
Republic of Malawi

# Malawi Agricultural Sector Wide Approach

***A prioritised and harmonised Agricultural Development Agenda: 2011-2015***

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# FOREWORD

The Government of Malawi agreed with its development partners to formulate the ASWAp aimed at increasing agricultural productivity, contributing to 6 percent annual growth of the agricultural sector, improving food security, diversifying food production to improve nutrition at household level, and increasing agricultural incomes of the rural people. ASWAp is, therefore, a priority investment programme in the agricultural sector for the period 2011-2015 and is based on the priority agricultural elements of the Malawi Growth and Development Strategy. It is also consistent with the Comprehensive African Agricultural Development Programme (CAADP) and the Development Assistance Strategy.

The ASWAp is a single comprehensive programme and budget framework that has a formalized process for better donor coordination and harmonization of investment and alignment of funding arrangements between Government of Malawi and donors in the agricultural sector. It promotes increased use of local procedures for programme design, implementation, financial management, planning and monitoring and evaluation.

Government will spearhead the implementation process, but stakeholders in the sector will have to compliment Government's efforts by aligning and harmonizing their programmes and activities to bring these into line with the priorities set out in the ASWAp. The alignment and harmonization process will be hard but I am confident that the commitment shown by various stakeholders during the development of the strategy will assist in ensuring its effective implementation. Furthermore, despite many challenges that may affect the implementation of the ASWAp, there is need for all individuals and institutions in the sector to play their roles to ensure meaningful engagement in farming as a business.

Lastly, I would like to thank His Excellency the State President, Ngwazi Prof. Bingu wa Mutharika for his vision, direction and commitment in transforming the agricultural sector in the country.

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# ACRONYMS

| | |
|---|---|
| ADD | Agricultural Development Division |
| ADMARC | Agricultural Development and Marketing Corporation |
| AI | Artificial Insemination |
| ARV | Antiretroviral Therapy |
| ASWAp | Agriculture Sector Wide Approach |
| AU | African Union |
| AWPB | Annual Work Plans and Budgets |
| CAADP | Comprehensive African Agriculture Development Programme |
| CGE model | Computable General Equilibrium model |
| CoC | Code of Conduct |
| CTC | Community Therapeutic Centers |
| DAS | Development Assistance Strategy |
| DEC | District Executive Committee |
| DFID | Department for International Development |
| EU | European Union |
| FAO | Food and Agricultural Organization |
| FISP | Farm Input Subsidy Program |
| GBI | Green Belt Initiative |
| GDP | Growth Domestic Product |
| GoM | Government of Malawi |
| HIV/AIDS | Human Immune Virus/Acquired Immuno-Deficiency Syndrome |
| IEC | Information, Education and Communication |
| IFMIS | Integrated Financial Management System |
| M&E | Monitoring and Evaluation |
| MASIP | Malawi Agriculture Sector Investment Programme |
| MDG | Millennium Development Goals |
| MDPC | Ministry of Development Planning and Cooperation |
| MGDS | Malawi Growth and Development Strategy |
| MoAFS | Ministry of Agriculture and Food Security |
| MoF | Ministry of Finance |
| MoIT | Ministry of Industry and Trade |
| MoIWD | Ministry of Irrigation and Water Development |
| MoLGRD | Ministry of Local Government and Rural Development |
| MoU | Memorandum of Understanding |
| MPRSP | Malawi Poverty Reduction Strategy Paper |
| NAC | National AIDS Commission |
| NEPAD | New Partnership for African Development |
| NGO | Non-Governmental Organisation |
| NRU | Nutrition Rehabilitation Units |

| | |
|---|---|
| NSO | National Statistical Office |
| ODPP | Office of the Directorate of Public Procurement |
| OPC | Office of the President and Cabinet |
| PBA | Programme Based Approach |
| PER | Public Expenditure Review |
| PIU | Programme Implementation Unit |
| PLHA | People living with HIV and AIDS |
| PPPs | Public Private Partnerships |
| SGR | Strategic Grain Reserve |
| UNDP | United Nations Development Programme |
| USAID | United States Agency for International Development |

# EXECUTIVE SUMMARY

## The Agriculture Sector Wide Approach

The Government of Malawi (GoM) and its Development Partners agreed to formulate the Agriculture Sector Wide Approach (ASWAp) as a means for achieving agricultural growth and poverty reduction goals of the Malawi Growth and Development Strategy (MGDS). The MGDS has targeted agriculture as the driver of economic growth and recognizes that food security is a pre-requisite for economic growth and wealth creation. The ASWAp, therefore, offers a strategy for supporting priority activities in the agricultural sector to increase agricultural productivity and make Malawi a hunger free nation, enabling people access nutritious foods and increase the contribution of agro-processing to economic growth.

The ASWAp is unique in that it is a program led by the Malawi Government; envisages a single comprehensive programme and budget framework; has a formalized process for better donor coordination, harmonization of investment and alignment of funding arrangements between GoM and donors; promotes increased use of local procedures for programme design, implementation, financial management, planning and monitoring.

The development of the ASWAp was highly participatory and consultative involving the Central Government Ministries and Local Councils, Civil Society Organizations, Non Governmental Organizations, Development Partners, Cooperating Partners, Private Sector, Academia and the general public.

## Priority Investments of ASWAp

The ASWAp identifies three focus areas, two key support services and two cross-cutting issues. The focus areas are: Food Security and Risk Management, Commercial Agriculture, Agro-processing and Market Development and Sustainable Agricultural Land and Water management. The two key support services are Technology Generation and Dissemination, and Institutional Strengthening and Capacity Building while the cross-cutting issues are HIV Prevention and AIDS Impact Mitigation and Gender Equity and Empowerment.

## Priority Focus Areas of ASWAp

Food Security and Risk Management Component focuses on increasing maize productivity, reducing post-harvest losses, diversifying food production, managing risks associated with food reserves at national level. Malnutrition will be reduced by agricultural diversification that includes legumes, vegetables, fruits, small stock (Goat meat and milk), pigs, rabbits, chicken and guinea fowl meat and eggs, and fish.

Commercial Agriculture, Agro-Processing and Market Development Component will entail promoting commercial agriculture production involving smallholder farmers, agricultural diversification, agro-processing for import substitution and value addition,

developing the domestic and export markets for inputs and outputs, and finally developing more public private partnerships involving producers, buyers, input dealers, service providers, and policy makers in the value chain.

Sustainable Agriculture Land and Water Management focuses on sustainable land and water utilization. Main focal areas of the component are conservation farming, afforestation, protection of fragile land and catchment areas, and rehabilitation of degraded agricultural land. Activities on water will focus on water use efficiency and expanding the area under irrigation through the Green Belt Initiative (GBI).

## Key Support Services of ASWAp

Technology Generation and Dissemination Component will aim at improving research services with a focus on result- and market-oriented research on priority technology needs in the sector. The component will also deal with technical and regulatory services needs of the stakeholders complemented with efficient farmer-led extension and training services.

Institutional Strengthening and Capacity Building Component will focus on strengthening public institutions, building capacity in public management systems and improving resource allocation for effective implementation of agricultural programs.

## Cross Cutting Issues in ASWAp

HIV prevention and AIDS impact mitigation issues are mainstreamed in the ASWAp with the aim to minimize morbidity and mortality attrition, enhance resilience and household coping mechanisms and also reduce HIV infection risks and vulnerability.

Gender equity and empowerment issues are mainstreamed in the ASWAp in order to reduce gender disparities and enhance capacity of the youth, women and men to contribute to agricultural development.

## Implementation Arrangements

The ASWAp will be implemented by Malawi Government through the Ministry of Agriculture and Food Security in collaboration with various stakeholders in the sector. The coordination of the Strategy will be lead by the ASWAp Secretariat. Annual work plans will be prepared by the MoAFS and the implementing agencies up to District Assembly level according to the approved activities. Monitoring and Evaluation (M&E) will be based on annual joint reviews involving all stakeholders under the ASWAp using agreed targets and indicators of performance. The total budget over a four year period (2011-2015) for the ASWAp is estimated at US$ **2,191,678,026**. The funds will be sourced from both the Government of Malawi and Development Partners.

# CHAPTER ONE

# INTRODUCTION

## 1.1 OVERVIEW

The ASWAp is a priority investment programme in the agricultural sector for the period 2011-15 and is based on the priority agricultural elements of the Malawi Growth and Development Strategy (MGDS). It represents a consensus on how Malawi can accelerate agricultural growth and development. The ASWAp is designed to serve as a single comprehensive programme and budget framework that has a formalized process for better donor coordination and harmonization of investment and alignment of funding arrangements between Government of Malawi and donors in the agricultural sector. The ASWAp identifies key constraints of the agricultural sector and required investments within the context of national and regional strategies, policies and targets set for agricultural development and food security.

The ASWAp identifies three focus areas, two key support services and two cross-cutting issues. The focus areas are: Food Security and Risk Management, Commercial Agriculture, Agro-processing and Market Development and Sustainable Agricultural Land and Water management. The two key support services are Technology Generation and Dissemination, and Institutional Strengthening and Capacity Building. It recognizes issues of HIV Prevention and AIDS Impact Mitigation and Gender Equity and Empowerment as cross-cutting issues.

The preparation of the programme was based on key lessons learned from neighbouring countries. These lessons include: (i) sector analysis and review of the basic reference documents such as policy framework and implementation strategies for the agricultural sector, using working groups related to key sector pillars; (ii) definition of the ASWAp priority investment framework including objectives, components, results/outcomes/impacts and how these will be implemented; and (iii) defining new programmes needed to achieve the result framework of the ASWAp while taking into account on-going programmes and projects.

## 1.2 FEATURES OF THE ASWAP

The design and implementation arrangements for the ASWAp have the following features:

- A priority agricultural investment programme under the Ministry of Agriculture and Food Security's leadership.
- The programme is results-oriented and focused on contributing to a minimum of 6 per cent national annual economic growth, sustainable food security and sustainable natural resources management.
- Gradual harmonization and alignment of Government and donor financial support.

- A streamlined programme which will support capacity building initiatives and strengthening of institutions for effective delivery of services.
- Strong partnership arrangements between government and both traditional and new development partners[1], including farmer organizations, civil society and the private sector.
- Increased influence and involvement of beneficiaries.
- Alignment with forthcoming changes in decentralization, strengthened public private partnerships and strengthened coordination between sector line Ministries.
- Sustained and monitored mainstreaming HIV/AIDS and Gender issues.
- Strong linkage to national, regional and international policy frameworks namely MGDS, CAADP and MDGs.
- Building on successes of the past

## 1.3 MAIN ASSUMPTIONS OF THE ASWAP

The ASWAP is premised on the following assumptions:

- Adequate commitment to the macro-economic reform programme
- Continued political stability in the country
- Minimal or no climatic risks such as drought or floods
- Policy consistency in course of implementing the ASWAp
- Improvement in the harmonization of procedures (financial, procurement and policies etc) between Government and donors
- Adequate resources and capacity to implement the ASWAp activities
- Commitment to institutional reforms and speedy recruitment of staff to fill vacant positions in the Ministries
- Improved working conditions in the Civil Service particularly the agriculture sector to retain staff that will be trained under the program

## 1.4 GUIDING POLICY FRAMEWORKS

The ASWAp has been derived from medium term policy goal of the country prescribed in the MGDS II. The MGDS II and the National Agricultural Policy Framework provide the national policy context, while the Comprehensive African Agricultural Development Programme (CAADP) under the umbrella of the New Partnership for Africa's Development (NEPAD) provides the regional context of achieving sustainable agricultural growth and development when translated into actions at the national level. The Development Assistance Strategy (DAS) provides an international framework on AID harmonisation.

### *1.4.1 The Malawi Growth and Development Strategy*

The MGDS II is the government's overarching medium term strategy (2011–2016) to attain the nation's *Vision 2020*. The main objective of the MGDS II is to continue

[1] For example, the private sector has not conventionally been treated as a development partner. In the ASWAp, a clear development role is envisaged for private firms so as to create functioning and equitable markets for both inputs and outputs.

reducing poverty through sustainable economic growth and infrastructure development. This is expected to transform the country from being a predominantly importing and consuming economy to a predominantly producing and exporting economy. The ASWAp operates with the MGDS II in the areas of agriculture, food security, water development and disaster risk reduction.

The MGDS II represents a policy shift from social consumption to sustainable economic growth and infrastructure development and places emphasis on six thematic areas. These thematic components of the MGDS II are Sustainable Economic Growth, Social Development, Social Support and Disaster Risk Management, Infrastructure Development, Improved Governance and Cross-Cutting Issues.

Furthermore, MGDS II identifies nine key priority areas of a) Agriculture and Food Security, b) Energy, Industrial Development, Mining and Tourism, c) Transport Infrastructure and Nsanje World Inland Port, d) Education Science and Technology, e) Public Health, Sanitation, Malaria and HIV/AIDS Management, e) Integrated Rural Development, f) Green Belt Irrigation and Water Development, h) Child Development, Youth Development and Empowerment, i) Climate Change, Natural Resources and Environmental Managementa) agriculture and food security; These nine key priority areas are expected to accelerate the attainment of the Millennium Development Goals (MDGs).Table 1 below presents areas of linkage between MGDS II and ASWAp.

**Table 1: Areas of Linkage between MGDS II and ASWAp**

| *Key Priority Area* | *Goals* | *Expected-Medium Term Outcome* |
|---|---|---|
| Agriculture and Food Security | • Increase agriculture productivity and diversification.<br>• Ensure sustained availability of food to all Malawians at affordable prices. | • Increase smallholder farmers' output per unit area.<br>• Increased agricultural diversification<br>• Increased production of high value agricultural commodities for exports<br>• Improved agricultural research, technology generation and dissemination<br>• Increased livestock and fish production<br>• Reduced land degradation<br>• Food self-sufficiency<br>• Sustained agricultural market systems<br>• Enhanced agricultural risk management |
| Agro-processing | • To move up the value chain in key crops<br>• To increase agro-processed products for both domestic and export markets. | • Increased value addition to agricultural products<br>• Diversified agro-processed products |
| Green Belt Irrigation and | • To increase agricultural production | • Increased land under irrigation<br>• Reduced dependence on rain-fed |

| *Key Priority Area* | *Goals* | *Expected-Medium Term Outcome* |
|---|---|---|
| Water Development | and productivity through irrigation intensification. | agriculture<br>• Increased agricultural production and productivity<br>• Increased household income levels |
| Climate Change, Natural Resources and Environmental Management | • To enhance resilience to climate change risks and impacts | • Improved climate change mitigation and adaptation measures |
| Land | • Ensure equitable access to land and tenure security and orderly use of land and land based resource | • Improved access to land and tenure security, land planning, use and management |

Source: GOM, MGDS II (2011)

*1.4.2 The National Agricultural Policy*

In an attempt to harmonize policies, the Government has recently reviewed the various national development strategies, agricultural strategies and agricultural-related legislation and policies and produced a National Agricultural Policy-2010-2016 (NAP). The NAP is a synthesis and summarizes the objectives of agricultural development, strategies and policies that will be pursued to achieve both stated and commonly perceived agricultural objectives. The purpose NAP is to promote agricultural productivity and sustainable management of land resources to achieve national food security, increased incomes and ensure sustainable socio-economic growth and development.

*1.4.3 Other Sectoral Policies and Issues*

There are several other sectoral policies and on-going reforms that will have significant bearing on the achievements of outputs and outcomes of the ASWAp. These issues include HIV and AIDS, gender, the rule of law, macro-economic management, decentralization and Aid harmonization.

***HIV/AIDS and Gender***: The Ministry of Agriculture and Food Security has developed a gender and HIV/AIDS policy that focuses on gender and HIV/AIDS mainstreaming; economic empowerment; community-based support; food and nutrition security; expanded HIV/AIDS communication; human resources protection and management; workplace support; and HIV/AIDS action research. The policy recognizes that women and the youth are responsible for a significant proportion of work in agriculture and the rural sector.

***Decentralization:*** Through the decentralization programme, some central Government powers, functions and resources have been devolved to Malawians through their local authorities. The progress towards decentralization has however been slow. There remain

important unresolved issues including ineffective linkages between decentralization policy and other public policy reforms; persistent power struggles and conflicts of roles between elected members such as Members of Parliament, Councillors and Traditional Authorities; weak institutional capacity, high turn-over of key staff like accountants, economists and other specialists; ineffective participation of the local communities due to lack of information, knowledge and skills; and inadequate financial resources among others.

***Macroeconomic Management:*** Macroeconomic stability in a stable political and economic environment is a prerequisite for sustainable economic growth and wealth creation. In the past few years, there has been substantial progress in macroeconomic management – the results of which are reflected in better use of resources, stable exchange rates, declining inflation and declining interest rates. The current macroeconomic stability through prudent fiscal management and public sector management, transparency and accountability, and reduction in corruption is likely to provide a conducive macroeconomic environment for sustainable agricultural development. It is worth noting that growth of GDP estimated at 6.7% in 2011 has been increasing and is projected to stabilize at 6.6% by 2012, the average inflation rate dropped from 16.9% in 2005 to 7.4% in 2010 and is projected at 6.9% by 2012. Commercial banks base lending rates have fallen from 25% in 2005 to 13% in 2010, (GoM Annual Economic Report, 2011).

***Rule of Law:*** The creation of a strong legal system that safeguards the interest of both the nation and the individual is a fundamental factor for achieving sustainable economic growth and development. This, among others, is envisaged to create an enabling legal and regulatory framework that provides incentives for economic activities. In the agriculture sector, a strong legal and regulatory framework covering areas such as credit, property rights, patent rights and enforcement of contract farming and out growers' schemes, cooperatives and public/private partnerships would be instrumental in the development of the sector through private sector involvement.

### *1.4.4 Comprehensive African Agricultural Development Programme (CAADP*

Malawi, as a member of several regional economic groupings, has to align its development activities to be consistent with achieving the development targets set at regional level. Under the New Partnership for Africa's Development (NEPAD), Africa's Heads of State and Government have recognized the critical importance of agriculture as the cornerstone of sustained growth and poverty reduction through adoption of the Comprehensive African Agricultural Development Programme (CAADP) - a strategy to put African agriculture on the path of strong and sustained growth. The principles of CAADP include achieving a 6 percent agricultural growth and allocating at least 10 percent of budgetary resources to the agricultural sector. The Malawi ASWAp shares the principal elements and priorities of CAADP and closely mirrors its emphasis on agricultural productivity.

CAADP comprises four mutually reinforcing pillars namely (1) sustainable land and water management; (2) improved market access and integration; (3) increased food

supplies and reduced hunger; and (4) research, technology generation, dissemination and adoption which is a cross-cutting pillar supporting and reinforces the other three pillars (Figure 1).

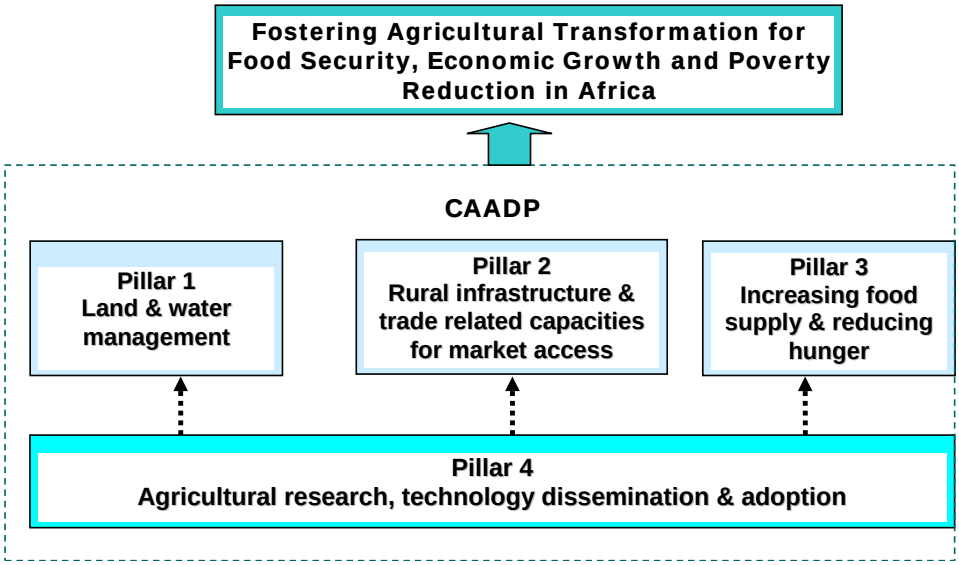



**Figure 1: The Four Pillars of CAADP**

*1.4.5 Development Assistance Strategy*

The Development Assistance Strategy (DAS) sets out the policy and strategies for increasing efficiency and effectiveness in the mobilization and utilization of Aid in achieving the development results set out in the MGDS. The DAS seeks to achieve these outcomes through the operationalisation of the norms of the Paris Declaration on Aid Effectiveness. The five norms are: (i) National ownership of the development agenda; (ii) Alignment of Development partners to the National Development Strategy and Government systems; (iii) Harmonization of Development partner's systems and activities; (iv) Managing resources and decision-making for results; and (v) Mutual accountability for development results.

The ASWAp seeks to operationalise the DAS policy framework through the development and enforcement of the Malawi CAADP Compact. The ASWAp seeks to provide a framework to which external partners can align, by reducing the number of individual projects, increasing co-financing of larger projects, ensuring that projects support specific components and sub-components of the ASWAp and that they contribute to key output and outcome indicators identified in the results framework.

**Figure 2: The four pillars of CAADP**

The ASWAp is organized as follows: Chapter 1 is an introduction and presents the assumptions for successful implementation of the strategy and the guiding policy frameworks. Chapter 2 provides rationale and justification of the ASWAp. Chapter 3 summarizes the past performance of the agriculture sector. Chapter 4 presents priority investments of the ASWAP whereas Chapter 5 provides information on implementation

arrangements.

## CHAPTER TWO

# RATIONALE FOR THE ASWAP

### 2.1 JUSTIFICATION FOR THE 6 PERCENT AGRICULTURAL GROWTH TARGET

Stakeholders agree that Malawi needs substantial increases in its agricultural growth rate if it is to significantly reduce poverty and lay the foundation for any kind of structural transformation that would benefit a large portion of the population. The CAADP, which is a concept of NEPAD, had set the agricultural growth target at 6 per cent for the African continent. All African countries were tasked with finding ways to achieve this target. The ASWAP is therefore using a minimum target of 6 per cent growth in the agricultural sector as recommended by CAADP.

In general, the ASWAp will encourage broad-based agricultural growth in order to achieve the 6 per cent annual growth rate as prescribed by MGDS and CAADP with the assumption that it will be supported with an allocation of at least 10 per cent of the national budgetary resources as per the Maputo Declaration.

### 2.2 THE CGE MODEL PRIORITY OPTIONS FOR MALAWI

An economy-wide Computable General Equilibrium (CGE) model was developed for Malawi to define priority options for investment under the ASWAp using the various commodity scenarios in Table 2 (Benin et al., 2007). The model reveals that the maize-led strategy contributes about 28 per cent and 30 per cent to the CAADP growth and poverty reduction targets, respectively.

**Table 2: Agricultural Commodities in the CGE Model**

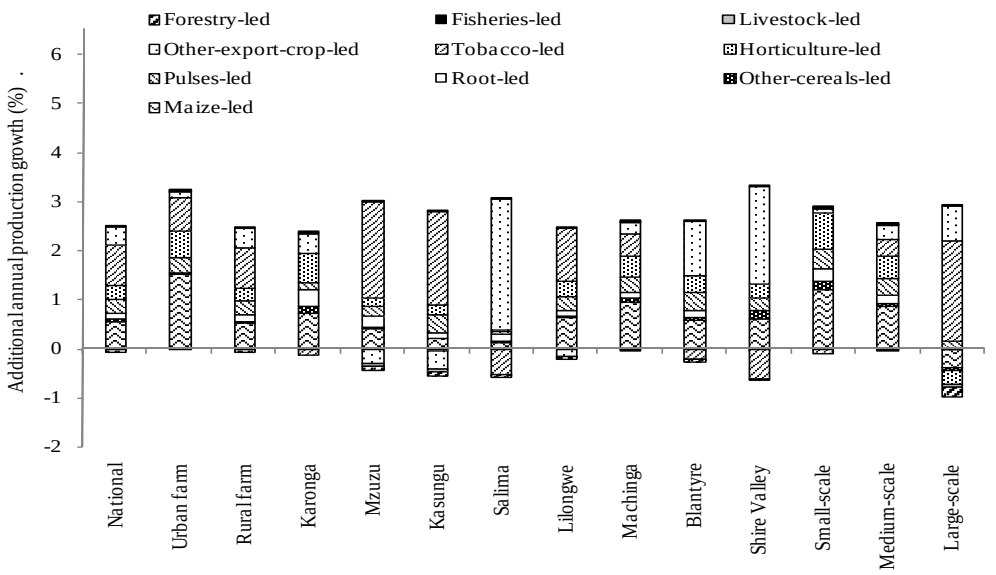
| Maize-led | Other Cereals-led | Root crop-led | Pulses-led | Horticulture-led |
|---|---|---|---|---|
| Maize | Rice<br>Millet<br>Sorghum | Cassava<br>Sweet Potatoes<br>Irish Potatoes | beans, soybeans, pigeon peas<br>Groundnuts | >Fruits (banana, mango, citrus, pineapple)<br>>Vegetables (tomato, onion, garlic, shallot)<br>>Spices (chillies, paprika)<br>>Tree-nuts (macadamia, cashew) |

| | | | | |
|---|---|---|---|---|
| Tobacco-led | Other export crop-led | Livestock-led | Fisheries-led | Forestry-led |
| Tobacco | Cotton<br>Sugarcane<br>Tea | Poultry<br>cattle,<br>goats,<br>pigs | Fisheries (Capture fisheries & acquaculture) | Forestry |

Source: Benin et al. (2007).

Figure 2 presents the extent to which specific agricultural commodities generate additional agricultural growth above the baseline scenario. It is apparent from the model that at national level, tobacco and maize based strategies bring the most additional agricultural growth relative to other agricultural commodities. Benin et al. (2007) concluded that achieving the 6 per cent agricultural growth is feasible, but this requires additional growth in other high value crops and not only in maize or tobacco.

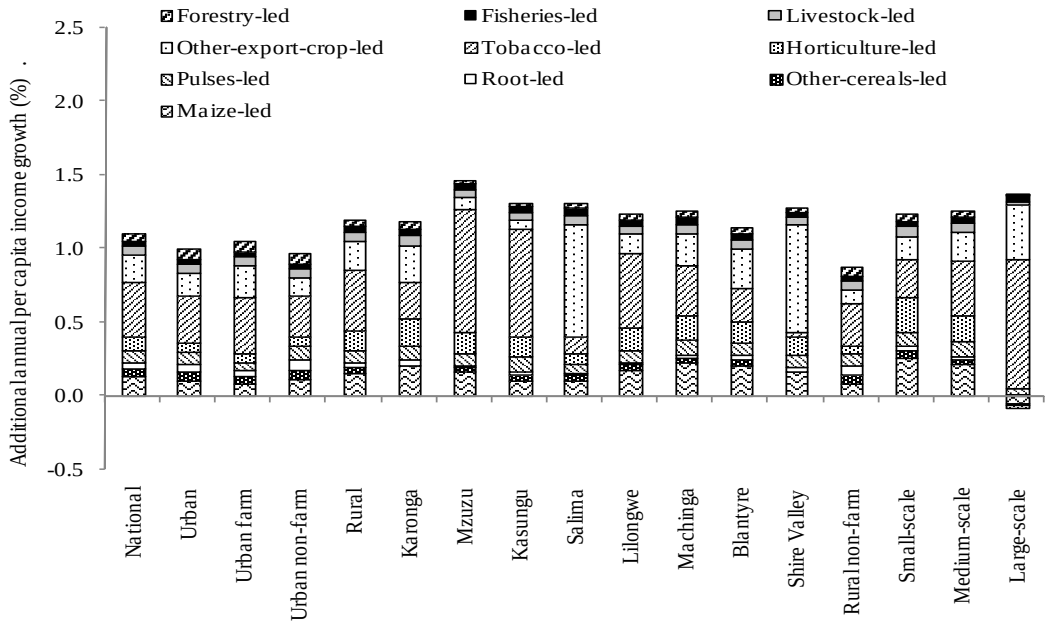
In terms of farm sizes, it is important to note that additional agricultural growth is likely to come from small-scale farmers particularly resulting from a maize-led strategy. Tobacco is likely to be the main commodity that will bring additional growth among large-scale farmers. It is important to note that ecological zones matter in the importance of commodities in agricultural growth. Maize is an important contributor to additional growth in Machinga, Lilongwe, Blantyre and Karonga ADDs. On the other hand, other export crops, particularly cotton, are the dominating commodity that will lead to additional growth in Salima and Shire Valley ADDs while tobacco dominates in Lilongwe, Mzuzu and Kasungu ADDs.




Source: Benin et al. (2007)

**Figure 3: Sources of Additional Production Growth by Farm Household Groups**

The results of the CGE model also reveal that incomes will be driven mainly by growth in tobacco, cotton and maize. This, however, depends on the agro-ecological zone in the country (Figure 3). For instance, tobacco will significantly contribute to incomes in Mzuzu, Kasungu and Lilongwe ADDs while other export crops (such as cotton) are important in Salima and Shire Valley ADDs.



Source: Benin et al. (2007).

**Figure 4: Sources of Additional Per Capita Income by Household Groups in Malawi**

However what is clear is that, in order to achieve the targeted 6 per cent agricultural growth rate, there is need to increase investments in the agricultural sector. Benin et al. (2007) noted that increasing agricultural growth to meet the 6 per cent target requires that government spending on agriculture would have to grow by 23 per cent per annum, resulting in 33 per cent of the total budget allocated to the agricultural sector by 2015. Although, no specific investment priorities were identified, Benin et al. (2007) suggest, consistent with the analysis presented in this document, that such spending should focus on key activities such as promotion of increased use of inputs (fertilizer, improved seed, pesticides, herbicides); development, dissemination and utilization of economically viable technologies and options; irrigation development; and infrastructure development.

Value addition through agro-processing is also a good option and the potential commodities for processing include tobacco, cotton, sugarcane, cassava, vegetables, fruits, chillies, paprika, coffee, tea, milk and fish.

## 2.3 JUSTIFICATION FOR ASWAP FOCUS AREAS

### *2.3.1 Improved Food Security and Nutrition*

The MGDS sees food security as a prerequisite for sustainable economic growth and states that food should be available in sufficient quantities, either through domestic production or through imports, so that Malawians have access to sufficient nutritious food to lead a healthy and productive life. It is the intention of the government to move away from the experience of severe food shortages that characterised the final decade of the last millennium and the first five years of the current one to a situation of sustainable food and nutrition security.

**a) Food Security**

Government has been promoting maize production for food self sufficiency at household and national levels through production by both smallholder and large scale farmers. However commercial production of maize by large scale farmers declined due to poor prices of maize that led to low profitability thereby leaving maize production in the hands of smallholder farmers only. Consequently not enough maize has been produced to feed the nation annually due to input constraints faced by smallholders.

Due to the maize shortages experienced, the Government's central policy during recent years has been to promote maize production at household and national levels primarily by a targeted input subsidy programme with more than 50 per cent of the current budget of the MoAFS is allocated to the input subsidy. Targeted at small-scale farmers, it has resulted in major maize production increases from 1.2 million metric tonnes in 2004/05 up to 3.4 million metric tonnes in 2009/10. This production recorded in 2009/10 resulted into a surplus of about one million metric tonnes.

The targeted input subsidy programme needs to be continued and improved in order to achieve sustainable food security. In order to maximize the payoffs to such investments there is need to increase complementary research and extension efforts towards achieving greater efficiency in resource use. This can be accomplished by better targeting of nutrients and water availability to plants, adoption of good agricultural practices managing post-harvest losses and responding adequately to climatic variability.

In addition to maize self-sufficiency, diversification of smallholder farming systems can increase food availability, through creating economically attractive production options for drought-resistant crops such as cassava, sorghum and millet. As importantly, the evidence is clear that, once farmers reliably achieve food security, they rapidly explore other, potentially more profitable, livelihood options (both on- and off-farm). This further diversification helps reduce the vulnerability of households to unexpected shocks.

There are, however, challenges to this strategy as shown by published Malawi experimentation. Conventional rotation and intercrop systems often produced moderately reduced quantities of grain compared to monoculture maize, which could be unacceptable to risk-adverse farmers on small land holdings (even though legume grain has enriched value compared to maize grain). The notable exceptions are the long-lived legumes for which reliable on farm Malawi data show can produce the same quantity of grain as monoculture maize, and which increase the fertiliser use efficiency from 17kgs of grain from 1 kg of nitrogen to 30 kgs of grain. This indicates that shrubby legumes could transform the economic viability of fertilizer subsidy policies.

Over the past years, other strategies have been tested for coping with the risks of drought, food supply shortfalls and price variability. These pilot interventions involved weather insurance, price hedging, warehouse receipts, increasing storage capacity and agricultural credit. The application of these risk management approaches has the potential to reduce the variability of Malawi's maize supply and prices. These approaches would also strengthen Malawi's ability to participate in regional grain trade.

**b) Nutrition Security**

The long term goal of government is to significantly reduce the degree and severity of malnutrition in all its forms in the country i.e. chronic and acute malnutrition and micro-nutrient deficiency disorders among the men, women, boys, girls, under-five children, expectant and breast feeding mothers, and people living with HIV and affected by AIDS. The ASWAp programmes will therefore ensure that Malawians have both physical and economic access to adequate nutritious food for an active healthy life. The ASWAp will therefore address most of the critical factors which create a food and nutrition insecure situation in Malawi mainly; chronic poverty; low agricultural productivity; low food intake due to lack of economic opportunities either to produce adequate nutritious food or to exchange labour for income to purchase nutritious food; poor food utilization due to inadequate knowledge and skills about food values; food choices, dietary diversification and child feeding practices; poor nutrition education which is currently targeting women and not reaching men as decision makers at household level; inadequate knowledge,

skills and technologies for food preparation, processing and preservation; inadequate capacity of institutions to implement nutrition programs at national, district and community levels.

*2.3.2 Commercial Agriculture, Agro-processing and Market Development*

Agricultural commercialization aims at increasing value addition to agriculture and productivity of farmers while reorienting smallholder sub-sector towards greater commercialization and international competitiveness. The government seeks to broaden participation of smallholders in commercial crops, livestock and fish production. This will be achieved by promoting contract farming (principally of tobacco, cotton and horticultural crops), out-grower schemes (e.g. sugar, tea, horticultural crops) and farmer cooperatives. Most of the export crops are grown on commercial estates and expansion of smallholder participation will ensure that the benefits to agricultural growth trickle down to the poor.

To compete on international markets, Malawi needs to upgrade the quality of export commodities for higher unit value on international markets and to pursue niche markets (e.g. vegetables, paprika, chillies, fruits) of commodities for which it has a comparative advantage. This will require a significantly enhanced research and development programme, closely linked to emerging and changing market needs. There are opportunities for import substitution by promoting local agro-processing industries oriented towards food and feed production such as cassava starch, poultry feed, canned fruits and vegetables, fruit juices, dried fish, milk and milk products, meat and meat products, and potato crisps.

*2.3.3 Sustainable Agricultural Land and Water Management*

The critical natural resource inputs into the production of food and commercial crops are land and water. However, these resources are not sustainably managed resulting in land degradation, soil erosion, deforestation, diminishing water resources and declining biodiversity. Sustainable land and water management is key to sustained agricultural production.

**(a) Land resources**

This sub-programme mainly targets higher efficiency of soil nutrients (mainly nitrogen) and available rain water use efficiency, to maintain and increase crops and fodder productivity. This in turn would allow for sustainable cash cropping and food diversification. Actions under sustainable land management (SLM) will therefore emphasize better land husbandry at farm level, including integrated soil nutrient management relying on both organic and inorganic technologies. Adapted conservation agriculture practices will increase the soil water and nutrient buffer capacity to ensure higher productivity of rain-fed crops and mitigate the effects of weather variability and climate change. This approach will also reduce loss of agricultural land, especially in more fragile area, and protect vulnerable areas.

The ASWAp recognises that much investment in conservation agriculture has already been made in Malawi and uptake has been modest. However, the overall thrust of the ASWAp is the widespread introduction of profitable farming options to the poor. The evidence is clear that, as farmers rise out of poverty, so they diversify and are able to take the longer term decisions to protect their environment. Thus as the ASWAp starts to create a profitable basis for agriculture in Malawi, so efforts will be increased to promote sustainable farming approaches.

**(b) Water resources**

Malawi agriculture is dependent on rain which is currently not reliable because of climate change. In the context of increased weather variability and climatic change, increasing water use efficiency and strengthening irrigation potentials will contribute to increased revenues to farmers. However these investments are only justified for high-value crops for local and export markets.

**(c) Climate Change Issues**

Climate Change effects, droughts and floods, are the major climatic hazards affecting crop production and the fisheries sector and have been responsible for the declining or even drying of water bodies resulting in low fish production. The possible interventions to mitigate the effects of climate change are many and have been included in the focus areas of the ASWAp.

*2.3.4 Agricultural Research and Extension Services*

Public expenditure on agricultural research and extension is currently low and major investments are needed to revitalize the research and extension services increased agricultural production is to be successful. Furthermore, international and regional as well as private technology flows need to be further integrated and diffused to farmers. The ASWAp will strengthen technology generation (research) and technology dissemination (extension) services.

*2.3.5 Institutional Development and Capacity Building*

The successful pursuit of an Agricultural Sector Wide Approach requires strengthening of the capacities of the Ministry of Agriculture and Food Security to design and implement a coordinated investment programme. It also involves strengthening the capacities of other stakeholders in the sector such as farmer organizations, civil society and communities.

Improvement in systems and processes in programme planning, budgeting, procurement, financial management, monitoring and evaluation, and administration will encourage donors to contribute directly to a national investment plan. Furthermore training programmes targeting the resolution of critical gaps in technical skills will enhance the capacity of the Ministry to implement the agreed agenda. Institutional development and

capacity building, for state and non-state actors, are cross cutting in nature and are a pre-requisite to the success of the ASWAp.

Institutional Development and Capacity Building activities under the ASWAp will take into account the core function analysis (CFA) undertaken for MoAFS. This determines the specific roles that different players in the sector play based on their identified competences and capacities. The ASWAp will also finance capacity and institutional strengthening of farmers unions, commodity bodies, water user associations and other relevant stakeholders.

Through ASWAp focused training programmes at the universities and colleges of agriculture will be supported to enhance skills of professionals necessary to work with farmers, agricultural educators, researchers and extension staff to harness knowledge and information from various sources to create improved livelihoods for the poor. ASWAp will create an enabling environment that encourages interaction amongst all actors in the system to put knowledge into socially and economically productive use and make knowledge available through dissemination practices that promote interaction and learning by all.

## CHAPTER THREE

# SECTOR PERFORMANCE AND KEY CHALLENGES

## 3.1 SECTOR PERFORMANCE

In analyzing performance of the agricultural sector, trends in agriculture growth, food production and security, livestock production and agricultural trade performance were examined.

### *3.1.1 Agricultural Growth*

The performance of the agriculture sector in terms of output has not been consistent. It is important to disaggregate data to get a clear perspective on changes in the agriculture sector. Between independence and the late 1970s, the estate sector (farming leasehold land) was the engine of growth, exporting tobacco, tea and sugar. The smallholder sub-sector (farming customary land) focused on food production – especially maize for national food self-sufficiency. The estate sub-sector grew at an average of 17 percent per annum over the period 1964-1977, while the smallholder sub-sector grew at an average rate of 3 percent per annum (well below the rate needed just to maintain food needs) (Conroy et al, 2007).

The bias in favour of estates at the expense of smallholders took many forms: customary land was annexed from the smallholder sub sector; smallholders were legally prevented from growing important high value crops (burley tobacco, tea and sugar were reserved for the estate sub sector); smallholder producers of export crops were paid less than the export parity price by the state marketing board with most of the resulting profits channelled into the development of the estate sub sector. The smallholder sector was relied upon to provide a marketable surplus of the staple food, maize, to feed estate and urban workers.

Nevertheless, the 1970s were characterized by substantial support by the government to the agricultural sector and consistency in policies with respect to subsidization of agricultural inputs, access to agricultural credit administered by the government through farmers' clubs, availability of produce markets, farmers' access to extension services, and increased investments in research and development. The consistent weakness was the failure to create broad-based change across the smallholder sector.

The aggregate agricultural growth during the period 1970-2005 agricultural output was 4.35 per cent per annum, much lower growth rates were registered in the 1980s and in the 2000-2005 period (Table 3). Recent figures show that agricultural output just grew by 2.16 per cent per year between 2000 and 2005, much lower than in the 1970s, when the

average annual growth rate was 5.35 per cent[2]. The growth rates in GDP per capita and agricultural GDP per capita were generally negative during the 1980s and early 1990s, with some improvements in the late 1990s. The late 1990s actually registered higher growth rates in GDP per capita and agricultural GDP per capita than during the 1970s. The high growth rate in agricultural GDP in the 1995-1999 period is probably an anomaly and can be partly attributed to a reported (but probably overstated) estimate of the increase in production of root crops for home consumption such as cassava and sweet potatoes.[3]

The smallholder agricultural sub-sector had the worst growth rates, with a decline of 1.8 per cent per annum between 2000 and 2005– these were the years when financial support for farm inputs was withdrawn. From 2006 – 2009, Malawi has experienced positive agricultural growth (9.23%) largely due to the successful implementation of the Farm Input Subsidy Program and favourable weather patterns in the period.

**Table 3: Percentage Growth in the Agriculture Sector's Output, 1970 - 2009**

| Indicator | 1970-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-05 | 2006-09 |
|---|---|---|---|---|---|---|---|
| Gross Domestic Product | 5.9 | 1 | 3.03 | 0.61 | 6.4 | 1.55 | 7.28 |
| Agricultural GDP | 5.35 | 0.36 | 1.28 | 2.15 | 15.06 | 2.16 | 3.63 |
| GDP per capita | 2.4 | -2.08 | -0.2 | -2.66 | 3.17 | -0.28 | 13.63 |
| Agricultural GDP per capita | 1.9 | -2.7 | -1.89 | -1.19 | 11.55 | 0.36 | 4.99 |

Source: Chirwa et al; 2006 - 2009 Updated using data from Annual Economic reports, IMF, Resakss

### *3.1.2 Food Production and Food Security*

Achieving national food security has been one of the major objectives of agricultural policies adopted since independence. In Malawi, national food security is mainly defined in terms of access to maize, the main staple food. Thus, even if the total food production is above the minimum food requirement, but maize supply is below the minimum food requirement, the nation is deemed to be food insecure. The nation therefore faces a food crisis if the production and supply of maize falls below the minimum required levels. Despite the fact that other food crops such as rice and cassava are alternatives to maize in some parts of the country, maize has remained the main staple food for Malawians[4]. This has not happend by chance considering that maize is a potentially highly productive crop which stores well under Malawi smallholder farmer conditions.

[2] As noted earlier, the impressive growth rates in the 1970s were achieved through a narrow based policy environment. The lower growth rates today reflect the drag inflicted on the economy by the increasing poverty consequent upon those earlier policies.

[3] World Bank (2003) notes the estimates for root crops (cassava and sweet potatoes) tend to be overstated and understate the potential food shortages

[4] In a study of recipients of the free farm inputs in 1999/00 season, 96.4 percent reported that maize was the staple food for the household, while cassava is a staple only for 2.8 percent and rice for 0.5 percent of the sampled households (NSO, 2000)

Measured against the minimum maize requirement of 185 kilograms per capita[5], Malawi was, in aggregate terms, self-sufficient in maize production in the 1960s and 1970s (Figure 4) when there were fewer people and larger farms. Even so, the nutrition data show that the distribution of available food was highly uneven, indicating significant household food insecurity. Maize production was heavily dependent on a blanket maize fertiliser subsidy programme. Blanket subsidies of this type were recognised as an inefficient way of helping the poor and were, therefore, targeted early on in Malawi's reform process.

