



MALAWI GOVERNMENT

MINISTRY OF AGRICULTURE

NATIONAL FERTILISER POLICY







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FOREWORD

Agriculture remains the mainstay of Malawi's economy, contributing significantly to employment, economic growth, export earnings, poverty reduction, food security and nutrition. It also plays a critical role in ensuring sustainable use of natural resources. However, agriculture has continued to be characterised by low productivity, partly due to soil fertility depletion and low use of soil-appropriate and crop-appropriate fertilisers. This is the case despite the immense efforts the Government of Malawi has made in investing in fertilisers through the Farm Input Subsidy Programme (FISP) for the last 15 years. Currently, the Government of Malawi has put in place a new input subsidy program called Affordable Inputs Program (AIP).

The National Fertiliser Policy (NFP) seeks to enhance performance of the fertiliser industry by sustainably increasing profitable access to and use of soil- and crop-appropriate fertilisers by farmers. This will contribute to increased sustainable agricultural production and productivity, a key priority area under the National Agriculture Policy (NAP). As such it will be a cornerstone for transforming the agriculture sector from subsistence to market orientation.

Increasing affordable access to and use of quality fertilisers in a profitable manner will be the principal focus of this policy. However, the NFP recognises that there are different types of farmers in Malawi, and if all are to increase their use of high-quality fertiliser products, different strategies will have to be implemented to meet the needs of these different types of farmers. In particular, smallholder farmers continue to face significant constraints to accessing high-quality fertiliser products from the market, therefore, while the overall long-term goal will be to encourage increases in quality fertilisers accessed through the commercial channels, the Government of Malawi will continue to support farmers through a reformed fertiliser subsidy programme and through new innovative loan-based fertiliser programmes that integrate the private sector in order to encourage development of a commercial fertiliser industry.

The NFP will try to address the many challenges that exist in the fertilizer industry thereby to increase access of high quality fertilisers by smallholder farmers and improve agricultural production and productivity. Some of the challenges include poor quality of both inorganic and organic/bio-organic fertilizers due to adulteration and limited enforcement of regulations on fertiliser quality standards, delayed delivery of fertilisers, mainly in the past through the FISP, inappropriate fertiliser application and poor soil and farmland management practices, use of general blanket fertilizer recommendations by smallholder farmers instead of area and crop specific fertilizer recommendations.

The Government of Malawi has demonstrated strong commitment to farmers' access to fertilisers and will maintain this commitment through coordinated implementation of the NFP, which will form an integral part of achieving agricultural transformation in Malawi.

The NFP is aligned to Malawi National Agriculture Policy (NAP) and the Malawi Growth and Development Strategy III, which are the overarching long-term and medium-term development strategies, respectively. The Policy is also aligned to the National Resilience Strategy (NRS). Since the NFP is aligned to the NAP, it will be implemented through the new National Agriculture Investment Plan (NAIP), which is a follow up to the Agriculture Sector Wide Approach (ASWAp) investment plan.



Honourable Lobin C. Lowe, M.P.,
MINISTER OF AGRICULTURE

PREFACE

For many years, Malawian farmers have used low levels of fertilisers (both organic and inorganic). This has led to low levels of farm productivity; hence low farm incomes, food insecurity and under nutrition. Although a significant share of farmers has managed to access fertilisers in the past through the Farm Input Subsidy Programme (FISP), currently through Affordable Inputs Program (AIP) and some commercially, the country still applies suboptimal levels of fertilisers. This has largely been due to unaffordability of commercial fertilisers to smallholder farmers. The other challenge has been delayed delivery of fertiliser, mainly in the past through the FISP. Inappropriate fertiliser application and poor farmland management practices have also led to negative effects on natural resources and the environment.

The quality of fertilisers that farmers obtain at the farm level has not always been at par with necessary quality, often due to adulteration of the fertilisers and limited enforcement of regulations on fertiliser quality standards. Moreover, the Government of Malawi has maintained blanket recommendations on the types of fertilisers farmers should use. Nonetheless, there is an opportunity to base recommendations on up-to-date soil tests, which have now been completed by the Department of Agricultural Research Services (DARS). In addition, some private-sector initiatives have already started providing area-specific fertiliser blends, based on soil analysis.

The National Fertiliser Policy (NFP) has therefore been developed, to address the above issues to facilitate increase in sustainable agricultural production and productivity, which will be crucial if the envisaged agricultural transformation outlined in the National Agriculture Policy (NAP) is to be realised. Hence, the NFP identifies seven priority areas, each with a set of policy statements and strategies necessary for realising the overall goal of the National Fertiliser Policy (NFP). It also responds to the COMESA/SADC fertiliser policy harmonisation processes and the Abuja Declaration on fertiliser use in Africa, which is part of the Comprehensive Africa Agriculture Development Programme (CAADP)/Malabo Declaration, under the African Union.

The National Fertiliser Policy (NFP) is premised on a spirit of inclusiveness and coordinated partnerships. In developing the policy, nationwide consultations were conducted at district and national levels. An initial consultation that included most of the stakeholders in the fertiliser industry, was held in November 2015 to solicit input for the formulation of the NFP. Numerous focus group discussions were then conducted with farmers and civil society groups, through the leadership of the Department of Agricultural Research Services (DARS), in collaboration with the New Alliance Policy Acceleration Support project (NAPAS: Malawi) and the Civil Society Agriculture Network (CISANET). Private sector players were also consulted through the Fertiliser Association of Malawi and one-on-one key informant interviews with private companies involved in the fertiliser industry. In addition, regional consultations with farmers and farmers' organisations, agro-dealers, private sector, academia, civil society, Government, parastatals and development partners were conducted in August 2017, to obtain their inputs on the zero-draft NFP. A national validation workshop was then held in March 2018 before finalizing the Policy.

Implementation of the National Fertiliser Policy (NFP) will require coordination of various stakeholders beyond the public sector, with the Ministry of Agriculture (MoA) playing a crucial leading role. Therefore, the Government of Malawi, through the MoA asserts its strong commitment to the implementation of the NFP and hereby appeals to all stakeholders to work together in harmony to achieve the objectives of the NFP for the greater benefit of all Malawians.

May God bless Malawi!



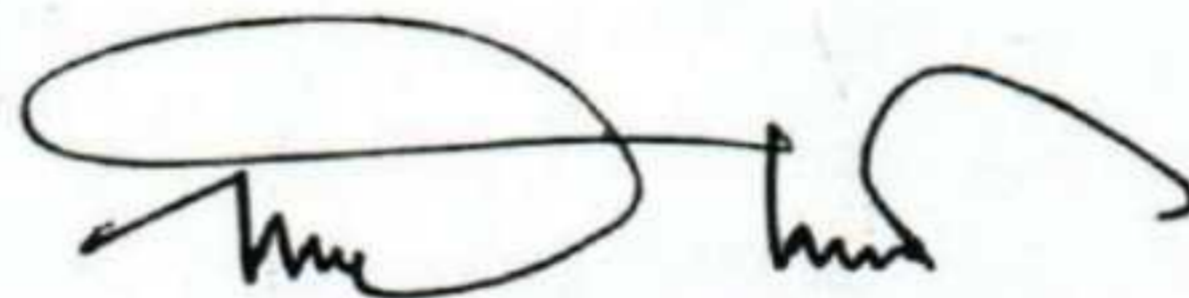
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The Ministry of Agriculture (MoA) led and coordinated the formulation and preparation of the National Fertiliser Policy (NFP) through the Department of Agricultural Research Services (DARS) with financial support from the Government of Malawi, the United States Agency for International Development (USAID) through New Alliance Policy Acceleration Support (NAPAS: Malawi) project, and the Alliance for a Green Revolution in Africa (AGRA).

A highly consultative process was used to develop the National Fertiliser Policy (NFP), incorporating inputs from a broad range of stakeholders. The Ministry is thankful to all the stakeholders that contributed to development of the Policy particularly, the Fertiliser Association of Malawi, Civil Society Agriculture Network (CISANET), National Smallholder Farmers Association of Malawi (NASFAM), Farmers Union of Malawi (FUM), the Ministry of Industry, Ministry of Justice, Ministry of Trade and the Office of the President and Cabinet. The following organisations also supported the development of the Policy: Alliance for a Green Revolution in Africa (AGRA), the African Fertiliser and Agribusiness Partnership (AFAP), and the International Fertiliser Development Centre (IFDC). In total 557 participants (99 female) were consulted across the country.

The Ministry would like to thank Dr Wilkson Makumba who led the process of developing the Policy and his team: Mr David Kamangira, Dr Moses Munthali, Mr Kondwani Makoko and Mr Samson Kazombo. Special thanks to New Alliance Policy Acceleration Support (NAPAS) team: Dr Flora Nankhuni, Dr Athur Mabiso, Mr Zephania Nyirenda, Dr Christone Nyondo and Joseph Kanyamuka.



Dr. Wilkson Makumba

DIRECTOR OF AGRICULTURAL RESEARCH SERVICES

LIST OF ACRONYMS AND ABBREVIATIONS

ADMARC	Agricultural Development and Marketing Corporation
AGRA	Alliance for Green Revolution in Agriculture
AIP	Affordable Inputs Program
ASWAp	Agriculture Sector Wide Approach
CAADP	Comprehensive African Agriculture Development Programme
CFTC	Competition and Fair Trading Commission
CISANET	Civil Society Agriculture Network
COMESA	Common Market for Eastern and Southern Africa
DAES	Department of Agriculture Extension Services
DAHLD	Department of Animal Health and Livestock Development
DAPS	Department of Agricultural Planning Services
DARS	Department of Agricultural Research Services
DCAFS	Donor Committee on Agriculture and Food Security
DCD	Department of Crop Development
DLRC	Department of Land Resources and Conservation
EPA	Extension Planning Area
FAO	Food and Agriculture Organisation of the United Nations
FISP	Farm Input Subsidy Programme
FUM	Farmers Union of Malawi
GDP	Growth Domestic Product
IFPRI	International Food Policy Research Institute
M&E	Monitoring and Evaluation
MGDS	Malawi Growth and Development Strategy
MITC	Malawi Investment and Trade Centre
MoA	Ministry of Agriculture
MoCENU	Ministry of Civic Education and National Unity
MoCDSW	Ministry of Community Development and Social Welfare,
MoEPDPSR	Ministry of Economic Planning and Development, and Public Sector Reforms
MoE	Ministry of Education
MoE	Ministry of Energy

MoF	Ministry of Finance
MoFNR	Ministry of Forestry and Natural Resources
Mol	Ministry of Industry
MoIn	Ministry of Information
MoJ	Ministry of Justice
MoL	Ministry of Lands
MoLa	Ministry of Labour
MoYS	Ministry of Youth and Sports
MoT	Ministry of Trade
MoTPW	Ministry of Transport and Public Works
MSMES	Micro to Small and Medium Enterprises
NAIP	National Agriculture Investment Plan
NAP	National Agriculture Policy
NAPAS	New Alliance Policy Acceleration Support, Malawi (NAPAS: Malawi) Project
NASFAM	National Smallholder Farmers Association of Malawi
NGO	Non-Governmental Organisation
OPC	Office of the President and Cabinet
SADC	Southern African Development Community
SFFRFM	Smallholder Farmers' Fertiliser Revolving Fund of Malawi
TEVETA	Technical, Entrepreneurial, and Vocational Education and Training Authority
UN	United Nations
USAID	United States Agency for International Development

GLOSSARY OF TERMS

Fertiliser	Means any substance that is intended or offered for improving or maintaining the growth of plants or the productivity of the soil, including liquid and bio substances but not farmyard or stable manure, kraal manure, compost, wood ash, town refuse or night soil when sold in its original condition and under its name.
Organic Fertiliser	Are fertilisers derived from animal products, plant residues, fossil guano, peat, and containing sufficient nutrients and micronutrients which are essential for plant growth as well as soil structure, texture and health.
Inorganic Fertiliser	Are fertilisers that are synthetic or man-made inorganic compounds derived from by-products of petroleum such as ammonium sulphate and potassium sulphate, and rock minerals such as phosphate rock, limestone and gypsum.
Bio-fertiliser	A fertiliser that contains efficient beneficial living microorganisms which, when applied to seeds, plant surfaces, or soil, colonize the rhizosphere or the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to the host plant.
Compost	Means vegetable matter or mixed vegetable and animal matter so decomposed as to form an organic manure.
Blending	The process of mixing different fertiliser compounds e.g. ammonium nitrate, potassium chloride, ammonium phosphate, and triple superphosphate in appropriate proportions to produce a composite fertiliser.
Adulterated fertiliser	Means any commercial fertiliser that contains an ingredient that renders it injurious to beneficial plant life when applied in accordance with the directions on the label, or contains crop or weed seed, or is inadequately labelled to protect plant life.
Adulteration of fertiliser	Adulteration of fertilisers involves the practice of adding extraneous material to a standard fertiliser to lower its quality.
Fertigation	The injection of fertilisers, soil amendments and other water soluble nutrients in an irrigation system to nourish plants grown under irrigation.
Fertiliser trade	Exchange of fertiliser, including domestic, imports and exports.
Truth-in-labelling	Weight, contents, and properties verified.
Fertiliser production	Includes both manufacturing and blending of inorganic and organic fertilisers

1. INTRODUCTION

1.1. Overview

The National Fertiliser Policy (NFP) defines the strategy for developing the fertiliser industry in Malawi, to increase affordable and profitable access to high-quality fertiliser for farmers over the next five years. The NFP is aligned to the National Agriculture Policy (NAP) and envisions that by 2026, agriculture in Malawi will increasingly be commercially oriented through specialization of farm production that uses soil- and crop-specific high-quality fertilisers to achieve sustainable agricultural production and productivity.

