



AGRICULTURAL POLICIES & LEGISLATION: GAPS ON INTEGRATION OF *elum* PRINCIPLES AND PRACTICES REPORT 2015

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Participatory Ecological Land Use Management (PELUM) Kenya works with member organizations to promote ecological land use and management practices for improved livelihoods among small holder farmers.

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FOREWORD

Since its formation, more than two decades ago, PELUM Kenya has earnestly embraced its mandate of promotion of ecological land use management (elum) practices and principles in Kenya through networking, capacity building, information sharing and advocacy. Its advocacy work has been keen on promotion of small scale farmers' rights and integration of elum in policies and legislation. The completion of this report is therefore laudable for it complements this important work and efforts.

The backdrop to this report is a country which has agriculture sector as the backbone of the economy contributing about 26% to the Gross Domestic Product and the sector is dominated by smallholder farmers. Whereas, PELUM Kenya recognizes that the agriculture sector has potential to have a greater impact on a large population and transform the lives of the small scale farmers, it also acknowledges that there are vast challenges which are influenced by the policies and legislations which shape the operations of this important sector.

PELUM Kenya would like to empower its stakeholders to enable them to be comprehensively informed about policies and legislations. Thus, a considerable proportion of this report is dedicated to the analysis and identification of gaps in policies and legislations at county, national, regional and international legislations. This study is also instrumental in advocacy work and will be useful in emboldening stakeholders to protect the rights of small scale farmers as they eke out a living from small scale agriculture. We hope that this publication will inform policy and legislation processes, practices and help in the development of strategies in favour of small scale farmers in Kenya and beyond.

Finally, I wish to appreciate the efforts of the researcher and author, Dr. Daniel Karugu. I also thank Ms. Maryleen Micheni, Ms. Anne Majani, the PELUM Kenya Network Advocacy Team and all those who worked very hard to ensure that the draft is ready and published.

It is therefore with great pleasure that I invite you to enjoy reading this publication.

Mr. Zachary Makanya, Country Coordinator / CEO, PELUM Kenya.

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ABOUT PELUM-ASSOCIATION

PELUM Association is a regional network currently with over 230 Civil Society Organizations (CSOs) from Kenya, Uganda, Tanzania, Zambia, Zimbabwe, Lesotho, Botswana, South Africa, Malawi and Rwanda. The PELUM Association Regional Secretariat is based in Lusaka, Zambia. Each of the countries has a Country Working Group (CWG) comprising of member organizations that work with smallholder farmers and coordinated by a Country Secretariat (CS), most of which still remain hosted by one member organization in the respective country.

ABOUT PELUM-KENYA

Participatory Ecological Land Use Management (PELUM) Association was founded in 1995. PELUM Kenya's Country Secretariat is based in Thika at the SACDEP Training Centre. PELUM Kenya aims at integration and adoption of ecological land use principles and practices into rural communities' livelihoods to empower them to make informed choices for improved and prosperous livelihoods. The PELUM Kenya network currently comprises 46 member organizations spread in 19 out of the 47 counties countrywide. The network works with approximately 1 million small scale farmers.



The Vision of PELUM-Kenya

Empowered and prosperous communities deriving their livelihoods from sustainable land use

The Mission of PELUM-Kenya

To promote participatory ecological land use and management practices for improved livelihoods among smallholder farmers in Kenya



EXECUTIVE SUMMARY

The Participatory Ecological Land Use Management, Kenya Chapter, represent the very noble interests of sustainable development which includes *elum*. Humanity at the highest level which is the United National Organization (UN) have agreed that development should utilize resources to provide the needs of today without depleting or harming the needs of future generations. This Guide has identified a number of such agreements at the UN and at her specialized agencies such as the Rio Declaration on Environment and Development and the Convention on Biodiversity. These agreements are treaties and therefore form part of international law. PELUM would monitor the domestication and application of international law with respect to *elum* and advocate for full compliance by the regional, national and county authorities.

Kenya is a Partner State of the East African Community (EAC) which has largely integrated *elum* is its instruments on agriculture and environment. Awareness and recognition of EAC instruments is low among the residents which have to be improved for the benefits of the Community to be realized. PELUM would be involved in the reviews of the EAC Development Strategy and the EAC Agriculture and Rural Development Policy to advocate for greater integration of *elum* than exist today.

The Constitution of Kenya, 2010, is the foundation of the State. It correctly upholds treaties and other international law while setting the foundation for agriculture, food supply, environmental protection and the principles of sustainable development and equity. National and county policies and legislation as well as emerging issues have been mirrored against the Constitution to assess their compliance; several gaps have been identified, such as delays in implementation of such directions as enactment policies on agriculture and veterinary and legislation to recognize culture with respect to seeds, plant varieties and genetic material. The pre-Constitution policies and legislation have to be reviewed in light of the new dispensation and this includes the policies on environment, land and water as well as many of the *elum*-integrating legislation highlighted herewith.