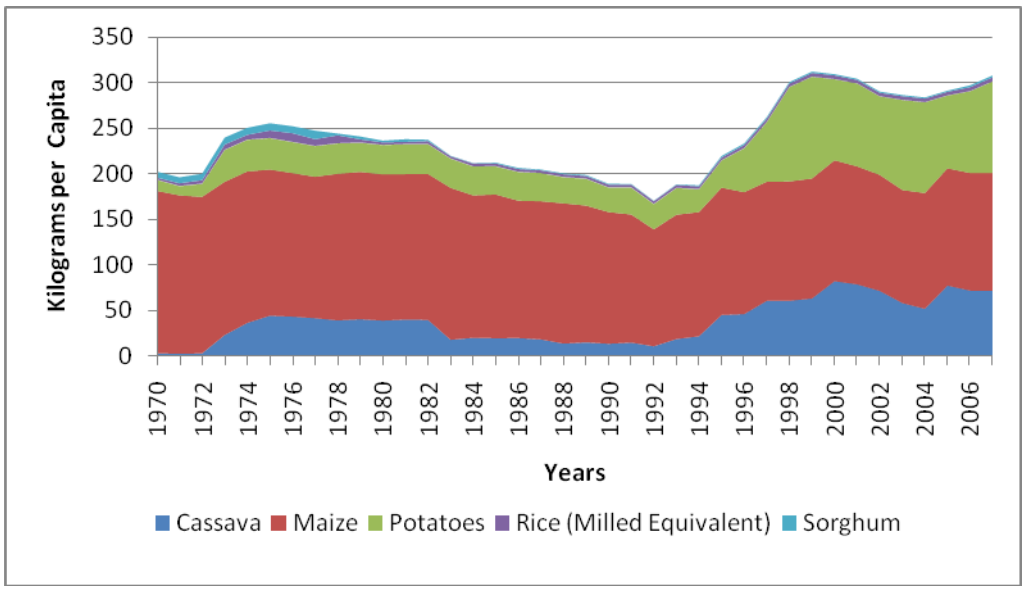
The period of economic reforms which started in the 1980s were accompanied by increased imports of maize to satisfy domestic demand[6]. While poor weather conditions, low maize productivity and high population growth were factors in causing the growth in maize imports, the major influence was the withdrawal of subsidised fertiliser. Furthermore, the smallholder credit system which delivered the subsidised seed and fertiliser to the larger smallholders was implemented with draconian penalties against those who defaulted.

The severe 1991-2 drought made it was impractical and inequitable to demand credit repayments from families on the edge of survival leading to the collapse of a state managed credit system; this was combined with the sharp rise in international fertiliser prices- a disastrous effect on household food security and national food sufficiency.

The 1996/7 supply of marketed maize (after a good growing season) fell precipitously, the village level purchase price of maize quadrupled, and there was widespread hardship amongst the majority poor section of the population. The liberalisation of markets (agreed generally as essential to Malawi's future growth) was rapidly becoming discredited amongst the public by the high consumer price of maize and by the conspicuous rents evidently being extracted by private traders. The economy was experiencing all the downside effects of liberalisation, but few of its benefits.

[5] In fact, this excludes losses between harvest and consumption, a more valid figure allowing for such wastage is 220 kilograms.

[6] Other food crops such as rice, cassava, sorghum and potatoes are bridging these shortages in maize production and supply and there were substantial reported increases in cassava production in the late 1990s. However, production statistics for sweet potatoes and cassava appear unreliable with these crops accounting for a small fraction of consumption.




Source: Computed using FAOSTAT data

**Figure 5: Trends in Main Food Staples per Capita, 1974-2007**

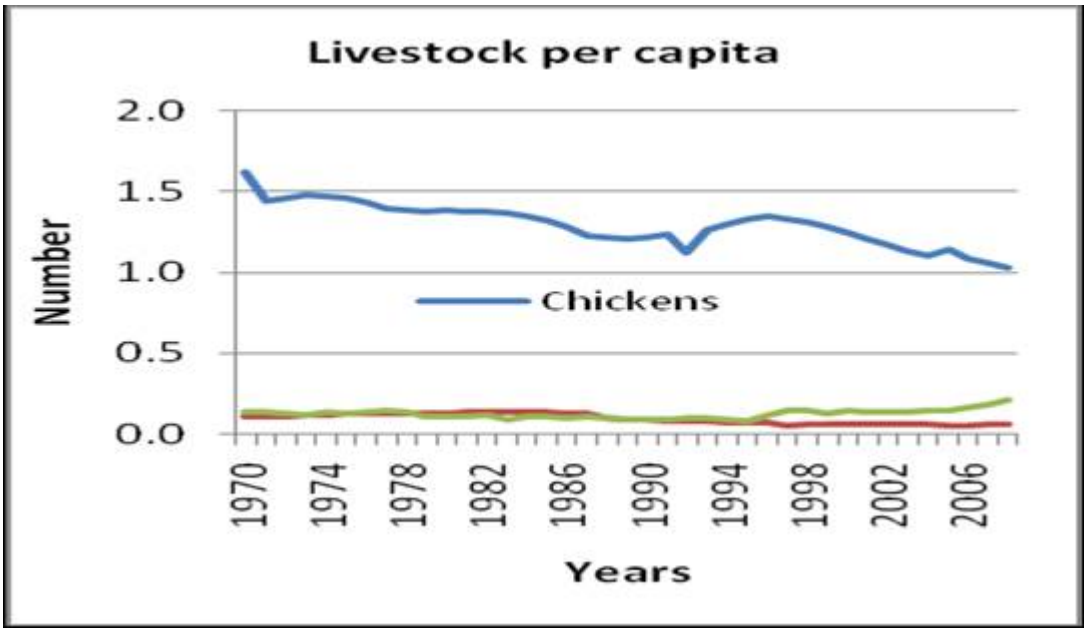
The outcomes were that per capita maize production since the early 1990s has fluctuated between 170 and 220 kilograms, with sharp declines in 1992 (67 kilograms) and in 1994 (105 kilograms) (World Bank, 2003). At household level, recent surveys indicate that the average months of food security for rural households from own production in a normal year is between 6 and 7 months. Food supplies in Malawi fluctuated between 1.6 and 1.7 kcal per capita per day from 1996-99 compared to the minimum requirement of 2.2 kcal per capita per day. The increase in food production in 1999 and 2000, and from 2005 to 2009 has been largely attributed to good weather and the implementation of the agricultural safety net programmes, including the free 'starter pack', the targeted input program and the input credit facilities from the Malawi Rural Finance Company and the Farm Input Subsidy Program.

There is, therefore, a critical link between food security, and maize inputs availability and the relevance of a policy focus on these key areas in addressing poverty in Malawi. The underlying fact is that unless Malawi farmers have access to improved inputs for both food production and diversification, unacceptably large numbers of the poor will be exposed to hunger. It is in recognition of this fact that the Malawi Government has added a significant emphasis to investment in agriculture as a prerequisite for economic growth and resulted in the successful implementation of the fertilizer subsidy programme FISP. Recent government support towards the smallholder sector through FISP, combined with good rains, has led to significant increases in maize production from 1.2 million metric tons in 2004/05 to 3.4 million metric tons in 2009/10.

The renewed emphasis on agricultural sector has transformed Malawi from a net importer to a net exporter of maize and allowed the majority of households to attain food security since 2005/06. It has also led to low and stable maize prices- very important in a country where the majority of households are net consumers and food accounts for over 60 per cent of household income.

### *3.1.3 Trends in Livestock Production*

The trends in levels and growth of livestock per capita show that livestock production has been declining (Figure 5). The numbers of chickens and cattle per capita have been declining, with the average in the last past five years being lower than that recorded in the early 1970s. The per capita number of goats, however, has marginally increased. The poor performance of the livestock sector is partially a reflection of the lack of emphasis in the agricultural strategies and policies towards livestock. Another factor is the poor performance of the cropping sector- as the demands for cropping land increase, so farmers move more into traditional grazing areas and cropping displaces livestock. Thus increases in grazing livestock in Malawi will depend on improved productivity in arable agriculture. Livestock also serve as security assets especially for the poorest households; in times of crisis, animals will be sold to raise cash for food and other needs. 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.




Source: Computed using FAOSTAT data

**Figure 6: Livestock Production Trends: 1970 – 2008**

### *3.1.4 Agricultural Trade Performance*

The agricultural sector contributes more than 80 per cent of foreign exchange earnings, with exports dominated by tobacco, tea and sugar (Table 4). Maize is mainly grown to meet the subsistence needs of many farming households, with only 15 per cent of total production being marketed. Tobacco is the major export crop in Malawi accounting for about 71 per cent of total exports in the 1995-99 period from 47.7 per cent in the 1970s, although its share in export dropped to 55 per cent recently due to declining prices. Tea has been traditionally the second foreign exchange earner, but its significance has been declining from 21.2 per cent in the 1970s to 8.8 per cent in the late 2000s. Sugar has

traditionally been the third most important export commodity but is now taking over from tea, thereby accounting for 11.4 per cent of export earnings in the 2000-05 period. With the liberalization of burley tobacco production and marketing, smallholder farmers now account for about 70 per cent of the total national output.

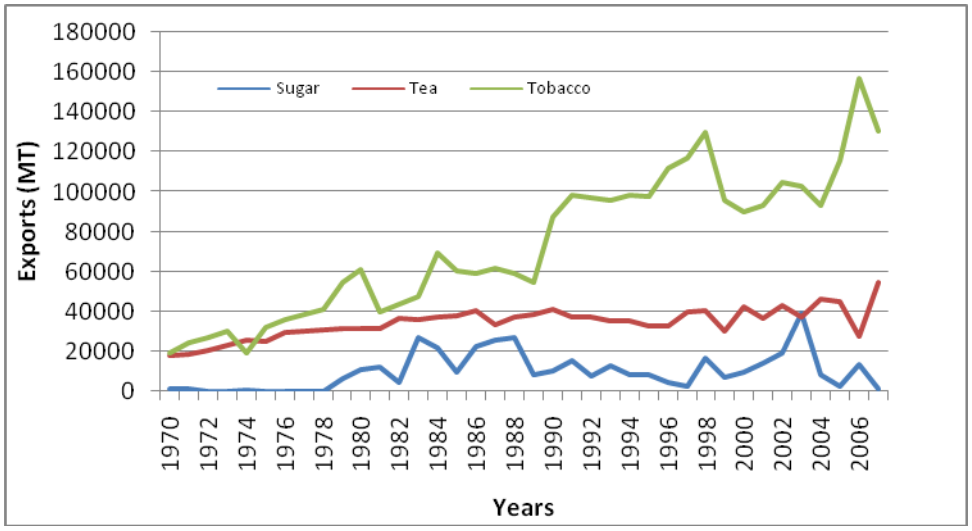
**Table 4: Composition of Export Earnings by Main Commodity**

| Commodity | 1970-79 | 1980-84 | 1985-89 | 1990-94 | 1995-99 | 2000-05 | 2006-09 |
|---|---|---|---|---|---|---|---|
| Tobacco | 47.7 | 50.4 | 57.7 | 69.9 | 70.5 | 54.6 | 65.06 |
| Tea | 21.2 | 18.2 | 14.4 | 9.7 | 9 | 8.8 | 6.27 |
| Sugar | 7.1 | 13.3 | 10 | 6.7 | 7 | 11.4 | 6.66 |
| Cotton | 2.9 | 0.7 | 1.2 | 1.1 | 1.7 | 2.1 | 2.32 |
| Other (non-agric) | 13.4 | 11.6 | 8.9 | 9.5 | 6.6 | 19.4 | 19.7 |

*Source: Chirwa et al, Updated for 2006 – 2009 using data from RBM Financial and Economic Review, Annual Economic reports*

Groundnuts, traditionally one of the smallholder cash crops, used to be one of the major export crops until the late 1980s when the export market collapsed between 1990 and 1999 due to a change in demand for Chalimbana groundnut. Organized markets are critical for the success of smallholder commercialization and participation in high value crop production.

Malawi's trade problems are not entirely due to trade barriers imposed by the rich nations. Importantly, it simply does not produce enough goods to trade of the right quality and the right price. The landlockedness makes Malawi one of the high cost producer in world markets due to transportation costs, despite the low earnings of its farmers.




Source: Computed Using FAOSTAT data

**Figure 7: Growth in Agricultural Exports, 1971 - 2007**

### 3.2 KEY CONSTRAINTS TO THE AGRICULTURAL SECTOR

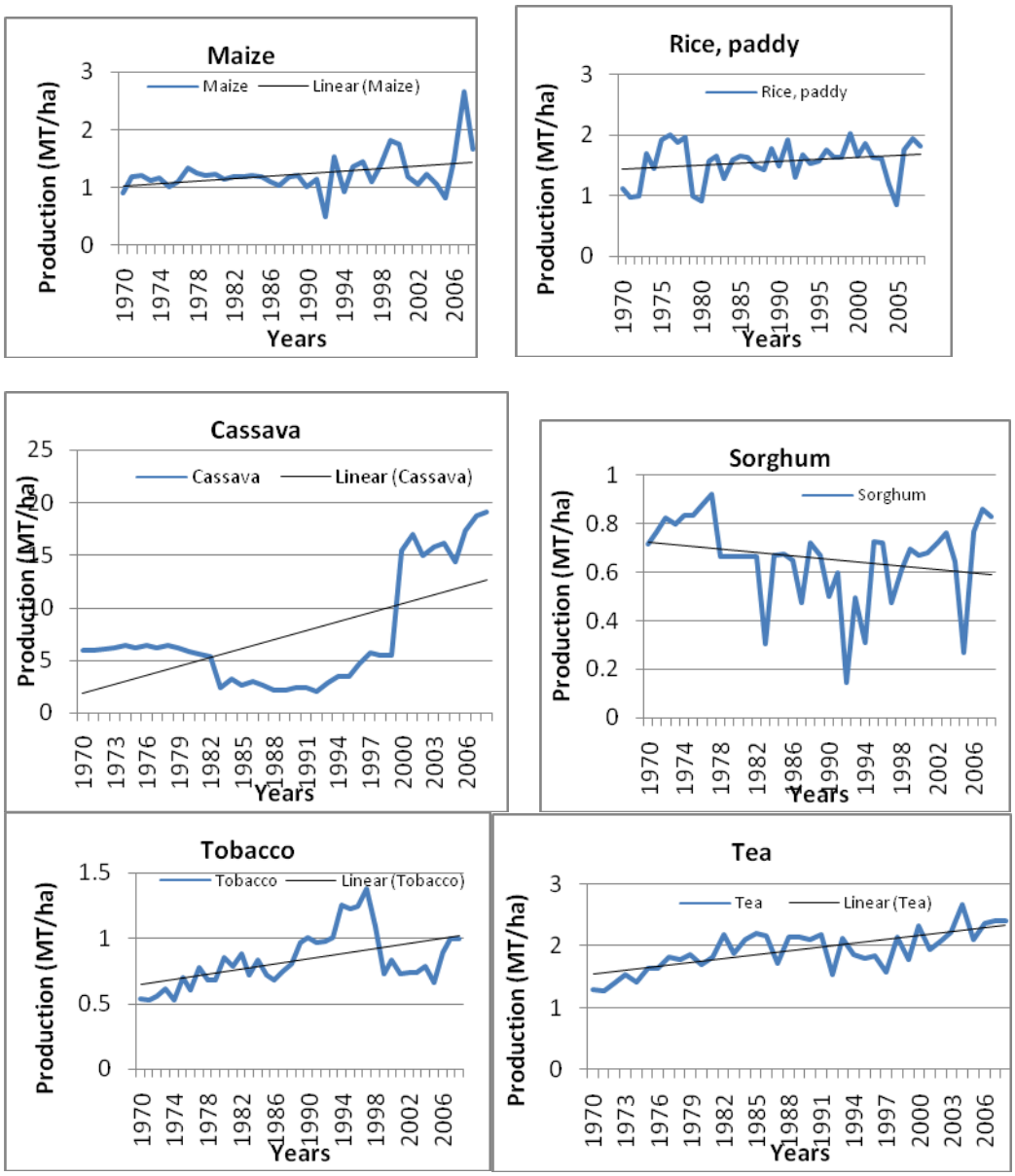
There are several key constraints in the agricultural sector. The constraints include low and stagnant yields, over dependence on rain-fed farming which increases vulnerability to weather related shocks, low level of irrigation development, and low uptake of improved farm inputs. In addition, low profitability of smallholder agriculture is influenced by weak links to markets, high transport costs, few farmer organizations, poor quality control and lack of market information.

#### *3.2.1 Low Productivity*

The poor performance of the agricultural sector in Malawi is partly attributed to the low levels and growth rates in productivity. Figure 7 presents trends in productivity of main agricultural crops in Malawi between 1970 and 2005. Productivity is narrowly defined as output per hectare of land cultivated indexed to base 1970. This shows that productivity in most of the agricultural crops increased but not sufficiently to offset the effects of population growth. The percent yield gaps range from 38 per cent to 53 per cent for cereals, and 40-75 per cent for legumes.

There have been marginal increases in maize and rice productivity, a substantial increase in cassava productivity (although there are serious reservations on the reliability of the data), and a decline in sorghum productivity. Until the early 1990s, when burley tobacco production was liberalised, tobacco farming registered steady improvements in productivity with a modest positive trend line, although there has been a reversal more recently. The period that shows declining productivity in tobacco is associated with increased involvement of smallholder farmers since the liberalization of the sector in the late 1990s. Tea is the only crop that has witnessed steady improvements in productivity

since 1970. There has, however, been declining productivity in the past six years in both maize and rice production. In fact most of the crops show negative rates of productivity growth in the 2000-05 period, with the exception of beans and tea. This period includes the famine years of the early 2000s and may not represent a long term reversal of productivity growth.




Source: Computed from FAOSTAT data

**Figure 8: Productivity Trends in Main Agricultural Crops, 1970- 2006**

The major contributing factor affecting productivity in the smallholder sector in Malawi, as outlined previously, is the low input use. Inadequate access to agricultural credit, output and input markets, unfavourable weather, small land holding sizes and failures in technology development and transfer further exacerbate to low productivity. Even if

farmers attempt to diversify their production, the options are very limited as the needed improved inputs (and the advice to go with them) are not readily available. Profitability based around fixed production recommendations has been eroded as prices for major inputs such as fertilizers and chemicals have increased substantially.

There are some useful exceptions. In the tea sector, smallholder farmers are inter-linked with commercial tea estates in an input-market relationship without the problem of side selling[7]. In the coffee sector, smallholder farmers through their cooperative, manage savings and credit scheme that is facilitating access to inputs. In sugar, interlinking smallholder farmers with the buyers is facilitated by the availability of a single market for sugarcane. Quite naturally, market buyers are unwilling to put up capital for farmers to buy needed inputs if they are unsure of being able to recover the debt through side selling.

Similarly, although there has been an increase in livestock in absolute terms, supply fails to meet demand. The recent trends in cattle and chicken per capita is a declining one, while for goats there is an increasing trend in per capita goat production. The livestock sector experiences problems of lack of capital to invest in herd stock and ineffective control of animal diseases. Fish production in most of Malawi's water bodies has been declining in recent years due to over exploitation, poor pre- and post-harvest handling by communities and poor enforcement of legislation and preservation of fish stocks.

### *3.2.2 Nature of Farming System and Adverse Climatic Conditions*

The agricultural sector is heavily dependent on rain-fed cultivation. Malawi has 3 million hectares of agricultural cultivatable land, but more than 99 per cent of agricultural land remains under rain-fed cultivation. The rain-fed nature of smallholder farming makes agricultural production prone to adverse weather conditions such as drought and floods. The country has experienced a number of climate change-related hazards over the past decades, particularly increased incidence of drought, dry spells, intense rainfall with riverside and flash floods, poor distribution of rainfall, and pest and disease outbreaks. In 1970, only 0.06 per cent of cultivatable land was under irrigation, but this has marginally increased to 0.47 per cent in 2005. More recently, government and non-governmental organisations have been promoting irrigated cropping during the rainy and dry season using low cost irrigation equipment such as treadle pumps. Most of the bumper harvests in maize have been in years that Malawi had good rains.

[7] Side selling is the practice of conducting marketing arrangements outside the pre-agreed contract.

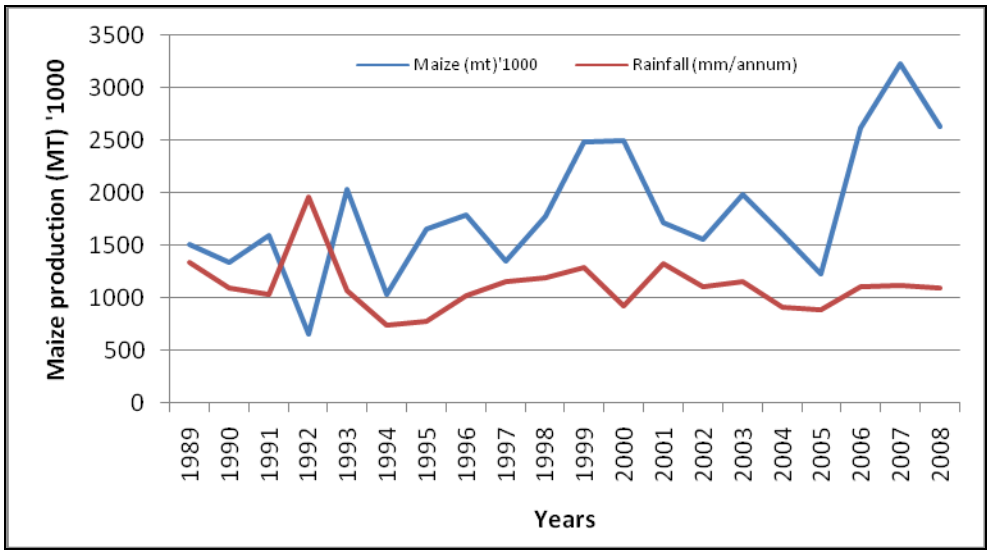
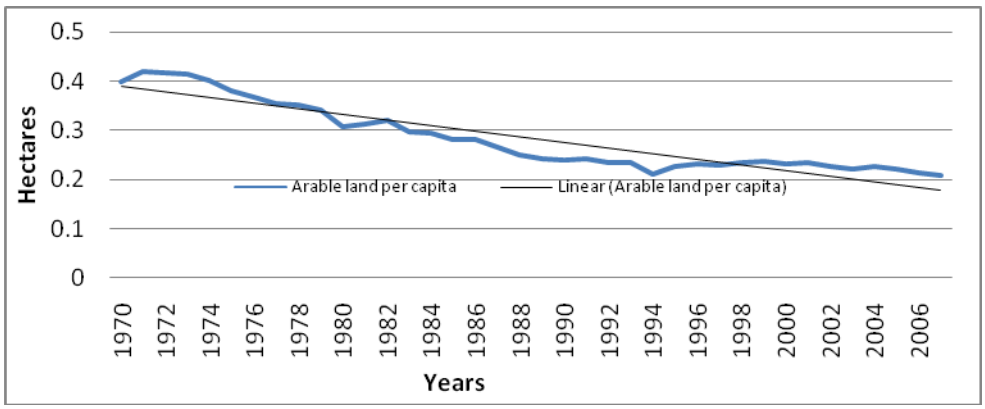



**Figure 9: Rainfall and Maize Production, 1970 - 2008**

*3.2.3 Small Land Holding Sizes, Fragmentation and Degradation*

Smallholder production is on customary land, on which rights to cultivate and transfer land is conferred by traditional chiefs. With the growing population, customary land has become more fragmented and the land holding sizes have declined. Average land size holding per household in Malawi is 1.2 hectares while the average land per capita is 0.33 hectares (GOM and World Bank, 2006). In addition, per capita land holdings are highly skewed, with the poor holding only 0.23 hectares per capita compared to the non-poor that hold 0.42 hectares per capita. The small land holding sizes are reflected in Figure 9 which shows the trends in per capita cultivatable land in Malawi. Per capita land holdings have been declining since 1970s, partly due to population growth of 3 per cent per annum. The increase in cultivated land may be due to cultivation of marginal and less productive land.




Source: Computed based on FAOSTAT data

**Figure 10: Trends in per capita arable land, 1970 – 2006**

The methods of cultivation on these small land holdings among smallholder farmers remain traditional and non-mechanised. Several studies in Malawi have shown a positive relationship between technology adoption (e.g. fertilizer use) and land sizes among smallholder farmers. There have been several government efforts promoting the adoption of fertilizers, hybrid varieties and modern methods of farming and the provision of price incentives through progressive market reforms. However, due to partly diminishing land holdings the supply response has remained weak. At current market prices for inputs and outputs, adoption of higher productivity technologies is simply impossible for the poor given their low purchasing power.

The absence of widespread adoption of more productive agricultural technologies has resulted in land degradation due to continuous cultivation, soil erosion, deforestation and limited technology adoption on land and water management.

### *3.2.4 Erosion of Agricultural Services*

The liberalization of the agricultural sector witnessed the State withdrawing from direct interventions on input, output and financial markets in order to bring operational efficiency and to ensure private sector development. However, product markets and input markets for agricultural growth are still functioning imperfectly. With respect to product markets, most smallholder farmers are poorly organised and lack bargaining power over pricing of agricultural produce. Transaction costs remain high due to low traded volumes of agricultural produce and lack of agricultural financing. In the input market, access to agricultural financing is limited among smallholder farmers, particularly since the collapse of the government run smallholder credit scheme. Commercial banks and microfinance institutions consider lending to the agricultural sector as a risky investment; preferring to lend to non-farm sectors.

There has also been erosion of extension services. The supply-driven system of training of individual farmers that used to work effectively in the 1970s has been undermined by a growing farming population, collapse of the farmer club system, deaths and retirement of extension workers, inadequate training of new workers, lack of retraining of existing workers and declining resources allocated to the agricultural extension. NSO (2005) revealed that only 13 percent of agricultural households got advice from an agricultural adviser on crop and input management. The inadequate extension services have implications on the extent to which research and technology developed can be disseminated, adopted and efficiently utilized by smallholder farmers.

### *3.2.5 Limited Value Addition*

Smallholder agriculture is associated with lack of value addition in agricultural products. There is very little agro-processing and most smallholder farmers sell raw agricultural produce without adding value. For the main cash crops, such as tobacco, groundnuts and cotton, which are mainly grown by smallholder farmers there is no value addition by smallholder farmers. However, in some cash crops such as cotton, sugar, tea and coffee smallholder farmers are linked to commercial processing facilities and some value addition takes place. For example, in the coffee sector, the cooperatives have their own

processing facilities and smallholder farmers are producing some of the final products such as Mzuzu coffee that is sold in retail markets both in Malawi and export markets. Mzuzu coffee, for example, has achieved a premium price of up to 47 percent which benefit smallholder farmers directly.

### 3.3 INSTITUTIONAL AND CAPACITY CHALLENGES

#### *3.3.1 Weak and Poor coordination among implementing Institutions*

Institutional structures with clear roles, responsibilities, and linkages supported by adequate resources and systems capacities are essential for the delivery of development programmes. Institutional arrangements for implementation of agricultural programmes and delivery of related services involve both state and non-state actors at central and district level. At national level, emphasis has been on the formulation and implementation of sector policies, strategies, projects and programmes and this has largely entailed a top-down approach. However, with the advent of decentralization, emphasis has shifted to state and non-state institutions at district level, which now have a greatly increased role in planning and implementation programmes and projects as well as delivery of services.

There are currently various ongoing institutional reforms within the sector that entail changing roles especially between central and district level institutions on one hand and between state and non-state actors, on the other. These include the Core Function Analysis (CFA) Initiative by the MoAFS that aims at defining roles of state and non-state actors in the planning and delivery of the ministry's remit. In the course of doing so, it will identify which functions the public sector should retain, which could be sub-contracted, and those that should be privatized. Key elements of the analysis include:

- National and local level responsibilities: This involves delineating the responsibilities of the MoAFS at central level (including the Agricultural Development Divisions) from those of the districts. An overarching principle, consistent with decentralisation policy, is that activities should be planned and implemented at the lowest possible level.

- Responsibilities outside the public sector: This comprises defining which functions can be implemented by other stakeholders. This may include implementation through sub-contracting and, indeed, one of the challenges is to identify ways to collaborate with the private sector.

At national level, key institutions in the agricultural sector comprise the Ministries of Agriculture and Food Security, Irrigation and Water Development, Trade and Industry, Local Government and Rural Development, Natural Resources, Energy, and Environment; Development Planning and Cooperation, the Office of the President and Cabinet, Department of Nutrition, HIV and AIDS, and Office of the Directorate of Public Procurement. There are however unclear roles and responsibilities, weak implementation arrangements, and rigidities amongst these stakeholders hence the need to enhance coordination mechanisms so as to maximise synergies and complementarities. The MoAFS therefore plans institutional reform across the sector in response to the results of the core function analysis to ensure improved service delivery mechanism.

The ASWAp activities will be implemented by a range of Ministries (including Ministry of Industry and Trade, Ministry of Natural Resources, Energy and Environment), Local Assemblies, as well as civil society, farmer's organizations and private sector enterprises.

*3.3.2 Weak Implementation and Management Capacities*

There exist weak implementation and management capacities in the agricultural sector that pose significant challenges to the implementation agricultural programmes. The implementation of programmes is also hampered by shortage of skilled staff in the sector.

**(a) MoAFS Capacity**

The MoAFS has seven departments: Department of Crops; Department of Animal Health and Livestock Development; Department of Agricultural Extension Services; Department of Agricultural Research Services; Department of Land Resources and Conservation; Department of Fisheries; Department of Agricultural Planning Services, and Department of Administration and Support Services. In terms of human resources, the MoAFS has a total establishment of 13,408 posts in various skill levels. Table 8 shows the number of established posts by skills and operational levels. The current establishment suggests a top heavy and administratively bloated structure. Each Head Office post supports 5 posts at ADD and district levels. Similarly, in terms of skills, there are low ratios of number of technical personnel to administrative/support personnel. For instance, at Head Office, the ratio of administrative posts to technical is 1:1.05 implying that each technical post is matched by an administrative post. Such a low ratio is also evident at the district level. At ADD level, things are somewhat better with the ratio of administrative to technical staff of 1:3.5.

There are also problems of vacant posts within the MoAFS. For example, in 2009, about 31 per cent of the establishment of the MoAFS was vacant. Most of the vacancies exist at middle and operational levels of the MoAFS structure resulting in significant shortages of operational staff such as extension workers. This has created work over-loads and tremendous strain on existing staff which compromise on the quality of delivery of programmes and services. Some of the factors that have led to staff shortages include bureaucratic bottlenecks in the application of human resource policies, guidelines and procedures coupled with less attractive remuneration packages than those available in the private sector and non-governmental organizations (NGOs). Moreover, high staff turnover and inadequate availability of trained personnel on the labour market have over the years significantly worsened the vacancy situation within the MoAFS and the public sector. In the meantime, information on capacity development needs is often anecdotal and incomplete and requests for capacity building actions remain largely unsystematic resulting in marked deficiencies in key skills within the public sector.

**Table 5: Current Establishment in the Ministry of Agriculture and Food Security**

| Grade and Skills | Headquarters | ADD | District | Total |
|---|---|---|---|---|
| *Grade* | | | | |
| Senior | 37 | 13 | - | 50 |
| Middle | 212 | 291 | 64 | 567 |
| Operational | 2,139 | 3,072 | 7,580 | 12,791 |
| **Total** | **2,388** | **3,376** | **7,644** | **13,408** |
| *Skills* | | | | |
| Technical | 1,223 | 2,625 | 4,215 | 8,063 |
| Administrative and Support Services | 1,165 | 751 | 3,329 | 5,245 |
| **Total** | **2,388** | **3,376** | **7,644** | **13,408** |

Source: MoAFS Human Resources Department

Weak institutional, management and operational capacities within the agriculture sector are further reinforced by inadequate or lack of operational infrastructure and equipment and ineffective policy and technical systems and procedures. Ultimately, these constraints have contributed to weak and inadequate coordination and communication mechanisms among the various actors in the sector.

**(b) Non-state Actors**

The principal non-state actors are the farmers themselves who are the main beneficiaries of agricultural programmes. The main problem of smallholder farmers is that they are highly unorganised with very few incorporated cooperatives and associations in existence. As a result, smallholder farmers tend to have no or very little influence on policy developments and project activities that influence their environment.

Private firms working in agriculture and agribusiness are also key stakeholders, as well as potential beneficiaries. There have been very little linkages between farmers and private firms that provide various services to the agricultural sector. For instance, contract farming exists only in a few sectors and it covers an insignificant proportion of smallholder farmers. Additionally, there are many communities and groups (as well as schools and universities) who have significant capacity to play a more substantive role in fostering agricultural change in Malawi. These groups and communities often include local leaders who are influential in advising and guiding grassroots development and members for such groups often highly motivated.

*3.3.3 Past and Ongoing Support to Institutional Development and Capacity Building*

Despite having substantial government and donor-funded support towards capacity in the agriculture sector, there are still capacity gaps and institutional weaknesses. The problem with most of the previous institutional development and capacity building support has been lack of coordination and weak linkages with strategic sector objectives. Some of the on-going programmes that are being implemented include:

- *Public Service Capacity Development Programme*: with the objective of improved development management and this addresses capacity constraints across government, programme and project management, public financial management, conditions of service and work ethics, policy making, and the structure of the civil service.
- *Farm Income Diversification Programme (2010 – 2014)*: within the overall objective of improved rural livelihoods, this includes activities aimed at improved capacity in trade policy.
- *Irrigation, Rural Livelihoods and Agricultural Development Project (2006 – 2011)*: seeks to strengthen institutional capacity for irrigation development and management.
- *The ASWAP-SP (2008-2013)*: whose objective is to support the ASWAp, in particular Focus Area 1, and to strengthen the capacity of MoAFS in view of implementing a SWAp.

## 3.4 HIV/AIDS AND GENDER CHALLENGES

### *3.4.1 Gender, HIV/AIDS and Household Food and Income Security*

Institutionally HIV/AIDS is having devastating effects on the agriculture sector. A study in the Central Region of Malawi (Shah et al., 2002) found a significant number of households suffering from chronic illness and unable to provide labour needed for agricultural production. Resources, especially cash, which could have been used to purchase agricultural inputs are used to pay for health care and funerals- further depressing production and leading to lower levels of household income and nutrition. As food security deteriorates, malnutrition increases. Low crop yields and the burden of medical and funeral expenses forced many of the households affected by chronic illness to sell produce in distress or to borrow. Households affected by chronic illness relied more on *ganyu* labour (off-farm casual work), which reduced further productivity on their own farms resulting to oversupply of casual labour hence low wages. Profitable (but typically labour and cash intensive) crops such as tobacco are replaced by low productivity, low input cassava and sweet potatoes. Land may have to be taken out of cultivation altogether as there may not be sufficient labour to prepare and plant it, even to low labour crops.

### *3.4.2 Gender, HIV/AIDS and Agricultural Research and Extension Services*

The MoAFS is the largest provider of agricultural research and extension services to rural farmers in Malawi. The Ministry has reported that the number of staff has been reduced due to HIV/AIDS and its capacity to provide high quality research and extension services to farmers has been reduced. Other stakeholders that provide agricultural services such as microfinance and agro-input dealers have also been affected. These constraints indirectly contribute to food insecurity at household level. The reduction in numbers of staff and service providers makes it difficult for farmers to access services. In order to address these constraints, the Ministry is emphasizing on introduction of pluralistic extension services and promotion of lead farmers.

Support services to agriculture are strongly affected as skilled and experienced staff acquires the disease. The MoAFS alone reported losing 2275 staff from illness in the period 1990-2006. The civil society and private firms working in the agricultural sector have lost significant numbers of key professionals.

*3.4.3 Other Gender Issues*

There is an important link between gender and HIV/AIDS as woman and girls are particularly vulnerable. They are more likely to suffer physical abuse, including sexual abuse, than boys and men. Economically, they generally have lower levels of education and have difficulty in moving away from abusive situations. Women and girls are typically less aware of their human rights and less able to claim these rights. Women, who represent 90% of carers of PLWAs, are also nearly two thirds of the population affected by HIV/AIDS. Carriers of the virus are highly subject to discrimination and gender-based violence.

Women are disadvantaged relative to men in every sphere of activity as they are poorly protected by cultural and legal norms, typically less well educated, and are less numerate and literate than their male contemporaries. In the broader agricultural context, gender inequality is widespread. Female headed households are more likely to be food insecure than male headed ones. Access to, and control over, agricultural assets (including land, labour, and cash) is problematic for many women, leaving them with poorer availability of advice, loans, and inputs. Few are active participants in household decision making, and most are overburdened by the daily labour of cultivation, drawing water, cooking, and running the household. In this unequal situation, they may be coerced or forced into unsafe sexual activity. Woman, as the main labourers on the farm as well as the major carers, find their work load increasingly impossible if a family member becomes ill. Following the death of a spouse, a widow may lose her access to land and household resources, rendering her destitute and highly vulnerable.

*3.4.4 ASWAp Actions on Gender, HIV and AIDS*

The implementers of the ASWAp will therefore ensure that women and the youth have access to technologies, information, financial markets, participate in decision making processes, are not overburdened with labour, have access to agricultural resources and benefits, and that additional gender focal points are established to address gender issues in all departments of the ministry and implementation partners.

Although substantial progress has been made in addressing the AIDS pandemic, the key challenges remain those of reducing high risk behaviour, providing adequate nutrition for those taking Anti-retroviral drugs (ARVs), and accessing drugs to treat opportunistic infections. The ASWAp will, therefore, endeavour to address the challenges posed by the HIV/AIDS pandemic by implementing activities that will reduce high risk behaviour, provide adequate nutrition support services to those taking Anti-retroviral drugs, and improve access to drugs to treat opportunistic infections.

# CHAPTER FOUR

# ASWAP PRIORITY INVESTMENTS

## 4.1 FOCUS AREAS AND KEY SUPPORT SERVICES

The ASWAp will implement prioritized sub-programs based on key strategic objectives while recognizing the negative impact of the HIV/AIDS pandemic, gender disparities, climate change and environmental degradation on agricultural productivity. ASWAp has three Focus Areas namely: (i) Food Security and Risk Management; (ii) Commercial Agriculture, Agro-processing and Market Development; and (iii) Sustainable Agricultural Land and Water Management as shown in Figure 10. The three Focus Areas will be strengthened by two Key Support Service areas which are cross-cutting actions namely: (i) Technology Generation and Dissemination; and (ii) Institutional Strengthening and Capacity Building. The success of the ASWAp program will depend on services provided by the research and extension systems and on the capacity of the implementing institutions. Furthermore, considering the negative impacts of the HIV/AIDS pandemic and of gender disparity on agricultural productivity, these aspects will be mainstreamed as cross-cutting issues during ASWAp implementation. The implementation of ASWAp will be evidence-based thus; collection and use of reliable statistics and expansion of the agricultural information management system will be enhanced during the implementation.

The interrelationship between ASWAp Focus Areas, Key Support Services and Cross-cutting Issues is illustrated in Figure 10 while the actual focus areas and their components are summarized in Table 6.

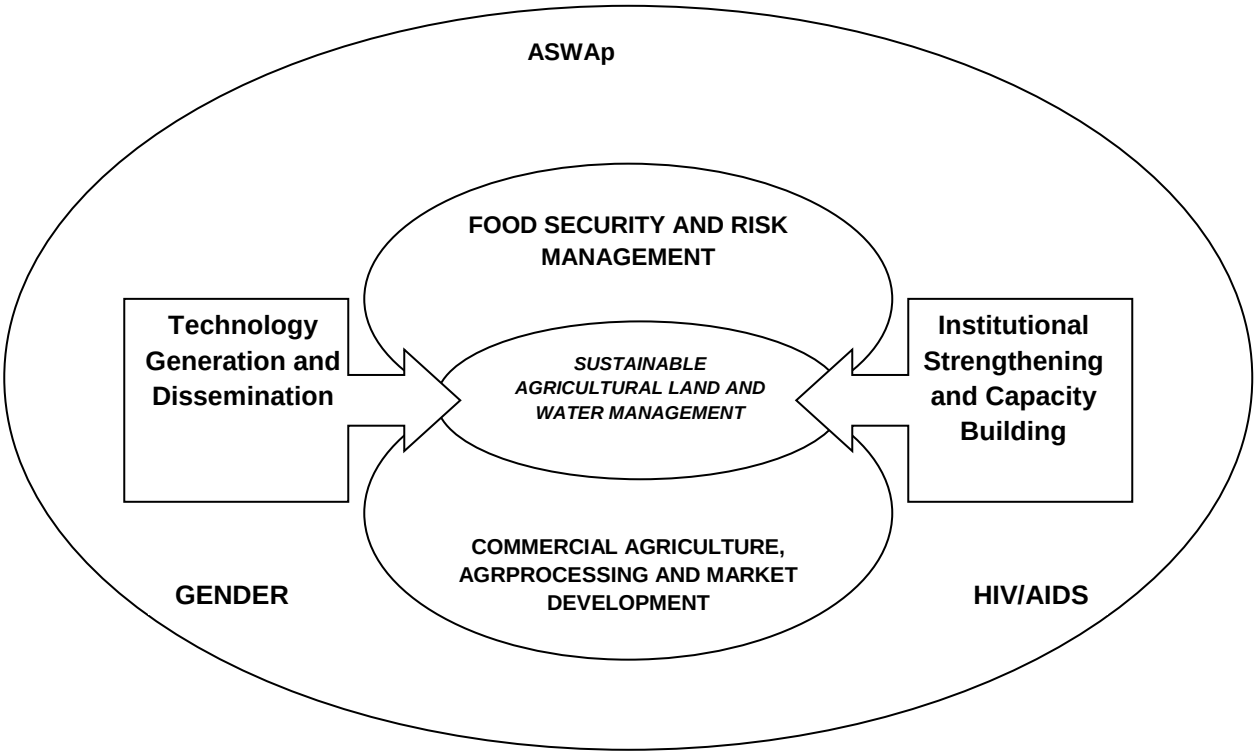



**Figure 11: ASWAp Focus Areas, Support Services and Cross-cutting Issues**

**Table 6: ASWAp Focus Areas and Components**

| Focus Area | Components |
|---|---|
| 1. Food Security and Risk Management | *1. Maize self-sufficiency through increased maize productivity and reduced post harvest losses*<br>*2. Diversification of food production and dietary diversification for improved nutrition at household level with focus on Crops, Livestock, and Fisheries*<br>*3. Risk management for food stability at national level* |
| 2. Commercial Agriculture, Agro-processing and Market Development | *1. Agricultural exports of different high value commodities for increased revenue and income*<br>*2. Agro-processing mainly for value addition and import substitution*<br>*3. Market development for inputs and outputs through Public/private sector partnerships* |
| 3. Sustainable Agricultural Land and Water Management | *1. Sustainable agricultural land management*<br>*2. Sustainable agricultural water management and irrigation development* |
| **Key Support Services** | |
| 1. Technology Generation and Dissemination | *1. Results and market oriented research on priority technology needs and provision of technical and regulatory services*<br>*2. Efficient farmer-led extension and training services* |
| 2. Institutional Strengthening and Capacity Building | *1. Strengthening public management systems*<br>*2.Capacity building of the public and private sectors* |
| **Cross-Cutting Issues** | |
| 1. HIV prevention and AIDS impact mitigation<br>2. Gender equality and empowerment | *1. Mainstream gender and HIV AIDS* |

A summary of strategic objectives, outcomes and main actions by focus area is shown in Appendix 1, while the detailed results framework including outcomes and outputs indicators and targets are shown in Appendices 3 and 4.

### *4.1.1 Focus Area 1: Food Security and Risk Management*

Under this focus area, the ASWAp will pursue three components: (i) increasing maize productivity and reducing post-harvest losses; (ii) promoting diversification of food

production for improved nutrition at household and national levels; and (iii) promoting sustainable food availability at national level by risk management.

***Component 1: Increase Maize Self-sufficiency***

The country will attain maize self sufficiency by increasing maize productivity and assisting targeted vulnerable smallholder farmers with agricultural inputs through the targeted Input Subsidy Programme while improving its technical efficiency. This will be implemented with further investments in technology development and dissemination while focusing on appropriate fertilizer use, the production and distribution of improved seed, the use of good agricultural practices and on-farm storage technologies for both food and seed.