Commercial demand for all inorganic, bio-organic and organic fertiliser depends on the demand for farm outputs. Therefore, increased use of quality fertiliser products will largely be driven by increased demand for Malawian farm output, value addition in downstream value chains and exports, all of which must be profitable to create the derived demand for high-quality fertilisers. However, for subsistence farmers, fertiliser demand is largely driven by food security concerns. Therefore, the National Fertiliser Policy (NFP) has different strategies for different categories of farmers to stimulate demand for quality fertilisers. In addition, there will be need to increase availability of support services around fertilisers and other complementary interventions, which are necessary to enhance the returns to fertiliser application. These services will primarily include agriculture extension service provision, proper soil fertility and agronomic practices, improved functioning of contract farming arrangements and access to affordable credit for increased access to farm inputs.

The National Fertiliser Policy (NFP) will primarily promote access to both quality inorganic, bio-organic and organic fertilisers through commercial channels in conjunction with implementation of government programmes designed to increase demand and use of soil-specific and nutrient-rich quality fertilisers. This will be done to ensure sustainable agriculture production and productivity that will ultimately lead to increased farm profits and food and nutrition security.

The emphasis of the National Fertiliser Policy (NFP) is on significantly increasing access to and profitable use of high-quality fertiliser products, which will be instrumental in achieving farmer-led agricultural transformation and the commercialization agenda enshrined in the National Agriculture Policy (NAP). The NFP will also facilitate reforms of various institutions, organisations, public and private entities engaging in the fertiliser industry of Malawi. These will be necessary if the aspirations of the NFP are to be realised. The policy has eighty outcomes that include improved access to high quality fertiliser, increased domestic fertiliser production, increased investment in fertiliser sector, empowerment of local Malawians and creation of jobs.

1.2. Fertiliser Access and Use in Malawi

Since Malawi achieved independence in 1964, agriculture has remained the mainstay of the nation's economy. According to the 2017 Annual Economic Report, agriculture accounts for 28.2 percent of Gross Domestic Product (GDP) and generates over 80 percent of national export earnings. The 2013 Malawi Labour Force Survey report indicates that agriculture employs 64.1 percent of the country's workforce. Agriculture also contributes significantly to national and household food security and nutrition.

The Government of Malawi recognises the importance of the agriculture sector as an engine of economic growth and its contribution to human development of the country. To this end, the Government, for the past twelve years, has consistently allocated more than 10 percent of the annual national budget to agriculture, with a lion share being allocated to the Farm Inputs Subsidy Programme (FISP) primarily for fertiliser supply to smallholder farmers. For instance, the government allocated about MK33 billion to the FISP during the 2017/18 season which was 24% of the agriculture sector budget and around 3 percent of the total Malawi national budget. Prior to 2016/17, estimates show that on average, the country had been allocating about 9.8 percent of Malawi's national budget per annum to subsidize farmers access to fertiliser. Currently, the Government of Malawi has allocated more financial resources to AIP budget than previous FISP budget.

Under the FISP, inorganic fertiliser use has increased from less than 10 kg/ha in 2005 to 55.8 kg/ha in 2016, a rate considered to be among the highest in Africa and surpassing the target of 50 kg/ha espoused in the 2006 Abuja declaration. This has been cited as one of the reasons for an increase in productivity of maize from 0.8 t/ha in 2005 to 2.4 t/ha in 2014, although this tapered off to about 1.4t/ha in 2015/16 due to weather effects of El Nino but has rebounded to about 2.0t/ha in 2016/17, partly due to favourable rains. The returns to this large investment in fertilisers have, therefore, been relatively limited compared to the potential, especially in a year of poor weather. The returns have also been limited due to low nitrogen use efficiency (NUE) as described below.

This implies that while fertiliser investments remain crucial to the development of the agriculture sector, other important investments have to be made, particularly those that would complement all the inorganic, bio-organic and organic fertiliser investments. The investments should include those that address depletion of soil organic matter and nutrients due to soil erosion, continuous mono-cropping and inappropriate farming practices through integrated soil fertility management and increasing investments in extension that would enhance the returns to fertiliser application and irrigation. To ensure sustainability, the role of the private sector in supplying quality fertilisers will have to increase in prominence. In addition, timely delivery will ensure timely application of fertiliser that is critical for optimising both yield and quality, as it reduces nutrient loss, increases the efficiency of nutrient use and reduces damage to the environment. Some studies show that Malawi's nitrogen use efficiency remains very low at around 11.82 kg of maize per 1 kg of nitrogen applied. Studies show that NUE has to increase to at least 28 kgs of maize for every kg of nitrogen applied, for maize farming to become profitable. The studies also show that fertiliser has to be subsidised at the rate of 41% and 72% for it to be profitable to a maize farmer that is selling at lean season market prices and harvest

season or farm gate market price, respectively. Interventions to raise nutrient use efficiency will therefore be crucial for enabling the profitable use of fertiliser by farmers thereby raising the commercial demand for all inorganic, bio-organic and organic fertilisers. Such complementary interventions, including increasing organic matter in the soils and reducing acidity of the soils, would result in increased returns for the same fertiliser applied.

A separate issue is that commercial supply of fertilisers has not increased significantly, during the twelve-year period that the Government has been investing in the FISP. There have been questions about how best to increase commercial access to all inorganic, bio-organic and organic fertilisers. Evidence suggested that to some extent the FISP might have at times crowded out private sector's supply of inorganic fertiliser (Michigan State University Research and Fertiliser Association of Malawi). In addition, the inorganic fertilisers supplied through commercial channels have remained unaffordable for most farmers. The private sector has been relatively more efficient in timely supply of fertilisers to retail outlets. However, poor road infrastructure in some remote areas makes it difficult for private sector to serve farmers in these areas (FISP Private Sector Engagement Evaluation, 2015/16). In this regard, agro-dealers have increasingly supplied fertilisers, other farm inputs and extension services to smallholder farmers in remote rural areas. It is, therefore, imperative that Government creates an enabling environment including for agro-dealers and Small and Medium Enterprises (SMEs) to flourish.

The 55.8kg per ha of fertiliser that Malawi applied in 2016, is still below fertiliser application rates in more developed countries - for example China applies as much as 500kg per hectare on average while the United States applies about 125 kg of fertiliser per hectare. This implies that while Malawi has made considerable progress in increasing fertiliser application rates, there is still room for improvement, especially in terms of nutrient use efficiency.

It is crucial to ensure that the type and quality of all inorganic, bio-organic and organic fertilisers applied are optimal. Most of the inorganic fertilisers applied in Malawi consist of the traditional NPK and urea. Urea has the highest nitrogen content and therefore reduces the cost of soil nutrients. However, in areas with acidic soils, urea would not be appropriate. The NPK fertilisers, such as the 23:21:0+4S and 23:10:5+6S+1Zn, have low nitrogen content. Nonetheless, they contain other nutrients, such as phosphorus, potassium, sulphur and zinc, which are important for a healthy plant growth. The Ministry of Agriculture directed all fertiliser companies to supply 23:10:5+6S+1Zn starting from the 2018/19 season, which is still a blanket fertiliser recommendation. Fertilisers include calcium ammonium nitrate and lime, both of which contain calcium and can address acidity of soils to improve nutrient uptake by plants. The Guide to Agriculture Production (2016) reported that Boron fertilisers are less commonly used, even though Boron is a crucial nutrient for plant productivity, especially for horticultural crops.

On the other hand, all inorganic, bio-organic and organic fertilizers are very important as they help improve soil fertility, increase nutrient holding capacity and nutrient use efficiency by the crops. Most organic and bio-organic fertilizers contain different types of both macro and micronutrients required by the crops for optimum yield production. However, most of the current organic and bio-organic fertilizers that are produced locally contain very low levels of nutrients especially NPK implying that they are of poor quality.

There has been lack of proper regulation and monitoring on the quality of the inorganic, bio-organic and organic fertilizers in the country. Therefore, this policy will promote a wider set of quality fertilisers rich in plant nutrients that are necessary for sustainable improved productivity and agricultural diversification.

1.2.1. Structure of the Fertiliser Industry in Malawi

In the 1970s the Agriculture Development and Marketing Corporation (ADMARC) was the primary supplier of fertilisers in the country. However, in the 1990s after liberalization, its market share decreased substantially. By 1999, ADMARC accounted for less than 12% of the fertiliser market. According to the FISP Implementation Report (2016/17), ADMARC's and Smallholder Farmers Fertiliser Revolving Fund of Malawi (SFFRFM's) share of total fertiliser accounted for about 5% each. Currently, there are over 20 companies in the fertiliser industry although monopolistic tendencies have been reported. In addition, prices of fertiliser in Malawi are relatively high compared to similar countries in the region due to high transportation costs partly caused by uncompetitive behaviour and inefficiencies in the transport sector¹. In fact, studies have shown that the transport costs contribute 60% of the cost of fertiliser to farmers. Development of rail would reduce transport cost contribution to 23%². This policy will endeavour to address issues of anticompetitive behaviour and support the improvement of market information systems in the fertilizer industry.

1.2.2. Fertiliser Importation, Blending, Production and Marketing

Malawi sources most of its inorganic, bio-organic and some of the organic fertilisers from international markets, primarily from the Middle East, other European countries, Asia and South Africa mainly through Beira and Nacala ports in Mozambique. Inorganic fertilizers are the most imported in large quantities. This is because Malawi has not yet discovered significant deposits of minerals to produce inorganic fertilisers. In addition, the petroleum industry, which provides the raw materials to produce nitrogen fertilisers does not exist in Malawi. Fertilisers imported into Malawi are mainly through the private sector and parastatals (ADMARC and SFFRFM). Importation and production of organic and bio-organic fertilisers is also increasing and at least five companies have already entered this market in the last five years.

Although Malawi was the first African country to start blending fertilisers, only two companies, Malawi Fertiliser Company and Optichem (2000) Malawi Limited, are currently blending about 50,000 metric tonnes of fertilisers, which is about 12 percent of total fertiliser consumption. In part, this is because of insufficient incentives for increased blending, such as tax incentives. For example, imports of magnesium and gypsum, which are ingredients for domestically blended fertilisers, are subject to an import tax, yet importation of a finished blended product is not subject to the same levy. There is evidence showing that blending fertilisers, based on soil testing, reduces the fertiliser price and increases agricultural productivity. Therefore, this policy will promote blending of fertilisers based on soil testing.

