



REPUBLIC OF ZAMBIA

SECOND NATIONAL AGRICULTURAL POLICY

Ministry of Agriculture and Ministry of Fisheries and Livestock
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FOREWORD

It is our great pleasure to present the Second National Agricultural Policy (SNAP) on behalf of the Government of the Republic of Zambia. This Policy provides policy guidelines for the development of the agriculture sector in Zambia. This Policy is the second National Agricultural Policy which has been formulated in order to take into account the current trends and issues that have emerged in the agriculture sector as well as address the challenges that were observed during implementation of the 2004-2015 National Agricultural Policy (NAP). Furthermore, the SNAP seeks to be in line with the new political environment in the country.

The Policy is a product of extensive consultations between Government and other stakeholders in the agriculture sector. It encompasses key facets of the agriculture sector namely; food and nutritional security, agricultural production and productivity, agricultural diversification, agricultural research and extension services, sustainable resource use, promotion of irrigation, agro-processing and value addition, agricultural marketing and trade, livestock and fisheries development. The Institutional and legislative framework, decentralisation, private sector participation, support to co-operatives and other farmer organisations and crosscutting issues such as Gender mainstreaming, HIV and AIDS, and mitigation of climate change are also addressed by the Policy.

With this Policy in place, we are optimistic that if it is operationalised and implemented effectively in line with the Vision 2030 using the Policy Implementation Plan, and through the Ministry of Agriculture Strategic Plan, the revised Sixth National Development Plan and the CAADP National Agricultural Investment Plan, the agriculture sector will register optimum production and productivity that is sufficient enough to address the challenges and short comings identified during implementation of the NAP 2004 - 2015 that was envisaged to cover the period from 2004 to 2015. The new policy also provides great scope for attaining sustainable food and nutrition security particularly at national level and contributing significantly to profitability of agricultural enterprises, job creation, increased income generation, poverty reduction, as well as increased contribution of the agriculture sector to Gross Domestic Product (GDP).

This document will serve as a guide to Government, the private sector, Civil Society Organisations (CSOs) and Development Partners (DPs) in developing the agriculture sector.

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TABLE OF CONTENTS

FOREWORD	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES	v
DEFINITIONS.....	vi
ACRONYMS AND OTHER ABBREVIATIONS.....	vii
1.0 INTRODUCTION	1
2.0 SITUATION ANALYSIS	2
2.1 Overview	2
2.2 Sector Performance	4
2.2.1 Crops sub-sector	4
2.2.2 Fisheries Sub-Sector.....	5
2.2.3 Livestock Sub-Sector.....	6
2.3 Challenges	7
3.0 VISION.....	8
4.0 RATIONALE.....	8
5.0 GUIDING PRINCIPLES	9
6.0 POLICY OBJECTIVES AND MEASURES.....	10
(a) Objective 1: To increase agricultural production and productivity	10
(b) Measures	10
Crops:	10
Livestock:	10
Fisheries:	10
General:	11
(a) Objective 2: To increase effectiveness and efficiency of agricultural Research and Development (R&D).....	11
(b) Measures:	11
(a) Objective 3: To strengthen the capacities of Agricultural Training Institutions .	11
(b) Measures:	11

(a) Objective 4: To improve the efficiency of agricultural markets for inputs and outputs	12
(b) Measures:	12
(a) Objective 5: To promote availability of and accessibility to agricultural finance credit facilities and insurance	12
(b) Measures:	12
(a) Objective 6: To increase private sector participation in agricultural development	12
(b) Measures:	12
(a) Objective 7: To improve food and nutrition security	12
(b) Measures:	12
(a) Objective 8: To promote the sustainable management and use of natural resources	13
(b) Measures:	13
(a) Objective 9: To mainstream environment and Climate Change in the agriculture sector	13
(b) Measures:	13
(a) Objective 10: To promote the mainstreaming of Gender, HIV and AIDS, and governance issues in agriculture	14
(b) Measures:	14
7. IMPLEMENTATION FRAMEWORK.....	15
7.1 Institutional Arrangement	15
7.2 Highlights on Current Legal and Regulatory Framework	15
7.3 Cross cutting issues	19
7.4 Resource Mobilization	20
7.5 Monitoring and Evaluation	20

LIST OF TABLES

Table 1: Crop Production 2004-2015 (metric tonnes)	5
Table 2: Fish production by category 2005-2014 (metric tonnes).....	6
Table 3: Livestock and Poultry production 2008- 2014	7
Table 4: Current legal and regulatory framework.....	15

DEFINITIONS

Agriculture sector	Refers to crops, livestock and fisheries Sub-sectors
Crop Diversification	Refers to the shift from dominance one crop to production of a number of crops.
Agricultural Diversification	Refers to the shift from crop dominance to include Livestock and fisheries production
Aquaculture	Farming of aquatic organisms such as fish species (crustaceans, molluscs) and aquatic plants.
Capture Fisheries	Harvesting of naturally occurring living resources including fish from natural water bodies.
Fish Seed	Aquatic organisms weighting between 5 – 10 grams meant for propagation as fish species.
Seed	Any plant or plant part which is used for plant propagation.
Winter Crop	Any crop grown in the dry season.
Agro-ecological Regions	Classification of the country into three major regions based on different rainfall patterns.
Climate Change	A significant change in weather patterns or change in distribution of weather parameters around the average conditions over a long period of time.