**Actions**:

- Implement the maize input (seed and fertilizer) subsidy programme in an equitable and gender sensitive way with efficiency enhancing strategies such as:
    - Contract farming arrangements;
    - Seasonal credits for emerging farmers;
    - Minimum commodity producer prices;
    - Organic farming and use of legumes;
    - Inputs for assets programmes; and
    - Improved farmer organisation for effective bulk buying of inputs and bulk selling of outputs
- Increase attention to efficient fertilizer use under the subsidy programme through differentiation in the fertilizer formula and extension advice to farmers on how best to use the fertilizer.
- Promote good maize agricultural practices with emphasis on the following:
    - Strengthening the existing tractor hire programmes through increased availability and accessibility;
    - Strengthening the existing oxen hire programmes through increased availability and accessibility; and
    - Time of planting, seed dressing, spacing, and weeding including use of herbicides.
    - Promotion of conservation agriculture
- Develop and register new improved varieties of maize, produce and multiply breeder and basic seed, certify commercial seed and multiply improved seed through smallholder farmers as well as through established seed firms.
- Promote improved on-farm storage technologies (food and seed).
- Promote improved on-farm storage facilities through construction of cement and metallic silos for seed and grain, training of local artisans to manufacture the silos and use of improved granaries at household level.
- Strengthen migratory pests monitoring and control

***Component 2: Diversification of Food Production for improved Nutrition***

The ASWAp will promote agricultural diversification by increasing productivity of high nutritive value crops, livestock and fish based on the comparative advantage of each agro-ecological zone. The specific actions are outlined below.

**Actions:**

a) Production diversification

**Crops (legumes, tubers, horticulture)**

- Promote the production of quality legumes, Irish potatoes and vegetable seed for market distribution
- Promote development of fruit nurseries for production of high quality disease free planting materials
- Promote planting of fruit trees during Tree Planting season (Each household to plant at least 20 fruit trees comprising of at least mango, citrus, pawpaw and banana)
- Promote the multiplication and distribution of cassava cuttings and sweet potato vines of improved varieties.
- Include legume seed under the input subsidy programme
- Provide advisory services on good agricultural practices (GAP) and these ought to be linked to reliable gross margin analyses, regulatory activities and monitoring visits to maintain standards and quality.
- Develop and register new varieties
- Produce and multiply breeder seed.
- Promote integrated production and protection technologies (IPPT) for the horticultural crops through extension services to groups of farmers and traders.
- Conduct staff and farmer training on food budgeting (300 kg maize /person/yr; 50kg g/nuts + 50kgs Soya beans + 50kgs beans/person/year)
- Develop mother nurseries
- Facilitate the multiplication of foundation, breeders and basic seed, and promote multiplication and distribution of improved certified legume seed varieties for inclusion in the Input subsidy programme
- Facilitate preparation of policies, legislation and regulations governing the horticultural industry to ensure adherence to the required market standards and food safety (nurseries, field production and marketing standards).

**Livestock (poultry, small stock, pig)**

- Introduce improved, approved and registered breeds with superior characteristics
- Promote production of improved chicken feed based on locally available materials.
- Introduce productive dairy goat breeds that give at least two liters of milk per day as compared to the local goat which gives 0.25 to 0.5 liters of milk per day.

- Improve and increase capacity of existing regional hatcheries (Mikolongwe, Bwemba and Choma) for rapid multiplication of chickens and guinea fowls.
- Introduce productive breeds in the smallholder communities to improve the size and quality of goats and pigs.
- Improve the management system for pigs and rabbits under smallholder farmers
- Improve poultry vaccination services including the production and importation of sufficient vaccine doses.
- Increase the number of chickens and guinea fowls vaccinated against Newcastle disease at smallholder level
- Manufacture and distribute mini-hatcheries to groups of smallholder farmers or individuals at village level for chicken and guinea fowl multiplication.
- Promote goat re-stocking and transfer systems (farmer to farmer pass-on programmes) for meat and milk production.
- Improve vaccination services against Swine fever to stimulate production of pigs for meat.
- Disseminate skills and knowledge in the preparation, processing and utilization of rabbit meat.
- Intensify livestock frontline staff training
- Intensify farmer and staff training programs
- Intensify livestock group formation and support
- Monitor and certify quality of poultry feeds

**Fish (aquaculture)**

- Promote village level fish farming schemes comprising of four hectares of water surface area benefiting about thirty smallholders per location through construction of fish ponds
- Facilitate provision of fish fingerlings, fish feed and training of fingering producers as well as fish feed producers

**b) Dietary Diversification**

**Dietary Adequacy**

- Promote consumption of high nutritive value foods on a regular basis with emphasis on alternative staple foods and variety of foods from all food groups
- Promote the Malawi six food groups approach to food consumption
- Develop and disseminate local recipes with emphasis on the multi-mix approach.
- Conduct demonstrations on processing and utilization of foods in a diversified diet

**Dietary Quality for Vulnerable Groups**

- Promote consumption of enriched foods in complementary feeding programmes and maternal nutrition and among people living with HIV and affected by AIDS (PLHA) through the use of soy beans, pigeon peas, and groundnut as key ingredients.
- Conduct demonstrations on preparation of enriched porridge (phala) to communities, Nutrition Rehabilitation Units (NRU) and Community Therapeutic Centers (CTC)

**Nutrition education**

- Develop and distribute Information Education and Communication (IEC) materials on consumption, processing, preparation and utilization of enriched foods including local foods
- Train extension workers on prevention of micronutrient deficiencies
- Conduct multi-media campaigns on dietary diversification, consumption of Vitamin A and Iron rich foods
- Conduct consumer education on fortified foods
- Train Extension staff (TOT – training of trainers) and Households in processing, preservation, storage and utilization of food.
- Conduct joint staff and farmer training with the Ministry of Women and Child Development and Local Government and promote coordinated approaches

**Capacity building for nutritional programmes**

- Fill vacant positions related to nutrition programmes in the agricultural sector.
- Train nutrition officers to higher academic and professional levels (Diploma, BSc, MSc, and PhD levels)
- Conduct short courses on nutrition for extension staff
- Conduct training for farming families on nutrition.
- Conduct orientation courses for newly recruited staff on nutrition policies and programmes
- Procure the equipment and facilities necessary for frontline staff (motor vehicles, motor bikes, bicycles, computers and food preparation equipment.)
- Establish and strengthen Public Private Partnerships (PPP) on nutrition programmes.
- Develop effective lobbying and advocacy strategies in nutrition at all levels.
- Strengthen nutrition surveillance systems in the agricultural sector
- Promote fruit tree planting on the annual tree planting season (Each household to plant at least 20 fruit trees i.e. mango, citrus, avocado pear, banana, apple for nutrition purposes).
- Facilitate local production of local and indigenous vegetables seed of high nutritive value vegetables.

- Facilitate importation of high quality seed of the recommended varieties of exotic vegetables.

***Component 3: Risk Management for Food Stability at national level***

The ASWAp will introduce a food stabilization mechanism at national level by improving the management of markets and climatic risks that create national food gaps, mainly for maize. The ASWAp will therefore invest in programmes that will improve the management of the national and regional silos and the Strategic Grain Reserve (SGR) to reduce grain storage losses and increase storage capacity at national level.

**Actions:**

- Promote innovative market-based risk management schemes, such as the crop weather related insurance products, a warehouse receipt system operated by the private sector, and commodity market insurance system.
- Develop capacity for wider use of the maize call option import contracts.
- Improve the weather forecast systems for rainfall and the early warning systems for floods and droughts.
- Develop community based storage systems and facilities for food and seed (village grain banks and improved granaries).
- Improve management of the SGR to ensure adequate stocks at national level
- Increase storage capacity at national level by building more regional silos and improving the capacity of the existing silos
- Promote planting of drought tolerant crops (cassava, millet and sorghum)
- Strengthen weather forecasting capability for agriculture
- Develop a weather related insurance product for maize ie. Rainfall index based early warning system; Macro and Micro-weather insurance systems
- Employ maize supply/price hedging strategy

### *4.1.2 Focus Area 2: Commercial Agriculture, Agro-processing & Market Development*

The ASWAp will promote high value chains for which Malawi has a comparative advantage for export, import substitution and agro-processing development. The ASWAp has three sub programmes in this area: (i) promoting agricultural exports for improved balance of trade and income, (ii) Commercial agriculture and agro-processing for import substitution and domestic market development, and (iii) development of a public/private partnership to facilitate a nationwide system of profitable markets for agricultural inputs and outputs.

***Component 1: Agricultural Exports for Improved Balance of Trade and Income***

The ASWAp will increase the total value of agricultural exports through the exports of tobacco, sugar, tea, cotton, coffee, macadamia, chillies, paprika, soybeans, groundnuts, vegetables and fruits by increasing volumes and unit values of these agricultural export commodities.

**Outcome 1**: **Increased volumes of exported commodities**

**Actions**:

- Promote contract farming, out-grower schemes and farmers' organizations (cooperatives) including women and youth agricultural clubs for specific commodities or value chains for e.g. tobacco, cotton, sugar, tea, chillies, paprika, fruit nurseries, fruit orchards, vegetables etc.
- Distribute seed, fertiliser, and chemicals vouchers through the Farm Input Subsidy Programme.
- Strengthen farmers' organizations in agri-business management skills, planning, cost-benefit analysis, accounting, input and output handling, grading and packaging and price negotiations.
- For each commodity, promote dialogue and cooperation between value chain stakeholders including farmers' organizations, traders, processors, exporters, buyers and policy makers.
- Strengthen capacity of value chain players by sub-contracting private service providers to conduct this capacity-building.
- Promote agricultural exports through market research studies, export trade fairs and buyer and seller meetings.
- Promote producers organizations for specific commodity value chain
- Promote production, distribution and utilization of improved seed, chemicals and fertilizers.

**Outcome 2**: **Increased unit value of agricultural exports by commodity**.

**Actions**:

- Provide improved technologies to enhance output quality and cost-effectiveness in particular quality seed for tobacco and cotton, clonal tea bushes for smallholders, improved macadamia planting material and quality fruit tree seedlings.
- Improve compliance with market standards (grading, packaging, labelling) by providing training to value-chain stakeholders.
- Promote quality through compliance with sanitary and phytosanitary standards and improving the capacity of national laboratories to conduct tests on export samples.
- Increase provision of quality certification and regulatory services to enhance output quality.
- Procure laboratory equipment for analysis of soil, pesticides efficacy, cotton fiber, lint quality, and pesticide residues in food crops

***Component 2: Commercial Agriculture and Agro-processing for value addition and Import Substitution***

The ASWAp will promote increased commercial production of rice, fruits and vegetables, cassava, potatoes, paprika and chillies primarily for agro-processing. This sub-programme will also promote increased commercial dairy and beef production, as well as sustainable lake fishing for import substitution.

**Outcome 1**: **Increased volumes of high value commodities for import substitution**.
**Actions:**

- Provide research, extension and marketing support services for irrigated and rain fed commercial crop production (choice of marketable crop, adapted varieties, crop husbandry, irrigation technique, integrated production and protection practices)
- Strengthen technical, operational and management capacities for irrigation management including establishment of water user associations (WUA)
- For dairy production, import improved heifers, promote Artificial Insemination (AI) services or live bull services and improve fodder and pasture production from local materials
- Conduct preventive vaccination against animal diseases (foot and mouth, anthrax, black leg, lumpy skin disease) for beef production
- Rehabilitate dip tank infrastructure including provision of acaricides and strengthen technical and O&M capacities of users' groups for their management;
- Promote stall feeding and local production of livestock feed based on local formulations and materials for dairy and beef production
- Encourage adoption of appropriate on/off shore fishing practices, including developing area-specific fishery management plans for Lake Malawi.
- Facilitate production of improved fingerlings, fish feed and poultry feed .
- Promote formation of milk bulking groups and cooperatives for livestock.
- Provide the essential technical services required by beef and milk producers (AI service, live bull service, feed production, veterinary services)
- Increase production of animal feed and fodder
- Promote mini dairy processing and cooling facilities

**Outcome 2**: **Increased unit value of commodities (crops, fish and livestock).**

**Actions:**

- Promote group and individual small-scale agro-processing particularly for cassava (starch) horticultural products (fruit juices and jam, tomato paste etc) and oilseed crops for cooking oil (e.g. groundnuts)
- Set-up and expand market information systems in key markets and for key commodities;
- Build or rehabilitate market infrastructure and collection points in strategic locations for specific commodities;
- Provide support to small and medium scale agro-processors in preparing business plans and loan applications to the commercial banking sector, market information, linkages between buyers and suppliers;

- Develop financial leverage systems for private agri-business enterprises through the provision of matching grants system;
- Provide non-financial business services and capacity strengthening to small and medium scale agro-processors and traders (e.g. business plan, market informat6ion, linkages between suppliers and buyers)
- Promote utilization of agro-processing technologies
- Establish organized meat and egg markets

***Component 3: Development of public/private partnerships to facilitate a nationwide system of profitable markets for agricultural inputs and outputs***

The objective is to create accelerated and broad-based growth in the agricultural sector by combining traditional farmer knowledge, private sector expertise, and government investments and programmes into a coherent and productive programme.

ASWAp will facilitate, through dialogue with the relevant private sector associations, support to partnerships to facilitate the development of a nationwide system of outlets for agricultural inputs and purchasing arrangements for outputs. This will build on existing efforts to improve market access but, in particular, go beyond the basic agro-dealer concept to one in which agro-dealers form a component part of the technology dissemination and promotion chain. Through carefully focused farmer-led field investigations, farmers will be encouraged to test for themselves (with support from development agencies – both government and private) new livelihood options and to explore the markets for these options. Thus the poor will become empowered to demand the inputs that they need and become linked effectively to a domestic or export market in which they play a full role.

The Partners will jointly:

- design, coordinate and implement on-the-ground activities that improve efficiencies in the inputs and output markets and lead to broader growth and development of the agricultural sector, and,
- offer solutions to the Government on subsidy improvements to relieve financially burdensome problems in delivery/distribution
- provide an explicit statement of impacts being targeted, to achieve the strategy

**Actions:**

- Develop commodity based partnerships in the value chain involving all key players i.e. producers (farmers and processors), agro-input dealers, buyers, service providers (research, extension, training, information systems, financiers, marketing infrastructure) and policy makers ( for legislation, regulations and standards)
- Ensure sustainable partnerships through strong linkages and effective dialogue backed by signed Memoranda of Understanding and Codes of Conduct
- Improve transaction efficiency along the value chain for both inputs and outputs, and reduce risk so as to encourage further private sector involvement (increasing agro-dealer cover, widening the base of input suppliers, banks etc.),

- Improve the efficiency of public investment, and the collateral investments being made by the private sector, NGOs and farmers.
- Empower farmers by mobilizing them into organized units such as cooperatives, farmers clubs or associations and through contract farming or out-grower schemes and training to impart skills.
- Ensure the poor get the most profitable inputs at the right time, and in quantities that they can afford.
- Improve farmer knowledge and choice regarding new technologies (enhance agro-dealer skills, implement farmer-based trials etc) as well as being informed on output market potentials and options.
- Establish and improve on effective communication and coordination mechanisms amongst government, donors, civil society organisations, and the private sector
- Enhance public sector investments to better leverage collateral for private sector investments to achieve longer term gains
- Develop a strategy for a partnership with key private sector actors that defines the objectives that must be shared by all partners, outline the structure of the Partnership, and indicate membership characteristics
- Determine roles and responsibilities and establish the approach and operational principles

*4.1.3 Focus Area 3: Sustainable Agricultural Land and Water Management*

Sustainable management of natural resources will enhance the productivity of both food and cash commodities and increase sustainability of output per unit of resource, mainly land and water, while protecting the environment. This focus area has two sub-programmes that will contribute towards sustainable land and water management, weather variability and climatic change.

***Component 1: Sustainable Land Management***

The land management programme will promote the dissemination and adoption of sustainable land management practices on agricultural land. The component of sustainable land management is aimed at providing conducive environment for achieving food security and also whole farm profitability and needs.

**Actions**

- Promote the use of conservation farming technologies that build soil fertility, prevent soil erosion and conserve rain water (contour ridging, application of manure, preparation of compost, minimum tillage, agro-forestry, box ridges, tractor ploughing to break the hard hoe pan, and use of herbicides as a labour saving technology.
- Increase area under sustainable land management.
- Finance planting material (mainly seeds) and other inputs mainly related to community nurseries for agro-forestry seedlings production including fruit tree seedlings.
- Promote community based dambo and water catchment area management and the prevention of river banks degradation.

- Subsidize inputs to raise forestry and fruit tree seedlings or buying of plants from commercial nurseries for farmers and village communities for planting on fragile or degraded land areas
- Promote labour saving technologies (land ploughing using hired tractor or own tractor, herbicides for weed management and crop protection agents)
- Promote management systems and technologies that protect fragile land (river banks, dambo areas, steep slopes or hilly areas, and water catchment areas)

***Component 2: Sustainable Water Management and irrigation development***

The ASWAp will promote the expansion of sustainable water management by improving utilization efficiency and increasing the area under irrigation for increased high value commodity production. The high value crops considered a priority include rice, paprika, chillies, green maize, vegetables (cabbage, onion, tomato, garlic, shallot, green beans, carrots, peas), and fruits (banana, pineapple, citrus, mango, strawberry, pawpaw).

***The Greenbelt Initiative***

Irrigation intensification will be carried out under the broad umbrella of the Greenbelt Initiative (GBI). The overall goal for GBI is to contribute towards the attainment of sustainable economic growth and development in line with the MGDS. The Initiative aims at reducing poverty, improving livelihood and sustainable food security at both household and national level through increased production and productivity of agricultural crops, livestock and fisheries.

The initiative will make of use of the abundant fresh water resources present in the country lakes which cover over 21% of the country's territorial area. The lakes include (Malawi, Chirwa, Chiuta, and Malombe), perennial rivers (Shire, Songwe, North and South Rukulu, Bua, Dwangwa, Lingadzi, Lilongwe, and Ruo) and Lagoons (Chia and Bana). These water bodies offer potential to improve food and agricultural productivity.

**Actions:**

- Rehabilitate existing irrigation schemes and construct new ones to expand area under irrigation from 20,000 ha to 40,000 ha at national level.
- Provide research and extension services to farmers on appropriate irrigation and crop production techniques and systems.
- Establish gender sensitive Water User Associations (WUA) and strengthen their technical and operations and management capacities for sustainable irrigation (including farmers' participation in a revolving fund) and high value commodity production and marketing.
- Establish rainwater harvesting systems in the field and off-field. These systems include the construction of new dams constructed and the rehabilitation of existing dams, as well as small scale water harvesting systems for gardening.
- Promote catchment area management and protection by WUA and community afforestation - including establishment of fruit orchards.
- Improve the technical and management capacities of WUA
- Rehabilitate existing irrigation infrastructure in research stations

- Strengthen technical capacity for irrigation management

*4.1.4 Key Support Services 1: Institutional Development and Capacity Building*

Institutional development and capacity building of extension services and other agricultural institutions are critical factors in creating and fostering an enabling environment for sustainable development and growth of the agricultural sector. The existence of institutional structures with clear roles, responsibilities, linkages, capacities, and skills is a very essential pre-requisite in achieving the overall goals and objectives of the ASWAp. This component is cross-cutting in nature and will implement programs to address institutional and capacity constraints in the ASWAp.

The overall objective of the institutional development and capacity building program will be to create an enabling institutional capacity of key state and non-state stakeholders for the implementation and achievement of the ASWAp objectives.

**Actions**:

- Strengthen and improve institutional capacity (leadership and management) of key stakeholders (across institutions) to plan, implement and monitor the programme at Central and District level.
- Improve coordination and partnership mechanisms.
- Improve capacity to manage government and donor investments in agriculture.
- Develop and strengthen policies, systems, guidelines and procedures
- Develop and improve resource capacities of key institutions (adequate funding, motor vehicles, motor cycles, bicycles, computers, and other equipment and facilities).
- Facilitate the acquisition of additional transport means (motorbikes and bicycles and limited motor cars) to ensure that all frontline staff have transport to carry out their duties.
- Recruit additional extension workers to progressively fill the existing vacancies based on the establishment as reported by the human resources office (currently at 31 per cent vacancies).
- Construct and rehabilitate offices, institutional buildings, and institutional houses of extension workers and other offices.
- Develop Gender, HIV and AIDS analysis and mainstreaming skills at all levels beginning with focal points.
- Provide short-term and long term training to members of staff according to the training succession plan to build capacity for sustainable implementation of the ASWAp.
- Provide sufficient financing for the regular maintenance of transport means for front line extension and research staff.
- Provide training including Gender, HIV/AIDS training to frontline staff for orientation, upgrading and skills development.
- Improve agriculture sector planning, implementation, M&E, investment management, governance, and nutritional surveillance

- Establish an ASWAp secretariat to coordinate the activities of the ASWAp and provide linkage within the MoAFS and amongst key stakeholders in the agricultural sector
- Develop and strengthen public management systems such as planning, budgeting, monitoring, evaluation, financial management, human resources management, procurement
- Conduct a Core Function Analysis of the MoAFS to determine how the Ministry will manage its activities under the ASWAp
- Provide training needed to improve technical and administrative systems, skills development, strengthening partnership
- Establish and strengthen public/private partnerships for specific priority commodities
- Conduct orientation courses for newly recruited staff on policies and programmes
- Provision of training to frontline staff for orientation, upgrading and skills development
- Provision of training to frontline staff for orientation, upgrading and skills development
- Fill all critical vacant posts in the MOAFS and the agricultural sector as a whole
- Recruit the appropriate human resources needed to implement programmes effectively, and set in place the need capacity development programmes to ensure that there are properly trained people for future needs.

*4.1.5 Key Support Services 2: Technology Generation & Dissemination*

The most plausible way for increasing agricultural production in Malawi is by increasing crop and livestock productivity. The process of technology generation, adaptation, dissemination and adoption will be enhanced towards the achievement of results identified under the key focus areas.

The ASWAp will promote demand-driven as well as market- and industry-oriented research and extension systems, while targeting the comparative advantages of each commodity and agro-ecological zone.

**Actions**

- Supporting and intensifying applied research and extension programmes focused on priority ASWAp targets such as interventions in the pesticide research to contain and eliminate the Large Grain Borer (LGB) and intensification of research on Genetically Modified Foods.
- Increasing the capacities of the research and extension systems to respond to farmers' technology needs of all gender categories, by generating and disseminating appropriate technologies for sustainable agricultural productivity increases.
- Strengthening result-oriented gender sensitive research and extension activities and improving the relevance and responsiveness of services that farmers need.
- Provision of technical services such as AI service for dairy cattle, dip tanks, vaccines and vaccination services for livestock, seed certification services,

sanitary and phytosanitary services, production and certification of foundation and basic seed and vegetative planting materials, development and monitoring of quality standards, soil analysis for site specific fertilizer recommendations, pesticide residue analysis for food safety and analysis of Aflatoxins in groundnuts and other food grains.

- Develop crop varieties that are high yielding, good quality, resistant to diseases and drought tolerant
- Develop Good Agricultural Practices (GAP) i.e. Soil fertility, fertilizer and plant population management systems and integrated pest management
- Develop labour saving technologies
- Develop harvest and post harvest management systems including crop storage systems
- Improve efficiency of the use of inputs (Seed , fertilizer and chemicals) by farmers
- Breed or introduce livestock that are highly productive in meat, milk and egg production
- Monitor production of livestock feeds and certify their quality
- Develop value addition technologies to promote agro-processing initiatives
- Provide technical services required by farmers i.e.dip tank fluids, vaccines for livestock; seed certification services; sanitary and phytosanitary services; production and certification of foundation and basic seed and vegetative planting materials; development and monitoring of quality standards; soil analysis for site specific fertilizer recommendations; pesticide residue analysis for food safety and analysis of Aflatoxins in groundnuts and other food grains.
- Disseminate technologies on Good Agricultural Practices (GAP) to increase agricultural productivity i.e. choice of varieties and seed; management of soil fertility, fertilizers and plant population, time of planting and integrated pest management
- Provide policy and regulatory support services
- Promote the use of model villages, green belts, clusters and farmers cooperatives in the transfer of technologies
- Train farmers on all aspects of GAP
- Provide technical services required by farmers i.e. Artificial Insemination service for dairy cattle; dip tank management, vaccination services for livestock; distribution of vegetative planting materials; and monitoring of quality standards.

### *4.1.6 Cross-cutting issues*

**Gender and HIV/AIDS**

The ASWAp will responds to the needs of women farmers, youth and people living with and affected by HIV by adopting a gender and HIV-responsive targeting strategy. Gender and HIV and AIDS issues will be mainstreamed in the ASWAp focus areas and key support services in order to reduce the gender disparities, prevent further spread of HIV and mitigate the negative impacts of AIDS on agricultural productivity and food and nutrition security.

Gender, HIV and AIDS will be mainstreamed at work place and in agricultural programs involving communities. Gender equity in the ASWAp will be attained through targeting at least 50% women farmers in all interventions whereas gender inequalities at work place will be attained among others by ensuring that of all staff trained at various levels 30% should be women.

The ASWAp will also respond to the needs of the youth, who will increasingly take on leadership roles in the community. ASWAp will endeavor to ensure that the voices of the youth are properly articulated into the development process. The ASWAp will also target support vulnerable groups for example People Living with HIV/AIDS and households keeping the chronically ill.

The following actions will be implemented to facilitate mainstreaming of gender, HIV and AIDS

**Focus area 1: Food Security Nutrition and Risk Management**

1. Develop mechanism for increasing the percentage of vulnerable women, OVCs, PLHIVs, FHHs and CHHs accessing production resources ie through FISP and user friendly technologies that reduces drudgery and increase agricultural production
2. Provide food supplements and agricultural inputs to staff living with HIV at the workplace.
3. Promote small stock animal production and fish farming for women, youth and PLHIV through pass-on schemes.

**Focus Area 2: Commercial Agriculture, Agro-Processing and Market Development**

1. Support women, youth and PLHIV on agricultural and non-agricultural income generating projects including business organization and management
2. Promote greater involvement of women in commercial farming.
3. Scale-up services on gender, HIV and AIDS to migrant workers and traders in rural farms, estates and rural market centers
4. Advocate for gender, HIV and AIDS mainstreaming in ASWAp planning, implementation, monitoring and budgeting processes
5. Design and implement affirmative action to increase the number of women in policy and decision making positions.
6. Promote self help projects for vulnerable women, youth and PLHIV

**Focus Area 3: Sustainable Agricultural Land and Water Management**

Promote adoption and scale-up appropriate agro-forestry, soil and land conservation practices amongst women, youth, and PLHIV

**Support Area 1: Technology generation and dissemination**

1. Institutionalize gender, HIV and AIDS responsive research in agriculture and fisheries
2. Design and disseminate gender, HIV and AIDS responsive agriculture and fisheries information, education and communication materials
3. Develop and strengthen existing training curricula and courses on gender, HIV and AIDS
4. Institutionalize gender, HIV and AIDS in ASWAp and ensure M & E systems are gender, HIV and AIDS sensitive

**Actions:**

1. Document, disseminate and share best practices on gender, HIV, AIDS food and nutrition security and natural resource management.
2. In collaboration with other stakeholders, develop and implement capacity building programmes for staff at all levels and farmers of all gender Conduct gender, HIV and AIDS audit for key institutions and programmes and recommend mainstreaming strategies.
3. Strengthen and establish where there is need gender, HIV and AIDS focal points and workplace committees with clear terms of reference in all subsectors, departments and institutions
4. Develop and implement awareness and advocacy programmes against agricultural property grabbing including land.
5. Institute workplace interventions to reduce stigma and discrimination and mitigate the impacts of gender disparities HIV and AIDS
6. Review agricultural related policies, programmes and projects to mainstream gender, HIV and AIDS.
7. Formulate a resource mobilization strategy for the Agriculture sector gender, HIV and AIDS strategy
8. Market gender, HIV and AIDS strategy to donors and stakeholders and monitor its implementation.
9. Establish networks and partnerships with all stakeholders and partners dealing with gender, HIV and AIDS in agriculture fisheries and natural resources sector
10. Establish and operationalise Technical Working group committees on gender, HIV and AIDS, food and nutrition security at all levels.
11. Institute and update database on gender, HIV and AIDS in Agriculture, food security and natural resources
12. Review and develop the agriculture sector Gender, HIV and AIDS strategy.

An essential component of any development planning is statistics. Reliable agricultural statistics help government and donors by informing budget and aid allocation decisions and by monitoring the effectiveness in use of finances and aid. MoAFS has a National Early Warning Unit for Food Security (NEWU) which is linked to the SADC umbrella body the Regional Early Warning Unit for food Security (REWU). In line with the CAADP plan, NEWU provides early warning information for disaster preparedness and mitigation. Through crop production estimates projections and weekly agricultural commodity price data, it is possible to furnish planners, policy and decision makers with

information on expected food shortages to enable advanced planning. The food balance sheet which provides useful information on food availability, food requirements and the resultant food surplus or deficit is an important tool for guiding decision making process in terms of need for distribution of food aid. Related to the domestic food gap analysis is vulnerability assessments conducted by the Malawi Vulnerability Assessment Committee (MVAC) with support from the SADC Regional Vulnerability Assessment Committee (RVAC). The Malawi Country STAT, linked to the international FAO data base, is a rich web based data bank for food, agricultural and natural resources statistics.

The ASWAp will use agricultural statistics for planning, monitoring and evaluation, policy formulation and early warning for food security. Agricultural statistics will be an essential feature of the ASWAp implementation arrangements. The agricultural statistics which will form the basis for M&E will be linked directly to the output targets of the ASWAp. The ASWAp framework has highlighted the inadequacy of regular surveys that provide essential information regarding changes that are occurring in the agricultural sector and at household level. ASWAp proposes that surveys should be funded regularly including the Annual Production Estimates (APES) sample survey which as will be seen later in the document is a key priority area in strengthening agricultural statistics.

**Priority elements in the ASWAp are:**

- **Strengthening Collaboration between NSO (National Statistics Office) and MoAFS.** A strategic plan has been developed by NSO and six institutions (including MoAFS) involved in the collection, analysis and reporting of official statistics. Strengthened collaboration between MoAFS and NSO in the production of agricultural statistics will improve accuracy and timeliness of agricultural statistics, standardise and harmonise concepts and methodologies for collecting data, reconcile discrepancies observed in MoAFS and NSO agricultural statistics, and improve stakeholder and user confidence in agricultural statistics.
- **Capacity building.** The ASWAp framework requires training programmes to be targeted at critical gaps in technical skills, one of which is agricultural statisticsc will enhance the capacity of the ministry to implement the agreed agenda. Institutional development and capacity building are cross cutting in nature and are a pre-requisite to the success of the ASWAp. The ASWAp framework capacity building arrangement has been categorised into short, medium and long term. In line with the foregoing, investing in training in agricultural statistics will directly assist in addressing the capacity gap identified in the ASWAp.
- **Enhanced survey capacity.** Surveys will be mounted or further improved in the following areas - Agricultural Production Estimates; Post harvest losses; Agriculture Market Information Systems (AMIS); cost of production and farm management surveys; Fish Catch Assessment Survey
- **Agriculture Management Information System.** In line with ASWAp concept to improve management information systems, the ministry will develop an AGMIS. This will be linked to, and enhance the value of, the Annual Agricultural Statistical Bulletin. The bulletin is a collection of various forms of agricultural statistics into one booklet for easy reference by users.

- **Area Sampling Frame.** To improve the validity and reliability of crop estimates, the Area Sampling Frame (ASF) methodology will be tested for estimating crop area and production.

## 4.2 ESTIMATED BUDGET FOR THE ASWAP

### *4.2.1 Estimated Budget*

The budget has been derived from strategies and prioritised actions of the ASWAp. Costing of the ASWAp was based on unit cost measurement. The unit costs were derived from the current levels of the cost of the activities. It is assumed that the cost of the activities will remain the same for the duration of the current ASWAp implementation period. In other ways the current cost of activities will purchase the same amount of goods and services in the delivery of future targets of the ASWAp. However, if the cost of purchase of goods and services increases then reduced targets will be achieved with the same amount of money. Table 11 below presents the financial and budget requirements for the priority inputs to be delivered under ASWAp including the recurrent costs of delivering the services. The table presents the cost breakdown by focus area and components. The total ASWAp first phase budget is at US$ **1,678,678,026** for the implementation of prioritised sector investments from July 2011 to June 2015. It has to be highlighted however that the Greenbelt initiative demands huge investments in the first phase of ASWAp implementation due to irrigation infrastructure designs and development.

**Table 7: Summary budget for ASWAp by Focus Area (2011-2015)**

| | Focus Area/ Component | 2011/12 | 2012/13 | 2013/14 | 2014/15 | TOTAL |
|---|---|---|---|---|---|---|
| **1** | **Food security and risk management** | **201,092,230** | **212,561,560** | **207,660,570** | **210,984,090** | **832,298,450** |
| 1.1 | Maize self-sufficiency | 162,457,200 | 162,791,500 | 163,127,750 | 163,464,000 | 651,840,450 |
| 1.2 | Diversification and nutrition | 36,061,280 | 39,588,810 | 41,361,570 | 43,601,340 | 160,613,000 |
| 1.3 | Risk Management for Sustainable food availability | 2,573,750 | 10,181,250 | 3,171,250 | 3,918,750 | 19,845,000 |
| **2** | **Commercial agriculture and market development** | **33,525,250** | **37,593,500** | **39,739,250** | **47,978,000** | **158,836,000** |
| 2.1 | Agricultural export for improved balance of trade and income | 8,632,000 | 10,082,500 | 11,170,000 | 11,957,500 | 41,842,000 |
| 2.2 | Commercial production for import substitution and domestic market development | 24,528,250 | 25,606,000 | 28,089,250 | 35,390,500 | 113,614,000 |
| 2.3 | Input and output market development through Private public partnership | 365,000 | 1,905,000 | 480,000 | 630,000 | 3,380,000 |
| **3** | **Sustainable land and water management** | **193,613,800** | **225,253,600** | **256,945,400** | **286,277,200** | **962,090,000** |
| 3.1 | Sustainable agricultural land management | 6,853,800 | 10,629,600 | 14,545,400 | 24,991,200 | 57,020,000 |

| | Focus Area/ Component | 2011/12 | 2012/13 | 2013/14 | 2014/15 | TOTAL |
|---|---|---|---|---|---|---|
| 3.2 | Sustainable agricultural water management | 186,760,000 | 214,624,000 | 242,400,000 | 261,286,000 | 905,070,000 |
| **4** | **Key support service: Technology generation and dissemination** | **24,696,825** | **28,155,850** | **28,856,075** | **29,881,600** | **111,590,350** |
| 4.1 | Results and market oriented research and provision of technical and regulatory services | 2,278,625 | 2,429,350 | 2,972,075 | 2,131,800 | 9,811,850 |
| 4.2 | Efficient farmer-led extension and training services | 22,418,200 | 25,726,500 | 25,884,000 | 27,749,800 | 101,778,500 |
| **5** | **Key support service: Institutional strengthening and capacity building** | **21,063,843** | **19,577,748** | **25,368,350** | **32,353,285** | **98,363,226** |
| 5.1 | Strengthening public management systems | 11,639,183 | 10,744,288 | 15,956,840 | 23,162,325 | 61,502,636 |
| 5.2 | Capacity building of the public and private sector | 9,424,660 | 8,833,460 | 9,411,510 | 9,190,960 | 36,860,590 |
| **6** | **Cross cutting issue:** | **5,335,903** | **6,528,634** | **7,658,590** | **8,976,872** | **28,500,000** |
| 6.1 | Mainstreaming of gender and HIV AIDS | 5,335,903 | 6,528,634 | 7,658,590 | 8,976,872 | 28,500,000 |
| | **TOTAL** | **479,327,851** | **529,670,892** | **566,228,236** | **616,451,047** | **2,191,678,026** |

# CHAPTER FIVE

# IMPLEMENTATION ARRANGEMENTS

## 5.1 PROGRAMME COORDINATION AND MANAGEMENT

The agricultural sector performance and effectiveness have in the past been weakened by multiple, uncoordinated donor and government financial support that has resulted in lack of coherence in priorities, inconsistencies in implementation, low government ownership, low critical mass of investments in key areas and therefore low impact of agricultural investments. It has also resulted in high transaction costs on behalf of the Government and generally has contributed to weaker government institutions.

The Government of Malawi has recognized these challenges and has recently embarked on defining a Development Assistance Strategy. This strategy seeks to "domesticate" commitments taken as part of the Paris Declaration on AID effectiveness in 2005 and confirms the government's preference for budget support or pool funding arrangements for financial support to a government programme.

The ASWAp's medium term goals include donor harmonization and alignment of assistance to agriculture. Harmonization is defined as better coordination between donor and government policies, strategies, implementation modalities and procedures. Alignment is defined as donors aligning on Government policies, strategies, priorities and procedures. In view of the institutional complexity of the sector and the size of the challenge, a gradual approach will be adopted by initially covering a set of priority actions, aimed at achieving MGDS priority targets, within which coordination among funding partners and public and private implementers will be enhanced. This will lead to a completely harmonized approach to investment in agriculture in the form of a sector wide programme.

### *5.1.1 Harmonization and Alignment Process*

The process of harmonization and alignment of assistance to the agricultural sector is represented in figures 11 and 12. The large box represents the whole of the agricultural sector, while the thick line represents the ASWAp, a priority programme within the agricultural sector. Some on-going discrete projects fall within the scope of the ASWAp, as defined in the results framework and related priority areas, others fall outside. In an initial phase government and donors will be able to pool their additional funding to support the whole of the ASWAp and its priority programmes, or they can choose to earmark their additional funding to support a specific programme or even sub-programme of the ASWAp.

With on-going discrete projects/programmes being terminated or extended and new funding going to the pool, or at least being earmarked within the ASWAp framework, it

is expected that the ASWAp will gradually grow to a fully harmonized and aligned programme (see Figure 12). The focus areas/programmes could also gradually evolve towards a SWAp, covering a larger scope of investments within the agricultural sector.

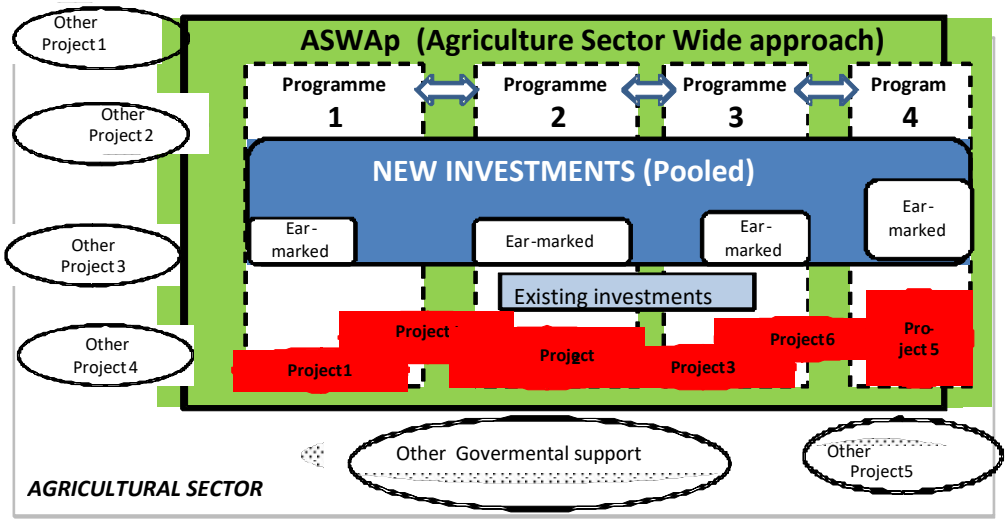



**Figure 12: ASWAp (at start)**

There will be need for a gradual transition from the current fragmented array of interventions towards: (i) enhanced coordination of major on-going investments and their link to future ones; (ii) a base pool funding for the programme which would allow some earmarking of funds, initially complemented by discrete funding of certain sub-programmes or specific actions outside the pool; (iii) agreement on a transition strategy for gradual harmonization between donors and government and alignment to government priorities, policies and procedures. Various government policies will also have to be harmonized so that there is policy coherence, consistency and stability. NGO discrete projects will continue to operate. Under the ASWAp, the objective will be to better coordinate and align them to ASWAp priorities.

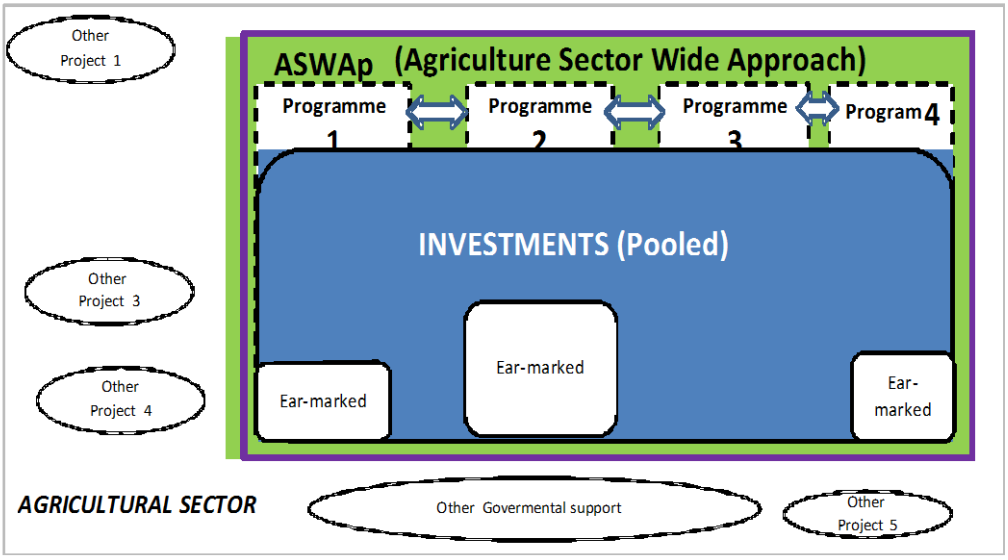



**Figure 13: ASWAp (medium term)**

The various steps for achieving this gradual approach to improved harmonization and alignment in the agricultural sector include:

1. Agreement on government priorities for the agricultural sector.
2. Enhancing coordination between on-going 'projects' and 'new' harmonized investments within the ASWAp framework.
3. Using government structures and planning and monitoring systems as a first choice to implement projects as compared to Project Implementation Units (PIUs).
4. Aligning with government systems and procedures regarding financial management, procurement and auditing which have to be assessed and strengthened.

**Funding modalities:** There are five financing modalities for the ASWAp namely: parallel funding (multiple donors for coordinated projects), discrete projects, co-funding (multiple donors for single project), pooled programmatic funding and pooled sectoral funding. Earmarked funds are provided by government (and sometimes managed by government), while discrete funds can be provided by other stakeholders and are not managed directly by government. Both operate with separate accounts outside the flow of funds mechanism for the pooled funding. Most on-going projects use discrete funding and in the short-term these on-going discrete projects will continue (Figure 12).

### *5.1.2 Malawi CAADP Compact*

The Malawi CAADP Compact outlines the institutional, planning, budgeting, procurement, financial management, M&E and reporting arrangements related to a fully harmonized and aligned ASWAp framework. The Compact sets principles and ways of working amongst the public institutions, Development Partners, the Civil Society, Private Sector, and other actors, engaged in the agricultural and food security sectors. Furthermore, it is expected to guide the alignment of existing projects and programmes to the ASWAp framework and demands enhanced coordination in implementing prioritised sector investments. This Compact was signed by the Government of Malawi, representatives of the Development Partners, the Civil Society, Private Sector, representatives of the farmer organisations and farmers union on April 19, 2010.

It is planned that the ASWAp officially starts in the 2011/2012 financial year with some pooled funding, while allowing for earmarked and discrete funding within the ASWAp priority framework. However, all investments supporting the ASWAp priority framework will seek to coordinate programme planning, budgeting and M&E in relation to the ASWAp targets. In the meantime, government systems of procurement, financial management and accountability can be strengthened. As the Ministry of Agriculture and Food Security is implementing a fully-fledged Sector Wide Approach, it will simultaneously strengthen capacities to build trust in the system and ensure that donors join the pooled funding system.

### *5.1.3 Link between ASWAp and on-going programmes*

**The Farm Inputs Subsidy Programme (FISP) vs ASWAp -** The Farm Inputs Subsidy Programme (FISP) implements Focus Area 1(Food Security and risk management) of the ASWAp .The programme aims at increasing food security at household and national levels. Specifically, the programme aims at increasing the smallholder farmer access to improved farm inputs and adoption of improved technologies in maize production systems. Therefore, the FISP Coordination team will periodically report progress to the ASWAp secretariat.

