

**COMPARATIVE EXPERIENCES IN AGRICULTURAL FUNDING FOR
INVESTMENT
INTO CAPITAL FORMATION AND FOR OTHER INTERVENTIONS TO
ENHANCE
AGRICULTURAL PRODUCTION AND PRODUCTIVITY**

MALAWI CASE STUDY

by

Ian Kumwenda

ANAMARC

Private Bag 107, Lilongwe, Malawi

iankumwenda2003@gmail.com

anarmac@yahoo.com

Southern African Confederation of Agricultural Unions
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SET OF DOCUMENTS FROM THE SACAU-FAO STUDY ON AGRICULTURAL INVESTMENT

SACAU and FAO have jointly sponsored a review of agricultural investment approaches in Malawi, South Africa and Zambia. The documentation of this study comprises of four documents, as follows:

1. REGIONAL SYNTHESIS REPORT - Agricultural Investment - Approaches and Country Experiences of Malawi, South Africa and Zambia. By Mafa E. Chipeta (Study Coordinator), P.O. Box 51610, Limbe, Malawi. emchipeta@gmail.com

Three country case studies prepared by economists in Malawi, South Africa and Zambia respectively; these are also being published individually:

2. **MALAWI CASE STUDY - Comparative Experiences in Agricultural Funding for Investment to Enhance Agricultural Production and Productivity.** By Ian Kumwenda, ANAMARC, Private Bag 107, Lilongwe, Malawi iankumwenda2003@gmail.com, anarmac@yahoo.com
3. SOUTH AFRICA CASE STUDY - Comparative Experiences in Agricultural Funding for Investment to Enhance Agricultural Production and Productivity. By Zimbini Mdlulwa, Agricultural Research Council, 1134 Park Road, Hatfield, Pretoria, 0001 South Africa mdlulwaz@arc.agric.za
4. ZAMBIA CASE STUDY - Comparative Experiences in Agricultural Funding for Investment to Enhance Agricultural Production and Productivity. By Derrick Sikombe, Ministry of Agriculture and Cooperatives, Lusaka, Zambia. d_sikombe@yahoo.com

The contributions of the authors and of any contacts and partners they had in their work are gratefully acknowledged.

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FOREWORD

Southern Africa has a diversity of economies ranging from several that depend largely on minerals, one also on manufacturing and services, to the majority which rely on farming as the mainstay of their peoples' livelihoods. Even where most value-added comes from outside agriculture, however, many people rely on this sector for their direct food security and for employment; enclaves of mining or manufacturing are yet to offer the opportunities which the fast-growing populations can readily rely upon for mass employment and income. It is thus important for this sector to succeed and it is for this reason that adequate and effective investment is considered important to study and act upon.

The Southern African Confederation of Agricultural Unions (SACAU) and the Food and Agriculture Organization of the United Nations (FAO) saw the need to seek some baseline information on how investment is going in Southern Africa. They wished to start with a few countries in an exploratory fashion, with decisions on expansion to other countries to be informed by the initial findings. Thus towards the end of 2011, they selected Malawi, South Africa and Zambia for first attention and commissioned case studies on them. The three countries have contrasting policies and approaches in funding agriculture; they also differ in levels of development. The choice of countries was partly influenced by the fact that the three countries have all achieved at least self-sufficiency and even surpluses for staple maize due to their agro-expenditure. One - South Africa, has sustained its agricultural success for a long time; Malawi and Zambia have succeeded more recently, based mostly on government subsidies for fertilisers and seeds and (in the case of Zambia) on setting favourable farm gate prices for smallholders.

I wish to draw the attention all readers to the regional synthesis report, especially in Southern Africa which carries the findings of all three country case studies: SACAU welcomes any criticism, additional insights, information and partnership. In that document, particular attention may be given to the sections on "*Key Messages*" and on "*Conclusions and Recommendations with Potential for Follow-Up*".

For this country report on Malawi, there has been particular difficulty in getting information, public officials being apparently very reluctant to share data. The problem existed both for the commercial agriculture and (even more difficult) small-scale farming. Of all forms of agricultural spending, the government subsidy of fertilisers and seeds mainly for maize stands out as the greatest influence on agricultural performance. There is patchy information on fixed-capital formation, including among smallholders. The information being ad-hoc, there is clear need for more systematic data and tracking of investment in Malawian agriculture.

I take the opportunity to thank all those in Malawi who shared their time, information and views. I acknowledge with thanks the dedicated efforts of Mr Ian Kumwenda of ANAMARC Consortium who carried out the Malawi study.

Ishmael Sunga

Chief Executive Officer

SACAU, Unit 11. Centurion Office Park

257 Jean Avenue, 0157 Centurion
[P. O Box 10480 Centurion 0046, South Africa]

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1 Only assets in working condition.

ACRONYMS

ADD Agricultural Development Division
 ADMARC Agricultural Development and Marketing Corporation
 AfDB African Development Bank
 ASWAp Agriculture Sector Wide Approach
 ATC Agricultural Trading Company
 AU African Union
 BADEA Arab Bank for Economic Development
 CAADP Comprehensive African Agriculture Development Programme
 CAN Calcium Ammonium Nitrate
 CBM Commercial Bank of Malawi now Standard Bank
 CDH Continental Discount House
 CISANET Civil Society in Agriculture Network
 COMESA Common Market for Eastern and Southern Africa
 COMSIP Community Savings and Investment Promotion
 DAHI Department of Animal Health and Industry
 DFID Department for International Development
 DFI Foreign direct Investment
 FAO Food and Agriculture Organization
 FDH First Discount House
 FDI Foreign Direct Investment
 FFS Facilitated Farmer System
 FINCOM Finance Corporation of Malawi
 FISP Farm Input Subsidy Programme
 FUM Farmers Union of Malawi
 GBI Green Belt Initiative
 GDP Gross domestic product
 GOM Government of Malawi
 IDEAA Initiative for Development and Equity in African Agriculture
 IMF International Monetary Fund
 IPS Integrated Production System
 INDEFUND Investment and Development Fund of Malawi
 GDP Gross Domestic Product
 LFC Leasing and Finance Company of Malawi
 MASM Medical Association of Malawi
 MOAFS Ministry of Agriculture and Food Security
 MEPC Malawi Export promotion Council
 MDG Millennium Development Goal
 MFI Microfinance Institution
 MGDS Malawi growth and Development Strategy
 MITC Malawi Investment and Trade Centre
 MPRSP Malawi Poverty Reduction Strategy Paper
 MRFC Malawi Rural Finance Company
 MUSCCO Malawi Union of Savings and Credit Cooperatives
 NEPAD New Partnership for Africa's Development
 NSO National Statistical Office
 OPTICHEM Optimum Chemicals
 OVOP One Village One Product
 ReSAKSS-SA Regional Strategic Analysis and Knowledge Support System
 Southern Africa
 SACA Smallholder Agricultural Administration
 SACAU Southern Africa Confederation of Agricultural Unions

SACCO Savings and credit cooperatives
SACA Smallholder Credit Administration
SADC Southern Africa Development Community
SFFRFM Smallholder Farmers Fertilizer Revolving Fund of Malawi
SUCOM Sugar Corporation of Malawi
TAMA Tobacco Association of Malawi
TWAB Tripartite Wage Advisory Board
UN United Nations

EXECUTIVE SUMMARY

The overall goal of the study was to collect country information for assessing agricultural investment, including fixed capital formation, by different economic agents. These are the public sector, the private sector (domestic and external) and farm households in Malawi. Focus was to provide an overview on the trends of the country's agricultural investment, especially on primary on-farm production with a view of understanding how Malawi and the other two selected countries can improve such investment. The study period was from 2005 to 2011 and the agriculture sector was defined to include only crops and livestock. The data came from literature review and desk study; key informants; structured questionnaire interviews with a small sample of farmers and case studies.

Public budget flows into fixed capital formation is not well documented in government documents. However, public investment is largely in consumable inputs such as subsidized inputs. Foreign direct investment (FDI) has increased with Asia leading. Eleven percent of total approved investment certificates went into agriculture during 2011. To complement FDI, fourteen local investors were assisted to invest in mining, agro-processing, tourism, information communication technology services (ICT), manufacturing and real estate development.

Data on capital formation in the form of assets owned by households is limited in Malawi. The NSO Welfare Monitoring Survey captures general percentage of assets owned by rural households from 2005 to 2009. The major capital item owned by rural household is the hand hoe followed by the axe. Few people own ox-carts and treadle pumps. There have been some new additions like bank accounts, cell-phones, satellite dishes and treadle pumps in 2009. Overall there is little capital investment in rural areas.

Crop production increased for all crops except cotton, sorghum and millet in 2010/1. The maize yield has increased 72 percent over the review period. Since 2005, there has been increased performance of the livestock sector. However increases in grazing livestock in Malawi will depend on improved productivity in arable agriculture. But it is worth noting that there has been a bias towards investment in crops.

The agriculture sector had been third in priority until 2005/6 when it was accorded first priority to the present. With the introduction of FISP for the 2005/06 agricultural season, the share of agriculture in the total budget has increased over the recent years. Spending for the six-year period in agriculture has averaged 12 percent of total government spending – range 11 to 13 percent. This is beyond the NEPAD-CAADP 10 percent target. The Farm Input Subsidy Programme accounted for the large share of total agriculture spending at an average 61 percent. Fertilizer emerged as the major import commodity followed by pharmaceutical products. However, fertilizer import value decreased from MK38.1 billion in 2009 to MK 30.8 billion in 2010.