ACRONYMS AND OTHER ABBREVIATIONS

ACF	Agricultural Consultative Forum
AgSAG	Agriculture Sector Advisory Group
AIDS	Acquired Immune Deficiency Syndrome
CAADP	Comprehensive African Agriculture Development Programme
COMESA	Common Market for Eastern and Southern Africa
CSOs	Civil Society Organizations
DPs	Development Partners
EAC	East African Community
FAO	Food and Agriculture Organization
FIs	Farm Institutes
FTCs	Farmers /Fisheries Training Centres
GDP	Gross Domestic Product
GRZ	Government of the Republic of Zambia
HIV	Human Immunodeficiency Virus
IAPRI	Indaba Agricultural Policy Research Institute
ICTs	Information and Communication Technologies
M&E	Monitoring and Evaluation
MFL	Ministry of Fisheries and Livestock
MoA	Ministry of Agriculture
NAIP	National Agricultural Investment Plan
NAP	National Agriculture Policy
PLWHA	People Living With HIV and AIDS
PPPs	Public Private Partnerships
RECs	Regional Economic Communities
SADC	Southern Africa Development Community
WFP	World Food Programme
ZNFU	Zambia National Farmers Union

1.0 INTRODUCTION

The National Agriculture Policy (NAP) 2004-2015 was developed to guide the development of the agriculture sector. As we came to the end of the period 2004-2015, it became imperative to develop a Second National Agricultural Policy to guide the agricultural sector over the next period. In arriving at this Policy, the NAP 2004-2015 had to be reviewed with particular attention to the concerns raised by various stakeholders, regarding the failure to increase rural incomes and reduce poverty, failure to achieve inclusive growth, the perpetual agricultural financing and marketing challenges; and climate change associated with erratic rainfall patterns and the change of Government which necessitated new policy guidelines that are in line with the Government of the day.

This Policy document contains the Situation Analysis which gives an overview of the performance of the sector during the implementation period of the NAP 2004 – 2015. The document then gives the Vision for the sector which is linked to the National Vision 2030. The Vision gives an indication of what should be achieved by the sector when the Policy is effectively implemented. The document also gives the Rationale which explains the justification for reviewing the NAP 2004 - 2015.

The Policy document further gives the Guiding Principles that have to be recognized in the implementation of the revised Policy. The Guiding Principles are followed by Policy Goals and Measures which spell out what will be pursued and the measures that will be implemented in order to achieve the set goals. Finally, the Policy document gives an Implementation Framework which outlines the mechanisms that will be used to implement the Second NAP. The Second NAP document is accompanied by an Implementation Plan which gives guidance on roles and functions to be performed by various actors in the implementation of the Policy.

2.0 SITUATION ANALYSIS

2.1 Overview

Past and present Zambian Governments have identified the agriculture sector as the number one key driver of the economy in order to supplement mining which has been the largest contributor of foreign exchange earnings and national revenue. The country has enormous potential to expand agricultural production due to the vast resource endowment in terms of land, water, climate and labour.

Zambia's total land area is 75 Million hectares (752,614 Km²), of which 58 percent (42 Million hectares) is classified as medium to high potential for agricultural production, with rainfall ranging between 800 mm to 1,400 mm annually. This is suitable for the production of a broad range of crops, fish, and livestock. Available statistics indicate that 14 percent of total agricultural land is being utilized in Zambia. Although this percentage has increased over the years, there is still a lot of agricultural land which is not utilized. With an estimated 42 percent of the land mass suitable for livestock production, the livestock sub-sector has potential to increase its contribution to economic growth.

It is estimated that Zambia has about 40 percent of the underground and surface water resources in the SADC region thereby offering huge opportunities for fish farming, livestock production and irrigated agriculture. The country is estimated to be receiving 160 billion cubic meters of rainfall water annually. The country only utilises 60 billion cubic meters while 100 billion cubic meters is lost. In addition, estimates suggest that the country is currently only utilizing 155,912 hectares, out of the potential 2.75 million hectares available for irrigation.

Zambia is divided into three major agro-ecological regions, namely Regions I, II and III. Rainfall performance as well as the quality of soils differ across these regions:

Region I: This region receives less than 800mm of rainfall annually and constitutes 12% of Zambia's total land area. It consists of loamy to clayey soils on the valley floor and coarse to fine loamy shallow soils on the escarpment. It covers parts of Southern, Eastern and Western Provinces. The Region is suitable for the production of crops such as cotton, sesame, sorghum, groundnuts, beans, sweet potatoes, cassava, rice and millet and has potential for the production of various irrigated crops including fruits and vegetables. This Region is also suitable for extensive cattle production and fisheries development. The valley part of the region is on a low altitude and is consequently hot and humid. This valley part is not suitable for cattle rearing because of tsetse flies.

Region II: The Region receives between 800mm to 1,000mm of annual rainfall and covers 42% of the country. It is sub divided into two regions namely; Region IIa and IIb.

Region IIa covers the Central, Lusaka and parts of Southern and Eastern provinces. The region generally has inherent fertile soils. Permanent settled systems of agriculture are practised in the Region. A variety of crops are grown in this Region and these include maize, cotton, tobacco, sunflower, soya beans, irrigated wheat, groundnuts and other arable crops. The area is also

suitable for flowers, paprika and vegetable production. The Sub-Region is also suitable for beef, dairy, poultry and fisheries production. Most soils in Zambia are inherently poor and degraded and have a low potential to supply and retain nutrients.

