34.1, the east 33.5 and the south 37.7. These results are similar to the ones reported in last year's market assessment (Msiska, 2016).

The number of years traders had been in the business were 7.8 years for the north, 6.9 for the centre, 8.0 for the east and 9.8 years for the south. As observed by Msiska (2016) the number of years a trader has been in the business has implications on how well they manage the business and how knowledgeable they are about the value chain. This also gives confidence on the answers they give to the assessment.

4.3 Business Environment and Commodities Traded

The assessment wanted to establish the distance that traders cover from source to current market. Table below shows the results by region.

Table 3: Distance to Business Places

Region	Number of Traders	Minimum Distance (Km)	Maximum Distance (Km)	Average Distance (Km)
North	147	0	1,000	76.3
Center	413	0	800	105.1
East	128	0	175	11.3
South	206	0	500	46.9

The distances covered ranged from traders getting the commodities at the same market they are selling to travelling long distances. For example, in the north, one trader from Karonga reported to travel to as far as Mulanje. The shortest average distance was in the eastern region. This denotes that much of the trade in the region is within localities and very little going outside the districts. The center had the longest average distance of 105.1 km. In most districts, the destination market was Lilongwe and specifically supplying large traders mainly Central Poultry Limited and Rab Group of Companies.

In terms of market operations, a majority of the respondents were retailers as figure below shows.

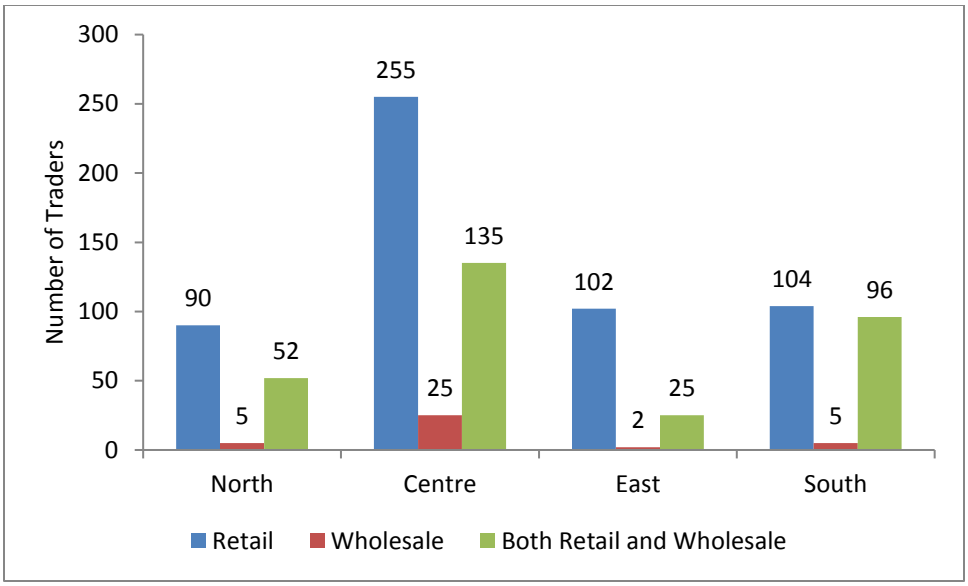

Figure 4: Number of Type of Business Traders Operate

The eastern region had only two wholesalers among the respondents. In proportion terms, the south had an almost equal representation of respondents having retail business and those have both a retail and wholesale business. For maize buyers, it was common in most areas for sellers to prefer use of quantity measure e.g. use of a cup or tin compared to use of scales which they suspected of being tampered with.

It was common for traders to have multiple outlets as figure below shows.

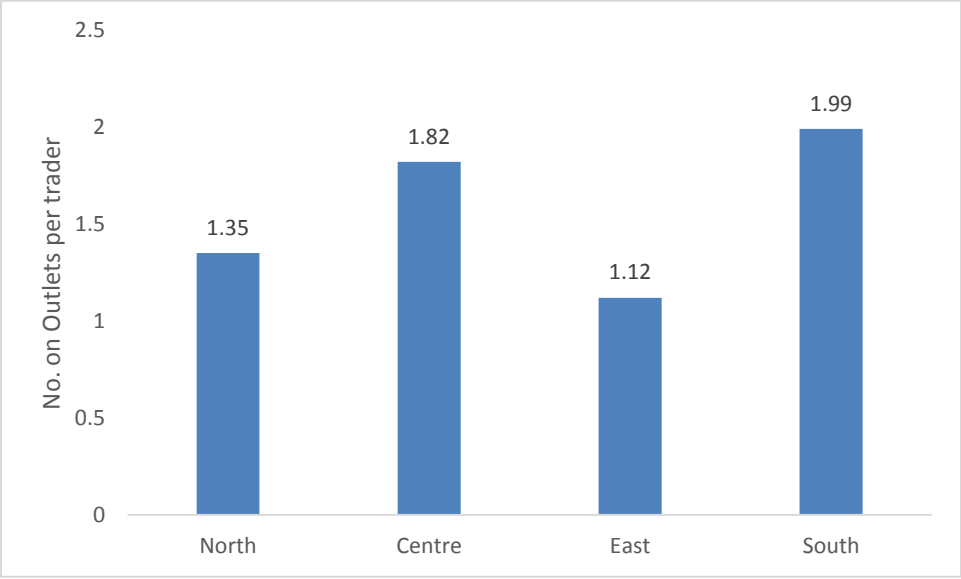

Figure 5: Number of Outlets per Trader per Region

The south and the centre had more traders with multiple outlets. At the selling points, the traders were dealing in more than one commodity. Other than displaying the products, competition among trader was covert especially price competition. Figure below shows the average number of commodities traders had by region.

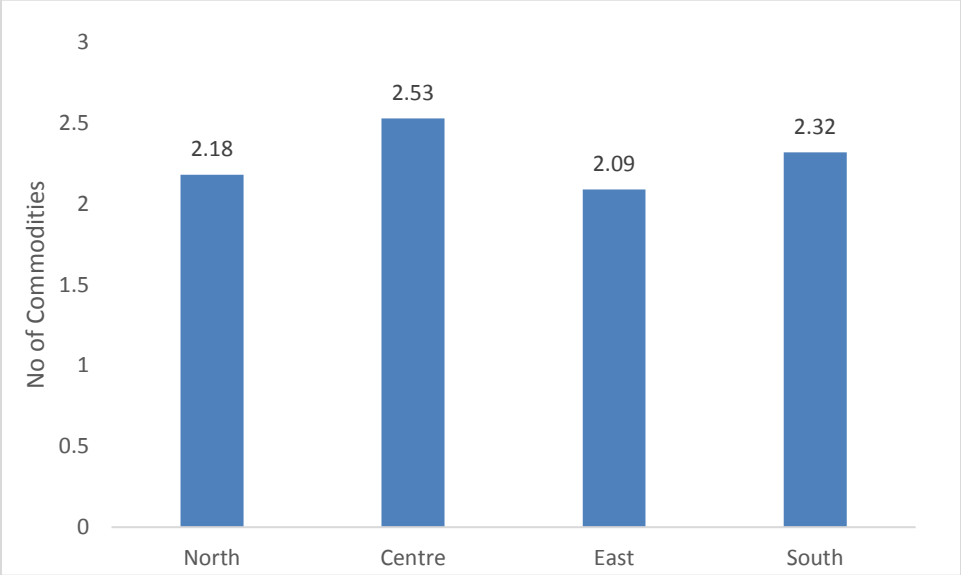

Figure 6: Number of Commodities being sold per Trader by Region

This could imply that in the south, there is capacity to supply retailers in case of a crisis compared to the other regions because of the high proportion of wholesalers to retailers. As expected, a majority of the respondents were trading maize. This result is not surprising since the respondents were purposively sampled i.e. targeted traders dealing in maize, pigeon peas, beans and cooking oil. See figure below.

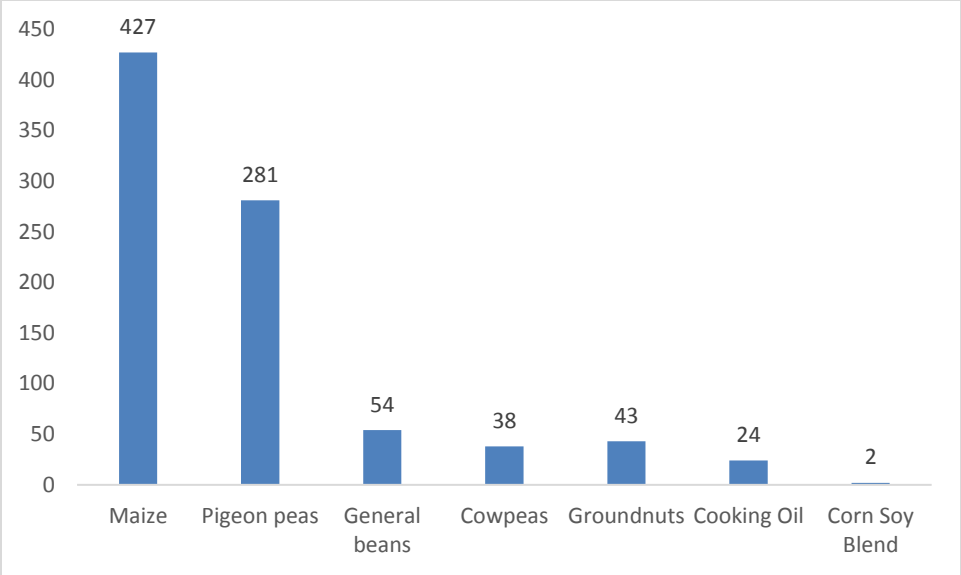

Figure 7: Main Commodities Being Sold by Traders

While pigeon peas was the second highest mentioned, it should be pointed out that this crop was predominantly mentioned in the eastern and southern regions.

4.4 Business Characteristics

The assessment sought to profile the businesses dealing in the commodities. Respondents were asked whether they had business licenses to conduct trade. Across the regions, very few traders indicated to have a business license. The centre which had the highest proportion of respondents only had 29.1 percent compared to south (20%), north (9%), and eastern (8%). Across the regions, a majority of the respondents mentioned that they do not have a license because they already pay market fees therefore see no need of getting a license. This was mentioned by 87 percent in the north, 64 percent in the centre, 53 percent in the east and 30 percent in the south. Other reasons given for not having a business license ranged from respondents claiming that it was not a requirement for them to have a license to trade, did not know where to get the license from, and the distance to where licenses are issues is too.

Table below shows the source of capital for the businesses.