National policy, such the Kenya Vision 2030, the Agricultural Sector Development Strategy or the National Policy on Environment and Development should be applied in the whole country and in all counties and, in a matter as specified in Article 191 of the Constitution such as standards, norms, economic unity and the common market, it prevails over county policies. Indeed county governments are required to "integrate" national policy as they develop their own participatory policy cum plan called the County Integrated Development Plan.

All of the national policies and county integrated development plans highlighted herewith have to different extents integrated only some of the *elum* principles and practices, thereby necessitating PELUM to advocate for incorporation of the missing values and the implementation of the integrated ones. This would involve engagement with authorities at various levels of the enactment and implementation process. This engagement would also include advocacy for greater budgetary support for agricultural development which at present times averages 8.36% in the counties whereas the sector is the very backbone of the economy of Kenya.

LIST OF ACRONYMS

AFC Agricultural Finance Corporation

AFFA Agriculture, Fisheries and Food Authority

ARIPO African Regional Intellectual Property Organization

ASAL Arid and Semi-Arid Land

ASDS Agricultural Sector Development Strategy

AU African Union

CAADP Comprehensive Africa Agriculture Development Programme

Cap. Chapter (of Laws of Kenya)

CIDP County Integrated Development Plan

CITES Convention on International Trade in Endangered Species of Wild Fauna

and Flora

DDT Dichlorodiphenyltrichloroethane pesticide

EAC East African Community

EIA Environmental Impact Assessment

EMCA Environmental Management and Coordination Act

GMO Genetically-Modified Organism

IPM Integrated Pest and Disease Management

KALRO Kenya Agriculture and Livestock Research Organization

KEPHIS Kenya Plant Health Inspectorate Service

MFI Micro-Finance Institution

MSE Micro- and Small Enterprise

NARS National Agricultural Research System

NASEP National Agricultural Sector Extension PolicyNEMA National Environment Management Authority

NGO Non-Governmental Organization

PCB Polychlorinated biphenyl

PELUM Participatory Ecological Land Use Management

WTO World Trade Organization



SECTION ONE

BACKGROUND AND INTRODUCTION



Background

Participatory Ecological Land Use Management – Kenya (PELUM Kenya) is implementing a three-year project called Promoting *elum* in Networking for Livelihood Improvement (PENELI II) with the goal of improving livelihoods of smallholder farmers through application of ecological land-use management ("elum") principles and practices and in networking. It aspires to influence government through advocacy at regional, national and county levels to integrate *elum* principles and practices in public policies and subsequently implement such policies. PELUM Kenya and its membership organization desire to acquaint themselves with information and knowledge on public policy gaps with respect to *elum* principles and practices and to use that knowledge to advocate for the improvement of these policies and their implementation to develop the smallholder farming sector.

Introduction

A public policy is a decision or direction made by government to address an issue affecting the society. A public policy is adopted by the relevant legislatures. At parliamentary level a policy is debated and adopted as a Sessional Paper. At the macroeconomic level, some strategies and decisions are also considered as public policy. The initial drafting of policies is championed by the executive arms of the governments which are responsible for executing decisions to solve problems in their thematic areas. The process of identification of issues that necessitate public policy and the selection of policy options is participatory in nature, giving room for special interest groups such as PELUM Kenya to advance their interests. Implementation of policies requires the participation of all stakeholders.

Some policy directions require other instruments such as strategies, administrative decisions, laws and procedures to facilitate effective implementation. At the various legislatures, the proposed laws are debated and enacted as Bills which become Acts upon their assent and commencement. Some Bills are debated and enacted without reference to a written policy and become the only representation of public policy. Acts often give the Cabinet Secretary or County Executive Committee Member powers to develop and gazette regulation and rules for better operationalization of the Act and these "statutory instruments" would have specific measures based on the provisions of the Act and provide for the day-to-day exigencies of the policy issue that is being implemented by the Act.

Objectives of the study

The Study was conducted to identify the policies and legislation relevant to the interests of small-scale farmers and integration of the ecological land use management ("elum") principles and practices at the regional, national and county levels. Gaps in the identified policies and legislation and in their implementation are highlighted and an advocacy plan to fill the gaps provided.

Scope of the study

The study considered public policies and legislation in agriculture, environment and in the collaborating sectors at the regional, national and county levels. The regional level that was considered was the East African Community and to a lesser extent the African Union. The study sought to find out if *elum* principles and practices are part of the public policies. These principles and practices include sustainable development, sustainable land management, soil health and fertility, sustainable health of plants, organic farming, good practices in livestock farming in the areas of health, upgrading breeds, feeding and welfare, the protection of harvests from spoilage and loss, water harvesting and efficiency of use, afforestation, conservation of biodiversity, farm planning and the interests of smallholders generally and also the development of their enterprises and marketing within ecological land use management norms.