Corporate investment in agriculture, including that by banks and tobacco merchants is also occurring. However, there has been an overall estate sector decline mainly in tobacco production largely as a result of changes in policy which now allows smallholders into burley tobacco and increase in cost of production.

Malawi Rural Finance Company provides an illustration of reinvestment of savings generated in the economy as loans disbursed. Savings show an increasing trend from 352.5 to 489 million Malawi Kwacha. However, the number of customers has drastically decreased from 103,782 in 2005/6 to 24,720 in 2009/10 [could be

because of the FISP) and the total disbursed has decreased. Women customers' participation looks favourable at 33 percent on average, though declining. The National Bank of Malawi's agriculture office also provides loans through tobacco merchants and not directly to farmers.

1.0 INTRODUCTION

1.1 Malawi at a Glance

Almost all of Malawi's 85 percent (84.7 percent - NSO, 2009) rural population is employed in agriculture which accounts for about one third of GDP from three major export crops - tobacco (with the largest share of about two-thirds), sugar with 12 percent and tea with about 8 percent. Cotton is fourth, then nuts and pulses (Ministry of Development Planning and Cooperation, 2011).

Maize, sometimes equated to life - *chimanga ndi moyo* - is the major food crop but some Malawians, especially along Lake Malawi, eat cassava (*kondowole*) as their main food. Cassava alongside sweet potatoes is also eaten during breakfast as bread substitute in urban centres and as a snack. Irish potatoes are also heavily used - open fried as chips in urban centres. Livestock contribute about 7 percent to GDP and constitute a small proportion of people's diet. Uranium mining and quarrying have gained prominence. Uranium exploitation started in 2009.

Since independence from Britain in 1964, there have been several major policy changes in the agricultural sector. The early post-independence period involved significant government intervention in the smallholder agricultural sector in production, extension, technology development and agricultural produce marketing. At the same time, there was also emphasis on export (tobacco) from large estate/leasehold/freehold sector; the tradition of large tea estates was retained and sugar came in mostly as an estate crop but with outgrower smallholders supplying a proportion of cane. Basically the economy was elite and monopolistic in nature, including a single (parastatal corporation) market for smallholders. The early 1990s saw changes, including political pluralism in 1994. Policy shift was towards smallholders on customary non-title land.

Taken together, the agriculture sector is composed of the majority resource poor smallholder farmers and the lease/freehold estate subsector. The smallholder subsector comprises more than 2.4 million farming households on about 6.2 million ha of customary non-title land. Using mainly hand hoes, smallholder farmers mainly produce food crops such as maize, rice, pulses, millet, sorghum, cassava, sweet and Irish potatoes. On the other hand, the estate sector, lease and freehold, is on about 1.2 million hectares of land. Relying on improved technologies, estates produce cash crops tobacco, tea and sugar. The estates have better access to quality management, inputs, credit, supporting agricultural services and markets. Thus the estates have higher productivity levels than smallholders but contribute a mere 8 percent to agriculture GDP [during 2005 and 2006 and extrapolated to 2011] (Mapemba, 2007).

1.2 Objectives of the Study

The purpose of the study was to take stock of the investment in agriculture with special emphasis on crops and livestock. According to the terms of reference, the study had four major focus areas: overview on the state-of-the art and trend of the country's agricultural development, food security and poverty situation, and investment in agriculture by the public, private corporate and farming households during the past two decades.

A detailed analytical review of the development strategies and relevant policies was attempted as context for assessing investment outcomes and status in the country.

Based on information in the public domain and studies commissioned recently by sub-regional bodies such as SADC, COMESA, farmers' organisations, research bodies, and others, the study was to provide an overview of (i) public expenditure in agriculture (ii) corporate sector investment in agriculture and (iii) investment made by the farmers themselves, differentiating across holding sizes. There was to be assessment of whether increase in funding for investment or other agricultural expenditure, for example on inputs, is raising production and productivity.

1.3 Study Execution

1.3.1 Methodology

The study used the following four methods in order to address the objectives:

- **Literature review and desk study:** This largely involved reviewing government documents, research studies, websites, e-mails and various publications
- **Key informants** covered government and other organization [government and corporate] staff. This involved visiting various institutions and holding discussions with staff in government institutions and corporate organizations such as banks and estates.
- The team conducted interviews with **a sample of farmers** in Lilongwe district using structured Questionnaire. This mainly generated primary data.
- **Case studies** using tobacco, the Community Land Reform Programme and Mchinji dairy heifer international have been used. These case studies illustrate and provide additional information in areas where there were problems with data availability.

1.3.2 Data/Information Challenges

The study faced a number of **data collection challenges** which future studies should consider: even though SACAU had provided an introductory letter, most organizations demanded an additional letter to their Chief Executives for corporate organizations and the Principal Secretary for government departments. Some government officials were not keen to give out information, even after several attempts. The estates did not have time to fill out the detailed questionnaire which was designed. An attempt was made to make it simple. But even after doing this, they still did not respond. However, despite these problems, Lilongwe Agriculture Development Division (ADD) and the District

Agriculture Office were very receptive in providing the team with budget expenditure data and arranging field visits. The team was accompanied by two government officials, making the data collection easier.

2.0 THE MALAWI ECONOMY AND AGRICULTURE IN PERSPECTIVE

2.1 The Malawi Economy

Malawi's GDP growth averaged 7.6 percent in 2005-10; spiked to an all-time 8.9 in 2009; then slowed to 6.7 in 2010 and 4.3 percent in 2011; it is projected to achieve a low 4.9 percent in 2012. Despite escalating world oil and food prices, Malawi's average inflation declined because of food surpluses from FISP and IPS (Figure 1). With the devaluation, the inflation is picking up. Poverty remains high at only US\$290 per capita (World Bank, 2009a). The 2004/5 Integrated Household Survey shows a modest change in poverty from 54.1 percent in 1998 to 52.1 percent (2004/5) people below the poverty line. Child nutrition remains poor.

Agriculture carries a greater weight in the economy than any other productive sector: the worth of agricultural value-added has fluctuated between 30 and 37 percent of total economy. Overall there has been an increase as outlined in [Table 1](#). Services and industry follow a similar fluctuating pattern.

Figure 1: Average Inflation

Table 1: Breakdown of the Malawi GDP 2005 - 2009

Sector	2005	2006	2007	2008	2009	1990-99	2000-09
Agriculture	31.6	31.2	30.3	30.1	30.5	37.3	34.0
Industry	17.0	17.0	16.3	16.1	16.1	22.7	17.2
Services	50.3	51.9	53.4	53.8	53.4	40.1	48.8

Source World Bank 2009- website

Malawi is heavily dependent on maize for food and tobacco for foreign exchange. On the direct food security front, production of sufficient staples is core government policy, hence continuation of the input subsidies especially for maize. A consequence of this is that fertilisers dominate national imports ([Table 2](#)).

For foreign exchange earnings, tobacco domination is a long-term reality. In recent years, tobacco has not done well; its international markets are under threat from the anti-smoking lobby and many believe it is not a sustainable source of prosperity – certainly not a commodity to rely upon as key pillar of an economy. In 2011, tobacco prices virtually collapsed and the economy has been facing a number of challenges. The Minister of Finance in his Budget Speech lamented. *“The 2011 tobacco marketing season may turn out to be one of the worst in our history. Since the opening of the Auction Floors in March, prices have been very low, and rejection rates very high.”* For example, the market

experienced a 57 percent drop in volumes as of 31 March 2011: 34.4 million kg were sold against 78.95 million kg the previous year. At the time tobacco prices dropped 51 percent – (US\$1.90 by 31 March 2010 and down to US\$0.93 by 31 March 2011 (National Assembly of the Republic of Malawi, 2011). The resultant severe foreign exchange shortage and therefore fuel shortage saw Malawians demonstrating on 19 July 2011 with twenty lives lost.

Thus, two initiatives emerge to indicate the direction of future policy emphasis: (a) diversification, with focus on alternative/complementary cash crops to accompany tobacco; and (b) launching of expanded irrigation under the Green Belt Initiative (GBI), both for food security and commercial sales. Notes on these thrusts follow.

Table 2: Value of Selected Imports: 2003-2010

Commodity / Product	Value, by Year (Millions of Kwacha)								
	2003	2004	2005	2006	2007	2008	2009	2010	Average
Fertilizer	4,556	6,980	13,159	8,550	26,509	47,399	38,115	30,833	22,013
Pharmaceutical products	-	-	-	-	-	-	-	-	-
Diesel and other fuels	4,211	5,954	6,685	9,742	11,427	14,979	1,647	17,509	9,019
Vehicles	-	-	-	-	-	-	-	-	-
Petroleum	2,761	3,500	3,252	4,389	6,011	7,334	9,047	8,705	5,625
Paraffin	664	859	1,075	942	1,317	1,359	504	576	912
Coal	86.2	222	233	154	119	96	92	158	145
Total	12,278	17,515	24,404	23,777	45,383	71,167	49,405	57,781	37,714
% Fertilizer	37	40	54	36	58	67	77	53	58

Source: NSO and Ministry of Industry and Trade; Note: *revised 2009 data ** preliminary 2010 data 2009 was an election year!

2.2 Policy Environment

Agricultural policies have evolved from the export-oriented estate led post-independence Banda era to food-security (maize) focused smallholder development of the post-Banda period. From independence in 1964 and for 30 years, first president Dr. Hastings Kamuzu Banda, adopted the colonial export-led estate [mainly tobacco] agricultural growth strategy within which the estate sector remained important (in the case of tobacco and sugar it grew tremendously).