**The Greenbelt Initiative (GBI) -** The Greenbelt Initiative (GBI) implements Focus Area 3 (Sustainable Agricultural Land and Water management) of the ASWAp. The overall objective for Greenbelt Initiative is to contribute towards the attainment of sustainable economic growth and development in line with the Malawi Growth and Development Strategy (MGDS). The Initiative aims at reducing poverty, improving livelihood and sustainable food security at both household and national level through increased production and productivity of agricultural crops, livestock and fisheries.

Specifically the Initiative aims at increasing production and productivity of crops, livestock and fisheries; increasing household incomes; agricultural exports and foreign exchange earnings; promoting diversification of crop and livestock enterprises; reducing rural-urban migration; and improving availability of quality water for both domestic and industrial use.

The GBI Secretariat will report progress on quarterly basis to the ASWAp secretariat. The ASWAp secretariat will report to the Principal Secretary and the Executive Management Committee for final decisions. In addition, a multi-sectoral GBI Management Body chaired by the Office of the President and Cabinet will give oversight to the implementation process and manage inter-sectoral and inter-institutional issues

### *5.1.4 ASWAp Organizational arrangements*

The ASWAp will be delivered principally through the existing organisational structures of the public administration. This will help ensure sustainability and contribute to building capacity. In contrast, where possible, and in line with recent international commitments on development assistance, creating new and parallel implementation structures will be avoided. It is nonetheless recognized that there are new management and coordination demands to be accommodated in a programme-based approach and hence some temporary structures in the organisational arrangements are proposed. An organisation and management chart is shown in Figure 13 while the ASWAp secretariat organisation chart is shown in figure 14.

**a) ASWAp Management Structure**

The Ministry of Agriculture and Food Security (MoAFS) is the lead ministry for the ASWAp while other implementing and interested ministries will participate in making key decisions on the programme. At the central level, the line departments of the MoAFS and the Ministry of Irrigation and Water Development (MoWID) will have the principal responsibility for delivery of the programme. All programs/projects in the agriculture sector are under the umbrella of ASWAp framework, implement ASWAp priorities, and are required to regularly report progress to the ASWAp Secretariat. The ASWAp joint planning, monitoring and evaluation will holistically examine all sector investments. Figure 14 illustrates the management structure for implementation of the programme. As a sector investment plan, ASWAp implementation will take on board all key stakeholders. The roles and responsibilities of key stakeholders are outlined below:

**Ministry of Irrigation and Water Development**

The Ministry will principally be responsible for irrigation infrastructure development and rehabilitation.

**Ministry of Local Government and Rural Development**

The Ministry will principally be responsible for ensuring high quality, efficient, and effective implementation of ASWAp through their existing Governance Structures at all levels. The Ministry will work closely with other key stakeholders to ensure successful implementation of prioritized ASWAp interventions.

**Ministry of Lands and Physical Planning**

The Ministry will principally be responsible for ensuring that land issues are properly managed as the MoAFS intensifies agricultural activities.

**Ministry of Natural Resources, Energy, and Environment**

The Ministry will principally be responsible for ensuring that resources are used in a sustainable manner.

**Ministry of Industry and Trade**

The Ministry of Industry and Trade will principally be responsible for ensuring that there is a market available for the increased production. Figure 13 shows the various bodies involved in the implementation of the ASWAp.

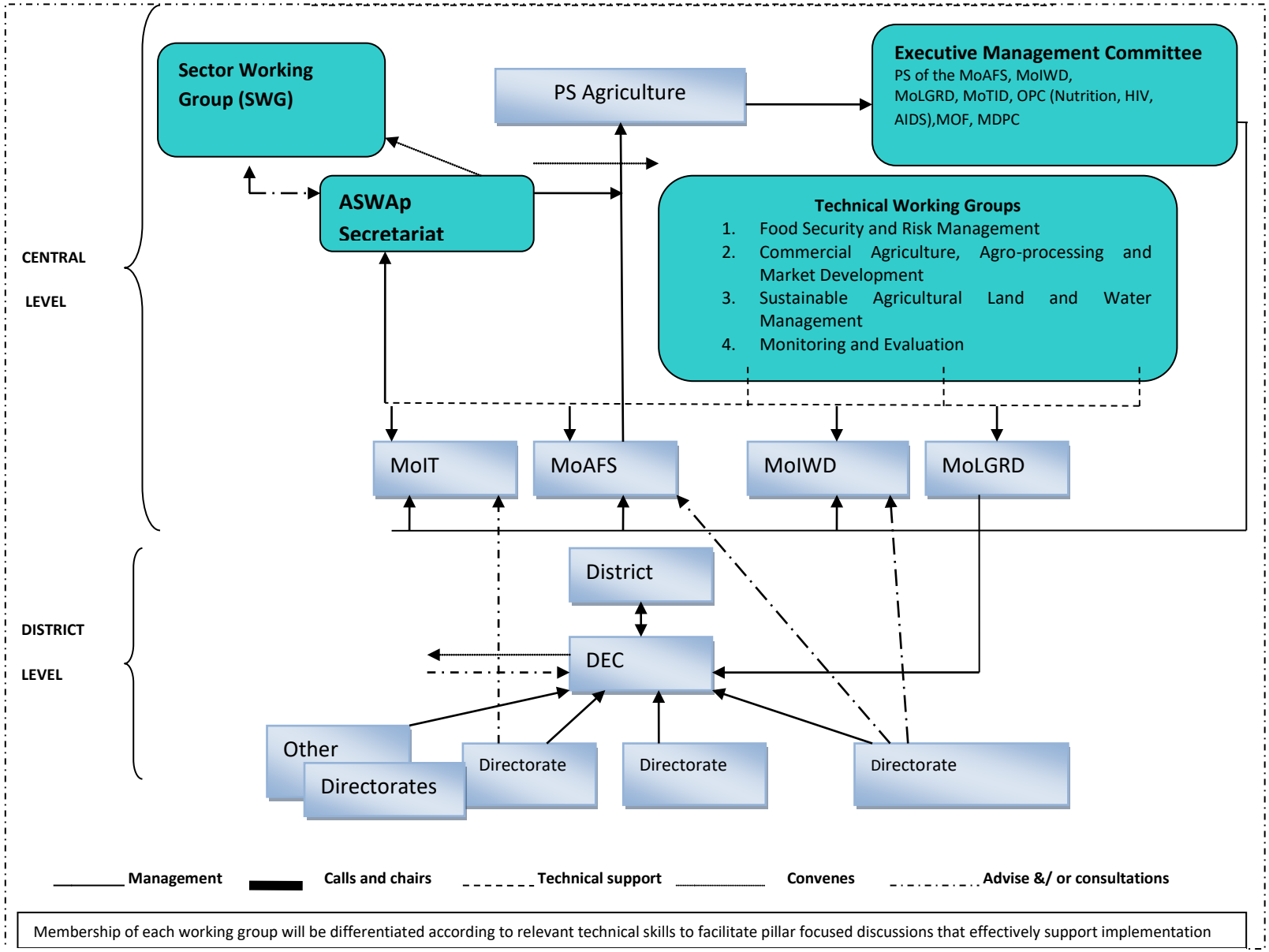



Figure 14: ASWAP Management Structure

At district level, formal responsibility for delivery rests with the District Commissioner (DC). However, in practice, this will be delegated to the Directorate for Agriculture, Natural Resources and Irrigation, and within this directorate to the District Agricultural Development Officers (DADO) and District Irrigation Officers (DIO).

The functions of the public sector structures and consultative bodies proposed for effective delivery of the ASWAp services are as follows:

Decision making will be the responsibility of an Executive Management Committee, chaired by the Principal Secretary (MoAFS), with membership from participating ministries (Irrigation & Water Development; Industry & Trade; and Local Government & Rural Development) and supporting ministries such as Development Planning & Cooperation; Finance, Gender; HIV/AIDS and Nutrition Department under the OPC.

Planning, monitoring and evaluation will be done by the District Councils, working in conjunction with the MoAFS (through the Agricultural Development Divisions) and the participating ministries;

Implementation will be principally by the District Councils with support from the Agricultural Development Divisions; and

Consultation with stakeholders (including farmers, the private sector, the development partners, civil society, non-governmental organisations and other non-state actors) will be organised by the MoAFS and the District Councils. Roles of the various structures are summarised below:

- Executive Management Committee: provides strategic direction and inter-ministerial coordination, oversees implementation of policy decisions, endorses annual workplans, and monitors progress.
- ASWAp Secretariat: consolidates work plans, liaises with development partners; convenes meetings of the Management Working Group, the Technical Working Group, Sector Working Groups, and the Executive Management Committee; ensures timely reporting; monitors adherence to the Malawi CAADP Compact; coordinates the annual progress review; and prepares proposals for the Executive Management Committee's endorsement.
- Sector Working Group: provides for dialogue between government, civil society, private sector, and development partners on financial management, planning, and monitoring & evaluation; and supports line departments in these areas.
- Technical Working Group: supports line departments on technical issues and methodologies for implementation of activities; advise the Principal Secretary, MoAFS on broad policy issues; and reflect informal feedback from stakeholders.
- District Executive Committee: reviews progress in implementation and represents stakeholders' views at district level.
- Task forces will be established to handle specific technical and management issues.

**b) ASWAp Secretariat**

The ASWAp Secretariat is intended to facilitate the strategic and operational processes of implementing the ASWAp. The Secretariat will be located in the Ministry of Agriculture and Food Security and the Coordinator will report directly to the Principal Secretary (PS). Terms of Reference for this secretariat are provided in Appendix 2.

The Secretariat is a lean structure comprising of three key positions (Figure 15), namely: ASWAp Coordinator supported by two deputies (one responsible for technical issues and the other management issues). The ASWAp Coordinator is responsible for ensuring that the Secretariat coordinates the work of various mechanisms and advises the PS directly. The Coordinator will also interact with development partners. The Deputy Coordinator (Technical) will be responsible for all technical operations, especially working with the three Technical Working Groups and backstopping line officers in the various departments and other implementing actors. The Deputy Coordinator (Management) will be responsible for operations and supporting initiatives for strengthening capacities for effective delivery of the ASWAp results. In addition to these three positions, there will be need to engage TAs in areas of M&E, Finance Management, Human Resources Management and Procurement which are critical in ensuring effective implementation of ASWAp activities. These will not be considered as part of the Secretariat personnel but instead work directly with respective departments and divisions as part of capacity building process. Initial support services positions may essentially include: Secretary (1) and Driver (1).

The ASWAp Secretariat is deliberately intended to be relatively small, comprising critical skills only. The skills required relate to leadership and operational responsibilities that ensure that the Secretariat plays its facilitation and backup role effectively and efficiently. The Secretariat will engage outside expertise with respect to the implementation of specific priority areas of intervention. This will be done through short term technical assistance arrangements based on demand and expressed gaps to support implementation of activities of ASWAp within the MoAFS and other participating Ministries.

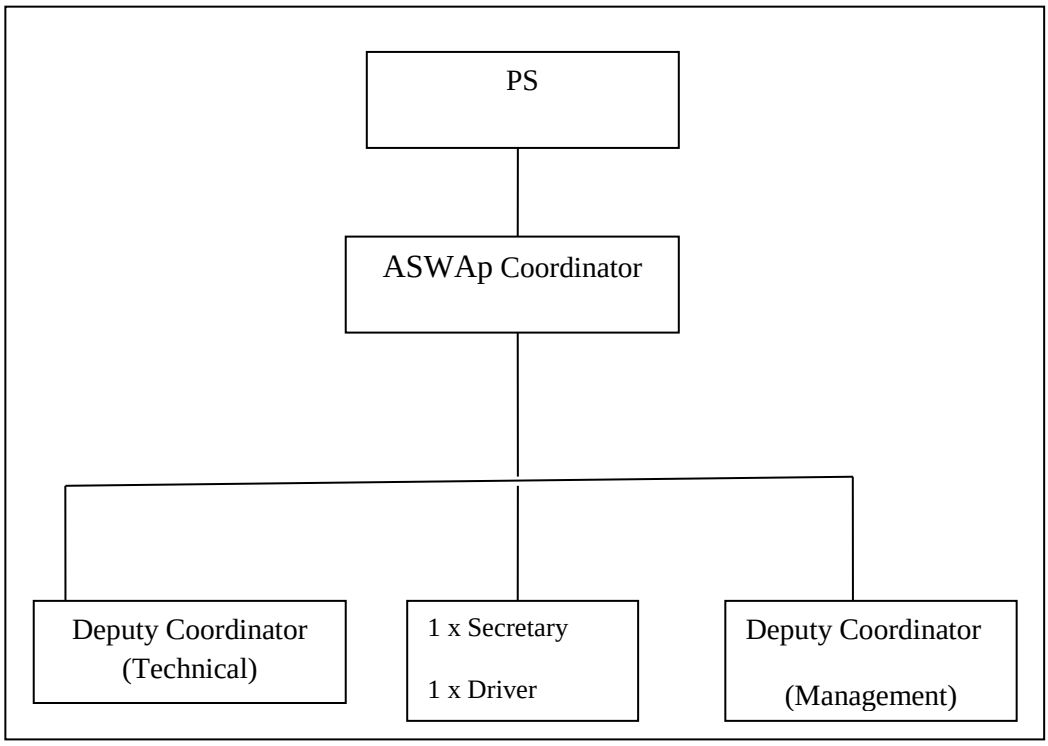



**Figure 15: ASWAp Secretariat Organization Structure**

### *5.1.5 Annual Preparation and Implementation Cycle*

The ASWAp will align its planning, budgeting and monitoring cycle to the Government of Malawi's main cycle. The fiscal year goes from July to June while budget preparation extends from January to May. Budget ceilings are issued anytime between February and May before the budget goes to Parliament for approval in late June. The budget implementation report is sent at the same time as the next budget. The time line for planning, budgeting and commitments is outlined in Figure 16

The planning preparation will start at district level in January of the year preceding implementation (N-1). Districts will have until March to finalize their activities and budget based on disaggregated annual targets of selected output indicators from the results framework. The ADD will provide backstopping support to districts at least in the initial stages.

The districts will receive individual budget ceilings previously agreed by the Executive Management Committee (EMC), on proposals from the MoF. The Annual Work plan and Budget (AWPB) will be revised and sent to the District Commissioner (DC) and Agricultural Development Division (ADD) by early April. The ADD will consolidate the AWPBs from the various districts under its area and send the consolidated version to the Planning Department of the MoAFS between March April.

By Mid-May, the Planning Department will consolidate the AWPB for the Ministry of Agriculture and Food Security. The ASWAp secretariat will insert the budget elements from the other implementing ministries (MoIT, MoLGRD, MoIWD, Department of Climate Change and Meteorological Services and other key implementers) and finalize the overall AWPB for the ASWAp. This will be endorsed by the EMC before being sent to the MoF for inclusion in the budget in June.

All cost centres will receive funds according to the treasury plan and start implementing activities and spending their budget. All districts will report at least on a quarterly basis both on the use of funds and implementation of activities to the DC and the ADD. These will compile a report and submit it to Planning and the Finance departments at the Ministry Headquarters.

An annual implementation report will be prepared within 60 days of the end of the fiscal year. This report will be based on the planning for the previous year (N-1) and will explain which targets have been met, which ones have not and why. This report will form the basis for an Annual ASWAp Review (coinciding with the Partnership Forum) to be held in September that will make a performance assessment of the Ministries and the ASWAp during the previous year. The report will also contain financial and budget execution information. The Agriculture sector review should then feed into the MGDS review mechanism.

An external audit will be conducted shortly after accounts are closed in July. It is expected that this external audit will be ready by November. Based on the outcome of the Annual Review and on the Audit report, donors will make their commitments for the following year (N+1). This, along with GoM commitments and the amounts foreseen in the Mid-Term Expenditure Framework, will form the basis for calculating budget ceilings for the following fiscal year. These should be confirmed by March.

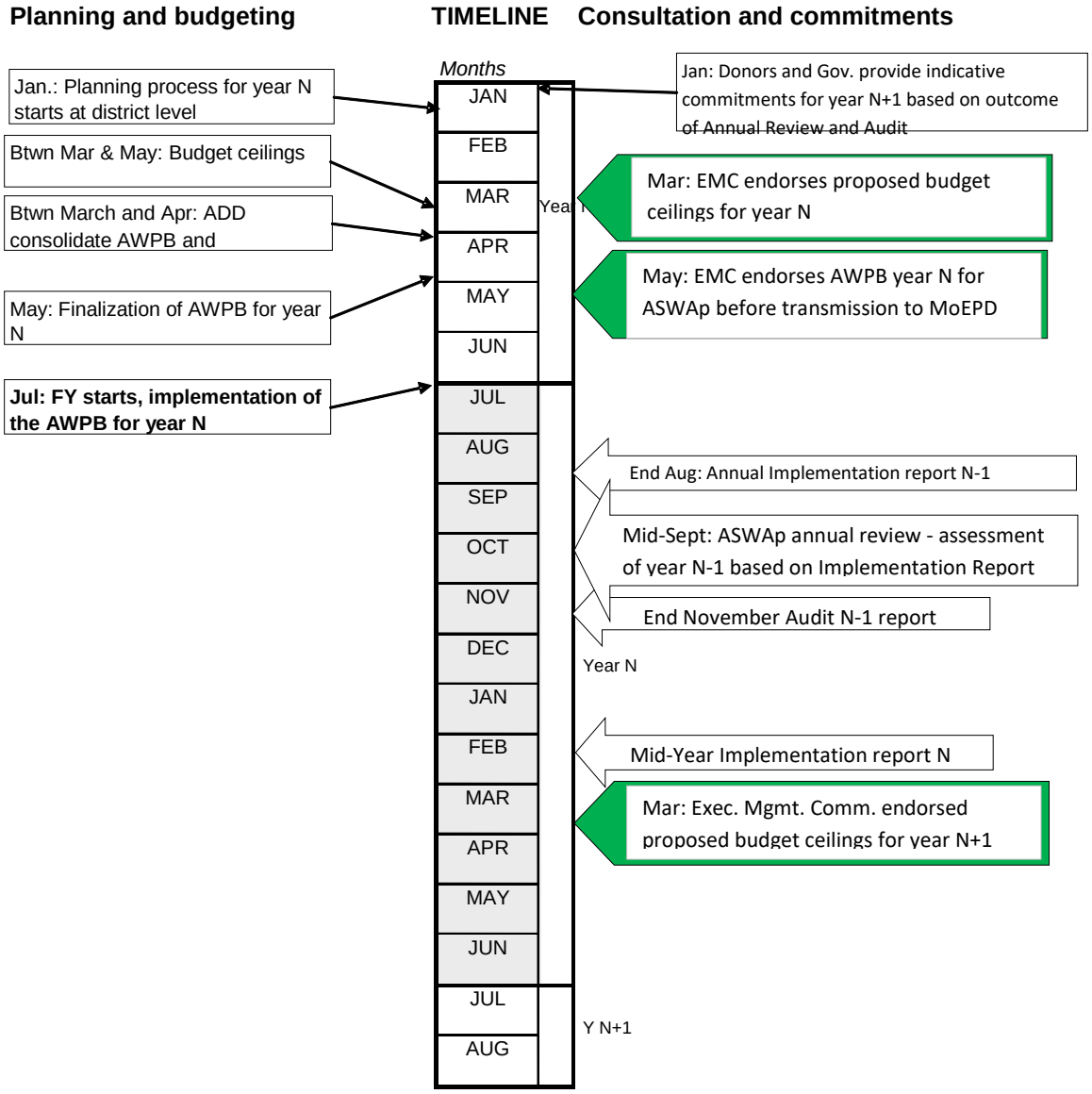



**Figure 16: ASWAp timeline for Planning, Budgeting and Commitments**

## 5.2 FUNDING AND PROCUREMENT ARRANGEMENTS

Development partners have agreed to provide harmonized support for that country's sectoral investment programme. The main objective of this harmonization effort is to shift from short term lending for many discrete development projects toward more coordinated financing of agreed investment programmes. A collateral commitment is to make greater use of government systems for project or programme management and administration.

The adoption of a sector wide approach (or SWAp) does not imply the adoption of any particular funding arrangements or financial management system. ASWAp is not a lending instrument. The government has expressed a preference for the receipt of basket or pooled funding. However, in practice it is anticipated there will be an evolutionary transition from project to programme funding. The speed of this transition will depend on the rules of different donors and evidence of the growing strength of government systems.

The pursuit of greater harmonization of funding and programming can be measured in terms of three objectives. First, as discussed above, a growing share of funding will be explicitly aligned with the Results Framework of the ASWAp investment programme. Second, a declining proportion of development partner funding is expected to be allocated to discrete projects, and a growing proportion will be allocated to ASWAp programmes in the form of pooled funding. Finally, a growing share of donor resources are expected to be declared on budget, be managed by government staff and be administered using the government's own financial management, procurement and human resource management systems. These principles are broadly outlined in the CAADP Compact and may be more specifically delineated in a Code of Conduct.

### *5.2.1 Transition from Projects to ASWAp Programme Support*

Currently, the MoAFS directly or indirectly supervises more than 35 distinct donor projects. Only 14 of these projects were considered on budget in 2010/11. In the immediate future, the projects which are on-budget will be identified and thus within the investment portfolio of the ASWAp. Related efforts are needed for projects linked with the ASWAp but administered under the auspices of other Ministries in government.

There will remain a limited number of agricultural projects funded by development partners which are not considered on-budget because these are implemented by public or private non-governmental entities (civil society organizations, CGIAR centres, farmer unions and agri-business). While these may be considered as part of the ASWAp, insofar they contribute to the Results Framework, they will not be included in the ASWAp budget plan.

As experience is gained, efforts will be made to clarify the contributions of civil society organizations, non-governmental agencies and the private sector to the ASWAp. NGOs will be asked to submit work plans to the ASWAp Secretariat which highlight the contributions of their programming to specific components of the ASWAp. The methods for improving coordination of these investments with government programmes will be explored. Similarly, efforts will be made to categorize the contributions of the private sector to specific components of the ASWAp Results Framework.

### *5.2.2 Funding Modalities*

The ASWAp will be implemented using various funding modalities that will be mutually agreed upon between the Government of Malawi and Collaborating Development Partners. Again, the major objective is to improve the harmonization of investment efforts in support of the agreed development programme. In principle, the objective is to shift from discrete project funding toward pooled sectoral funding in the pursuit of an agreed set of performance indicators representing major outcomes or sectoral results. In practice, funding modalities chosen will depend on the rules guiding commitments of individual development partners, the experience gained in moving from project to programme funding, and the proven strength of government systems.

In this context, it is possible to approximately characterize five types of funding modality (Table 8) though the distinctions between these classes may be subject to negotiation on a case by case basis. In any case funding modalities will be further detailed in the Memorandum of Understanding

**Table 8: Summary of Main ASWAp Funding Modalities**

| Type | In ASWAp (on plan) | On Budget | Use of government admin systems | Government leads implementation | Use of ASWAp performance indicators |
|---|---|---|---|---|---|
| Discrete projects | Y/N | Y/N | Y/N | Y/N | Y/N |
| Parallel funding (multiple donors for coordinated projects) | Y | Y/N | Y/N | Y/N | Y/N |
| Co-funding (multiple donors for single project) | Y | Y | Y | Y | Y |
| Pooled programmatic funding | Y | Y | Y | Y | Y |
| Pooled sectoral funding | Y | Y | Y | Y | Y |

**Discrete Projects**

Most funding for agricultural sector activities currently takes the form of discrete funding for specific agreed workplans with associated budgets. Often, the implementation of such projects is led by a Project Implementation Unit (PIU) specifically hired for the purposes of project management and administration. This PIU may or may not be under government supervision. By the end of 2011, all parties are agreed that there will be no more PIUs for projects based on contracts signed with government. With more immediate effect, it is anticipated that all new agricultural projects will highlight what components, and component activities in the ASWAp investment plan are being supported. In effect, all ASWAp related project commitments must be 'on plan'. If a discrete project is not identifiable with a component part of the national ASWAp workplan, this will not be considered a contribution to the ASWAp.

Most discretely funded projects are expected to start to use government systems for project management and implementation. They are expected to adopt ASWAp performance indicators in their logframes or results frameworks. They are expected to be identified as on-budget, with a schedule of disbursement which can be tracked in relation to national budgets.

A small number of discretely funded projects may be considered part of the ASWAp workplan, but implemented by non-governmental agencies. These would be considered 'off-budget' for the purposes of national planning. However, the adoption of ASWAp linked performance indicators would still be encouraged.

**Parallel Funding**

A major step toward harmonization can be made by shifting from entirely distinct project funding to the funding of closely linked workplans operating in parallel to one another. For example, there may be multiple discrete project investments in support of the expansion of small-scale irrigation in the country. In this case, the project workplans would be identified with component activities within the ASWAp investment plan, and efforts would be made to coordinate these investments through sharing of workplans, sharing of implementation support missions and the pursuit of common performance indicators. If the project is on-budget, this will be implemented by government agencies using the government's own financial management and procurement systems. However, it is again possible that a component project running in parallel with related commitments may be run by a non-government agency outside of government systems.

**Co-Funding**

Co-funding of project commitments represents a third step toward harmonization of commitment. This involves the commitment of multiple donors to a single, common workplan and budget. One example of this is the Agricultural Development Programme Support Project (ADP-SP) which has a single workplan and budget with complementary contributions from the World Bank, the Global Environment Facility and the Kingdom of Norway. Again, the expectation is that this project workplan would be identifiable within the overall ASWAp investment plan. In addition, these commitments are expected to be on-budget, and to make full use of government administrative and management systems. The workplan should target the pursuit of identified ASWAp performance indicators.

**Pooled Programme Funding**

Development partners may also agree to allocate pooled funding to programmes of the ASWAp. In this case, funding is committed to a more generic set of activities defined by government teams leading the implementation of larger components of the ASWAp. For example, several donors may jointly commit funding toward the implementation of the Farm Input Subsidy Programme. This commitment would be on-budget and would make full use of government systems. It would be implemented by the budget, and to the limits acceptable to donors it would be implemented using government financial management and procurement rules. The pooled funding commitment would be governed by a Joint Financing Agreement signed by multiple donors.

**Pooled Sectoral Funding**

Ultimately, some donors may agree to provide pooled funding for the overall ASWAp investment plan in a similar manner to their current programme of national budget support. In effect, this would be an earmark of a component of national budget support to the agricultural sector. This would obviously be on-budget, make full use of government systems and be subject to review using agreed ASWAp performance indicators.

**Financial Arrangements for Pooled Funding**

Donors will disburse their funds into the Forex account which are then transferred into the withholding account and converted into local currency. The funds thereafter will go through Treasury to the implementing agency which is the Ministry of Agriculture and Food Security (MoAFS) (Figure 17). Upon the authorisation of the MoAFS, Treasury will disburse funds directly to the district. The implementing sectors at Central level shall access their funds through the Ministry of Agriculture and Food Security. Their budgets shall be included in the MoAFS vote and will access their funds through the same Ministry on monthly/quarterly basis in accordance with their work-plans and budgets. The following steps outline the pooled funding modality Table 13):

- Collaborating partners will deposit funds in a Forex account (in USD) based at the Central Bank of Malawi (the Ministry of Finance is the signatory) on a quarterly basis and based upon an agreed disbursement plan linked to the ASWAp treasury plan;
- The funds shall be converted into Malawi Kwacha and transferred into the withholding account. The balance of the Forex account shall transit from one fiscal year to the next one.
- The implementing sectors at Central level shall access their funds through the Ministry of Agriculture and Food Security. Their budgets shall be included in the MoAFS vote.
- Districts are expected to open ASWAp operating accounts for themselves (one per district) to avoid fungibility of ASWAp resources with resources for other normal district programmes. This will ensure that there is proper use and accountability of the ASWAp resources.

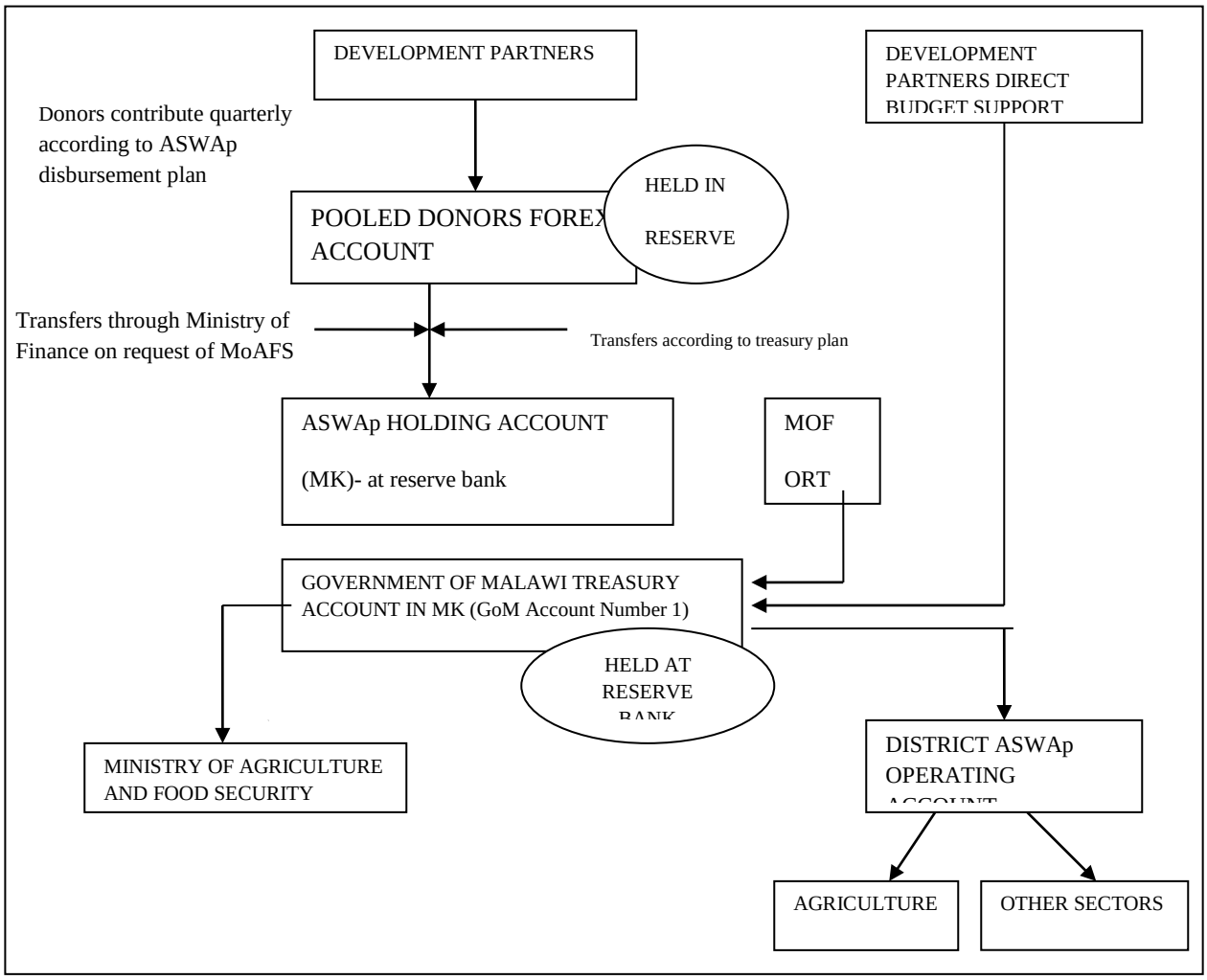



**Figure 17: ASWAp Flow of Funds Mechanism**

*5.2.3 Annual Work-plans and Budgets (AWPB) for both Recurrent and Development Funds*

The pursuit of harmonization begins with the contributions of development partners to the funding and implementation of the national investment plan. In the initial stages, these contributions may only be defined in generic terms as commitments to Focal Areas and Components of the overall ASWAp. However, for harmonization to work in practice, more detailed discussions will be needed to clarify how project and programme workplans are linked into the overall ASWAp workplan and budget.

- The ASWAp Secretariat will prepare/consolidate the AWPB that will be discussed and agreed upon with ASWAp collaborating partners, and included in the main budget document of the GoM.
- The main basis for the AWPB will be the result framework that will lay out the main actions and their corresponding targets for the year in question.

- The ASWAp Secretariat will prepare/consolidate an associated annual procurement plan which details the contributions of government and development partners to the ASWAp investment programme.
- The ASWAp Secretariat will prepare/consolidate an associated annual staff development plan which details the contributions of government and development partners to the ASWAp investment programme.
- The ASWAp Secretariat will prepare/consolidate an associated technical assistance plan which details the contributions of government and development partners to the ASWAp investment programme.
- The ASWAp Secretariat will prepare/consolidate an associated annual technical progress and performance report on the ASWAp summarizing major accomplishments and the status of achievement of key performance indicators.

### *5.2.4 ASWAp Financial Management*

The ASWAp Financial Management will be characterized by the principles of accountability and transparency at each level of the implementation process. Achieving these objectives will require an efficient accounting system that is capable of providing management with accurate and timely expenditure reports and other financial information. In this regard, Government of Malawi and Collaborating Partners will be committed to ensure that:

- The Government Public Financial Management Act (2003) Public Audit Act (2003), Public Procurement Act (2003), the Treasury Instructions and Desk instructions guide all financial matters for the implementation of the ASWAp;

- The MoAFS and other participating partners maintain adequate financial management systems to reflect expenditure transactions and assets financed from the Programme of work. This system will ensure that the MoAFS and participating institutions produce timely, relevant and reliable financial information for planning, budgeting and implementation of the Programme of work.

- The MoAFS maintains implementation of a computerized accounting system which can produce accurate and timely financial management information using the Accounting General System called IFMIS (Integrated Financial Management Information System).

- Technical Assistants are recruited to assist the MoAFS headquarters, departments, districts, and other implementing partners to enhance the implementation of the Integrated Financial Management Information System (IFMIS) and improve management, accounting, cash management, financial accounting, audit, procurement and asset management.

- Any participating entity in the implementation of the ASWAp provides monthly financial statements. These statements will classify, analyze and report data covering income and expenditures from all sources of funding in accordance with Ministry of Finance requirements and the needs of the AWPB of the ASWAp. The ASWAp annual consolidated financial statements based on the ASWAp work programme will be submitted to the MoF.

- The ASWAp secretariat submits a mid-year Programme review Report to the Executive Management Committee which includes financial accounts of the implementation of the Programme of work by 28th February. An annual programme implementation report will be prepared by 31st August, covering the previous fiscal year. The format of this report will be agreed upon between the Government and ASWAp donors.

- The Auditor-General- carries out a mid-year Financial Audit for pooled funding programmes. For earmarked and discrete funding programmes, a private audit firm under the auspices of Auditor-General will carry out the audits. This audit will cover the first six months of each fiscal year of the government of Malawi (July-December), and an Annual Consolidated Financial Audit at the end of each fiscal year (July-June).

- The Government of Malawi ensures that its systems within the Agricultural and Food Security sector have robust levels of internal controls. This will require the establishment of internal audit function, independence of accounting functions, separation of initiation and authorization of transactions, and recording and custody of assets.

In this context it is expected that the Ministry of Finance will release the funds to all the cost centres (Ministry central level, ADD and District) upon request of the MoAFS linked to a disbursement plan, in a timely manner in accordance with the agreed disbursement plan and IFMIS procedures. Performance and expenditure reporting will be done by each cost centre in the agreed reporting formats. Accounting and financial management reports will be prepared in line with existing government procedures to be discussed and agreed with ASWAp donors.

In line with previous recommendations (2000 Public Expenditure Review report), the ASWAp shall increase funding to districts and other lower level establishments to a ratio between headquarters and districts of at least 40 percent and 60 percent respectively. However, this shall exclude funds for implementing complex programmes which are better managed centrally such as the subsidy programme and the Human Resource Development Plans.

### *5.2.5 District Level*

At district level, ASWAp funds will be disbursed directly from Treasury to the districts. These shall be required to open an ASWAp operating account at a Commercial Bank in their respective districts. The funds shall be disbursed on monthly/quarterly basis in line with the proposed AWPB.

The District Agricultural Development Officer (DADO) will be the custodian of this account who ensures that implementation takes on board all other key stakeholders such as other public and civil society organisations. Each ASWAp implementing sub-sector shall be required to submit their plans of action for the month and payment requests to the Director of Finance (DoF) at the District level through the DADOs office.

The DoF will be responsible for compiling monthly expenditure returns for the ASWAp. The office of the DADO will therefore submit the agriculture district reports to the Ministry of Agriculture and Food Security headquarters who in turn will submit the consolidated report to the Accountant General. Copies of the national report shall also be circulated to other ASWAp implementing Ministries, donors and relevant stakeholders. In the spirit of decentralization, the ADDs shall be

responsible for providing backstopping services and policy direction in the management of ASWAp funds. In order for this role to be effectively implemented there is need to build capacity at both ADD and district levels with the provision of adequate staffing in the accounts sections at all levels..

### *5.2.6 Procurement*

The Government of Malawi and collaborating partners will agree that the principles underpinning public procurement within the ASWAp will be: transparency, efficiency, accountability, fair opportunity to all bidders, prevention of fraud and other malpractices, and promotion of local capacity.

Government and collaborating partners recognize that current Government procurement systems, practices, procedures and staff capacity will require further development and strengthening in order to ensure proper management of procurement function in accordance with the above principles.

Prior to ASWAp initial draft, a Country Procurement Assessment Report by the World Bank concluded that:

- The Office of the Director of Public Procurement (ODPP) - a new national procurement regulatory body, established by the 2003 Public Procurement Act - is not yet fully staffed and made operational as planned.
- Standard Tender and Procurement Documents are in the process of being drafted.
- Specific documents for the Agricultural Sector will also have to be developed.
- There is a severe national shortage of trained procurement staff to which the MoAFS is no exception.
- Specialized Procurement Units (SPUs), as stipulated in the Public Procurement Act 2003, are not operational.

However, since the publication of the World Bank report, Malawi has made progress in a number of areas identified by that report. For example, the office of the ODPP has been established, staffed with qualified procurement specialists and fully operational. Furthermore, there are established procurement units in different ministries supported by procurement specialists as exemplified by the MoAFS. The Country has also intensified training of officers in procurement.

In this context, the World Bank procedures for International Competitive Bidding will only apply for the first phase of ASWAp implementation to allow Government of Malawi and MoAFS procurement systems to become fully and effectively operational. Each cost centre at national or district level will establish an internal procurement committee. Each cost centre should have at least one procurement specialist, or at least an accountant trained in procurement matters.

## 5.3 PLANNING, MONITORING AND EVALUATION

The ASWAp will be implemented mainly by the Ministry of Agriculture and Food Security (MoAFS) headquarters and by districts. Using and strengthening Government planning, monitoring and evaluation systems will be an essential feature of the ASWAp implementation arrangements.

This implies major changes from the present situation characterized by a fragmentation of donor and non-government support to the sector, mainly in the form of multiple independent projects. Most of

the larger projects funded by donors are implemented by the MoAFS usually through Project Implementation Units (PIUs), while some are implemented by the Ministry of Irrigation and Water Development (funded by ADB) and others by the Ministry of Local Government and Rural Development (funded by IFAD).

In moving towards a prioritized annual work plan and budget which details activities to be implemented by the districts, ADDs, and departments of the MoAFS, MoIWD and MoTPSD, NGOs, and Civil Society Organisations, there will be a need to harmonise planning, monitoring, evaluation and reporting systems and procedures. Both planning and M&E will be linked directly to the output targets of the ASWAp.

### *5.3.1 Results Framework*

The ASWAp results framework will provide a clear picture of national priorities to be the basis for planning at all levels. It will also be the basis for monitoring and evaluating the ASWAp. The Annual Work Plan and Budget (AWPB) will be established on the basis of the results framework and be referred to the various outputs and their targets. The structure of the AWPB will follow the programmatic approach as articulated in the various focal areas and sub-programmes.

Output indicator targets will need to be disaggregated at district and ADD levels to allow activity planning and budgeting within the ASWAp framework. For the on-going projects, there is need to realign to the ASWAp framework and utilise the ASWAp M&E framework. The district AWPB will be prepared in line with the identified priorities in the ASWAp framework. The eventual ASWAp priorities shall be identified in a participatory manner during the review process.

The results of the ASWAp reviews will support existing initiatives in planning and monitoring such as the Annual Review of the MGDS implementation, the Integrated Financial Management System (IFMIS) and the OPC-led capacity assessment to be done at all levels and sectors for the common services systems and staff. The districts will prepare and submit progress reports to the ADDs based on their AWPB for onward submission to the ASWAp secretariat. Annual implementation reports will be compiled by the ASWAp secretariat based on submissions from the various ADDs. The format for these reports will be based on outputs and targets as provided for in the AWPB and the results framework. This will ensure that there is a link between the planning document (AWPB) and the monitoring reports.

### *5.3.2 Responsibilities*

The responsibility of the Planning Department will be to propose budget ceilings for the various departments, ADDs and districts based on the budget ceiling provided by the MoF and confirmed by the Executive Management Committee. The distribution of the ceilings across cost-centres will be based on the outputs of the ASWAp programme (results framework), articulated by cost-centre wherever possible

Each Department, ADD, and district will prepare its own annual work plan (activities) and budget using a weighted criterion to identify the planned share of resources by programme. These will then be compiled by the Planning Department which will make the final adjustments to the AWPB of the Ministry of Agriculture and Food Security.

The ASWAp secretariat will then compile the proposed AWPB from the various implementing ministries and present them to the Executive Management Committee for final approval before submission to the Ministry of Finance.

### *5.3.3 Monitoring and Evaluation*

In order to enhance M&E, the ASWAp will implement a number of surveys including the Beneficiary Impact Assessment Baseline Survey that has been implemented by MoAFS under the ADP-SP will act as the reference point. In addition, the MoAFS is implementing regular monitoring surveys. Under the ASWAp more regular agricultural surveys, including the annual Agricultural Production Estimates Sample Survey, will be funded to increase the availability of statistical data necessary for planning, policy formulation and early warning. These will be implemented in close collaboration with NSO. Most of the indicators to be tracked are provided in the Targets and Results Framework (Appendix 3). Planning Department and ASWAP secretariat will lead the process of Planning, Monitoring &Evaluation.

## 5.4 INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING

### *5.4.1 Approach to Capacity Building*

The ASWAp is a prioritised results-oriented framework under the Ministry of Agriculture and Food Security's leadership that calls for a gradual harmonization and alignment of Government and donor financial support. It has strong linkages to national, regional and international policy frameworks particularly the MGDS, CAADP and MDGs. The programme builds on successes of the past and supports capacity building initiatives and strengthening of institutions for effective delivery of services. It therefore represents a significant change in conducting business in the agriculture sector as implementation and management of resources including donor support will utilise the existing government structures. This demands that staff will need immediate orientation and regular subsequent training on their responsibilities and tasks. This will be based on two main principles namely support oriented to meeting skill needs for effective delivery of the ASWAp and utilizing as much as possible credible local education and training providers for both short and long term courses. This is in part to ensure capability as staff retires, but also because vacancy rates in the civil service are high (estimated at 40 per cent across government). These needs will be addressed through postgraduate training at Master and Doctorate levels and through training and education leading to undergraduate degrees, diplomas and certificates. However, in the case of skill needs for which training is not available in Malawi, the services of regional as well as international institutions will be used.

### ***5.4.2** Professional[8] and Administrative Skills*

The capacity assessment of the needs of the common services and of the agriculture, health, education and irrigation sectors have been done to promote systematisation and ensure that support to capacity strengthening can be directed to agreed priority areas.

[8] 'Professional skills' include planning, monitoring & evaluation, and management.

It is recognised, however, that there will be immediate skill needs for delivery of the ASWAp. Thus, once systems have been redesigned, all professional and administrative staff involved in delivery of the ASWAp will be offered short orientation programmes. The content of these programmes will vary and be specific to the skill area concerned. There will thus be separate programmes on each professional skill (planning, monitoring & evaluation, and management) and on each administrative skill (financial management, procurement, and human resources management).

The capacity building programmes will be short, medium, and long term duration dependent of the nature of capacity gap identified.

### *5.4.3 Technical Skills*

A similar approach will be adopted in building capacity in technical skills with training offered for orientation and subsequent retraining. It will also be offered for short, medium, and longer term capacity building through examined courses at diploma, certificate, undergraduate, masters and exceptionally, doctorate levels. The identification of training needs will be through training and capacity needs analysis to be conducted at the onset and during the implementation of the ASWAp.