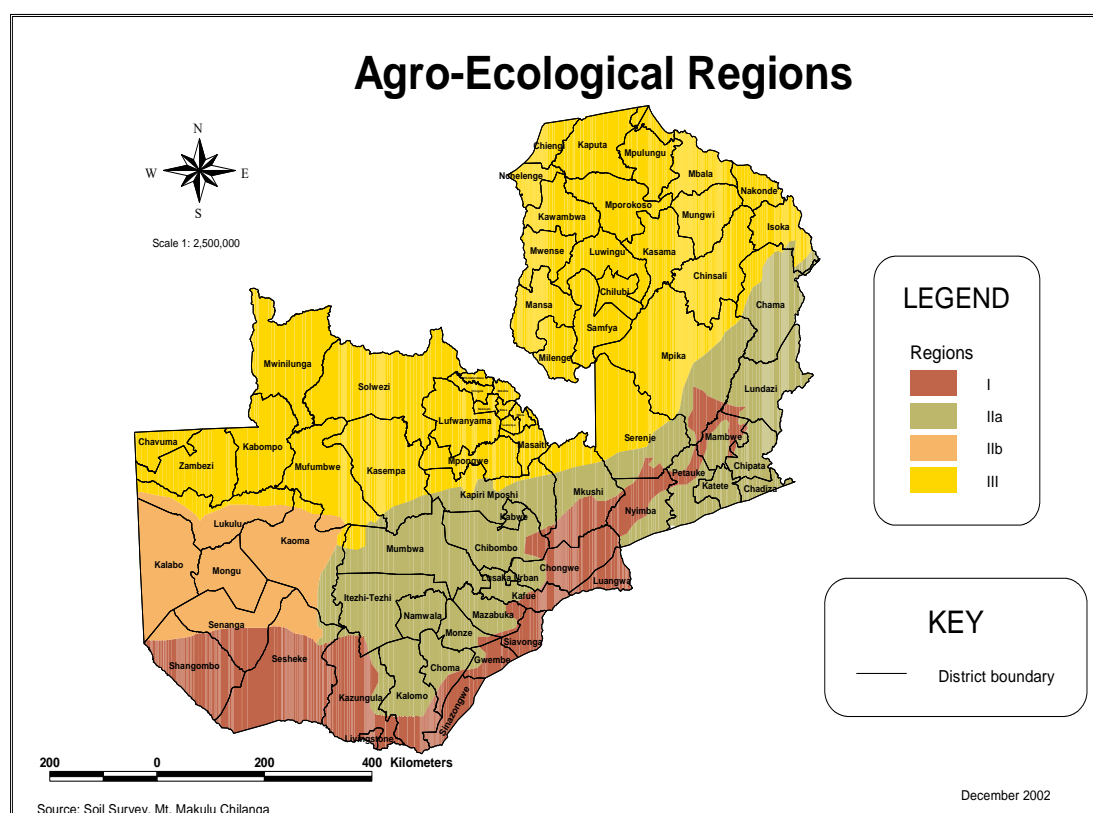


Figure 1: Agro-ecological map of Zambia

Region IIb covers part of Western Province and consists of sandy soils. It is suitable for production of cashew nut, rice, cassava, millet and vegetables. The Sub-Region is also suitable for beef, dairy, poultry and fisheries production.

Region III: The Region receives between 1,000mm and 1,500mm of rainfall annually and constitutes 46% of the country's total land area comprising the Copperbelt, Luapula, Northern, Muchinga and North-western Provinces. With the exception of the Copperbelt Province, the Region is characterized by highly leached, acidic soils. It has potential for the production of millet, cassava, sorghum, beans, groundnuts, coffee, sugarcane, rice and pineapples.

Impact of Climate Change

Over the years, the rainfall has changed across the agro-ecological regions. This has affected the farming systems across the regions.

2.2 Sector Performance

Agriculture generates approximately 10 percent of the Gross Domestic Product (GDP) and provide livelihoods for more than 70 percent of the population. The sector absorbs about 67 percent of the labour force and remains the main source of income and employment for both females and males, whose population in 2015 was 7,818,236 and 7,655,669, respectively. (CSO, Census of Population and Housing 2010). Agriculture has marginally led to an increase in rural incomes and contributed marginally to poverty reduction and increased food and nutrition security. (CSO, Living Conditions Monitoring Survey, 2006 and 2010).

During the implementation of the 2004 – 2015 NAP, the agriculture sector registered some positive gains in a number of areas. The notable ones include:

2.2.1 Crops sub-sector

The crops sub-sector is critical to provision of national food and nutrition security as well as creation of employment, and generation of household and national income. Although the crops sub-sector has registered positive gains in terms of some specific crops such as groundnuts, cotton, sorghum, mixed beans and maize, the sub-sector is not yet diversified and is still dominated by maize. This has resulted in most of the farmers, particularly smallholders, in the country to depend on maize for their food and nutrition security as well as income generation at the expense of other equally important crops. The crops sub-sector is also largely dependent on rainfall thereby making it vulnerable to adverse weather conditions such as droughts and floods.

National production increased for most crops for the period 2004 to 2015. In addition, the average maize yields among small scale farmers increased from 1.93 tonnes per hectare in 2004 to 2.24 tonnes per hectare in 2012 thereby contributing marginally to increases in maize production. However, it should be noted that these average maize yields fluctuated significantly in relation to weather performance.

The average maize yields are significantly less than 3 metric tonnes per hectare thereby indicating that no meaningful progress has been recorded in achieving increased productivity in maize production despite huge investments made in the provision of input subsidies.

