REPUBLIC OF KENYA

MINISTRY OF AGRICULTURE, LIVESTOCK, FISHERIES AND COOPERATIVES

NATIONAL AGRICULTURAL INSURANCE POLICY

(NAIP)

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REPUBLIC OF KENYA

National Agricultural Insurance Policy (NAIP)

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FOREWORD

Kenya's economy is predominantly dependent on agriculture in terms of its contribution to the Gross Domestic Product, employment, provision of raw materials and foreign exchange earnings. The sector directly contributes 34.1 percent of the country's Gross Domestic Product and additionally 27 percent through manufacturing, distribution and service-related sectors. The Government has therefore outlined the key role the agriculture sector will continue to play under the economic pillar of the Kenya Vision 2030 and in the Agricultural Sector Growth and Development Strategy (ASGTS). The strategies outlined in these two key documents aim at accelerating the growth of agriculture sector in order to improve the standard of living of Kenyans as well as substantially improving their food and nutritional security.

The agriculture sector is however, increasingly becoming vulnerable to vagaries of weather- related risks that adversely affect the sector and the general economy. Further, Climate change has aggravated the vagaries of weather resulting in extreme events such as droughts, floods and, increased incidences of pests and diseases. The Government has consequently identified and adopted Agriculture insurance as one of the ways to de-risk the agriculture sector and reduce vulnerability of farmers. However, the private sector undertaking agricultural insurance has been reluctant to fully embrace the sector due to attendant risks. The uptake of insurance by farmers has consequently remained low.

The purpose of this policy is to outline measures that, if implemented, will foster the growth and development of agriculture insurance in the country. It endeavors to identify the salient relationships and linkages between the key stakeholders in the Agriculture Insurance industry, as well as providing a framework to guide specific policy actions/interventions key one being the development of affordable and accessible agriculture insurance. In addition, it offers policy makers and the private sector a coherent direction to guide coordinated performances and implementation of the policy. It will also provide a platform for the regulator to effectively act on enforcement for smooth operations of the industry.

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PREFACE

The large majority of farmers in Kenya remain vulnerable to natural disasters, a fact that poses significant social and economic challenges. Severe drought strikes the northern part of the country every 3 to 5 years causing major losses. For instance, during the extreme drought event that occurred between 2008 and 2011, the Kenyan economy lost an estimated US$12 billion with the Livestock sub –sector alone incurring 72 percent of this loss. Such devastating shocks push better of farmers and pastoralists into poverty and the already poor into destitution, which may take them several years to recover. This also makes it more costly or impossible for these farmers to take loans thus limiting opportunities to agricultural producers to invest in better tools and technologies to increase productivity.

Agriculture insurance offers opportunity for Kenya address and manage the risks associated with agriculture. The agriculture insurance market in Kenya has failed to reach scale. With the exceptions of some small-scale pilots and niche retail activity, the private is currently not providing agriculture insurance to a large scale. This can be attributed to various reasons, which include lack of capacity especially for catastrophic risks. Insurers do not have the capacity to underwrite catastrophic risks associated with drought, floods and other typical agricultural shocks.

Although reinsurance is available, it is usually expensive particularly where lack of reliable data. Secondly, smallholder farms tend to be spread over wide areas and this makes agriculture insurance to carry high distribution costs; this s exacerbated by lack of established insurance agent networks in rural areas. In addition, in relation to tradition indemnity insurance, the cost of assessing losses is relatively high. This is especially true for small-insured farm units, where the premium volume generated is low and therefore insufficient to cover the costs of loss assessment. Finally, although index-based insurance lowers transaction costs, it carries with it high development and other start-up costs. These start-up costs eventually translate into expensive premiums thus making smallholder farms unable and to pay for these commercially priced agricultural insurance products. In addition, farmers have poor understanding of agriculture insurance and this reduces demand and at times may result in purchase of inappropriate products.

Agriculture insurance therefore, if implemented through partnership between

the public and the private sector can reduce losses along the various agricultural value chains and help smoothen agricultural incomes. Agricultural insurance will also provide the much-needed protection for agricultural producers; especially the vulnerable populations, farmers, livestock keepers and fisher folk, thereby keeping them out of extreme poverty and enabling them improve investments in agriculture and increase food production to address national food security and increased incomes.

Lastly, we wish to affirm our commitment to mobilize adequate human and financial resources to implement this policy. We therefore call upon the financial and insurance sectors, the private sector and all stakeholders to join to partner and collaborate with government at the national and county level to support the implementation of this policy.

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EXECUTIVE SUMMARY

The Agriculture Sector has recorded impressive growth since independence though many challenges persist in achieving food and nutrition security; transforming agriculture from subsistence to commercial production; improving access to markets; efficient use of inputs and accessing agricultural credit and insurance among others. Risks and uncertainties are inherent in agricultural production systems as producers are exposed to various disasters owing to vagaries of weather, biological perils that include pests and disease outbreaks, idiosyncratic risk such as hail and fire and systemic risks covering large areas. These disasters severely disrupt agricultural production resulting in vulnerability of producers and other value chain actors.

The Government has identified agriculture insurance as one of the ways to de-risk the agriculture sector and reduce vulnerability of farmers and other value chain actors. However, agriculture the adoption of agriculture insurance in the country has a risk mitigation measure has failed to reach scale due to many challenges. These include Inadequate risk assessment and profiling; inadequate capacity for risk assessment and profiling; inadequate and unreliable data for agriculture insurance; low levels of agriculture insurance market infrastructure development; inappropriate product distribution channels; inadequate capacity by underwriters to cover risks; high cost of insurance premiums; inadequate incentives by government and weak legal and regulatory framework that does not respond to industry needs.

The agriculture insurance has however been operating without a comprehensive policy to guide its growth and development and this informs the Government's quest to have one in place. The agriculture insurance Policy forms the conceptual framework that provides guidelines for addressing the challenges in the agriculture insurance sub sector and exploiting the opportunities to bring greater competitiveness and spur economic growth. The overall objective of the agriculture insurance policy is therefore to foster growth and development of agriculture insurance industry and thus adequately remunerates all value chain actors.