The Malawi Government during the post-Banda era has prioritized poverty reduction. The two presidents – Bakili Muluzi and Bingu wa Mutharika [now Joyce Banda] – implemented policies which were far more exclusively focused on smallholders. Some believe that the era excessively limited its focus on smallholders and the maize commodity, in particular. The still heavily tobacco-dependent economy experienced extremely low tobacco prices in 2011. The results included severe foreign exchange and fuel shortages: Malawians protested in the streets on 19 July 2011 and twenty lives were lost.

As a leading intervention to achieve smallholder success, the Malawi Government has launched the Farm Input Subsidy Programme (FISP) which has been very successful. The FISP has in fact become the main form of “investment” by government in agriculture - focused though it is on consumable inputs rather than fixed assets; Table 3 shows the progression of the input subsidy programme from its “starter pack” origins in 1998/99 - a five-fold multiplication of subsidized fertilizer distribution. Malawi has become a surplus maize producer because of the subsidized inputs. Details of the FISP as an investment are given under the section on “Investment”.

Table 3: Malawi's Farm Input Subsidy Programmes (FISP) 1998/9-2012/13

Year	Facility Name	Households	Maize	Fertilizer (tons)
		(millions)	Surplu s - millio n tons	
1998/99	Starter Pack	2.3		34,500
1999/00	Targeted Input Programme	2.8		42,000
2000/1	Targeted Input Programme	1.5		7,500
2001/2	Targeted Input Programme	1.0		10,000
2002/3	Winter Targeted Input Programme	0.4		20,000
2003/4	Target Input Programme	2.0		2,000
2004/5	Targeted Input Programme	2.5		50,000
2005/6	Input Subsidy	1.7		
2006/7	Farm Input Subsidy Programme (FISP)	2.2	1.3	
2007/8	FISP	1.9	0.5	
2008/9	FISP	2.1	1.3	
2009/10	FISP	1.6	0.8	160,000
2010/11	FISP	1.6	1.1*	
2011/12	FISP	1.4		
2012/13	FISP	1.5		150,000

Sources: Ministry of Agriculture and Food Security Annual Agricultural Statistical Bulletin 2007/8 and Ministry of Development Planning and Cooperation, Annual Economic Report, 2011; 2011/12 Budget Statement. *From second estimates.

2.3 Agriculture in Public Budget Priorities

Between 1970 and 2005, the agricultural budget in Malawi was declining, especially from the 1980s when Malawi started implementing Structural Adjustment Programmes (SAPs). With the introduction of FISP for the 2005/06 agricultural season, the share of agriculture in the total budget increased over recent years. The sector was third in priority up until 2005/6 when it was accorded first priority. Spending for the six-year period in agriculture has averaged 12 percent of total government spending - range of 11 to 13 percent. The Farm Input Subsidy Programme accounted for the large share of total agriculture spending at more than 60 percent.

Noteworthy is spending on FISP for 2008/9. In 2008/9, the Malawi economy as a whole achieved the highest real growth rate at 8.9 percent. Then the Minister of Finance, Goodall Gondwe said Agriculture, "*has been allocated the largest amount of resources.*" It should be noted that there was an election coming in 2009 and the government was committed to perform to be re-elected.

Under the Maputo Declaration (2003) under NEPAD's CAADP, Malawi committed to invest 10 percent of total government spending to agriculture in order to meet the minimum 6 percent average agriculture annual growth (Table 4). Malawi is one of the few countries which over the years have invested more than the Maputo target: under development expenditure, Malawi in 2009/10 in 2010/11

spent 12 percent and 13 percent respectively on agriculture and natural resources (Table 5).

Table 4: Total Budget Allocation/Expenditure for Agriculture and Farm Inputs Subsidy Programme (FISP)

Budget Allocation/Percent	Amounts in MK'millions						Average
	2005/6	2006/7	2007/8	2008/9	2009/10	2010/1	
Total Budget	128.7	153.1	183.8	251.4	268.4	297.1	213.8
Total Budget Allocation to Agriculture	15.2	18.5	21	32.2	33.5	35.5	26.0
Total to Farm Input Subsidy Programme	7.2	9.4	15.7	21.9	22.6	20.6	16.2
Agriculture % of Total Budget	12	12	11	13	12	12	12
<i>FISP % of Agriculture</i>	<i>47</i>	<i>51</i>	<i>75</i>	<i>68</i>	<i>67</i>	<i>58</i>	<i>61</i>

Source: Ministries of Finance and Agriculture and Food Security and own calculations

Table 5: Central Government Development Expenditure by Functional Classification of Budget

Sector	Expenditure in MWK millions				
	2009/10 Approved	2009/10 Revised	2010/1 Approved	2010/1 Revised	2011/2 Estimate
Public Services	14,476	15,600	13,017	11,140	17,601
Social & Community Services	28,016	30,194	17,118	19,584	21,856
Economic Services	24,096	25,968	47,742	54,328	30,440
Ag&Natural Res.	7,820	8,427	5,925	11,314	11,875
Total Dev. Expenditure	66,588	71,762	77,877	85,052	69,897
% Economic Services	36	36	61	64	44
% AgNatural Res.	12	12	8	13	17

Source: Ministry of Development Planning and Cooperation, 2011.

The district budgets record priorities at the lowest level of government: Table 6 shows crops and livestock coming after extension and financial management. Both comprise 30 percent of the budget. A notable feature of the lower-level budget is that the FISP is not specifically mentioned.

Table 6: Lilongwe District Agriculture Office Budget 2011/12 Allocation

Description	Amount (Kwacha)	Percent
Agricultural Extension	8,460,583	31
Financial management	4,913,492	18
Crops	4,329,000	16
Livestock	3,784,000	14
Food Security	2,122,095	8
Human resource	1,172,144	4
AIDS and HIV	1,062,050	4
Agribusiness	947,500	3

	00	
	303,9	
Gender mainstreaming	50	1
	113,0	
Economic empowerment	50	0
TOTAL	27,207,8 64	100

Source: Lilongwe District Agriculture Office

3.0 INVESTMENT

Mention has already been made to the high-profile FISP which dominates government expenditure in agriculture. New directions to strengthen stability of production/productivity (the Greenbelt Initiative) and to diversify exports beyond excessive tobacco dominance have been outlined. Both of these will no doubt affect the future form and level of investment, possibly by both smallholders and larger operators. For this study however, the investments reflected the present policy emphases: what follows gives greater detail on:

- Smallholder investment (the inputs subsidy, smallholder preferences/priorities in their investment including attention to fixed assets or otherwise, investments under smallholder association auspices, and smallholder access to finance from outside government);
- Corporate/large farm investments;
- Government support to investment (non-FISP roles, especially promotional ones).

3.1 Smallholder Agriculture Investment

Apart from limited field surveys under the study, records are not readily available on how much and into what smallholders invest most or where disinvestment is occurring.² By contrast, information is abundant on the FISP – government investment for the smallholders. Many reviews have been done but regrettably, none has looked at whether (and to what degree) government subsidization of key inputs is releasing the farmers' mown money for complementary investments, such as into fixed assets. A casual view upon travelling in the countryside does not show smallholders necessarily graduating faster than in the past from annual dependence on handouts or investing in visible symbols of greater prosperity (consumptive or fixed-asset type).

3.1.1 Government's Smallholder-Focused Investment through FISP

Table 3 already summarized the budgetary and fertilizer-quantity progression of the subsidy programme since 1998/99. Input supply was initially only through the parastatal ADMARC but has since liberalization extended to private traders.³ In 2009 up to 91 percent of the market value of fertilizer came to smallholder farmers through FISP. The National Census on Agriculture and Livestock (2007) reports 71 percent maize seed use and 52 percent fertilizer use (NSO/DAHI, 2007). With FISP, maize yields show an increasing trend (Figure 2 and Annex 1): before FISP maize yields were static at around one ton per hectare. Therefore, there has been efficiency on land in Malawi. FISP and (on a much smaller scale, probably the Integrated Production System championed by tobacco merchants) have led to a 72 percent maize yield increase (816 kg/ha), something never achieved before in Malawi history (own calculation) ([Table 7.](#))

Table 7: Yield Effect due to FISP and IPS (tobacco)

Intervention	Yield (Kg/ha)
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² An interesting case of “disinvestment” is theft of equipment or stock, for example irrigation equipment, dairy cooling components, and livestock. For this reason, some farmers resort to the keeping of a large number of dogs.

³ For fertilizer – Yara, Farmer's World, ATC, OPTICHEM, ADMARC provide fertilizers. Seed is also provided through ADMARC, FARMERS World, and private traders.

Yield after FISP & IPS	1,950
Yield before FISP & IPS	1,134
Difference due to FIS and IPS (kg)	816
Change due to FIS and IPS	72%

Source: MOA Crop estimates – author’s calculation.

Increased government support to the smallholder farmers, especially through FISP in the 2005/06 through 2011/12 seasons, combined with good weather conditions demonstrated that the country can reverse chronic national food shortages into surpluses. The price of maize has remained low and stable with limited seasonal and territorial variations, and has potentially improved the real incomes of the poor who would have struggled to purchase maize at high and variable prices. The availability of maize has also resulted in improvements in the wages that the poor receive from piece-work. Inflation has declined with FISP (Figure 1) but with the recent devaluation, inflation is up again.

Improvements in maize productivity will require continued assurance of access by low income smallholder farmers to fertilizer and improved seed, especially hybrid maize seed. It also technically improved the use of inputs by smallholder farmers and greater efficiency in programme implementation through efficient planning, timeliness and overall efficiency in the procurement and delivery of inputs, and more effective involvement of the private sector. (adapted from Chirwa, et al 2007).