Domestic production of inorganic fertiliser is non-existent but there are private sector initiatives to locally produce phosphate fertilisers and lime, where mineral deposits have been found. Further exploration for deposits may be warranted to find additional deposits to increase domestic fertiliser production. Much of the

1 CFTC 2017. Competition Analysis of the Fertilizer Market in Malawi; CCRED working paper, 3/2015;

2 CFTC, 2015. Comparative Assessment of the Price of Fertilizer and the Contribution of Transport Cost the Price of Fertiliser.

production of fertilisers in Malawi is in the form of organic. These include liquid fertilisers, manures such as composts, green manure, and tobacco pellets. In addition, there are bio-fertilisers, such as inoculants. Prior to 2015, DARS was conducting research, producing and selling legume inoculants. In 2015 the private sector took up commercialisation of inoculants. Since then there has been an increase in the production and uptake of inoculant for soya bean and groundnut production. Overall, the challenge with the organic and bio-organic fertiliser subsector is that they have not been regulated and quality standards need to be established, especially for commercial production.

The policy will promote the upscaling of production, marketing and use of both high-quality inorganic and organic fertilisers. Furthermore, the policy will also encourage domestic production of all kinds of high quality fertilisers from locally available natural resources, empowerment of local Malawians participation in the fertiliser industry. The domestic production of both inorganic and organic fertilisers will result in reduced cost of fertilisers, increased job creation, increased participation of local Malawians at all fertiliser value chain, reduced imports and increased exports leading to increased foreign exchange earnings.

1.3. Rationale for the National Fertiliser Policy

Malawi's policy framework governing the production, marketing and use of fertiliser has remained rudimentary for decades. The Fertilisers, Farm Feeds and Remedies Act of 1970 is old, outdated and does not address most of the current issues and challenges faced such as fertilizer adulteration (i.e. underweight and poor quality of fertilisers) in the fertilizer industry. Consequently, there is currently no legislation effectively governing the fertiliser industry. There was an attempt to develop a fertiliser strategy, however it was never implemented. There was also an attempt to develop a fertiliser bill, which could not be tabled in Parliament before this Policy is approved.

The World Bank ranks countries on their enabling environment for doing business in Agriculture. Among the indicators measured is a fertiliser indicator that measures the laws and regulations on registration, import and quality control of fertiliser products, all of which are crucial to increasing fertiliser access. Malawi was ranked 44 out of 62 countries. Some of Malawi neighbours scored higher: Zimbabwe 29; Tanzania 37; Rwanda 38; Zambia 39; and Uganda 40. Therefore, the regulatory environment needs to be improved to reduce these inefficiencies.

Agriculture in Malawi is also characterised by low productivity, partly due to soil fertility decline, land degradation and nutrient use inefficiency, which are all affected by the lack of a guiding fertilizer policy framework. Studies show that there is an increased rate of soil fertility decline due to lack of intensive use of ISFM practices and soil loss due to soil erosion over the past two decades. For instance, the soil loss has increased from an average of 20 metric tons per ha per year in 1992³ to 29 metric tons per ha per year in 2014⁴.

Therefore, this National Fertiliser Policy has come at the right time as it aims to address the various challenges affecting the fertilizer industry in the country and will be the basis for revising the draft fertiliser bill.

³ World Bank, 1992. Economic report on environmental policy, Malawi. Volumes I and II, Lilongwe, Malawi; ⁴Vargas Ronald and Christian Omuto, 2016. Soil loss assessment in Malawi. Rome, Italy, ISBN: 978-92-5-109516-

1.4. Linkages with other Policy Frameworks

The NFP is aligned to the broader development goals and vision for Malawi as articulated in Malawi 2063 document and the Malawi Growth and Development Strategy (MGDS III). Within the agriculture sector, the NFP is primarily linked to the NAP and the National Agriculture Investment Plan, which is a follow up to the Agriculture Sector Wide Approach (ASWAp) investment plan. Implementation of the NFP will support the sustainable production and productivity priority area in the NAP, and programme in the NAIP, which focuses on production and productivity for growth in the agriculture sector.

The NFP is also consistent with other sub-sectoral and cross-sectoral policies and strategic documents of the Government of Malawi, such as the National Resilience Strategy (2017) in that it contributes to the pillar on resilient agricultural growth. The policy is also in line with the Climate Change Management Policy (2016).

The NFP is related to the Land Resources Management Policy and Strategy (2000) as it proposes strategies to complement fertiliser use with sustainable land resources management for improved returns to fertilisers. The Agricultural Extension Policy (2000), is another policy that the NFP links closely to as it emphasises the role of agricultural extension service provision as outlined in the NFP priority area on Research, Development and Extension Support.

In addition, the NFP is connected to the Contract Farming Strategy (2016) and the National Export Strategy (2012) by emphasizing the need to supply fertilisers for different crops, including commercial crops. The NFP is also linked to the National Environmental Policy (2004) and the National Land Use Planning and Management Policy (2005) as it relates to the priority area that addresses sustainability and environmental stewardship in the fertiliser industry and proper use of land to avoid land degradation.

The NFP will promote fertilisers containing micronutrients that are essential to human nutrition and health. This is in line with the National Multi-Sector Nutrition Strategic Plan (2018-2022). It will also promote extension on fertiliser use in an inclusive manner to align with the National Gender Policy (2015) and the National Youth Policy (2013).

At the international level, the NFP subscribes to and is aligned with the Sustainable Development Goals of the United Nations (SDGs); the World Food Summit declaration of 1996; the African Union Abuja Declaration on Fertiliser for an African Green Revolution (2006) and Malabo declaration (2014) on Agriculture and Food Security in Africa; in addition to the COMESA and SADC protocols on fertiliser policy framework harmonisation to achieve sustainable agricultural growth.

1.5. Guiding Principles

The following are core values that guide the NFP in its formulation and implementation:

(i) Self-determination and Country Ownership

The NFP is premised on the principle of self-determination and country ownership, in the sense that it draws from the aspirations of the people and sovereignty of Malawi. It is not based on external ideologies imposed on the people and essentially links to the independence and autonomy of Malawi, to chart its own course of development as pertaining to fertiliser and agriculture in general. The Policy is consistent with the constitution of the republic of Malawi.

(ii) Mutual Accountability

There is recognition of the importance of mutual accountability in the NFP as a mechanism for monitoring progress towards agreed upon milestones and ensuring coordinated implementation. The understanding is that the Policy will be implemented by different stakeholders who may, at times, have differing objectives that may be at odds with each other. Thus, the principle of mutual accountability serves as a mechanism to rally all stakeholders behind the common goal of the NFP and to hold each stakeholder accountable to all others for effective implementation.

(iii) Science and Evidence-based Decision-making

The NFP is founded on the science of soils and fertilisers as well as research evidence on policy impacts. It recognises that fertilisers are fundamentally chemical compounds either being organic (biochemical) or inorganic. In addition, it recognises soil science, which includes soil physics, chemistry, biology and water management. The NFP is anchored on empirical evidence on land resources, fertilisers and agriculture, which have been generated in Malawi and other countries.

(iv) Stakeholder Inclusiveness and Equity

From the beginning of formulation of the NFP to the ultimate implementation, monitoring and evaluation, the policy encourages inclusiveness and equitable participation of all stakeholders. It recognises that unless all relevant stakeholders are included in the policy, in one way or another, the goal, objectives and ultimate benefits emanating from the implementation of the policy may not be equitable. Hence, the NFP makes reference to women, youth and marginalised groups and how they will be included to benefit from fertilisers.

(v) Strategic Prioritization, Synergy and Sequencing

The NFP prioritises a set of areas for intervention, based on needs and importance, while ordering the interventions in a manner that will allow for complementarities that may arise. It is on the understanding that not all things can be done at the same time within the specified NFP implementation period; therefore, specific intervention areas must be prioritised in a logical and strategic manner.

(vi) Responsible Stewardship for Sustainable Environmental Management

Responsible stewardship over natural resources and environment are engrained in the NFP. This is because fertilisers are chemical compounds that can have both positive and negative effects on the environment, depending on how they are used and managed. In this regard, the NFP strives to maximise the positive outcomes of fertiliser use, while mitigating the potential negative environmental impacts. It recognises the complementarities that exist between judicious fertiliser use and sustainable land management.

(vii) Ethics and Moral Consideration

The NFP takes into consideration, ethics and moral obligation to the people. The policy addresses issues pertaining to ethical administration of programmes and interventions in the fertiliser industry, with an understanding that the stakeholders have moral obligation to the people, who must benefit from fertiliser use.

2. BROAD POLICY DIRECTIONS

2.1. Policy Goal

To sustainably increase commercial supply, access to and efficient use of high-quality fertilisers for increased agricultural production and productivity.

2.2. Policy Outcomes

The NFP has the following eight policy outcomes:

- (i) Improved timely availability and accessibility of high-quality affordable fertilisers for farmers.
- (ii) Increased fertiliser use efficiency.
- (iii) Increased use of appropriate cutting-edge technologies in the fertiliser industry including soil testing, and fertiliser blending.
- (iv) Improved enabling environment for the fertiliser industry.
- (v) Increased compliance with required standards for all types of fertiliser products.
- (vi) Increased access to objective and truthful information about fertiliser products and fertiliser use.
- (vii) Reduced negative environmental impact caused by fertiliser production and use.
- (viii) Increased job creation for the locals through fertilizer production within the country

2.3. Policy Objectives

The following are the objectives of the National Fertiliser Policy that are expected to be met by 2026:

- (i) To increase by 75 percent, the number of farmers, including women and youth, timely accessing high-quality fertilisers through commercial channels.
- (ii) To increase the use of soil analysis and fertiliser testing services by 50 percent.
- (iii) To increase the volume of high quality domestic fertiliser production and blending based on soil tests, by 50 percent.
- (iv) To increase the number of farmers, frontline extension staff, agro-dealers accessing information on the appropriate fertiliser formulations and use.
- (v) To increase the number of private sector investors in the manufacturing and blending of fertilizers in fertiliser industry by 100 percent.
- (vi) To double the value of commercial fertiliser trade imports and exports involving Malawian firms.
- (vii) To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.
- (viii) To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20 percent.

3. POLICY PRIORITY AREAS

The NFP has the following seven policy priority areas:

1. Farmers' Access to High-Quality Fertilisers;
2. Institutional Development and Coordination;
3. Public Investments and Support;
4. Research, Development and Extension Support;
5. Private-sector Led Fertiliser Industry Development;
6. Fertiliser Quality Standards and Truth in Labelling;
7. Sustainability and Environmental Management.

3.1. Policy Priority Area 1: Farmers' Access to High-Quality Fertilisers

The majority of Malawian farmers continue to use very low quantities of fertiliser partly due to the fact that most fertilisers supplied in the commercial markets are not affordable. This is partly due to dependence on imported fertiliser products, anti-competitive and unfair trading practices. The high costs on fertilisers are also due to transportation costs. The NFP will therefore address challenges associated with farmers' limited access to high quality fertilisers.

Policy Statements

- 3.1.1. Regulate the fertiliser industry for fair and competitive market behaviour

Strategies

- Monitor fertiliser market prices for fairness and competitiveness;
- Disseminate fertiliser price information to fertiliser users;
- Monitor market behaviour in support services such as transport, bagging and warehousing;
- Sensitise fertiliser users on fair trading practices;

- 3.1.2. Facilitate timely and equitable farmers' access to high quality fertiliser

Strategies

- Promoting provision of credit and loan facilities for farmers to access fertiliser especially women and youth;
- Disseminate information on availability and use of various fertiliser products to farmers to enhance crop productivity;
- Encourage private sector to package fertilisers in different sizes to suit different categories of farmers, depending on land size and income levels;
- Improve efficiency of affordable input programs;
- Improve the marketing environment for agricultural commodities.

- Encourage farmers to form cooperatives and farmer groups to negotiate for better prices;
- Lobby for the opening of fertilizer retail outlets in the rural hard to reach areas to reduce the drudgery of walking long distances to access the fertilizer;
- Promote competitive agricultural produce pricing in output market to increase farmers' liquidity so that they can access more fertilizer for increased productivity

3.2. Policy Priority Area 2: Institutional Development and Coordination

Successful implementation of the NFP will require creation by the Malawi Government of a semi-autonomous National Fertiliser Regulatory Commission (NFRC) which shall be responsible for the regulation of the fertilizer industry, administration and enforcement of the Fertiliser Act and the regulations. The Commission will be self-sustained in the implementation of its day-to-day activities. The current Fertiliser, Farm Feeds and Remedies Act (Cap. 67:04) does not provide establishment for a fertiliser commission with semi-autonomy in fertiliser regulation. Additionally, lack of good and modern infrastructure combined with inadequate skilled staff poses a challenge in ensuring effective regulation of the fertilisers to enhance availability of high quality fertilisers. Therefore, it is of paramount importance that the policy should strengthen the fertiliser regulatory framework, institutional and human capacity.