The effective implementation of the National Sugar Policy will result in achievement of specific outcomes that include: improved coordination amongst institutions and an enabling environment that fosters the growth and

development of agriculture insurance; improved development of affordable and accessible agriculture insurance; enhanced the capacity of agricultural value chain actors to enable them cope with risks; generation and use of data to support agriculture insurance and promote research and development, innovation and knowledge management in agriculture insurance.

Policy implementation will require proper coordination of institutions and stakeholders in the industry to implement the outlined policy intervention measures. To achieve a vibrant agriculture insurance, an enabling legal and regulatory framework and fiscal measures such as public premium support and other incentives shall be provided. In addition, an effective policy coordination, monitoring and evaluation framework shall be put in place to track implementation and facilitate review of the policy.

It is expected that the implementation of this policy will unlock the potential of the subsector and lead to a highly competitive and thriving agriculture subsector able to enhance uptake of agriculture as one of the options to mitigate on agricultural shocks and thus build resilience amongst the farmers, livestock keepers and fisher folks.

GLOSSARY OF TERMS

Aquaculture
Artisanal fisherfolk
Livestock- to include bees
Distribution
NDVI- is a measure of the state of plant health based on how the plant reflects light at certain frequencies.

CHAPTER ONE: INTRODUCTION

1.1 Background

Kenya's economy is predominantly dependent on the agriculture sector which contributes about 34.1 per cent directly to the Gross Domestic Product (GDP) and additionally 27 per cent through manufacturing, distribution and service-related sectors. The sector contributes 65 per cent of the Country's total exports and employs 60 per cent of the population (KNBS, 2020). Despite experiencing mixed performance over the last decade, the sector remains the mainstay of Kenya's economy. According to the 2015/16 Kenya Integrated Household Baseline Survey (KHIBS), 76 per cent of Kenyans live in rural areas and derive their livelihoods directly or indirectly from agriculture.

The Agriculture Sector has recorded impressive growth since independence though many challenges persist in achieving food and nutrition security; transforming agriculture from subsistence to commercial production; improving access to markets; efficient use of inputs and accessing agricultural credit and insurance among others. Risks and uncertainties are inherent in agricultural production systems as producers are exposed to various disasters owing to vagaries of weather, biological perils that include pests and disease outbreaks, idiosyncratic risk such as hail and fire and systemic risks covering large areas. These disasters severely disrupt agricultural production resulting in vulnerability of producers and other value chain actors.

Estimates available indicate that 45 per cent of the rural population has insufficient food to meet their daily energy requirements. The food insecure population lacks access to adequate food and even a higher number consume food of poor nutritional value and quality. The incidence and prevalence of food insecurity is more severe in Arid and Semi-Arid areas due to inadequate resource endowment and agricultural risks such as pests, diseases, market price and weather-related risks. For their survival, the food-poor depend on relief food provided by the government and Non- Governmental Organizations. It is estimated that the government spends around 40-65 million US Dollars annually on famine relief; and the figure is even much higher when famine relief support by Non-Governmental Organizations is taken into account. This food insecurity scenario calls for appropriate intervention measures including increased investment in agriculture risks management.

The Medium-Term Plan III (2018-2022) outlines the programmes that the

Government is implementing to achieve Kenya Vision 2030. Under the “Big Four Agenda” agriculture insurance is prioritized as an intervention

measure for contributing towards the 100 per cent food security and nutrition pillar.

1.2 History of Agricultural Insurance

Agricultural insurance started in Europe over two centuries ago and was offered to private owners to protect against livestock mortality and named peril events such as crop hail. In Kenya, agriculture insurance dates back to 1942 when the colonial government created the Guaranteed Minimum Return (GMR) scheme covering select crops. The GMR program was discontinued in 1978 following years of poor performance and unsustainable financial losses. Between the late 1970s and mid-2000, there was very little interest by private commercial insurers in Kenya in the provision of crop and livestock insurance. Traditional indemnity-based covers for the large-scale commercial farmers and dairy farming sector were offered by insurers on a limited scale.

From mid-2000 there was considerable re-emergence of interest in agriculture insurance targeting farmers largely stimulated by;

1) An international re-insurer that actively worked with the local insurance industry to develop traditional and index crop and livestock insurance products and programs
2) International development agencies that provided technical and financial assistance to the interested Kenyan Insurers to develop new index-based crop and livestock insurance programs.

The Insurance Act Cap 487 of the Laws of Kenya was enacted in 1984 and operationalized in 1987. The Act provides a framework for regulation, supervision and development of the Insurance industry in Kenya. The Crops Act 2013 provides for establishment of Crop insurance programs but the administration of agricultural insurance remains under Cap 487.

1.3 Justification

The Kenya agriculture sector is increasingly becoming vulnerable to vagaries of weather-related risks impacting negatively on the sector and general economy. Climate change has exacerbated the weather vagaries resulting in extreme events such as droughts, floods, increased incidences of pests and diseases. Droughts are by far the leading cause of agricultural losses in Kenya. The frequencies of severe droughts have increased from a 5-7-year cycle to 2-3-year cycle. Droughts have a direct impact on the economy and affect the linkages between different sub-economies, ecologies and communities. For instance, during the drought of 2008 to 2011, the Kenyan economy lost an estimated KSh. 968.6 billion. The livestock sector incurred 72 percent of that loss, or KSh. 699.3 billion, with 9 percent of all livestock lost. The Government of Kenya spent KSh. 4.2 Billion on post disaster interventions.

Since 1970, Kenya has experienced a total of 41 major floods affecting 6.9 million people. In the same period 1970, 12 major drought events have also occurred. Between 2008 and 2017: estimated KShs 699 billion in livestock losses and KShs 121 billion in crop losses. Over the past 12 years, the Government of Kenya has spent on average KShs 4.2 billion per year on disaster relief funding. In 2017: Ksh 16 Billion used; Maize floor subsidy: 9 Billion

In the Fisheries sub-sector, the risks experienced mainly take the form of damage to production units (Ponds and Cages), drying up of water sources for aquaculture, loss of fish stocks, fishing craft/gears, fishing grounds and fish landing and handling facilities, high post-harvest losses and loss of market access threatening the livelihoods of artisanal fisherfolks. Between 1997 and 2000, Kenyan fish and fish products were denied market access to the European Union due to loss of fish handling facilities occasioning the closure of 13 local fish processing factories and the associated business in the lake Basin towns and its environs. In addition, long rains season of the year 2020 caused flooding in various parts of the country resulting in the destruction of 149,600 ponds countrywide. Consequently, seven (7) Million pieces of fish valued at KSh. 777 Million were lost. For the farmers involved in cage culture in Lake Victoria, the entire loss was estimated to be KSh. 500 Million.