### *5.4.4 Selection of Trainees and Allocation of Funding for Training*

Channelling funding for training to priority needs is essential. In particular, there is strong competition to obtain scholarships for postgraduate degrees, particularly for courses offered outside Malawi within the public sector. This is mainly due to insufficient resources hence need for an objective criterion for selection of trainees.

ASWAp orientation training and retraining: It is envisaged that all professional, administrative and technical staff at central level in the MoAFS, participating ministries and at the district level will be eligible for orientation training and subsequent yearly retraining in Malawi. As a result, no selection criteria are required.

Other types of training (i.e. postgraduate, undergraduate, certificate and diploma): It is proposed that criteria be established to allocate funding between the various ministries at central district levels. In order to link training funds to size of institutions, it is recommended that funds be allocated separately to postgraduate training at masters and doctorate levels internationally and nationally. Furthermore, an additional allocation for diplomas and certificates will be made on the basis of priority programme areas while the allocation of funding between ministries and districts would be made on the basis of approved programmes. It would in practice create a pool of funding for each ministry and district to be allocated between competing users. In order to best direct use of the funds and avoid unduly subjective judgement, it is recommended that preference for Doctorate and Masters degrees (both local and foreign) and diplomas should be given to departments with: (i) the highest average age of graduate level staff, (ii) the lowest ratio of staff with higher degrees (Masters and Doctorate) to total graduate establishment; and (iii) those which have the highest multi-annual budget allocations under the ASWAp.

### *5.4.5 Systems Design*

The shift to a programme approach will require major changes to ways of working. This will be reflected in work planning, monitoring & evaluation, public financial management, procurement and

human resources management. Major changes are expected in the first two areas with some adjustments to system design in the others.

Systems will need to be designed and installed before ASWAp implementation can progress and in addition, support to system operation will be needed for a period thereafter. Provision for technical assistance to systems design and operation has therefore been made in the budget.

System redesign will prospectively be based on the systems review recommendations as part of the support by the Office of the President and Cabinet in capacity assessment. If the recommendations are not in line with the priorities of MoAFS to govern ASWAp implementation, then a new systems assessment will be instituted.

## 5.5 INAUGURATION OF THE ASWAP

The ASWAp implementation is scheduled to commence in the 2011/12 financial year which is the first year of the 4 year implementation period (2011/12- 2014/15). A small proportion of activities (less than 20%) outlined in the ASWAp are non-traditional to the Ministry and partners. For example, risk management component which encompasses weather insurance, village banks, market friendly buffer system management, and warehouse receipt systems among others. The larger proportion constitutes on-going activities being implemented by various departments and institutions and have been wholesomely taken on board for continuity purposes. However, targets for such activities are up-scaled in line with the aspirations of the ASWAp.

The on-going activities that have been fully integrated into the ASWAp (like the fertilizer subsidy program, seed multiplications, community seed-banks, model villages, livestock multiplication and vaccinations, soil fertility conservation and small-scale irrigation systems) may, where necessary, be modified in terms of the implementation procedures as per the ASWAp requirements. In this respect it is recommended that work-plans and expenditure plans should clearly highlight activities and the resource requirement during the entire four year period until the agricultural/sector is completely ASWAp focused (after first phase in 2014/15).

For activities, programs and projects that presently address issues outside the ASWAp, the implementing departments and institutions are strongly encouraged to start discussions with financiers towards aligning those to the vision and aspirations of the ASWAp. Where realignment may not be possible, the implementers should move towards winding up implementation of those programs/projects/activities as soon as possible. The aspiration of the Ministry is to ensure that all activities in the agricultural sector are fully aligned to the ASWAp and that the amount of resources spent outside the framework is considerably minimized or wiped out all together by the end of the ASWAp first phase in 2014/15. For non-traditional priorities, like the risk management (weather insurance, village banks, and call option contracts) there is need for the ASWAp Secretariat to facilitate preparation of implementation proposals and action plans with the key sub-sectors/departments for submission to relevant donors.

The ASWAp Secretariat shall also be required to work closely with the Finance Department of the Ministry in monitoring the flow of resources to ASWAp targeted activities. It is strongly advisable that the Ministry should liaise with Treasury to clearly indicate ASWAp resources in any funding disbursements to the Ministry just like was the case during implementation of the Pro-Poor Expenditures (PPEs). It should be noted that the same case is being done with funds for the Health

Sector SWAp. Implementing departments shall be encouraged to keep separate track of implementation of ASWAp areas within their mandates as well as the management of funds. For discretely funded priority areas (mainly being implemented through NGOs, Civil Society, Private Sector) the Secretariat shall be required to take note of those and monitor progress with the relevant implementers. The monitoring should include: the ASWAp focused implementation work plans, resources flow/disbursement reports, and implementation progress reports highlighting the level of linkages/participation of target beneficiaries and impact assessment reports on areas being implemented under ASWAp. Likewise, the DADO will be required to take note of discretely funded priority areas, coordinate and monitor progress with the relevant implementers.

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# APPENDICES

## Appendix 1: Strategic Objectives, Outcomes and Actions

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| **Focus Area 1. FOOD SECURITY AND RISK MANAGEMENT** | | |
| **1.1 Maize self sufficiency** | | |
| a. Increase maize productivity | Average maize yield increased from 1.8 to 3.0MT/ha | • Implement the input subsidy program (seed and fertilizer) |
| | | • Increase attention to efficient fertilizer and seed use in subsidy program |
| | | • Promote good agricultural practices including establishment of model villages, Clusters and Green belts |
| | | • Develop and register new improved varieties and multiply breeders seed and basic seed |
| | | • Increase distribution of improved maize seed |
| | | • Strengthen migratory pests monitoring and control |
| b. Decrease on-farm post harvest losses | Post harvest losses reduced from 25% to 12% | • Promote improved on-farm storage technologies and facilities (granaries/silos, Larger grain borer control) for both food and seed maize |
| | Reduced number of harmful agrochemicals on the market | • Monitor the type and quantity of agrochemicals sold |
| **1.2 Promote diversification of food production and dietary diversification for improved nutrition at household level** | | |
| **1.2.1 Increase food productivity** | | |
| a. Increase productivity of pulses (beans, soy bean, pigeon peas, cow peas) and ground nuts | Average productivity increased from 0.5 to 1.0MT/ha | • Facilitate multiplication (breeders & basic seed) and distribution of improved legume seed varieties and be included in the Input subsidy programme<br>• Conduct staff and farmer training<br>• Promote GAP (Develop new varieties, conduct seed quality control, promote community seed banks, popularize improved technologies) |
| b. Increase productivity of horticultural crops namely Fruits (mango, citrus, banana, plantain, pineapple, pawpaw, avocado pear) and vegetables ( tomato, carrot, pumpkin, Amaranthus, kangange, moringa ) | Average productivity for horticultural crops increased | • Improve existing systems for distribution of high quality vegetable seeds and fruit tree seedlings<br>• Facilitate development of fruit nurseries through the establishment of mother fruit orchards for supply of quality scion of recommended varieties.<br>• Conduct staff and farmer training<br>• Facilitate preparation of policies, legislation and regulations governing the horticultural industry to ensure adherence to |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | the required market standards and food safety (nurseries, field production and marketing standards). |
| | | • Promote adoption of Integrated Production and protection (IPP) technologies for horticultural crops |
| c. Increase productivity of cassava, sweet and yellow potato and Irish potato in relevant areas | Average yield increased for cassava from 20 to 25MT/ha, sweet potato from 13 to 20MT/ha | • Facilitate multiplication and distribution of disease free improved planting material of cassava and sweet potato<br>• Conduct staff and farmer training<br>• Develop mother nurseries |
| d. Increase household (HH) poultry meat and egg productivity | >Egg production increased from 2,291 to 4,685MT per year<br>>Poultry mortality reduced from 60 to 20% | • Improve provision of vaccines/vaccination services for poultry diseases<br>• Promote increased production of high quality feed including development of local feed formulations<br>• Monitor and certify quality of poultry feeds |
| | >Poultry meat production increased. >Chicken population increased from 44 million to 120 million at national level<br>>Guinea fowl population increased from 900,000 birds to 2,000,000 at national level | • Increase capacity of regional hatcheries and number of mini-hatcheries for chickens including Black Australop<br>• Intensify livestock group formation and support<br>• Intensify livestock frontline staff training |
| e. Increase small stock productivity (goat) | >Goat herd size increased from 3 million to 5.4million<br>>Goat milk productivity increased from 0.25liters/goat to 1.5liters /goat/lactation<br>>Pig herd size increased from 1million to 2milion pigs per year.<br>>Rabbit herd size increased from 600,000 to 1.2milion rabbits per year | • Promote goat re-stocking and farmer-to-farmer transfer (pass-on) systems for meat and milk production<br>• Intensify farmer and staff training programs<br>• Intensify vaccination campaigns |
| Livestock Production | Recommended stocking rates adhered to | • Monitor livestock and fish stock levels<br>• Introduce improved, approved and registered exotic breeds with superior characteristics<br>• Promote production of improved chicken feed based on locally available materials.<br>• Introduce productive dairy goat breeds that give at least two liters of milk per day as compared to the local goat which gives 0.25 to 0.5 liters of milk per day.<br>• Improve and increase capacity of existing regional hatcheries (Mikolongwe, Bwemba and Choma) for rapid multiplication of chickens and guinea fowls.<br>• Introduce productive breeds in the smallholder communities to improve the size and quality of goats and pigs. |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | • Improve the management system for pigs and rabbits under smallholder farmers<br>• Improve poultry vaccination services including the production and importation of sufficient vaccine doses.<br>• Increase the number of chickens and guinea fowls vaccinated against New Castle disease at smallholder level<br>• Manufacture and distribute mini-hatcheries to groups of smallholder farmers or individuals at village level for chicken and guinea fowl multiplication.<br>• Promote goat re-stocking and transfer systems (farmer to farmer pass-on programmes) for meat and milk production.<br>• Improve vaccination services against Swine fever to stimulate production of pigs for meat.<br>• Disseminate skills and knowledge in the preparation, processing and utilization of rabbit meat. |
| Fish Production | Extinction of indigenous fish species controlled | • Monitor the type and number of exotic fish species introduced<br>• Promote village level fish farming schemes comprising of four hectares of water surface area benefiting about thirty smallholders per location through construction of fish ponds<br>• Facilitate provision of fish fingerlings, fish feed and training of fingering producers as well as fish feed producers |
| | | |
| **1.2.2 Promote consumption and utilization of diversified high nutritive value foods at HH level** | | |
| a) Promote dietary adequacy | Proportion of h/h consuming diversified diet and micronutrient rich foods (with Vit A and Iron) increased and measured by HDDS (H/h Dietary Diversity Score) | • Develop standardized messages covering production to utilization<br>• Conduct demonstrations on processing and utilization of a diversified diet.<br>• Develop local recipes with emphasis on the multi-mix approach<br>• Conduct regular dietary monitoring and assessments<br>• Promote the six food groups approach and generate baseline data for post-promotion evaluation (in year 3)<br>• |
| b) Improve quality of diets for the most | Number of vulnerable people accessing quality | • Promote consumption of enriched foods with soy beans, |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| vulnerable groups | diets increased | g/nuts, beans, p/peas, c/peas) in complementary feeding programmes, maternal nutrition and PLHIV<br>• Conduct demonstrations on preparation of enriched phala in both communities and at NRU and CTC sites |
| c) Intensify nutrition education | Number of households accessing nutrition education increased | • Develop and promote IEC materials on consumption, processing, preparation and utilization of enriched foods<br>• Train extension workers on prevention of micronutrient deficiencies<br>• Conduct multi-media campaigns on dietary diversification, consumption of Vit A and Iron rich foods<br>• Conduct consumer education on fortified foods<br>• Conduct staff and farmer training in food budgeting (300 kg maize /person/yr; 50kg g/nuts + 50kgs Soyabeans + 50kgs beans/person/year)<br>• Train Extension staff (TOT) and Hh in processing, preservation, storage and utilization.<br>• Conduct joint staff and farmer training with the Ministry of Women and Child Development and Local Government and promote coordinated approaches |
| **1.3 Risk management for sustainable food availability at national level** | | |
| a. Improve risk management systems and mechanisms for food stability at national level | National food gap avoided (MT) | • Improve management of the Strategic Grain Reserve (SGR) |
| | | • Increase storage capacity at national level |
| | | • Promote village grain bank schemes including improved granaries and mini silos |
| | Increased number of functioning market- based risk management mechanisms employed | • Establish a warehouse receipt system<br>• Employ maize supply/price hedging strategy |
| | | • Strengthen the framework and capacity for maize call options import contracts |
| | | • Establish a commodity market insurance system |
| | Number of weather related risk management mechanisms employed | • Develop a weather related insurance product for maize i.e. Rainfall index based early warning system; Macro and Micro-weather insurance systems |
| | | • Strengthen weather forecasting capability for agriculture |
| | Technology adoption | • Encourage planting of drought resistant crops |
| **Focus Area II. COMMERCIAL AGRICULTURE, AGRO-PROCESSING and MARKET DEVELOPMENT** | | |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| **II.I Agricultural exports for improved balance of trade and income** | | |
| Increase total value of agricultural exports by commodity | Increased exports of tobacco (125,000 to 185,000MT), tea (44,000 to 60,000MT), cotton (20,000 to 50,000MT), sugar (110,000 to 150,000MT), coffee, macadamia, Birds eye chillies, paprika, groundnuts, soybeans | • Promote contract farming, out-grower schemes, farmer associations and cooperatives by commodity |
| | | • Promote producers organizations for specific commodity value chain |
| | | • Strengthen managerial and technical capacity of producer organizations |
| | | • Promote partnerships, dialogue and cooperation between chain stakeholders<br>• Strengthen capacity of value chain players |
| | | • Promote production, distribution and utilization of improved seed, chemicals and fertilizers. |
| | | • Promote agricultural exports (through market research studies, export trade fairs, buyer/trader meetings etc.) |
| | Increased unit value of agricultural exports from US$580 million to US$800 million by commodity based on constant prices | • Improve compliance to market standards (grading, packaging, labeling, volumes demanded, timing of exports, delivery requirements etc.) |
| | | • Promote quality through compliance to sanitary and phytosanitary standards, varieties, and grading |
| | | • Provide technical services support to enhance output quality including quality certification and regulatory services and border post produce inspections |
| | | • Procure laboratory equipment for analysis of soil, pesticides efficacy, cotton fiber, lint quality, and pesticide residues in food crops |
| | | • Consider input subsidy for tobacco seed & fertilizer, cotton seed & chemicals and legume seed |
| **11.2 Commercial production and agro-processing for import substitution and domestic market development** | | |
| a. Increase volume of high-value commodities for agro-processing and import substitution | Increased volume of high value crops under irrigation and rain-fed conditions i.e. rice, fruits (pineapple, mango, oranges, banana,), vegetables (tomato, green beans, onion), potato, cassava,). | • Rehabilitate existing irrigation schemes and systems and develop new ones |
| | | • Strengthen technical and Operational & Management capacities for irrigation management including establishment of WUA when required |
| | | • Provide research, extension and marketing services for irrigation systems users |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | Increased milk production & processing from 30,000 to 61,000MT | • Provide research, extension and marketing services for irrigation systems users.<br>• Import dairy cattle animals and upscale multiplication of dairy animals<br>• Increase production of animal feed and fodder<br>• Promote mini dairy processing and cooling facilities |
| | Dairy animal mortality reduced from 20% to 5% | • Provide preventive cattle vaccination services (foot and mouth, anthrax, black leg diseases) for beef and milk production (Intensify disease control programmes) |
| | | • Provide the essential technical services required by beef and milk producers (AI service, live bull service, feed production, veterinary services) |
| | | • Rehabilitate dip-tank infrastructure and strengthen technical and O & M capacities for their management |
| | Increased beef herd size from 850,000 to 1,250,000 | • Promote formation of MBG/cooperatives for livestock<br>• Develop local feed formulations and train people on production of the feeds<br>• Promote stall feeding systems |
| | Increased red meat production & processing from 44,779 to 91,569MT | • Establish rural mini abattoirs<br>• Establish organized meat and egg markets |
| | Increased white meat production & processing from 69,097 to 141,396MT | |
| | Increased fish catch landing (capture fisheries) from 45,000 to 60,000MT per year | • Encourage adoption of appropriate on/off shore fishing practices |
| b. Increase unit value of commodities (financial and non financial services) | Increased fish productivity in fish ponds (aquaculture) from 700kg to 2,000kg/ha | • Develop area-specific fishery management plans |
| | | • Promote improved fingerlings and fish feed production |
| | Increased unit value of commodities through agro-processing | • Promote group and individual small scale agro-processing (e.g. fruit, potato, cassava, dry beans green beans; tomato fish; milk & beef)<br>• Promote utilization of agro-processing technologies<br>• Set up and expand market information systems |
| | Producer/consumer price differential reduced in key markets and for key commodities | • Promote group and individual small scale agro-processing for reduced spatial and temporal variability of prices |
| | | • Build or rehabilitate market infrastructure in relevant places for specific commodities |
| | Increased access to credit by small and medium scale agro processors and traders | • Provide financial leverage systems for private agro-business enterprise development (e.g. matching grants) |
| | | • Provide non-financial business services and capacity |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | strengthening to small and medium scale agro-processors and traders (e.g. business plan, market informat6ion, linkages between suppliers and buyers) |
| | Improved water quality | • Reduce disposal of effluent and other materials into water bodies |
| • **II.3 Public/private partnerships in Input and output market development** | | |
| a) Improve the public/private partnerships for broader growth of the agriculture sector | Efficiencies in the Input and output markets improved | • Develop a strategy for partnerships between the public sector and private sector actors with well defined objectives, structures, membership characteristics, roles, responsibilities, operational principles and agreed code of conduct |
| | Linkages for public/private sector investments strengthened | • Establish and improve on effective communication and coordination mechanisms amongst government, donors, civil society organisations, and the private sector |
| | | • Enhance public sector investment to better leverage collateral investments by the private sector to achieve longer term gains |
| | | • Improve efficiency of public investments and collateral investments made by the private sector, farmers and NGOs |
| | | • Improve transaction efficiency along the value chain for inputs and outputs |
| | | • Improve farmer knowledge and choice regarding new technologies |
| **Focus Area III SUSTAINABLE AGRICULTURAL LAND AND WATER MANAGEMENT** | | |
| **III.1 Sustainable agricultural land management** | Agricultural area (ha) under sustainable management (SLM) increased from 100,000 to 250,000ha | • Promote conservation farming (use of best technologies that build and sustain soil fertility, prevent soil erosion, conserve soil moisture, promote efficient utilization of rain or irrigation water) |
| | | • Promote labour saving technologies (land ploughing using hired tractor or own tractor, herbicides for weed management and crop protection agents) |
| | | • Promote management systems and technologies that protect fragile land (river banks, dambo areas, steep slopes or hilly areas, and water catchment areas)<br>• promote community based dambo management systems |
| | | • Subsidize inputs to raise forestry and fruit tree seedlings or buying of plants from commercial nurseries for farmers and village communities for planting on fragile or degraded land areas |
| **III.2 Sustainable agricultural water management and irrigation development** | Area under sustainable irrigation (ha) increased from 72,000 to 300,000ha | • Rehabilitate existing irrigation schemes and systems<br>• Develop new irrigation schemes with appropriate systems |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | • Strengthen technical capacity for irrigation management<br>• Promote establishment of water users associations<br>• Improve the technical & management capacities of WUA<br>• Rehabilitate existing irrigation infrastructure in research stations |
| | | • Establish rainwater harvesting systems (dams, box ridges) |
| | | • Promote effective management of water catchment areas (afforestation, fruit orchard establishment, grass cover, etc) |
| | | • Re-stock rural irrigation dams and rivers with fish |
| | Improved water flow rate | • Monitor the quantity of water abstracted |
| **III.3 Sustainable management of the effects of climate change** | | |
| **a) Mitigate the effects of drought and floods** | | • Improve early warning systems for droughts and floods as well as disease and insect pest outbreaks (Army worm, Red locusts, aphids) |
| | | • Develop rain water harvesting and storage systems |
| | | • Construct irrigation dams to ensure availability of water |
| **b) Adopt appropriate technologies to combat drought** | | • Promote growing of drought tolerant crops and management practices |
| | | • Encourage planting of forest trees and fruit trees in fragile land areas |
| | | • Promote growing of Jatropha trees for production of bio-disiel to reduce air pollution |
| | | • Develop strategies for drought preparedness and accurate crop estimates |
| | | • Protect fish breeding locations in lakes and rivers that are being degraded by droughts and floods |
| | | • Support soil conservation initiatives and rehabilitation of degraded agricultural land |
| | | • |
| **KEY SUPPORT SERVICE 1: Institutional Strengthening and Capacity Building** | | |
| **a) Institutional strengthening and development** | Number of institutions and systems developed and strengthened | • Strengthen and improve institutional leadership and management capacities and skills of key stakeholders to plan, coordinate, implement and monitor the ASWAp programme as well as managing government and donor investments<br>• Improve agriculture sector planning, implementation, M&E, investment management, governance, and nutritional surveillance |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | |
| | | • Conduct a Core Function Analysis of the MoAFS to determine how the Ministry will manage its activities under the ASWAp |
| | | • Establish an ASWAp secretariat to coordinate the activities of the ASWAp and provide linkage within the MoAFS and amongst key stakeholders in the agricultural sector |
| | | • Develop and strengthen public management systems |
| | | • Establish and strengthen public/private partnerships for specific priority commodities |
| | | |
| | Training for improved academic and professional knowledge and skills of existing agricultural staff in all departments achieved | • Provide training needed to improve technical and administrative systems, skills development, strengthening partnership |
| | | • Conduct orientation courses for newly recruited staff on policies and programmes |
| | | • Provision of training to frontline staff for orientation, upgrading and skills development<br>• |
| | | • Provide short and long term courses on the various priority programmes of the ASWAp at certificate, diploma, B Sc, and PhD levels |
| **b) Capacity building** | Adequate human resources in place to improve staffing at all levels to effectively implement the ASWAp programmes | • Fill all critical vacant posts (currently estimated at 45% in the MOAFS) in the MOAFS and the agricultural sector as a whole<br>• Recruit the appropriate human resources needed to implement programmes effectively<br>• Recruit additional extension workers to progressively fill the establishment based on the human resources figure (currently at 45 per cent vacancies).<br>• |
| | Improved resource allocation (equipment, facilities and finances) | • Procure adequate equipment and facilities (motor cars, motor bikes, computers, bicycles, laboratory equipment, office furniture and equipment) for front line staff<br>• Provide adequate finances to meet operational costs and maintenance of vehicles and equipment |
| | | • Develop and improve resource capacities of key institutions for front line agricultural staff<br>• |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| **KEY SUPPORT SERVICE 11: Technology Development and Dissemination** | | |
| **a) Conducting results and market oriented research on priority technology needs and provision of technical and regulatory services** | Increased agricultural productivity as a result of technology adoption and utilization | • Develop crop varieties that are high yielding, good quality, resistant to diseases and drought tolerant |
| | | • Develop Good Agricultural Practices (GAP) i.e. Soil fertility, fertilizer and plant population management systems and integrated pest management |
| | | • Develop labour saving technologies |
| | | • Develop harvest and post harvest management systems including crop storage systems |
| | | • Improve efficiency of the use of inputs (Seed , fertilizer and chemicals) by farmers |
| | | • Breed or introduce livestock that are highly productive in meat, milk and egg production |
| | | • Monitor production of livestock feeds and certify their quality |
| | | • Provide technical services required by farmers i.e.dip tank fluids, vaccines for livestock; seed certification services; sanitary and phytosanitary services; production and certification of foundation and basic seed and vegetative planting materials; development and monitoring of quality standards; soil analysis for site specific fertilizer recommendations; pesticide residue analysis for food safety and analysis of Afflatoxins in groundnuts and other food grains. |
| | | • Develop value addition technologies to promote agro-processing initiatives |
| **b) Provision of efficient farmer-led extension and training services** | Increased agricultural productivity due to efficient delivery of extension services | • Disseminate technologies on Good Agricultural Practices (GAP) to increase agricultural productivity i.e. choice of varieties and seed; management of soil fertility, fertilizers and plant population, time of planting and integrated pest management |
| | | • Provide policy and regulatory support services |
| | | • Promote the use of model villages, green belts, clusters and farmers cooperatives in the transfer of technologies |
| | | • Train farmers on all aspects of GAP |
| | | • Provide technical services required by farmers i.e. AI service for dairy cattle; dip tank management, vaccination services |

| Strategic Objective | Field Outcome Indicator | Action |
|---|---|---|
| | | for livestock; distribution of vegetative planting materials; and monitoring of quality standards; |
| **CROSS CUTTING ISSUES: Gender Disparities, HIV and AIDS Pandemic** | | |
| **Gender equity and empowerment and HIV and AIDS impact mitigation** | Agricultural productivity increased by recognizing gender roles and responsibilities and mitigating the impact of HIV and AIDS | • Mainstream HIV and AIDS and Gender strategy in the ASWAp<br>• Establish Gender, HIV and AIDS focal points to act as catalysts to coordinate and address Gender, HIV and AIDS mainstreaming activities in all institutions implementing the ASWAp |
| | | • Train members of the focal points to increase their knowledge in Gender, HIV and AIDS analysis and capacity enhancement |
| | | • Mobilize and empower community groups and train them to equip them with skills in Gender, HIV and AIDS analysis |
| | | • Establish and build partnerships with other organizations and networks involved in Gender, HIV and AIDS issues to build coalitions that facilitate advocacy, capacity building and sharing of experiences |
| | | • Operationalize the MoAFS policy and strategy on Gender, HIV and AIDS mainstreaming in the agricultural sector |
| | Increased and improved agricultural labour | • Identify roles and concerns of men, women, boys, girls, and consider division of labour. |
| | Improved food security and income security at household level | • Empower vulnerable groups to have access to agricultural inputs, benefits and opportunities. |
| | Improved HIV and AIDS impact mitigation intervention for service providers and farmers | • Scale up interventions for nutritional support, education and agro-based income generation |
| | Improved access to treatment , care, food and nutritional support to people living with HIV leading to improved research and extension services | • Provide access to medical treatment, care, food and nutritional support to mitigate the health and nutritional impact of HIV and AIDS |
| | Enhanced decision making process in the agricultural sector | • promote participation of vulnerable groups in decision making, policy formulation and implementation processes |
| | Prevention of HIV and AIDS and behavior change enhanced | • Scale up education on HIV and AIDS and ensure that ASWAp activities do not promote HIV infection and transmission amongst participating members |
| | Community empowerment | • Increase capacity of staff and farmers to mainstream HIV, AIDS and Gender issues in ASWAp interventions |

# APPENDIX 2: ASWAP Result Indicators

| Component | Sub-component | Indicator | Unit of measure | Baseline (2010-11) | Target 2011-12 | Target 2012-13 | Target 2013-14 | Target 2014-15 |
|---|---|---|---|---|---|---|---|---|
| *Food security and risk management* | Maize self-sufficiency through increased maize productivity and reduced post harvest losses | Average maize yield increased from 1.8 to 3.0 mt/ha by 2015 | Metric / ha | 1.8 | 2.0 | 2.3 | 2.6 | 3.0 |
| | | Post harvest losses reduced from 25% to 13% by 2015 | Percentage | 25 | 20 | 18 | 15 | 12 |
| | | Estimated total soil loss | Tonnes/ha/year | 20 | 18 | 15 | 14 | 13. |
| | Diversification of food production and dietary diversification for improved nutrition at household level with focus on crops, livestock and fisheries | Proportion of farm families consuming dietary diversification | Percentage | 15% | 25% | 35% | 45% | 55% |
| | | Number of food crops grown by households increased from one to at least 3 by 2015. | Food crops grown | 1 | 2 | 3 | 3 | 3 |
| | Risk Management for Sustainable food stability at national level | National food gap for energy foods reduced to zero by 2015 | Percentage | 0 | 0 | 0 | 0 | 0 |
| *Commercial Agriculture, Agro-processing and Market Development* | Agricultural Exports for improved balance of trade and income | Total value of agricultural exports increased from $580 million to $800 million by 2015 | Million US$ | 580 | 650 | 700 | 750 | 800 |
| | Commercial production and agro-processing for import substitution and domestic market development | As above | | | | | | |
| | | Household agricultural incomes increased from US$280 per annum to US$550 per annum by 2015 | US $ | 280 | 300 | 350 | 500 | 550 |
| | | Access to credit by small and medium scale agro processors and traders increased from 20% to 60% by 2015 | Percentage | 20 | 30 | 40 | 50 | 60 |
| | Public/Private partnerships in input and output market development | As above | | | | | | |

| Component | Sub-component | Indicator | Unit of measure | Baseline (2010-11) | Target 2011-12 | Target 2012-13 | Target 2013-14 | Target 2014-15 |
|---|---|---|---|---|---|---|---|---|
| | Improve the public/private partnerships for broader growth of the agriculture | As above | | | | | | |
| *Sustainable Agricultural Land and Water Management* | Sustainable Agricultural Land Management /. | Agricultural area (ha) under sustainable land management (SLM) increased from 72,000 ha to 220,000 ha by 2014 | Hectares | 72,000 | 120,000 | 150,000 | 180,000 | 220,000 |
| | Sustainable Agricultural Water Management and Irrigation Development through the Greenbelt Initiative | Area under sustainable irrigation increased from 72,000 to 280,000ha by 2015 | Hectares | 72,000 | 140,000 | 180,000 | 240,000 | 280,000 |
| | Sustainable Management of the effects of climate | As above | | | | | | |
| **Key Support Services:** | | | | | | | | |
| *Technology Generation and Dissemination* | Results and Market oriented research on priority technology needs and provision of technical and regulatory services | Rate of adoption of priority technologies increased from 40% to 60% by 2015 | Percentage | 40% | 45% | 50% | 55% | 60% |
| | Efficient Farmer-Led Extension and Training Services | As above | | | | | | |
| *Institutional Strengthening and Capacity Building* | Strengthening Public Management Systems | Staff Vacancy rate reduced from 31% to 12% by 2015 | Percentage | 31 | 26 | 22 | 18 | 12 |
| | Capacity Building of the Public and Private Sectors | A comprehensive capacity building program in place by 2015 | | 0 | 1 | 1 | 1 | 1 |
| **Cross-Cutting Issues:** | | | | | | | | |
| *HIV Prevention and AIDS Impact Mitigation* | HIV related morbidity and mortality attrition minimized | Proportion of staff accessing supplementary feeding at workplace increased from 3.4% to 7% by 2015. | Percentage of staff | 3.4% | 3.5% | 4.5% | 6% | 7% |
| | | Average farmer working hours | Working hours | 5 hrs | 5 hrs | 5 hrs | 5 hrs | 5 hrs |

| Component | Sub-component | Indicator | Unit of measure | Baseline (2010-11) | Target 2011-12 | Target 2012-13 | Target 2013-14 | Target 2014-15 |
|---|---|---|---|---|---|---|---|---|
| | | per day to be maintained at 5 hrs per farmer per day | | | | | | |
| | Enhanced resilience and household coping mechanisms | As above | | | | | | |
| | HIV infected risks and vulnerabilities reduced | As above | | | | | | |
| *Gender Equality and Empowerment* | Gender disparities reduced | Proportion of vulnerable groups (men, women, girls, boys, orphans, widow(er)s, etc. accessing agricultural inputs through the FISP increased from 47% to 50% by 2015. | Percentage | 47 | 50 | 50 | 50 | 50 |
| | | Proportion of vulnerable people involved in decision making, policy formulation and implementation processes increased from 30% to 45% by 2015. | Percentage | 30 | 33 | 35 | 40 | 45 |
| | Enhanced capacity of youth, women and men | As above | | | | | | |