Table 1: Crop Production 2004-2015 (metric tonnes)

YEAR S	MAIZE	RICE	MILLET	SUN FLOWER	GROUN D NUTS	SOYA BEANS	WHEA T	COTTON	TOBAC CO
2015	2,618,221	25,514	31,967	34,726	111,429	226,323	214,229	103,889	19,811
2014	3,350,671	49,640	30,504	34,264	143,591	214,179	201,504	120,314	26,105
2013	2,532,800	44,747	23,942	33,733	106,792	261,063	273,584	139,583	21,195
2012	2,852,687	45,321	28,446	20,468	113,026	203,038	253,522	269,502	24,250
2011	3,020,380	49,410	41,602	43,908	278,775	116,539	237,332	131,299	27,146
2010	2,795,483	51,656	47,994	26,417	163,733	111,887	171,274	72,482	22,074
2009	1,887,010	41,929	48,967	33,653	120,564	118,794	195,456	87,018	18,487
2008	1,211,566	24,023	33,934	12,662	70,527	56,839	113,242	71,820	12,500
2007	1,366,158	18,317	21,707	8,953	55,215	55,194	115,843	54,886	15,562
2006	1,424,439	13,964	48,159	15,003	84,010	57,815	93,482	118,425	14,685
2005	866,187	13,337	29,583	8,112	74,218	89,660	136,833	155,213	23,211
2004	1,213,202	11,699	39,784	13,857	69,696	54,687	82,585	144,307	14,608

Low productivity in maize and most other crops has been attributed to unfavourable rainfall performance, poor farming practices, weak extension services and poor research and technology transfer. In Zambia, fertilizer usage among smallholder farmers is low, averaging less than 100kg per hectare. In addition, whereas there are many types of fertilizers which may be suitable for use in different agro-ecological zones, the major fertilizer sources of nutrients that farmers actually use are limited.

2.2.2 Fisheries Sub-Sector

The fisheries sub-sector plays an important role in the economy of the country through the provision of employment and income generation, and contributing to food and nutrition security. The sub-sector contributes about 3.2 percent to national GDP. Given that Zambia has abundant water resources and land, the country has potential to increase fish production to meet the ever increasing demand for fish protein. The sub-sector is estimated to have the potential to produce about 150, 000 metric tonnes of fish annually on a sustainable basis.

Currently, there are 14 natural fishery areas in Zambia. Total annual capture fish production increased by 12.5 percent from 67,725 metric tonnes in 2004 to 76,214 metric tonnes in 2012.

Total inland aquaculture fish production on the other hand also increased by 153 percent from 5,125 metric tonnes in 2004 to 12,988 metric tonnes in 2012.

Table 2: Fish production by category 2005-2014 (metric tonnes)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Capture	65,927	60,236	73,542	79,403	84,716	76,396	69,364	80,638	75,187	80,826
Aquaculture	5,125	5,125	5,210	5,876	5,640	9,535	10,291	12,988	20,271	19,281
Fish Imports	15,615	4,626	4,242	3,241	2,784	4,076	16,078	17,407	32,244	55,184
Fish Exports	1,031	263	239	1,810	664	407	155	50	141	136
Net Total	85,636	69,724	82,755	86,710	92,476	89,600	95,578	110,983	127,561	155,155

Currently, the sub-sector only produces about 70, 000 metric tonnes of fish per year out of which 87 percent comes from capture fisheries. Zambia is a net importer of fish. In 2004 the value of fish imports was US\$ 2,727,969 which increased by 1,042 percent to US\$ 31,155,119 in 2012. On the other hand the value of fish exports was US\$ 1,003,782 in 2004 but decreased by 53 percent to US\$ 466,668 in 2012. It is also estimated that an increase of 82, 000 metric tonnes in fish production over and above the current levels of 70, 000 metric tonnes will be required to meet domestic demand by 2015. This has necessitated the sub-sector to embark on aquaculture development and promotion. Being a relatively new enterprise in the country, aquaculture is faced with low production and productivity accounting for only about 13 percent of total fish production. The growing demand for fish has resulted in overfishing of some water bodies thereby consequently leading to depletion of fish stocks. Furthermore, this situation is worsened by the use of illegal and unsustainable fishing methods. Since 2009, per capita fish supply has decreased from 12 kg to less than 7 kg per year in 2014.

2.2.3 Livestock Sub-Sector

The livestock sub-sector is relatively under-exploited but recognised as an increasingly important part of the agricultural economy. It plays important economic and social roles in the livelihoods of many Zambians, particularly, smallholder farmers. For instance, poultry production has been increasing at an average of 20 percent per year. The pig industry has also experienced significant growth in the last five years. The sub-sector also plays an important role in the provision of draught power, organic fertilizers and by-products such as hides and skins used as raw materials in the leather and tannery industry. The mixed crop and livestock system accounts for 53 percent of all cattle production, whilst the specialized poultry and dairy system accounts for 29 percent of all production. The grassland based system accounts for 11 percent (Livestock Policy Toolkit Report, 2012). In 2012, annual production in Zambia was projected at 56,000 metric tonnes for beef, 32,000 metric tonnes for pork, 42,000 metric tonnes for poultry meat, 306 million litres of milk and 437 million eggs (Livestock Policy Toolkit Report, 2012). With a high growth in the per capita income, increasing urbanization, the demand projections show a large future imbalance between supply and demand, with a projected deficit of 434,000 MT meat and 940 million litres of milk in 2027 (Toolkit Report, 2012). Zambia seems to have a moderate comparative advantage for meat and milk production at the farm-gate level. The Zambian livestock sector requires only about 4 percent of the total

cereal production, and 33 percent of the consumable fodder and grass production, hence there is not a feed constraint for expanding production.