These risks continue to impact the society and therefore all possible measures should be taken to prepare actors along the agriculture value chain and improve readiness for effective and fast response, and plan for rapid recovery. Plans and

institutional arrangements, human and financial resources need to be developed to ensure preservation of maximum flexibility, adaptability and scalability to increase capacity to address these challenges. Integrated agricultural risk management approaches can build long term resilience of vulnerable and food insecure communities in the face of increasing climate variability and shocks.

Agriculture insurance has been identified as one of the ways to de-risk the agriculture sector and reduce vulnerability of farmers and other value chain actors. However, the private sector undertaking agricultural insurance has been reluctant to fully embrace the sector due to attendant risks. The uptake of insurance by farmers is also low. Further, the agricultural insurance sector in Kenya has operated with no specific policy to guide.

This policy aims at addressing the challenges facing the sector and exploiting opportunities with a view to de-risk the sector and increase uptake of agriculture insurance.

1.4 (a)Vision

Innovative and sustainable agricultural insurance

1.4 (b)Mission

To integrate insurance in all agricultural production systems

1.5 Policy Objectives

Overall objective

To foster development and growth of agriculture insurance for sustainable food and nutritional security through enhanced agricultural productivity and profitability

Specific Objectives

The specific objectives of this Policy are:

1.5.1 To provide an enabling environment for the development and growth of agriculture insurance.

1.5.2 To facilitate development of affordable, innovative and accessible agriculture insurance

1.5.3 Capacity building and awareness creation of agricultural value chain actors in agricultural insurance

1.5.4 To facilitate generation and use of data to support agriculture insurance.

1.5.5 To promote research and development, technology, innovation and knowledge management in agriculture insurance.

1.5.6 To promote participation and collaboration among stakeholders in agriculture insurance

CHAPTER TWO: SITUATIONAL ANALYSIS

2.1 The Insurance Industry

The insurance market in Kenya is predominantly private sector-based. In 2018, there were 56 insurance companies, 215 insurance brokers and ~~over~~ 10,457 licensed insurance agents dealing with both life and nonlife insurance businesses (Insurance Industry Report, 2018). The interests of the private insurance sector are represented through the Association of Kenya Insurers (AKI) which was established in 1987 as a consultative and advisory body for the private insurance industry. Insurance business is governed by the Insurance Act Chapter 487 of the laws of Kenya. This Act was amended in 2007 to create the industry regulator, the Insurance Regulatory Authority.

Kenyan insurance industry remains concentrated in the urban areas with Nairobi dominating with 65.1% and 77% of life and non-life insurance premiums respectively as at the end of 2018. The overall insurance penetration stands at 2.43% of the GDP (IRA, annual report 2018). The level of Agricultural insurance contribution stands at less than 1% of total insurance premiums.

2.2 Agricultural Insurance Market

Agricultural insurance in Kenya is an emerging line of insurance business. Over the past few years there has been growing interest in agricultural insurance with a number of insurance providers offering various products for both crop and livestock subsectors. In 2014 the Government of Kenya increased interest in the agricultural insurance and has from then partnered with private sector actors with an aim of making insurance available and affordable to farmers. A few companies in Kenya undertake agricultural insurance. The agricultural insurance covers less than one percent of the total insurance premium. Agricultural insurance is classified as miscellaneous by the Insurance Act. Some of the agricultural insurance products available in the Kenyan market include Crop and Livestock Insurance. Crop Insurance covers crops against physical loss or damage and include covers against fire, windstorm, excessive rainfall, drought and uncontrollable pests and diseases. Livestock Insurance provides cover against vagaries of weather, biological perils (pests and diseases) idiosyncratic/individual peculiar risks (fire, hails, theft) and systemic risks covering large areas e.g. Tsetse, armyworm and fall-worm.

2.3 Status of Agricultural Insurance

There are two broad categories of agricultural insurance in Kenya. These

include the indemnity-based insurance and index-based insurance. Kenya has a relatively long history of indemnity-based agricultural insurance. Up to 2013, there was a small but innovative private sector agricultural insurance market in Kenya. Currently all general insurers are licensed to underwrite agricultural insurance, however by 2020 there were only eight companies underwriting agricultural insurance. The level of Agricultural insurance uptake and penetration is still very low in Kenya with less than 1% of farmers and pastoralist purchasing insurance.

In Livestock Insurance, the animals insured include dairy and beef cattle, small stock, poultry and horses. Dairy cattle form the main insured class under livestock. Under conventional insurance, various perils are bundled together under one cover and losses are assessed individually to determine the compensation under the cover.

Since 2000, there have been major innovations by agricultural insurance practitioners to use parametric or index-based solutions to insure against production losses in pasture, all of which use satellite imagery to measure the Normalized Difference Vegetative Index (NDVI) in pasture. The Index insurance is a single peril policy against adversities of drought/forage scarcity. In 2010 ILRI piloted the Index-based Livestock Insurance (IBLI) contract in Marsabit County. In 2014 the Government of Kenya partnered with ILRI and the private sector actors to extend Kenya Livestock Insurance Programme (KLIP) in the Counties of Wajir and Turkana, then later to six other ASAL counties. Under KLIP programme, the government provides 100 percent premium support for up to five Tropical Livestock Units (TLUs) for each selected pastoralist beneficiary.

In the crop subsector conventional insurance products are mainly marketed to the commercial farmers, while weather index insurance (WII) products, developed in collaboration with development partners, target subsistence and semi-commercial crop producers. Through support of the World Bank, Kenya has also developed Area Yield Index Insurance Programme (AYII) that targets subsistence and semi-commercial farmers. The AYII is being implemented under a Public Private collaboration model that was initially piloted on maize production in three counties in 2015 and by 2020 had expanded to 37 counties. Under this product, the government provides 50 percent premium support targeting n farmers with farm size ranging from 0.5 to 20 acres. In addition, the government supports data collection, farmers' mobilization, awareness creation,

capacity building and coordination of stakeholders.