# Appendix 3: Detailed Results Framework

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Focus Area 1: Food Security and Risk Management** | | | | | | | | | | | | |
| **Component 1.1: Maize self-sufficiency** | | | | | | | | | | | | |
| a. Increase maize productivity | Average maize yield (MT/ha) increased | 1.8 | 3.0 | Implement the input (maize seed + fertilizer) subsidy programme | DAPS/ DCP | H | Number of farmers receiving vouchers for fertilizer subsidy | 1,500,000 | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 |
| | | | | | | H | Number of farmers receiving vouchers for maize seed subsidy | | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 |
| | | | | | DAPS/ DCP | H | Recurrent cost for Input subsidy programme | | 1 | 1 | 1 | 1 |
| | | | | Promote good agricultural practices (GAP) | DAES | M | Number of farmer groups involved in improved seed multiplication | 80 | 100 | 120 | 140 | 160 |
| | | | | Train staff in seed multiplication | DCP | M | Number of staff trained | | 300 | 400 | 500 | 600 |
| | | | | Train farmers in seed multiplication | DCP | M | Number of farmers trained | | 1,000 | 2,000 | 3,000 | 4,000 |
| b. Decrease on farm pre and post harvest losses | % of post-harvest losses | 25% | 13% | Fabricate and distribute metallic silos | DCP | H | Number of silos fabricated and distributed | 660 | 680 | 810 | 975 | 1,175 |
| | | | | Train local artisans in metallic silos fabrication | | H | Number of artisans trained | | 280 | 270 | 270 | 270 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Construct cement silos for seeds | DCP | H | No. of cement silos constructed | 86 | 100 | 170 | 215 | 250 |
| | | | | Strengthen migratory pests monitoring and control | DCP | H | No. of hectares monitored and controlled | 30,000 | 1,704,050 | 1,703,000 | 1,703,500 | 1,704,000 |
| | | | | | DCP | H | Number of staff trained | | 300 | 400 | 500 | 600 |
| | | | | | DCP | H | Number of farmers trained | | 1,000 | 2,000 | 3,000 | 4,000 |
| **Component 1.2: Diversification of food production and dietary diversification for improved nutrition at household level with focus on Crops, Livestock, and Fisheries** | | | | | | | | | | | | |
| Increase legumes and pulses productivity | Groundnut (MT/ha) productivity increased | 0.5 mt | 1mt | Promote Input subsidy for legume seeds | DAPS/ DCP | H | Number of farmers receiving voucher for legume seeds subsidy | | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 |
| | Beans productivity | 0.4 mt | 1mt | Promote legumes community seed banks | DCP/DARS | H | No of community legumes seed banks established | 35 | 50 | 100 | 150 | 200 |
| | Soy beans | 0.8 mt | 1mt | Promote new varieties and good agricultural practices for legumes | DCP/DAES | H | No.of related technical messages developed | 2 | 2 | 2 | 2 | 2 |
| | Pigeon peas | 0.5 mt | 1mt | Increase distribution of improved pulse seed | DCP | H | Quantities of basic pulse seed produced (MT) | - | 300 | 300 | 300 | 300 |
| | | | | | DCP | H | Number of farmer groups involved in pulse seed multiplication | 10 | 10 | 20 | 30 | 40 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increase hh horticultural crops productivity | Average plantain yield increased (mt/ha) | 22 | 25 | Promote dissemination of improved technologies in horticulture | DCP | H | Number of staff being trained in horticulture technologies | | 350 | 450 | 550 | 600 |
| | Leafy vegetables (MT/ha) | 15 | 20 | Create enabling policy and regulatory environment for Horticulture | DCP | M | Number of policies | | - | 1 | - | - |
| | Pineapple (mt/ha) | 24 | 30 | | DCP/DAES | M | Number of fruit trees propagated through community or public nurseries | 5,000,000 | 6,000,000 | 8,000,000 | 10,000,000 | 12,000,000 |
| | Monetary Value of horticulture crops produce (million US$) | 30 | 42 | | DCP/ DAES | M | No. of backyard gardens promoted | - | 500 | 600 | 700 | 800 |
| | Prevalence Banana Bunchy Top (%) | 90 | 10 | Sensitize farmers on the presence of the disease and its control measures | DCP | H | Number of sensitization meetings | | 40 | 240 | - | - |
| | | | | Develop and disseminate messages on the impact of banana bunchy top disease | DCP | M | Number of posters developed and disseminated | | 800,000 | 800,000 | | - |
| | | | | Demonstrate corrective community action | DCP | L | Number of demonstrations | | 80 | 200 | - | - |
| | | | | | DCP | M | Number of mats destroyed | | 6,000 | 7,000 | 8,000 | 10,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Propagate banana suckers using split corm method and distribute to affected farmers | DCP | M | Number of suckers propagated and distributed | | 4,000 | 5,000 | 8,000 | 10,000 |
| Increase root and tubers crops productivity in relevant areas | Average cassava yield increased (MT/ha) | 8 | 15 | Multiplication and distribution of cassava and sweet potato improved planting materials | DCP | M | Quantities of cassava improved planting material (bundles) distributed | 314,178 | 325,000 | 335,000 | 345,000 | 355,000 |
| | Average sweet potato yield increased (MT/ha) | 3 | 8 | | DCP | M | Quantities of sweet potato improved planting material (bags) distributed | 157,089 | 162,000 | 168,000 | 172,000 | 178,000 |
| Increase HH poultry meat and egg productivity | Number of chickens produced at national level increased | 44 million | 120 million | Provide vaccines / vaccination services against Newcastle disease | DAHLD | H | Number of NCD vaccine doses procured ('000) | 10,000 | 22,000 | 66,000 | 105,000 | 150,000 |
| | Poultry mortality (%) | 60% | 20% | Multiplying and de-worming of guinea fowls | DAHLD | M | No. of poultry groups supported | - | 56 | 56 | 56 | 56 |
| | National flock of guinea fowls increased (million) | 0.9 | 2 | | DAHLD | M | No. of guinea fowls de-wormed and vaccinated | - | 1,100,000 | 1,350,000 | 1,650,000 | 2,000,000 |
| | Egg production (MT/year) | 2,291 | 4,685 | Increase availability of well trained livestock extension workers | DAHLD | L | Number of AVOs trained | 300 | 200 | 250 | 250 | 500 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Increase provision of veterinary services for poultry | DAHLD | L | Undertake refresher courses for Aides on poultry production and marketing | - | 200 | 200 | 200 | 200 |
| | | | | Establish mini hatcheries | DAHLD | L | No. of mini hatcheries established | - | 8 | 7 | 7 | 6 |
| | | | | Improve poultry feed quality | DAHLD | L | Number of farmers receiving information on adapted poultry feed training | 4,000 | 400 | 1,320 | 1,616 | 744 |
| | | | | | DAHLD | L | Number of mini feed mills established | - | 1 | 3 | 3 | 4 |
| Increase small stock productivity (goat) | Increased goat herd size (million) | 3 | 5.4 | Promote goat re-stocking and pass-on programmes | DAHLD | M | Number of farmer groups assisted with breeder goats | 150 | 200 | 200 | 200 | 200 |
| | | | | | DAHLD | M | Number of goats de-wormed | 3,000,000 | 3,500,000 | 4,200,000 | 4,200,000 | 5,400,000 |
| | | | | Training of farmers in goat management | DAHLD | L | No of farmers groups trained | - | 100 | 150 | 250 | 500 |
| | | | | Introduce drug-box services | DAHLD | M | No. of groups supported | - | 58 | 116 | 232 | 464 |
| | Increased goat milk production (L/day) | 0.25 | 1.5 | Promote keeping of improved dairy goat breeds | DAHLD | M | No. of organized groups participated in pass-on-programme | 5 | 10 | 20 | 35 | 35 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Increased rabbit herd size (million) | 0.6 | 1.2 | Promote rabbit re-stocking and pass-on programmes | DAHLD | L | Number of groups supported with rabbit breeds | - | 30 | 30 | 30 | 30 |
| Increase hh dairy production | Increased cow milk prod. (MT) | 30,000 | 60,000 | Import dairy animals | DAHLD | H | No of dairy animals | 24,760 | 1,000 | 1,200 | 1,400 | 1,700 |
| | | | | Intensify cross breeding programmes | DAHLD | H | No of dairy animals | 24,760 | 2,500 | 8,000 | 11,000 | 4,500 |
| | | | | Increase animal feed/fodder production and conservation | DAHLD | M | Silage tonnage achieved | 180,000 | 18,000 | 60,000 | 80,000 | 35,000 |
| | | | | Intensify disease control programmes,vaccination and dipping | DAHLD | H | No of dairy animals de-wormed | 24,760 | 30,000 | 35,000 | 45,000 | 50,000 |
| | | | | TB testing | DAHLD | M | No of dairy animals tested | 24,760 | 25,000 | 30,000 | 35,000 | 40,000 |
| | | | | Mastitis control | DAHLD | M | No of dairy animals treated | 24,760 | 10,000 | 10,000 | 15,000 | 15,000 |
| Increase hh pig productivity | Increased pork production (MT) | 25,033 | 51,190 | Source genetically superior breeding stock | DAHLD | H | No of pigs sourced | 5,652 | 800 | 1,000 | 1,300 | 1,500 |
| | | | | Intensity on-farm feed production | DAHLD | L | No of farmers trained | 2,200 | 2,500 | 3,000 | 4,000 | 5,000 |
| | Reduced pig mortality (%) | 70 | 30 | De-worming and vaccination of pigs against swine fever | DAHLD | H | No of healthy pigs | 928,952 | 1,000,000 | 1,400,000 | 1,700,000 | 2,000,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increased aquaculture productivity | Increased pond aquaculture production (Kg/ha) | 700 | 2,000 | Encourage adoption of appropriate technologies on off-shore fishing practices | FISHERIES DEPT | M | No. of village fish farming schemes established, training and materials included | 1 | 1 | 1 | 1 | 1 |
| | | | | Promote improved fingerlings and fish feed production at smallholder level | FISHERIES DEPT | M | Number of fish ponds constructed | 400 | 250 | 300 | 300 | 350 |
| | | | | | FISHERIES DEPT | L | Number of fingerlings and fish feed producers trained | 50 | 100 | 150 | 180 | 250 |
| | | | | | FISHERIES DEPT | L | Number of feed formulae developed | 2 | 2 | 2 | 2 | 2 |
| | | | | Restocking of dams in rural areas | FISHERIES DEPT | M | Number of dams restocked | 20 | 30 | 60 | 60 | 65 |
| | | | | Promote Integrated Agriculture Aquaculture production | FISHERIES DEPT | | No. of farmers practicing IAA | 800 | 1100 | 1400 | 1800 | 1800 |
| Nutrition improved | Proportion of farm families consuming dietary diversification | 15% | 55% | Develop and disseminate guidelines related to food processing, storage, utilization | DAES/ OPC | M | Guidelines and standardized messages developed and disseminated | - | 3 | 3 | 3 | 3 |
| | Number of food crops grown by Hh | 1 | 3 | Develop and disseminate IEC materials on same | DAES/ OPC | M | IEC materials developed and disseminated via promotion campaigns | - | 3 | 4 | 5 | 6 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Train Extension staff (TOT) and households | DAES/ OPC | M | No. farmers trained use of equipment and some recipes | - | 160,000 | 160,000 | 160,000 | 160,000 |
| | | | | | DAES/ OPC | M | No. extension staff groups trained (AEDOs) | - | 100 | 100 | 100 | 100 |
| | | | | Conduct trainings for service providers | DAES/ OPC | M | Number of training sessions conducted | - | 1 | 1 | 2 | 2 |
| | | | | Develop and disseminate recipes that use indigenous food to diversify diets | DAES/ OPC | M | No. of recipes technologies developed and disseminated | - | 1 | 1 | 2 | 2 |
| | | | | Conduct consumer education on fortified foods | DAES/ OPC | L | Consumer education sessions conducted | | 1 | 2 | 2 | 1 |
| | | | | Conduct dietary monitoring and assessment | DAES/ OPC | M | Monitoring and assessments conducted | - | 4 | 4 | 4 | 4 |
| **Component 1.3. Sustainable food availability at national level** | | | | | | | | | | | | |
| Risk management for food stability | Avoid national energy food gap | 0 | 0 | Improve management of the SGR & reduce storage losses | DAPS | H | Qty of grain stored in SGR (mt)<br>Unit cost of storage US$/MT | 60,000 | 70,000 | 80,000 | 90,000 | 100,000 |
| | | | | Establish a warehouse receipt system | DAPS | H | Volume of maize stored under the warehouse receipt system (MT) | - | 10,000 | 20,000 | 30,000 | 40,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Promote village grain bank schemes | DAES | M | Number of village bank schemes operated | 24 | 25 | 30 | 40 | 45 |
| | | | | Establish a maize market insurance system | PS | M | Premium paid for insurance | - | - | 1 | - | - |
| | | | | Strengthen weather forecasting capability for agriculture | CAETS/ MET | M | Strong weather stations in all EPAs, districts and ADDs | - | 50 | 75 | 100 | 125 |
| | | | | Carry monitoring programmes on fisheries resources | FISHERIES DEPT | | No of monitoring surveys | 2 | 1 | 1 | 1 | 1 |
| | | | | | | | No. of data sets produced | 2 | 1 | 1 | 1 | 1 |
| | | | | Carry out enforcement programmes | FISHERIES DEPT | | No of patrols conducted | 32 | 80 | 80 | 80 | 80 |
| | | | | Develop area-specific fishery management plans | FISHERIES DEPT | | No. of management plan approved | 3 | 3 | 1 | 1 | 1 |
| | | | | Encourage establishment of village fish farming schemes | FISHERIES DEPT | | No. of village fish farming schemes established | 1 | 1 | 1 | 0 | 1 |
| | | | | | | | No of fish ponds constructed | 400 | 300 | 750 | 150 | 250 |
| **Focus Area 2: Commercial Agriculture and market development** | | | | | | | | | | | | |
| **Component 2.1. Agricultural export for improved balance of trade and income** | | | | | | | | | | | | |
| Increase total value of agricultural exports | Volume of exports (million US$) | 580 | 800 | Promote contract farming and producers' organizations | DCP/ DAPS | M | Number of FO engaging in contract farming for cash crops | 27 | 15 | 30 | 40 | 75 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Increased export of Cotton | 20,000 | 40,000 | Train Prod. Org. members in agribusiness skills | DAPS | M | Number of FO members trained in agribusiness skills (management, accounting, quality control) | - | 5,000 | 5,000 | 5,000 | 5,000 |
| | Increased export of Sugar (MT) | 111,000 | 150,000 | Strengthen managerial and technical capacity of producer organizations. | DAPS | L | Number of FO members trained in quality control: post harvest grading/handling techniques | - | 5,000 | 5,000 | 5,000 | 5,000 |
| | Increased export of Tobacco (MT) | 125,000 | 185,000 | Promote dialogue between value chain stakeholders | DAPS | M | Number of value chain coordination mechanisms set-up | - | 2 | 4 | 6 | 7 |
| | Increased export of Tea (MT) | 44,000 | 60,000 | Strengthen capacity of value chain players | DAPS | M | Number of value chain stakeholders trained on value chain development, by commodity | 100 | 150 | 150 | 150 | 150 |
| | | | | | MoTI | M | Number of new agri-food export contracts facilitated by MEPC | - | 2 | 15 | 25 | 35 |
| | | | | Promote exports through market research studies export fair | DAPS | M | Number of commodity strategies developed | - | 2 | 2 | 2 | 2 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DAPS | M | Number of export trade studies/ analysis, by commodity | - | 5 | 5 | 5 | 5 |
| Increased unit value of agricultural export ('000 MK/MT) by commodity | Increased unit value of tobacco | - | - | Improve compliance to market standards (grading, packaging) | DAPS/DAES | M | Number of value chain players trained in commodity handling, processing storage | - | 50 | 50 | 100 | 100 |
| | Increased unit value of cotton | - | - | Increase quality certification and regulatory services | DARS/ DAHLD | M | Number of product accreditation (PA) quality assurance (QA) and certification services (CS) | 5 | 5 | 5 | 5 | 5 |
| | | | | | MOTI/BOS | M | Number of quality assurance certificates issued | - | 5,000 | 5,000 | 5,000 | 5,000 |
| | | | | Provide technical support to enhance output quality (seed) | ARET | M | Quantity of improved tobacco certified seed distributed (Kg) | - | 200 | 300 | 400 | 500 |
| | | | | | TRF | M | Area replanted with clonal tea bushes (ha) | - | 25 | 25 | 25 | 25 |
| | | | | | Cotton Companies | H | Quantities of improved cotton seed (MT) | 2,000 | 2,500 | 3,000 | 3,500 | 4,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Promote mechanization | DCP | H | No. of ha under tractor hire scheme | 2,090 | 10,000 | 10,000 | 10,000 | 10,000 |
| | | | | | DCP | M | No of ha under oxenisation | 1,110 | 16,615 | 16,615 | 16,615 | 16,615 |
| | | | | | DCP | M | No. of hand planks distributed | 1,200 | 12,000 | 35,000 | 50,000 | 60,000 |
| | | | | Promote labour saving technology | DCP | L | Number of sprayer | | 200 | 200 | 200 | 200 |
| | | | | | DCP | L | Number of hactare under herbicides application | | 2000 | 2000 | 2000 | 2000 |
| | | | | Conduct review meeting on farm mechanisation and oxenisation efficiency in agriculture | DCP | L | Number of review meetings | | 4 | 4 | 4 | 4 |
| **Component 2.2. Commercial production and agro-processing for import substitution and domestic market development** | | | | | | | | | | | | |
| Increase volume of high-value commodities for agro-processing | Increased milk production and processing (MT) | 30,047 | 61,443 | Provide dairy inputs and services | DAHLD | H | Number of high productive dairy heifers for demonstration and dissemination | | 1,250 | 1,250 | 1,250 | 1,250 |
| | | | | | DAHLD | H | Number of diary farmers trained in fodder production | 1,440 | 2,000 | 2,500 | 3,000 | 4,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DAHLD | H | Number of farmers receiving advice on dairy husbandry | 3,000 | 4,000 | 5,000 | 6,500 | 8,500 |
| | | | | | DAHLD | M | Number of min dairy processors/cooling facilities provided on pilot basis to selected MBG | 6 | 1 | 2 | 2 | 1 |
| | Increased beef herd size (million) | 0.85 | 1.25 | Rehabilitate dip-tank infrastructure and strengthen technical and O&M capacities for their management | DAHLD | H | Number of cattle treated against ticks | 400,000 | 450,000 | 500,000 | 550,000 | 600,000 |
| | | | | | DAHLD | H | Number of dip tanks rehabilitated | 100 | 100 | 100 | 100 | 400 |
| | | | | | DAHLD | M | Number of dip-tank users management groups established and trained | 100 | 100 | 100 | 100 | 400 |
| | | | | Conduct preventive vaccination (foot and mouth, anthrax, black leg) for beef production | DAHLD | H | Number of animals vaccinated against FMD | 185,000 | 190,000 | 200,000 | 210,000 | 215,000 |
| | | | | | DAHLD | H | No of animals vaccinated against Black leg | 200,000 | 250,000 | 300,000 | 350,000 | 400,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DAHLD | H | Number of animals vaccinated against LSD | 200,000 | 250,000 | 300,000 | 350,000 | 400,000 |
| | | | | Intensify MBGs/Cooperatives | DAHLD | L | No of MBGs | 150 | 15 | 40 | 64 | 28 |
| | Increased red meat production and processing (MT) | 44,779 | 91,569 | Promote stall feeding | DAHLD | M | No of animals. | 500 | 300 | 300 | 400 | 600 |
| | | | | Establish organized markets | DAHLD | M | No of markets | 12 | 1 | 4 | 5 | 4 |
| | Increased white meat production, processing | 69,097 | 141,296 | Train local broiler and pig feed formulation | DAHLD | M | No of farmers | 4,000 | 450 | 1,300 | 1,700 | 750 |
| | Increased egg prod. (MT) | 2,291 | 4,685 | promote local feed production and formulation | DAHLD | M | No of farmers | 2,500 | 250 | 850 | 1,100 | 500 |
| | Increased collection and quality of hides | 218,435 | 446,678 | Enhance information on hides and skin trade | DAHLD | M | No of technical messages | 8 | 25 | 25 | 25 | 25 |
| | Increased collection and quality of skins | 1,847,012 | 3,776,955 | Establish rural/mini abattoirs | DAHLD | M | No of rural abattoirs | 8 | 6 | 4 | 6 | 4 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Increased fish catch landing (MT) | 45,000 | 60,000 | Encourage adoption of appropriate on/off-shore fishing practices | FISHERIES DEPT | M | Number of fishermen receiving info about appropriate fishing practice | 150 | 250 | 250 | 250 | 250 |
| | | | | | FISHERIES DEPT | M | Number of off-shore fishing technology | 1 | 2 | 2 | 2 | 2 |
| | | | | | FISHERIES DEPT | M | Number of fishers receiving information and training about off-shore fishing | 200 | 500 | 500 | 700 | 900 |
| | | | | Develop area-specific fishery management plans | FISHERIES DEPT | M | Number of management plan approved | 3 | 3 | 4 | 4 | 4 |
| | | | | Promote adoption of sanitarian standards and hygiene for fish and fish products | FISHERIES DEPT | | No of fish handling and processing facilities constructed | 9 | 9 | 9 | 5 | 3 |
| | | | | | | | No of processors and fishers trained | 150 | 250 | 300 | 350 | 400 |
| | | | | Promote improved fingerlings and fish feed production at smallholder level | FISHERIES DEPT | | No of feed formulations produced | 2 | 2 | 1 | 1 | 1 |
| | | | | | | | No of fingerlings produced | 2400000 | 2800000 | 2800000 | 3000000 | 4000000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | No. of hatcheries operational | 5 | 5 | 5 | 5 | 5 |
| | | | | | | | Number of certified feed and fingerling producers | 20 | 30 | 35 | 40 | 45 |
| | | | | Encourage adoption of appropriate technologies on off-shore fishing | FISHERIES DEPT | | No of offshore fishing technologies adopted | 1 | 2 | 1 | 0 | 1 |
| Increased unit value of commodities (financial & non-financial support services) | Household agricultural income (USD/year) | 280 | 600 | Promote group and individual small scale agro-processing (e.g. horticulture, cassava, potato, pulses) | DCP | L | Number of cassava and sweet potato processing groups set up | 60 | 70 | 80 | 90 | 100 |
| | Increased red meat production and processing (MT) | 44,779 | 91,569 | Promote stall feeding | DAHLD | M | No of animals. | 500 | 300 | 300 | 400 | 600 |
| | | | | Establish organized markets | DAHLD | M | No of markets | 12 | 1 | 4 | 5 | 4 |
| | Increased white meat production, processing | 69,097 | 141,296 | Train local broiler and pig feed formulation | DAHLD | M | No of farmers | 4,000 | 450 | 1,300 | 1,700 | 750 |
| | Increased egg prod. (MT) | 2,291 | 4,685 | promote local feed production and formulation | DAHLD | M | No of farmers | 2,500 | 250 | 850 | 1,100 | 500 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Increased collection and quality of hides | 218,435 | 446,678 | Enhance information on hides and skin trade | DAHLD | M | No of technical messages | 8 | 25 | 25 | 25 | 25 |
| | Increased collection and quality of skins | 1,847,012 | 3,776,955 | Establish rural/mini abattoirs | DAHLD | M | No of rural abattoirs | 8 | 6 | 4 | 6 | 4 |
| | Increased fish catch landing (MT) | 45,000 | 60,000 | Encourage adoption of appropriate on/off-shore fishing practices | FISHERIES DEPT | M | Number of fishermen receiving info about appropriate fishing practice | 150 | 250 | 250 | 250 | 250 |
| | | | | | FISHERIES DEPT | M | Number of off-shore fishing technology | 1 | 2 | 2 | 2 | 2 |
| | | | | | FISHERIES DEPT | M | Number of fishers receiving information and training about off-shore fishing | 200 | 500 | 500 | 700 | 900 |
| | | | | Develop area-specific fishery management plans | FISHERIES DEPT | M | Number of management plan approved | 3 | 3 | 4 | 4 | 4 |
| | | | | | DCP | L | Number of cassava and sweet potato processing equipment distributed | 15 | 50 | 95 | 130 | 150 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Disseminate information on small scale crop processing | DCP | M | Number of farmers receiving information about transformation technologies for root crops | 610,000 | 5,000 | 5,000 | 10,000 | 10,000 |
| **Component 2.3 Input and output market development through Private public partnership** | | | | | | | | | | | | |
| | Reduced spatial and temporal variability of prices | | | Expand market information system | | M | Number of MIS bulletin | 45 | 50 | 50 | 50 | 50 |
| | | | | | | M | Number of radio programes prepared on MIS | - | 5 | 5 | 5 | 5 |
| | | | | Built and rehabilate market infrastructure | | H | Number of wholesale markets built | - | 5 | 5 | 5 | 5 |
| | | | | | | H | Number of new collection points built | 90 | 25 | 25 | 25 | 25 |
| | | | | | | H | Number of retail markets rehabilated | - | 10 | 10 | 10 | 10 |
| | Access to credit by small and medium scale agro-processors and traders | 20% | 60% | Financial leverage systems for private agro business development (Matching grants) | | M | Number of systems developed and tested | - | - | 1 | - | - |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Provide non financial business services and capacity strengthening to small and medium scale agro-processors | | M | Number of agro-processors trained | - | 5 | 5 | 10 | 20 |
| | | | | | | M | Number of medium agroproducers trained | - | 2 | 10 | 20 | 40 |
| **Focus Area 3: Sustainable Land and Water Management** | | | | | | | | | | | | |
| **Component 3.1: Sustainable agricultural land management** | | | | | | | | | | | | |
| Increase area under sustainable land management | Agricultural area (ha) under SLM increased | 100,000 | 250,000 | Promote technologies that maintain soil fertility and water management | DLRC | H | No of groups receiving CA advice and planting material | 5,400 | 280 | 560 | 1,120 | 1,240 |
| | Estimated total soil loss (MT/ha/year) | 20 | 13 | | DLRC | H | No of hectares under conservation agriculture | 47,526 | 10,000 | 17,500 | 25,000 | 77,500 |
| | | | | | DLRC | H | No of hectares under agro-forestry | 49,858 | 10,000 | 15,000 | 20,000 | 25,000 |
| | | | | Promote community-based dambo management | DLRC | L | Number of dambos (10ha) with agreement for sustainable land use | - | 27 | 54 | 81 | 108 |
| | | | | Prevent river banks degradation | DLRC | L | Length of streams/river bank protected for sustainable land use (km) | 3,264 | 350 | 350 | 350 | 350 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Component 3.2: Sustainable agricultural water management** | | | | | | | | | | | | |
| Increase area (ha) under sustainable irrigation through GBI | Area under sustainable irrigation (ha) increased | 90,563 | 200,000 | Rehabilitate existing irrigation schemes and construct new ones through the Greenbelt Initiative | DOI | H | Number of hectares under rehabilitated irrigation schemes | 29,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| | | | | Strengthen technical capacity for irrigation management | DOI | H | Number farmer groups receiving advice about irrigation techniques | 1,000 | 130 | 140 | 150 | 160 |
| | No of farmers growing irrigated crops | 660,000 | 740,000 | Develop new irrigation schemes with appropriate systems | DOI | H | Number of hectares under new irrigation schemes | 2,000 | 20,000 | 23,000 | 26,000 | 28,000 |
| | | | | Establish rainwater harvesting systems (dams, box ridges) | DOI | H | Number of dams constructed | 10 | 3 | 3 | 3 | 3 |
| | | | | | DOI | H | Number of dams rehabilitated | 15 | 5 | 5 | 5 | 5 |
| | | | | Promote water users associations | DOI | M | Number of Water Users Associations formed | 11 | 60 | 100 | 100 | 150 |
| | | | | | DOI | M | Number of WUA trained in technical and managerial capacities | 60 | 65 | 70 | 75 | 80 |
| | | | | Stocking of dams in rural areas and irrigation schemes | FISHERIES DEPT | | Number of dams stocked | 4 | 6 | 10 | 14 | 18 |
| **4. Key support service: Technology generation and dissemination** | | | | | | | | | | | | |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Component 4.1: Results and market oriented research on priority technology needs and provision of technical and regulatory services** | | | | | | | | | | | | |
| Increase maize productivity | | | | Develop improved varieties | DARS | H | Number of improved varieties released | 6 | 2 | 2 | 1 | 1 |
| | | | | Multiply breeder seed | DARS | H | Quantities of breeder seed multiplied (Kg) | 5,000 | 5,000 | 6,000 | 7,000 | 8,000 |
| | | | | Increase distribution of improved maize seed | DARS | H | Quantities of maize basic seed produced (MT) | 5 | 10 | 15 | 20 | 25 |
| | | | | | DARS | H | Quantities of commercial improved seed certified (MT) | 500 | 1,000 | 1,500 | 2,000 | 2,500 |
| Decrease on farm pre and post harvest losses | | | | Identify integrated post harvest technologies | DARS | H | No of new post harvest technologies identified and approved | 3 | 3 | 4 | 4 | 5 |
| Increase legumes and pulses productivity | | | | Develop new pulses varieties | DARS | H | No. of new pulses varieties released | 12 | - | 3 | 5 | 1 |
| | | | | Multiply breeder and basic pulse seed | DARS | H | Quantities of breeder pulses seed produced (MT) | 600 | 7 | 9 | 9 | 9 |
| | | | | | DARS | H | Qty of certified commercial pulses seed (MT) | 60 | 75 | 90 | 105 | 120 |
| | | | | Conduct pulses seed quality control | DARS | | Number of hectares inspected | 1,000 | 700 | 800 | 1,000 | 1,000 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increase HH horticultural crops productivity | | | | Develop improved horticultural technologies | DARS | M | Number of technical messages released related to horticulture | - | 2 | 3 | 4 | 5 |
| | | | | | DARS | M | Number of horticulture technologies released | 10 | 11 | 12 | 13 | 14 |
| | | | | | DARS | M | Number of farmers groups involved in horticulture seed multiplication | - | 8 | 9 | 10 | 11 |
| | | | | | DARS | M | Horticulture estimation methodology produced and distributed | | - | - | 1 | - |
| Increase root and tubers crops productivity | | | | Develop mother nurseries (vegetative multiplication) | DARS | L | Area under mother nurseries (ha) | 15 | 20 | 30 | 40 | 50 |
| | | | | | DARS | L | Construct/rehabilitate tissue culture laboratory | 2 | 2 | - | 1 | - |
| Increased unit value of agricultural export ('000 MK/MT) by commodity | | | | Improve compliance to market standards (grading, packaging) | DARS | M | Number of SPS laboratories set up | - | 1 | 2 | 3 | 1 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DARS | M | Number of import permits and export licenses issued | 4,000 | 4,000 | 5,000 | 6,000 | 7,000 |
| | | | | | DARS | M | Number of technicians/inspectors trained in SPS | - | 10 | 20 | 30 | 40 |
| | | | | Enhance border posts-produce inspections | DARS | M | Number of border posts infrastructure provided | - | 1 | 2 | 2 | - |
| Increase volume of high-value commodities for agro-processing | | | | Develop local dairy feed formulation | DARS | L | Number of local feed formulae developed | 2 | - | 1 | - | 1 |
| | | | | Develop local poultry feed formulae | DARS | L | Number of poultry feed technologies relased | 2 | - | 1 | 1 | - |
| | | | | Develop and adapt agro-processing technologies | DARS | H | Number of root crop agro-processing technologies released | 2 | - | 1 | - | 1 |
| Increase area (ha) under sustainable land management (SLM) | | | | Develop soil fertility and water conservation technologies | DARS | H | Number of Soil and water conservation technologies developed | - | 4 | 4 | 4 | 4 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increase area (ha) under sustainable irrigation | | | | Rehabilitate existing irrigation infrastructure in research stations | DARS | H | Number of infrastructure rehabilitated | - | 4 | 2 | 3 | - |
| | | | | Encourage adoption of appropriate fish farming technologies | FISHERIES DEPT | | No of fish farming technologies adopted | 3 | 2 | 2 | 2 | 2 |
| | | | | Promote exploratory surveys for under exploited fish stocks | FISHERIES DEPT | | Tonnage of fish from off shore | 7000 | 15000 | 20000 | 22000 | 25000 |
| **Component 4.2: Efficient farmer-led extension and training services** | | | | | | | | | | | | |
| Increase maize productivity | Rate of adoption of priority technologies increased | 40% | 70% | Promote good agricultural practices (GAP) | DAES | H | Number of farmers receiving advice on maize varieties and GAP | 600,000 | 990,000 | 1,177,500 | 1,290,000 | 1,440,000 |
| Decrease on farm pre and post harvest losses | | | | Promote improved on-farm storage technologies (food, seed) | DAES | H | Number of farmers receiving training and tools on storage technologies (physical, chemical) | 600,000 | 990,000 | 1,177,500 | 1,290,000 | 1,440,000 |
| | | | | Disseminate messages on post harvest handling | DAES | L | Number of messages on post harvesting | 4 | 4 | 5 | 5 | 6 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increase legumes and pulses productivity | | | | Promote new varieties and good agricultural practices for legumes | DAES | H | No. of farmers receiving advice on legumes GAP (incl. indigenous vegetables) | 600,000 | 700,000 | 800,000 | 900,000 | 1,000,000 |
| Increase HH horticultural crops productivity | | | | Promote dissemination of improved technologies in horticulture | DAES | M | Number of farmers being trained in horticulture techniques | - | 5,000 | 5,000 | 5,000 | 5,000 |
| Increase volume of high-value commodities for agro-processing | | | | Provide research, extension and marketing services for irrigation systems users | DAES | M | Number of farmer groups receiving advice on irrigation production and marketing of rice/horticulture | 1,000 | 1,200 | 1,400 | 1,600 | 1,800 |
| | | | | | DAES | M | Quantities of improved rice seed multiplied(MT) | 300 | 400 | 500 | 650 | 850 |
| Increased unit value of commodities (financial & non-financial support services) | | | | Increase knowledge and skills in agro-processing technologies | DAES | H | Number of extension staff trained in agro-processing technologies and equipment for activities | 30 | 300 | 250 | 100 | 100 |
| | | | | | DAES | M | Number of farmer groups trained in agro-processing | 70 | 100 | 150 | 100 | 24 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DAES | M | Facilitate procurement of agro-processing machinery | 70 | 100 | 150 | 100 | 25 |
| **5. Key support service: Institutional strengthening and Capacity building** | | | | | | | | | | | | |
| **Component 5.1: Strengthening public management systems** | | | | | | | | | | | | |
| Strengthen mobility in the ministry and districts | | | | Undertake Procurement services | DFA | H | Number of motor vehicles procured | 68 | 40 | 40 | 40 | 40 |
| | | | | | DFA | H | Number of motor cycles procured | 300 | 100 | 100 | 100 | 100 |
| Improve infrastructure quantity and quality | | | | Rehabilitation of soil and seed laboratories at Chitedze | DARS/ DFA | M | Number of laboratories rehabilitated | - | | 1 | 1 | 1 |
| | | | | Rehabilitate staff houses | DFA | M | Number staff houses and offices rehabilitated | | 30 | 30 | 30 | 30 |
| | | | | Construct staff houses | DFA | M | Number of offices rehabilitated | | 30 | 30 | 30 | 30 |
| | | | | Upgrade institutional training infrastructure | DFA | M | Number of training centres upgraded | 2 | 3 | 3 | 3 | 3 |
| | | | | Rehabilitation of district agriculture offices | DFA | M | Number staff houses and offices constructed | | 1 | 1 | 1 | 1 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Rehabilitation of buildings for weather observation stations | DFA | M | Number of buildings rehabilitated | - | 2 | 2 | 2 | 2 |
| Improve equipment quantity and quality | | | | Procure assorted office equipment | DFA | M | Assorted equipment procured | | 25 | 25 | 25 | 25 |
| | | | | Procure Laboratory Research equipment | DFA | M | Laboratory Research equipment procured | - | | 1 | - | 1 |
| | | | | Procure Weather stations Equipment and spare parts | DFA | M | Weather stations Equipment and spare parts procured | - | 100 | 100 | 50 | 50 |
| | | | | Procure Farm inputs and equipments for Land Conservation and crop Experimentation | DFA | M | Farm inputs procured | - | 1 | - | - | - |
| Improved monitoring of agricultural programs and interventions | | Not done | | Develop and implement monitoring and reporting systems of ASWAp interventions | DAPS | | Number of monitoring reports prepared and submitted timely | | 4 | 4 | 4 | 4 |
| | | Done quarterly | | Conduct ASWAp reviews | | | Review report | | 4 | 4 | 4 | 4 |
| | | Done quarterly and annually | | Production of the agricultural statistical bulletins | DAPS | | Number of issues of statistical bulletins | | 5 | 5 | 5 | 5 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Done quarterly | | Policy review and Preparation of development programmes under ASWAp | DAPS | | Number of development programmes developed | | 4 | 4 | 4 | 4 |
| Improved planning of agricultural programs and interventions | | Done annually | | Preparation of budgets and annual work plans for the Ministry | DAPS | | Approved annual budget | | 1 | 1 | 1 | 1 |
| | | Done quarterly | | expenditure tracking assessment | DAPS | | Number expenditure tracking reports | | 4 | 4 | 4 | 4 |
| Strengthen routine administrative, financial and human resource management functions | | Done quarterly | | Provide adequately for office services | DFA | | Number of procurement reports | | 4 | 4 | 4 | 4 |
| | | Done quarterly | | Keeping and maintaining financial records | DFA | | Number financial management reports | | 4 | 4 | 4 | 4 |
| | | Done quarterly | | Keeping and maintaining human resource records | DFA | | Number human resource management reports | | 4 | 4 | 4 | 4 |
| Reliable Network | | | | | ICT | | | | | | | |
| | | | | Rehabilitate and extend the current GWAN network infrastructure - Hdqrs | ICT | | No of GWAN network points linked to main switch | 79 | 291 | 350 | 350 | 350 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Rehabilitate and extend the current LAN infrastructure in ADDs | ICT | | No of intranet, internet and Email services users | 135 | 280 | 325 | 725 | 725 |
| | | | | Provide LAN infrastructure in Salima and Shire Valley ADDs | ICT | | | 0 | 0 | 140 | 390 | 725 |
| Internet and Email Services using VPN technology | Increased access to and reduced costs of internet and email services | | | Connect all Adds to Ministry Hdqrs. | ICT | | No of intranet, internet and Email services users extended | 0 | 0 | 56 | 127 | 0 |
| | | | | Provide Video conferencing services | ICT | | A state of the art ICT, digitisation and Video Conferencing equipment | 0 | 0 | 1 | 1 | 5 |
| | | | | Provide secure internet and email facilities | ICT | | No of computers installed with Anti-Virus | 87 | 142 | 150 | 725 | 725 |
| | Updated **www.moafsmw.org** website | | | Acquire Website Development consultancy services to redesign the current website | ICT | | No of users accessing the website | 0 | 0 | 50 | 1250 | 5000 |
| | Effective network points | | | Procure network infrastructure accessories | DFA/Procurement | | Number of users | 87 | 142 | 150 | 725 | 725 |
| | State of the art ICT equipment | | | Procure ICT equipment | DFA/Procurement | | No of ADDs connected to VPN | 0 | 0 | 3 | 4 | 2 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Digitisation of manual records | Manual documents turned into electronic records | | | Identify and classify important records | ICT/National Archives | | No of institutions | 0 | 0 | 2 | 5 | 7 |
| Agriculture Cadastral Management Information System (AGRICAMIS) | A geographically and integrated Agriculture Management Information System (AGMIS) | | | Collect data and conduct feasibility studies for AGRICAMIS, AGMIS and AMIS | ICT | | No of visits | 0 | 0 | 3 | 0 | 0 |
| | | | | Analyse data and produce feasibility study report | ICT | | No of reports | 0 | 0 | 2 | 0 | 0 |
| | | | | Design and develop AGRICAMIS, AGMIS and AMIS | ICT | | | 0 | 0 | 2 | 0 | 0 |
| | | | | Acquire AGRICAMIS, AGMIS and AMIS consultancy services | ICT | | No of consultancies | 0 | 0 | 0 | 2 | 0 |
| | | | | Install AGRICAMIS, AGMIS and AMIS | ICT | | No of ADDs | 0 | 0 | 0 | 3 | 6 |
| | | | | Link AGRICAMIS and AGMIS regional and international bodies | ICT | | No of organisations accessing AGRICAMIS | 0 | 0 | 0 | 1 | 2 |
| HRMIS and IFMIS Rollout in ADDs | A timely updated HR database and production of payroll and financial documents | | | Install HRMIS and IFMIS | ICT | | No of ADDs using HRMIS and IFMIS | 0 | 0 | 0 | 2 | 7 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Transport Information Management System Rollout in ADDs | Trucking of institutional vehicles | | | Install Transport Management Information System | ICT | | No of ADDs using Transport Management Information System | 0 | 0 | 0 | 2 | 7 |
| Asset Management Informamtion System (AMIS) | An automated Ledger of the Ministry's assets | | | Install Asset Management Informamtion System (AMIS) | ICT | | No of records computerised | 0 | 0 | 0 | 1250 | 7000 |
| | | | | Upgrade institutional infrastructure | FISHERIES DEPT | | No of centres upgraded | 7 | 1 | 1 | 1 | 1 |
| | | | | | | | No of laboratoy facilities developed | 5 | 0 | 1 | 0 | 0 |
| | | | | Procure lab, enforcement and research equipment | FISHERIES DEPT | | Assorted equipment procured | | | | | |
| | | | | | | | No of research vessels and accessories procured | 1 | 0 | 0 | 1 | 0 |
| | | | | | | | No of patrol boats procured | 2 | 1 | 1 | 7 | 2 |
| **Component 5.2: Capacity building of the public and private sector** | | | | | | | | | | | | |
| Strengthening institutional capacity | | | | Collaborate continously with partners | DAES/ OPC | L | Number of technical meetings conducted | - | 4 | 4 | 4 | 4 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Conduct stakeholder meetings with government sectors, NGO, Bilateral and multilatel partners and the private sector | DAES/ OPC | L | Number of stakeholder meetings, annual and bi-annual,and consultative for establishment of a business coalition for nutrition | - | 4 | 4 | 4 | 4 |
| | | | | Coordinate creation of gender, nutrition, HIV and AIDS officers positions in ASWAp line ministries and departments | DAES/ OPC | L | Departments with gender, HIV/AIDS and nutrition offices positions | 3 | 10 | 10 | 15 | 20 |
| | | | | Institutionalize farmer-led extension services | DAES/ OPC | M | Number of male and female staff trained on developed concept | - | 1,000 | 1,000 | 1,000 | 1,000 |
| | | | | Revise agriculture extension policy | DAES/ OPC | L | Policy revised to include private extension service provision | - | 1 | 1 | 1 | 1 |
| | | | | Formulate strategies in response to farmer demand | DAES/ OPC | L | Number of strategies developed | 1 | 3 | 3 | 3 | 3 |
| | | | | Strengthen stakeholder panels | DAES/ OPC | L | Number of stakeholder panels oriented | 84 | 100 | 100 | 50 | 50 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Capacity assessment studies for agricultural institutions in Malawi | DAPS | M | Number of Institutions | | 1 | 1 | | |
| Improve capacity of staff in the ministry | Staff vacancy rate (%) reduced | 31% | 12% | Recruit technical experts | CHRM | M | Number of consultants hired | - | 2 | 2 | 2 | 2 |
| | | | | Recruit staff | CHRM | M | Number of staff recruited | - | 200 | 200 | 250 | 250 |
| | Capacity building programme in place | N | Y | Carry out sector wide capacity building assessment | | M | Report | | 1 | | | |
| | | | | Implement institutional reform programme | | M | Number of meetings | | | 1 | 1 | 1 |
| | | | | Conduct orientation of newly recruited staff in policies and programs | CHRM | L | Number of orientation sessions conducted | - | 200 | 200 | 250 | 250 |
| | | | | Implement long term training programme international | CHRM | H | Number of staff trained | - | 50 | 50 | 50 | 50 |
| | | | | Implement long term training programme national | CHRM | H | Number of staff trained | - | 50 | 50 | 50 | 50 |
| | | | | Implement short training programme | CHRM | H | Number of staff trained | | 500 | 500 | 500 | 500 |
| | | | | Conduct short term training for subject matter specialists | CHRM | H | Number of workshops conducted | | 15 | 15 | 15 | 15 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Increased capacity of ICT knowledge and skills in the ministry | Increased number of staff effectively performing their duties | | | Conduct ICT sensitisation workshops for ICT officers | ICT | | No of meetings | 0 | 0 | 3 | 0 | 0 |
| | | | | Conduct short term training for ICT specialists | ICT | | No of ICT workshops conducted | 0 | 14 | 14 | 14 | 14 |
| | | | | Conduct basic ICT training for support staff | ICT | | No of ICT workshops conducted | 0 | 0 | 0 | 3 | 0 |
| | | | | Attend professional short term courses | ICT | | No of officers | 0 | 0 | 0 | 4 | 4 |
| | | | | Attend professional long term courses | ICT | | No of officers | 0 | 0 | 1 | 3 | 4 |
| | | | | Attend project management courses | ICT | | No of officers | 0 | 0 | 2 | 2 | 1 |
| | M&E, HR, planning and financial management systems functioning | | | Conduct preparatory baselines | DAPS | H | Number of baseline | | 1 | | 1 | |
| | | | | Agriculture statistical systems development | | H | Number of statistical Reports | | 4 | 4 | 4 | 4 |
| | | | | Carryout cost benefit analyses | | H | Number of reports | | 1 | 1 | 1 | 1 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Carryout Core Function analysis and capacity assessments | | H | Number of reports | | 2 | 2 | 2 | 2 |
| | | | | Studies on adoption and qualitative feedback on activities | DAPS | L | Number of studies | | 3 | 3 | 3 | 3 |
| | | | | International technical assistance on:Planning & Budgeting | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | National technical assistance on: Planning and Budgeting | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | International technical assistance on:M&E | CHRM | M | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | National technical assistance on: M&E | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | International technical assistance on:Financial Management | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | National technical assistance on: Financial management | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | International technical assistance on:HRM | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | National technical assistance on: HRM | CHRM | L | Number of TAs in place | | 12 | 12 | 12 | 12 |
| | | | | Carry out strategic environmental assessment | | L | Number of reports | | 1 | | | 1 |
| | | | | Recruit and train technical staff | FISHERIES DEPT | | No of frontline staff trained | 150 | 50 | 50 | 50 | 50 |
| | | | | Conduct short term training for public and private sector | FISHERIES DEPT | | No of training workshops | 40 | 15 | 15 | 15 | 15 |
| | | | | Enhance community outreach programmes | FISHERIES DEPT | | No of outreach programmes | 112 | 150 | 175 | 188 | 210 |
| **6. Cross cutting issues** | | | | | | | | | | | | |
| **Component 6.1: Mainstreaming of gender and HIV/AIDS** | | | | | | | | | | | | |
| HIV related morbidity and mortality minimized | Proportion of staff accessing supplementary feeding at workplace | 3.4% | 7.0% | Increase capacity of staff and farmer to mainstream gender, HIV and AIDS in ASWAP interventions | DAES/ OPC | H | Number of staff trained | 963 | 1,200 | 1,600 | 2,000 | 2,400 |

| Strategic Objective | Final outcome indicator | Status 2010/11 | Target 2014/15 | Action | Resp. Inst. | Priority | Output indicator | Status 2010/11 | Target 2011/12 | Target 2012/13 | Target 2013/14 | Target 2014/15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Promote accountability to gender, HIV and AIDS mainstreaming among ASWAp implementers | DAES/ OPC | M | Policies reviewed | | 1 | 2 | 2 | 2 |
| | Reduced staff attrition | | | Sensitise staff on HIV and AIDS | DAES/ OPC | M | Number of sessions conducted | | 200 | 200 | 200 | 200 |
| Gender disparities reduced | % of vulnerable groups (incl. women, youth, elderly) accessing FISP | 47% | 50% | Generate and disseminate knowledge on gender, HIV and AIDS in the agricultural sector | DAES/ OPC | M | Number of action research studies conducted | - | 3 | 3 | 3 | 4 |
| | % of vulnerable people involved in decision making | 30% | 50% | Develop and implement visibility strategy for gender, HIV and AIDS mainstreaming | DAES/ OPC | L | Visibility strategy developed | - | 1 | 1 | 1 | 1 |
| | | | | Establish focal points for gender and HIV/AIDS | DAES/ OPC | L | Number of focal points established | - | 2 | - | - | - |
| | | | | | DAES/ OPC | L | Number of farmer groups trained | 963 | 500 | 550 | 650 | 700 |