3.1.2 Smallholders’ Investment Preferences and Priorities

Published nationwide data on this are poor. [Table 8](#) depicts overall percentage of people with serviceable assets summarized from NSO’s Wealth Monitoring Surveys (2005-2009). The first component of the table shows proportions of people with agricultural assets - there is no information on value of such assets.. On average, 92 percent of the (18,000) sample had a hoe (the most prominent tool in Malawi). Sixty-three percent owned an axe, and a radio (cell phone -43 percent, TV set -10 percent). Those who owned the sickle were 58 percent, and 42 percent owned bicycles. The people with serviceable oxcarts were three and treadle pumps two percent. From 2009 those who had bank accounts accounted for only 12 percent of the sample. There has not been much change except for the new additions as bank accounts, cell-phones, satellite dishes and treadle pumps in 2009. The bottom line is the hand hoe is the main asset.

It is generally assumed, however, that the top priority of farmers is annual inputs, something the government subsidy programme has now largely removed as a burden on personal funds of the smallholder.

Field Surveys on Smallholder Investment

With published and statistically validated national data lacking, the study team undertook two-day field surveys in Lilongwe district, the results of which are in [Tables 9 and 10](#). The following may be noted:

- The farmers prefer buying seasonal inputs such as fertilizers, maize and tobacco seed, to investing in implements and other fixed assets. Although farmers are well aware of organic manure alternatives or supplements to

chemical fertilizer, they believe one cannot entirely do without chemical fertilizers;

- Apart from the hand hoe owned by all, farmers also purchase scotch carts, ridders, tractors, water cans, cars, wheelbarrows and shovels, sprayers and bicycles.;
- Most invest in permanent houses, with those growing tobacco also having barns, radios, mobile phones and chairs and sofa sets.
- Seventy percent rent extra land – average 1.5ha; they also keep livestock such as cattle (oxen inclusive), goats and pigs, donkeys, rabbits and ducks;
- Nine out of ten farmers hire labour either permanently or by season or by activities or all the three forms;
- Half the interviewed farmers have invested in income generating activities.

Table 8: Proportion of People with Various Types of Asset⁴

Asset	% of People With Asset					Average
	2005	2006	2007	2008	2009	
Agricultural or largely so:						
Axe	62	65	65	63	62	63
Sickle	56	59	59	57	59	58
Oxcart	3	3	3	3	3	3
Hoe	90	92	92	91	93	92
Treadle pump	0	0	0	0	2	2
Non-Agricultural/Multipurpose:						
Sewing machine	5	5	5	4	5	5
Bicycle	37	42	42	47	43	42
Modern Stove	9	4	4	4	4	5
Car	2	2	2	2	2	2
Motor cycle	1	1	1	1	1	1
Watch	40	44	44	41	12	36
Bed	35	40	40	42		39
Table	43	46	46	48	36	44
Chair	51	57	57	57	41	53
Iron	25	27	27	27	25	26
Refrigerator	3	4	4	5	3	4
Radio Set	61	66	66	66	55	63
Television set	9	9	9	12	9	10
Bank account	0	0	0	0	12	12

⁴ Only assets in working condition.

Cell phone	0	0	0	0	43	43
Satellite dish	0	0	0	0	2	2

Source: NSO, Welfare Monitoring Surveys 2005-9

The team also undertook a small sample survey of five farmers (one female, two smallholders with low income levels; one smallholder with low income and two estates - one middle income while the other was in the high income category.

Four of the five farmers finance their own investments while one is supported by the company "Africa Leaf" under the *Facilitated Farmer Scheme/Integrated Production System* or IPS, described below for JTI. The following emerged:

- For long-term investment farmers construct houses [mainly from Banda's '**houses that don't leak**' ambition];
- They also build tobacco and livestock barns, buy ox carts, bicycles and livestock like oxen to pull the ox carts, goats, cattle, with some dairy, pigs and poultry with chicken being the major livestock type kept;
- Farmers also buy and rent additional land. They hire seasonal labour and short-term labour (*ganyu*) at peak times; and
- The better-off buy vehicles like motor cycles.

Table 9: Assets, Livestock and Other Investments from the Field Study

No.	Sex	Area Ha	Scotch carts	Hoe/big knife	Ridger	Tractor/t ruck	Water can	Pickup/ car	W.Barrow & Shovel	Sprayer	Bicycles	Cattle/ox	Goats & pigs	Animal kraal	Chicken	Rabbits	Ducks/donkeys	Business-AG
EPA Location: NYANJA																		
1	F	2.0	1	8					1	2		1	5	1	30			
2	M	2.0		7			2	1	1		2		13	1	19			Yes
EPA Location: MITUNDU																		
3	F	2.0		5			2						2	1				
4	M	12.0	2	10/4	1				2		5	5ox=4		3	22			Yes
Location: CHIGONTHI																		
5	M	4.9	2	8					1		2	15	15	4	11		2	Yes
6	F	lots	2	9					1		3	13		2				
Location: MPINGU																		
7	M	1.3		2					&1				4	2	15		/5	Yes
8	M	62.8				1/1												
9	M	1.2		6			3		&3				>2	2	>2	>2		
10	M	2.8	1	10				1				ox=2						Yes

To ta l/a v.	3 F	4	8	54	1	1	7	2	10	2	12	35	41	16	99	2	2	-
N o.	S e x	A r e a H a	S c o t c h c a r t s	H o e / b i g k n i f e	R i d g e r	T r a c t o r / t r u c k	W a t e r c a n	P i c k u p / c a r	W. B a r r o w & S h o v e l	S p r a y e r	B i c y c l e s	C a t t l e / o x	G o a t s & p i g s	A n i m a l k r a a l	C h i c k e n	R a b b i t s	D u c k s / d o n k e y s	B u s i n e s s - A G

Source: Field study in Lilongwe

A surprising observation is that small investments into a critical missing item can make a very large difference, as shown in [Box 1](#).

Box 1: Farm Level Project Successes

Field surveys and from the literature brought to the study team's attention some interesting successes under community/association related investment in Malawi.

(a) Community Based Rural Land Development Project (CBRLDP, 2004 to 2011)

The CBRLDP's goal is to increase agricultural productivity and incomes of about 15,000 poor rural families Chiradzulu, Mulanje, Thyolo, Mangochi, Balaka and Ntcheu districts. The Project provides conditional cash and land transfer to poor families to relocate, purchase, develop and register new (larger) plots of farm land. Each beneficiary household received approximately two hectares of land, cash grant held in a group bank account, and title to the land through a group-level title deed. The total amount per household was US \$1,050 to be spent as follows:

- 30 percent for purchase of land;
- 8 percent as relocation allowance prior to resettlement;
- the rest for farm development.

Eighty percent (**subsistence model**) of targeted beneficiaries were expected to grow primary food crops for their own consumption and a small proportion of cash crops. Twenty percent (**semi-commercial model**) were expected to grow cash crops.

Increases in farm incomes in the two models for the two scenarios (80% subsistence and 70% subsistence) are quite substantial. This is mainly attributed to a sharp rise in consumption (at least compared to the initial levels). The impact evaluation indicates that the majority of beneficiaries have been able, even in their first year of production, to produce substantial marketable surplus for most of the crops. As such there is significant increase in cash income accruing primarily from crop sales coupled with a small proportion from off-farm labour.

(b) Mchinji Heifer Cows Give Hope and Irrigation Solar Pumps Help Fight Poverty in Mzimba

Heifers: The two case studies demonstrate how rural poverty can be a thing of the past. First, [*Heifer cows give hope to Malawian Children*] in Mchinji, 100 km west of capital Lilongwe, "Most families were experiencing chronic malnutrition, malaria and diarrheal disease - three of Africa's leading childhood killers." But now, largely thanks to Heifer International, Daniel and his family can secure the children's education and "grow up free from poverty" with a decent tin-roofed house, clothes, food and medicine and, above all else, improved health for the whole family (The Daily Times, January 17, 2012).

Solar Panels: The second, equally compelling, is the family of Flora Moya. After being in the populous township in the capital Lilongwe and finding it hard to eke out a living, the Moyas hit the 225 km road back to Gunda Village, Mzimba, northern Malawi. The family joined 4,000 other beneficiaries in the DanChurch Aid-Christian Service Committee solar irrigation project. Flora recalls, *“After being tired with water can use, we started exceedingly well with solar irrigation pumps. Soon after the water pump was installed, I planted beans and the crop responded well. I used money from the sales to buy fertilizer and expand my garden. . . . I then grew onions and cabbages and the results were impressive as I realized about K190,000 from crop sales,”* recounts Flora. *The family has also ventured into piggery as a direct result of her solar irrigation involvement.* [*“Solar pumps help rural communities fight poverty”*] (The Nation January 17, 2012)

Table 10: Seasonal Farm Inputs and Other Assets from the Field Survey

N o.	Fer t23 :21 +4 S	Ur ea	CA N	Ma ize se ed kg	He rbi cid es	To ba cco se ed	To ba cc o ba rn	Per ma ne nt Ho us e	Ra dio	Ch air s/s ofa	Comments/additional information
1	5	5		10	1	1	1	1			popcorn #1 income earner/theft
2	2	6		8		1	1	3			owns big shop from farming
3	1S	1S		10				1			House not fully iron-roofed
4	12	13	2	100							Lead farmer/shop/pigs wiped out
5	10	10		100					1	1	Area exact, 3 dairy,4 dogs security
6	1	3	4	20							Husband works, dairy, lots of land
7	1	2		10							Oxcart hire business, has slasher
8											Geology director, no licence for diesel
9	2	4S		5S							Livestock farmer-pigs, urban (Likuni)
10	5	3	3	10				3			2 houses for rent & Toyota Starlet
				S =Subsidy							