In the fisheries sub-sector, insurance packages exist for the large commercial production entities. For instance, in industrial fishing, Flag States are encouraged to promote access to insurance coverage by owners/charterers of fishing vessels to protect the crew and their interests. For the artisanal fisheries and aquaculture, a suitable insurance package is yet to be developed.

Large scale commercial fish farm owners are also encouraged to insure their enterprises against the inherent risks, albeit expensive non-specific insurance packages. However, there is low interest in provision of insurance services to artisanal fishing communities/farmers due to as they are considered as high risk enterprises due to:

1) High costs of serving often remote fishing villages and fish farms
2) Difficulty of dealing with a fishing population which more often has no access to other financial services (credit/banks)
3) Relatively small premiums collected from individual fisherfolks
4) Related high administrative and monitoring costs
5) Low levels of education of artisanal fisherfolks

The National Oceans and Fisheries Policy 2008 is has been revised with the objective of encouraging more private sector investment in the Fisheries and Blue Economy. The revision has amongst other proposals put forward, the adoption of risk management measures in the sub-sector that call for promoting the development of appropriate Fisheries, Aquaculture and Blue Economy insurance packages as one of the safety nets available for the players in the industry.

2.3 Analysis of Key Issues in Agricultural Insurance

2.3.1 Agricultural Risk Exposure

The Kenya Agriculture sector is increasingly vulnerable to risks especially extreme and increasing weather variability. Erratic rainfall punctuated by severe droughts is the biggest risk facing the Kenya agricultural sector. Intermittent seasons of high rainfall resulting to floods followed by seasons of drought continue to characterize Kenya's agriculture environment.

The frequency of severe droughts has increased from a 5-7-year cycle to a 2- 3-

year cycle. Droughts have a direct impact on the economy and affect the linkages between different sub-economies, ecologies and communities. Severe drought occurring with increasing frequency over the past decade has caused profound effects on crop, livestock and fisheries production in the country. For instance, during the drought of 2008 to 2011, the Kenyan economy lost an estimated KSh. 968.6 billion. The livestock sector incurred 72 percent of that loss, or KSh. 699.3 billion, with 9 percent of all livestock having been lost. Estimated crop losses amounted to more than KSh. 121.1 billion. The Government of Kenya spent KSh. 4.2 Billion on post disaster interventions. Key crops experienced significant losses in one out of three years as a result of adverse risk events between 1980 and 2012. Combined, these crop-loss events resulted in drops in Agricultural GDP of 2-4.2 percent.

Besides weather related risks, pest and diseases pose a significant threat to Kenyan farmers. Animal diseases particularly East Coast Fever, Foot and Mouth Disease, CBPP and CCPP have direct effect on livestock productivity and trade. Pest incidences including ticks, tsetse, locusts and armyworms affect livestock output and feed availability. The losses associated with diseases outbreaks, predation and rustling, drought effects and milk yield lose, have received little attention from insurers with less than one percent annual gross written premiums reported in agriculture sector (IRA Annual Report, 2019).

With the increase in changes in climate, there's a noted increase in notifiable crop diseases and pests. For example, MNLD in 2010-2013, fall armyworms, ***Tuta*** *absoluta* in tomato production and the locusts attack in 2019. Localized perils like frosts, hailstorms and fires and systemic risks covering large areas sometimes affect the farmers exposing them to more danger.

The Fisheries sub-sector contributes provides 500,000 direct jobs and supports about 2 Million people indirectly in Kenya. By 1998 for instance, Lake Victoria fisheries accounted for 90% of all the fish landed in Kenya valued at USD 80 Million, and with an export value of USD 35 Million. This was mainly attributed to the Nile Perch fishery that resulted in the setting up of 35 fish processing plants. With the closure of the European market to Kenyan fish and fisheries products that lasted between 1997 and 2000, 13 fish processing plants folded up occasioning the loss of 1000 jobs and a collapse of fisheries related

businesses in Kisumu and the surrounding areas that had a daily turnover of KSh 25 million. In addition, the heavy rains that were experienced in early 2020 caused flooding in various parts of the country that resulted in the destruction of 149,600 ponds countrywide. A total number of fish lost due to the floods was 7 Million valued at KSh 777 Million, amount that would otherwise would have been earnings for the fisherfolk.

Agricultural disasters push better-off farmers into poverty, and the already poor into destitution, and can take years to recover from. The disasters can also make it more costly or simply impossible for the farmers to access credit facilities, limiting opportunities for agricultural producers to invest in better tools and technologies to increase productivity. These farmers are therefore unable to transit from subsistence to commercial farming hence curtailing overall Agricultural development and contribution to GDP.

2.3.2 Data for Agricultural Insurance

Agricultural data is one of the key inputs required for successful agriculture insurance programmes. Data is required in sufficient, reliable and verifiable form to support various stages of risk assessment, product design, costing, loss assessment, and payout determination. In addition, data is critical for enhancing transparency and dispute resolution that may arise from either basis risk or moral hazards. Sustainability of agricultural insurance programmes therefore depends on ability of the involved agencies to generate and utilize reliable data.

Kenya has several pieces of legislations that address data collection, storage, confidentiality, and data utilization. These include the Statistics Act 2006 (Revised 2019), The Access to Information Act 2016, the Data Protection Act 2019, the Computer Misuse and Cybercrime Act 2018, among others. Stakeholders' are expected to observe the existing laws and regulations while collecting and using agricultural insurance data. The government is responsible for preparation and enforcement of relevant regulations and guidelines to ensure

stakeholders' conformity with the laws.

The government is responsible for collection and provision of most of the agricultural insurance data as a public good. The bulk of such data is collected by agricultural departments, agricultural state corporations, local and international research organizations, universities, development partners, farmer organizations and others by private sector agencies. However, capacity of data management is inadequate in terms of funding, staffing and training. Data collection and dissemination is mostly analog and disintegrated. The government has the mandate to oversee the quality of agricultural data, including provision of guidelines and standards for data collection and dissemination as well as enforcement of laws and data regulations on data management.