Policy Statements

- 3.2.1. Facilitate establishment of a National Fertiliser Regulatory Commission (NFRC) that will regulate the fertilizer industry in Malawi

Strategies

- Develop new Fertiliser Act that will establish the NFRC;
- Facilitate the appointment of fertiliser registrar, inspectors and analysts;
- Facilitate the appointment of the fertilizer board
- Facilitate the establishment of a fertiliser fund that will comprise:
 - i. Fees for fertiliser registration and accreditation;
 - ii. Fertiliser levy;
 - iii. Inspection fees;
 - iv. Penalties for offenders.
- Register and accredit entities eligible and qualified to participate in the fertiliser industry.

- 3.2.2. Spearhead the periodic review of the Fertiliser Act and regulations to align with international protocols on fertiliser and maintain their effectiveness with time.

Strategies

- a. Review and enforce fertiliser standards and regulations;
 - b. Ensure integrity and honesty in the fertilizer market and industry.
- 3.2.3. Promote stakeholder coordination in formulation, implementation, and review of the NFP and related strategies, investment plans and programmes.

Strategies

- a. Collaborate closely with MBS, COMESA and SADC on matters of setting standards and regional harmonisation protocols;
- b. Collaborate with CFTC on matters concerning anti-competitive behaviour and unfair trading in the fertiliser industry;
- c. Create and manage a database on fertilisers, fertiliser standards and registry of industry stakeholders.

3.3. Policy Priority Area 3: Public Investments and Support

Public investments and policy support are crucial to the growth and development of the fertiliser industry. As such, it will be critical for the public sector to provide an enabling environment through public investments, and policy and regulatory reforms in the fertiliser industry. Currently, there is inadequate public investment to put in place policies and regulations that will facilitate significant private sector investment.

Policy Statements

- 3.3.1. Create enabling environment for increased and accelerated private sector investments in the fertiliser industry:

Strategies

- a. Reduce the time taken and cost incurred to register fertiliser products by reviewing the relevant legislation;
 - b. Review tax incentives for the fertiliser industry;
 - c. Facilitate the establishment of new public-private partnerships in the fertiliser industry.
- 3.3.2. Mobilise public financial resources and technical expertise for the upgrading of existing infrastructure supporting the fertiliser industry and development of new ones, where appropriate, especially in remote rural areas:

Strategies

- a. Engage Treasury and Development Partners to provide more resources in the budget for infrastructure such as laboratories for soil testing and research;
- b. Facilitate provision of technical expertise to agro-dealers, small to medium business entrepreneurs that supply fertiliser products and are involved in fertiliser production and blending.

- 3.3.3. Facilitate public investments in infrastructure that will promote development of the private sector and increase access to affordable and profitable fertilisers for farmers in Malawi:

Strategies

- a. Collaborate with relevant government agencies to support the establishment of an agricultural investment bank;
- b. Promote development and use of national and regional railway network for fertiliser transportation;
- c. Collaborate with relevant government agencies in support of upgrading of rural road infrastructure to lower transportation costs;
- d. Facilitate use of appropriate technology and applications for improved public service delivery.

3.4. Policy Priority Area 4: Research, Development and Extension Support

The role of agricultural research and extension services in improving best practices for fertiliser use efficiency and profitability of fertiliser cannot be overstated. The current practice is such that most farmers use general fertiliser recommendations and not research evidence-based (area and crop specific fertiliser recommendations, which results in inefficient use of fertilisers and hence low crop productivity. Therefore, there is need to do soil testing for formulation of the appropriate types and rates of fertilisers to be applied to specific areas and crops. The research evidence based areas and crop specific fertilizer recommendations will be disseminated to the farmers through the extension delivery system. The NFP endeavours to scale-up the level and quality of research around fertiliser in Malawi and effective dissemination to farmers for improved crop productivity and profitability.

Policy Statements

- 3.4.1. Ensure that fertiliser formulations and blends are research evidence-based

Strategies

- a. Facilitate soil testing for fertiliser recommendations;
- b. Facilitate production and dissemination of soil fertility maps;
- c. Facilitate formulation/blending of area and crop specific fertilisers;
- d. Promote dissemination of information on appropriate fertilisers for specific crops in specific areas.

- 3.4.2. Support innovation in fertiliser product development and dissemination:

Strategies

- a. Develop new fertiliser production technologies;
- b. Conduct mineral deposits exploration in relation to fertiliser blending and production;
- c. Promote mobile soil testing technologies (e.g. Soil testing kits);
- d. Facilitate blending of organic and inorganic fertilisers;
- e. Evaluate crop yield responses to new fertiliser products;

- f. Facilitate provision of extension and advisory services on fertiliser use and management;
- g. Promote use of soil amendment products and practices to address acidity, alkalinity and salinity of soils.

3.4.3. Training on fertiliser technologies, fertiliser use and soil health:

Strategies

- a. Promote training on fertiliser production and usage in formal education institutions to build capacity for research and extension in the country;
- b. Facilitate in-service training on fertiliser use and soil health specifically targeting extension workers;
- c. Facilitate trainings on fertiliser use and soil health specifically targeting farmers of all gender categories including the youth.

3.5. Policy Priority Area 5: Private Sector-Led Fertiliser Industry Development

Currently, the fertiliser industry in the country is not fully developed as most of the enterprises import fertilisers or raw materials for production or blending. The fertilizer industry has several challenges such as lack of domestic fertiliser production, low participation of the private sector, lack of competitiveness in the fertiliser industry, lack of capital funds for investment, lack of access to information on financing sources in the fertilizer industry. Low participation of private sector such as local enterprises, agro-dealers in production, importation, blending and delivery of high-quality fertilisers to farmers has derailed progress on making fertilisers more widely accessible and affordable. This has, in turn, led to low farm production and productivity. In order to address the current challenges, there is need to encourage many private sector to lead in fertilizer investments. This would result to increased competitiveness of the fertiliser industry and the supply of high-quality fertilisers for improved farm productivity. Therefore, the NFP prioritises the full development of the fertiliser value chain.

Policy Statements

3.5.1. Facilitate access to financial services, including credit and insurance for actors in the fertiliser industry:

Strategies

- a. Promote access to information on financing sources for investments in the fertiliser industry;
- b. Facilitate access to venture capital funds to invest in the fertiliser industry;
- c. Create financing facilities to cater for agro-dealers and SMEs;
- d. Facilitate loan guarantee schemes to reduce lending risk for fertiliser enterprises;
- e. Facilitate availability and access to matching grants and loans;
- f. Facilitate long-term financing for large capital investments in the fertiliser industry;

- 3.5.2. Encourage private sector production and blending of fertilisers to supply a wide range of evidence-based fertiliser formulations for specific markets:

Strategies

- a. Facilitate building capacity for soil analysis and mapping in the private sector;
- b. Facilitate accreditation of soil testing laboratories operated by the private sector;
- c. Facilitate importation of quality machinery and spare parts for fertiliser production and blending;
- d. Facilitate new players involved in the commercial production and trading of organic and inorganic fertilisers;
- e. Promote use of local materials in the production of high-quality organic and inorganic fertilisers;
- f. Promote production and blending of lime and other soil amendment products, including fertiliser fillers;
- g. Facilitate provision of incentives for companies involved in domestic production/blending of fertilisers rather than importing finished fertiliser products.

- 3.5.3. Facilitate fertiliser trade that benefits Malawian farmers and enterprises in the fertiliser industry:

Strategies

- a. Facilitate prioritization of intra-African trade (imports and exports) of high-quality fertilisers by removing trade barriers within regional economic communities;
- b. Facilitate simplification and harmonisation of procedures for fertiliser trade;
- c. Facilitate sourcing of high-quality fertilisers, raw materials and technologies by fertiliser enterprises;
- d. Promote Buy-Malawian fertiliser (e.g. fertilisers produced/blended within Malawi);
- e. Promote efficient and competitive transportation and distribution of fertilisers;
- f. Promote investment in fertiliser warehousing facilities and their proper management, especially in remote rural areas;
- g. Promote efficient output markets to drive demand for fertiliser products.

- 3.5.4. Enhance private sector coordination in the fertiliser industry:

Strategies

- a. Promote reforms of the Fertiliser Association of Malawi to make it more inclusive and effective;
- b. Strengthen coordination of SMEs, registered agro-dealers, and farmer organisations involved in fertiliser supply and distribution;
- c. Facilitate formalization of public and private-sector dialogue through a platform on fertiliser industry development.

3.6. Policy Priority Area 6: Fertiliser Quality Standards and Truth in Labelling

The importance of using high-quality fertilisers cannot be overstated. Use of high-quality fertilizers contributes towards improved fertiliser use efficiency and increased crop productivity. Currently, in the fertiliser market, there is adulteration of fertilisers. In addition, some fertiliser products are sold without any labelling or with inaccurate labelling, implying that farmers are not informed about the contents or appropriate use of the fertilisers. This situation is largely due to lack of regulation and enforcement of fertiliser standards. Therefore, it is important to maintain fertiliser quality standards and ensure truth in labelling of fertiliser products by specifying nutrient composition of the fertilizer products for increased fertiliser use efficiency and crop productivity. To this end, the NFP will ensure that quality standards of fertilisers and truth in labelling of fertiliser products are adhered to.

Policy Statements

3.6.1. Regulate quality standards for all types of fertilisers:

Strategies

- a. Facilitate review of existing standards for inorganic fertilisers;
- b. Facilitate development of quality standards for new inorganic, organic and bio-fertilisers;
- c. Enhance monitoring and enforcement of compliance with quality standards for all types of fertilisers by enterprises.

3.6.2. Promote improvements in fertiliser quality:

Strategies

- a. Provide testing services for all types of fertilisers;
- b. Provide inspection services for the fertiliser industry;
- c. Facilitate trainings of agro-dealers, SMEs and farmers on fertiliser quality.

3.6.3. Support development of private sector initiatives for fertiliser product quality enhancement:

Strategies

- a. Facilitate establishment of internal quality controls;
- b. Facilitate truthful labelling of fertilisers and other products;
- c. Facilitate establishment of association-affiliated quality control mechanisms;

3.7. Policy Priority Area 7: Sustainability and Environmental Management

Empirical evidence shows that sustainable land and water management practices including soil fertility management practices, liming, soil and water conservation, agroforestry, and conservation agriculture practices enhance the efficiency of fertiliser use. However, there is improper use of fertilisers and poor soil health management among some smallholder farmers which has damaging effects on the environment. For example, soil erosion and water pollution (eutrophication) is occurring because of poor land use, inappropriate use of fertilisers or detrimental fertiliser production practices. In addition, inappropriate industrial production practices within fertiliser manufacturing companies may cause air pollution that may have a myriad of detrimental effects on biotic ecosystems. The NFP will ensure that the development of Malawi's fertiliser industry takes place in a responsible and sustainable manner and that it does not cause undue harm on the environment and natural resource base.

Policy Statements

- 3.7.1 Promote investments in and adoption of complementary interventions such as integrated soil fertility management practices/technologies:

Strategies

- a. Facilitate trainings of farmers in complementary interventions that raise the efficiency of fertiliser use;
- b. Facilitate increase in area under soil and water conservation;
- c. Promote use of liming and other products among farmers to address soil acidity;
- d. Facilitate increase in area under soil fertility improvement;
- e. Discourage practices used by farmers that contributes to soil and land degradation, such as burning of crop residues and grasslands, farming along river banks and deforestation;
- f. Facilitate waste recycling for use as manure, fertilisers and soil conditioners;
- g. Facilitate review of environmental laws and develop new ones to improve farmland management practices, reduce soil and land degradation.

- 3.7.2. Enforce Government regulation of the fertiliser industry to ensure that fertilisers do not harm the environment and natural resources in line with the Environmental Management Act:

Strategies

- a. Ensure use of Environmental Impact Assessments (EIA) in setting up fertiliser production enterprises;
- b. Monitor fertiliser enterprises on adherence to environmental standards.