Source: Field study in Lilongwe

Investment in Land Improvement

Not necessarily from their own wish perhaps but with government exhortation, smallholders are also investing in land improvement. There is much international encouragement for this, of which some references can be mentioned:

- **USA** - Hatibu et al. (2002) emphasize the need for **efficient water use** for improved Sub-Saharan cereal production. *“For example, the FAO (1995a 1) stated that the **adoption of improved water-conservation technology** in the Central Great Plains of USA made the largest single contribution (45 percent) to the increase in average wheat yields from 750 kg/ha to 1,800 kg/ha from 1936 to 1977. This was ahead of improved varieties (30 percent), equipment (20 percent) and fertilizer practice (5 percent)”*;
- **Kenya** - In a USAID funded project Kenyans are taught conservation farming. *“But just last year, a USAID-funded project began teaching the Manga’s and other farmers in the region a new set of conservation farming techniques called **Kilimo Hai**, or “Living Earth” in the local Swahili....Despite their initial scepticism, the results erased all doubt: The conservation plot produced twice as much maize.”*(Frontlines, June/July 2011); and
- **Zambia** - In neighbouring Zambia, especially for female farmers, Andrew Ngonde (2008) states that conservation farming is popularized in Zambia because of its advantages. He states: *“Conservation farming is a method that would bring quick benefits to the small-scale female farmers. It involves dry-*

season land preparation using minimum tillage. The method retains crop residue from prior harvest. It is especially important where land is an issue, as it allows the farmer to plant and apply seeds and farm inputs only on fixed planting sites. It encourages farmers to plant with first rains when seeds would benefit from the initial nitrogen flush in the soil.....This method increases yield and the farmers will have income following the sales thereof, improving food security at house hold and national level....offering higher returns to peak season labour and land."

Noting the positive experiences broad, the Malawi Government through the Land Resources and Conservation Department has embarked on upscaling land resources conservation. Two of the myriads of technologies/investments are in [Table 11](#). Noteworthy are the achievements in 2009/10 with nearly 260,000 ha under conservation farming - locally known as "*Ulimi wa Mleranthaka*".

Table 11: Conservation and Soil and Water Conservation

Attribute (by Technology)	2006/7	2007/8	2008/9	2009/10	2010/11
Conservation Farming					
Area covered (ha)	38894	24089	18474	259974	19002
Cumulative Area (ha)	38894	62983	81457	341431	360433
% by female farmers	42	20	14	34	2
Soil & Water Conservation					
Area with Marker ridges (ha)	29695	34973	30908	32604	37039
Area with Ridge Alignment (ha)	24773	29399	31182	36143	34539
Area with Vetiver Hedge Rows (ha)	5714	5481	2416	1230	53
Total Area of Intervention (ha)	60182	69853	64506	69977	71631
Cumulative total Area (ha)	60182	130035	194541	264518	336149

Source: Land Resources Conservation Department- author summaries.

3.1.3 Grower Associations Investments

[Box 1](#) outlines investments in collective style but with individuals benefiting. Many forms of association exist, including some where providers of funding or other support make being organized into a group or club a requirement to qualify for assistance. Investment is a common objective for forming associations - notable success for investments can be found under associations, as demonstrated in Annex 2 indicating the profitability of the enterprise. The dairy industry boasts a membership of 3,464 farmers (50.1 percent men, 49.9 percent women) organized under three regional associations - Central Regional Milk Producers, Mpoto Dairy Farmers and Shire Highlands Milk Producers Association. The bulk of members, about 90 percent, are from the SHMPA (89.2 percent), followed by CREMPA (9.5 percent) and MDFA (1.3 percent).

Apart from using their income on consumables [livestock health/medical, business, transport, household items, piece work (*ganyu*), education, food, crop inputs, and livestock inputs, in increasing order], farmers also spend on fixed

assets. Among these are furniture; building materials like iron sheets, house bricks; bicycles; additional livestock in the form of chickens etc.

3.1.4 Smallholder Access to Non-Public Finance

Smallholders are generally in the poorer strata of society; logic suggests that if they are to grow, they should be able to access additional funding whether for fixed assets or for consumables (both inputs into farming/parallel business and household consumption). The funding in kind which provision of fertiliser and other inputs represent thus is a kind of financing from government: ideally, this should release the little funding farmers themselves save or otherwise acquire for re-investment into what they could not have afforded if the subsidy did not exist. The study was not able to establish whether this occurs. It did, however, get some information on established formal sources of funding for smallholders, as outlined below:

Dedicated Rural Finance: Savings are a source investment for the economy. Gross savings (% of gross national income) stand at 9.6 percent with about half (4.3%) adjusted net savings (World Bank 2007, 2009). For the study, the **Malawi Rural Finance Company (MRFC)** provides an illustration of savings generated in the economy and loans disbursed. Solely state-owned, the MRFC may be the only dedicated agricultural window and it has limited capacity. Much of its funds are actually savings mobilized among the rural people themselves. The savings it mobilizes from its customers goes into loans mostly for agriculture use. Their customers have good gender coverage.

MRFC Savings show an increasing trend from K352.5 to 489 million. However, the number of customers has drastically decreased from 103,782 in 2005/6 to 24,720 in 2009/10 [could be because of the FISP] and the total disbursed has also decreased. Women customers' participation looks favourable at 33 percent on average, though declining (Table 12).

Table 12: Malawi Rural Finance Company Reports on Customer Savings and Loans

Year	2005/6	2006/7	2007/8	2008/9	2009/10
Disbursements/Loans:					
• Total disbursed (Million MK)	826.8	521.2	811.6	1721.5	587.1
• Number of loan accounts	6,142	3,272	4,625	5,663	
• Number of loan customers	103,782	92,696	43,390	77,319	24,720
• Number of women loan customers	41,513	36,436	8,831	21,235	9,147
• Percent Women participation	40	39	20	27	37
Customer Savings:					
• Customer savings	352.5	345.2	405.9	434.2	489.0
• Number of savings accounts	190,556	206,632	111,718	152,725	250,775

• Average savings per account	1,771	1,7 27	7,1 41	2,8 43	1,9 50
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Commercial Banks: The Malawi investment sector is serviced by banks and other financial institutions. Other financial institutions include insurance companies, foreign exchange bureaus, savings and cooperatives. These make up the non-agricultural sector that has a bearing on agriculture and its GDP growth. Well regulated and overseen by the Reserve (central) Bank of Malawi, Malawi has a sound banking and financial sector. During the Banda era, there were two banks - National Bank of Malawi and Commercial Bank of Malawi (CBM). At present in 2011, the financial services sector has 14 banks and 11 each insurance brokers and reinsurance companies. These banks are Ecobank; First Merchant; Indebank; National; LOITA, Standard; New Building Society; Malawi Savings; Nedbank; and Opportunity International Bank. The sector has seen so many new banks during the 1990s and 2000's. Other financial institutions - Indefinance; INDEFUND; FINCOM; LFC; MRFC; CDH; MUSCCO; foreign exchange bureaus; and FDH. There are also savings groups from public works beneficiaries.

The **National Bank of Malawi's** investment in agriculture is in seasonal inputs mainly to smallholders in the centre and north but to estates in the south (data not available). The National Bank of Malawi's agriculture office provides loans through tobacco merchants or processors and not directly to farmers (Table 13). The National Bank solely lends money for smallholder tobacco.

Table 13: National Bank Lending for Agricultural Inputs - Smallholder Tobacco

Year	Crop	Annual Funding (MK)	Cumulative total (MK)
2007/8	Tobacco	48,000,000	48,000,000
2008/9	Tobacco	64,000,000	112,000,000
2009/10	Tobacco	61,500,000	173,500,000
2010/1	Tobacco	117,000,000	290,500,000
2011/2	Tobacco	350,000,000	640,500,000

Smallholder Financial Support from Large-Scale Agriculture: Since 2007/8, farmers have had access to loans through tobacco merchants like Alliance One, Malawi/Africa Leaf, Premium TAMA, Limbe Leaf and JTI. This support improves yields and tobacco quality for farmers. The companies also provide working capital.

3.2 Large Farmer and Corporate Investment

The estate sector has for some years now been operating partly clandestinely, camouflaging as smallholder clubs in order to avoid some taxes. However, since 2009/10 smallholders are also equally taxed so a fuller picture of its operations is again more possible. In the meantime, tobacco prices went lower than costs of production (D.Yiannakis, Personal Communication, 2012) and therefore some estates (especially in flue cured tobacco)⁵ will never rebound because they have been driven out of business. To survive, some mainly European-owned (Greeks) medium-sized flue cured tobacco estates mainly around Namwera in Mangochi have consolidated into a big one managed by one family.

The former first president's investment in land totals just over 17,000 ha (17,152) in eight estates, mainly in his home Kasungu. Three out of four, in area and numbers, are for crop production, and tobacco used to dominate this in the past. In 2010, the group, thanks to low tobacco prices and high labour cost, literally stopped growing and selling tobacco. The estates are now either sublet to a tobacco company or the group now solely invests in the production of seed maize, groundnuts and soya beans. The three crops and the ranches form the bulk of business and investment is in those enterprises. From the outset, it is worth noting that two of the estates have fixed irrigation investment in the form of big dams, engines / pumps and tractors for own use and for sublease. To reduce labour dependence, the group has resorted to heavy herbicide use. The

⁵ Smallholders dominate marketed burley at 97 percent of the total marketed, as from 2010. There has been a decline in the number of estates within burley production as shown in Figure 2.

ranches procure supplements and molasses and drugs, mainly dip and multivitamins.