Besides the primary yields data, ancillary data related to production such as agro-meteorological data and early warning data are required for monitoring the situation to enable trigger the desired action. Where production and yields data are not reliable, the ancillary data such as rainfall or normalized difference vegetation index (NDVI) have also been used as proxy commodity yields indicators to deliver various types of weather index-based insurance products. In Kenya, management of such ancillary data is undertaken by several agencies responsible for weather, geospatial and remote sensing.

The main data required for agricultural insurance include;

1) Long term historical yield and production data for insurance product development;
2) Yield and production data for loss assessment and improvement of the quality of historical data for subsequent years;
3) Data for development of homogenous production and aquaculture zones;
4) Agro-meteorological data to support weather-based index insurance;

5) Georeferenced data to support sampling of farmer, pastoralists and fisher-folk along various agricultural value chains;

6) Data to support seasonal enterprise condition monitoring, including early warning data, farmers and pastoralist scale of operations and vulnerability status and market prices.

7) Data on Livestock Identification and Traceability System (LITS), rustling and predation

2.3.3 Agricultural Insurance Product Development, Distribution and Uptake

Development of agricultural insurance products is nascent and therefore remains limited. This is because the development of agricultural insurance products that meet various client needs in a predominantly smallholder/pastoral based agricultural system is challenging. Insurers continue to face a number of challenges and therefore shy away from venturing into agricultural insurance. In spite of the several years of investment in product design and development, very few of these programs have achieved widespread acceptance and uptake. The start-up costs associated with development of products eventually translate into expensive premiums thus making smallholder farmers unable and to pay for these commercially priced agricultural insurance products. In addition, farmers have poor understanding of agriculture insurance and this reduces demand and at times may result in purchase of inappropriate products.

By 2020, the following insurance products were being implemented in Kenya;

(1) **Multi-peril crop insurance (MPCI);** a traditional indemnity insurance product against all perils at farm level in which the pay-outs are determined through a farm-level loss assessment process. MPCI transaction cost and moral hazard level are high but basis risk is low and claim settlement time is medium;

(2) **Area Yield Index Insurance (AYII);** a crop insurance product based on average losses at the regional level, rather than farm level. The pay- outs are based on crop cutting experiments. Its transaction cost, basis risk and claim settlement time are medium. However, the moral hazard level is low; and

(3) **Weather Index Insurance (WII);** a crop insurance based on weather parameters such as rainfall, temperature, or soil moisture correlated with farm-level yields or revenue outcomes. Its transaction cost, moral hazard level and claim settlement time are low with high basis risk.

(4) **Index based Livestock insurance**; which uses NDVI values to asses seasonal availability of forage that can sustain livestock.

(5) **Individual animals' insurance**; where an animal keeper insures specified risks for a particular animal.

Conventional insurance primarily relies on the traditional agency-based distribution model(s) which is a one on one interaction between the insurance companies and consumers. Smallholder farms tend to be spread over wide areas and this makes agricultural insurance distribution incur high costs. The distribution challenge is worsened by lack of established insurance agent networks in rural areas.

2.3.4 Agricultural Risk Financing

Agricultural insurance risk financing aims at achieving the least-cost coverage for an insurer's losses while ensuring post loss financial resource availability. As the market for agriculture insurance is fairly small and not profitably sustainable, it requires a well-structured risk financing model.

By 2020 agricultural insurance was being carried out on a limited scale. This is attributed to various reasons including; lack of capacity to carry the risk, especially for catastrophic risks; Reinsurance is available, although it is expensive;

Low incomes inhibit the development of insurance markets. Incomes for the majority of the population are absorbed by basic necessities, such as food and housing. Where insurance is available, health insurance and life insurance are usually given higher priority over agricultural insurance. In many cases, rural households involved in agricultural activities do not generate enough profits to cover the costs of agricultural insurance

In relation to traditional crop indemnity insurance, the costs of assessing losses are usually high. Small insured farm units characterized by premium volumes

that are very low and insufficient to cover for costs of loss assessment. Lastly, though index insurance lowers the transaction cost, it carries extremely high development and other start-up costs. These start-up costs eventually translate into high premiums.

To achieve accelerated agricultural development and self-sufficiency in food production and general economic growth, the government has implemented a number of programs aimed at enabling farmers access to finance. Some of these programs includes; guaranteed minimum returns for farmers; Agriculture Finance Corporation offering farmers loans. These programs were aimed at increasing food production and food security through;

(1) seasonal credit provision,

(2) Agricultural credit-insurance component to protect farmers against production and yield loss and

(3) a system of guaranteed minimum prices for crop and livestock output.

Livestock insurance services in Kenya are underdeveloped despite the fact that the livestock industry contributes significantly to the GDP. Currently only a few firms offer livestock insurance which covers high value animals such as dairy cattle, horses and companion animals. Some of the instruments in use within the country include:

(1) Sovereign Disaster Risk Financing

Market-based risk transfer mechanisms at the sovereign and macro level are part of Kenya's portfolio of risk financing instruments. The sovereign instruments are appropriate in cases where the micro level interventions, including livestock insurance, are overwhelmed. Improving sovereign financing capacity through strengthening and expanding the National and County Government's portfolio of disaster risk financing (DRF) instruments is one of the strategies in entrenching, sustaining and complimenting the livestock insurance.

(2) Government support to agricultural risk financing

The government through the Ministry of Agriculture, Livestock, Fisheries and Cooperatives is financing the Kenya Livestock Insurance Program (KLIP) in eight ASAL Counties. The livestock covered are camels, cattle, sheep and goats. The government pays the full premium for households

covered by the program. The Government intends to progress into a partial risk coverage arrangement in the short to medium term.

(3) Premium financing

This refers to the lending of funds to a person or entity to cover the cost of an insurance premium. The premium finance company then pays the insurance premium and bills the individual or entity usually in monthly instalments for the cost of the premium. This instrument is currently working in some crop insurance schemes and high value livestock enterprises.

(4) Other financing modalities that have worked include;

a) Asset Backed Insurance instruments; this is used in asset rich but cash poor communities where portions of their livestock usually 10% is converted into premiums to cover entire herds.
b) Cost Sharing Schemes; A portion of the cost of premiums is met by policy-holders while the balance is catered for under existing subsidy programs. The best practice is where the local communities carry a bigger proportion of the cost. This increases impact and creates ownership of the programs.
c) Donor Funded & Technical Assistance Programs; through this framework, partners offer both financial and technical resources to support social impact initiatives. A typical example is the resource dedications by ILRI and WB on the Livestock Index Insurance Scheme implemented by KLIP

With an appropriate financing model or mechanism, agricultural insurance, combined with other measures of risk reduction, can greatly contribute to short and long-term development of self-sufficiency in food production.