- 3.7.3. Promote private sector adherence to fertiliser production and blending practices that enhance environmental stewardship, and reduce pollution and harm to the natural resource base:

Strategies

- a. Facilitate monitoring of proper waste management in fertiliser industry;
- b. Enhance environmental management capacity of private and public sector;

- 3.7.4. Ensuring that investments in monitoring and surveillance systems are in place:

Strategies

- a. Facilitate investments in monitoring and surveillance systems;
- b. Facilitate trainings of monitoring and surveillance officers;
- c. Facilitate monitoring and surveillance to assess the conditions of soil, water bodies, air and ecosystems;

- 3.7.5. Promote investments and interventions designed to improve fertiliser handling practices so that they are not detrimental to people, soil, water and ecosystems:

Strategies

- a. Facilitate trainings of extension workers and agro-dealers on safeguards of storage and use of fertilisers;
- b. Facilitate trainings of farmers on safeguards of storage and use of fertilisers;
- c. Facilitate sensitization of industrial staff on environmental safeguards, for example fertiliser storage and handling practices.

4. IMPLEMENTATION ARRANGEMENTS

4.1. Institutional Arrangements

The government of Malawi recognises the importance of stakeholders and partnerships in informing policy design and implementation. This section will define the roles and responsibilities of key stakeholders involved in the implementation of the policy. The following institutions will be key in implementation of the NFP:

4.1.1. National Fertilizer Regulatory Commission

There shall be a semi-autonomous National Fertiliser Regulatory Commission to regulate fertiliser industry in the country.

Specific roles of the Commission will include the following:

- Manage the established fertiliser fund that will comprise:
 - a. Fees for fertiliser registration and accreditation;
 - b. Fertiliser levy;
 - c. Inspection fees; and
 - d. Penalties for offenders.
- Registering and accrediting entities eligible and qualified to participate in the fertiliser industry.
- Support the periodic review of the Fertiliser Act and regulations to align with international protocols on fertiliser and maintain their effectiveness with time through:
 - a. Reviewing and enforcing fertiliser standards and regulations; and
 - b. Ensuring integrity and honesty in the fertiliser market and industry.
- Promote stakeholder coordination in formulation, implementation and review of the NFP and related strategies, investment plans and programmes through:
 - a. Collaborating closely with Malawi Bureau of Standards (MBS), Common Market for Eastern and Southern Africa (COMESA) and Southern Development Community (SADC) on matters of setting standards and regional harmonisation protocols;
 - b. Collaborating with Competition and Fair Trading Commission (CFTC) on matters concerning anti-competitive behaviour and unfair trading in the fertiliser industry; and
 - c. Creating and managing a database on fertilisers, fertiliser standards and registry of industry stakeholders.

4.1.2. Ministry responsible for Agriculture

- Will foster sector-wide planning, management and coordination on the affairs pertaining to the fertiliser industry.
- Setting up and reviewing the fertiliser levy from time to time in consultation with the fertiliser commission.
- Make prudent public investments in infrastructures necessary to enhance

private sector investments in the fertiliser industry and improved access and affordability of fertilisers for all farmers.

- Ensure efficient delivery of services pertaining to fertiliser, including the fertiliser loan programmes.
- Support innovative evidence-based modifications to the programmes and projects involving fertilisers that are implemented, in order to make them more sustainable and efficient.
- Support efforts to encourage the efficient use of inputs in relation to irrigation, integrated soil fertility management techniques, agroforestry, and climate smart agriculture in general, and other modern farming technologies.
- Facilitate consultative policy processes in the reviewing, planning, and implementation of policies and strategies affecting the fertiliser industry.
- Promote implementation of the policy within the national and local government structures
- Strengthen capacity of district and EPA structures in agriculture and other related sectors so that they can effectively contribute to the implementation of the NFP
- Monitor progress in the implementation of the NFP towards achievement of its outcomes and goal.
- Facilitate preparation of statistics and information for policy planning and implementation in the fertiliser industry.

4.1.3. Ministry responsible for Finance

- Mobilize resources for public investments in infrastructure and public-private partnerships requiring government financing for sustainable development of the fertiliser industry in Malawi.
- Allocate public funds from the national treasury to invest in the fertiliser industry in line with national agricultural transformation commitments as guided by CAADP framework.
- Review tax-based incentives that encourage private sector investments in the fertiliser industry that help increase farmers' access to high-quality fertilisers.
- Promote access to finance for investment in fertiliser blending, production and supply.

4.1.4. Ministry responsible for Economic Planning and Development, and Public Sector Reforms

- Undertake public financial management reforms that will improve the efficiency of public financial management to the benefit of the fertiliser industry.
- Maintain sound macro-economic conditions for smooth development of the fertiliser industry in Malawi.

4.1.5. Office of the President and Cabinet

- Facilitate approval of the institutional and legislative reforms towards the establishment of the National Fertiliser Regulatory Commission.

4.1.6. Ministry responsible for Justice

- Ensure that the legal aspects of fertiliser production, blending and marketing are handled according to the laws of Malawi.
- Facilitate review of the relevant legislation for the fertiliser industry.

4.1.7. Ministry responsible for Trade

- Facilitate foreign direct investment in the fertiliser industry in Malawi, particularly through the Malawi Investment and Trade Centre (MITC).
- Facilitate agribusiness licensing and improve the ease of doing business in the fertiliser industry.
- Identify new fertiliser export markets and promote Malawian fertiliser products.
- Promote transparent and predictable export and import controls, particularly in minimizing any non-tariff barriers to fertiliser trade.

4.1.8. Ministry responsible for Industry

- Facilitate public-private partnership in the fertiliser industry.
- Facilitate provision of matching grants for local companies wishing to invest in the fertiliser industry.

4.1.9. Ministry responsible for Lands

- Promote land tenure security, which will encourage farm investments, fertiliser use inclusive.
- Facilitate identification and access to land for investments in fertiliser production and blending.
- Undertake land use planning and management of lands, in support of the goals of the NFP.

4.1.10. Ministry responsible for Energy

- Facilitate provision of adequate, reliable and affordable electricity for fertiliser enterprises.
- Facilitate fuel supply for efficient transportation of fertiliser products.

4.1.11. Ministry responsible for Forestry and Natural Resources

- Promote sustainable management of land, mines and natural resources used in production of fertilisers, including mines of fertiliser raw materials.

4.1.12. Ministry responsible for Transport and Public Works

- Promote development of main, secondary and tertiary roads to lower cost of transporting fertiliser raw materials and finished fertiliser to markets and farms across the country.
- Develop the railway system, lake and river transport infrastructure for improved cost-effectiveness of fertiliser transportation.

4.1.13. Ministry responsible for Education

- Promote education in sciences and technology development in school curricula (primary, secondary and tertiary institutions) to support skills development for the fertiliser industry.

4.1.14. Ministry responsible for Local Government

- Implement integrated rural development programmes for investment in rural infrastructure, with a focus on fertiliser industry development.
- Promote development of district and rural roads in areas of high agricultural potential, to lower costs of transporting fertilisers to farms.
- Promote the development of rural growth centres that support the fertiliser industry.

4.1.15. Ministry responsible for Community Development and Social Welfare

- Ensure that gender is mainstreamed in fertiliser-related programmes, such as fertiliser loans.
- Support inclusion of all gender categories in investments and programmes designed to develop the fertiliser industry, including fertiliser blending, production and trade.

4.1.16. Ministry responsible for Labour

- Promote vocational skills development for the fertiliser industry through various initiatives including the expansion of the agricultural component under the Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA).
- Support labour skills development for the fertiliser industry.
- Regulate labour issues in the fertiliser industry, including child labour and worker exploitation.
- Generate labour statistics to inform decisions in the fertiliser industry.

4.1.17. Ministry responsible for Youth and Sports

- Promote the participation of youth in profitable enterprises in the fertiliser industry.
- Facilitate youth's access to capital for investment in the fertiliser industry and increased access to and affordability of fertiliser for the farming youth.
- Enable youth access to lucrative agricultural output markets that will create increased derived demand for fertilisers.

4.1.18. Ministry responsible for Information

- Facilitate access to information regarding fertiliser technologies, and investment in the fertiliser industry and increased access to and affordability of fertiliser products.

4.1.19. Malawi Bureau of Standards

- Develop fertiliser quality standards and regulations for all types of fertiliser products in consultation with NFRC, MoA, regional bodies and other relevant stakeholders.

4.1.20. Competition and Fair Trading Commission

- Monitor and enforce matters concerning competition and fair trading in the fertiliser industry.

4.1.21. Farmer-Based Organisations

- Promote proper fertiliser use and implementation of the NFP.
- Existing farmer organisations, such as the Farmers Union of Malawi (FUM) and the National Smallholder Farmers' Association of Malawi (NASFAM) and other similar organisations will spearhead the strengthening and organising of farmers into groups for increased access to and use of soil testing services and high-quality fertiliser products.
- Farmer-based Organisations will enable improved access and more profitable engagement by farmers with fertiliser markets as well as access to credit and extension services, which facilitate access to fertiliser and enhance the benefits of fertiliser use.
- Farmer-based organisations will also play a critical role in empowering women, youth and vulnerable groups to engage in profitable fertiliser enterprises and use of appropriate high-quality fertilisers in farming.

4.1.22. Private Sector Investors and Partnerships

- The private sector will have an important role in implementing the National Fertilizer Policy with regard to high quality fertiliser production, availability and access of affordable fertilisers by the farmers. As such, the involvement of both local and international investors in the development of the fertiliser industry will make the fertiliser industry more competitive, profitable and sustainable than the current situation. This could be done through the establishment of public-private partnerships.
- Both local and international investors will play the leading role of the local fertilizer production, importation and exportation of fertilisers, local supply and marketing of the fertilisers across the country for easy access and affordability by farmers. The local production of the fertilisers will contribute towards job creation and enhance exportation of fertilisers and then increase foreign exchange earnings.
- The private sector in liaison with the Government will take actions, where appropriate, to facilitate market-based expansion of the fertiliser industry, including increased commercial participation of local agrodealers, farmers in fertiliser markets.
- Public-private partnerships and domestic-foreign private partnerships and other organizational arrangements will be used to foster foreign direct investments in the fertiliser industry.

- Public-private sector dialogue on matters pertaining to fertiliser in Malawi will be encouraged through various platforms including the Agriculture Sector Working Group, bilateral communications with a reformed, more inclusive and representative Fertiliser Association of Malawi, as well as the public-private dialogue forum co-led by the Malawi Confederation of Chambers of Commerce and Industry and the Ministry responsible for Industry, Trade and Tourism.
- The Fertilizer Association of Malawi (FAM) will coordinate activities of the private sector in the fertiliser industry. FAM will also provide information for monitoring implementation of the National Fertiliser Policy.

4.1.23. Civil Society

- Civil society will collaborate with Government in implementing fertiliser-related programmes to ensure there is mutual accountability.
- Civil society organisations, such as the Civil Society Agriculture Network (CISANET), will play a key role in implementing the NFP through NGO projects and advocacy efforts.
- The Council for Non-Governmental Organisations in Malawi (CONGOMA) will be encouraged to engage with Government to support the implementation of the NFP and to help strengthen the voice and capacity of civil society organisations in the fertiliser industry.
- Civil society organisations under CONGOMA will be crucial to ensuring that the concerns of various stakeholders in the fertiliser subsector are heard and that Government is held accountable to its commitments to the citizens of Malawi on matters of development of the fertiliser industry.
- The Consumer Association of Malawi will lobby for the promotion and protection of consumer interests.
- Government will engage in dialogue platforms with civil society organisations to ensure that stakeholders' concerns are taken into consideration to effectively achieving the goals of the NFP.

4.1.24. Development Partners and Foreign Direct Investment

- The support of development partners in the fertiliser industry will be guided by the NFP and aligned to the priority areas specified in the NFP.
- The foreign direct investment (FDI) in the fertilizer industry from various donors will be supported through the government and partly through the private sector. The FDI which involves fertiliser research, and infrastructure development such as road and markets establishment will be through the government. The FDI involving construction of fertiliser factories can be through local investors.
- Development partners and other stakeholders' efforts in the fertiliser industry will be coordinated and aligned by the government to ensure synergies and for effective investments in the fertiliser industry.
- The Donor Committee on Agriculture and Food Security (DCAFS) will continue to be the platform for coordinating development partner support related to agriculture and the fertiliser industry in general.