Methodology

The study searched for and accessed policies and legislation from the official government websites and supplemented this search with visits to registries of ministries and at the government printers. The documents were studied, paying special attention on whether and how the policy has integrated *elum* principles and practices and identifying any gaps in that respect. In total **64** documents pronouncing public policy, **27** Acts and 1 regulation as listed in Annex 1 were evaluated and a preliminary report made. A validation workshop for users of the study findings was convened on 16th September 2015 after which a draft final report and an abridged version of the final report were prepared, taking into consideration the views of the users.



SECTION TWO

IDENTIFICATION AND ANALYSIS OF POLICIES AND LEGISLATION



2.1 RELEVANT REGIONAL POLICIES AND LEGISLATION

2.1.1 The Treaty for the Establishment of the East African Community

The Treaty for the Establishment of the East African Community is the foundation of all policy measures of the Community and provides for cooperation, integration and development of the agriculture and food security sector and of the environment. Article 105 directs interventions that include the enactment of a common agricultural policy, the attainment of food sufficiency and the development of early climatologically warning systems. Article 111 binds Partner States to protect and conserve natural resources and the environment while Article 112 elaborates this policy further by requiring the integration of environmental management and conservation measures in all development, including agriculture.

The Treaty directs *elum*-compliant principles by encouraging the adoption of environmentallysound management techniques for the control of land degradation, the promotion of nonozone depleting substances, afforestation, soil conservation and the adoption of common policies for the conservation of biodiversity. It also directs environmental protection by promoting the manufacture of biodegradable pesticides and herbicides and public awareness and education on the use of agricultural chemicals and fertilizers. Though the Treaty does not have a specific provision advancing the interests of smallholder farmers, overall it undertakes in the Preamble to raise the standards of living of the people through fostering cooperation and integration.

2.1.2 The East African Community Fourth Development Strategy

The East African Community (EAC) 4th Development Strategy covering the period 2011/12-2015/16 provides the priorities and interventions for the Community for all the sectors. The focus of the 4th EAC Development Strategy is to design economic integration as a step towards global integration through sustainable use of resources, value addition, trade and enhanced competitiveness.

In agriculture and food security sector, the EAC 4th Development Strategy recognizes services. inadequate extension low productivity and entrepreneurship and limitations in technology adoption and innovation as challenges to be addressed in the sector. It also acknowledges that lack of compliance with environmental laws, inadequate environmental information and inadequate protection of indigenous/ traditional knowledge of resources and eco-systems as requiring specific interventions in the Community.

In order to improve the sector, the Strategy in the Development Objective 6 aims at developing the regional competitive and sustainable sectors and prioritizes the promotion of agricultural productivity as well as sustainable natural resources management, environmental conservation and mitigation of the effects of climatic change. Additionally, it directs the promotion and protection of indigenous/traditional knowledge associated with biological resources and eco-systems as well as the harmonization of biosafety policies on genetically modified organisms in the Community.

Policy Gap: The Policy has no special provisions for smallholders and also does not integrate *elum* principles in crop health and livestock practices, farm energy and post-harvest practices.

2.1.3 The East African Community Agriculture and Rural Development Policy

The East African Community Agriculture and Rural Development Policy is the common agricultural policy provided for in Article 105 of the Treaty for the Establishment of the East African Community. It has the objective of achieving food security in the Community.

The Policy elaborates the strategies of achieving the food security objective which includes increasing output, quality and availability of food and rational agricultural production through promoting complementarities and specialization under sustainable use and management of soil, water, fisheries and forests in order to conserve the environment. To attain these outcomes, the Policy directs the harmonization of Partner State policies, improvement on food storage and reduction in post-harvest losses, the support for joint research and development, the promotion of appropriate technologies and of value addition, the building of capacities, the promotion of small-scale aquacultures, the management of pests and diseases, the management of disasters, the protection of biodiversity, the conservation of the environment and the mobilization of resources needed in the sector.

Policy Gap: Smallholder interests are not directly addressed and there is no reference to sustainable development, farm energy and organic farming principles.

2.1.4 The Comprehensive Africa Agriculture Development Programme (CAADP)

The Comprehensive Africa Agriculture Development Programme (CAADP) is the common agricultural policy for Africa provided under Article 6 of the Treaty Establishing the African Economic Community. It aim at increasing agricultural growth rates through extending the area under sustainable land management and reliable water control systems, facilitating market access, increasing food supply and improving research and extension. The Kenyan CAADP Compact is implemented through the Agricultural Sector Development Strategy which is analyzed in paragraph 2.2.3.

2.1.5 The Maputo Declaration on Agriculture and Food Security in Africa

The Maputo Declaration is a policy direction made by Heads of State and Government of the African Union (AU) in 2003 to implement the CAADP and to adopt sound policies for agricultural and rural development, and committed governments of the parties to allocate at least 10% of national budgetary resources for implementing the policies within five years.

2.1.6 The Agreement on the Creation of the African Regional Intellectual Property Organization (ARIPO)

The ARIPO Agreement has the objective of promoting harmonization and development of intellectual property laws, copyrights and other rights for her members and to establish common services and organs for the purpose. The Protocol on Patents and Industrial Designs which empowers ARIPO to grant patents and to register utility models and industrial designs and to administer such patents, utility models and industrial designs on behalf of her members. The Banjul Protocol on Marks empowers ARIPO to register and administers marks while the Swakopmund Protocol on the Protection of Traditional Knowledge and Expression of Folklore would protect right to traditional knowledge held by persons.