Table 4: Sources of Capital to start Commodity Business

Source of Capital for Business	Region							
	North		*Centre*		*East*		*South*	
Profit from other business	58	39.5	156	37.5	32	24.8	77	37.4
Farming (crop sales)	43	29.3	141	33.9	44	34.1	55	26.7
Savings from salary/wages	23	15.6	60	14.4	26	20.2	46	22.3
Loan	10	6.8	22	5.3	12	9.3	15	7.3
Remittances	12	8.2	29	7.0	9	7.0	9	4.4
Other	1	.7	6	1.4	5	3.9	3	1.5
Total	**147**	**100.0**	**2**	**.5**	**3**	**2.3**	**1**	**.5**

The three major sources of capital to start a business were profit from other businesses, agriculture, and savings from salary/wages. The regional patterns were similar.

When setting up a business, the major important factor respondents considered was demand and supply of the commodity. This factor overwhelmed the other factors that were mentioned with 91 percent respondents in the north, 90 percent in the centre, 72 percent in the east and 93 percent in the south. Other factors in order of decreasing importance are road infrastructure, amount of capital, security and low competition. On capital, respondents said for commodity trading, one can easily start small and keep growing the business within a very short period of time. Worth mentioning is that in the eastern region 20.9 percent of the respondents indicated capital as a major important factor. This means that people would be willing to engage in commodity but are constrained by capital.

4. 5 Summary of Findings for Trader Characteristics and Agri-business conditions

The number of traders interviewed was the largest in the centre followed by the south and east. There was a good representation of women in trading in the north account to almost 50 percent compared to the other regions. The average trader

was in their thirties. Source of capital for most traders was from profits from other businesses followed by agriculture and third from savings from salaries and wages. This was similar across the regions. This suggests that commodity trading has become attractive over the years warranting people investing their other incomes into commodity trading.

The average distance that traders traveled in trading was the longest in the south and shortest in the eastern region. This implies that traders from the south were going to other regions, predominantly the centre to get maize. Ntcheu was the most common source market mentioned by traders in the south. In other years, maize has been reported to be coming from the other distant central region districts of Dowa and Dedza (Kambewa, 2013). In the eastern region the shorter distances mean that there is a lot of intra-regional trade other than across regions. Most traders interviewed were retailers followed by traders who were doing retail and wholesale simultaneously[7]. Most sellers preferred to sell using a tin other than using scales for fear of being cheated. It was common for traders to have sell more than one commodity and this was the case in all areas.

At the time of the assessment, the traders were buying from producers to supply aggregators and agro-processors. As the consumption season progresses, it should be expected that the traders will be selling to consumers within the markets i.e. reverse.

[7] In some cases even the trading unit measure for buying and selling was the same but differed in the quantity filled.

5.0 Private Trader Food Trade Activities and Response Capacity

5.1 Trends in Volumes of Maize Traded

According to the SADC Regional Vulnerability Assessment and Analysis Synthesis Report 2017, Malawi and her neighbors reported surpluses of 231,000 MT Malawi, Zambia, 1.8 million MT and Mozambique 653,000 MT and Tanzania 933,000 MT (SADC, 2017). At the time of the market survey, Zambia and Mozambique government agencies were not yet buying maize in their respective countries. This made the Malawian prices to be better (e.g. K40 per kg on the other side of the border against K60 on the Malawi side)[8]. In Karonga, maize was reported to be sold at an equivalent of K400 per kg on the Tanzania side versus K90 to K120 on the Malawi side. Zambia is expected to export about 100,000 MT to the East African countries the bulk of which was meant for Kenya[9]. The reported cross border trade during the survey was mainly small scale with potential large-scale trading using informal cross border crossings in order to avoid the borders where the maize ban in effect.

The respondents were asked to indicate the volume of maize they had bought and sold during the previous month and what they expected to sell for the remaining period of the consumption year. Table below shows the stocks that were calculated for each district.

[8] Bicycle transportation (K60 to K100)

[9] https://www.the-star.co.ke/news/2017/07/24/zambia-to-export-100000-tons-of-maize-to-ea-bulk-meant-for-kenya_c1603173

Table 5: Number of Traders and Maize Volumes Traded during the Previous Month and Stocks expected to be sold in the Remaining Consumption Year

District	No. of Traders Interviewed	Volume Bought per Month (Kg)	Volume Sold per Month (Kg)	Planned Stocks to be sold in the Remaining months (Kg)
Northern Region				
Mzimba	1,331	1,580,740	527,050	940,630
Nkhata Bay	3,308	115,810	101,494	153,500
Rumphi	57	12,900	10,436	37,000
Karonga	892	206,035	171,855	259,300
Chitipa	94	106,750	65,700	362,000
North Total	**5,682**	**2,022,235**	**876,535**	**1,752,430**
Central Region				
Ntcheu	240	241,794	525,994	1,969,200
Dedza	358	682,283	1,894,733	1,638,000
Lilongwe	700	412,334	778,334	3,599,180
Dowa	210	222,606	1,186,974	1,805,700
Nkhotakota	172	33,046	64,546	414,050
Salima	166	252,740	515,990	1,351,850
Mchinji	190	334,065	631,856	4,984,300
Ntchisi	41	16,471	28,971	177,500
Kasungu	193	1,910,200	1,496,000	14,708,100
Center Total	**2,270**	**4,105,539**	**7,123,398**	**30,647,880**
Southern Region				
Nsanje	112	2,368	2,367	176,424
Balaka	153	32,200	26,700	467,000
Mwanza	93	1,810	3,518	10,270
Neno	57	1,252	2,295	99,819
Thyolo	78	2,271	4,211	7,740
Chikwawa	124	4,454	8,554	36,900
Blantyre	229	9,519	16,073	1,290,447
Phalombe	130	33,569	61,819	720,000
Mulanje	85	7,080	6,920	62,100
Chiradzulu	99	4,200	4,100	37,800

Zomba	309	138,574	278,974	632,000
Machinga	178	90,243	160,843	436,650
Mangochi	77	64,104	112,604	288,000
South Total	**1,724**	**391,644**	**688,978**	**4,265,150**
National Total	**9,676**	**6,519,418**	**8,688,911**	**36,665,460**

The results show that the amount of maize sold is less than the amount bought in the south and the north. This is in contrast to the situation in the central region. While in the north, trading was yet to pick up, the situation in the south can be explained in terms of the traders stocking in anticipation of selling later. The traders in the center were selling on the assumption that they wanted to take advantage of a stable market and capitalize of high turnover. The respondents were asked to indicate their expectations about maize sales on the market during two periods namely the October to December and January to March. Figure below shows the results to this question.

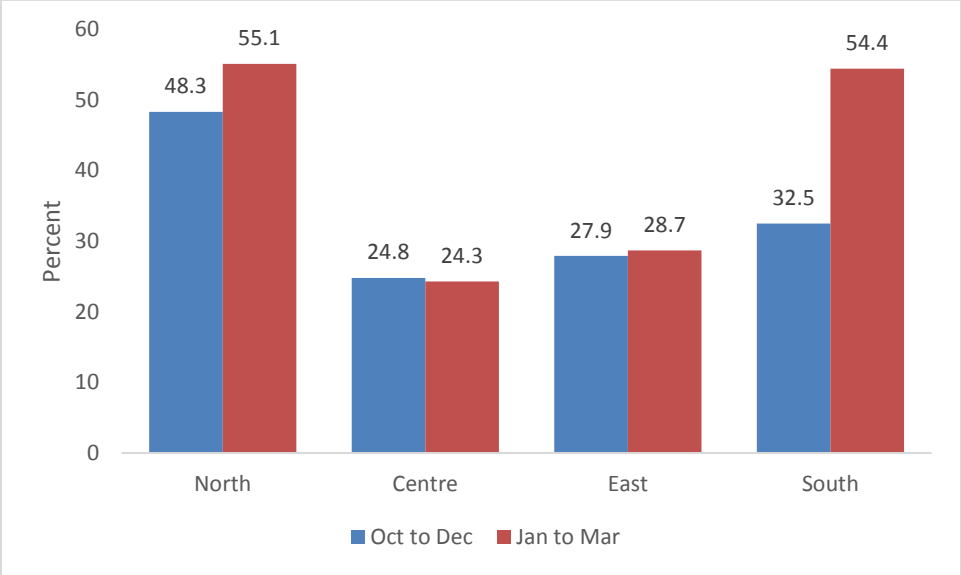

Figure 8: Percent of Respondents Expecting Increase in Maize Sales by Period

Overall smaller proportions of respondents in the centre and eastern regions expected the prices to rise compared to the respondents in the north and south. The results from the east and center can be so because they expected to sell less later in the year given the good harvest of the season. On the other hand, the results from the south could be based on history, that every year, some trading of maize takes place, especially targeting the Shire Valley. The north's results could be based

on expectations of cross border trade and supply to Karonga district which is also traditionally maize stressed. For the two periods, both in the east and the centre had same proportion of respondents indicating increase in prices. For the south and the north, the proportion of respondents increased implying that it was likely that the prices would increase during the January to March period.

5.2 Integration of Main Markets

Data from the FEWSNet was used to assess the extent to which main maize markets are integrated. Correlation coefficients were calculated for 15 markets (4 in the north, 5 in the centre and 6 in the south) for a two-week data frequency for a period between December 2016 to June 2017. The results show that the markets are highly correlated as table below shows.

Table 6: Correlation of Main Maize Markets in Malawi

	KA	RU	MZu	MZ	Nkha	Mpo	CMBY	MC	MIt	MN	LNZu	LWND	MJ	CK	NE
KA	1														
RU	0.93	1													
MZu	0.94	0.94	1												
MZ	0.93	0.94	0.97	1											
Nkha	0.93	0.95	0.97	0.99	1										
MPo	0.94	0.93	0.97	0.97	0.97	1									
CMBy	0.95	0.94	0.97	0.96	0.96	0.98	1								
MC	0.84	0.87	0.94	0.94	0.94	0.93	0.91	1							
MIt	0.89	0.90	0.96	0.97	0.96	0.95	0.93	0.96	1						
MN	0.80	0.85	0.92	0.93	0.93	0.91	0.87	0.97	0.95	1					
LNZu	0.94	0.97	0.97	0.98	0.98	0.98	0.97	0.92	0.95	0.91	1				
LWND	0.79	0.83	0.92	0.93	0.93	0.89	0.87	0.96	0.94	0.95	0.90	1			
MJ	0.84	0.87	0.94	0.96	0.96	0.92	0.89	0.96	0.95	0.96	0.93	0.97	1		
CK	0.87	0.88	0.92	0.95	0.96	0.92	0.90	0.93	0.94	0.92	0.94	0.93	0.96	1	
NE	0.76	0.80	0.85	0.90	0.90	0.82	0.80	0.87	0.91	0.90	0.86	0.91	0.94	0.92	1

Key:

KA=Karonga; **RU**=Rumphi; **MZu**=Mzuzu; **MZ**=Mzimba; **Nkha**= Nkhamenya; **MPo**=Mponela; **CMBy**=Chimbiya; **MC**=Mchinji; **MIt**=Mitundu; **MN**=Mwanza; **LNZu**=Lunzu; **LWND**=Liwonde; **MJ**=Mulanje; **CK**=Chikwawa; **NE**=Nsanje

The lowest correlation is 0.76 involving Karonga and Nsanje and the highest is 0.99 for Nkhamenya and Mzuzu. Most of the markets are otherwise highly correlated with coefficients of over 0.90. This implies that any change in prices in one market will result in traders responding i.e. move produce from markets with low prices to markets with high prices.