4.1.25. Research Organisations and Academic Institutions

- The Department of Agricultural Research Services (DARS) will conduct research on developing fertiliser technologies, soil testing, producing soil fertility and fertiliser maps for area and crop specific fertiliser formulations. In addition, DARS will conduct research that enhances the quality of fertilisers and blends produced and used in Malawi.
- Academic institutions, such as the Lilongwe University of Agriculture and Natural Resources (LUANAR), the University of Malawi, Mzuzu University, and other relevant institutions of higher education, will be important in providing advanced training in fields related to fertilisers to ensure that Malawi has the needed expertise for effectively implementing the NFP. The academic institutions will also conduct research.
- Resources and expertise to conduct the necessary research will be leveraged from international institutions to the benefit of the fertiliser industry in Malawi

4.2. Implementation Plan

The implementation plan specifies strategies that will be necessary to achieve the goal of the NFP. Some of the strategies include establishing the National Fertiliser Regulatory Commission, improve the use of soil testing and research and extension services, and provision of financial services to farmers and agro-dealers for increased commercial access to high-quality fertilisers. The implementation plan highlights the responsible stakeholders for each strategy and specifies the associated time frame for implementation. Annex 1 presents, in detail, the implementation plan in a matrix form where objectives, strategies, the responsible entities, and the timelines for implementation are outlined under each policy priority area.

4.3. Monitoring and Evaluation

Annex 2 presents a detailed monitoring and evaluation plan for the NFP, which specifies baselines and targets for a set of indicators through which performance of the policy's implementation will be assessed. Monitoring and Evaluation (M&E) systems will be essential to track progress and inform decisions in the implementation of the NFP on an ongoing basis. An M&E system for the NFP will be used and the design of the M&E system will hinge on leveraging existing data systems within Government, as well as those of development partners, civil society, private sector, and academic and research institutes. It is anticipated that the NFP will undergo a mid-term review after three years of implementation and a final review after the five years of implementation. Overall, the NFRC will have primary responsibility for managing the M&E of the NFP as it works closely with relevant Ministries, Departments and agencies, including the National Statistical Office, private sector and civil society.

ANNEX 1:
**IMPLEMENTATION PLAN FOR THE
NATIONAL FERTILISER POLICY**

Policy Priority Area 1: Farmers' Access to High-Quality Fertilisers

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.1.1: Regulate the fertiliser industry for fair and competitive market behaviour,			
To increase, by 75 percent, the number of farmers timely accessing high-quality fertilisers (both organic and inorganic) through commercial channels.	Monitor fertiliser market prices for fairness and competitiveness	National Fertiliser Regulatory Commission, Competition and Fair Trading Commission	2021-2026
	Disseminate fertiliser price information to fertiliser users	National Fertiliser Regulatory Commission, Ministry responsible for Agriculture	2021-2026
	Monitor market behaviour in support services such as transport, bagging and warehousing	National Fertiliser Regulatory Commission, Competition and Fair Trading Commission	2021-2026
	Sensitise fertiliser users on fair trading practices	National Fertiliser Regulatory Commission, Competition and Fair Trading Commission	2021-2026
Policy Statement 3.1.2: Facilitate timely and equitable farmers' access to high quality fertilisers			
To increase, by 50 percent, the number of farmers timely accessing high-quality fertilisers (both organic and inorganic) through commercial channels.	Facilitate provision of credit and loan facilities for farmers to access fertiliser especially women and youth	Ministry responsible for Agriculture, Ministry responsible for Gender, Ministry responsible for Youth	2021-2026
	Disseminate information on availability and use of various fertiliser products to farmers	National Fertiliser Regulatory Commission, Department of Agriculture Extension Services	2021-2026
	Encourage private sector to package fertilisers in different sizes to suit different categories of farmers, depending on land size and income levels	National Fertiliser Regulatory Commission, Ministry responsible for Agriculture	2021-2026
	Improve the efficiency of input subsidy programs	National Fertiliser Regulatory Commission, Ministry responsible for Agriculture, Research and Academia	2021-2026
	Improve the marketing environment for agricultural commodities	Ministry responsible for Agriculture, Ministry responsible for Trade	2021-2026

NATIONAL FERTILISER POLICY

Objective	Strategy	Responsibility	Time frame
	Encouraging farmers to form cooperatives and farmer groups to negotiate for better prices	Ministry responsible for Agriculture, Ministry responsible for Trade	2021-2026
	Lobbying for the opening of fertiliser retail outlets in the rural hard to reach areas to reduce the dredgery of walking long distances to access the fertilisers	Ministry responsible for Agriculture, Ministry responsible for Trade	2021-2026
	Promote competitive agricultural produce pricing in output market to increase farmers liquidity so that they can access more fertilizer for increased productivity	Ministry responsible for Agriculture, Ministry responsible for Trade	2021-2026

Policy Priority Area 2: Institutional Development and Coordination

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.2.1: Facilitate establishment of a National Fertiliser Regulatory Commission (NFRC) that will regulate fertilizer industry in Malawi			
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Develop a new Fertiliser Act that will establish the NFRC	Ministry responsible for Agriculture, Ministry responsible for Justice	2021-2026
	Facilitate the appointment of fertiliser registrar, inspectors and analysts	Ministry responsible for Agriculture	2021-2022
	Facilitate the appointment of fertiliser board	Ministry responsible for Agriculture, Ministry responsible for Justice, Ministry responsible for Finance	2012-2022
	Facilitate the establishment of a fertiliser fund that will comprise of fees for fertiliser registration and accreditation, fertiliser levy, inspection fees and penalties for offenders to finance operations of the National Fertiliser Regulatory Commission	Ministry responsible for Agriculture, Ministry responsible for Justice, Ministry responsible for Finance	2012-2022
	Register and accredit entities eligible and qualified to participate in the fertiliser industry	National Fertiliser Regulatory Commission	2021-2022
Policy Statement 3.2.2: Spearhead the periodic review of the Fertiliser Act and regulations to align with international protocols on fertiliser and maintain their effectiveness			
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Review and enforce fertiliser standards and regulations	National Fertiliser Regulatory Commission; Department of Agricultural Research Services, Fertiliser Association of Malawi	2021-2026
	Ensure integrity and honesty in fertiliser market and industry	National Fertiliser Regulatory Commission	2021-2026

NATIONAL FERTILISER POLICY

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.2.3: Promote stakeholder coordination in formulation, implementation, and review of the NFP and related strategies, investment plans and programmes			
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Collaborate closely with MBS, COMESA and SADC on matters of setting standards and regional harmonisation protocols	National Fertiliser Regulatory Commission, Malawi Bureau of Standards (MBS), Department of Agricultural Research Services (DARS), Fertiliser Association of Malawi	2021-2026
	Collaborate with the Competition and Fair Trading Commission (CFTC) on matters concerning anti-competitive behaviour and unfair trading in the fertiliser industry	National Fertiliser Regulatory Commission	2021-2026
	Create and manage a database on fertilisers, fertiliser standards and registry of industry stakeholders	National Fertiliser Regulatory Commission, Fertiliser Association of Malawi	2021-2026

Policy Priority Area 3: Public Investments and Support

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.3.1: Create enabling environment for increased and accelerated private sector investments in the fertiliser industry			
To increase the number of private sector investors (including women and youth) in the fertiliser industry by 100 percent.	Reduce the time taken to register fertiliser products by reviewing the relevant legislation.	National Fertiliser Regulatory Commission	2021-2026
	Review tax incentives for the fertiliser industry	National Fertiliser Regulatory Commission, Ministry responsible for Finance	2021-2026
	Facilitate the establishment of new public-private partnerships in the fertiliser industry	National Fertiliser Regulatory Commission, Ministry responsible for Trade	2021-2026
Policy Statement 3.3.2: Mobilise public financial resources and technical expertise for the upgrading of existing infrastructure supporting the fertiliser industry and development of new ones, where appropriate, especially in remote rural areas			
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Engage the Treasury and development partners to provide more resources in the budget for infrastructure such as laboratories for soil testing and research	Ministry responsible for Agriculture	2021-2026
	Facilitate provision of technical expertise to agro dealers, and small to medium business enterprises (SMEs) that supply fertiliser products and are involved in fertiliser production and blending	National Fertiliser Regulatory Commission	2021-2026
Policy Statement 3.3.3: Facilitate public investments in infrastructure that will promote development of the private sector and increase access to affordable and profitable fertilisers for farmers in Malawi.			
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Collaborate with relevant government agencies to support the establishment of an agricultural investment bank	Ministry responsible for Agriculture	2021-2026

Objective	Strategy	Responsibility	Time frame
	Promote development and use of national and regional railway network for fertiliser transportation	Ministry responsible for Transport	2021-2026
	Collaborate with relevant government agencies in support of upgrade rural road infrastructure to lower transportation costs	Ministry responsible for Local Government	2021-2026
	Facilitate use of technology and applications for improved public service delivery	Ministry responsible for Information	2021-2026

Policy Priority Area 4: Research, Development and Extension Support

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.4.1: Ensure that fertiliser formulations and blends are evidence-based.			
To increase the use of soil analysis and fertiliser testing services by 50 percent.	Facilitate soil testing for fertilizer recommendation	Department of Agricultural Research Services	2021-2026
	Facilitate production and dissemination of soil fertility maps	Department of Agricultural Research Services, Department of Land Resources and Conservation	2021-2026
	Facilitate formulation and blending of area and crop specific fertilisers	Department of Agricultural Research Services	2021-2026
	Facilitate dissemination of information on appropriate fertilisers for specific crops in specific areas	Department of Agriculture Extension Services, Department of Agricultural Research Services	2021-2026
Policy Statement 3.4.2: Support innovation in fertiliser product development and dissemination.			
To increase the number of farmers, frontline extension staff, agro-dealers (including women and youth) accessing information on the appropriate fertiliser formulations and use	Develop new fertiliser production technologies	Department of Agricultural Research Services, Private Sector	2021-2026
	Conduct mineral deposits exploration in relation to fertiliser blending and production	Department of Agricultural Research Services, Department of Geological Surveys, Private Sector	2021-2026
	Promote mobile soil testing technologies (e.g. Soil testing kits)	Department of Agricultural Research Services, Private Sector	2021-2026
	Facilitate blending of organic and inorganic fertilisers	Private Sector, Department of Agricultural Research Services,	2021-2026
	Evaluate crop yield responses to new fertiliser products	Department of Agricultural Research Services	2021-2026
	Facilitate provision of extension and advisory services on fertiliser use and management	Department of Agriculture Extension Services, Department of Agricultural Research Service, Private sector, civil society, media	2021-2026

Objective	Strategy	Responsibility	Time frame
	Promote use of soil amendment products and practices to address acidity, alkalinity and salinity of soils	Department of Agriculture Extension Services, Department of Agricultural Research Service, Private sector, civil society, media	2021-2026
Policy Statement 3.4.3: Promote trainings on fertiliser technologies, fertiliser use and soil health.			
To increase the number of farmers, frontline extension staff, agro-dealers (including women and youth) accessing information on the appropriate fertiliser formulations and use	Facilitate trainings of researchers and extension officers in formal education institutions to build capacity for research and extension in the country	LUANAR, NRC, Department of Agriculture Extension Services, Department of Agricultural Research Service	2021-2021
	Facilitate trainings on fertiliser use and soil health specifically targeting extension workers.	Department of Agriculture Extension Services, Department of Agricultural Research Service, Private sector, civil society, Ministry responsible for Gender	2021-2026
	Facilitate trainings on fertiliser use and soil health specifically targeting women and youth	Department of Agriculture Extension Services, Department of Agricultural Research Service, Private sector, civil society, Ministry responsible for Gender	2021-2026
	Disseminate information on fertiliser use and access	Department of Agriculture Extension Services, Department of Agricultural Research Service, Private sector, civil society, Ministry responsible for Gender	2021-2026
	Conduct awareness on advantages of using high quality fertilisers	Department of Agricultural Extension Services, Department of Agricultural Research Service, Private sector, civil society, Ministry responsible for Gender	2021-2026
	Facilitate mainstreaming of gender, youth, climate change and HIV/AIDS in interventions, strategies and programmes in fertiliser industry	Ministry responsible for Gender	2021-2026