2.2 RELEVANT NATIONAL POLICIES AND LEGISLATION

2.2.1 The Constitution of Kenya, 2010

The Constitution is the foundation of public policies and legislation at the national and county levels. It provides in Article 2 that treaties ratified by Kenya are part of the law of Kenya. A number of such treaties are relevant to *elum* principles and practices, including the following:

The Rio Declaration on Environment and Development: This is a treaty under the auspices of United Nations through which the parties affirm that sustainable development is centred on human beings who are "entitled to a healthy and productive life in harmony with nature" and that development has to equitably "meet the developmental and environmental needs of the present and future generations".

Convention on Biological Diversity: This treaty which is under the auspices of the United Nations Organization requires parties to it to conserve biodiversity and sustainably and equitable use its components which include genetic resources and products of safe biotechnology. A protocol has been developed under this treaty which is called Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2000. This Protocol sets the framework for research, contained use, release and movement in genetically modified organisms and their products such that there is reduced risk to conservation of biodiversity and to public health. It provides for risk assessment to evaluate adverse effects of genetically modifies organisms and their products which should be scientifically sound and transparent and is carried out in accordance with relevant international standards. International standards with respect to animal health risk assessment are the Standards, Guidelines and Recommendations developed under the auspices of World Organization for Animal Health, for plant health risk assessment it is the International Plant Protection Convention which for food safety risk assessment it is Codex Alimentarius Commission.

The African Convention on the Conservation of Nature and Natural Resources (1968): This is a treaty that under the auspices of the African Union which obligated parties to it to "undertake to adopt the measures to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people".

The Langkawi Declaration on the Environment: This is a treaty under the auspices of the Commonwealth which commits the parties to advance policies and programmes which help to achieve sustainable development, environmental protection, energy conservation and efficiency, reduction and eventual phase-out of substances depleting the ozone layer, promotion of afforestation and agricultural practices to arrest increase in atmospheric carbon dioxide, conservation of biological diversity and genetic resources and the transfer of needed environmental technologies.

The Stockholm Convention on Persistent Organic Pollutants: This is a treaty under the auspices of United Nations that has the objective of protecting public health and the environment from persistent organic pollutants. It obligated the parties to prohibit and/or take legal administrative measures to eliminate the production, imports and exports of specified chemicals including Dieldrin, Endrin, and Biphenyls (PCB), and also restrict such chemicals such as DDT and dicofol.

The Vienna Convention for the Protection of Ozone Layer, 1985: This is a treaty under the auspices of United Nations which obligates the parties to protect human health and the environment against adverse effects from human activity which modify or is likely to modify the ozone layer, to harmonize policies to control human activities if they are likely to advisedly affect the ozone layer, and to base these decisions on relevant scientific and technical considerations.

Convention on International Trade in Endangered Species of Wild Fauna and Flora: The treaty, which has the acronym CITES promotes the conservation of biodiversity by certain species of wild fauna and flora against over-exploitation for the purpose of aesthetic, scientific, cultural, recreational and economic points of view through international trade. It also protects the consignments of fauna and flora from risks of injury, damage to health or cruel treatment during transportation.

The Constitution binds state organs, state officers, public officers and all persons by national values and principles specified in Article 10 which include equity, which is the fair distribution of wealth and incomes in the society, non-discrimination, inclusiveness, protection of marginalized, participation of the people and sustainable development.

In Article 11 under Culture the Constitution recognizes the roles of science and indigenous technologies in the development of the nation. Further, it provides that legislation will be enacted to recognize and protect ownership of indigenous seed and plant varieties and use by communities.

The Constitutional in Article 60(c) and (e) sets the foundation of sustainable and productive management of land resources such as sound conservation and protection of ecologically sensitive areas. Article 60 (1) (a) and (b) institutionalizes the principle of equitable access to land and security of land rights. The State is given the go-ahead to regulate the use of land by Article 66 and, as clarified in Article 69 (1) (a) and (e), it has to ensure sustainable exploitation and conservation of the environment, the protection of genetic resources and biological diversity.

Article 183 (1) (b) and (d) obligates county governments to implement national legislation in their counties and to perform the functions required of them by the Constitution and by national legislation.

Article 186 and the Fourth Schedule assigns the functions of national economic policy and planning, research, protection of the environment and natural resources, general principles of land planning, agricultural policy, health policy and veterinary policy to the national government. On their part, county governments are assigned the specified functions, including agriculture, county planning and development, implementation of specific

national government policies on natural resources and environmental conservation such as soil and water conservation and forestry, and ensuring and coordinating local level community governance.