Livestock population have generally increased across all categories of livestock due to a decrease in incidences of livestock diseases of national economic importance as well as increased investment in ventures such as poultry, pigs etc. The cattle population increased from 2,375,453 in 2004 to 4,319,277 in 2014; Goats increased from 1,002,376 in 2004 to 3,538,785 in 2014;

Table 3: Livestock and Poultry production 2008- 2014

YEARS	Cattle	Goats	Sheep	Pigs	Poultry
2014	4,319,277	3,538,785	115,338	1,533,402	146,055,266
2013	4,026,658	3,023,585	101,456	1,098,951	122,605,273
2012	3,932,269	1,839,650	95,473	910,568	86,745,351
2011	3,837,880	2,067,858	91,490	832,685	78,585,623
2010	3,038,000	1,380,100	88,507	700,802	75,928,130
2009	2,315,327	758,501	83,524	655,919	74,700,661
2008	2,457,563	746,143	80,541	583,036	73,290,635

2.3 Challenges

Despite the aforementioned gains, overall performance of the sector has not been sufficient enough to make a significant dent on poverty. Poverty levels which are supposed to be reduced by agriculture in the rural areas are still very high in comparison to urban poverty where reductions in poverty have been higher especially in Lusaka and Copperbelt provinces. More progress in poverty reduction has been recorded in urban areas due to the relative better performance of other sectors such as construction, trade, manufacturing, mining, tourism and services which thrive in urban areas. Growth and gains made within the agriculture sector have not been inclusive but rather limited to large scale and medium scale or emergent farmers with little impact on the bulk of small scale farmers who constitute the majority of the total population of farmers. This is evidenced by results of the annual surveys which show that the majority of small scale farmers have stagnated at less than two hectares of cropped land and obtain limited value from their production associated with low seasonal annual incomes. This category of farmers also rarely own large livestock such as cattle, pigs or sheep but only limited to having a few village chickens.

The agriculture sector continues to face several challenges such as low agricultural production and productivity, erosion of indigenous livestock and plant genetic resources, low private sector participation especially in agricultural marketing, food insecurity particularly at household level and high dependence on rain-fed agriculture among others. The increases in agriculture production recorded during the NAP 2004 – 2015 review period have not been sufficient enough to meet the growing domestic and foreign demand for Zambian agricultural commodities. In addition, despite the increased government budgetary allocations, more than 60 percent of the expenditure is channelled towards maize production and marketing.

These challenges may be summarized as follows:

- i. Low agricultural production and productivity;
- ii. Diminished investment in agricultural research and development (R&D);
- iii. Inefficient agricultural extension service delivery;
- iv. Low levels of agricultural mechanization among smallholder farmers;
- v. High dependence on rain-fed agriculture compounded by low levels of irrigation;
- vi. Over-fishing in natural water bodies;
- vii. Inefficient agricultural markets for inputs and outputs;
- viii. High post-harvest losses
- ix. Limited access and availability to agricultural finance and credit facilities;
- x. Low private sector participation in agricultural development;
- xi. Reduced net value of agricultural exports particularly for horticulture, floriculture and fish products although the overall value of non-traditional exports has been rising due to included exports of timber, honey and handicrafts;
- xii. Unsustainable use of natural resources;
- xiii. Low resilience to Climate Change effects; and
- xiv. Inadequate mainstreaming of Gender and Governance issues, HIV and AIDS.

3.0 VISION

The Vision of the Second National Agricultural Policy is:

“An efficient, competitive and sustainable agricultural sector, which assures food and nutrition security, increased employment opportunities and incomes.”

4.0 RATIONALE

The rationale for the Second National Agriculture Policy is to provide a conducive environment that will stimulate sustainable agricultural development. The Policy provides a framework that will promote sustainable agricultural diversification, agricultural commercialization, private sector participation and inclusive agricultural growth. It is envisaged that this Policy will promote competitiveness, stimulate efficiency, increased productivity and profitability in the agriculture sector. It will thus contribute effectively to attaining food and nutrition security, employment creation, increased incomes and reduced rural poverty.

5.0 GUIDING PRINCIPLES

This Policy is built on the following principles:

- 5.1 The right to adequate and nutritious food
- 5.2 Government as a facilitator of private sector led agriculture
- 5.3 Equitable, inclusive and sustainable development.
- 5.4 The promotion of agriculture as a business
- 5.5 Profitability and competitiveness.
- 5.6 Cognizance of land tenure systems.
- 5.7 Stakeholder involvement.
- 5.6. Cognizance of international Treaties, Protocols and Agreements.
- 5.7. Private sector-led agricultural development.
- 5.8. Agricultural diversification.
- 5.9. Cooperatives as a vehicle for agriculture growth

6.0 POLICY OBJECTIVES AND MEASURES

The Vision of the Second National Agricultural Policy will be attained through strengthening the policy, legal and regulatory framework (formulate, review, repeal & amend some acts) and through implementing and achieving the following policy objectives and measures;

(a) Objective 1: To increase agricultural production and productivity

(b) Measures

Crops:

- i. Promote the use of improved crop varieties and certified seed
- ii. Promote the development of agricultural farm blocks;
- iii. Promote the efficient use of fertilizers and agro-chemicals;
- iv. Promote investment in appropriate, affordable and cost effective irrigation technologies and infrastructure suitable for different agro-ecological regions;
- v. Promote the efficient use of available water resources for irrigation;
- vi. Promote high value irrigable crops among small and medium scale farmers;
- vii. Improve the management of smallholder irrigation schemes;
- viii. Promote the establishment of irrigation schemes especially for smallholder farmers.
- ix. Promote farm power and mechanization for smallholder farmers;
- x. Establish Farm Power and Mechanization Centres

Livestock:

- i. Promote livestock stocking and restocking;
- ii. Promote the establishment of livestock Breeding Centres
- iii. Promote the establishment of Livestock Service Centres,
- iv. Strengthen disease control and prevention measures;
- v. Promote irrigated pastures for livestock;
- vi. Promote the provision of water points for livestock;
- vii. Promote conservation of fodder;
- viii. Promote the use of improved Pastures;
- ix. Promote improved range management practices; and
- x. Promote diversification in livestock production

Fisheries:

- i. Promote and diversify production of farmed-fish species;
- ii. Promote stocking and restocking of natural water bodies,
- iii. Promote access to fish seed (increase production of fingerlings, increase number of operational fish hatcheries, establish community fish seed production centres);
- iv. Promote aquaculture development ; and
- v. Promote the establishment of Aquaculture Parks;