Policy Priority Area 5: Public-Sector Led Fertiliser Industry Development

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.5.1: Facilitate access to financial services, including credit and insurance for actors in the fertiliser industry			
To increase the number of private sector investors (including women and youth) in the fertiliser industry by 100 percent.	Promote access to information on financing sources for investments in the fertiliser industry	Ministry responsible for Information, Ministry responsible for Finance, Ministry responsible for Agriculture, Malawi Investment and Trade Centre	2021-2026
	Facilitate access to venture capital funds to invest in the fertiliser industry	Ministry responsible for Finance, Ministry responsible for Agriculture, Malawi Investment and Trade Centre, Development partners, Private sector	2021-2026
	Create financing facilities to cater for agro dealers and SMEs	Ministry responsible for Finance, Malawi Investment and Trade Centre, Development partners, Private sector	2021-2026
	Facilitate loan guarantee schemes to reduce lending risk for fertiliser enterprises	Ministry responsible for Finance, Ministry responsible for Trade, Banking sector	2021-2026
	Facilitate availability and access to matching grants and loans	Ministry responsible for Finance, Ministry responsible for Trade, Banking sector, Private sector, Development partners	2021-2026
	Facilitate long-term financing for large capital investments in the fertiliser industry	Ministry responsible for Finance, Ministry responsible for Agriculture, Banking sector, Private sector, Development partners	2021-2026

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.5.2: Encourage private sector production and blending of fertilisers to supply a wide range of evidence-based fertiliser formulations for specific markets			
To increase the use of soil analysis and fertiliser testing services by 50 percent	Facilitate building capacity for soil analysis and mapping in the private sector;	Private sector, National Fertiliser Regulatory Commission	2021-2026
	Facilitate accreditation of soil testing laboratories operated by the private sector;	National Fertiliser Regulatory Commission	2021-2026
To increase the volume of domestic fertiliser blending based on soil tests, by 50 percent	Facilitate importation of quality machinery and spare parts for fertiliser production and blending;	Ministry responsible for Trade	2021-2026
To double the value of commercial fertiliser trade (imports and exports) involving Malawian firms.	Facilitate new players involved in the commercial production and trading of organic and inorganic fertilisers;	Ministry responsible for Trade, Ministry responsible for Agriculture	2021-2026
	Promote use of local materials in the production of high-quality organic and inorganic fertilisers;	Ministry responsible for Agriculture, National Fertiliser Regulatory Commission, Ministry responsible for Industry	2021-2026
	Promote production and blending of lime and other soil amendment products, including fertiliser fillers;	Ministry responsible for Agriculture, National Fertiliser Regulatory Commission, Ministry responsible for Industry	2021-2026
	Facilitate provision of incentives for companies involved in domestic production/blending of fertilisers rather than importing finished fertiliser products.	Ministry responsible for Agriculture, National Fertiliser Regulatory Commission, Ministry responsible for Trade, Ministry responsible for Industry	2021-2026

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.5.3: Facilitate fertiliser trade that benefits Malawian farmers and enterprises in the fertiliser industry			
To double the value of commercial fertiliser trade (imports and exports) involving Malawian firms	Facilitate prioritization of intra-African trade (imports and exports) of high-quality fertilisers by removing trade barriers within regional economic communities	Ministry responsible for Trade	2021-2026
	Facilitate simplification and harmonisation of procedures for fertiliser trade	Ministry responsible for Trade, Ministry responsible for Agriculture, Ministry responsible for Finance	2021-2026
	Facilitate sourcing of high-quality fertilisers, raw materials and technologies by fertilizer enterprises	National Fertiliser Regulatory Commission	2021-2026
	Promote buy-Malawian fertiliser (e.g. fertilisers produced/blended within Malawi)	Ministry responsible for Trade	2021-2026
	Promote efficient and competitive transportation and distribution of fertilisers	Ministry responsible for Transport, Competition and Fair Trading Commission, Private sector (transporters and fertiliser enterprises)	2021-2026
	Promote investments in fertiliser warehousing facilities and their proper management, especially in remote rural areas	Ministry responsible for Trade, Ministry responsible for Lands, Private sector	2021-2026
	Promote efficient output markets to drive demand for fertiliser products	Ministry responsible for Trade, Ministry responsible for Agriculture, Private sector	2021-2026

NATIONAL FERTILISER POLICY

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.5.4: Enhance private sector coordination in the fertiliser industry			
To increase the number of private sector investors (including women and youth) in the fertiliser industry by 100 percent.	Promote reforms in the Fertiliser Association of Malawi to make it more inclusive and effective	National Fertiliser Regulatory Commission	2021-2026
	Strengthen coordination of SMEs, registered agro-dealers, and farmer organisations involved in fertiliser supply and distribution	National Fertiliser Regulatory Commission, Small and Medium Enterprises Development Initiative, Agro-dealer association, Farmer organisations	2021-2026
	Facilitate formalization of public and private-sector dialogue through a platform on fertiliser industry development	National Fertiliser Regulatory Commission, Ministry responsible for public reforms	2021-2026

Policy Priority Area 6: Fertiliser Quality Standards and Truth in Labelling

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.6.1: Regulate quality standards for all types of fertilisers			
To increase, by 75 percent, the number of farmers (including women and youth) timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Facilitate review of existing standards for inorganic fertilisers	National Fertiliser Regulatory Commission, Malawi Bureau of Standards	2021-2026
	Facilitate development of quality standards for new inorganic, organic and bio-fertilisers	Malawi Bureau of Standards, National Fertiliser Regulatory Commission	2021-2026
	Enhance monitoring and enforcement of compliance with standards for all types of fertilisers by enterprises	National Fertiliser Regulatory Commission	2021-2026
Policy Statement 3.6.2: Promote improvements in fertiliser quality			
To increase, by 75 percent, the number of farmers (including women and youth) timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Provide testing services for all types of fertilisers	National Fertiliser Regulatory Commission	2021-2026
	Provide inspection services for the fertiliser industry	National Fertiliser Regulatory Commission	2021-2026
	Facilitate trainings of agro-dealers, SMEs and farmers on fertiliser quality	National Fertiliser Regulatory Commission, Department of Agricultural Research Services, Department of Agriculture Extension Services	2021-2026
Policy Statement 3.6.3: Support development of private sector initiatives for fertiliser product quality enhancement			
To increase the volume of high quality domestic fertiliser production and blending based on soil tests, by 50 percent	Facilitate establishment of internal quality controls	National Fertiliser Regulatory Commission, Private sector	2021-2026
	Facilitate truthful labelling of fertiliser products and other products	National Fertiliser Regulatory Commission, Private sector	2021-2026
	Facilitate establishment of association-affiliated quality control mechanisms	Private sector, National Fertiliser Regulatory Commission	2021-2026

Policy Priority Area 7: Sustainability and Environmental Management

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.7.1: Promote investments in and adoption of complementary interventions such as integrated soil fertility management practices/technologies			
To increase the number of farmers, frontline extension staff, agro dealers accessing information on the appropriate fertiliser formulations and use.	Facilitate trainings of farmers in complementary interventions that raise the efficiency of fertiliser use	Department of Agriculture Extension Services, Department of Land Resources and Conservation, Department of Agricultural Research Services,	2021-2026
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Facilitate increase in area under soil and water conservation	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026
	Promote use of liming and other products among farmers to address soil acidity	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026
	Facilitate increase in area under soil fertility improvement	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026
	Discourage practices used by farmers that contributes to soil and land degradation, such as burning of crop residues and grasslands, farming along riverbanks and deforestation	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026
	Facilitate waste recycling for use as manure, fertilisers and soil conditioners	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026
	Facilitate review of environmental laws and develop new ones to improve farmland management practices, reduce soil erosion and land degradation	Department of Land Resources and Conservation, Department of Agricultural Research Services	2021-2026

Objective	Strategy	Responsibility	Time frame
Policy Statement 3.7.2: Enforce Government regulation of the fertiliser industry to ensure that fertilisers do not harm the environment and natural resources in line with the Environmental Management Act			
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Ensure use of Environmental Impact Assessments (EIA) before setting up fertiliser production enterprises	National Fertiliser Regulatory Commission, Environmental Affairs Department	2021-2026
	Monitor fertiliser enterprises on adherence to environmental standards	National Fertiliser Regulatory Commission	2021-2026
Policy Statement 3.7.3: Promote private sector adherence to fertiliser production and blending practices in a manner that enhances environmental stewardship and reduces pollution and harm to the natural resource base.			
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Facilitate monitoring of proper waste management practices in the fertiliser industry	National Fertiliser Regulatory Commission, Environmental Affairs Department	2021-2026
	Enhance environmental management capacity of private and public sectors	National Fertiliser Regulatory Commission, Environmental Affairs Department	2021-2026
Policy Statement 3.7.4: Ensure that investments in monitoring and surveillance systems are in place			
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Facilitate investment in monitoring and surveillance systems	Ministry responsible for Finance, Ministry responsible for Agriculture, Environmental Affairs Department	2021-2026
	Facilitate trainings of monitoring and surveillance officers	National Fertiliser Regulatory Commission	2021-2026
	Facilitate monitoring and surveillance to assess the conditions of soil, water bodies, air and ecosystems	National Fertiliser Regulatory Commission, Environmental Affairs Department	2021-2026

Objective	Strategy	Responsibility	Time frame
Policy Statement: 3.7.5: Promote investments and interventions designed to improve fertiliser handling practices so that they are not detrimental to people, soil, water, air and ecosystems			
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Facilitate trainings of extension workers and agro-dealers on safeguards of storage and use of fertilisers.	National Fertiliser Regulatory Commission, Department of Agriculture Extension Services, Private sector	2021-2026
	Facilitate training of farmers on safeguards of storage and use of fertilisers.	National Fertiliser Regulatory Commission, Department of Agriculture Extension Services, Private sector	2021-2026
	Facilitate sensitisation of industrial staff on environmental safeguards, for example fertiliser storage and handling practices	National Fertiliser Regulatory Commission, Private sector	2021-2026

ANNEX 2:
**MONITORING AND EVALUATION PLAN FOR
THE NATIONAL FERTILISER POLICY**

Monitoring of Policy Priority Area 1: Farmers' Access to High-Quality Fertilisers

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.1.1: Regulated fertiliser industry for fair and competitive market behavior						
To increase, by 75 percent, the number of farmers timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Fertiliser market prices monitored	Number of monitoring reports per year	5	TBD	Reports	
	Market behaviour in support services monitored	Number of monitoring reports per year	5	TBD	Reports	
	Sensitise fertiliser users on fair trading practices	Number of sensitization meetings per year	5	TBD	Reports	
Outcome 3.1.2: Improved timely and equitable farmers' access to high quality inorganic and organic fertiliser						
To increase, by 75 percent, the number of farmers timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Access to credit and loan services for farmers to access fertiliser increased	Proportion of farmers accessing fertiliser credit and loans increased by 2025	TBD	TBD	Reports	
	Information on availability and use of various fertiliser products to farmers disseminated	Proportion of farmers accessing fertiliser information by 2022	TBD	TBD	Reports	
	Provision of different fertiliser packaging sizes expanded	Volume of packaged fertilisers disaggregated by size expended by 2022	TBD	TBD	Reports	
	National fertiliser consumption increased	National Fertiliser Consumption increased by 2022	111Kg/ha	55.8Kg/ha	Reports	