5.3 Maize Price Volatility Analysis

The assessment looked at the volatility of maize prices using the national average prices. This analysis is justifiable given that the previous section has shown that the main maize markets are integrated. The results of the volatility analysis are shown in the graph below.

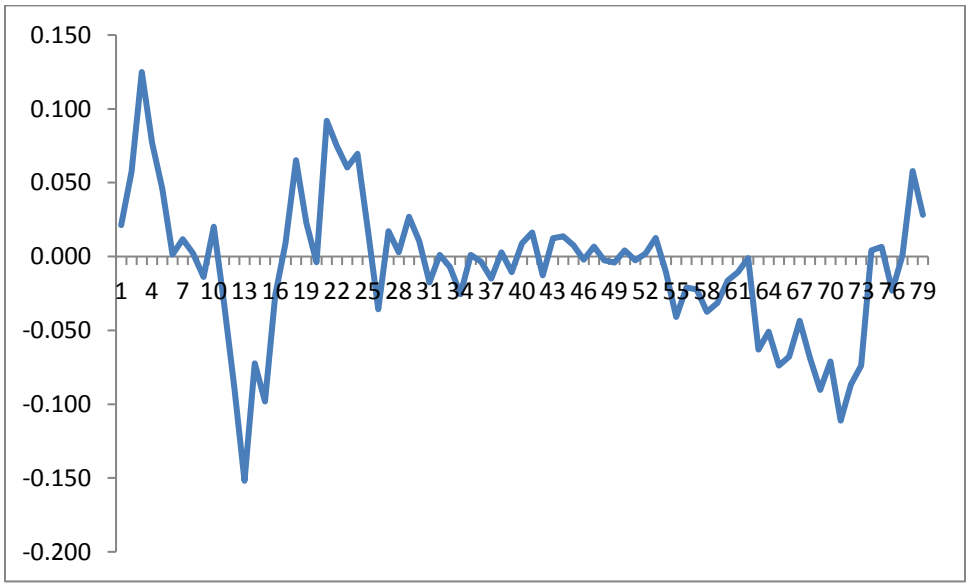

Figure 9: Maize Price Volatility Analysis (December 2015 to July 2017)

The data set used is for a period of 79 weeks (December 2015 to July 2017) from 78 markets. The graph above shows that from December 2016, the observed average prices have been volatile but below the mean. It is suspected that when Government announced that it was going to import maize, the private traders responded by releasing maize on the market therefore depressing the price. In recent weeks, there has been a tendency for the price to increase. This is suspected to be the case because of the announcement ADMARC made that it would start buying maize

at K170/Kg. This has tended to increase price of maize on the market in recent weeks.

5.3 Expected Trends in Prices of Maize

At the time of the survey, ADMARC had not yet started buying maize although it had announced it would buy maize at K170 per kg. Some smallholder farmers were selling maize to meet other pressing needs e.g. fertilizer, daily needs, weddings, tombstone ceremonies, school fees. With the dismal performance of the tobacco sector, maize is increasingly becoming a quasi-cash crop. For some farmers, there are no other alternatives of making an income other than selling maize (distress selling). Such selling is likely to affect future food security, especially that they are selling their produce at a lower price yet the buying price of maize may likely be dictated by the K170 per kg price that ADMARC has announced. While therefore the producers have sold their maize at a lower price, in course of the consumption year, the price of maize will remain sticky upwards thereby rendering some of them food insecure. This needs close monitoring by MVAC.

This section presents expected prices that traders gave, the trends given by FEWSNet and trends based on calculation of the Consultant using secondary data. These are discussed in turns.

5.3.1 Expected Price Trends from the Respondents

The low trading of maize in the north was attributed to late harvest in the region unlike the south and centre. The producers in the north will therefore benefit more from the announced ADMARC price than the producers in the other regions who may have sold the bulk of their maize at lower farmgate prices. Figure below shows the average farmgate prices that respondents indicated to have sold their maize and the average expected prices for the October to December and January to March. Detailed district figures are in Appendix II.

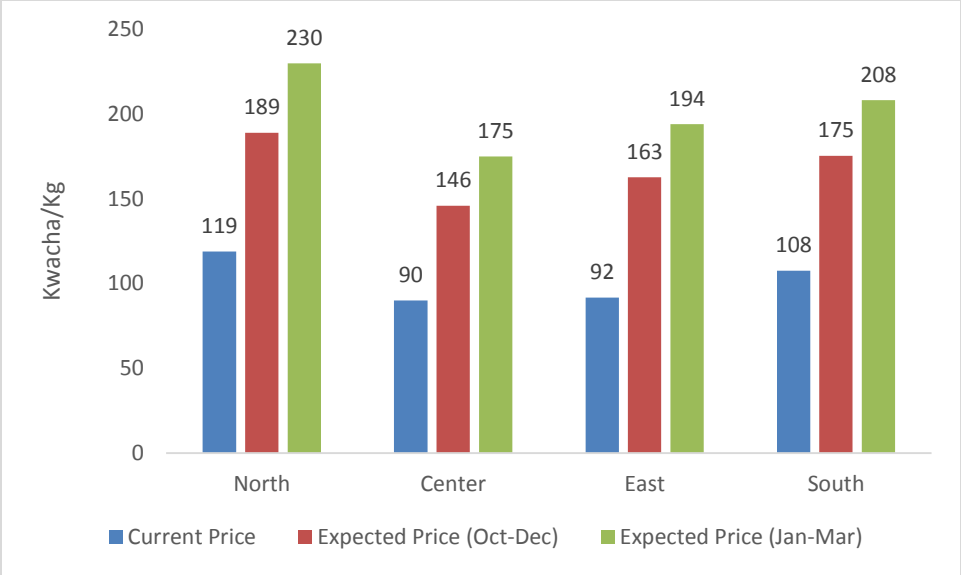

Figure 10: Current and Expected Prices of Maize by Region

At the time of the survey, the prices were lowest in the central and the eastern regions, both around K90/Kg. The north and the south had higher average prices of K119/Kg and 108/Kg respectively. However, all regions expected the prices to increase in the forthcoming months as the consumption year progresses. According to traders perceptions, average prices were expected to increase by about 50-percent during the October-December period and almost double during the January-March period. It is not clear what the impact of ADMARC's behavior on the market will have on the prices. As already alluded to earlier on, during the 2016/17 consumption year, the private traders sold their maize at a price lower than ADMARC. However, if Government lifts a ban on maize exports, these expectations i.e. increase in prices could be realistic.

5.3.2 Expected Price Trends from Secondary Sources-FEWSNet

The FEWSNet expects the price of maize to be stable as figure below shows.

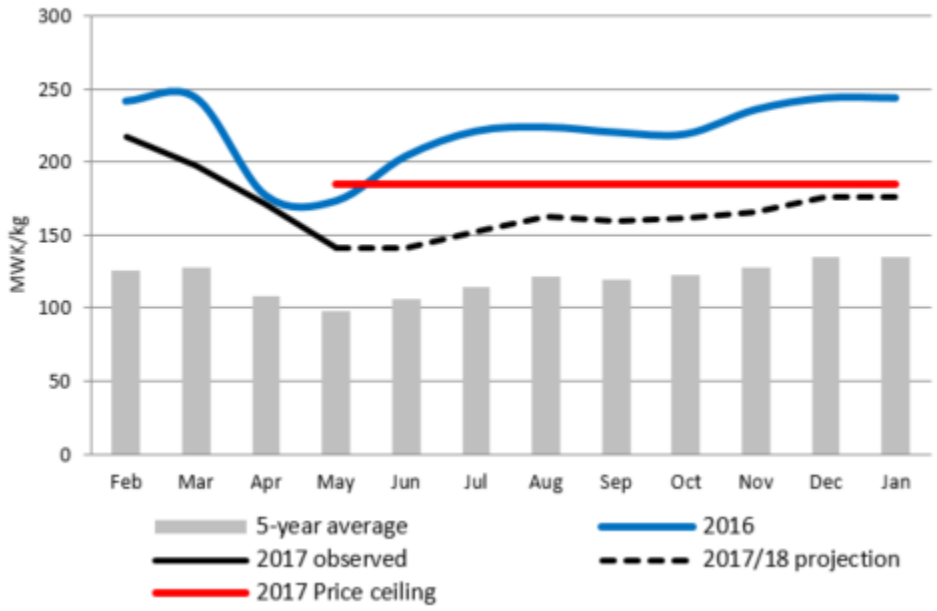

Figure 11: Price Trends and the 2017/18 Projections

Source: Malawi Food Security Outlook (FEWSNet 2017).

The FEWSNet reports that the downward trend in maize prices stopped in June an upward trend started. The normal trend i.e. increase in maize prices was going to be observed but will not go above K180/Kg during the lean period.

5.3.3 Expected Price Trends from Analysis of Secondary Data

Data from the Agricultural Market Information System was used to map the trends and further used to make projection for the 2017/18 consumption period. A calculated average national maize price data for the period December 2015 to July 2017 showed a declining polynomial trend as figure below shows. By polynomial trend, it implies that the prices have declined steeply in recent months.