## APPENDIX 4: DETAILED BUDGET (US$)

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| **Focus Area 1: Food Security and Risk Management** | | | | | | | | | | |
| **Component 1.1: Maize self-sufficiency** | | | | | | | | | | |
| a. Increase maize productivity | Average maize yield (MT/ha) increased | Implement the input (maize seed + fertilizer) subsidy programme | DAPS/ DCP | Number of farmers receiving vouchers for fertilizer subsidy | 50 | 80,000,000 | 80,000,000 | 80,000,000 | 80,000,000 | 320,000,000 |
| | | | | Number of farmers receiving vouchers for maize seed subsidy | 25 | 40,000,000 | 40,000,000 | 40,000,000 | 40,000,000 | 160,000,000 |
| | | | DAPS/ DCP | Recurrent cost for Input subsidy programme | 35,000,000 | 35,000,000 | 35,000,000 | 35,000,000 | 35,000,000 | 140,000,000 |
| | | Promote good agricultural practices (GAP) | DAES | Number of farmer groups involved in improved seed multiplication | 100 | 10,000 | 12,000 | 14,000 | 16,000 | 52,000 |
| | | Train staff in seed mutliplication | DCP | Number of staff trained | 500 | 150,000 | 200,000 | 250,000 | 300,000 | 900,000 |
| | | Train farmers in seed mutliplication | DCP | Number of farmers trained | 100 | 100,000 | 200,000 | 300,000 | 400,000 | 1,000,000 |
| b. Decrease on farm pre and post harvest losses | % of post-harvest losses | Fabricate and distribute mettallic silos | DCP | Number of silos fabricated and distributed | 100 | 68,000 | 81,000 | 97,500 | 117,500 | 364,000 |
| | | Train local artisans in metallic silos fabrication | | Number of artisans trained | 100 | 28,000 | 27,000 | 27,000 | 27,000 | 109,000 |
| | | Construct cement silos for seeds | DCP | No. of cement silos constructed | 350 | 35,000 | 59,500 | 75,250 | 87,500 | 257,250 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Strengthen migratory pests monitoring and control | DCP | No. of hectares monitored and controlled | 4 | 6,816,200 | 6,812,000 | 6,814,000 | 6,816,000 | 27,258,200 |
| | | | DCP | Number of staff trained | 500 | 150,000 | 200,000 | 250,000 | 300,000 | 900,000 |
| | | | DCP | Number of farmers trained | 100 | 100,000 | 200,000 | 300,000 | 400,000 | 1,000,000 |
| **Sub-total Component 1.1** | | | | | | **162,457,200** | **162,791,500** | **163,127,750** | **163,464,000** | **651,840,450** |
| **Component 1.2: Diversification of food production and dietary diversification for improved nutrition at household level with focus on Crops, Livestock, and Fisheries** | | | | | | | | | | |
| Increase legumes and pulses productivity | Groundnut (MT/ha) productivity increased | Promote Input subsidy for legume seeds | DAPS/ DCP | Number of farmers receiving voucher for legume seeds subsidy | 12 | 19,200,000 | 19,200,000 | 19,200,000 | 19,200,000 | 76,800,000 |
| | Beans productivity | Promote legumes community seed banks | DCP/DARS | No of community legumes seed banks established | 500 | 25,000 | 50,000 | 75,000 | 100,000 | 250,000 |
| | Soy beans | Promote new varieties and good agricultural practices for legumes | DCP/DAES | No.of related technical messages developed | 800 | 1,600 | 1,600 | 1,600 | 1,600 | 6,400 |
| | Pigeon peas | Increase distribution of improved pulse seed | DCP | Quantities of basic pulse seed produced (MT) | 10,000 | 3,000,000 | 3,000,000 | 3,000,000 | 3,000,000 | 12,000,000 |
| | | | DCP | Number of farmer groups involved in pulse seed multiplication | 500 | 5,000 | 10,000 | 15,000 | 20,000 | 50,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase hh horticultural crops productivity | Average plantain yield increased (mt/ha) | Promote dissemination of improved technologies in horticulture | DCP | Number of staff being trained in horticulture technologies | 200 | 70,000 | 90,000 | 110,000 | 120,000 | 390,000 |
| | Leafy vegetables (MT/ha) | Create enabling policy and regulatory environment for Horticulture | DCP | Number of policies | 30,000 | - | 30,000 | - | - | 30,000 |
| | Pineapple (mt/ha) | | DCP/DAES | Number of fruit trees propagated through community or public nurseries | 0.1 | 600,000 | 800,000 | 1,000,000 | 1,200,000 | 3,600,000 |
| | Monetary Value of horticulture crops produce (million US$) | | DCP/ DAES | No. of backyard gardens promoted | 60 | 30,000 | 36,000 | 42,000 | 48,000 | 156,000 |
| | Prevalence Banana Bunchy Top (%) | Sensitize farmers on the presence of the disease and its control measures | DCP | Number of sensititazation meetings | 200 | 8,000 | 48,000 | - | - | 56,000 |
| | | Develop and desseminate messages on the impact of banana bunchy top disease | DCP | Number of posters developed and dessiminated | 1 | 800,000 | 800,000 | - | - | 1,600,000 |
| | | Demonstrate corrective community action | DCP | Number of demonstrations | 300 | 24,000 | 60,000 | - | - | 84,000 |
| | | | DCP | Number of mats destroyed | 50 | 300,000 | 350,000 | 400,000 | 500,000 | 1,550,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Propagate banana suckers using split corm method and distribute to affected farmers | DCP | Number of suckers propagated and distributed | 10 | 40,000 | 50,000 | 80,000 | 100,000 | 270,000 |
| Increase root and tubers crops productivity in relevant areas | Average cassava yield increased (MT/ha) | Multiplication and distribution of cassava and sweet potato improved planting materials | DCP | Quantities of cassava improved planting material (bundles) distributed | 0 | 97,500 | 100,500 | 103,500 | 106,500 | 408,000 |
| | Average sweet potato yield increased (MT/ha) | | DCP | Quantities of sweet potato improved planting material (bags) distributed | 0 | 48,600 | 50,400 | 51,600 | 53,400 | 204,000 |
| Increase HH poultry meat and egg productivity | Number of chickens produced at national level increased | Provide vaccines / vaccination services against Newcastle disease | DAHLD | Number of NCD vaccine doses procured (‘000) | 2 | 44,000 | 132,000 | 210,000 | 300,000 | 686,000 |
| | Poultry mortality (%) | Multiplying and de-worming of guinea fowls | DAHLD | No. of poultry groups supported | 300 | 16,800 | 16,800 | 16,800 | 16,800 | 67,200 |
| | National flock of guinea fowls increased (million) | | DAHLD | No. of guinea fowls de-wormed and vaccinated | 0 | 16,500 | 20,250 | 24,750 | 30,000 | 91,500 |
| | Egg production (MT/year) | Increase availability of well trained livestock extension workers | DAHLD | Number of AVOs trained | 120 | 24,000 | 30,000 | 30,000 | 60,000 | 144,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Increase provision of veterinary services for poultry | DAHLD | Undertake refresher courses for Aides on poultry production and marketing | 120 | 24,000 | 24,000 | 24,000 | 24,000 | 96,000 |
| | | Establish mini hatcheries | DAHLD | No. of mini hatcheries established | 25,000 | 200,000 | 175,000 | 175,000 | 150,000 | 700,000 |
| | | Improve poultry feed quality | DAHLD | Number of farmers receiving information on adapted poultry feed training | 150 | 60,000 | 198,000 | 242,400 | 111,600 | 612,000 |
| | | | DAHLD | Number of mini feed mills established | 7,200 | 7,200 | 21,600 | 21,600 | 28,800 | 79,200 |
| Increase small stock productivity (goat) | Increased goat herd size (million) | Promote goat re-stocking and pass-on programmes | DAHLD | Number of farmer groups assisted with breeder goats | 1,450 | 290,000 | 290,000 | 290,000 | 290,000 | 1,160,000 |
| | | | DAHLD | Number of goats de-wormed | 0 | 1,050,000 | 1,260,000 | 1,260,000 | 1,620,000 | 5,190,000 |
| | | Training of farmers in goat management | DAHLD | No of farmers groups trained | 100 | 10,000 | 15,000 | 25,000 | 50,000 | 100,000 |
| | | Introduce drug-box services | DAHLD | No. of groups supported | 10 | 580 | 1,160 | 2,320 | 4,640 | 8,700 |
| | Increased goat milk production (L/day) | Promote keeping of improved dairy goat breeds | DAHLD | No. of organized groups participated in pass-on-programme | 12,000 | 120,000 | 240,000 | 420,000 | 420,000 | 1,200,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | Increased rabbit herd size (million) | Promote rabbit re-stocking and pass-on programmes | DAHLD | Number of groups supported with rabbit breeds | 200 | 6,000 | 6,000 | 6,000 | 6,000 | 24,000 |
| Increase hh dairy production | Increased cow milk prod. (MT) | Import dairy animals | DAHLD | No of dairy animals | 2,200 | 2,200,000 | 2,640,000 | 3,080,000 | 3,740,000 | 11,660,000 |
| | | Intensify cross breeding programmes | DAHLD | No of dairy animals | 5 | 12,500 | 40,000 | 55,000 | 22,500 | 130,000 |
| | | Increase animal feed/fodder production and conservation | DAHLD | Silage tonnage achieved | 5 | 90,000 | 300,000 | 400,000 | 175,000 | 965,000 |
| | | Intensify disease control programmes,vaccination and dipping | DAHLD | No of dairy animals de-wormed | 10 | 300,000 | 350,000 | 450,000 | 500,000 | 1,600,000 |
| | | TB testing | DAHLD | No of dairy animals tested | 2 | 50,000 | 60,000 | 70,000 | 80,000 | 260,000 |
| | | Mastitis control | DAHLD | No of dairy animals treated | 2 | 20,000 | 20,000 | 30,000 | 30,000 | 100,000 |
| Increase hh pig productivity | Increased pork production (MT) | Source genetically superior breeding stock | DAHLD | No of pigs sourced | 950 | 760,000 | 950,000 | 1,235,000 | 1,425,000 | 4,370,000 |
| | | Intensity on-farm feed production | DAHLD | No of farmers trained | 10 | 25,000 | 30,000 | 40,000 | 50,000 | 145,000 |
| | Reduced pig mortality (%) | De-worming and vaccination of pigs against swine fever | DAHLD | No of healthy pigs | 2 | 2,000,000 | 2,800,000 | 3,400,000 | 4,000,000 | 12,200,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increased aquaculture productivity | Increased pond aquaculture production (Kg/ha) | Encourage adoption of appropriate technologies on off-shore fishing practices | FISHERIES DEPT | No. of village fish farming schemes established,training and materials included | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 40,000 |
| | | Promote improved fingerlings and fish feed production at smallholder level | FISHERIES DEPT | Number of fish ponds constructed | 2,500 | 625,000 | 750,000 | 750,000 | 875,000 | 3,000,000 |
| | | | FISHERIES DEPT | Number of fingerlings and fish feed producers trained | 750 | 75,000 | 112,500 | 135,000 | 187,500 | 510,000 |
| | | | FISHERIES DEPT | Number of feed formulae developed | 10,000 | 20,000 | 20,000 | 20,000 | 20,000 | 80,000 |
| | | Restocking of dams in rural areas | FISHERIES DEPT | Number of dams restocked | 10,000 | 300,000 | 600,000 | 600,000 | 650,000 | 2,150,000 |
| | | Promote Integrated Agriculture Aquaculture production | FISHERIES DEPT | No. of farmers practicing IAA | 1,000 | 1,100,000 | 1,400,000 | 1,800,000 | 1,800,000 | 6,100,000 |
| Nutrition improved | Proportion of farm families consuming dietary diversification | Develop and disseminate guidelines related to food processing, storage, utilization | DAES/ OPC | Guidelines and standardized messages developed and disseminated | 20,000 | 60,000 | 60,000 | 60,000 | 60,000 | 240,000 |
| | Number of food crops grown by Hh | Develop and disseminate IEC materials on same | DAES/ OPC | IEC materials developed and disseminated via promotion campaigns | 30,000 | 90,000 | 120,000 | 150,000 | 180,000 | 540,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Train Extension staff (TOT) and households | DAES/ OPC | No. farmers trained use of equipment and some recipes | 10 | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | 6,400,000 |
| | | | DAES/ OPC | No. extension staff groups trained (AEDOs) | 5,000 | 500,000 | 500,000 | 500,000 | 500,000 | 2,000,000 |
| | | Conduct trainings for service providers | DAES/ OPC | Number of training sessions conducted | 15,000 | 15,000 | 15,000 | 30,000 | 30,000 | 90,000 |
| | | Develop and disseminate recipes that use indigenous food to diversify diets | DAES/ OPC | No. of recipes technologies developed and disseminated | 15,000 | 15,000 | 15,000 | 30,000 | 30,000 | 90,000 |
| | | Conduct consumer education on fortified foods | DAES/ OPC | Consumer education sessions conducted | 15,000 | 15,000 | 30,000 | 30,000 | 15,000 | 90,000 |
| | | Conduct dietary monitoring and assessment | DAES/ OPC | Monitoring and assessments conducted | 15,000 | 60,000 | 60,000 | 60,000 | 60,000 | 240,000 |
| **Sub-total Component 1.2** | | | | | | **36,061,280** | **39,588,810** | **41,361,570** | **43,601,340** | **160,613,000** |
| **Component 1.3. Sustainable food availability at national level** | | | | | | | | | | |
| Risk management for food stability | Avoid national energy food gap | Improve management of the SGR & reduce storage losses | DAPS | Qty of grain stored in SGR (mt)<br>Unit cost of storage US$/MT | 15 | 1,050,000 | 1,200,000 | 1,350,000 | 1,500,000 | 5,100,000 |
| | | Establish a warehouse receipt system | DAPS | Volume of maize stored under the warehouse receipt system (MT) | 20 | 200,000 | 400,000 | 600,000 | 800,000 | 2,000,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Promote village grain bank schemes | DAES | Number of village bank schemes operated | 2,500 | 62,500 | 75,000 | 100,000 | 112,500 | 350,000 |
| | | Establish a maize market insurance system | PS | Premium paid for insurance | 6,000,000 | - | 6,000,000 | - | - | 6,000,000 |
| | | Strengthen weather forecasting capability for agriculture | CAETS/ MET | Strong weather stations in all EPAs, districts and ADDs | 5,000 | 250,000 | 375,000 | 500,000 | 625,000 | 1,750,000 |
| | | Carry monitoring programmes on fisheries resources | FISHERIES DEPT | No of monitoring surveys | 3,750 | 3,750 | 3,750 | 3,750 | 3,750 | 15,000 |
| | | | | No. of data sets produced | | - | - | - | - | - |
| | | Carry out enforcement programmes | FISHERIES DEPT | No of patrols conducted | 3,000 | 240,000 | 240,000 | 240,000 | 240,000 | 960,000 |
| | | Develop area-specific fishery management plans | FISHERIES DEPT | No. of management plan approved | 2,500 | 7,500 | 2,500 | 2,500 | 2,500 | 15,000 |
| | | Encourage establishment of village fish farming schemes | FISHERIES DEPT | No. of village fish farming schemes established | 10,000 | 10,000 | 10,000 | - | 10,000 | 30,000 |
| | | | | No of fish ponds constructed | 2,500 | 750,000 | 1,875,000 | 375,000 | 625,000 | 3,625,000 |
| **Sub-total Component 1.3** | | | | | | **2,573,750** | **10,181,250** | **3,171,250** | **3,918,750** | **19,845,000** |
| **Total Focus Area 1** | | | | | | **201,092,230** | **212,561,560** | **207,660,570** | **210,984,090** | **832,298,450** |
| **Focus Area 2: Commercial Agriculture and market development** | | | | | | | | | | |
| **Component 2.1. Agricultural export for improved balance of trade and income** | | | | | | | | | | |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase total value of agricultural exports | Volume of exports (million US$) | Promote contract farming and producers' organizations | DCP/ DAPS | Number of FO engaging in contract farming for cash crops | 2,000 | 30,000 | 60,000 | 80,000 | 150,000 | 320,000 |
| | Increased export of Cotton | Train Prod. Org. members in agribusiness skills | DAPS | Number of FO members trained in agribusiness skills (management, accounting, quality control) | 150 | 750,000 | 750,000 | 750,000 | 750,000 | 3,000,000 |
| | Increased export of Sugar (MT) | Strengthen managerial and technical capacity of producer organizations. | DAPS | Number of FO members trained in quality control: post harvest grading/handling techniques | 100 | 500,000 | 500,000 | 500,000 | 500,000 | 2,000,000 |
| | Increased export of Tobacco (MT) | Promote dialogue between value chain stakeholders | DAPS | Number of value chain coordination mechanisms set-up | 50,000 | 100,000 | 200,000 | 300,000 | 350,000 | 950,000 |
| | Increased export of Tea (MT) | Strengthen capacity of value chain players | DAPS | Number of value chain stakeholders trained on value chain development, by commodity | 500 | 75,000 | 75,000 | 75,000 | 75,000 | 300,000 |
| | | | MoTI | Number of new agri-food export contracts facilitated by MEPC | 1,000 | 2,000 | 15,000 | 25,000 | 35,000 | 77,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Promote exports through market research studies export fair | DAPS | Number of commodity strategies developed | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 400,000 |
| | | | DAPS | Number of export trade studies/ analysis, by commodity | 50,000 | 250,000 | 250,000 | 250,000 | 250,000 | 1,000,000 |
| Increased unit value of agricultural export ('000 MK/MT) by commodity | Increased unit value of tobacco | Improve compliance to market standards (grading, packaging) | DAPS/DAES | Number of value chain players trained in commodity handling, processing storage | 1,000 | 50,000 | 50,000 | 100,000 | 100,000 | 300,000 |
| | Increased unit value of cotton | Increase quality certification and regulatory services | DARS/ DAHLD | Number of product accreditation (PA) quality assurance (QA) and certification services (CS) | 10,000 | 50,000 | 50,000 | 50,000 | 50,000 | 200,000 |
| | | | MOTI/BOS | Number of quality assurance certificates issued | 75 | 375,000 | 375,000 | 375,000 | 375,000 | 1,500,000 |
| | | Provide technical support to enhance output quality (seed) | ARET | Quantity of improved tobacco certified seed distributed (Kg) | 200 | 40,000 | 60,000 | 80,000 | 100,000 | 280,000 |
| | | | TRF | Area replanted with clonal tea bushes (ha) | 2,500 | 62,500 | 62,500 | 62,500 | 62,500 | 250,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cotton Companies | Quantities of improved cotton seed (MT) | 275 | 687,500 | 825,000 | 962,500 | 1,100,000 | 3,575,000 |
| | | Promote mechanisation | DCP | No. of ha under tractor hire scheme | 250 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 10,000,000 |
| | | | DCP | No of ha under oxenisation | 130 | 2,160,000 | 2,160,000 | 2,160,000 | 2,160,000 | 8,640,000 |
| | | | DCP | No. of hand planks distributed | 50 | 600,000 | 1,750,000 | 2,500,000 | 3,000,000 | 7,850,000 |
| | | Promote labour saving technology | DCP | Number of sprayer | 100 | 20,000 | 20,000 | 20,000 | 20,000 | 80,000 |
| | | | DCP | Number of hactare under herbicides application | 100 | 200,000 | 200,000 | 200,000 | 200,000 | 800,000 |
| | | Conduct review meeting on farm mechanisation and oxenisation efficiency in agriculture | DCP | Number of review meetings | 20000 | 80,000 | 80,000 | 80,000 | 80,000 | 320,000 |
| **Sub-total Component 2.1** | | | | | | **8,632,000** | **10,082,500** | **11,170,000** | **11,957,500** | **41,842,000** |
| **Component 2.2. Commercial production and agro-processing for import substitution and domestic market development** | | | | | | | | | | |
| Increase volume of high-value commodities for agro-processing | Increased milk production and processing (MT) | Provide dairy inputs and services | DAHLD | Number of high productive dairy heifers for demonstration and dissemination | 2,200 | 2,750,000 | 2,750,000 | 2,750,000 | 2,750,000 | 11,000,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DAHLD | Number of diary farmers trained in fodder production | 100 | 200,000 | 250,000 | 300,000 | 400,000 | 1,150,000 |
| | | | DAHLD | Number of farmers receiving advice on dairy husbandry | 100 | 400,000 | 500,000 | 650,000 | 850,000 | 2,400,000 |
| | | | DAHLD | Number of min dairy processors/cooling facilities provided on pilot basis to selected MBG | 65,000 | 65,000 | 130,000 | 130,000 | 65,000 | 390,000 |
| | Increased beef herd size (million) | Rehabilitate dip-tank infrastructure and strengthen technical and O&M capacities for their management | DAHLD | Number of cattle treated against ticks | 2 | 900,000 | 1,000,000 | 1,100,000 | 1,200,000 | 4,200,000 |
| | | | DAHLD | Number of dip tanks rehabilitated | 3,570 | 357,000 | 357,000 | 357,000 | 1,428,000 | 2,499,000 |
| | | | DAHLD | Number of dip-tank users management groups established and trained | 1,700 | 170,000 | 170,000 | 170,000 | 680,000 | 1,190,000 |
| | | Conduct preventive vaccination (foot and mouth, anthrax, black leg) for beef production | DAHLD | Number of animals vaccinated against FMD | 2 | 380,000 | 400,000 | 420,000 | 430,000 | 1,630,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DAHLD | No of animals vaccinated against Black leg | 2 | 500,000 | 600,000 | 700,000 | 800,000 | 2,600,000 |
| | | | DAHLD | Number of animals vaccinated against LSD | 2 | 500,000 | 600,000 | 700,000 | 800,000 | 2,600,000 |
| | | Intensify MBGs/Cooperatives | DAHLD | No of MBGs | 2,500 | 37,500 | 100,000 | 160,000 | 70,000 | 367,500 |
| | Increased red meat production and processing (MT) | Promote stall feeding | DAHLD | No of animals. | 2,200 | 660,000 | 660,000 | 880,000 | 1,320,000 | 3,520,000 |
| | | Establish organized markets | DAHLD | No of markets | 15,000 | 15,000 | 60,000 | 75,000 | 60,000 | 210,000 |
| | Increased white meat production, processing | Train local broiler and pig feed formulation | DAHLD | No of farmers | 150 | 67,500 | 195,000 | 255,000 | 112,500 | 630,000 |
| | Increased egg prod. (MT) | promote local feed production and formulation | DAHLD | No of farmers | 150 | 37,500 | 127,500 | 165,000 | 75,000 | 405,000 |
| | Increased collection and quality of hides | Enhance information on hides and skin trade | DAHLD | No of technical messages | 1,000 | 25,000 | 25,000 | 25,000 | 25,000 | 100,000 |
| | Increased collection and quality of skins | Establish rural/mini abattoirs | DAHLD | No of rural abattoirs | 50,000 | 300,000 | 200,000 | 300,000 | 200,000 | 1,000,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | Increased fish catch landing (MT) | Encourage adoption of appropriate on/off-shore fishing practices | FISHERIES DEPT | Number of fishermen receiving info about appropriate fishing practice | 150 | 37,500 | 37,500 | 37,500 | 37,500 | 150,000 |
| | | | FISHERIES DEPT | Number of off-shore fishing technology | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 400,000 |
| | | | FISHERIES DEPT | Number of fishers receiving information and training about off-shore fishing | 300 | 150,000 | 150,000 | 210,000 | 270,000 | 780,000 |
| | | Develop area-specific fishery management plans | FISHERIES DEPT | Number of management plan approved | 50,000 | 150,000 | 200,000 | 200,000 | 200,000 | 750,000 |
| | | Promote adoption of sanitarian standards and hygiene for fish and fish products | FISHERIES DEPT | No of fish handling and processing facilities constructed | 75,000 | 675,000 | 675,000 | 375,000 | 225,000 | 1,950,000 |
| | | | | No of processors and fishers trained | 150 | 37,500 | 45,000 | 52,500 | 60,000 | 195,000 |
| | | Promote improved fingerlings and fish feed production at smallholder level | FISHERIES DEPT | No of feed formulations produced | 10,000 | 20,000 | 10,000 | 10,000 | 10,000 | 50,000 |
| | | | | No of fingerlings produced | 5 | 14,000,000 | 14,000,000 | 15,000,000 | 20,000,000 | 63,000,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No. of hatcheries operational | 1,750 | 8,750 | 8,750 | 8,750 | 8,750 | 35,000 |
| | | | | Number of certified feed and fingerling producers | 750 | 22,500 | 26,250 | 30,000 | 33,750 | 112,500 |
| | | Encourage adoption of appropriate technologies on off-shore fishing | FISHERIES DEPT | No of offshore fishing technologies adopted | 50,000 | 100,000 | 50,000 | - | 50,000 | 200,000 |
| Increased unit value of commodities (financial & non-financial support services) | Household agricultural income (USD/year) | Promote group and individual small scale agro-processing (e.g. horticulture, cassava, potato, pulses) | DCP | Number of cassava and sweet potato processing groups set up | 500 | 35,000 | 40,000 | 45,000 | 50,000 | 170,000 |
| | Increased red meat production and processing (MT) | Promote stall feeding | DAHLD | No of animals. | 2,200 | 660,000 | 660,000 | 880,000 | 1,320,000 | 3,520,000 |
| | | Establish organized markets | DAHLD | No of markets | 15,000 | 15,000 | 60,000 | 75,000 | 60,000 | 210,000 |
| | Increased white meat production, processing | Train local broiler and pig feed formulation | DAHLD | No of farmers | 150 | 67,500 | 195,000 | 255,000 | 112,500 | 630,000 |
| | Increased egg prod. (MT) | promote local feed production and formulation | DAHLD | No of farmers | 150 | 37,500 | 127,500 | 165,000 | 75,000 | 405,000 |
| | Increased collection and quality of hides | Enhance information on hides and skin trade | DAHLD | No of technical messages | 1,000 | 25,000 | 25,000 | 25,000 | 25,000 | 100,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | Increased collection and quality of skins | Establish rural/mini abattoirs | DAHLD | No of rural abattoirs | 50,000 | 300,000 | 200,000 | 300,000 | 200,000 | 1,000,000 |
| | Increased fish catch landing (MT) | Encourage adoption of appropriate on/off-shore fishing practices | FISHERIES DEPT | Number of fishermen receiving info about appropriate fishing practice | 150 | 37,500 | 37,500 | 37,500 | 37,500 | 150,000 |
| | | | FISHERIES DEPT | Number of off-shore fishing technology | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 400,000 |
| | | | FISHERIES DEPT | Number of fishers receiving information and training about off-shore fishing | 300 | 150,000 | 150,000 | 210,000 | 270,000 | 780,000 |
| | | Develop area-specific fishery management plans | FISHERIES DEPT | Number of management plan approved | 50,000 | 150,000 | 200,000 | 200,000 | 200,000 | 750,000 |
| | | | DCP | Number of cassava and sweet potato processing equipment distributed | 2,500 | 110,000 | 209,000 | 286,000 | 330,000 | 935,000 |
| | | Dessimanate information on small scale crop processing | DCP | Number of farmers receiving information about transfomation technologies for root crops | 35 | 175,000 | 175,000 | 350,000 | 350,000 | 1,050,000 |
| **Sub total Component 2.2** | | | | | | **24,528,250** | **25,606,000** | **28,089,250** | **35,390,500** | **113,614,000** |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Component 2.3 Input and output market development through Private public partnership | | | | | | | | | | |
| | Reduced spatial and temporal variability of prices | Expand market information system | | Number of MIS bulletin | 1,000 | 50,000 | 50,000 | 50,000 | 50,000 | 200,000 |
| | | | | Number of radio programes prepared on MIS | 1,000 | 5,000 | 5,000 | 5,000 | 5,000 | 20,000 |
| | | Built and rehabilate market infrastructure | | Number of wholesale markets built | 20,000 | 100,000 | 100,000 | 100,000 | 100,000 | 400,000 |
| | | | | Number of new collection points built | 1,000 | 25,000 | 25,000 | 25,000 | 25,000 | 100,000 |
| | | | | Number of retail markets rehabilated | 15,000 | 150,000 | 150,000 | 150,000 | 150,000 | 600,000 |
| | Access to credit by small and medium scale agro-processors and traders | Financial leverage systems for private agro business development (Matching grants) | | Number of systems developed and tested | 1,500,000 | - | 1,500,000 | - | - | 1,500,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Provide non financial business services and capacity strengthening to small and medium scale agro-processors | | Number of agro-processors trained | 5,000 | 25,000 | 25,000 | 50,000 | 100,000 | 200,000 |
| | | | | Number of medium agroproducers trained | 5,000 | 10,000 | 50,000 | 100,000 | 200,000 | 360,000 |
| **Sub-total Component 2.3** | | | | | | **365,000** | **1,905,000** | **480,000** | **630,000** | **3,380,000** |
| **Sub-total Focus Area 2** | | | | | | **33,525,250** | **37,593,500** | **39,739,250** | **47,978,000** | **158,836,000** |
| **Focus Area 3: Sustainable Land and Water Management** | | | | | | | | | | |
| **Component 3.1: Sustainable agricultural land management** | | | | | | | | | | |
| Increase area under sustainable land management | Agricultural area (ha) under SLM increased | Promote technologies that maintain soil fertility and water management | DLRC | No of groups receiving CA advice and planting material | 500 | 140,000 | 280,000 | 560,000 | 620,000 | 1,600,000 |
| | Estimated total soil loss (MT/ha/year) | | DLRC | No of hectares under conservation agriculture | 150 | 1,500,000 | 2,625,000 | 3,750,000 | 11,625,000 | 19,500,000 |
| | | | DLRC | No of hectares under agro-forestry | 500 | 5,000,000 | 7,500,000 | 10,000,000 | 12,500,000 | 35,000,000 |
| | | Promote community-based dambo management | DLRC | Number of dambos (10ha) with agreement for sustainable land use | 400 | 10,800 | 21,600 | 32,400 | 43,200 | 108,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Prevent river banks degradation | DLRC | Length of streams/river bank protected for sustainable land use (km) | 580 | 203,000 | 203,000 | 203,000 | 203,000 | 812,000 |
| **Sub-total component 3.1** | | | | | | **6,853,800** | **10,629,600** | **14,545,400** | **24,991,200** | **57,020,000** |
| **Component 3.2: Sustainable agricultural water management** | | | | | | | | | | |
| Increase area (ha) under sustainable irrigation through GBI | Area under sustainable irrigation (ha) increased | Rehabilitate existing irrigation schemes and construct new ones through the Greenbelt Initiative | DOI | Number of hectares under rehabilitated irrigation schemes | 3,000 | 3,000,000 | 3,000,000 | 3,000,000 | 3,000,000 | 12,000,000 |
| | | Strengthen technical capacity for irrigation management | DOI | Number farmer groups receiving advice about irrigation techniques | 4,000 | 520,000 | 560,000 | 600,000 | 640,000 | 2,320,000 |
| | No of farmers growing irrigated crops | Develop new irrigation schemes with appropriate systems | DOI | Number of hectares under new irrigation schemes | 9,000 | 90,000,000 | 90,000,000 | 90,000,000 | 90,000,000 | 360,000,000 |
| | | Establish rainwater harvesting systems (dams, box ridges) | DOI | Number of dams constructed | 280,000 | 840,000 | 840,000 | 840,000 | 840,000 | 3,360,000 |
| | | | DOI | Number of dams rehabilitated | 150,000 | 750,000 | 750,000 | 750,000 | 750,000 | 3,000,000 |
| | | Promote water users associations | DOI | Number of Water Users Associations formed | 2,200 | 132,000 | 220,000 | 220,000 | 330,000 | 902,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DOI | Number of WUA trained in technical and managerial capacities | 7,200 | 468,000 | 504,000 | 540,000 | 576,000 | 2,088,000 |
| | | Stocking of dams in rural areas and irrigation schemes | FISHERIES DEPT | Number of dams stocked | 175,000 | 1,050,000 | 1,750,000 | 2,450,000 | 3,150,000 | 8,400,000 |
| **Sub-total component 3.2** | | | | | | **186,760,000** | **214,624,000** | **242,400,000** | **261,286,000** | **905,070,000** |
| **Sub-total Focus Area 3** | | | | | | **193,613,800** | **225,253,600** | **256,945,400** | **286,277,200** | **962,090,000** |
| **4. Key support service: Technology generation and dissemination** | | | | | | | | | | |
| **Component 4.1: Results and market oriented research on priority technology needs and provision of technical and regulatory services** | | | | | | | | | | |
| Increase maize productivity | | Develop improved varieties | DARS | Number of improved varieties released | 10,000 | 20,000 | 20,000 | 10,000 | 10,000 | 60,000 |
| | | Multiply breeder seed | DARS | Quantities of breeder seed multiplied (Kg) | 10 | 50,000 | 60,000 | 70,000 | 80,000 | 260,000 |
| | | Increase distribution of improved maize seed | DARS | Quantities of maize basic seed produced (MT) | 5,000 | 50,000 | 75,000 | 100,000 | 125,000 | 350,000 |
| | | | DARS | Quantities of commercial improved seed certified (MT) | 50 | 50,000 | 75,000 | 100,000 | 125,000 | 350,000 |
| Decrease on farm pre and post harvest losses | | Identify integrated post harvest technologies | DARS | No of new post harvest technologies identified and approved | 20,000 | 60,000 | 80,000 | 80,000 | 100,000 | 320,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase legumes and pulses productivity | | Develop new pulses varieties | DARS | No. of new pulses varieties released | 8,000 | - | 24,000 | 40,000 | 8,000 | 72,000 |
| | | Multiply breeder and basic pulse seed | DARS | Quantities of breeder pulses seed produced (MT) | 5,000 | 35,000 | 45,000 | 45,000 | 45,000 | 170,000 |
| | | | DARS | Qty of certified commercial pulses seed (MT) | 75 | 5,625 | 6,750 | 7,875 | 9,000 | 29,250 |
| | | Conduct pulses seed quality control | DARS | Number of hectares inspected | 50 | 35,000 | 40,000 | 50,000 | 50,000 | 175,000 |
| Increase HH horticultural crops productivity | | Develop improved horticultural technologies | DARS | Number of technical messages released related to horticulture | 800 | 1,600 | 2,400 | 3,200 | 4,000 | 11,200 |
| | | | DARS | Number of horticulture technologies released | 8,000 | 88,000 | 96,000 | 104,000 | 112,000 | 400,000 |
| | | | DARS | Number of farmers groups involved in horticulture seed multiplication | 300 | 2,400 | 2,700 | 3,000 | 3,300 | 11,400 |
| | | | DARS | Horticulture estimation methodology produced and distributed | 15,000 | - | - | 15,000 | - | 15,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increase root and tubers crops productivity | | Develop mother nurseries (vegetative multiplication) | DARS | Area under mother nurseries (ha) | 650 | 13,000 | 19,500 | 26,000 | 32,500 | 91,000 |
| | | | DARS | Construct/rehabilitat e tissue culture laboratory | 200,000 | 400,000 | - | 200,000 | - | 600,000 |
| Increased unit value of agricultural export ('000 MK/MT) by commodity | | Improve compliance to market standards (grading, packaging) | DARS | Number of SPS laboratories set up | 75,000 | 75,000 | 150,000 | 225,000 | 75,000 | 525,000 |
| | | | DARS | Number of import permits and export licenses issued | 25 | 100,000 | 125,000 | 150,000 | 175,000 | 550,000 |
| | | | DARS | Number of technicians/inspecto rs trained in SPS | 1,000 | 10,000 | 20,000 | 30,000 | 40,000 | 100,000 |
| | | Enhance border posts-produce inspections | DARS | Number of border posts infrastructure provided | 200,000 | 200,000 | 400,000 | 400,000 | - | 1,000,000 |
| Increase volume of high-value commodities for agro-processing | | Develop local dairy feed formulation | DARS | Number of local feed formulae developed | 40,000 | - | 40,000 | - | 40,000 | 80,000 |
| | | Develop local poultry feed formulae | DARS | Number of poultry feed technologies relased | 50,000 | - | 50,000 | 50,000 | - | 100,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Develop and adapt agro-processing technologies | DARS | Number of root crop agro-processing technologies released | 15,000 | - | 15,000 | - | 15,000 | 30,000 |
| Increase area (ha) under sustainable land management (SLM) | | Develop soil fertility and water conservation technologies | DARS | Number of Soil and water conservation technologies developed | 20,000 | 80,000 | 80,000 | 80,000 | 80,000 | 320,000 |
| Increase area (ha) under sustainable irrigation | | Rehabilitate existing irrigation infrastructure in research stations | DARS | Number of infrastructure rehabilitated | 100,000 | 400,000 | 200,000 | 300,000 | - | 900,000 |
| | | Encourage adoption of appropriate fish farming technologies | FISHERIES DEPT | No of fish farming technologies adopted | 1,500 | 3,000 | 3,000 | 3,000 | 3,000 | 12,000 |
| | | Promote exploratory surveys for under exploited fish stocks | FISHERIES DEPT | Tonnage of fish from off shore | 40 | 600,000 | 800,000 | 880,000 | 1,000,000 | 3,280,000 |
| **Sub-total 4.1** | | | | | | **2,278,625** | **2,429,350** | **2,972,075** | **2,131,800** | **9,811,850** |
| **Component 4.2: Efficient farmer-led extension and training services** | | | | | | | | | | |
| Increase maize productivity | Rate of adoption of priority technologies increased | Promote good agricultural practices (GAP) | DAES | Number of farmers receiving advice on maize varieties and GAP | 5 | 4,950,000 | 5,887,500 | 6,450,000 | 7,200,000 | 24,487,500 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Decrease on farm pre and post harvest losses | | Promote improved on-farm storage technologies (food, seed) | DAES | Number of farmers receiving training and tools on storage technologies (physical, chemical) | 8 | 7,920,000 | 9,420,000 | 10,320,000 | 11,520,000 | 39,180,000 |
| | | Disseminate messages on post harvest handling | DAES | Number of messages on post harvesting | 800 | 3,200 | 4,000 | 4,000 | 4,800 | 16,000 |
| Increase legumes and pulses productivity | | Promote new varieties and good agricultural practices for legumes | DAES | No. of farmers receiving advice on legumes GAP (incl. indigenous vegetables) | 7 | 4,900,000 | 5,600,000 | 6,300,000 | 7,000,000 | 23,800,000 |
| Increase HH horticultural crops productivity | | Promote dissemination of improved technologies in horticulture | DAES | Number of farmers being trained in horticulture techniques | 25 | 125,000 | 125,000 | 125,000 | 125,000 | 500,000 |
| Increase volume of high-value commodities for agro-processing | | Provide research, extension and marketing services for irrigation systems users | DAES | Number of farmer groups receiving advice on irrigation production and marketing of rice/horticulture | 100 | 120,000 | 140,000 | 160,000 | 180,000 | 600,000 |
| | | | DAES | Quantities of improved rice seed multiplied(MT) | 500 | 200,000 | 250,000 | 325,000 | 425,000 | 1,200,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Increased unit value of commodities (financial & non-financial support services) | | Increase knowledge and skills in agro-processing technologies | DAES | Number of extension staff trained in agro-processing technologies and equipment for activities | 10,000 | 3,000,000 | 2,500,000 | 1,000,000 | 1,000,000 | 7,500,000 |
| | | | DAES | Number of farmer groups trained in agro-processing | 5,000 | 500,000 | 750,000 | 500,000 | 120,000 | 1,870,000 |
| | | | DAES | Facilitate procurement of agro-processing machinery | 7,000 | 700,000 | 1,050,000 | 700,000 | 175,000 | 2,625,000 |
| **Sub-total 4.2** | | | | | | **22,418,200** | **25,726,500** | **25,884,000** | **27,749,800** | **101,778,500** |
| **Sub-total Key Support Service Research** | | | | | | **24,696,825** | **28,155,850** | **28,856,075** | **29,881,600** | **111,590,350** |
| **5. Key support service: Institutional strengthening and Capacity building** | | | | | | | | | | |
| **Component 5.1: Strengthening public management systems** | | | | | | | | | | |
| Strengthen mobility in the ministry and districts | | Undertake Procurement services | DFA | Number of motor vehicles procured | 70,000 | 2,800,000 | 2,800,000 | 2,800,000 | 2,800,000 | 11,200,000 |
| | | | DFA | Number of motor cycles procured | 7,000 | 700,000 | 700,000 | 700,000 | 700,000 | 2,800,000 |
| Improve infrastructure quantity and quality | | Rehabilitation of soil and seed laboratories at Chitedze | DARS/ DFA | Number of laboratories rehabilitated | 65,000 | - | 65,000 | 65,000 | 65,000 | 195,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Rehabilitate staff houses | DFA | Number staff houses and offices rehabilitated | 30,000 | 900,000 | 900,000 | 900,000 | 900,000 | 3,600,000 |
| | | Construct staff houses | DFA | Number of offices rehabilitated | 50,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 6,000,000 |
| | | Upgrade institutional training infrastructure | DFA | Number of training centres upgraded | 155,000 | 465,000 | 465,000 | 465,000 | 465,000 | 1,860,000 |
| | | Rehabilitation of district agriculture offices | DFA | Number staff houses and offices constructed | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 600,000 |
| | | Rehabilitation of buildings for weather observation stations | DFA | Number of buildings rehabilitated | 10,000 | 20,000 | 20,000 | 20,000 | 20,000 | 80,000 |
| Improve equipment quantity and quality | | Procure assorted office equipment | DFA | Assorted equipment procured | 20,000 | 500,000 | 500,000 | 500,000 | 500,000 | 2,000,000 |
| | | Procure Laboratory Research equipment | DFA | Laboratory Research equipment procured | 300,000 | - | 300,000 | - | 300,000 | 600,000 |
| | | Procure Weather stations Equipment and spare parts | DFA | Weather stations Equipment and spare parts procured | 7,000 | 700,000 | 700,000 | 350,000 | 350,000 | 2,100,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Procure Farm inputs and equipments for Land Conservation and crop Experimentation | DFA | Farm inputs procured | 200,000 | 200,000 | - | - | - | 200,000 |
| Improved monitoring of agricultural programs and interventions | | Develop and implement monitoring and reporting systems of ASWAp interventions | DAPS | Number of monitoring reports prepared and submitted timely | 181,818 | 354,107 | 244,212 | 727,273 | 800,000 | 2,125,592 |
| | | Conduct ASWAp reviews | | Review report | 84,848 | 0 | 0 | 339,394 | 373,333 | 712,727 |
| | | Production of the agricultural statistical bulletins | DAPS | Number of issues of statistical bulletins | 30,303 | 0 | 0 | 151,515 | 166,667 | 318,182 |
| | | Policy review and Preparation of development programmes under ASWAp | DAPS | Number of development programmes developed | 37,879 | 77,181 | 53,228 | 151,515 | 166,667 | 448,591 |
| Improved planning of agricultural programs and interventions | | Preparation of budgets and annual work plans for the Ministry | DAPS | Approved annual budget | 151,515 | 128,475 | 88,603 | 151,515 | 166,667 | 535,260 |
| | | expenditure tracking assessment | DAPS | Number expenditure tracking reports | 22,727 | 79,091 | 54,545 | 90,909 | 100,000 | 324,545 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Strengthen routine administarative, financial and human resource management functions | | Provide adequately for office services | DFA | Number of procurement reports | 757,576 | 2,180,771 | 1,503,980 | 3,030,303 | 3,333,333 | 10,048,387 |
| | | Keeping and maintaining financial records | DFA | Number financial management reports | 151,515 | 425,442 | 293,408 | 606,061 | 666,667 | 1,991,577 |
| | | Keeping and maintaining human resource records | DFA | Number human resource management reports | 151,515 | 338,867 | 233,701 | 606,061 | 666,667 | 1,845,295 |
| Reliable Network | | | ICT | | | | | | | |
| | | Rehabilitate and extend the current GWAN network infrastructure - Hdqrs | ICT | No of GWAN network points linked to main switch | 20 | 5,820.00 | 7,000 | 7,000 | 7,000 | 26,820 |
| | | Rehabilitate and extend the current LAN infrastructure in ADDs | ICT | No of intranet, internet and Email services users | 10 | 2,800.00 | 3,250 | 7,250 | 7,250 | 20,550 |
| | | Provide LAN infrastructure in Salima and Shire Valley ADDs | ICT | | 10 | - | 1,400 | 3,900 | 7,250 | 12,550 |
| Internet and Email Services using VPN technology | Increased access to and reduced costs of internet and email services | Connect all Adds to Ministry Hdqrs. | ICT | No of intranet, internet and Email services users extended | 210 | - | 11,760 | 26,670 | - | 38,430 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Provide Video conferencing services | ICT | A state of the art ICT, digitisation and Video Conferencing equipment | 10,500 | - | 10,500 | 10,500 | 52,500 | 73,500 |
| | | Provide secure internet and email facilities | ICT | No of computers installed with Anti-Virus | 10 | 1,420.00 | 1,500 | 7,250 | 7,250 | 17,420 |
| | Updated **www.moafsmw.org** website | Acquire Website Development consultancy services to redesign the current website | ICT | No of users accessing the website | 10 | - | 500 | 12,500 | 50,000 | 63,000 |
| | Effective network points | Procure network infrastructure accessories | DFA/Procurement | Number of users | 5 | 710.00 | 750.00 | 3,625.00 | 3,625.00 | 8,710 |
| | State of the art ICT equipment | Procure ICT equipment | DFA/Procurement | No of ADDs connected to VPN | 1275 | - | 3,825.00 | 5,100.00 | 2,550.00 | 11,475 |
| Digitisation of manual records | Manual documents turned into electronic records | Identify and classify important records | ICT/National Archives | No of institutions | 4200 | - | 8,400.00 | 21,000.00 | 29,400.00 | 58,800 |
| Agriculture Cadastral Management Information System (AGRICAMIS) | A geographically and integrated Agriculture Management Information System (AGMIS) | Collect data and conduct feasibility studies for AGRICAMIS, AGMIS and AMIS | ICT | No of visits | 3,575 | - | 10,725 | - | - | 10,725 |
| | | Analyse data and produce feasibility study report | ICT | No of reports | - | - | - | - | - | - |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Design and develop AGRICAMIS, AGMIS and AMIS | ICT | | - | - | - | - | - | - |
| | | Acquire AGRICAMIS, AGMIS and AMIS consultancy services | ICT | No of consultancies | | - | - | - | - | - |
| | | Install AGRICAMIS, AGMIS and AMIS | ICT | No of ADDs | | - | - | - | - | - |
| | | Link AGRICAMIS and AGMIS regional and international bodies | ICT | No of organisations accessing AGRICAMIS | 8,000 | - | - | 8,000 | 16,000 | 24,000 |
| HRMIS and IFMIS Rollout in ADDs | A timely updated HR database and production of payroll and financial documents | Install HRMIS and IFMIS | ICT | No of ADDs using HRMIS and IFMIS | 20,000 | - | - | 40,000 | 140,000 | 180,000 |
| Transport Information Management System Rollout in ADDs | Trucking of institutional vehicles | Install Transport Management Information System | ICT | No of ADDs using Transport Management Information System | 5,000 | - | - | 10,000 | 35,000 | 45,000 |
| Asset Management Informamtion System (AMIS) | An automated Ledger of the Ministry's assets | Install Asset Management Informamtion System (AMIS) | ICT | No of records computerised | 1,200 | - | - | 1,500,000 | 8,400,000 | 9,900,000 |
| | | Upgrade institutional infrastructure | FISHERIES DEPT | No of centres upgraded | 4,500 | 4,500.00 | 4,500.00 | 4,500.00 | 4,500.00 | 18,000 |
| | | | | No of laboratoy facilities developed | 3,500 | - | 3,500.00 | - | - | 3,500 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Procure lab, enforcement and research equipment | FISHERIES DEPT | Assorted equipment procured | 8,605 | - | - | - | - | - |
| | | | | No of research vessels and accessories procured | 250,000 | - | - | 250,000.00 | - | 250,000 |
| | | | | No of patrol boats procured | 105,000 | 105,000.00 | 105,000.00 | 735,000.00 | 210,000.00 | 1,155,000 |
| **Sub-total 5.1** | | | | | | **11,639,183** | **10,744,288** | **15,956,840** | **23,162,325** | **61,502,636** |
| **Component 5.2: Capacity building of the public and private sector** | | | | | | | | | | |
| Strengthening institutional capacity | | Collaborate continously with partners | DAES/ OPC | Number of technical meetings conducted | 500 | 2,000 | 2,000 | 2,000 | 2,000 | 8,000 |
| | | Conduct stakeholder meetings with government sectors, NGO, Bilateral and multilatel partners and the private sector | DAES/ OPC | Number of stakeholder meetings, annual and bi-annual,and consultative for establishment of a business coalition for nutrition | 15,000 | 60,000 | 60,000 | 60,000 | 60,000 | 240,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Coordinate creation of gender, nutrition, HIV and AIDS officers positions in ASWAp line ministries and departments | DAES/ OPC | Departments with gender, HIV/AIDS and nutrition offices positions | 1,000 | 10,000 | 10,000 | 15,000 | 20,000 | 55,000 |
| | | Institutionalize farmer-led extension services | DAES/ OPC | Number of male and female staff trained on developed concept | 500 | 500,000 | 500,000 | 500,000 | 500,000 | 2,000,000 |
| | | Revise agriculture extension policy | DAES/ OPC | Policy revised to include private extension service provision | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 80,000 |
| | | Formulate strategies in response to farmer demand | DAES/ OPC | Number of strategies developed | 20,000 | 60,000 | 60,000 | 60,000 | 60,000 | 240,000 |
| | | Strengthen stakeholder panels | DAES/ OPC | Number of stakeholder panels oriented | 250 | 25,000 | 25,000 | 12,500 | 12,500 | 75,000 |
| | | Capacity assessment studies for agricultural institutions in Malawi | DAPS | Number of Institutions | 100,000 | 100,000 | - | - | - | 100,000 |
| Improve capacity of staff in the ministry | Staff vacancy rate (%) reduced | Recruit technical experts | CHRM | Number of consultants hired | 50,000 | 100,000 | 100,000 | 100,000 | 100,000 | 400,000 |
| | | Recruit staff | CHRM | Number of staff recruited | 50 | 10,000 | 10,000 | 12,500 | 12,500 | 45,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | Capacity building programme in place | Carry out sector wide capacity building assessment | | Report | 100,000 | 100,000 | - | - | - | 100,000 |
| | | Implement institutional reform programme | | Number of meetings | 300,000 | - | 300,000 | 300,000 | 300,000 | 900,000 |
| | | Conduct orientation of newly recruited staff in policies and programs | CHRM | Number of orientation sessions conducted | 100 | 20,000 | 20,000 | 25,000 | 25,000 | 90,000 |
| | | Implement long term training programme international | CHRM | Number of staff trained | 15,000 | 750,000 | 750,000 | 750,000 | 750,000 | 3,000,000 |
| | | Implement long term training programme national | CHRM | Number of staff trained | 10,000 | 500,000 | 500,000 | 500,000 | 500,000 | 2,000,000 |
| | | Implement short training programme | CHRM | Number of staff trained | 2,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 4,000,000 |
| | | Conduct short term training for subject matter specialists | CHRM | Number of workshops conducted | 2,000 | 30,000 | 30,000 | 30,000 | 30,000 | 120,000 |
| Increased capacity of ICT knowledge and skills in the ministry | Increased number of staff effectively performing their duties | Conduct ICT sensitisation workshops for ICT officers | ICT | No of meetings | 3,350 | - | 10,050 | - | - | 10,050 |
| | | Conduct short term training for ICT specialists | ICT | No of ICT workshops conducted | 2,865 | 40,110 | 40,110 | 40,110 | 40,110 | 160,440 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Conduct basic ICT training for support staff | ICT | No of ICT workshops conducted | 3,350 | - | - | 10,050 | - | 10,050 |
| | | Attend professional short term courses | ICT | No of officers | 10,200 | - | - | 40,800 | 40,800 | 81,600 |
| | | Attend professional long term courses | ICT | No of officers | 10,500 | - | 10,500 | 31,500 | 42,000 | 84,000 |
| | | Attend project management courses | ICT | No of officers | 3,500 | - | 7,000 | 7,000 | 3,500 | 17,500 |
| | M&E, HR, planning and financial management systems functioning | Conduct preparatory baselines | DAPS | Number of baseline | 500,000 | 500,000 | - | 500,000 | - | 1,000,000 |
| | | Agriculture statistical systems development | | Number of statistical Reports | 375,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 6,000,000 |
| | | Carryout cost benefit analyses | | Number of reports | 600,000 | 600,000 | 600,000 | 600,000 | 600,000 | 2,400,000 |
| | | Carryout Core Function analysis and capacity assessments | | Number of reports | 600,000 | 1,200,000 | 1,200,000 | 1,200,000 | 1,200,000 | 4,800,000 |
| | | Studies on adoption and qualitative feedback on activities | DAPS | Number of studies | 50,000 | 150,000 | 150,000 | 150,000 | 150,000 | 600,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | International technical assistance on:Planning & Budgeting | CHRM | Number of TAs in place | 25,000 | 300,000 | 300,000 | 300,000 | 300,000 | 1,200,000 |
| | | National technical assistance on: Planning and Budgeting | CHRM | Number of TAs in place | 10,000 | 120,000 | 120,000 | 120,000 | 120,000 | 480,000 |
| | | International technical assistance on:M&E | CHRM | Number of TAs in place | 25,000 | 300,000 | 300,000 | 300,000 | 300,000 | 1,200,000 |
| | | National technical assistance on: M&E | CHRM | Number of TAs in place | 10,000 | 120,000 | 120,000 | 120,000 | 120,000 | 480,000 |
| | | International technical assistance on:Financial Management | CHRM | Number of TAs in place | 25,000 | 300,000 | 300,000 | 300,000 | 300,000 | 1,200,000 |
| | | National technical assistance on: Financial management | CHRM | Number of TAs in place | 10,000 | 120,000 | 120,000 | 120,000 | 120,000 | 480,000 |
| | | International technical assistance on:HRM | CHRM | Number of TAs in place | 25,000 | 300,000 | 300,000 | 300,000 | 300,000 | 1,200,000 |
| | | National technical assistance on: HRM | CHRM | Number of TAs in place | 10,000 | 120,000 | 120,000 | 120,000 | 120,000 | 480,000 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Carry out strategic environmental assessment | | Number of reports | 250,000 | 250,000 | - | - | 250,000 | 500,000 |
| | | Recruit and train technical staff | FISHERIES DEPT | No of frontline staff trained | 475 | 23,750 | 23,750 | 23,750 | 23,750 | 95,000 |
| | | Conduct short term training for public and private sector | FISHERIES DEPT | No of training workshops | 420 | 6,300 | 6,300 | 6,300 | 6,300 | 25,200 |
| | | Enhance community outreach programmes | FISHERIES DEPT | No of outreach programmes | 1,250 | 187,500 | 218,750 | 235,000 | 262,500 | 903,750 |
| **Sub-total 5.2** | | | | | | **9,424,660** | **8,833,460** | **9,411,510** | **9,190,960** | **36,860,590** |
| **Sub-total Institutional strengthening and capacity building** | | | | | | **21,063,843** | **19,577,748** | **25,368,350** | **32,353,285** | **98,363,226** |
| **6. Cross cutting issues** | | | | | | | | | | |
| **Component 6.1: Mainstreaming of gender and HIV/AIDS** | | | | | | | | | | |
| HIV related morbidity and mortality minimized | Proportion of staff accessing supplementary feeding at workplace | Increase capacity of staff and farmer to mainstream gender, HIV and AIDS in ASWAP interventions | DAES/ OPC | Number of staff trained | 2,511 | 3,013,216 | 4,017,621 | 5,022,026 | 6,026,432 | 18,079,295 |
| | | Promote accountability to gender, HIV and AIDS mainstreaming among ASWAp implementers | DAES/ OPC | Policies reviewed | 251,101 | 251,101 | 502,203 | 502,203 | 502,203 | 1,757,709 |

| Strategic Objective | Final outcome indicator | Action | Resp. Inst. | Output indicator | Unit cost ($US) | Budget 2011/12 | Budget 2012/13 | Budget 2013/14 | Budget 2014/15 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| | Reduced staff attrition | Sensitise staff on HIV and AIDS | DAES/ OPC | Number of sessions conducted | 1,256 | 251,101 | 251,101 | 251,101 | 251,101 | 1,004,405 |
| Gender disparities reduced | % of vulnerable groups (incl. women, youth, elderly) accessing FISP | Generate and disseminate knowledge on gender, HIV and AIDS in the agricultural sector | DAES/ OPC | Number of action research studies conducted | 251,101 | 753,304 | 753,304 | 753,304 | 1,004,405 | 3,264,317 |
| | % of vulnerable people involved in decision making | Develop and implement visibility strategy for gender, HIV and AIDS mainstreaming | DAES/ OPC | Visibility strategy developed | 313,877 | 313,877 | 313,877 | 313,877 | 313,877 | 1,255,507 |
| | | Establish focal points for gender and HIV/AIDS | DAES/ OPC | Number of focal points established | 62,775 | 125,551 | - | - | - | 125,551 |
| | | | DAES/ OPC | Number of farmer groups trained | 1,256 | 627,753 | 690,529 | 816,079 | 878,855 | 3,013,216 |
| **Sub-total Cross-cutting issues: Mainstreaming gender and HIV/AIDS** | | | | | | **5,335,903** | **6,528,634** | **7,658,590** | **8,976,872** | **28,500,000** |
| **GRAND TOTAL** | | | | | | | | | USD | **2,191,678,026** |