Monitoring of Policy Priority Area 2: Institutional Development and Coordination

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.2.1: Established National Fertiliser Regulatory Commission (NFRC)						
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Fertiliser Bill establishing the NFRC enacted	Number of Acts enacted by 2021	1	0	Copy of fertiliser Act	
	Fertiliser registrar, inspectors and analysts appointed	Number of technical officers appointed by 2021	35	0	Vacancies filled	
	Fertiliser fund established	Fertiliser fund in place by 2021	1	0	Fertiliser fund gazetted	
	Entities in the fertiliser industry accredited	Number of fertilizer companies accredited by 2022	4	0	Reports	
Number of fertilizer agro-dealers accredited by 2022		100	0	Reports		
Outcome 3.2.2: Aligned fertiliser Act and regulations with international protocols						
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent.	Fertiliser standards and regulations reviewed	Number of reviews for fertiliser standards and regulations by 2022	2	0	Reports and publications	
	Integrity and honesty in fertiliser market and industry	Number of cases of dishonesty in fertiliser market and industry reported by 2022	0	5	Reports and publications	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.2.3: Improved Stakeholder coordination in the fertiliser industry						
To increase, by 75 percent, the number of farmers timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Collaboration of key institutions on matters of setting standards and regional harmonisation improved	Number of meetings conducted by 2022	2	0	Reports	
	Database on fertilisers, fertiliser standards and registry of industry stakeholders developed	Fertiliser industry database in place by 2022	1	0	Functional database	

Monitoring of Policy Priority Area 3: Public Investments and Support

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.3.1: Improved enabling environment for increased and accelerated private sector investments in the fertiliser industry						
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent	Registration time of New fertiliser products reduced	Number of days reduced by 2022	540	913	World Bank Doing business in agriculture reports	
	Registration time of New fertiliser products already registered in SADC region reduced	Number of days reduced by 2022	360	913	World Bank Doing business in agriculture reports	
	Cost of registering a fertiliser product	Percent of per capita income reduced by 2022	1515%	3030.48%	World Bank Doing business in agriculture reports	
	Fertiliser related tax incentives reviewed	Fertiliser related taxation amendments by 2022	1	0	Copy of Gazette	
	New public-private partnerships established	Number of new public-private partnerships established by 2025	3	0	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.3.2: Increased public financial resources and technical expertise						
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent	Fertiliser related investment budget allocation increased	Share of fertiliser related investment budget in the national budget increased by 2025	Mk320 billion	Mk160 billion	Copy of approved budget document	
Outcome 3.3.3: Increased public investments in infrastructure development						
To increase the value of public investments to support the fertiliser supply chain in Malawi by 30 percent	Agriculture investment bank established	Existence of an agricultural investment bank established by 2025	1	0	Reports	
	National and regional rail network improved	Volume of fertiliser (MT) using rail transport improved by 2025	TBD	TBD	Reports	
	Rural road infrastructure network improved	Number of improved rural roads by 2025	TBD	TBD	Reports	
	Web-based database established	Number of web-based databases established by 2025	1	0	Reports	

Monitoring of Policy Priority Area 4: Research Development and Extension Support

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.4.1: Increased evidence-based fertiliser formulations and blends						
To increase the use of soil analysis and fertiliser testing services by 50 percent.	Soil testing done	Number of soil samples tested per year	20000	12500	Reports	Good cooperation of front-line extension personnel
	Soil fertility maps produced and disseminated	Number of maps produced per year	5	0	Reports	
	Area and crop specific fertiliser blends produced	Number of fertilizer blends formulated by 2025	25	0	Reports	Good collaboration between public and private sector
Outcome 3.4.2: Increased innovation in fertiliser product development and dissemination						
To increase the number of farmers, frontline extension staff, agro-dealers (including women and youth) accessing information on the appropriate fertiliser formulations and use	New fertiliser production technologies developed	Number of technologies developed by 2025	10	4	Reports	
	Mineral deposits exploration in relation to fertiliser blending and production conducted	Number of mineral explorations conducted by 2025	2	0	Survey reports	Good cooperation of key stakeholders
	Increased use low-cost soil testing technologies	Number of low-cost technologies disseminated by 2025	5	2	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/Risks
	Organic and inorganic fertilisers blends developed	Number of blends formulated by 2025	10	1	Reports	
	Bio-organic fertilizers developed	Number bio-organic fertilizers developed by 2025	6	3	Reports	
	Organic fertilizers developed	Number organic fertilizers developed by 2025	5	2	Reports	
	Crop yield responses to new fertiliser products evaluated and fertiliser recommendations made	Number of fertiliser formulations recommended by 2025	10	2	Reports	Good rains during the period of evaluations
	Extension and advisory services on fertiliser use and management provided	Number of farmers (including women and youth) accessing fertiliser extension services by 2025	4.2 million	3.6 million	Reports	
Outcome 3.4.3: Increased trainings on fertiliser technologies, fertiliser use and soil health						
To increase the number of farmers, frontline extension staff, agro-dealers (including women and youth) accessing information on the appropriate fertiliser formulations and use	Train researchers and extension officers to build capacity for research and extension in the country	Number of researchers and extension workers trained by 2025	1000	450	Reports	
	Training on fertiliser use and soil health targeting extension workers	Number of extension workers trained by 2025	2950	1970	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
	Training on fertiliser use and soil health targeting agro-dealers	Number of agro-dealers trained by 2025	4200	2100	Reports	Training on fertiliser use and soil health targeting extension workers and agro-dealers
	Training on fertiliser use and soil health targeting farmers including women and youth	Number of training by 2025	560	0	Reports	
	Awareness on advantages of using high quality fertilisers conducted	Number of awareness campaigns conducted by 2025	112	0	Reports	
	Gender, youth, climate change and HIV/AIDS interventions, strategies and programmes in the fertiliser industry mainstreamed	Number of interventions by 2025	4	0	Reports	

Monitoring of Policy Priority Area 5. Private-Sector Led Fertiliser Industry Development

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.5.1: Increased access to financial services for actors in the fertiliser industry						
To increase the number of private sector investors (including women and youth) in the fertiliser production by 100 percent.	Access to information on financing sources for investments in the fertiliser industry promoted	Number of sector players accessing financial information increased by 2025	TBD	TBD	Reports	
	Venture capital funds to invest in the fertiliser industry increased	Volume of capital funds increased by 2025	TBD	TBD	Reports	
	Financing facilities to cater for agro-dealers and SMEs created	Number of financial facilities catering for agro-dealers and SMEs created by 2025	TBD	TBD	Reports	
	Loan guarantee schemes to reduce lending risk for fertiliser enterprises facilitated	Number of loan guarantee schemes facilitated by 2025	TBD	TBD	Reports	
Outcome 3.5.2: Increased private sector production and blending of fertilisers to supply a wide range of evidence-based fertiliser formulations for specific markets						
To increase the volume of domestic fertiliser production and blending based on soil tests, by 50 percent.	Volume of locally produced fertiliser increased	Volume of locally produced fertiliser (MT) by 2025	TBD	TBD	Reports	
	Volume of blended fertiliser increased	Volume of blended fertiliser (MT) by 2025	150,000	45,000	Reports	
	Use of local material in fertiliser production increased	Number of producers using local production material by 2025	10	2	Reports	
	Number of testing laboratories increased	Number of laboratories increased by 2025	10	5	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.5.3: Increased fertiliser trade that benefits Malawian farmers and enterprises						
To double the value of commercial fertiliser trade (imports and export) involving Malawian firms	Value of fertiliser and related trade increased by 100%	Value of fertiliser and related materials imported increased by 2025	TBD	TTBD	Reports	
		Value of fertilizer and related materials exported increased by 2025	TBD	TBD	Reports	
	Number of Malawian firms participating in fertilizer trade increased	Number of Malawian firms participating in fertilizer trade increased by 2025	TBD	TBD	Reports	
	Fertiliser trade procedures Harmonised	Number of procedures harmonized by 2025	1	0	Reports	
	Capacity of warehousing facilities Increased	Volume of warehousing facilities increased by 2025	TBD	TBD	Reports	
	Number of producers and traders Increased	Number of producers and trader increased by 2025	TBD	TBD	Reports	
Policy Outcome 3.5.4: Improved private sector coordination in the fertiliser industry						
To increase the number of investors (including women and youth) in the fertiliser industry by 100 percent	Fertiliser Association of Malawi (FAM) reformed	Number of members in FAM joined by 2025	32	16	Reports	
	Technical Task Team for the fertiliser industry within Agriculture Inputs and Finance Technical Working Group established	Technical Task Team for Fertiliser formed by 2021	1	0	Reports	

Monitoring of Policy Priority Area 6: Fertiliser Quality Standards and Truth in Labelling

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.6.1: Improved quality standards for all types of fertilisers						
To increase, by 75 percent, the number of farmers (including women and youth) timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Standards for inorganic fertilisers reviewed	Number of standards reviewed by 2025	14	0	Copies of reviewed standards	
	New quality standards for organic and bio- fertilisers developed	Number of new fertiliser standards developed by 2025	20	0	Copies of new standards	
	Compliance with Fertiliser quality standards enhanced	Proportion of fertilisers supplied complying with quality standards by 2025	100%	TBD	Reports	
	Enforcement of quality standards in the fertiliser industry enhanced	Number of non-compliance cases reported by 2025	0	TBD	Reports	
Outcome 3.6.2: Improved fertiliser quality						
To increase, by 75 percent, the number of farmers (including women and youth) timely accessing high-quality fertilisers (organic, bio-organic and inorganic) through commercial channels.	Fertiliser quality testing services provided	Number of fertiliser quality tests conducted by 2025	TBD	TBD	Reports	
	Agro-dealers and farmers trained on fertiliser quality	Proportion of agro-dealers and farmers trained on fertiliser quality by 2025	70%	0	Reports	
	Third party quality certificates increased	Number of third-party quality certificates issued by 2025	TBD	TBD	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.6.3: Enhanced private sector initiatives for fertiliser product quality						
To increase the use of soil analysis and fertiliser testing services by 50 percent.	Internal quality controls in fertiliser enterprises established	Proportion of private enterprises in the fertiliser industry with internal quality controls by 2022	100%	TBD	Reports	
	Truth in labelling fertiliser products and services improved	Number of cases of truth in labelling by 2022	0	TBD	Inspection Reports	

Monitoring of Policy Priority Area 7: Sustainability and Environmental Management

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.7.1: Increased investments in and adoption of complementary interventions that raise the efficiency of fertiliser						
To increase the number of farmers, frontline extension staff, agro-dealers accessing information on the appropriate fertiliser formulations and use.	Farmers trained on sustainable land management practices increased	Number of farmers adopting integrated soil fertility management practices by 2025	TBD	TDB	Reports	
	Area under sustainable land management (SLM) practices increased	Proportion of land under SLM by 2025	45%	15.7%	Reports	
Outcome 3.7.2: Enforced Government regulation of the fertiliser industry in line with the Environmental Management Act						
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	EIAs conducted	Number of fertiliser production enterprises that have passed EIAs by 2025	TBD	TDB	Reports	
Outcome 3.7.3: Improved private industry efforts on fertiliser production and blending practices in line with the Environmental Management Act						
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Conditions of soil, water bodies, air and ecosystems improved	Proportion of fertiliser enterprises with proper waste management facilities increased by 2025	TBD	TBD	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
Outcome 3.7.4: Increased investments in monitoring and surveillance systems						
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Monitoring and surveillance systems established	Number of monitoring and surveillance systems established by 2021	1	0	Reports	
	Monitoring and surveillance officers trained	Number of officers trained by 2021	TBD	0	Reports	
	Monitoring and surveillances conducted	Number of monitoring and surveillances conducted by 2021	TBD	0	Reports	
Outcome: 3.7.5: Increased investments and interventions designed to improve fertiliser handling practices						
To increase investments that improve soil health, environmental stewardship and reduce pollution and harm to natural resources by 20%.	Farmers trained on safeguards of storage and use of fertiliser products	Number of farmers on safeguards and use of fertiliser products by 2025	4.2million	TBD	Reports	
	Industrial staff trained in proper handling and use of fertiliser products increased	Number of industrial staff trained in proper handling and use of fertiliser products by 2025	TBD	TBD	Reports	

Objective	Output	Performance Indicator	Target	Baseline	Source of Verification	Assumptions/ Risks
	Agrodealers trained on safeguards of storage and use of fertiliser products	Number of agrodealers on safeguards and use of fertiliser products by 2022	4200	2100	Reports	Farmers trained on safeguards of storage and use of fertiliser products
	Incentives for complying companies created	Number of complying companies by 2022	TBD	TBD	Reports	
	Penalties for non-complying companies created	Number of penalties for non complying companies by 2022	TBD	TBD	Reports	