A huge agriculture conglomerate (Press Agriculture) has completely withdrawn from tobacco production and marketing on account of high costs of production, especially labour and very low tobacco prices. Tobacco merchants sub-leased some of their land for tobacco production.

Figure 2: Trends in Numbers of Estates and Clubs

Some new players are coming on the scene and this may assist diversification out of tobacco. An example is Malawi Mango (fruit), and two companies in groundnuts. Malawi Mango has recently injected capital into factory establishment and mango production in Salima, some 100 km east of central Malawi. Mango pulp will form the major output of the factory. In groundnuts, *EXAGRIS* and *Mustard* have also invested locally. Settler farmers like Barron, Wallace, M^cPherson have invested on their estates for years and are established within Lilongwe and outside.

Another form of diversification is ***investment higher up the agricultural value chain***. Marketing has attracted attention of supermarkets. South African supermarkets like *Shoprite*, *Spar* and others have come into Malawi. This has energised local investors to also build up – the Food Zone, Chipiku, Sana, Seven Eleven have joined the South African groups in competing with the long-time near-monopoly Peoples' Trading Centre. Thanks to their massive investment in refrigeration, supermarkets have brought about outlets for farmers' produce (especially fresh fruits and vegetables). A wake-up call, however, is for farmers to invest in grading and production of quality produce to compete with those imported from South Africa.

A visit to Spar reveals local produce quality is on the poor side. However, a chat with Spar services manager revealed the 21 May 2011-introduced retail outfit does not import locally available agriculture produce like tomato, onion, meat and vegetables. Thus, there is potential for irrigated and rain-fed produce in these shops also for freshness and nutrition (Weir Sarah, 2011. Yahoo blogger).

3.3 Government Support to Investment

There are a number of agricultural sector projects funded by various development partners implemented by the Ministry of Agriculture and Food Security (Annex 4). These projects support the agricultural sector in crop production and promotion of livestock. Most of the projects concentrate on the promotion of crops grown by smallholder farmers. Two out of fourteen projects are in livestock.

However, whatever else government is doing to support agricultural investment tends to be drowned out by the massive dominance of inputs subsidy. As a result fertilizer emerges as the economy's largest import commodity followed by pharmaceutical products, even though fertilizer import value decreased from MK38.1 billion in 2009 to MK 30.8 billion in 2010 as indicated in [Table 2](#). Nevertheless, government continues to promote local and FDI investments,

including in agriculture. Box 2 shows inclusion of agriculture and its value chains in investment pledges.

The role of government in setting new directions and areas of emphasis is also important: the move towards irrigation agriculture under the GBI and efforts to diversify could both lead to fixed-capital formation being in future less overwhelmed by attention to subsidies than at present.

Box 2: Government and Promotional and Enabling Environment Roles

For the past three years foreign direct investment flows have fluctuated because of the financial crisis. However, Africa is witnessing new sources of FDI from transnational corporations and Asian countries like China, Malaysia, India and the Gulf Cooperation Council countries (Ministry of Development Planning and Cooperation, 2011). For international FDI, MITC has developed a marketing plan for promotion as indicated in the MDGS. With Asia leading, in 2010 MITC registered new investment pledges worth US\$115.5 million, representing 7.4 percent increase from 2009. With the bulk of these investments into manufacturing (33%) and services (29%), agriculture registered 21 percent of total investment resulting in 3,239 jobs created in 2010 (3,763 in 2009).

MIPA also promotes local micro, small and medium enterprise investment. With support from the Chinese, MITC is considering setting up a Special Economic Zone. Land identification is underway. Other investment facilitation to improve Malawi's ranking in the World Bank/IFC Doing Business Report and the overall business environment include the finalization of seven bills. They are Export Processing Zones (Amendment) Bill; Business Licensing Bill, Solvency Bill, Companies (Amendment) Bill, Malawi Bureau of Standards, Business Registration Bill and Personal Property Security Bill. The bills await cabinet approval and parliament approval. The bills will substantially reduce the cost of doing business and improve investment climate.

However, a number of constraints need to be addressed:(1) high telecommunications cost, (2) unreliable power supply, (3) intermittent fuel supply, (4) intermittent foreign exchange, (5) access to fiscal incentives, (5) absence of industrial land for new or expanding projects, and (6) investors taking too long to obtain Business Resident Permits (BRP) and Temporary Employment Permits (TEMP) (Finscope Malawi, 2008).

The predominance of low technology in smallholder agriculture is reflected in the low share of machinery and equipment in total imports; with the estate sector relatively small, small numbers only of items like ploughs and threshing machines are shown in Table 14. So dilute is importation of farm machinery and equipment that it has little potential to be used methodologically as a proxy for total fixed-asset investment in agriculture.

Table 14: Machinery - Import Quantity by Item and Year

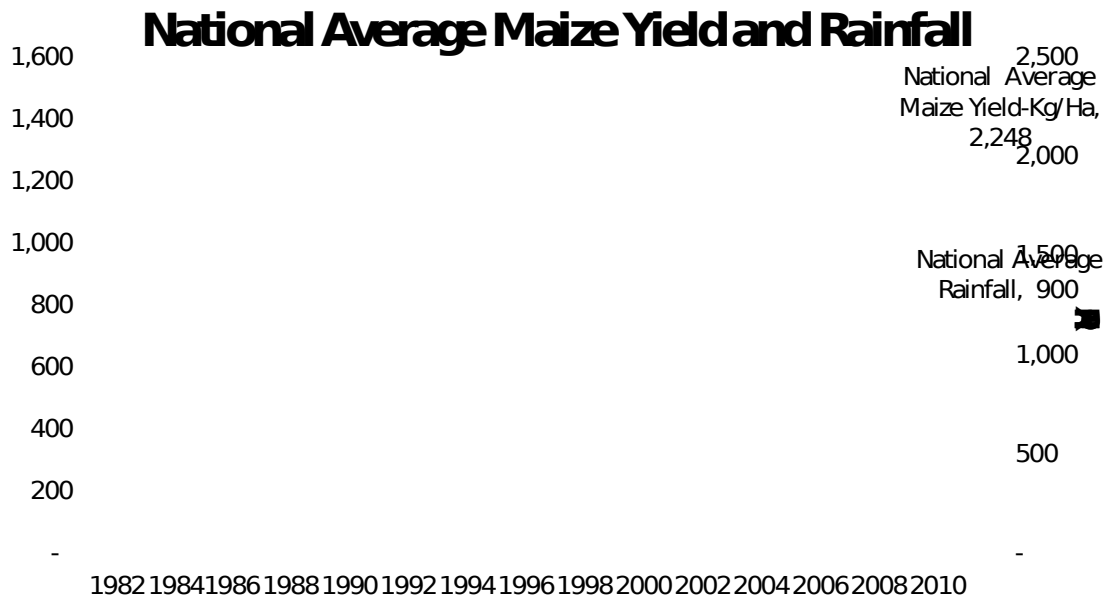
Types of Machinery	2005	2006	2007	2008	2009
Track-laying tractors	175	291	144	110	181
Threshing machines (staking, forage harvesting)	4,696	21,086	8,286	1,854	5,803
Milking machines	517	885	1,829	255	31,608
Ploughs	38,162	32,598	58,670	559	1,042

Source: www.countrystat.org/mwi

3.4 Initiatives to Correct Key Challenges

Achieving maize surplus has pleased the government but it is paying close attention to two worrying developments: (a) the fluctuations in production even of the subsidized maize crop (but also cash crops for export) due to almost complete reliance on rainfall (Figure 3); and (b) the uncertain future for tobacco exports. ***If strongly pursued, the response to both concerns will influence future forms and priorities of investment.***

Figure 3: Maize Yield and Rainfall



Stabilising Production: Boosting Irrigation: To the problem of crop production being excessively variable and at the whim of the weather (Figure 2), government is pursuing accelerated irrigation development to reduce the threat of agricultural production fluctuation to economic security. With a view to responding to/anticipating the dangers of reliance on unpredictable rains and without interrupting the large FISP programme, government has launched the *Greenbelt Initiative* (GBI) which aims at consolidating the production/productivity gains made by intensifying irrigation farming, livestock development and fisheries development, among others. The GBI is a priority programme, for which government has allocated MK1 billion for 2012/3. Given that water masses make up 20 percent of Malawi's 118,484 km² total area, the GBI initiative aims at using these available abundant water resources for irrigation farming thereby hedging against the effects of unstable weather (including under presumed climate change) on food and nutrition security. The main water bodies consist of Lakes Malawi, Chilwa, Chiuta and Malombe.

The GBI has ten specific objectives, of which the lead one is probably to increase production and productivity of crops, livestock and fisheries. Collateral attention will be paid to investments in infrastructure and support services and to value chain development, including processing of raw materials. During the 2011/2012 fiscal year, over 2,000 hectares of land was developed for irrigation for both commercial and smallholder

farmers. In the same year, government procured 6,000 hectares from Press Agriculture in Salima which is called Chikwawa Green Belt Irrigation Scheme. The design phase for this scheme is completed while the construction phase for 530 hectares commenced and will be ready for irrigation farming by September 2012. Procurement processes for the design and supervision consultancies for proposed Malombe and Ntholalora-Ngosi irrigation schemes are underway. The designs for the initial 240 hectares of Chilengo site under the Shire Valley Scheme are under review. These interventions will bring the total of land under irrigation in the country to 92,326 hectares and raises the number of smallholder beneficiaries from 356,728 in 2010/2011 to 365, 844 in 2011/2012.