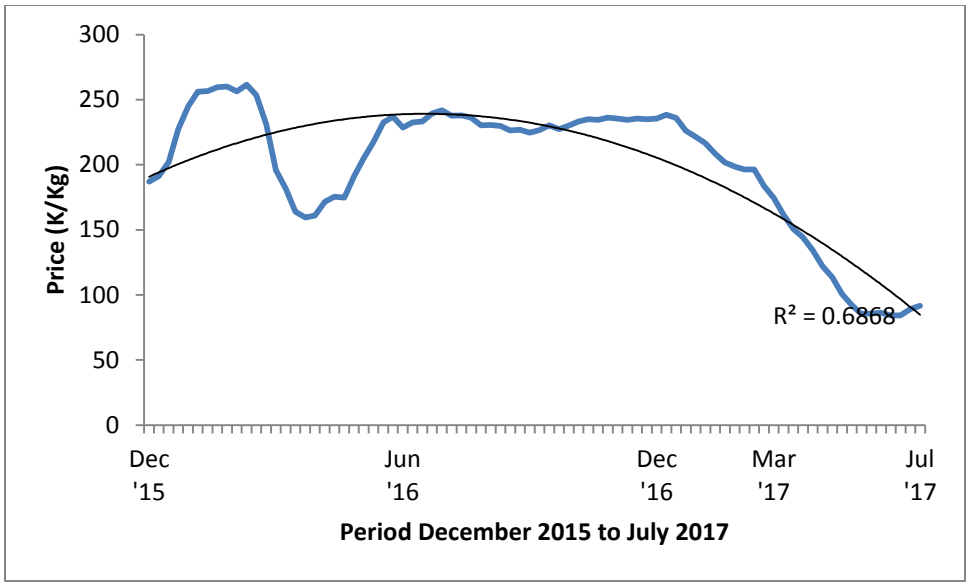

Figure 12: Average Maize Price from December 2015 to July 2017

The price of maize in June-July period was the lowest ever recorded since December 2015 period. The starting of an increasing trend in prices in July is probably because of expectations from ADMARC's starting to buy maize on the market.

From the data above, an index database was constructed for a consumption year using the average maize prices from December 2015 to July2017. A consumption year starts in April in one year and ends in March of the following year. Average prices for the October-December period will have increased by 32 percent that observed in July and 41 percent for the January-March period. On per month basis, the price could increase by 50 percent in the month of December. Based on the prices calculated in the survey, the table below shows expected prices based on this analysis. Additionally, price projections also show what would happen if ADMARC actively participates on the market. It is assumed that ADMARC may either buy maize or the export ban will be lifted and not that both activities will be implemented. This scenario made a provision of an additional 10 percent increase in the price over and above calculated.

Table 7: Projected Price for the October-December & January-March Period

Region	Observed Price	Projected Normal Price		Projected Price with ADMARC	
		Oct-Dec (+32%)	*Jan-Mar (+41%)*	*Oct-Dec (+42%)*	*Jan-Mar (+51%)*
North	119	157	168	169	180
Centre	90	119	127	128	136
East	92	121	130	131	139
South	108	143	152	153	163

From this analysis, a worst-case scenario is in the northern region where the projected price in the January-March period is K180. This projected price is slightly above the price ADMARC will be buying maize (K170/Kg). We assume the board will not be able to buy all maize and that the amount of stocks that private traders are keeping will still have a significant impact on the price as was the case last year. We also assumed that by the time Government lifts a maize export ban, much of the internal trading will have taken place and there probably not affect price that much.

5.3 Factors affecting Price Setting

The setting of prices takes into account several factors. Table below shows the major factors respondents indicated to take into account when setting the prices.

Table 8: Factors influencing the setting of Prices

Factors[a]	Region			
	North	*Centre*	*East*	*South*
Price in source markets	137 (93.2%)	357 (85.7%)	121 (92.8%)	198 (96.1%)
Transportation costs	50 (34%)	79 (19%)	26 (20.2%)	58 (28.2%)
Demand and supply factors	33 (22.4%)	118 (28.4%	12 (19.3%)	20 (9.7%)

[a]Multiple responses

In all markets, the major determinant to prices is the price in the source markets as it was mentioned by between 85.7 percent in the central region to over 96 percent in the south. However, it has to be noted that in the northern and southern regions,

transportation cost was a significant factor. In the central region demand and supply issues were strong being mentioned by 28.4 percent of the respondents. This could be due to the influence of Lilongwe city where demand is large and many markets target to supply it. Thus, forces of supply and demand tend to determine the price. The factor of price in source markets is also a supply-side issue.

5.4 Commodity Handling and Access to Source and Destination Markets

5.4.1 Mode of Transporting Commodities

The most common commodities that traders reported to transport were maize (43.9%), beans (26.5%) and vegetable oil (21.8%). This is a reflection of respondents that were purposively selected for the assessment. Vehicle was the major transport type across all commodities. For maize, beans, pigeon peas and cowpeas, the 50-kg bag was the main unit being used for transporting the commodities. The cost of transport was mostly determined by transporters leaving the traders to be price takers.

5.4.2 Source of Commodities

The figure below shows the source of the commodities in terms of proximity to the place the commodities were being traded.

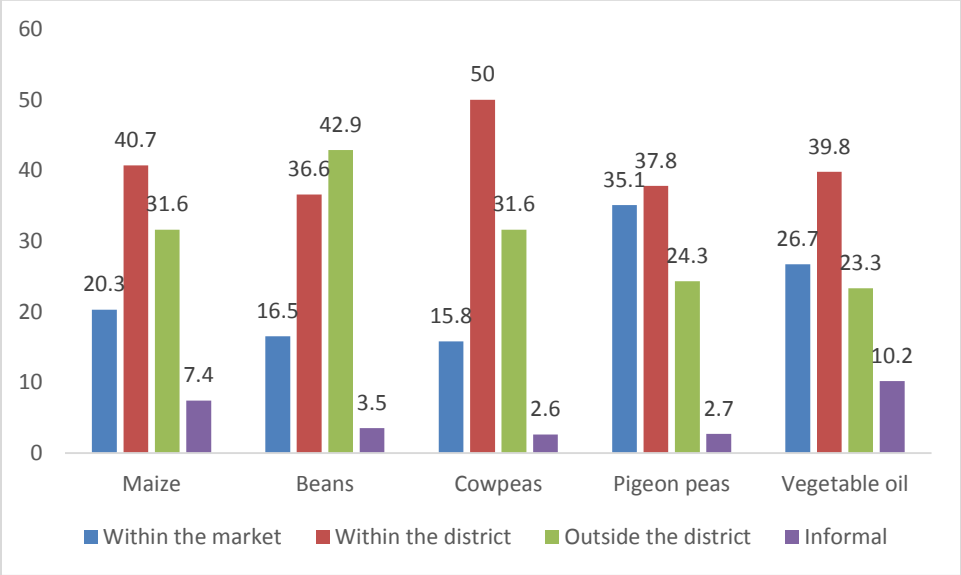

Figure 13: Source of Commodities

On average, the major sources for the commodities were "within the district" and "outside the district". The least source was informal cross border trade which showed the highest in vegetable oil. Among the commodities sourced from outside the district, beans was the highest. This is because the commodity tends to be suitable for some environments e.g. highland with cool climatic conditions. For example, the Kirk Range highlands of the Dedza-Ntcheu area is a major source for most of the beans traded in the south and Mzuzu for the north. Cowpea was the commodity being sourced most from within the district and mentioned by 50 percent of the respondents.

5.4.3 Physical Access to Source and Destination Markets

In terms of access to both source and destination markets, generally the respondents indicated that the markets were accessible with very few respondents indicating that during the rainy season the destination and source markets were inaccessible. See figure below.

Figure 14: Physical Access of Source and Destination Markets

In most markets, the trading involved locals and fellow traders as table below shows.

Table 9: Main Customers to Traders

Main Customers	Region							
	North		Centre		East		South	
Local people	64	74%	76	55%	34	81%	87	85%
Fellow traders	12	14%	55	40%	6	14%	13	13%
Schools	4	5%	3	2%	2	5%	2	2%
Restaurants	2	2%	3	2%	0	0%	0	0%
Other	4	5%	0	0%	0	0%	0	0%
Total	**86**	**100%**	**137**	**100%**	**42**	**100%**	**102**	**100%**

The main customers for the traders across the regions were local people. However, the proportion of traders indicating fellow traders as their major buyers was exceptionally high in the central region. This implied that there were more aggregators of commodities than the other regions.

5.5 Summary of Findings for Private Trader Food Trade Activities

At the time of the survey, the trading of maize in Malawi was more vibrant than its surrounding neighbors of Zambia and Mozambique such that for the border districts maize was being informally imported. In the north, maize was being exported to Tanzania using informal border crossing points. The assessment was not able to establish volumes being exported. The government agencies in Zambia and Mozambique had not yet started buying maize in their respective countries. While ADMARC had announced it was going to buy, maize at K170 per Kg very few of their markets reported to have bought any maize at this price. After field work, it was reported that government had given ADMARC some funds to buy maize. Despite the announcement of the buying price by ADMARC, traders were still buying maize at a low price of K60 in most areas. Traders who have capacity to buy are likely to benefit than the smallholders who sell out of distress.

A comparison of maize being bought and sold by traders, traders in the north reported to have sold more maize than they had bought more than they had sold during the previous month. In contrast, the traders in the center and south sold more than they bought during the previous month. This can be an indication that the

trading period was more advanced in the two regions compared to the north such that traders had started to offload what they had previously bought.

The traders from the centre expected to sell about 30,000 MT of the total 36,000 MT for all traders. This means that the central region is likely to be an important maize supplier to the southern region in case of any shortage of maize. In all regions traders expected to sell more in the October-December period and January March periods with the latter period being mentioned by more traders. Prices were also expected to increase to an average of K230/Kg in the north, K208'Kg south, K194 east and K178 in the centre. This is against the project price of about K180/Kg that FEWSNet forecast. Major factors affecting price of maize was price in the source markets followed by transport cost.

Access to source and destination markets were generally rated to be good to excellent. No regional analysis was done for comparison. Trade was done to local people (a majority) followed by fellow traders. The mention of fellow traders was especially strong in the centre (40%) implying that they tended to sell to people outside the area compared to the other regions where less than 20 percent of the traders indicated to sell to fellow traders. As the consumption season progresses, the some of these assumptions will change. Such likely assumption to change are source and destination markets, distance to markets as traders will have to travel long distances to source or sell their produce and customers will change from producers/aggregators to small scale consumers. Access to markets will also change with the coming in of the rainy season.

6.0 Private Traders Response Capacity

The assessment appraised the capacity of the traders to respond to a 50 percent increase in demand. This section focuses on whether the traders would absorb the increase in demand, how much volume they would have to increase their supply and within which timeframe would they be able to replenish their stock.

6.1 Traders' Capacity Evaluation

Table below shows that very few respondents indicated that they would be able to meet supply if demand increased by 50-percent.