2.3.5 Policy and Legal Framework for agricultural insurance

Kenya is a signatory to global and regional conventions and instruments on disaster risk reduction including the Sendai Framework for Disaster Risk Reduction, 2015 - 2030; and the Africa Regional Strategy for Disaster Risk Reduction (AfRSDRR) as part of Africa Union Agenda, 2063. The foregoing is aimed at reducing the vulnerability of populations and strengthening resilience.

The Constitution of Kenya 2010 Article 43, guarantees every person the right to be free from hunger and to have adequate food of acceptable quality. Agriculture related risks exposes producers to losses due to limited risk mitigation measures hence threatening the above stated right.

One of the priorities of the Government in the Vision 2030 is to ensure access, efficiency and stability of insurance as fundamental to economic transformation of the country. This has been identified in the Agriculture Policy and the Agricultural Sector Transformation and Growth Strategy as core in the development and implementation of agriculture insurance. The Crops Act 2013 provides for crop development, pest and disease control, climate change resilience and establishment of crop insurance. The Livestock policy, 2020 advocates for increased access to insurance by value chain players to mitigate against inherent risks in livestock production systems.

The National Oceans and Fisheries Policy 2008, proposes the adoption of risk management measures in the sub-sector that will promote the development of appropriate Fisheries, Aquaculture and Blue Economy insurance packages as one of the safety nets available for the players in the industry.

The Insurance Act Cap 487 of the Laws of Kenya provides for agricultural insurance as a subclass of insurance under the miscellaneous class. Other legislation that support agricultural insurance include the Kenya Deposits Insurance Act (No.10 of 2012) and the Kenya Re-insurance Corporation Act (No.9 of 1997).

The legal and regulatory framework above, is not expressly supportive of the growth and development of the agriculture insurance. In this regard, therefore, there is need to develop an appropriate legal and regulatory framework to provide an enabling environment for expanding agriculture risk management options, enhance capacity to increase productivity, stabilize agricultural income and reduce food insecurity. This will encourage more players to enter the agriculture insurance market hence offer more options to the consumers.

2.3.6 Institutions in Agricultural Insurance

The key actors in the industry include; the Ministry and departments responsible for Agriculture at national and county level; the Kenya National Bureau of Statistics (KNBS); Insurance Regulatory Authority (IRA); Insurance Companies, Re-insurers, Insurance Intermediaries, Association of Kenya Insurers (AKI); Insurance Service Providers, Banks/Financial Institutions; Agro-dealers; farmers associations; farmers; and, training and research

institutions.

2.4 Challenges in Agricultural Insurance.

2.4.1 Agricultural Risk Exposure

Agricultural risk exposure to farmers is caused by extreme weather events (floods, droughts, frost), climate change, predation, cattle rustling and high pests and diseases incidences, idiosyncratic risks (Fires, hailstones, landslides and earthquakes) and crop damage by wildlife among others. The reduction of the farmers' exposure to agricultural risk is limited by the following challenges:

(i) Limited access to information on/ inadequate risk assessment and profiling

Risk assessment is generally quite expensive, requiring heavy investment. In most cases the government and private sector organizations carry out risk assessment on a minimal scale. This information is not easily accessible since the private sector does it for their own consumption. This means farmers, pastoralist and fisherfolk remain unaware of intensity of the risks and are unable to transfer the risks or mitigate against their effect on their agricultural activities.

Further, there has been poor collaboration among partners involved in risk assessment and profiling which leaves gaps while some actors duplicate roles.

(ii) Inadequate capacity for risk assessment and profiling

There is inadequate capacity among government, insurers and other stakeholder to undertake risk assessment and profiling. This makes the farmers, pastoralist and fisher folk unable to make informed decisions on the choice and uptake of insurance products.

(iii) Weak early warning system

Approaches to risk assessment and profiling tend to focus on post- disaster interventions. This results in lengthy risk analysis and non- transference of risks. In addition, there is inadequate early warning system that can provide reliable information for decision making by stakeholders.

(iv) Multiple risks (shift to product development)

Crop, livestock and fish production is faced with a myriad of risks which make insurance companies apprehensive of underwriting the risk. This means the premium cost to the farmers will be expensive and accessibility to insurance products a challenge. Further the heterogeneity in the agriculture management plans make underwriting complex.

2.4.2 Agricultural insurance data

Data is required for product design and development, loss assessment, homogenous production zone and premium support targeting.

(i) **Inadequate and unreliable data for agricultural insurance**

The agricultural insurance programmes require reliable historical data at the lowest administrative levels.

Availability and accessibility to this data in usable digital formats is affected by inadequate data collection, processing, storage and dissemination. In addition, the national and county governments have inadequate technical capacity, validation, comprehensive farmer database, and limited spatial data infrastructure.

(ii) **Weak coordination**

There is weak coordination in data collection and dissemination leading to redundancy, duplication and unreliability.

(iii) **Low application of ICT**

Kenya's agricultural data management is mostly paper based (analog) in most aspects. Emerging technologies and innovations such as smart/mobile phone and GIS are yet to be adopted for use by government and private agencies.

2.4.3 Agricultural insurance products development, distribution and uptake:

The main issues affecting the implementation of effective agricultural Insurance in the country include;

1) ***Inadequate capacity to develop appropriate agricultural insurance products.***

   - There are very few skilled agriculture underwriters with the insurance sector being heavily dependent on international consultants and reinsurers for product design, actuarial and rating guidance.

2) ***Inappropriate distribution channels*** **–** Insurers use the traditional

insurance channels of *professional* insurance intermediaries. Insurance requires a lot of trust in the channel of distribution being used. The potential policyholders, key among them the farmers have better trusted partners like their local chiefs, agro-dealers, shopkeepers, cooperatives, lending institutions among others. There is limited adoption of technology in distribution of agriculture insurance products. In addition, the scope of the distributors is narrow.