The Constitution in Article 191 sets out the framework of avoiding conflict of laws between national and county governments in functions falling in the concurrent jurisdiction of both levels of government. National legislation prevails over county legislation if it applies uniformly throughout Kenya, or prevents unreasonable action by a county that is prejudicial to economic, health and security interests of Kenya or another country or impedes the implementation of national economic policy, or provides for a matter that cannot be regulated effectively by legislation enacted by individual county, (for example transboundary disease agents and pests), or establishes norms, standards or national policies, or maintains national security, economic unity, protection of the common market in respect to goods, (such as agricultural commodities), services, capital and labour, the promotion of economic activities across county boundaries or equal opportunity or equal access to government services, or the protection of the environment. County legislation would prevail over national legislation in the converse situations. The two levels of government are distinct and interdependent in accordance with Article 6 but must cooperate and consult in their mutual relations. Nevertheless, the Constitution clarifies in the Preamble that Kenya is "one indivisible sovereign nation".

During this "transitional phase" of the new Constitution, it is generally accepted that the national government ministries enacts public policies, including legislation and regulation for the whole country and that county governments are responsible for implementation and service delivery, except as specified in the Constitution. From the foregoing, county governments are expected to enact policies either to domesticate operationalize national public policies, including legislation, or to address matters that only affect their individual county. With time, and within the spirit of Article 187 that provides for transfer of functions to either of the levels of government, the boundaries of national and county policies would become clear.

2.2.2 The Kenya Vision 2030

The Sessional Paper Number 10 of 2012 on the Kenya Vision 2030 is the national economic policy for all sectors, including agriculture and the environment. It sets the goals, vision and objectives of the entire country. The Policy under the economic pillar identifies specific interventions which in the agricultural sector include increasing productivity of crops and livestock, introducing land use polices for better utilization of high and medium potential lands, developing more irrigable areas in arid and semi-arid lands for both crops and livestock, and improving market access for smallholders through better post-harvest and supply chain management. It also prioritizes flagship projects in the sector, specifically: enactment of the consolidated agricultural reform bill, fertilizer cost-reduction investment, disease-free zones, land registry, land-use master plan and arid and semi-arid lands development project.

The Policy with respect to Agriculture acknowledges low productivity in smallholder farming and suggests the cause as farm-level inefficiency and under-utilization of land. It proposes to increase the volume and value of productivity in the smallholder system and prescribes support with inputs (e.g. fertilizer) and services (e.g. extension), putting idle but productive land into use and strengthening integration structures of producer organizations and cooperatives.

The Policy makes reference to climatic change and directs responses. It attributes 70% of natural disasters such as flooding to climatic change and proposes to harvest and store the water for use in households and irrigation. Other mitigations are the reducing of losses due to floods and droughts, piloting of adaptation programmes, disaster avoidance and preparedness, earlywarning and public awareness campaigns as well as implementation of selective incentives/disincentives that will reward good practices in environmental conservation.

The Policy under the social pillar, with respect to environmental management has the vision that includes sustainable environment as inspired by the principle of sustainable development. It proposes to intensify conservation of natural resources, such as establishing voluntary carbon markets, intensify research on impact of and response to climatic change and pilot adaptation programmes. It promotes the use of biotechnology in forest

conservation and the introduction of high-value and commercial tree species at farm level and in ASALs respectively.

The following are policy gaps in the Kenya Vision 2030:

Smallholder land-tenure interests are covered but by default as there is no special attention for this issue.

The issues of sustainability of land as a natural resource, biodiversity conservation, organic farming and farm energy are not addressed, unless under the broad principle of "sustainable development". Family-farming as a facilitator for smallholder performance is not mentioned.

The specific good environmental conservation practices that warrant rewards are not clarified.

2.2.3 The Agricultural Sector Development Strategy

The CAADP (Kenyan Compact) is implemented though the Agricultural Sector Development Strategy (ASDS) 2010-2020. The ASDS is presently the most overarching formal national agricultural policy framework for the sector though it was never submitted to Parliament for debate and adoption. It succeeds the Strategy for Revitalization of Agriculture and also sets out to implement the Kenya Vision 2030 in the agricultural sector. It identifies two strategic thrusts for its vision of a food-secure and prosperous nation, i.e. increasing productivity, commercialization and competitiveness of agricultural commodities and enterprises and developing and managing the key factors of production.

The ASDS correctly gives smallholder interests and *elum* principles and practices considerable attention. The policy commits government to reform land-tenure, land use and development, and the sustainable conservation of the environment. It documents under-utilization of otherwise productive land. It observes that unsustainable land-use systems are a threat to the environment, and this problem is addressed through equipping and improving agriculture mechanization stations, promoting the development of agroforestry, farm-forestry and the adoption of soil and water conservation measures.

Constraints of accessing credit by farmers are highlighted. The Policy notes that the reach of microfinance institutions to smallholders is low and directs the facilitation of access to appropriate

credit packages for small-scale farmers and for the provision of material and financial support. It also directs promotion of contract farming and the access to inputs through credit or voucher schemes. The Policy directs the empowerment of communities to achieve social equity and to reduce poverty by addressing inherent unemployment and lack of capital and skills. It commits government to promote integrated community programmes that support empowerment ventures. The integration of smallholders is also addressed in the Policy through the promotion of their organization.