Table 10: Number and Percent of Respondents able to Supply a 50-percent Increase in Demand by Region

Region	Frequency	Percent
North	73	49.7
Centre	95	22.8
East	29	22.5
South	56	27.5

About half of the respondents in the north indicated that they would be able to supply a 50-percent increase in demand. For the remaining regions, about a quarter of the respondents said they would be able to supply such an increase in demand. These results corroborate with a following question on "within what timeframe" would the traders be able to supply the market in case of such an increase in demand. A higher proportion of respondents in the north (38%) said they would be able to supply a 50-percent increase in demand within a week compared to the proportion of respondents from the centre (17.5%), east (20.2%) and south (21.8%). Overall, about 50 percent of the traders in the north indicated that they would be able to supply maize within some time frame. In the other regions, the results were as follows: centre (26.6%), east (22.5%) and south (27.2%). It can therefore be concluded that respondents in the north showed higher capacity to respond to an increase in demand compared to the other regions both in terms of their expressed ability to respond and within some timeframe.

The respondents were asked to indicate by what proportion of their stock they would have to increase in order to absorb a 50-percent increase in demand. Graph below shows the percent increase in the traders' current stock that would absorb such an increase in demand.

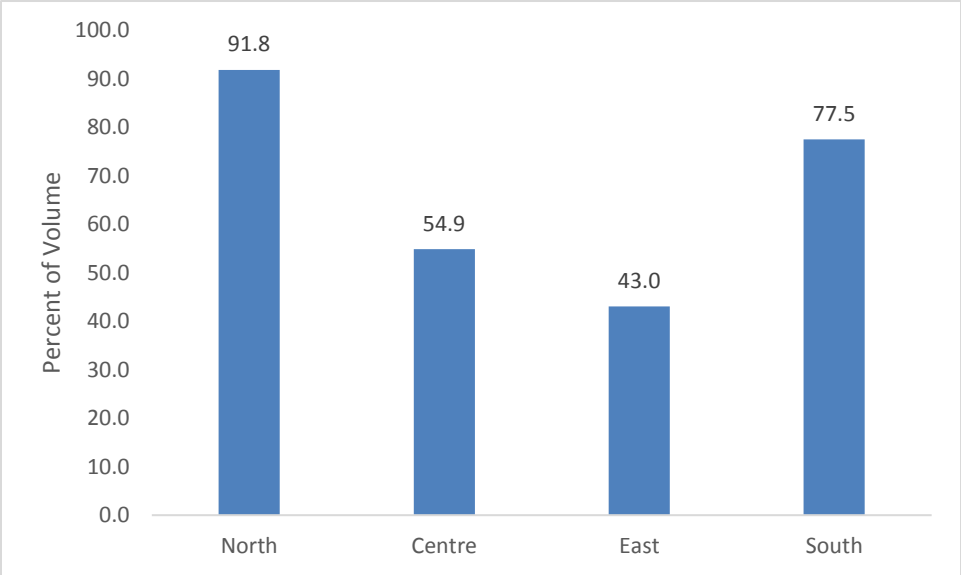

Figure 15: Percent Increase in Supply Required to Meet a 50-Percent Increase in Demand

The north and the south had higher percentages required to meet a 50-percent increase in demand compared to the other regions with the east being the lowest. Given this year the harvest was good, the 50 percent increase in demand is unrealistic. A 20 or 25 percent increase in demand could have been more realistic.

6.2 Support Required to Meet Increased Demand

The respondents were asked to indicate what type of support they would need in order to meet increased demand. Several types of support were mentioned. These ranged from access to loan, support to transportation of commodities, improved road infrastructure, provision of storage facilities, and reduction or removal of taxes. Of all these factors, only need of more capital was mentioned.

6.3 Trader Agro-Business Financing Conditions

The respondents were asked to indicate if they had ever got a loan. Very few respondents had accessed loans: 26.5 percent in the north, 18.8 percent in the center, 24.8 percent in the east and 29.6 percent in the south. The amount of capital that would be required to operate effectively in the current marketing season was compared with the loan amount they received. See figure below.

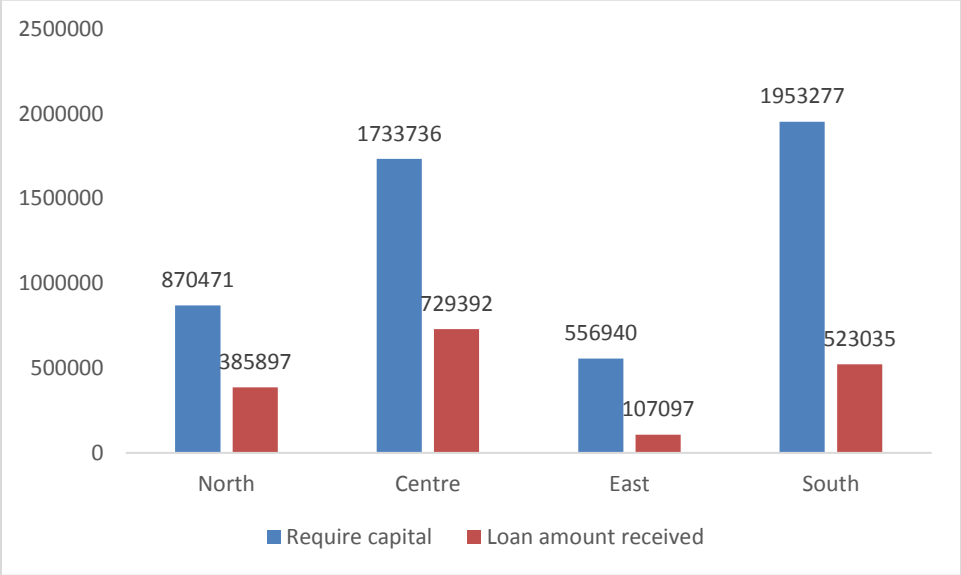

Figure 16: Average Amount of Capital Required and Loan Received.

The average capital required to effectively function in the commodity business was highest in the southern region followed by the center and it was the lowest in the eastern region. These results are a reflection of the amount of business in the two regions, especially the fact that they host the two major cities in the country, Lilongwe and Blantyre cities, and they also have a high population compared to the other two regions. The respondents in the eastern region received the least amount of loan.

For respondents who acquired loans, the major sources of loans are shown in table below.

Table 11: Percent of Respondents Getting Loans from Various Finance Institutions

Finance Institution	Region							
	North		Centre		East		South	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Bank	*2*	*1.4*	*29*	*7*	*3*	*2.3*	*8*	3.9
Microfinance institution	*20*	*13.6*	*21*	*5*	*17*	*13.2*	*26*	12.6
Village Savings and Loans	*5*	*3.4*	*13*	*3.1*	*8*	*6.2*	*26*	12.6
Friends/relatives	*0*	*0*	*10*	*2.4*	*4*	*3.1*	*2*	1
Other	*13*	*8.8*	*45*	*10.8*	*0*	*0*	*0*	0

Among the known financial institutions, the microfinance institutions were mentioned by a relatively higher proportion of respondents, especially in the south, east and northern regions. The following institutions were mentioned: Catholic Development Commission in Malawi (CADECOM), FINCA, Microloan Foundation, Pride Malawi, CUMO, and CARE Malawi. The center and north had the "other" category mentioned by at least 10 percent of the respondents.

6.4 Traders Experience with Selling on Loan

The traders were asked to indicate if they ever sold their commodities on credit. Selling on credit was higher in the eastern and southern region where over 50 percent of the respondents indicated to have sold on credit. In the north, 24.5 percent and in the centre 24 percent said they sold their commodities on credit. In all the regions, the months that commodities were mostly sold on credit were December to February as figure below shows.

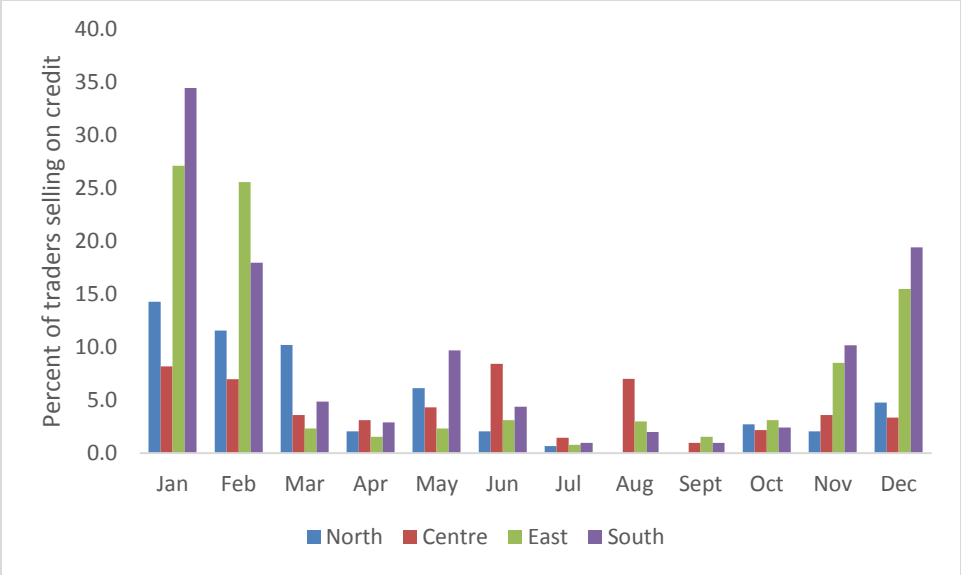

Figure 17: Percent of Traders Selling on Credit during the Year

Very few traders indicated to have sold commodities in exchange for vouchers. In all the regions, less than 3 percent participated in use of vouchers as follows: the north (2.0%), centre (2.2%), east (0.8%), and south (2.9%). When asked to indicate if they would be willing to sell through use of vouchers the responses varied by regions. In the north, very few respondents said they would be willing to participate in the use of vouchers (6.8%). On the other hand, responses from the other regions were significantly higher compared to the north: (35.8%), east (35.7%) and south (71.8%).

6.5 Commodity Storage facilities

A majority of traders were using rented facilities to store their commodities as data in table shows.

Table 12: Ownership of Storage Facilities by Traders

Type of Facility	Region							
	North		*Centre*		*East*		*South*	
Rented	51	46%	111	62%	50	46%	77	65%
Dwelling house	24	22%	9	5%	56	51%	22	18%
Other	36	32%	58	33%	3	3%	20	17%
Total	**111**		**178**		**109**		**119**	

The use rented facilities was higher in the central and southern region than the east and the north. However, use of other facilities was high in the north and centre. In some cases, traders just pile their commodity by the roadside and cover it with plastic cover.