3) ***Poor understanding of insurance*- There is** general lack of awareness and understanding of the role and limitations of agricultural insurance products among the various players in the agricultural value chain including policy makers, farmers, agro-dealers, financial institutions, and insurers. This may lead to unmet expectations resulting to mistrust and limited supply, demand and uptake of insurance

4. ***Low income and conflicting religious and cultural beliefs*** .

Farmers' incomes are low hence insurance not easily affordable given their hierarchy of needs. In addition, some insurance products do not meet cultural and religious acceptance beliefs

2.4.4 Agricultural Risk Financing.

Sustainable agricultural insurance requires adequate risk financing. The main challenges contributing to inadequate agricultural risk financing in Kenya include:

i) **Inadequate capacity by underwriters to cover risks.** This has been occasioned by lack of financial capacity by insurers to underwrite agricultural insurance and the slow pace of investment by the government in the insurance subsector. Whereas there exist–reinsurance markets with adequate capacities, challenges remain in terms of skills transfer hence the market remains underdeveloped

ii) ***High cost of agriculture insurance premiums*.** Agricultural insurance face challenges such as multiple perils, high cost of collecting data, risk assessment and distribution among others. These challenges make agricultural insurance premium to be costly hence discouraging investments.

In addition, the high costs of development especially for index insurance,

where high claims assessment costs render agricultural risk financing an expensive venture for insurers.

iii) ***Inadequate risk financing infrastructure.*** The Market based risk financing infrastructure is not adequately developed in some areas of agricultural production hence hindering access to risk financing.

iv) **High frequency of catastrophic risk.** Agricultural sector faces huge losses that are straining the capacities of local insurance companies. Risks are high and more frequent (leading to high loss ratios) hence expensive to insure

v) **Inadequate incentive measures**

The majority of Kenyan farmers are smallholders and their uptake of agriculture insurance is largely dependent on a range of interventions and incentive structures. The situation is more pronounced in high-risk areas. In situations where there is no premium support to adequately stimulate uptake of agricultural insurance, farmers tend to remain generally excluded from benefiting from agricultural insurance programs.

Further, insurers and other providers along the value chain tend to shy away from venturing into agricultural insurance due to its high-risk nature.

Promoting agriculture insurance is therefore dependent on deployment of a range of incentive structures to make agricultural insurance attractive to farmers and insurance companies

Legal and Regulatory Framework

The Insurance Act Cap 487 of the Laws of Kenya provides for Agriculture insurance as a subclass of miscellaneous insurance class under general insurance business. The classification makes it difficult to specifically target interventions in agriculture insurance. This legal and regulatory framework is therefore not adequate to foster growth and development of Agriculture insurance.

There is no legislation to specifically support development of agricultural insurance despite its unique nature from product development, distribution and claims management. This is a major disincentive for private insurers to venture into agricultural insurance given its risky nature.

For any risk to be placed out of Kenya, authorization must be obtained from IRA. This requires demonstrations for inability for local insurance to absorb the risk, which may not be easy in Agriculture Insurance.

Despite existence of various legislations, the operating environment has not

been sufficiently enabling for development of agriculture insurance. For this reason, agricultural insurance remains underdeveloped with limited participation of private insurers as farmers continue to be exposed to agricultural risks

CHAPTER THREE: POLICY INTERVENTIONS

3.1 Agricultural Risk Exposure

The policy focus will be on reduction of agricultural risk exposure through addressing inadequacies in risk assessment and profiling, strengthening early warning systems, coupled with enhancing technical and financial capacities in the insurance industry.

Policy Statements;

The national Government *will;*

I. Build Capacity for risk awareness, assessment and profiling

The County Governments will;

I. Develop Capacity for risk awareness, assessment and profiling

The National and County governments in collaboration; with private sector and other stakeholders will;

(i) Support and Undertake risk assessment and profiling;
(ii) Develop systems for risk assessment and profiling;
(iii) Develop and implement Early Warning System Support Early Warning System; and,
(iv) Promote innovative insurance products for risk transfer

3.2 Agricultural Data Management

Data is required for planning and efficient management of agricultural insurance programmes. Consequently, policy will focus on the following;

Policy Statements;

The national government will;

(i) Develop standards and guidelines required for agricultural insurance data.

(ii) Enforce compliance to standards and guidelines for agricultural insurance data.

The county governments will;

a) Enforce compliance to standards for agricultural insurance data;

b) Implement guidelines for agricultural insurance data

The national and County Governments in collaboration with stakeholders will;

a) Facilitate access to reliable agricultural insurance data in usable formats while adhering to data confidentiality and security legislations;

c) Promote adoption of application of Geo-Information based technology in agricultural insurance;

d) Strengthen investment in technical capacity and infrastructure;

e) Establish and strengthen agricultural insurance digital data repository system.

f) Enhance coordination and management mechanism of agricultural insurance data for reliability and access.

3.3 Agricultural Insurance Product Development, Distribution and Uptake

Agricultural insurance product development, distribution and uptake is central to increasing agricultural insurance penetration in the target beneficiaries. Policy will focus on the following areas;

Policy Statements;

National Government will;

(i) Enhance support to research on agricultural insurance products development and distribution channels.

The County Government will;

(i) Promote public awareness on agricultural insurance products;

National and County Governments will;

i. Facilitate capacity building in agricultural insurance products

ii. Support development of innovative, cost effective and appropriate agricultural insurance products;

iii. *Promote access, distribution and uptake of agricultural insurance products;*

iv. *Develop mechanism to monitor and review agricultural insurance uptake;*

v. *Promote authorization of members of professional bodies to support agriculture insurance*

3.4 Agricultural Risk Financing

Innovative measures are required to broaden and deepen agricultural risk financing options for various actors in the sector to improve the sustainable supply and uptake of agricultural insurance products.

Policy Statements;

The National Government will;

i. *Facilitate development of innovative agricultural insurance financing instruments*

County Government **will**

(i) *Develop farmers' support mechanisms for uptake of agricultural insurance.*

The National and County Government will;

(ii) *Encourage the use of agricultural insurance pools*

(iii) *Offer incentives to stakeholders who provide agricultural insurance*

(iv) *Support the public private partnership in agricultural insurance*

(v) *Establish mechanism for sustainable agriculture insurance funding including establishment of agricultural insurance fund*

3.5 Legal and Regulatory Framework for agricultural insurance

There is need for legal and regulatory reforms in order to create an enabling

environment for the development of agriculture insurance.