The Policy acknowledges the greatly significant contribution of smallholders in agricultural output but notes that adoption of improved inputs is relatively low. It appreciates the great potential for improving smallholder productivity with adoption of modern farming practices. It prescribes the promotion of a rationalized input distribution system, competing within the supply chain and providing information on the availability and cost of inputs. It acknowledges indigenous knowledge in plants and animals especially with respect to medicinal properties and notes that it is source of income for the poor. It directs the strengthening of research in such forestry measures and commits government to validate and mainstream indigenous knowledge as intellectual property rights.

The ASDS makes reference to climatic change. It records some manifestations of climatic change as unpredictable weather and climatic-related disasters. It attributes climatic change to destruction of the environment during extraction of land-based resources as a result of low capacities and awareness by farmers. It directs the expansion of irrigation to mitigate adverse effects of climatic change in agricultural production. It commits government to implement "National Climate Change Response Strategy" which would include mainstreaming of tradition early warning and mitigation systems, identification of priorities for climate adaptation and mitigation with specific measures for vulnerable groups, awareness creation, conducting of periodic climate change threat and risk assessments and their mitigation as well as research and development in the area.

As with the Kenya Vision 2030, the ASDS directs the strengthening of extension service delivery system and encouraging the participation of producer organizations, Non-Governmental Organizations, universities and the private sector in the delivery of extension services, and, in particular, empowering farmer organizations and communities to provide these services at the grassroots. It notes that information is lacking on pest and disease control. It acknowledges that organic farming (and biotechnology) is an emerging area of technology and that there is limited capacity for training on the subject.

The ASDS aims to achieve water conservation through, among other measures, riverbank protection and water-harvesting technologies. It also notes that heavy run-off during rains causes siltation and sedimentation of water bodies, which are also polluted by industrial and domestic waste-water thereby threatening the quality of water available for agriculture. In some areas, the quality of groundwater sources is recorded as unfit for agricultural use. To address this problem, the Policy directs the improvement of rainwater harvesting and storage for agriculture while rehabilitating and protecting water catchments. It acknowledges the risk posed by discharge of agricultural and industrial chemicals, such as pesticides and heavy metals, into water bodies or disposing of them on land masses which may kill ecosystems. This problem would be ameliorated by improving pollution and waste management. The Policy also undertakes to implement the Kenya Vision 2030 flagship project of managing the water catchments of Mau Escarpment, Mt Kenya, Aberdare Ranges, Cherangani Hills and Mt Elgon while supporting community-based natural resource management initiatives.

The following are policy gaps in the ASDS:

The side-effects of agricultural mechanization are glossed over and the prudence that is necessary to protect soils is not provided for.

The ASDS did not consider family-farming as a facilitator for smallholder performance.

ASDS acknowledges only two categories of crops, i.e. food and industrial crops, and misses out on promotion of high-value-to-weight ratio items which are best smallholder market participation, unless this is considered under broad research and innovation policies.

There are no specific measures for community empowerment, for example with business skills that is directed in the Policy, unless this achieved through strengthening research.

While directing protection of groups vulnerable to climatic changes, no specific policy measures are recorded.

The modern farming methods which should be adopted by smallholders as directed in the policy are not specified.

There are no specific policy directions to promote organic farming, except the indirect invitation to producer organisations to complement government in knowledge transfer.

The Policy directs improvements in pollution and waste management but no specific measures are highlighted.

2.2.3.1 Legislation Implementing Agricultural-Related Policy Issues

A number of legal instruments implement agricultural-related policy issues, including the Agriculture, Fisheries and Food Authority (AFFA) Act, Number 13 of 2013, Number 16 of 2013, the Crops Act, the Agricultural Finance Corporation Act, Cap 323 and the Seeds and Plant Varieties Act, Cap 326.

The Crops Act in section 8 and section 10 lays out support (i.e. with inputs, production, marketing, and distribution), but for only scheduled crops while section 9 provides for Commodity Fund which would support with affordable credit and advances to farmers to buy inputs and improve farms. Similarly, section 12 of AFFA Act empowers AFFA to support farmers of scheduled crops with affordable inputs and credit.

On the protection soils, water and land, the AFFA Act in section 21-23 provides for gazettement of land development, preservation and use guidelines and rules by Cabinet Secretary. Section 4 (b) of Crops Act also requires that land shall be used in a sustainable and environmentally friendly manner while section 6 (b) empowers the county governments to implement national policies on soil and water conservation. Additionally, section 40 (2) (h) empowers the Cabinet Secretary to make regulations for maintaining soil fertility including soil testing and the regulation of soil salination, chemical degradation and toxic levels in plants.

The Crops Act commits the government to offer extension services for scheduled crops in section 13(1) (g). Growers and dealers of scheduled crops are similarly assured of government technical support with extension services by the Crops Act in s.12 (2) (d).