6.6 Summary of Findings on Trader Private Trader Food Trade Activities& Response Capacity

About 50-percent of traders in the north indicated that they would be able to supply the market if demand increased by 50 percent. The amount they would have to increase ranged from about 50 percent in the east to 100 percent in the north.

Access to loans among the traders was low with the region with 29 percent of traders in the south indicating to have ever accessed loans. This was the highest compared to the other regions. When asked to indicate the type of support they would need in order to increase supply, access to loans was the highest among the factors mentioned. Across the regions, the amount of capital traders require was much higher than the amount of loan they accessed. Microloan institutions were the major source of loans for a majority of the traders.

Experience with selling commodity on loans ranged from 50 percent in the south to about 25 percent in the other regions. December and January were the months where selling commodity of loans was mentioned by a larger proportion of traders across all regions.

Use of other storage facilities was big across the regions although use of rented facilities and dwelling houses was bigger. For respective markets, it is not important

to have many traders with storage facilities. However, few key big traders would be required to have such facilities to supply smaller traders.

7.0 The 2017/18 MVAC Response Options

7.1 Population Requiring Humanitarian Assistance

The Integrated Food Security Phase Classification (IPC) is an analytical tool used to assess the severity and extent of security in a given location. It uses standardized tools so that comparison can be made between locations and also helps to build consensus among stakeholders. Each phase has a strategic response framework recommendations. Table below describes the various phases the recommended responses (IPC Global Partners, 2008).

Table 13: Description of IPC Phases of Analysis

Phase		**Description**
1A and 1B	Generally Food Secure	Usually adequate and stable food access with moderate to low risk of sliding into Phase 3, 4, or 5.
2	Moderately/Borderline Food Insecure	Borderline adequate food access with recurrent high risk (due to probable hazard events and high vulnerability) of sliding into Phase 3, 4, or 5.
3	Acute Food and Livelihood Crisis	Highly stressed and critical lack of food access with high and above usual malnutrition and accelerated depletion of livelihood assets that, if continued, will slide the population into Phase 4 or 5 and / or likely result in chronic poverty.
4	Humanitarian Emergency	Severe lack of food access with excess mortality, very high and increasing malnutrition, and irreversible livelihood asset stripping
5	Famine/Humanitarian Catastrophe	Extreme social upheaval with complete lack of food access and /or other basic needs where mass starvation, death, and displacement are evident

The IPC classification has a reference threshold of 20 percent. For the 2017/18 analysis, it is only the districts of Balaka, Mwanza, Chikwawa and Nsanje that are in Phase 3. However, MVAC decided that for this year all districts with a population of more than 10 percent or worse would receive humanitarian assistance. Table below shows districts and populations that will require such assistance.

Table 14: Population Requiring Humanitarian Assistance

District	Total rural Population	Population in Phase 3 or worse	% Popn Phase 3 or worse	Duration of Assistance (Months)
Balaka	378,164	83,294	22%	4
Blantyre	406,157	69,046	17%	2
Chikhwawa	557,543	117,065	21%	3
Chiradzulu	327,150	39,258	12%	2
Machinga	612,759	91,913	15%	2
Mulanje	569,294	102,472	18%	2
Mwanza	88,444	22,111	25%	2
Neno	163,175	17,949	11%	2
Nsanje	268,809	67,202	25%	4
Phalombe	386,293	57,943	15%	3
Thyolo	641,778	89,849	14%	3
Zomba	655,534	78,664	12%	2
Grand Total		836,766		

Source: MVAC IPC Results

All districts are in the southern and eastern regions.

7.2 Population requiring resilience Building

A total population of 3,112,000 is in IPC Phase 2. Table below shows the districts that have population in IPC Phase 3. All districts in the country with the exception of Likoma where the IPC analysis was not done require assistance to build resilience. See table below.

Table 15: Population Requiring Assistance for Resilience Building

District	Total rural Population	Population Requiring Assistance for resilience Building	% Pop for Resilience
Balaka	378,164	113,449	30%
Blantyre	406,157	81,231	20%
Chikhwawa	557,543	139,363	25%
Chiradzulu	327,150	81,787	25%
Chitipa	207,929	37,427	18%
Dedza	745,228	223,568	30%
Dowa	805,018	241,505	30%
Karonga	297,055	41,586	14%
Kasungu	831,171	249,350	30%
Lilongwe	1,510,579	453,173	30%
Machinga	612,759	122,551	20%
Mangochi	1,017,790	234,091	23%
Mchinji	609,956	182,986	30%
Mulanje	569,294	96,779	17%
Mwanza	88,444	22,111	25%
Mzimba	921,621	156,674	17%

Neno	163,175	31,003	19%
Nkhata bay	270,325	48,658	18%
Nkhotakota	369,246	62,771	17%
Nsanje	268,809	53,761	20%
Ntcheu	581,924	145,480	25%
Ntchisi	284,996	71,249	25%
Phalombe	386,293	57,943	15%
Rumphi	194,853	25,330	13%
Salima	407,329	122,198	30%
Thyolo	641,778	102,684	16%
Zomba	655,534	117,996	18%
Total	14,110,120	3,112,000	22%
Grand Total	14,110,120	**3,112,000**	**22%**

Source: MVAC IPC Results

It should be noted that the recommendation is that the 836,766 people in Section 7.1 need food in order to save lives and that population identified in this section require assistance to build resilience. This can be in form of distribution of inputs. Household receiving humanitarian assistance will also need to receive assistance to build their resilience.

7.3 Recommended Response Options

This section presents recommended options for the 2017/18 consumption season. Before making recommendations, criteria for the recommendations will be made followed by a description of the affected districts.

7.3.1 Criteria for Recommendations

Response options for assistance can be in form of direct food aid or cash-based transfers. Using criteria are reported by (Msiska, 2016) the recommendation of a

TA to be under in-kind food assistance is informed by the following: (a) areas with difficult passability conditions especially during rainy season, (b) areas with big caseloads, that is above 50,000; areas with limited private traders capacity to supply staple food commodities throughout the 2017/18 season, gauged in terms of numbers of traders, their storage capacity and sources of the commodities.

On the other hand Msiska (2016) notes that a recommendation for a TA to be under a cash based transfer option is based on: (a) the TA having market centres with active staple food private traders that have diverse and reliable market sources and are able to supply the market throughout the consumption season, (b) market centres with private traders that have sizeable warehouses or storage facilities (c) having caseloads of less than 50,000, and (d) market centres are reachable with accessible road conditions throughout the consumption season.

7.3.2 Description of Food Markets in the Affected Districts

For the specific districts, the following were noted during the market assessment:

Balaka District: The main markets are Mangochi Turn-off, Chembera, Phalula, Ulongwe, Balaka main market. They serve the following TAs: Amidu, Nsamala, , Kachenga, Sawali and Chanthunya. All these markets are easily accessible. All markets had traders who operate throughout the year. Mangochi Turn-off is one of the biggest markets in the eastern region. Chembera market is small and may have access problems in case of excessive floods.

Chikwawa District: The main markets are Dyelatu (near the District headquarters), Nchalo and Ngabu. At Nchalo there is one big trader (Mayi Lito) who can supply the whole market herself. Chapananga, Chikwawa west and Tomali markets did not have active maize traders. Much of the maize trading at the time was reportedly done within the homes.

Nsanje District: Only Bangula had two big traders. The other markets of Mtowe, Nyamithuthu, Mbenje and Nsanje Boma markets had few permanent traders selling small volumes. Some maize being traded is from Mozambique. Fatima market which is in Nsanje north east could not be accessed. When the Thyolo-Thekerani-Muona-Bangula road is completed, the access will improve. It is not likely to be done within the consumption year. It should be noted that people in this area also produce winter crop which might save the situation.

Mwanza District: Two markets at the boma (Boma and Hospital markets) had adequate traders who also sell maize to the Chikwawa district. Other areas such as Kunenekude and Thambani had few small traders. The areas are however accessible.

Blantyre District: Most parts of Blantyre have adequate food. This was evident from the availability of permanent big traders who can absorb increasing demand in the markets like Lunzu, Chazunda and Makata. The Markets mentioned are further boosted by the availability of other traders who just come to sell food items on market days. However, in markets like Lirangwe and M'deka the case was different because such markets either have few big traders who cannot absorb increasing demand or they have more traders who unfortunately sell in small volumes. All the areas are accessible.

Phalombe District: In most TAs there were few traders available and were dealing in pigeon peas trading. They were expected to maize trading during lean season. Big traders available in district can readily supply many small traders available. The district also takes advantage of the Malawi Mozambique border at Nambazo as a source market. Most areas are accessible.

Thyolo District: In most parts of Thyolo, markets had either few small and medium scale traders, like cases of Thunga, Bvumbwe, Luchenza, Thekelani and Thyolo Boma or that the markets had few big traders who currently are not selling but just buying, like the case of Chazunga. Mtambanyama however had no permanent maize traders and so buyers had to be visiting farmers homes.

Mulanje District: Over the years Mulanje markets have largely depended on maize from Mozambique and so due to cross-boarder business ban this year the case is different. The case of Muloza market for example was unique for unlike in the past there was hardly no maize trader. The few traders interviewed had to be found in their homes in a nearby village called Dzumbila. These traders were buying maize sourced from Mozambique through illegal routes. Otherwise out of all the targeted markets only Nkando had more traders selling maize in big volumes.

Mwanza District: Mwanza Boma (market) and Mwanza Hospital markets have adequate food. There were many big traders especially at Mwanza Boma. This market also supplies maize to Chikwawa traders. However, the same could not be said of Thambani and Kunenekude markets where it was found that only one to three small traders were available selling the food items in question. Kunenekude had no maize trader, and as the case in other districts maize was sold in villages in their homes by the locals.

Neno District: Magaleta, Ligowe and Kambali markets had no maize trader. However, this could be attributed to the fact that the markets were visited on non-market days though it was mentioned that those in need of maize travel to Mwanza Boma.