Policy Statements:

National Government will

(i) Review and strengthen the legal and regulatory framework to support agriculture insurance including affirmative action

(ii) Develop standards and guidelines for implementation of agriculture insurance programmes

(iii) Promote collaboration with international bodies involved in insurance for technical support and skills transfer;

County Governments will;

(i) Develop county-specific enabling legislation to promote agriculture insurance and related services;

(ii) Create awareness on the legal provisions to enhance insurance uptake

(iii) Implement relevant provisions of the laws and regulations for agriculture insurance;

The National and County governments will

(i) Strengthen technical and institutional capacity for development of agriculture insurance;

(ii) Mainstream agriculture insurance in annual work-planning and budgeting cycles; and,

(iii) Facilitate the coordination, cooperation and collaboration among agriculture insurance stakeholders;

CHAPTER FOUR: POLICY IMPLEMENTATION

4.1 Institutional Structures for Policy Implementation

The 4th Schedule part 1 and 2 of the Constitution of Kenya 2010 on the distribution of functions between the National Government and the County Governments whereas agricultural policy is the function of the National Government, crop and animal husbandry is the function of County Governments. Further, the legal notice No.137 of 2013, in compliance with the Transition to Devolved Governments Act, 2012; enhancing accessibility to affordable insurance packages and credit is the mandate of the County Governments.

The implementation of this policy will be undertaken by various government agencies at the national and county level. These include the ministries responsible for agriculture; disaster management and relief services; national statistics; finance; interior and coordination of national government and the County Governments. Other players include insurance and re- insurance companies, insurance industry associations, financial institutions, cooperative societies, agro-dealers, farmers' associations, and other non-state actors.

i) The National Government

The Ministry responsible for agriculture will take lead in the overall coordination of implementation, monitoring and review of the policy. In addition, the Ministry will be responsible for data management, capacity building, programme formulation and implementation.

ii) The County Governments

County Governments will be responsible for implementation and monitoring agriculture insurance policy at county level. In addition, the counties will carry out capacity building and data management; develop and implement County-specific agriculture insurance programmes.

iii) Kenya National Bureau of Statistics

Kenya National Bureau of Statistics (KNBS) is mandated by law to be the repository of and management of official statistics; the institution will be responsible for provision of statistics necessarily for the implementation of the agriculture insurance.

iv) Insurance Regulatory Authority

The Insurance Regulatory Authority (IRA) is responsible for regulation, supervision promotion of the development of the insurance industry. The Authority will be responsible for administering the insurance law and protection of the interests of insurance policy holders and beneficiaries.

v) Insurance and Re-insurance Companies

Insurance and Reinsurance companies will be responsible for designing, distribution and marketing of agriculture insurance products; settling of claims; and undertaking of reinsurance arrangements.

vi) Insurance Industry Associations

There are several insurance related associations that undertake various functions. Key among these is the Association of Kenya Insurers (AKI) which is a consultative and advisory body for insurance and reinsurance companies. Others are the Association of Insurance Brokers in Kenya (AIBK) and the Insurance Institute of Kenya, (IIK). These associations will be responsible for guidance to their respective members and lobbying for uptake of agriculture insurance.

vii) Farmers, pastoralists' and fisher folk's Associations

Farmers, pastoralist and fisher folk are the targeted primary beneficiaries of agriculture insurance programme. The associations will be responsible for mobilizing and enlightening their members on insurance products as well as providing data for agricultural insurance. In addition, the associations may include bundling insurance in their services.

viii) Agro-dealers and Other Service providers

Agro-dealers and other service providers are the principal outlets for agricultural inputs and advisory services to farmers. These actors will play the critical role of creating awareness and promotion on insurance products, selling point for policies.

ix) Professional Associations

Some of the professional associations in agriculture insurance include Animal Production Society of Kenya (APSK), Kenya Veterinary Association (KVA), The Actuarial Society of Kenya (TASK), Kenya Society of Agricultural Professionals (KESAP) among others. The professional associations will be responsible for providing technical information required in product development by insurance companies. In addition, they will develop and enforce code of conduct amongst the members.

x) Financial institutions

Banks and other financial institutions offer agriculture credit, distribute and also offer advice on agriculture insurance products and services. These institutions may bundle agriculture insurance products with agricultural credit.

xi) Training and Research Institutions

The institutions will be responsible for capacity development, innovation and knowledge management and creating awareness on agriculture insurance among stakeholders.

xii) Insurance Intermediaries

Insurance intermediaries will be responsible for designing, distribution and marketing of the insurance products and includes insurance agents, brokers and bank assurance.

xiii) Insurance Service Providers

Insurance service providers offer technical services to the insured and insurance companies. They include but are not limited to risk managers, loss adjusters, calculating agents, Crop cutting agents, insurance surveyors, investigators and claims settlement agents.

xiv) Development Partners

Development partners will provide technical assistance and financial support for the implementation of the policy.

xv) Non-state Actors

These includes Non-governmental Organizations (NGOs), Community Based Organizations (CBOs) and Faith Based Organizations (FBOs) among others. These

will create awareness on agriculture insurance, financial support and advocacy.

4.2 Monitoring and Evaluation

Monitoring and evaluation will be critical in assessing implementation of agriculture insurance policy. A Monitoring and Evaluation (M&E) framework will be developed to track implementation progress through data collection, collation, analysis, information sharing, decision making and enable periodical reviews to address any new challenges and emerging issues. This will facilitate information-sharing, decision making and periodical reviews to address any new challenges and emerging issues.

The two levels of government in collaboration with stakeholders will undertake continuous monitoring and evaluation to ensure policy implementation and review to ensure achievement of policy outcomes that deliver on policy objectives. Monitoring and evaluation for the policy will focus on the following;

1. Development and institutionalization of a monitoring and evaluation framework for the agricultural insurance policy;
2. Enhancing the capacity for carrying out M&E;
3. Establishment of infrastructure to support monitoring and evaluation of the policy implementation; and,
4. Making periodical reviews to address any new challenges and emerging issues.