General:

- i. Improve efficiency and effectiveness of the existing extension staff (train, re-train extension staff, purchase motorcycles, construct & rehabilitate camp houses & offices);
- ii. Improve staffing levels for front-line extension staff;
- iii. Establish new Farm Institutes (FIs), Livestock Service Centres and Farmers/Fisheries Training Centres (FTCs);
- iv. Rehabilitate Farm Institutes (FIs), Livestock Service Centres and Farmers/Fisheries Training Centres (FTCs);
- v. Harmonize the public and private extension delivery systems;
- vi. Strengthen the Research-Extension- Farmer linkages;
- vii. Promote the use of ICTs in extension service delivery (develop and operationalise mobile phone SMS based extension service platform);
- viii. Support and Promote the use of audio/video mobile vans in extension service delivery;
- ix. Promote private extension service provision to supplement public extension system;
- x. Promote the participation of individual farmers and farmer group organizations, including co-operatives in technology transfer and
- xi. Promote Public-Private Partnerships in dissemination of research technology.

(a) Objective 2: To increase effectiveness and efficiency of agricultural Research and Development (R&D)

(b) Measures:

- i. Promote alternative sources of financing for agricultural research and development (establish & operationalize competitive grant scheme);
- ii. Promote Public Private Partnerships (PPPs) in agricultural research and development;
- iii. Strengthen institutional capacity to undertake appropriate research incorporating the effects of Climate Change (construct and rehabilitate research facilities, purchase lab equipment);
- iv. Promote adaptive research - Redefine boundaries of agro-ecological regions and localize research trials and recommendations;
- v. Operationalize livestock research, develop breeding strategies and technologies;

(a) Objective 3: To strengthen the capacities of Agricultural Training Institutions

(b) Measures:

- i. Establishment of new infrastructure and rehabilitation of existing infrastructure;
- ii. Improve staffing levels in Agricultural Training Institutions;
- iii. Promote both short term and long term training for staff;
- iv. Provide training equipment and materials;
- v. Promote the establishment of income generating ventures in ATIs;
- vi. Promote cost sharing mechanisms in ATIs
- vii. Adapt the Curricula to Sector needs; and
- viii. Strengthen the research components in ATIs.

- ix. Ensure the inclusion of agricultural extension, Climate Change and food nutrition components in the curricula of agricultural training institutions.

(a) Objective 4: To improve the efficiency of agricultural markets for inputs and outputs

(b) Measures:

- i. Promote private sector participation in agricultural markets for inputs and outputs;
- ii. Promote access to agricultural market information;
- iii. Promote warehouse receipt system for agricultural produce;
- iv. Strengthen the capacity of farmer groups and co-operatives in production, processing, marketing and trade;
- v. Promote the construction and maintenance of appropriate agricultural marketing infrastructure including climate resilient infrastructure; and
- vi. Promote livestock, crops and fisheries marketing systems.

(a) Objective 5: To promote availability of and accessibility to agricultural finance credit facilities and insurance

(b) Measures:

- i. Promote broad based smallholder credit and financial delivery systems (establish Savings & Credit Cooperatives, train farmers in village/rural banking services);
- ii. Promote warehouse receipt system (establish warehouse licensing authority);
- iii. Promote a pay-back culture in agricultural credit management particularly among smallholder farmers (conduct sensitization campaigns) and
- iv. Promote agricultural insurance.

(a) Objective 6: To increase private sector participation in agricultural development

(b) Measures:

- i. Strengthen coordination among all stakeholders in the sector (hold sector annual reviews and sector planning meetings);
- ii. Strengthen agricultural information management systems and dissemination (establish agricultural marketing information centres);
- iii. Promote private sector investment in agro-processing and marketing;
- iv. Promote the development of agricultural farm blocks and agricultural blocks within districts as well as aqua parks; and
- v. Facilitate the review existing legislation and formulation of new pieces of legislation.

(a) Objective 7: To improve food and nutrition security

(b) Measures:

- i. Promote diversification of agricultural production and utilization (conduct training in food processing & preservation, increase crop diversification index);
- ii. Promote access to bio-fortified seed or vines for the production nutrient enhanced varieties.
- iii. Promote on-farm agro-processing;

- iv. Promote value addition in the agriculture sector;
- v. Promote on-farm storage of food commodities;
- vi. Promote the preservation and utilization of nutrient rich food;
- vii. Promote cultivation and consumption of indigenous crop varieties; and
- viii. Determine & Reduce post-harvest loses (construct/rehabilitate silos, construct cooperative storage sheds, fumigation);
- ix. Promote nutrition education; and
- x. Promote production and utilization of nutritious food.

(a) Objective 8: To promote the sustainable management and use of natural resources

(b) Measures:

- i. Promote sustainable land management technologies (including conservation agriculture, appropriate stock densities);
- ii. Promote afforestation, community woodlots and agro-forestry;
- iii. Promote use of renewable energy resources (solar, biogas and wind);
- iv. Promote energy efficient technologies in agricultural production and processing;
- v. Strengthen co-management of inland and trans-boundary fisheries resources;
- vi. Decentralize capture fisheries management to communities;
- vii. Promote sustainable utilization of rangeland (grassland ecosystem) and pastures for livestock production;
- viii. Promote integrated agriculture especially among smallholder farmers;
- ix. Promote sustainable fishing methods;
- x. Develop and promote water harvesting, storage and utilisation infrastructure;
- xi. Promote programmes and appropriate technologies/methods for sustainable utilization of fisheries resources; and
- xii. Promote characterization, conservation and sustainable utilization of indigenous animal genetic resources including climate change resilient indigenous breeds (establish bio-diversity conservation centres)

(a) Objective 9: To mainstream environment and Climate Change in the agriculture sector

(b) Measures:

- i. Promote and strengthen agricultural production methods that are resilient to Climate Change;
- ii. Promote awareness on Climate Change adaptation;
- iii. Integrate Climate Change adaptation measures in plans and programmes;
- iv. Promote environmentally friendly and climate-smart farming systems;
- v. Promote weather based insurance schemes especially among smallholder farmers;
- vi. Strengthen capacity at camp, district & provincial levels to regularly collect, process and transmit early warning information; and
- vii. Build local and national institutional capacity to carry out Climate Change risk assessments.