7.3.2 Summary of the MVAC response analyses

Given the criteria presented above in terms of number of caseloads per TA (**minimum of 50,000**), **access** to the markets and **number of traders** and the **level of activity** of the markets, it is recommended that for the 2017/18 consumption year, all humanitarian assistance be in the form of cash transfers. The markets are likely to respond cash transfers for the stressed households while at the same time not be inflationary given that it if very few households that will benefit. In some areas where maize trading was low, it was so because few households were stressed and once level of stress increases, the level of maize trading will increase. Given that the number of beneficiaries is small, cash-based transfers are not likely to be inflationary to disadvantage households on the margin. In order to stabilize maize prices Government should support ADMARC in buying maize on the market so that during the lean period the price of maize is not at the mercy of private traders' behavior. The maize price for the 2015/16 consumption year, the price of maize by private traders was lower than that of ADMARC because the private traders knew that the former had maize.

In the long term, government should consider engaging large private traders to disclose the amount of maize they hold so that planning takes these stocks in to account. This is a better option that government having to use legislature to force the private traders to disclose their stocks. The MVCA should continue monitoring the market, especially as the lean season sets in so that any changes on the market do not take government by surprise. Government should consider coming up with a model which can use some existing databases as monitoring tools.

8.0 CONCLUSIONS

This market assessment was carried out during a year where maize harvest was generally good for the region and Malawi as a country. Apart from southern and eastern region the MVAC recommending that the rest of the country may not require humanitarian assistance. With the NFRA having about 30,000 MT and ADMARC having 100,000 MT during the assessment period, it is recommended that ADMARC should be supported in buying maize so that it acts as a price stabilizer during the lean period. The markets were integrated such that any difference or change in demand is likely to result in traders responding accordingly. In order to avoid any surprises, it is recommended that the market should be continuously monitored using various data from IFPRI and FEWSNet and that another market assessment be carried out at the beginning of the lean season in order to assess any changes in the market dynamics requiring some response.

Bibliography

FEWSNet. (2017). *Malawi Food Security Outlook June 2017 to January 2018.* Lilongwe: Famine and Early Warning Systems.

Kambewa, P. a. (2013). *Urban Vulnerability Assessment Market Review.* Lilongwe: Malawi Vulnerability Assessment Committee.

Malawi Government. (2017). *2017/2018 Budget Statement.* Lilongwe: Malawi Government.

Malawi Government. (2016). *Annual Economic Report 2016.* Lilongwe: Ministry of Finance, Economic Planning and Development.

Msiska, F. (2016). *National Market Analysis to Inform the 2016/17 MVAC Food Security Response Options: Volume I-Main Report.* Lilongwe: Malawi Vulnerability Assessment Committrr.

SADC. (2017). *State of Food Insecurity and Vulnerability in the Southern African Development Community.* Gaborone, Botswana: SADC Secretariat.

Appendix I: Market Situation Analysis Questionnaire

Market Situation Analysis to Inform Food Security Response Options as part of the 2017/18 MVAC Response Programme

QUESTIONNAIRE FOR PRIVATE TRADERS

My name is ----------.I am here on behalf of the Malawi Government through the Malawi Vulnerability Assessment Committee (MVAC) which is conducting a nationwide food market situation assessment to get an update on the functionality food commodity markets in the country. The purpose of this market assessment is to understand how staple food markets are currently functioning in different districts during the 2017/18 consumption season, and identify Traditional Authorities (TAs) that are suitable for implementation of in-kind ***food assistance*** *and those suitable for implementation of* ***cash based transfers****. Your business enterprise is one of the many enterprises sampled to provide the needed information for the study at this market. For us to effectively collect the required information, we have a few questions which we shall ask you. All the information collected during the interview will be kept confidential, for the sole purpose of our client and your identity will not be disclosed to anyone. We hope you'll feel free to speak openly and honestly.* Are you willing to participate in this study? Yes |___|, No. |___|, If No, do not proceed with interviews.

A. PROFILE AND IDENTIFICATION					
A1	ADD		A10	Date checked by Consultant	
A2	District		A11	Starting Time	
A3	Traditional Authority		A12	Ending Time	
A4	EPA		A13	Market Name	
A5	Section		A14	Do you have market days?	1= Yes; 0= No

A6	Research Assistant		A15	If yes, when are the market days	Monday |___|, Friday |___| Tuesday |___|, Saturday |___| Wednesday |___|, Sunday |___| Thursday |___|
A7	Date of interview		A16	Y-coordinate (latitude)	S: |___|___|, |___|___|___|___|___|
A8	Supervisor			X-coordinate (longitude)	E: |___|___|, |___|___|___|___|___|
A9	Date checked by Supervisor				

B. TRADER CHARACTERISTICS

Before, we start discussions on details of your business, I would want to find out the following information about you:

B1. Name of business owner_____

B2. Name of respondent _____

B3a. Was this business enterprise interviewed last October 2016? Yes= 1; No= 2

B3b. Was this business enterprise interviewed last May 2016 Yes= 1; No= 2

B3c. Contact details of Business Owner (if possible)_____

B6. When did you start the food commodity trade (year)? _____

B7. Distance from the original place, to the current business place (km):_____

Years	Name of the major staple food business place (where located)	Distance from homestead to the major staple food business place (km)
2017/18 (current)		

C. DEMOGRAPHIC CHARACTERISTICS OF THE TRADER

C1	C2	C3	C4	C5
Gender 1=Male; 2=Female	Age (years)	Marital status	Years of education completed	Household size

Codes for C3: 1=never married, 2=married, 3=divorced, 4=widowed, 5=separated, 6=Other (specify)_____

D. GENERAL INFORMATION ON TRADER'S AGRI-BUSINESS& BUSINESS CONDITIONS

D1	**D2**	**D3**		**D4**	
Type of business 1=Wholesaler 2= Retailer 3=Wholesaler and retailer	Number of simultaneous outlets	Main commodities traded in for the level (type) of business (*main commodities are those that constitute at least 20% of the business incomes)*		Major source of the staple food commodity business capitalization and amounts	
		Total No. of commodities being traded	Names of commodities **(See codes below[10]) [multiple response]**	Major source of business capital **(See codes below)**	Amount (MK)

[10] For the commodities that are not mentioned in D3, we do not expect to see them mentioned in responses to the subsequent questions below.

Codes for D3:1=Maize, 2= pigeon peas, 3= general beans, 4=cow peas, 5= Groundnuts, 6= Soybean, 7=cooking oil, 8=CSB (Corn Soya Blend); 9 = rice; 10= fish; 11= vegetables; 12= poultry (eg chicken); 13= small ruminants (eg goats, sheep); 14= Cattle /cattle meat
Codes for D4: 1=Profit from other business, 2=Farming (crop sales), 3=savings from salary/wage, 4=loan, 5=remittances, 6=Fishing, 7=sales of assets/goods, 8=sale of livestock, 9=Other (specify) _____

D 5. Do you have a license/business permit to conduct trade? Yes|___| No|___|

D.6 If No, why not?
1= It not necessary since not required; 2= Not aware of need to for the license; 3= Pays market fees which is enough; 4= I do not know where to obtain the license; 5= the office where to get licenses is far away from here, hence its costly; 6=other (specify)

D.7 What factors did you consider when opening up a business here? **[multiple response- but please do not read responses to the respondent!!!]**

1=Demand and supply of the commodity, 2=Road infrastructure, 3=Security of the place, 4=Availability of competitors, 5=Amount of capital, 6=Storage facilities, 7=Local prices, 8=Others (specify)

D.8 What factors do you consider when opening up a business in a new place? **[multiple response- but please do not read responses to the respondent!!!]**

1=Demand and supply of the commodity, 2=Road infrastructure, 3=Security of the place, 4=Availability of competitors, 5=Amount of capital, 6=Storage facilities, 7=Local prices, 8=Others (specify)

E. PATTERN OF VOLUMES OF TRADED COMMODITIES IN KEY SELECTED MARKETS				
Commodity	Numbers of traders in this market operating at the same activity level	Volumes traded in per month (kg)/(litres)	In your opinion, based on the market trends, how are the volumes sold expected to change from October-December	In your opinion, based on the market trends, how are the volumes sold expected to change from January-March

	(amount and type of trading) as you do?	Bought	Sold	1=Will increase; 2=Decrease 3=No change	1=Will increase; 2=Decrease 3=No change
(a) 2017/18 (current season)	**Ea1**	**Ea2.1**	**Ea2.2**	**Ea3**	**Ea4**
Maize					
Beans					
Cowpeas-(*khobwe*)					
Pigeon peas-(*nandolo)*					
Vegetable oil					

F. MARKET DYNAMICS IN FOOD COMMODITY MARKETING IN THE LOCAL MARKET PLACE IN THE CURRENT YEAR AND PAST YEAR

(a) Plans for the 2017/18 Agricultural Marketing Season

	Fa1	**Fa2**	**Fa3**	**Fa4**	**Fa5**
Commodity	Current Stocks available (kg/litres)	Current selling Price (MK/kg)/(MK/liters)	Planned stocks to be sold in the remaining months of the 2017/18 marketing season (kg)/(litres)	Expected average market selling price Oct end – Dec, (MK/kg)/(MK/litre)	Expected average market selling price Jan - March, (MK/kg)/(MK/litre)
Maize					
Beans					
Cowpeas-(*khobwe*)					
Pigeon peas-(*nandolo)*					
Vegetable oil					

b. What factors do you consider when setting a commodity price? **[Multiple response options- please do not read responses to the respondent!!!]**

Codes for Fb: 1=Price in source markets, 2=Transportation costs, 3=Demand and supply of the commodity, 4=Storage costs, 5=Labour costs, 6=Competitor price, 7=ADMARC prices, 8=Govt set price, 9=Joint price setting, 10=Quantity of the commodity, 11=Others (Specify) _____

(c) Local Market and Institutional Environment for Food Commodities Trade during the 2016/17 Marketing Season

	Fc1					**Fc2**
Food Commodity	**Is there competition from other traders in the market?**					**How do you support each other as traders? *(mumathandizana bwanji pa malonda anu)* (See codes below)**
	1= Yes	No. of competitors				
	2=No	Wholesalers	Retailers	Both	Total	
Maize						
Beans						
Cowpeas-(*khobwe*)						
Pigeon peas-(*nandolo*)						
Vegetable oil						

Codes for Fc2(major support from other traders): *1= joint setting of selling prices; 2= assisting each other in transportation of produce; 3= storage security of the produce in the market place; 4=sharing customers, 5=borrowing money from each other, 6=Selling on each other's 'behalf, 7=None, 8=other (specify)*_____