The First Schedule in the Crops Act lists a number of crops with high-value-to-volume-ratio as scheduled crops for promotion and support such as horticultural and beverage crops and this may uplift smallholder marketing performance by default.

The Crops Act in section 8 (o) empowers AFFA to recommend agreements between producers and processors and this may address some of the contract farming provisions.

Crop varieties would be matched to climatic conditions by the provisions of section 8 (i) which empowers AFFA to develop crop varieties to match the agro-climatic conditions of the area.

On protection and conservation of biodiversity, the AFFA Act in Part V grants AFFA and county governments power to destroy noxious and invasive plants.

The Agricultural Finance Corporation (AFC) Act, Cap. 323, is an instrument of implementing agricultural policy on the matter of financing agriculture. Section 19 provides the framework for loaning farmers and cooperative societies in agriculture which would be at the terms decided by the Board of the Corporation.

The Seeds and Plant Varieties Act is an instrument of agricultural policy outside the purview of AFFA. The Act provides for a process in sections 15 and 16 that may include the assessment of risks and performance of seeds of any plant, including plant imports, and an approval process before their release into farms for propagation and production. The Act would be useful to prevent the introduction and release of plants that would harm biodiversity. Plant varieties provided under the Act are exempted from being patentable, according to the Industrial Property Act, Cap. 509.

The Law of Contracts Act, Cap 23, provides the framework for contracts in general; it provides that binding contracts need to be written and signed by the parties and, for interests on land (e.g. charge or sale), the signatures have to be witnessed by a person present. The Act would be useful in institutionalizing contract farming.

The following are gaps in legislation implementing agricultural policy-related issues:

A number of agricultural policy issues of *elum* and smallholder consideration that are provided in Kenya Vision 2030 and ASDS are glossed over in AFFA Act and Crops Act, specifically under-utilization of land, climatic change mitigation, farm-forestry, extension services by the private-sector and the harnessing and transfer of indigenous agricultural knowledge

The envisaged land development, preservation and use guidelines and rules under AFFA Act are yet to be gazetted; as noted in section 2.2.7 of this Report, the environment sector has published (but not gazetted) integrated land-use guidelines which need to be considered before new guidelines under AFFA Act are developed to avoid conflict of laws and sub-sectors.

The AFFA Act and Crops Act have no special support packages for the poor farmers or smallholders; the fund is also not yet operational and no rules have been gazetted for managing fund.

The AFFA Act and Crops Act have no provisions on cash or capital transfer.

There are no rules yet for the envisaged support for scheduled crop farmers by AFFA.

The AFFA Act and Crops Act have not considered specific legal interventions for promoting high-value-to-weight ratio items unless upon innovation and research.

The envisaged producer-processor agreements in the Crops Act do not cover market agreements which would be necessary under contract farming.

All the support and promotion, including extension, provided in the AFFA Act and Crops Act targets "scheduled crops" and not non-scheduled crops, yet the latter are also important, being "any plant other than a scheduled crop that is grown in significant quantities to be harvested as food, or used as livestock fodder, fuel, or for any other economic purpose" as defined in the Crops Act.

There is no provision for regulating mechanization to protect soils and farm environment.

The AFFA Act and Crops Act lack provisions to prevent the harm posed by invasive plants and noxious weeds from occurring, which would be more cost-effective than destroying them after they have already grown.

The AFFA Act and Crops Act are silent on promotion of organic crop production, except in the context of general extension which is nevertheless biased to scheduled crops.

Though the discretion given to the AFC Board may be used to support low-income smallholder farmers with loans, the terms of the same loan has to be approved by the Cabinet Secretary for Finance, thereby removing the discretion.

The discretion of the AFC Board may also be abused to positively or negatively discriminate applicants if the integrity of members is in question.

2.2.4 The National Agricultural Research Systems Policy

The National Agricultural Research Systems (NARS) Policy provides the foundation for research in the agricultural sector, though it was never submitted to Parliament for debate and adoption. It aims at achieving reforms in the Kenyan agricultural research systems to support the development of an innovative, commercially oriented, and modern agricultural sector. The Policy aims at achieving objectives that include problem-solving and impactdriven research agenda, fast-tracking national adoption of available technologies and knowledge and enhancing capacity to access and adopt knowledge and appropriate technologies available world-wide. It directs re-focusing of research to solve problems, the harnessing of indigenous knowledge while upholding professional ethics and the adoption of innovative methods of knowledge transfer.

The following are policy gaps in the NARS Policy:

The Policy document requires greater elaboration of the professional ethics in the areas of research and extension.

There are no specific policy directions on research in organic production and in conservation agriculture.

2.2.4.1 Legislation Implementing Agricultural Research-Related Policy

The Kenya Agricultural and Livestock Research Organization (KALRO) Act, Number 17 of 2013, and the Science, Technology and Innovation Act, Number 28 of 2013, are two instruments that implement agricultural research policy issues.