## APPENDIX 5: RESOURCE GAP ANALYSIS IN US$

| Focus Area/Component | | 2011-12 | | | | 2012-13 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Required Resources | Available Local Resources | Available Donor Resources | Gap | Required Resources | Available Local Resources | Available Donor Resources | Gap |
| **1** | **Food security and risk management** | | | | | | | | |
| 1.1 | Maize self-sufficiency | 162,457,200 | 138,434,202 | 21,522,000 | 2,500,998 | 162,791,500 | 126,217,638 | 19,222,000 | 17,351,862 |
| 1.2 | Diversification and nutrition | 36,061,280 | 2,480,506 | 23,630,000 | 9,950,774 | 39,588,810 | 2,261,606 | 20,150,000 | 17,177,204 |
| 1.3 | Risk Management for Sustainable food availability | 2,573,750 | 251,894 | 4,055,000 | -1,733,144 | 10,181,250 | 229,665 | 3,635,000 | 6,316,585 |
| 2 | **Commercial agriculture and market development** | | | | | | | | |
| 2.1 | Agricultural export for improved balance of trade and income | 8,632,000 | 3,637 | 11,103,000 | -2,474,637 | 10,082,500 | 3,316 | 8,363,000 | 1,716,184 |
| 2.2 | Commercial production for import substitution and domestic market development | 24,528,250 | 2,121,624 | 1,362,500 | 21,044,126 | 25,606,000 | 7,232,443 | 973,000 | 17,400,557 |
| 2.3 | Input and output market development through Private public partnership | 365,000 | 16,763,613 | 12,310,000 | -28,708,613 | 1,905,000 | 9,456,730 | 10,240,000 | -17,791,730 |
| 3 | **Sustainable land and water management** | | | | | | | | |
| 3.1 | Sustainable agricultural land management | 6,853,800 | 741,472 | 23,967,000 | -17,854,672 | 10,629,600 | 676,038 | 20,687,000 | -10,733,438 |
| 3.2 | Sustainable agricultural water management | 186,760,000 | 6,972,190 | 16,920,000 | 162,387,810 | 214,624,000 | 12,095,521 | 10,310,000 | 192,218,479 |
| 4 | **Technology generation and dissemination** | | | | | | | | |
| 4.1 | Results and market oriented research and provision of technical and regulatory services | 2,278,625 | 4,068,484 | 1,725,000 | -3,514,859 | 2,429,350 | 3,709,447 | 2,225,000 | -3,505,097 |
| 4.2 | Efficient farmer-led extension and training services | 22,418,200 | 3,953,157 | 1,610,000 | 16,855,043 | 25,726,500 | 4,147,476 | 2,910,000 | 18,669,024 |

| Focus Area/Component | | 2011-12 | | | | 2012-13 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Required Resources | Available Local Resources | Available Donor Resources | Gap | Required Resources | Available Local Resources | Available Donor Resources | Gap |
| 5 | **Institutional strengthening and capacity building** | | | | | | | | |
| 5.1 | Strengthening public management systems | 11,639,183 | 1,860,446 | 5,842,500 | 3,936,237 | 10,744,288 | 1,696,265 | 4,400,000 | 4,648,023 |
| 5.2 | Capacity building of the public and private sector | 9,424,660 | 555,605 | 7,930,000 | 939,055 | 8,833,460 | 506,574 | 3,360,000 | 4,966,886 |
| 6 | **Cross cutting issue** | | | | | | | | |
| 6.1 | Mainstreaming of gender and HIV AIDS | 5,335,903 | 538,624 | 1,930,000 | 2,867,279 | 6,528,634 | 491,092 | 1,930,000 | 4,107,543 |
| | **Grand Total** | **479,327,851** | **155,619,758** | **133,907,000** | **166,675,396** | **529,670,892** | **168,723,811** | **108,405,000** | **252,542,081** |

| Focus Area/Component | | 2013-14 | | | | 2014-15 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Required Resources | Available Local Resources | Available Donor Resources | Gap | Required Resources | Available Local Resources | Available Donor Resources | Gap |
| **1** | **Food security and risk management** | | | | | | | | |
| 1.1 | Maize self-sufficiency | 163,127,750 | 126,839,802 | 18,422,000 | 17,865,948 | 163,464,000 | 107,813,832 | 1,152,000 | 54,498,168 |
| 1.2 | Diversification and nutrition | 41,361,570 | 2,272,754 | 20,150,000 | 18,938,816 | 43,601,340 | 1,931,841 | 5,980,000 | 35,689,499 |
| 1.3 | Risk Management for Sustainable food availability | 3,171,250 | 230,797 | 3,495,000 | -554,547 | 3,918,750 | 196,177 | 250,000 | 3,472,573 |
| 2 | **Commercial agriculture and market development** | | | | | | | | |
| 2.1 | Agricultural export for improved balance of trade and income | 11,170,000 | 3,333 | 2,700,000 | 8,466,667 | 11,957,500 | 2,833 | 130,000 | 11,824,667 |
| 2.2 | Commercial production for import substitution and domestic market development | 28,089,250 | 5,090,418 | 973,000 | 22,025,832 | 35,390,500 | 5,054,128 | 843,000 | 29,493,372 |
| 2.3 | Input and output market development through Private public partnership | 480,000 | 7,597,200 | 11,630,000 | -18,747,200 | 630,000 | 7,547,593 | 10,450,000 | -17,367,593 |

| Focus Area/Component | | 2013-14 | | | | 2014-15 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Required Resources** | **Available Local Resources** | **Available Donor Resources** | **Gap** | **Required Resources** | **Available Local Resources** | **Available Donor Resources** | **Gap** |
| 3 | **Sustainable land and water management** | | | | | | | | |
| 3.1 | Sustainable agricultural land management | 14,545,400 | 679,371 | 20,337,000 | -6,470,971 | 24,991,200 | 577,465 | 5,566,000 | 18,847,735 |
| 3.2 | Sustainable agricultural water management | 242,400,000 | 11,819,980 | 6,170,000 | 224,410,020 | 261,286,000 | 10,235,862 | 1,169,000 | 249,881,138 |
| 4 | **Technology generation and dissemination** | | | | | | | | |
| 4.1 | Results and market oriented research and provision of technical and regulatory services | 2,972,075 | 3,727,732 | 1,600,000 | -2,355,657 | 2,131,800 | 3,168,572 | 600,000 | -1,636,772 |
| 4.2 | Efficient farmer-led extension and training services | 25,884,000 | 4,436,009 | 4,010,000 | 17,437,991 | 27,749,800 | 4,626,365 | 5,590,000 | 17,533,435 |
| 5 | **Institutional strengthening and capacity building** | | | | | | | | |
| 5.1 | Strengthening public management systems | 15,956,840 | 1,704,627 | 4,400,000 | 9,852,214 | 23,162,325 | 1,448,933 | 552,000 | 21,161,392 |
| 5.2 | Capacity building of the public and private sector | 9,411,510 | 509,071 | 2,070,000 | 6,832,439 | 9,190,960 | 432,710 | 872,000 | 7,886,250 |
| 6 | **Cross cutting issue** | | | | | | | | |
| 6.1 | Mainstreaming of gender and HIV AIDS | 7,658,590 | 493,512 | 1,930,000 | 5,235,078 | 8,976,872 | 419,485 | 1,460,000 | 7,097,387 |
| | **Grand Total** | **566,228,236** | **165,404,606** | **97,887,000** | **302,936,629** | **616,451,047** | **143,455,797** | **34,614,000** | **438,381,250** |
| | | **Total Available Resources** | **1,008,016,973** | | | | | | |
| | | *Local Available* | *633,203,973* | | | | | | |
| | | *Donor Available* | *374,813,000* | | | | | | |
| | | **Total Required Resources** | **2,191,678,026** | | | | | | |
| | | **Gap** | **1,183,661,054** | | | | | | |

## APPENDIX 6: SUMMARY OF DEVELOPMENT PARTNERS COMMITMENTS TO ASWAP (IN US$)

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| 1. Food Security and Risk Management | 1.1 Maize Self Sufficiency | WB | IRLADP | 1 800 000 | - | - | - |
| | | IFAD | IRLARD | 340 000 | - | - | - |
| | | IFAD | SAPP | - | 200 000 | 700 000 | 1 100 000 |
| | | WB | ADP-SP | 4 000 000 | 4 000 000 | 4 000 000 | - |
| | | DFID | FISP-DFID | 8 000 000 | 8 000 000 | 8 000 000 | - |
| | | USAID | WALA | 2 100 000 | 2 100 000 | 2 100 000 | - |
| | | USAID | SAKSS | 200 000 | 200 000 | 200 000 | - |
| | | EU | FS | 1 130 000 | 1 130 000 | - | - |
| | | EU | FIDP | 320 000 | - | - | - |
| | | IRISH AID | TROC IA | 13 000 | 13 000 | 13 000 | 13 000 |
| | | IRISH AID | CWW IA | 39 000 | 39 000 | 39 000 | 39 000 |
| | | NORWAY | FISP-RNE | 2 500 000 | 2 500 000 | 2 500 000 | - |
| | | NORWAY | ADP-SPN | 1 080 000 | 1 040 000 | 870 000 | - |
| | | | ***Sub-total*** | ***21 522 000*** | ***19 222 000*** | ***18 422 000*** | ***1 152 000*** |
| | 1.2 Diversification (Food production and Dietary) | | MSID | 46 000 | 350 000 | 350 000 | - |
| | | | RSTIP | 650 000 | 650 000 | 650 000 | - |
| | | | ROHM | 460 000 | 460 000 | 460 000 | - |
| | | | LDSP | 300 000 | 300 000 | 300 000 | - |
| | | DFID | DFID-Dairy | 400 000 | 400 000 | 400 000 | - |
| | | USAID | WALA | 2 000 000 | 2 000 000 | 2 000 000 | - |
| | | USAID | NUT | 1 500 000 | 1 500 000 | 1 500 000 | - |
| | | EU | DCI-FOOD | 479 000 | - | - | - |
| | | EU | FOOD | 3 680 000 | - | - | - |
| | | EU | FS | 2 830 000 | 5 280 000 | 5 280 000 | - |
| | | EU | FISP-IA | 2 830 000 | 2 830 000 | 2 830 000 | - |
| | | IRISH AID | FISP-IA | 2 940 000 | 2 100 000 | 2 100 000 | 2 100 000 |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| | | IRISH AID | ICRISAT-IA | 840 000 | 840 000 | 840 000 | 840 000 |
| | | IRISH AID | CIP-IA | 1 200 000 | 1 200 000 | 1 200 000 | 1 200 000 |
| | | IRISH AID | CU-IA | 840 000 | 840 000 | 840 000 | 840 000 |
| | | IRISH AID | FAIR-IA | 220 000 | 220 000 | 220 000 | 220 000 |
| | | IRISH AID | TROC IA | 170 000 | 170 000 | 170 000 | 170 000 |
| | | IRISH AID | GOAL-IA | 90 000 | 90 000 | 90 000 | 90 000 |
| | | IRISH AID | CWW IA | 520 000 | 520 000 | 520 000 | 520 000 |
| | | FAO | FAO-UNJP | 985 000 | - | - | - |
| | | FAO | FAO-TCP/MLW/3302 | 250 000 | - | - | - |
| | | DFID | DFID-Dairy | 400 000 | 400 000 | 400 000 | - |
| | | | ***Sub-total*** | ***23 630 000*** | ***20 150 000*** | ***20 150 000*** | ***5 980 000*** |
| | 1.3 Risk Management for food stability | WB | ADP-SP | 500 000 | 500 000 | 500 000 | - |
| | | DFID | DFID-MVAC | 200 000 | 200 000 | 200 000 | - |
| | | USAID | NUT | 700 000 | 700 000 | 700 000 | - |
| | | USAID | MLI | 200 000 | - | - | - |
| | | USAID | FEWSNET | 170 000 | 170 000 | 170 000 | 170 000 |
| | | EU | FOOD | 130 000 | 130 000 | - | - |
| | | EU | ACP | 220 000 | - | - | - |
| | | EU | FS- Innovative Instruments | 1 595 000 | 1 595 000 | 1 595 000 | - |
| | | NORWAY | ADP-SPN | 60 000 | 60 000 | 50 000 | - |
| | | IRISH AID | TROC-IA | 80 000 | 80 000 | 80 000 | 80 000 |
| | | DFID | DFID-MVAC | 200 000 | 200 000 | 200 000 | - |
| | | | ***Sub-total*** | ***4 055 000*** | ***3 635 000*** | ***3 495 000*** | ***250 000*** |
| | **Pillar 1 Total** | | | **49 207 000** | **43 007 000** | **42 067 000** | **7 382 000** |
| **2. Commercial agriculture and market development** | 2.1 Agricultural export for improved balance of trade and income | EU | DCI | 1 890 000 | - | - | - |
| | | EU | DCI Sucre | 2 610 000 | 2 610 000 | 1 740 000 | - |
| | | EU | AMSP (2011-13) | 1 603 000 | 1 603 000 | - | - |
| | | EU | FIDP | 160 000 | - | - | - |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| | | NORWAY | CASN | 2 690 000 | 2 690 000 | - | - |
| | | NORWAY | MLBP | 2 020 000 | 1 330 000 | 830 000 | - |
| | | IRISH AID | ICRAF-IA | 130 000 | 130 000 | 130 000 | 130 000 |
| | | | ***Sub-total*** | ***11 103 000*** | ***8 363 000*** | ***2 700 000*** | ***130 000*** |
| | 2.2 Commercial production for import substitution and domestic market development | JICA | OVOP | 800 000 | 800 000 | 800 000 | 800 000 |
| | | | AFSP | 130 000 | 130 000 | 130 000 | - |
| | | USAID | KULERA | 130 000 | - | - | - |
| | | USAID | UILTCB | 100 000 | - | - | - |
| | | EU | FIDP | 159 500 | - | - | - |
| | | IRISH AID | CIP-IA | 30 000 | 30 000 | 30 000 | 30 000 |
| | | IRISH AID | CU-IA | 13 000 | 13 000 | 13 000 | 13 000 |
| | | | ***Sub-total*** | ***1 362 500*** | ***973 000*** | ***973 000*** | ***843 000*** |
| | 2.3 Input and output market development through Private public partnership | USAID | WALA | 500 000 | 500 000 | 500 000 | - |
| | | USAID | MLI | 900 000 | - | - | - |
| | | USAID | KULERA | 130 000 | - | - | - |
| | | USAID | MOBILISE | 180 000 | - | - | - |
| | | USAID | INVC | 9 000 000 | 9 000 000 | 9 000 000 | 9 000 000 |
| | | | RSTIP | 10 000 | 10 000 | 10 000 | - |
| | | | ROHM | 10 000 | 10 000 | 10 000 | - |
| | | | LDSP | 10 000 | 10 000 | 10 000 | - |
| | | EU | DCI | 290 000 | - | - | - |
| | | UNDP | PSDP | - | 600 000 | 1 200 000 | 1 400 000 |
| | | AfDB | AISP | 1 280 000 | 110 000 | 900 000 | 50 000 |
| | | | ***Sub-total*** | ***12 310 000*** | ***10 240 000*** | ***11 630 000*** | ***10 450 000*** |
| | **Pillar 2 Total** | | | ***24 775 500*** | ***19 576 000*** | ***15 303 000*** | ***11 423 000*** |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| **3. Sustainable land and water management** | 3.1 Sustainable agricultural land management | WB | ADP-SP | 2 000 000 | 2 000 000 | 2 000 000 | - |
| | | WB | CRRLD | 900 000 | 900 000 | 900 000 | - |
| | | JICA | SLMP (4years) | 1 100 000 | 600 000 | 400 000 | - |
| | | IRISH AID | SLMP | 900 000 | 900 000 | 900 000 | 900 000 |
| | | JICA | COVAMS | 300 000 | - | - | - |
| | | | AFSP | 520 000 | 520 000 | 520 000 | - |
| | | | PCASCP | 170 000 | 170 000 | 170 000 | - |
| | | USAID | WALA | 600 000 | 1 000 000 | 1 000 000 | - |
| | | USAID | KULERA | 590 000 | - | - | - |
| | | EU | FIDP | 320 000 | - | - | - |
| | | NORWAY | ADP-SPN | 920 000 | 880 000 | 730 000 | - |
| | | IRISH AID | ICRAF-IA | 520 000 | 520 000 | 520 000 | 520 000 |
| | | IRISH AID | NASFAM-IA | 170 000 | 170 000 | 170 000 | 170 000 |
| | | IRISH AID | FAIR-IA | 30 000 | 30 000 | 30 000 | 30 000 |
| | | IRISH AID | TROC-IA | 80 000 | 80 000 | 80 000 | 80 000 |
| | | IRISH AID | GOAL-IA | 50 000 | 50 000 | 50 000 | 50 000 |
| | | UNDP | SLM | 600 000 | 600 000 | 600 000 | - |
| | | FAO | FAO-ECU: CA | 120 000 | - | - | - |
| | | DFID | DFID-Conser Agric | 1 167 000 | 1 167 000 | 1 167 000 | - |
| | | | AFSP | 140 000 | 140 000 | 140 000 | - |
| | | | PCASCP | 40 000 | 40 000 | 40 000 | - |
| | | | CC | 4 800 000 | 4 800 000 | 4 800 000 | - |
| | | USAID | KULERA | 600 000 | - | - | - |
| | | USAID | MOBILISE | 250 000 | - | - | - |
| | | USAID | INVC | 1 500 000 | 1 500 000 | 1 500 000 | 1 500 000 |
| | | USAID | GCC-TBD | 2 000 000 | 2 000 000 | 2 000 000 | 2 000 000 |
| | | NORWAY | MACC | 1 300 000 | 2 300 000 | 2 300 000 | - |
| | | IRISH AID | ICRAF-IA | 140 000 | 140 000 | 140 000 | 140 000 |
| | | IRISH AID | NASFAM-IA | 40 000 | 40 000 | 40 000 | 40 000 |
| | | IRISH AID | FAIR-IA | 30 000 | 30 000 | 30 000 | 30 000 |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| | | IRISH AID | TROC-IA | 10 000 | 10 000 | 10 000 | 10 000 |
| | | IRISH AID | CWW-IA | 30 000 | 30 000 | 30 000 | 30 000 |
| | | UNDP | PEI | 200 000 | - | - | - |
| | | UNDP | CCP - AAP | 1 800 000 | - | - | - |
| | | AfDB | AISP | 30 000 | 70 000 | 70 000 | 66 000 |
| | | | ***Sub-total*** | ***23 967 000*** | ***20 687 000*** | ***20 337 000*** | ***5 566 000*** |
| | 3.2 Sustainable agricultural water management | WB | IRLADP | 2 350 000 | - | - | - |
| | | IFAD | IRLARD | 400 000 | - | - | - |
| | | JICA | DMSIS | 1 120 000 | 1 120 000 | 1 120 000 | 500 000 |
| | | | LDSP | 260 000 | 260 000 | 260 000 | - |
| | | USAID | WALA | 1 000 000 | 1 000 000 | 1 000 000 | - |
| | | USAID | KUKERA | 670 000 | - | - | - |
| | | USAID | MOBILISE | 260 000 | - | - | - |
| | | EU | FOOD | 170 000 | - | - | - |
| | | EU | RIDP | 2 900 000 | 2 900 000 | 2 900 000 | - |
| | | IRISH AID | CU-IA | 260 000 | 260 000 | 260 000 | 260 000 |
| | | IRISH AID | TROC-IA | 80 000 | 80 000 | 80 000 | 80 000 |
| | | IRISH AID | GOAL-IA | 120 000 | 120 000 | 120 000 | 120 000 |
| | | IRISH AID | CWW-IA | 30 000 | 30 000 | 30 000 | 30 000 |
| | | AfDB | AISP | 7 300 000 | 4 540 000 | 400 000 | 179 000 |
| | | | ***Sub-total*** | ***16 920 000*** | ***10 310 000*** | ***6 170 000*** | ***1 169 000*** |
| | **Pillar 3 Total** | | | ***40 887 000*** | ***30 997 000*** | ***26 507 000*** | ***6 735 000*** |
| **4. Technology generation and dissemination** | 4.1 Results and market oriented research and provision of technical and regulatory services | USAID | WALA | 1 000 000 | 1 000 000 | 1 000 000 | - |
| | | EU | AMSP (2011-13) | 725 000 | 725 000 | - | - |
| | | IFAD | SAPP | - | 500 000 | 600 000 | 600 000 |
| | | | ***Sub-total*** | ***1 725 000*** | ***2 225 000*** | ***1 600 000*** | ***600 000*** |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| | 4.2 Efficient farmer-led extension and training services | WB | IRLADP | 700 000 | - | - | - |
| | | IFAD | IRLARD | 100 000 | - | - | - |
| | | IFAD | SAPP | - | 2 100 000 | 3 200 000 | 5 100 000 |
| | | | AFSP | 200 000 | 200 000 | 200 000 | - |
| | | | PCASCP | 120 000 | 120 000 | 120 000 | - |
| | | IRISH AID | ICRAF-IA | 200 000 | 200 000 | 200 000 | 200 000 |
| | | IRISH AID | NASFAM-IA | 120 000 | 120 000 | 120 000 | 120 000 |
| | | IRISH AID | FAIR-IA | 50 000 | 50 000 | 50 000 | 50 000 |
| | | IRISH AID | TROC-IA | 40 000 | 40 000 | 40 000 | 40 000 |
| | | IRISH AID | GOAL-IA | 80 000 | 80 000 | 80 000 | 80 000 |
| | | | ***Sub-total*** | ***1 610 000*** | ***2 910 000*** | ***4 010 000*** | ***5 590 000*** |
| | **Pillar 4 Total** | | | **3 335 000** | **5 135 000** | **5 610 000** | **6 190 000** |
| **5. Institutional strengthening and capacity building** | 5.1 Strengthening public management systems | WB | ADP-SP | 2 700 000 | 2 700 000 | 2 700 000 | - |
| | | IFAD | IRLARD | 370 000 | - | - | - |
| | | IFAD | SAPP | - | 100 000 | 100 000 | 100 000 |
| | | USAID | NUT | 500 000 | 500 000 | 500 000 | - |
| | | USAID | UILTCB | 300 000 | - | - | - |
| | | USAID | SAKSS | 650 000 | 650 000 | 650 000 | - |
| | | EU | FIDP | 652 500 | - | - | - |
| | | EU | FOOD | 220 000 | - | - | - |
| | | IRISH AID | FAIR-IA | 50 000 | 50 000 | 50 000 | 50 000 |
| | | AfDB | AISP | 400 000 | 400 000 | 400 000 | 402 000 |
| | | | ***Sub-total*** | ***5 842 500*** | ***4 400 000*** | ***4 400 000*** | ***552 000*** |
| | 5.2 Capacity building of the public and private sector | WB | ADP-SP | 100 000 | 100 000 | 100 000 | - |
| | | WB | CBRLD | 1 930 000 | - | - | - |
| | | WB | IRLADP | 2 150 000 | - | - | - |

| Focal Area | Component | Development Partner | Code | 2012/13 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| | | | RSTIP | 50 000 | 50 000 | 50 000 | - |
| | | | LSDP | 400 000 | 400 000 | 400 000 | - |
| | | | MSID | 130 000 | 130 000 | 130 000 | - |
| | | USAID | AES-HED | 250 000 | - | - | - |
| | | USAID | UILTCB | 100 000 | - | - | - |
| | | IRISH AID | CIP-IA | 50 000 | 50 000 | 50 000 | 50 000 |
| | | IRISH AID | CU-IA | 400 000 | 400 000 | 400 000 | 400 000 |
| | | IRISH AID | ICRISAT-IA | 80 000 | 60 000 | 60 000 | 60 000 |
| | | FAO | FAO-GDCP/MLW/001/FLA | 1 500 000 | 1 300 000 | 600 000 | - |
| | | FAO | FAO-SIDA | 210 000 | 210 000 | - | - |
| | | UNDP | CDPSM | 50 000 | 50 000 | 50 000 | 50 000 |
| | | AfDB | AISP | 530 000 | 610 000 | 230 000 | 312 000 |
| | | | ***Sub-total*** | ***7 930 000*** | ***3 360 000*** | ***2 070 000*** | ***872 000*** |
| | **Pillar 5 Total** | | | **13 772 500** | **7 760 000** | **6 470 000** | **1 424 000** |
| **6. Cross cutting issue** | 6.1 Mainstreaming of gender and HIV AIDS | WB | ADP-SP | 200 000 | 200 000 | 200 000 | - |
| | | | LDSP | 270 000 | 270 000 | 270 000 | - |
| | | IRISH AID | CU-IA | 270 000 | 270 000 | 270 000 | 270 000 |
| | | IRISH AID | GOAL-IA | 210 000 | 210 000 | 210 000 | 210 000 |
| | | IRISH AID | FAIR-IA | 40 000 | 40 000 | 40 000 | 40 000 |
| | | IRISH AID | TROC-IA | 40 000 | 40 000 | 40 000 | 40 000 |
| | | IRISH AID | GOAL-IA | 50 000 | 50 000 | 50 000 | 50 000 |
| | | IRISH AID | GOAL | 200 000 | 200 000 | 200 000 | 200 000 |
| | | USAID | Gender | 250 000 | 250 000 | 250 000 | 250 000 |
| | | IRISH AID | TROC-IA | 400 000 | 400 000 | 400 000 | 400 000 |
| | **Pillar 6 Total** | | ***Sub-total*** | ***1 930 000*** | ***1 930 000*** | ***1 930 000*** | ***1 460 000*** |
| | **Grand Total Donor Commitments to ASWAP** | | | **133 907 000** | **108 405 000** | **97 887 000** | **34 614 000** |

**LEGEND FOR THE DONOR COMMITMENTS TO ASWAP**

**World Bank**

| | |
|---|---|
| ADP-SP | Agricultural Development Programme Support Programme (Agriculture) |
| IRLADP | Irrigation, Rural Livelihoods and Agricultural Development Project (Agriculture) |
| CRRLD | Community Based Rural Lands Development Project (implemented by Ministry of Lands) |

**JICA**

| | |
|---|---|
| FAITF | Farmer Artificial Insemination Technician Foster Project (Agriculture) |
| OVOP | One Village, One Product (Industry and Trade) |
| SLMPP | Sustainable Land Management Promotion Project (Agriculture) |
| CoVAMS | Community Vitalization and Afforestation in the Middle Shire(Natural Resources) |
| DMSIS | Development of Medium Scale Irrigation Projects (Irrigation and Water Development) |
| ISAHE | Irrigation Sector Aid Harmonization Expert (Irrigation and Water Development) |

**Embassy of Japan**

| | |
|---|---|
| FCP | Forest Conservation Project (Natural Resources) |
| PICNDCC | Programme for the improvement of capabilities to cope with Natural Disasters caused by climate change |

**DFID**

| | |
|---|---|
| FISP-DFID | Farm Inputs Subsidy Support (Agriculture) |
| WI | Weather Insurance (Finance) |
| CC | Climate change |

**USAID (all funding tentative allocations for FY11to FY12)**

| | |
|---|---|
| WALA | Wellness and Agriculture for Life Advancement |
| MLI | Market Linkage Initiative |
| SAKSS | Strategic Analysis and Knowledge Programme |
| NUT | Nutrition miscellaneous |
| MDDA | Malawi Dairy Development Alliance |
| FEWSNET | Famine Early Warning System Network |
| KULERA | |
| UILTBC | |
| MOBILIZE | |
| HED | |

**European Union**

| | |
|---|---|
| FS | Food Security Programme |
| FIDP | Farm Income Diversification Programme |
| DCI-Food | |
| FOOD | Food Security and Food |

| | |
|---|---|
| ONG-PVD | Co-financing with NGOs |
| ACP | Agricultural Commodities Programme (co-financed with NGOs) |
| DCI | DCI Sucre Sugar |
| STABEX | STABEX |
| RIDP | Rural Infrastructure Development Programme |
| IFMSL | Improved Forest Management for Sustainable Livelihoods. |
| CBTPD | Capacity Development for trade and private sector development |

**Kingdom of Norway**

| | |
|---|---|
| ADP-SPN | Agricultural Development Programme Support Project (Norwegian Support). (Agriculture) |
| CASN | Commercial Agriculture Support for NASFAM (NASFAM) |
| MLBP | Malawi Lakes Basin Project |
| SLP | Sustainable Livelihoods Project (FAO) |
| MACC | Management for Adaptation to Climate Change (Total Land Care) |

**Irish Aid**

1. The projects as per above acronyms denote the following:
    a. FISP: This is support towards the seeds as part of the Government's Farm Inputs Subsidy Programme. Irish Aid plans to provide particular support to the legumes certified seeds. (Agriculture)
    b. ICRISAT: Implementing a project called 'Malawi Seed Industry Development' (MSID) (Agriculture)
    c. CIP Potato: International Potato Centre (with DARS) implementing a programme on 'Revitalizing Seed and Table Irish Potato Production in Malawi through Capacity Strengthening, Technology Development and Public-Private Partnerships' (Agriculture)
    d. CIP OFSP: International Potato Centre implementing a programme 'Rooting Out Hunger in Malawi with Nutritious Orange Fleshed Sweet Potato' (Agriculture)
    e. CU: Concern Universal implementing 'Local Development Support Programme' (LDSP) (Local Government)
    f. ICRAF: World Agroforestry Centre implementing 'Agroforestry Food Security Programme'(AFSP) (Agriculture)
    g. NASFAM: Implementing a project 'Promoting Conservation Agriculture and Sustainable Crop Production Practices in Smallholder Farming Systems' (Agriculture)
    h. CWW: Concern Worldwide implementing 'Programme for Attainment of Rights to Sustainable Livelihoods' – PARL(MAPS)
    i. TROC: Trocaire implementing a project on 'Governance and Human Rights (MAPS)
    j. FAIR: Self Help Africa/Harvest help combined into FAIR implementing a 'Rural Development Programme' (MAPS)
    k. GOAL: Goal Malawi implementing a programme on 'Mainstreaming DRR/Livelihoods' (MAPS)

## APPENDIX 7: COMPOSITION AND FUNCTIONS OF ASWAP RELATED BODIES

| CENTRAL LEVEL | | | | |
|---|---|---|---|---|
| **Body** | **Composition** | **Functions** | **Meetings** | **Reports to** |
| **Executive Management Committee (EMC)** | • Chaired by the PS of Agriculture<br>• PS MoWID<br>• PS Dept. of Nutrition, HIV & AIDS<br>• PS MoTPSD<br>• PS MoLGRD<br>• PS MoF<br>• PS MoDPC<br>• MoLNRE (co-opted as needed)<br>• OPC Public Sector Reform (co-opted) | • Provides strategic direction for the ASWAp<br>• Leads inter-Ministerial coordination.<br>• Oversees development and implementation of policy decisions under ASWAp<br>• Endorses Annual Work Plan (AWPB)<br>• Monitors progress. | Twice yearly | Cabinet sub-committee on agriculture |
| **ASWAp Secretariat** | • ASWAp Coordinator<br>• Deputy Coordinator (Technical)<br>• Deputy Coordinator (Administration) | • Consolidates AWPBs for endorsement by the EMC.<br>• Convenes and minutes meetings of Working Groups, the Partnership Forum and the Executive Management Committee.<br>• Ensures timely reporting by participating implementation agencies and consolidates Annual Implementation Reports (AIRs) and possibly quarterly reports.<br>• Liaises with donors and monitors adherence to the provisions of the MoU & the CoC<br>• Convenes and prepares for the Annual Review Process. | Works continuously | PS Agriculture |
| **Sector Working Group** | • Chaired by the PS, MoAFS<br>• PS of participating Ministries<br>• Reps of Development Partners<br>• Reps. of NGOs<br>• Reps. of the private sector<br>• Reps of Farmers' organisations<br>• Reps. of Districts (possibly one from the Northern Region, one from the Central Region and one from the Southern Region)<br>• Reps. of relevant education institutions | • Receives reports and reviews progress in the implementation of ASWAp in general and of each AWPB<br>• Presents stakeholders' views to the EMC on ASWAp strategy and actions.<br>• Provides forum for dialogue between for government and development partners on financial management, procurement, planning, budgeting, monitoring and evaluation.<br>• Supports line departments in financial management, procurement, planning, budgeting, monitoring and evaluation.<br>• Seeks to reflect informal feedback from donors on these areas. | Once yearly (coinciding with the ARP | Advisory |
| **Technical Working Groups** | **Food Security**<br>• Chaired by a Director, MoAFS<br>• 1 rep. of the MoIWD<br>• 1 rep. of the MoLGRD<br>• 2 reps. of NGOs<br>• 1/2 reps. of Development Partners<br>• 2 reps. of farmers' organisations | • Supports line departments on technical issues and methodologies for the implementation of ASWAp activities within the relevant focus area (Food Security).<br>• Advises the PS Agriculture on broad policy issues related to the activities within the relevant focus area.<br>Seek to reflect informal feedback from stakeholders on the relevant focus area. | Quarterly (or more frequently on demand) | Advisory |

| CENTRAL LEVEL | | | | |
|---|---|---|---|---|
| **Body** | **Composition** | **Functions** | **Meetings** | **Reports to** |
| | • 1 rep. of the private sector<br>• 1 rep. of the districts | | | |
| | **Commercial agriculture and market development**<br>• **Co-chair-MoITD and MoAFS**<br>• **MCCCI**<br>• **CISANET**<br>• **FUM**<br>• **Ministry of Finance and Development Planning**<br>• **Academia Representative** | • Supports line departments on technical issues and methodologies for the implementation of ASWAp activities within the relevant focus area (Commercial agriculture and market development)<br>• Advises the PS Agriculture on broad policy issues related to activities within the relevant focus area.<br>• Seeks to reflect informal feedback from stakeholders on the relevant focus area | Quarterly (or more frequently on demand) | Advisory |
| | **Sustainable Natural Resource Management and Mitigation of Climate Change Effects**<br>• Co-chaired by a Director MoAFS and the MoIWD<br>• 1 rep. of the MoAFS<br>• 1 rep. of the MoLGRD<br>• 1 rep. of the MoNREE<br>• 2 reps. of NGOs working in SLM<br>• 1/2 reps. of Development Partners working on SLM<br>• 2 reps. of farmers' organisations<br>• 1 rep. of the districts | • Supports line departments on technical issues and methodologies for the implementation of ASWAp activities within the relevant focus area (Sustainable Natural Resource Management and Mitigation of Climate Change Effects)<br>• Advises the PS Agriculture on broad policy issues related to activities within the relevant focus area.<br>• Seeks to reflect informal feedback from stakeholders on the relevant focus area. | Quarterly (or more frequently on demand) | Advisory |
| | **Monitoring and Evaluation**<br>• Chaired by Director of Agricultural Planning Services<br>• Directors of Planning in participating Ministries/Departments (Water & Irrigation, MoITD, Ministry of Finance and Development Planning, OPC-HIV/AIDS<br>• DCAFS- Chair<br>• FUM<br>• CISANET<br>• MCCI<br>• Academia (Principal- Bunda College) | • Supports line departments on M&E methodologies for the successful implementation of ASWAp<br>• Advises the PS Agriculture on M&E issues of the ASWAp.<br>• Seeks to reflect informal feedback from stakeholders on M&E. | Quarterly (or more frequently on demand) | Advisory |

## APPENDIX 8: TERMS OF REFERENCES FOR THE ASWAP SECRETARIAT AND KEY STAFF POSITIONS

The ASWAp will require the following:
(a) Good communication between the different elements of the organizational structure;
(b) Submission of work plans and reports on time and, as necessary, their consolidation prior to transmission for decision; and
(c) That the Partnership Forum and the Management and Technical Working Groups are convened and minutes prepared on their deliberations
(d) That development partners have a contact point for day-to-day communication with the ASWAp on technical, administrative and management matters, and on financing.

### 6.1 The TORs of the ASWAp Secretariat are as follows:

a) Receive and consolidate annual work plans and budgets prior to their submission to the Executive Management Committee for endorsement;
b) Ensure timely reporting by various departments of the MoAFS, other participating ministries and districts;
c) Draft the Annual Implementation Report for endorsement by the Executive Management Committee;
d) Prepare other documentation as required for annual progress reviews;
e) Convene, draft agenda for, and minute meetings of the Executive Management Committee, the Management and Technical Working Groups, and the Partnership Forum;
f) Prepare proposals and position papers as required for endorsement by the Executive Management Committee or the Permanent Secretary, MoAFS as appropriate;
g) Monitor the development partners' compliance with the Code of Conduct and Memorandum of Understanding on the ASWAp; and
h) Liaise with the development partners, responding to requests for information and arranging *ad hoc* meetings outside the cycle of meetings for the various bodies and structures responsible for ASWAp delivery.

### 6.2 Summary Job Descriptions for Key Staff

### 6.2.1 Head of Secretariat (ASWAp Coordinator)

He or she will be responsible for the work of the Secretariat and report to the PS directly or through the CAETS or DAPS.

*Responsibilities*

Key responsibilities shall include:

1. Review and consolidation of ASWAp annual work plans and budgets prior to their submission to the Executive Management Committee for endorsement;
2. Coordination of the preparation and submission of the draft Annual Implementation Report for endorsement by the Executive Management Committee;

3. Preparation of relevant documentation as required for annual progress reviews;
4. Serve as Secretary for the meetings of the Executive Management Committee and Partnership Forum;
5. Preparation of proposals and position papers as required for endorsement by the Executive Management Committee or the Principle Secretary, MoAFS as appropriate;
6. Monitoring the development partners' compliance with the Code of Conduct and Memorandum of Understanding on the ASWAp; and
7. Liaising with the development partners, responding to requests for information and arranging *ad hoc* meetings outside the cycle of meetings for the various bodies and structures responsible for ASWAp delivery.
8. Linking with various stakeholders at national and international level involved in ASWAp activities
9. Providing leadership and supervision to staff under the Secretariat
10. Undertaking any other responsibilities as may be assigned by the PS or the Executive Management Committee

### 6.2.2 Deputy Coordinator (Technical)

Under the general leadership of the ASWAp Coordinator he or she shall be responsible for the management operations of the ASWAp. Specific responsibilities shall include:

1. Preparation and consolidation of reports of Technical Working Groups
2. Advising Directors and technical staff on matters of implementation of the ASWAp
3. Monitoring implementation of technical work plans and programmes by various key stakeholders
4. Identification and facilitation of capacity building needs for effective implementation of approved programmes
5. Facilitation of development and or review of technical systems, policies and guidelines
6. Serve as a Secretary of Technical Working Groups
7. Undertake any other duties that may be assigned by the ASWAp Coordinator as appropriate.

### 6.2.3 Deputy Coordinator (Management)

Under the general leadership of the ASWAp Coordinator he or she shall be responsible for the technical operations of the ASWAp. Specific responsibilities shall include:

1. Development and review of annual programmes and budgets for the Secretariat
2. Preparation and consolidation of reports of the Management Working Group
3. Coordination and facilitation of development and review of management systems (finance, procurement, ICT, HR etc) relevant to effective implementation of ASWAp
4. Facilitation of leadership and management development needs assessment among key stakeholders in liaison with Heads of divisions and departments.
5. Supervision of ASWAp support staff
6. Serve as a Secretary of the Management Working Group
7. Undertake any other duties that may be assigned by the ASWAp Coordinator as appropriate.