(Fd) Private Trader Response Capacity and Constraints

	Fd1	**Fd2**	**Fd3**	**Fd4**	**Fd5**
Commodity	In your opinion, would the sale price of the following commodities increase, decrease or remain the same if demand in this market increases? **See Codes Fd1**	If demand would increase, will you be able to absorb the increased demand? **See Codes Fd2**	How much could you increase the volume of your current trade (%)?	In case your demand increases by 50%, within what time frame would you deliver? **See Codes Fd4**	What do you see this year as the 3 biggest constraints to increase supply should demand increase? **See Codes Fd5**
Maize					
Beans					
cowpeas-(*khobwe*)					
Pigeon peas-(*nandolo*)					
Vegetable oil					

Codes Fd1: 1=Increase, 2=Decrease, 3=No change
Codes Fd2: 1=Yes, 2=No
Codes Fd4: 1=within one week, 2=within two weeks, 3-within one month, 4=Longer than one month, 5=I can't promise, 6=don't know, 999=Not applicable
Codes Fd5: 1=Lack of own capital, 2=Lack of credit, 3= High collateral, 4=High interest rate on credit, 5= High transport costs, 6=Lack of means of transport, 7=Poor road infrastructure, 8=High tax payment, 9=Too much food assistance, 10=Low demand, 11=Low supply, 12 Few people control the market, 13=Shortage of storage, 14=Others (specify)_____

(Fe) If there is an increase in demand from the affected population, how can you be supported to sustainably increase supply in the disaster affected areas?
1=more capital, 2=loan, 3=transportation means, 4=improved road infrastructure, 5=Remove/reduce tax, 6=storage facilities, 7=None,

8=Others (specify)_____

Ff: Business Loan/ Capital Constraints

Ff1	**Ff2**	**Ff3**	**Ff4**	**Ff5**	**Ff6**	**Ff7**
What is the total required Capital to operate an effective commodity business in the current marketing season (MK)?	Ever attempted to get a loan from the bank/ microfinance institution/ VSL/ friend in the past & current year for the commodity trading? 1= Yes, 2=No (**go to Ff7**)	From which source did you attempt to acquire the business loan? 1= bank, 2= micro finance, 3= VSL= 4= friends/ relatives, 5= other (specify)	If, Yes, amount of loan obtained?	If Yes, what was/ is the interest rate?	If yes, how long was/ is the payment period? (months)	If not able to get a loan for the business from the stated sources, what are the reasons? **See codes for Ff7 below**

Codes for **Ff7**: 1= not able to meet collateral requirements; 2= requirement to be a cooperative/group; 3= have previous loans which are unpaid; 4= I fear loans; 5= high interests, 6=I do not need loans; 7 = other (specify)

(G) FLOW OF COMMODITIES

	Gi1	Gi2	Gi3
Commodity	How often do/did you have to restock commodities (when stocks run out)? **(Codes Gi1)**	How long does it take to refill/replenish the stock (days)	Volume of purchase in restocking trip (kg)
Maize			
Beans			
Cowpeas-(*khobwe*)			
Pigeon peas-(*nandolo*)			
Vegetable oil			

Codes for Gi1:1=daily, 2=once a week, 3=twice a week, 4=twice a month, 5=once a month, 6=other (specify)_____

(H) MARKET INTEGRATION

Commodity	From how many markets do you usually source the commodity for sale in this market?	Of these, what is the major source market (name of place/market)?	Price in the source market at the time of the study? (MK/kg) (MK/litre)	Price in the selling markets (MK/kg) (MK/litre)	Has the source market been affected by any of the disasters? ***(floods drought/dry spell, early cessation of rains***) **Codes for Hja4**	How has the demand of the source market been impacted by the disaster 1=Increased demand 2=Decreased demand 3=No change in demand 4=Don't know 999=Not applicable	Impacts on the levels of supply in the disaster affected areas: 1=Increased 2=Decreased 3=No change 4=Don't know 999=Not applicable
(a) current 2017/18		**Hja1**	**Hja2**	**Hja3**	**Hja4**	**Hja5**	**Hja6**

Maize							
Beans							
Cowpeas-*khobwe*							
Pigeon peas-*nandolo*							
Vegetable oil							

Codes for Hja4: 1=Yes, 2=No

(I) COMMODITY TRANSPORTATION

(a) For each of the commodities you are trading in, tell me more on transportation of the commodity for sale in the current season:

Commodity	Location of the source market (as in Hja1& Hjb1) 1= within the market 2= within the district 3=outside the district (name) 4=Informal cross border trade (name)	Distance from the source to this market (km)	Type of transport used 1=vehicles 2=oxcart 3=bicycle 4=head 5=None **(Multiple response)**	Unit being transported *(e.g. 50 kg bag=1, dengu,=2 90 kg bag=3, litres=4 Other (specify=6)*	Transport Cost per unit being transported (**For the main transport means**) **(For the trader)**	Quantity transported per trip	Total costs per trip (MK)	Who sets the transport prices? 1=Transporter 2= Me as buyer
(a) 2017-18 current	**Ia1**	**Ia2**	**Ia3**	**Ia4**	**Ia5**	**Ia6**	**Ia7**	**Ia9**
Maize								
Beans								
Cowpeas-*khobwe)*								
Pigeon peas-*nandolo)*								
Vegetable oil								

(J) PHYSICAL ACCESSIBILITY TO SUPPLY/SOURCE AND DEMAND/DESTINATION MARKETS

Commodity/ Year	SUPPLY MARKET			DEMAND MARKET		
	Names of source markets **[As stated above (Ia)]**	Physical Accessibility (Condition of road during the rainy season) for the major source market 1= Excellent; 2= Good (Passable), 2=Bad (Impassable)	If the road is/will be/ was impassable, how does the trader deal with the problem so that the business doesn't stop	Names of destination/ demand markets	Physical Accessibility (Condition of road during the rainy season) to the major demand market 1= Excellent; 2= Good (Passable), 2=Bad (Impassable)	If the road is/ will be/ was impassable, how does the trader deal with the problem so that the business doesn't stop.
(a) 2017-18 current	**Ja1**	**Ja2**	**Ja3**	**Ja4**	**Ja5**	**Ja6**
Maize	1.					
Pulses (Beans)	1.					
Pulses (cowpeas-*khobwe)*	1.					
Puses(Pigeon peas-*nandolo)*	1.					
Vegetable oil	1.					

K MODEL OF SELLING WHETHER BY CREDIT OR VOUCHER

K1. Do you sale on credit to some of your customers? 1=Yes, 2=No

K2. If yes, how much of total sales for last month was on credit (MK) _MK_____/MK_____

K3. If yes, in which period of the year is your total sales on credit the highest (mention months)? _____

1= January; 2= February, 3= March; 4= April; 5= May; 6= June; 7= July; 8= August; 9= September; 10= October, 11= November; 12= December

(Do not read the answers, allow for multiple responses)

K4. Have you ever sold your commodities using cash vouchers/coupons? 1=Yes, 2=No

K5. If yes, which Year,? ……; and K6. How much of total sales was on cash vouchers? (MK) _____/MK_____

K7. If no, would you accept to sell your commodities using cash vouchers? 1=Yes, 2=No

K8. If no, why?_____

L DEMAND OF AGRICULTURAL COMMODITIES ON THE MARKET: CHARACTERISTICS OF BUYERS

Commodity	Your major buyers/ customers (types of buyers) **(Codes La1)**	Where do they come from?	
		Location	Distance from here(km)
(a) For 2017-18 (current situation)	**La1**	**La2**	
Maize	1.		
	2.		
	3.		
Legumes	1.		

Commodity	Your major buyers/ customers (types of buyers) **(Codes La1)**	Where do they come from?	
		Location	Distance from here(km)
	2.		
	3.		
Vegetable oil	1.		
	2.		
	3.		

Codes for La1:1=Local people, 2=fellow traders/vendors, 3=Schools, 4=Restaurants, 5=Hospitals/clinics, 6=Others_____

M TRADER'S COMMODITY STORAGE FACILITIES

M1. Do you own a storage facility for the staple food commodities you trade in?

1=Yes; 2=No

M2. If no, where do you keep/store your commodity?

1=Rented storage facility, 2=dwelling house, 3=None**,** 4=Others (specify)_____

M3. If Yes in M1, then, what commodities do you usually keep in the storage facility?

M3a1	**M3a2**	**M3a3**		
Main commodities stored in the facility owned by the trader	Total storage capacity (kg)	Have you been leasing/renting out your storage facility?		
		1=Yes 2=No	Amount realized (MK) in a year	Major client (s)
1.				
2.				
3.				
4.				

M. Any other information you may wish to provide/ or comments to make on agricultural market issues?

_____

_____

_____

_____

Thank you very much for participating in the study by providing useful market information!!!

Appendix II: Expected Price Increase using Average Price Index Change during the Consumption year

Consumption Week	Average Price	Index Figure Base July	Expected Price Increase
1st Week-Apr	175	Na	
2nd Week-Apr	162.5	Na	
3rd Week-Apr	150	Na	
4th Week-Apr	150	Na	
1st Week-May	137.5	Na	
2nd Week-May	107.5	Na	
3rd Week-May	102.5	Na	
4th Week-May	117.5	Na	
1st Week-June	110	Na	
2nd Week-June	112.5	Na	
3rd Week-June	135	Na	
4th Week-June	140	Na	
5th Week-June	135	Na	
1st Week-July	135	Na	
2nd Week-July	150	Na	
3rd Week-July	145	1.00	
4th Week July	150	1.03	
1st Week-Aug	150	1.03	
2nd Week-Aug	160	1.10	
3rd Week-Aug	160	1.10	
4th Week-Aug	145	1.00	
1st Week-Sep	150	1.03	
2nd Week-Sep	150	1.03	
3rd Week-Sep	150	1.03	
4th Week-Sep	150	1.03	
5th week sep	160	1.10	
1st Week-Oct	165	1.14	
2nd Week-Oct	165	1.14	
3rd Week-Oct	180	1.24	
4th Week Oct	180	1.24	
1st Week Nov	200	1.38	
2nd Week Nov	200	1.38	
3rd Week Nov	200	1.38	
4th Week Nov	200	1.38	
5th Week Nov	200	1.38	
1st Week Dec	200	1.38	
2nd Dec Week	220	1.52	

3rd Week Dec	200	1.38	
4th Week Dec	170	1.17	1.32
1st Week Jan	191	1.32	
2nd Wk Jan	200	1.38	
3rd Week Jan	194	1.34	
4th Week Jan	198	1.36	
1st Week Feb	198	1.37	
2nd Week Feb	210	1.45	
3rd Week Feb	225	1.55	
4th Week Feb	210	1.45	
1st Week Mar	210	1.45	
2nd Week Mar	223	1.53	
3rd Week Mar	214	1.47	
4th Week March	203	1.40	
5th Week March	185	1.28	1.41