Diversification: For economic / trade security, it is necessary to find complementary and alternative crops to the too-dominant tobacco in exports. Government has embarked on an ambitious impromptu diversification and export drive. In the 2012/3 budget allocation cotton is in the lead but other crops have also been highlighted - soya beans, pigeon peas, sugar, beans, groundnuts and rice. However, the maize-focused FISP still gets the lion's share of the budget (75% agriculture budget and 12% overall - Figure 4). Table 15 summarizes potential suggestions for diversification for all farm categories.

The government is also exploring diversification into high value and low volume horticultural produce for export and urban supermarkets like yellow and sweet maize/corn, cherry tomatoes, strawberries, fine and green beans, baby carrots, purple and baby cabbage, spices, broccoli, cauliflower, onions, (Jaure, 1990 and additional from *Shoprite*). Estates can also venture into cassava and sweet and Irish potatoes.

Farmers can also diversify away from tobacco by increasing livestock activities including into dairy. Livestock can also strengthen the economic safety net role of agriculture. Malawians are investing in livestock as moving bank accounts. In and around Lilongwe City there is an overwhelming demand for beef and other meat like goat; the poultry industry has also grown tremendously. Unfortunately one result is that there is rampant stock theft and insecurity levels are astronomical. In this study, two cases of dog ownership are worth noting. One has four dogs near Lilongwe International Airport. The other is a hotel chef in town but keeps for security ten vicious dogs at his mixed crop and livestock farm some 20 km west of Lilongwe. A recent response is dairy insurance through Land O' Lakes from National Insurance Company.

Since 2005, there has been increased performance of the livestock sector (Table 16). However increases in grazing livestock in Malawi will depend on improved productivity in arable agriculture. The dairy farming sector in Malawi is just being developed, but it faces several capacity constraints including lack of financial resources to purchase cows, poor farm management, outdated machinery in some dairy processing plants, and lack of competition in milk processing. Annex 6 gives the results of the livestock census.

Processing is another avenue for diversification. Much hope is being placed in processing at the village level, for which a Japanese funded project that started in 2003/4 has offered Malawi a promising approach

called “One Village One Product” (Table 17). Malawi being agricultural based, these processing investments mostly handle agricultural raw materials.

Figure 4: Commodity Breakdown of Ministry of Agriculture Budget 2012/3

Table 15: Potential Participants in Diversification

Category of Farms	Cereal & Roots	Pulses, oils	Livestock	Tree nuts	Orchards	Horticulture
Resource poor	X	X	X	X		*(I add)
Commercial smallholder	X	X	X	X		
Small estates		X	X	X	X	X
Large estates				X	X	X
Agro-processing	X	X	X	X	X	X

Source: Mataya et al, "Crop Diversification in Malawi" in Matemba and Chidzanja, 2011.

Table 16: Livestock Production

Type	Stock Numbers ('000)					
	2005	2006	2007	2008	2009	2010
Cattle		798	889	982	1,069	1,110
Goats		2,301	3,106	3,488	3,893	4,442
Chicken		19,504	44,049	31,319	40,053	44,672

Source: Phiri A.M.R., 2011.

Table 17: One Village One Product (OVOP) Value Addition

Year	2003/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11
Number of projects	15	14	7	6	21	42	11
Number of beneficiaries	4424	7785	505	229	3894	4473	7129

Source: OVOP in Malawi. Ministry of Industry and Trade (leaflet)

4. CONCLUSIONS AND RECOMMENDATIONS

Agricultural policy

Duality has dwindled between the estate (for tobacco production) sector and customary smallholder sector and the estate sector has had some problems because of failure for leasehold estates to pay back the TAMA-guaranteed loan scheme, low tobacco prices and increased land rents. To escape withholding tax, a number of estates tried to join smallholder tobacco producers by registering as tobacco clubs. But recently all farmers are required to pay 3 percent as withholding tax.

The experience of government increased support to the smallholder farmers, especially through the FISP in the 2005/06 through 2010/11 seasons, combined with good weather conditions has demonstrated that the country can avoid chronic national food shortages. The price of maize has remained low and stable with limited seasonal and territorial variations, and has potentially improved the real incomes of the poor who would have struggled to purchase maize at high and variable prices. The availability of maize has also resulted in improvements in the wages that the poor receive for piece-work. However, sustained improvements in maize productivity will require continued support that ensures access to fertilizer and improved seed, especially hybrid maize seed by low income smallholder farmers.

Despite subsidies being offered and received for annual inputs, farmers still spend more on farm inputs mainly seeds, fertilizers, labour and hand hoe type tools rather than on investment in farm equipment, which is minimal.

Public expenditure and investment

Government budget allocation to the agricultural sector declined from 32.2 per cent of the fiscal budget in the 1970s to 6.1 per cent from 1999 to 2005. The reduction in the share of agricultural budget is a direct reflection of government's withdrawal of services in the sector under structural adjustment programs. With the introduction of FISP for the 2005/06 agricultural season, the share of agriculture in the total budget increased over the recent years. Since the start of FISP, in the agriculture budget has averaged 12 percent of total government spending – range 11 to 13 percent. This spending is largely towards agricultural inputs such as seeds and fertilizer very little goes to other services.

Investment at Corporate Level

The policy environment is that of too much emphasis on food self-sufficiency, especially maize; and over-reliance on tobacco as lead export. Of late there has been an impulse investment of MK1.6 billion for cotton production (National Assembly of the Republic of Malawi, 2011). This is said to be in response to fears that the tobacco market is under threat from the anti-smoking lobby, hence the desire for diversification into alternative cash crops. Discouragingly though, little attention is paid and accorded to manufacturing – third in contribution to GDP. Without value-addition which may come from manufacturing, primary products will continue be exported.

Lending by Banks Is Dominated by Tobacco Savings and Loans

Solely state-owned, the Malawi Rural Finance Company, mobilizes savings from its customers and loans mostly for agriculture use. Their customers have good gender coverage. In agriculture, the National Bank lends money solely for smallholder tobacco. The loans are buyer/processor guaranteed.

Farm Level Survey of Investment

Undertaken in two days, the Lilongwe district field survey results are in Tables 12 and 13. Apart from the hand hoe owned by all, farmers also purchase scotch carts, ridgers, tractors, water cans, cars, wheelbarrows and shovels, sprayers and bicycles. They also keep livestock such as cattle (oxen inclusive), goats and pigs, donkeys, rabbits and ducks. The farmers prefer buying seasonal inputs (such as fertilizers and maize and tobacco seed) to investing in implements and other fixed assets.

In response to championing by the Land Resources and Conservation Department, farmers are also investing on their land through conservation farming for its myriad claimed benefits to the soil and food and income security at both household and national levels.

The field study has confirmed that a lot of estates have closed down, and there has been a structural change from estate dominance to smallholders, particularly in burley tobacco. Over the last few years, the apparent shift from direct auction by estates to contract farming to smallholders under IPS arrangements is worth noting. Diversification for all farm categories is possible. But there is need to define which enterprises are appropriate for which categories of farmers. Deliberate efforts must be put into place to support farmers (small, medium and large) in accessing finance, insurance, infrastructure and other services. The IPS is a good avenue for both tobacco and maize.

The high cost of purchased inputs (more than 50 percent of farm budgets) call for innovative methods of soil, nutrient and water conservation to complement the subsidy programme and the Integrated Production System.

Insecurity poses a challenge for investment especially in livestock.

It is recommended that balanced government policies towards all categories of (small, medium and large) farmers be pursued. These policies must be coupled by investment support for all categories of farmers.

The government should consider facilitating the integrated production system for tobacco initially and other crops as need arises as opposed to the current situation where tobacco merchants are the drivers of the system.

Diversification is important for all (especially for large-scale estates closing or closed down). These should diversify into crops and enterprises with a market, local and/or international. Such diversification will automatically call for adjustments to investment, both in terms of balance between intermediate inputs and fixed assets and in respective roles of small and large farms. The policy for diversification remains unclear, especially if compared with the unwavering support for maize subsidies.

Low cost environmental approaches are part of the solution to reducing costs of production and should be part of the packages promoted by all players in the production-marketing chain.

5. KEY MESSAGES

- a. Government budgetary allocation (expenditure) to agriculture has risen to more than the 10 percent target for CAADP.
- b. Subsidies, which dominate government budgets, have focused on consumable inputs and thus fertilizer dominates agriculture imports; there is need to include other long-term investment items. The imbalance has also meant that high expenditure has not led to farm-level fixed-capital formation as farmers mainly invest in consumption. However, this needs further investigation.
- c. For burley tobacco, production dominance has shifted overwhelmingly from estates to smallholders.
- d. Contract farming in the form of FFS or IPS has contributed to the increase in maize yield and maize surpluses. Contract farming, which appears to have become more widely adopted by neighbouring Zambia, Tanzania and Mozambique and partially Zimbabwe, has the potential to address food security, soil degradation, access to finance and marketing.
- e. Associations like the ones in dairy have great potential for capital formation in the form of permanent houses, paying school fees for higher than basic education.
- f. There is ample potential for diversification for all (smallholder and estate) farmers. These reformed estates (away from tobacco near-exclusivity) and associations can also supply hotels and supermarkets [including South Africa supermarket] in urban centres.
- g. There is savings mobilization potential in Malawi, as shown by MRFC; both men and women can potentially participate in financial institutions.
- h. In addition to subsidies, governments should support and facilitate own farmer investment.