(a) Objective 10: To promote the mainstreaming of Gender, HIV and AIDS, and governance issues in agriculture

(b) Measures:

- i. Promote gender mainstreaming training, knowledge and skills in the agriculture sector;
- ii. Facilitate the coordination of gender mainstreaming in the agriculture sector with other stakeholders;
- iii. Strengthen integration of gender issues at all levels of agricultural development in line with national, regional and international agreements;
- iv. Promote women and youths participation in the agriculture sector;
- v. Promote access to productive resources and other agricultural services by women and youth;
- vi. Promote the development of appropriate agricultural technologies for women and youth;
- vii. Strengthen HIV and AIDS prevention activities among stakeholders in the agriculture sector;
- viii. Promote agricultural technologies that mitigate the impact of HIV and AIDS;
- ix. Facilitate accessibility to Anti-Retroviral Therapy (ART) and treatment of opportunistic infections; and
- x. Promote good governance, transparency and accountability in the agriculture sector.

7. IMPLEMENTATION FRAMEWORK

7.1 Institutional Arrangement

The over-riding objective of this Policy is to accelerate reduction of food and nutrition insecurity and poverty and to increase agriculture sector growth and employment. The Ministry of Agriculture (MoA) and the Ministry of Fisheries and Livestock (MFL) shall take a leading role in facilitating, coordinating, regulating, monitoring and evaluating the Policy. However, it is important to note that no single institution has the capacity to implement the proposed policy measures by itself. Therefore, strong partnerships with farming communities, input suppliers, traders, agro-industry, financial institutions, Civil Society Organizations (CSOs), the Development Partners and Regional Economic Communities (RECs) such as the Southern Africa Development Community (SADC), East African Community (EAC) and the Common Market for East and Southern Africa (COMESA) are needed. There is also need to partner with other key stakeholders such as African Union (AU), World Food Programme (WFP), Food and Agriculture Organisation (FAO), Zambia National Farmers Union (ZNFU), Agriculture sector Advisory Group (Ag SAG), and Agricultural Consultative Forum (ACF).

7.2 Highlights on Current Legal and Regulatory Framework

The current legal framework for NAP is complemented among others by various Acts of Parliament which include the following:-

Table 4: Current legal and regulatory framework

No.	Enabling Act	Purpose
01	Plant Breeder's Right Act No. 18 of 2007	Provides for the protection of plant breeder's rights and registration of plant varieties to safe guard and streamline matters of plant variety ownership and use.
02	Cooperative Society Act No. 20 of 1998	Provides for the law relating to the formation, registration and regulation of co-operative societies.
03	Fisheries Act No. 22 of 2011	Provides for:- <ol style="list-style-type: none"> i. Promotion of sustainable development of fisheries and a precautionary approach in fisheries management, conservation, utilization and development; ii. Establishment of fisheries management areas and fisheries management committees; iii. The regulation of commercial fishing and aquaculture; iv. The establishment of Fisheries and Aquaculture Development Fund.

04	Fertilizer and Feed Act No. 13 of 1994	Provides for:- i. The regulation and control of the manufacture, processing, importation and sale of agricultural fertilizer; ii. Minimum standards of effectiveness and purity of such fertilizers;
05	Food Reserve Act No. 20 of 2005	Provides for the establishment of the Food Reserve Agency for the purpose of securing the national strategic food reserve.
06	Agriculture Credit Act No. 23 of 2010	Provides for: (i) The establishment of the Warehouse Licensing Authority and provide for its functions and powers; (ii) Facilitation of the borrowing of money on the security of charges created on farming stocks and other agricultural assets; (iii) The registration of charges; (iv) The certification of warehouses; (v) The issuance and negotiations of warehouse receipts and the rights conferred by warehouse receipts; and (vi) The rights and obligation of warehouse operators.
07	Dairy Industry Development Act No. 22 of 2010	Provides for: (i) The regulation of the dairy industry so as to develop an efficient and self-sustaining dairy industry that will effectively contribute towards poverty alleviation, household food security and employment creation; (ii) The establishment of the Dairy Industry Development Board and provides for its functions and powers; (iii) The enhancement of milk production in order to fully utilise the capacity of processing facilities, so as to achieve growth in the processing of safe and wholesome high value milk products; (iv) The processing, manufacturing, marketing and distribution of milk;

		<p>(v) Ensuring of collaboration and participation of all stakeholders within the dairy industry and provide wider service to farmers in the dairy industry; and</p> <p>(vi) The promotion of self-regulation of the dairy industry through the development and use of codes of practice.</p>
8	The Cotton Act No. 21 of 2005	<p>Provides for:</p> <p>(i) The regulation of the cotton industry as it relates to the production and ginning of seed cotton; and</p> <p>(ii) The control of the production and marketing of cotton.</p>
9	Coffee Act No.13 of 1994	<p>Provides for:</p> <p>(i) The regulation of the coffee industry; and</p> <p>(ii) The control of the production and marketing of coffee.</p>
10	The Agricultural Statistics Act No. 13 of 1994	<p>Provides for:</p> <p>(i) The collection of agricultural statistics; and</p> <p>(ii) The compilation and publication of statistics.</p>
11	Noxious Weeds Act No. 13 of 1994	Provides for the eradication of noxious weeds.
12	The Plant Pests and Diseases Act No. 13 of 1994	<p>Provides for:</p> <p>(i) The eradication and prevention of the spread of plant pests and diseases in Zambia; and</p> <p>(ii) The prevention of the introduction into Zambia of plant pests and diseases.</p>
13	Plant Variety and Seeds Act No. 21 of 1995	<p>Provide for:</p> <p>(i) The regulation and control of the production, sale and import of seed for sowing and of the export of seed;</p> <p>(ii) The testing and for minimum standards of germination and purity thereof; and</p> <p>(iii) The certification of seed.</p>
14	Tobacco Act No. 13 of 1994	<p>Provides for:</p> <p>(i) The promotion, control and regulation of the production, packing and marketing of tobacco in the Republic of Zambia;</p> <p>(ii) The promotion and control of the export of tobacco from and import of tobacco to the Republic of Zambia; and</p> <p>(iii) The direction and promotion of research in</p>

		connection with tobacco.
15	Tobacco Levy Act No. 13 of 1994	Provides for the imposition and control of a levy on tobacco grown in the Republic of Zambia.
16	The Animal Identification Act No. 28 of 2010	Provides for: <ul style="list-style-type: none"> (i) The registration of Animal Identification marks and marking operators; and (ii) The appointment of the Registrar of Animal Identification.
17	Prevention of Cruelty of Animals Act No. 13 of 1994	Provide for: <ul style="list-style-type: none"> (i) The prevention of cruelty to animals; to specify acts and omissions which amount to cruelty and penalties therefore; and (ii) To prescribe the powers of police officers.
18	Tsetse Control Act No. 13 of 1994	Provides for making better provision for the control and prevention of the spread of tsetse flies.
19	The Animal Health Act No. 27 of 2010	Provide for: <ul style="list-style-type: none"> (i) The prevention and control of animal diseases; (ii) The quarantine of animals; (iii) The regulation of the importation and exportation of animals, animal products, animal by-products, articles and animal feed; and (iv) The establishment of the Animal Disease Control Fund.
20	The Veterinary and Veterinary Para-Professional Act No. 45 of 2010	Provides for: <ul style="list-style-type: none"> (i) The licensing of laboratories and animal health facilities ; and (ii) The recognition and approval of training programmes of veterinary and veterinary para-professionals.

For effective implementation of the objectives and measures outlined in the Policy, the following will be undertaken:

- (i) The Plant Breeder's Act No. 18 of 2007, Cooperative Society Act No. 20 of 1998, Fisheries Act No. 22 of 2011, Fertilizer and Feed Act No. 13 of 1994, Food Reserve Act No. 20 of 2005 and the Agriculture Land Act No. 12 of 1995 will be repealed and replaced with new legislation which will adequately address the needs of various stakeholders in the sector.
- (ii) The Agricultural Marketing Act, Livestock Development Act and the Dairy Development Act will be developed.
- (iii) Effective mechanism for enforcement of the legal framework shall be developed and key institutions for effective coordination shall be promoted.

7.3 Cross cutting issues

a) Gender

Sustainable agricultural development requires the participation of both genders i.e. females and males at all levels. It is imperative that the representation of women in agricultural development is accelerated so that there is no gender imbalance.

(b) HIV and AIDS

HIV and AIDS pandemic has impacted negatively in all the sectors of the economy. The agriculture sector has been impacted, thereby contributing negatively to the productivity of the sector. Therefore, there is need to strengthen programmes aimed at mitigating the adverse effects of the pandemic by instituting and operationalising HIV and AIDS Policies in the sector.

(c) Climate Change

The incidences and/or variations of drought and floods that Zambia has been experiencing from time to time are attributed to a changing climate. Climate Change is one of the serious threats to sustainable agricultural development. Due to the fact that resources meant for other national developments and especially for agriculture development programmes are diverted to mitigate the eventualities of Climate Change.

In order for the country to address these challenges, there is need to conduct public awareness campaigns to enlighten the public on Climate Change issues. There is need also to monitor and assess the potential impact of Climate Change on livestock, fisheries and crop production in general and to invest in irrigation systems.

(d) Capacity Building

The effective implementation of this Policy requires that individual and institutional capacities of the various stakeholders in the sector are enhanced. This will ensure that a critical mass of suitable and adequately trained human resource is available to meet the needs of both the public and private sectors.

7.4 Resource Mobilization

Government will continue mobilizing resources with the support of Development Partners and other stakeholders for the implementation of the NAP. The implementation of the NAP will be funded from the following sources:

- (i) Government annual budget
- (ii) Private sector investment
- (iii) Development Partners
- (iv) Non-state actors.

The Vision 2030, Revised Sixth National Development Plan (R-SNDP), National Agricultural Investment Plan (NAIP) under the CAADP framework will be the key documents in terms of prioritizing investment and resource flows to the sector.

7.5 Monitoring and Evaluation

The implementation of the NAP will be monitored and evaluated by the Ministries responsible for agriculture, livestock and fisheries in partnership with the Ministry of Finance, Development Partners and other stakeholders. This will involve the establishment of agreed base-line benchmarks and sector indicators by the Ministry in collaboration with other key stakeholders. Furthermore, the Policy will be monitored and evaluated by other stakeholders through annual reports and quarterly review meetings. Government shall support data collection, analysis and dissemination of M & E results.

The Policy will be reviewed from time to time as need arises in order to align it to the prevailing policy direction.