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ANNEXES

Annex 1: MAIZE YIELD AND RAINFALL

Maize National			Maize National		
Year	Yield Kg/Ha	Average Rainfall	Year	Yield Kg/Ha	Average Rainfall
1982		970	1997	994	1,078
1983	1,171	885	1998	1,187	1,158
1984	1,191	997	1999	1,640	1,177
1985	1,183	1,272	2000	1,596	855
1986	1,085	1,336	2001	1,099	1,246
1987	1,016	980	2002	1,034	1,065
1988	1,172	1,105	2003	1,230	1,103
1989	1,188	1,324	2004	1,088	914
1990	999	1,127	2005	809	865
1991	1,142	1,004	2006	1,608	1,057
1992	480	777	2007	1,997	1,071
1993	1,533	1,154	2008	1,650	1,029
1994	725	780	2009	2,228	998
1995	1,083	835	2010	1,970	983
1996	1,443	1,093	2011	2,248	900

Sources: Department of Climate Change and Meteorological Services, and Ministry of Agriculture and Food Security.

Annex 2: NATIONAL PRODUCTION OF 12 MAJOR CROPS

Crop	Annual Production (tons)						
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11
1.Maize	1,225,234	2,611,486	3,444,655	2,777,438	3,769,102	3,419,409	3,895,181
(Maize yield(Kg/Ha))	809	1,608	1,997	1,650	2,228	1,970	2,248
2.Rice	41,270	91,450	113,166	114,885	137,130	110,106	117,733
3.Groundnuts	141,078	203,071	273,757	243,215	293,948	297,487	325,215
4.Tobacco	93,598	121,600	117,412	160,238	208,154	172,972	174,928
5.Cotton	50,363	58,569	63,290	76,761	72,664	29,165	52,456
6.Wheat	1,730	2,000	4,605	2,386	2,811	2,341	1,850
7.Sorghum	18,175	54,309	63,698	61,999	60,025	53,932	73,330
8.Millet	15,970	27,037	32,251	31,869	26,866	24,495	32,911
9.Pulses	209,492	344,586	415,551	387,347	501,376	470,489	531,967
10.Cassava	2,197,640	2,832,141	3,285,127	3,491,183	3,874,705	4,000,986	4,316,373
11.Sweet potato	1,081,463	1,781,595	2,307,354	2,320,696	2,730,965	2,897,888	3,223,263
12.Irish potato	404,420	527,831	593,842	673,122	794,655	775,262	928,941

Sources: Ministry of Development Planning and Cooperation; Ministry of Agriculture and Food Security: Third Crop Estimates [2004/5-2005/6 & I. potato added Third Crop Estimates 2010/11].

Annex 3: GOVERNMENT PRIORITIES BASED ON BUDGET STATEMENTS

Year	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
2002/3	Education	Health	Agriculture	Water and sanitation	Roads
2003/4	Education	Health	Agriculture	Water and Sanitation	Roads
2004/5	Education	Health	Transport	Agriculture	Transport
2005/6	Agriculture	Information and Tourism	Trade and private sector development	Water and Sanitation	Industry, science & Technology
2006/7	Agriculture	Transport infrastructure	Energy	Rural Development	
2007/8	Agriculture	Irrigation and Water Development	Road Infrastructure	Energy	Rural Development
2008/9	Agriculture and Food Security	Irrigation and Water Development	Road Sector	Energy	Rural Development
2009/10	Agriculture and Food security	Integrated Rural Development	Irrigation & Water Development, Transport & Communication , Energy Development and Youth Enterprise Development	Education, Science and Technology	Management and Prevention of HIV and AIDS
2010/11	Agriculture and Food Security	Education, Science and Technology	Transport Infrastructure, Nsanje World Inland Port Development	Integrated Rural Development	Public Health, Sanitation and HIV and AIDS
2011/12	Agriculture and Food Security	Greenbelt Irrigation and Water Development	Education, Science and Technology	Transport Infrastructure and Nsanje World Inland Port Development	Climate Change, Natural Resources and Environmental Management
2012/13	Agriculture and Food Security	Transport and infrastructure	Energy, industrial development, mining and tourism	Education, science and technology	Public health, sanitation, malaria, and HIV and AIDS management

Source: Njiwa, et al and National Assembly, 2011,[2009/10, 2011/12 Budget Statements]

Annex 4: PUBLIC SECTOR INVESTMENT PROJECTS

Project	Funding organization	Total Cost	ID
Promotion of cotton and Wheat Project	Malawi Government	639,101,000	118
Dairy Development Programme	MG	500,000,000	101
Specialist Livestock Training	MG	227,000,000	100
Improvements of Irrigation Infrastructure	MG	188,150,000	98
Small Stock Development Project	MG	120,000,000	88
Up-Scaling Breeder/Basic Seed & Livestock	MG	800,000,000	87
Animal Health Services Improvement Project	MG	528,000,000	86
Agricultural Development Support Programme	MG/World Bank/Norway/IFAD	53,300,000	184
Irrigation Rural Livelihood Ag. Programme	MG/World Bank/Norway/IFAD	52,500,000	64
Lirangwe Livelihood Support Programme	Irish Aid [to Blantyre CCAP Synod]	50,000	141
Kalembo Food Security & Integrated Rural	IA [to Self Help Africa]	1,205,059	117
Agroforestry Food Security Programme	IA [to ICRAF]	4,001,000	151
Masambankhunda Food Sec & Integrated Pjt	IA [to Self Help Africa]	1,115,354	106
Rooting Out Hunger with Orange Flesh S.Potato	IA [to International Potato Center]	685,000	59
Promoting Conservation Agriculture	IA [to NASFAM]	750,000	57
Malawi Seed Industry Development	IA [to ICRISAT]	1,600,000	55
Revitalizing Seed and table Irish Potato	IA [to International Potato Center]	18,455,000	54
Multi Annual Programs Schemes (Livelihood & Food Sec.	IA [to GOAL]	316,815	44
Integrated Food Security Programme [to Evangelical & Ass. God]	Dept for International Development	8,450,000	34
Support to Input & Maize Market Interventions	DFID/NORAD/EU[to MOAFS]	44,429,642	23
Small Farms Irrigation	BADEA		20
Farmers First-Community Led	Canadian International Deve.Ag		96
Food Security	Danish Church Aid		66
Food Security and Livelihoods Improvement Programme	DCA		13
Farm Income Diversification Programme	European Union		8
Smallholder Dairy Development Project	EU		121
Rumphi Food Security	EU		108
Integrated Smallholder Dairy Projects	Heifer International		15
Smallholder Piggery Projects	Heifer International & Bothar		136
Sustainable Livelihood Security	Hunger Project Globe		31
Farmer Artificial Insemination Technician Foster	Japanese Inter. Cooperation Ag.		91
Dedza Sustainable Livelihood	Jules et Paul Leger Foundation		115
Rural Livelihood Programme	Kellogg Foundation		130
Improved Small Stock Development	Plan Malawi		173
Support to Children & Families affected by HIV&AIDS	Plan Netherlands		169
Women Empowerment	Swedish Mission Council		168
Malawi Dairy Development Alliance	United States Agency for Int. Development		4
Assistance to Food Insecure People/Nat. Disas. & HIV&AIDS	World Food Programme		124
Area Development Programme	World Vision Projects		
Nayuchi, Ngodzi-Matowe and Mpanda (3)	WV Australia		35,45,6
Mpama (1)	WV Canada		153
Mpanda, Mkhumba, Kamwendo Food Sec., Kunyi nda (4)	WV Germany		6,37,162,19
Midzamba, No name (No. 38) (2)	WV Hong Kong		103,38
Khuyu, Kalira (2)	WV Japan		144,165
Lipiri (1)	WV New Zealand		158
Tchesa, Kasangadzi (2)	WV South Korea		161,159
Kayezi (1)	WV United Kingdom		60
Senzani, Nthondo, Mutendere, Chingale-Mkawa CBO,			28,36,
Chinganda, Chingale-Mitimbi CBO, Chingale (7)	WV USA		39,93,
			48,104,
			46

Source: Ministry of Agriculture data base.

Annex 5: DAIRY BUSINESS GROSS MARGINS AND BREAK-EVEN ANALYSIS

	Cross bred cattle		Pure bred cattle		
Gross Income	Quant/yr	Kwacha	Quant/yr	Kwacha	price/litre
Milk sales	2,400	147,600	3,978	244,647	61.5
litre/day	6.6		10.9		
Variable costs					
Dairy mash	600	32,400	1,250	67,500	54
mineral supplement	15	2,250	34	5,100	150
pasture	0.5	-	0.5	-	
plain maize husks	400	3,484	800	6,968	9
salt	19	1,695	44	3,990	91
mineral blocks	3	3,300	11	3,300	300
AI services	3	6,475		6,475	2,158.33
veterinary medicines		2,235		5,289	
labour	121.7		121.7		
MBG levies	1	29,721	1	29,721	
MBG fees	1	2,400	1	2,400	
insurance	1	5,330	1	6,553.13	
Total Costs		89,290		137,296	
Gross margin/ annum MK		58,310		107,351	Exchange
Gross margin/ annum US\$		388		704	152
Breakeven price 1 litre MK		37		35	
Breakeven price 1 litre US\$		0.24		0.23	
Source: Land O' Lakes and own calculations					

Annex 6: LIVESTOCK CENSUS

Animal Class	First Round Livestock Final Round Livestock Production Estimates 2011/12	Final Round Livestock Production Estimates for 2010/11	Percent Change
All cattle	1,132,631	1,110,560	2
Goats	4,714,311	4,442,907	6.1
Sheep	235,362	228,649	3
Pigs	2,179,744	2,160,670	1
Chickens	56,791,518	44,672,086	27

Source: Economic Report 2012, Ministry of Finance