The KALRO Act has the objective of establishing the Organization and coordinating research in agricultural sector. The Organization has mandate in section 5 (2) (d) to regulate, monitor and ensure that all agricultural research undertaken by research institutes and other institutions or persons undertaking agricultural research is consistent with the national priorities specified in the relevant policy documents. KALRO has the mandate under section 5 (1) to promote, streamline, co-ordinate and regulate research in crops, livestock, marine and fisheries, genetic resources and biotechnology in Kenya. Section 5(2) (b) provides that KALRO will prioritize research in agriculture as guided by

national policy.

The Science, Technology and Innovation Act is an overarching multisectoral legislation which has the objective of facilitating the promotion, co-ordination and regulation of the progress of science, technology and innovation of the country, assigning priority to the development of science, technology and innovation as well as entrenching science, technology and innovation into the national production system. The National Commission for Science, Technology and Innovation has the mandate under section 4 to regulate and assure quality in the science, technology and innovation sector and advise the Government in related matters. Section 12 provides for licensing of researchers operating outside the purview of universities and research institutes and prohibits research that may harm the culture of a community or the environment. Licensed researchers and the research institutions are required by sections 14 and 22, respectively, to adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act.

The following are policy and legislation gaps

The KALRO Act presently has no specific gazetted regulations on research to assure the correct application of knowledge and technology.

KALRO may conflict with the Biosafety Council established under the Biosafety Act in regulating research in biotechnology in Kenya.

Section 5 (2) (b) of KALRO Act and section 4 (d) of the AFFA Act allocates the same mandate and function of determining research priorities to KALRO and AFFA respectively, thereby precipitating conflicts.

As there is no specific policy on promotion of organic production, KALRO may not prioritize such research.

KALRO may conflict with the National Commission for Science, Technology and Innovation in matters pertaining to general regulation of agricultural research; section 24 of KALRO provides for cooperation between the KALRO and the predecessor of the Commission but it is not clear why the duplication of mandates is necessary.

2.2.5 The National Agricultural Sector Extension Policy

The National Agricultural Sector Extension Policy (NASEP) implements the ASDS on matters of agricultural extension services, through it was never submitted to Parliament for debate and adoption. It has the objective of empowering the extension clientele through sharing information, imparting knowledge and skills and changing attitudes so that they can efficiently manage their resources for improved quality of livelihoods. It sets out to achieve this objective through promoting pluralistic extension service provision and management and guiding the operations of extension service providers through an established independent regulatory body to ensure provision of quality extension services.

The Policy directs extension service providers to apply sustainable, dynamic, innovative and effective extension approaches and methods, especially those promoting demand-driven and beneficiary-led approaches in the selection of technologies and extension messages. It promotes decentralization of extension by using clientele groups (e.g. common interest groups, smallholder associations and primary cooperatives) and general public outreach for cost-effectiveness, taking into consideration the importance of indigenous knowledge and technologies.

The Policy directs the retention of extension services for smallholder farmers within government while giving room for gradual privatization and reforms to facilitate multi-stakeholder participation. It also provides for stakeholder-oriented market information system and the building of capacity of extension-service providers.

Policy Gap: Extension services fit properly within the class of "public good" services due to their externalities and free-rider realities. For that reason, the policy of privatization of extension services would be prone to market failures.

2.2.6 The National Land Policy

The Sessional Paper Number 3 of 2009 for the National Land Policy has the objective of securing rights over land in order to sustain growth, investment and reduction in poverty. It puts in place laws and administrative systems on land to provide access for citizens, regulate allocation and use of land and land markets and resolve land disputes. The Policy

commits the government to facilitate secure access to land and acquisition of rights of access to land. The government sets out to facilitate access to leasehold rights, e.g. aligning leases to the policy and creating leasehold interests in public, private and community land. The Policy directs measures that will enhance both large-scale and small-scale production of food for the maintenance of food security in the country while committing the government to set guidelines for securing land tenure rights.

The Policy provides direction for efficient land markets which deal with transfers of land and commits the government to commercialize land rights subject to equity, sustainability and public policy considerations. It commits the government to restore the environmental integrity of land and facilitate sustainable management of land-based resources by encouraging the use of technology and scientific methods for soil conservation and establish measures to control the degradation of land that takes place through abuse of inputs and inappropriate land-use practices.

The following are gaps in the National Land Policy:

The Policy was enacted before the promulgation of the new Constitution and therefore needs to undergo the necessary revision and re-alignment.

There are no specific policy measures to realize the stated direction to enhance large-scale and small-scale food production.

The Policy does not address the Constitutional value and principle of equity with respect to land.

2.2.6.1 Legislation on Agricultural Land-related Policy

The Land Act, Number 6 of 2012, is an instrument for implementing the policy. The Act in section 4 (2) sets out values and principles of land regulation, including security of land rights, sustainable and productive management, and conservation and protection of ecologically-sensitive areas. Section 5 provides for recognition and enforcement of tenure in the form of freehold, leasehold, customary, and others. It empowers the National Land Commission in section 11 to identify ecologically-sensitive areas. It also empowers the Commission in section 12 (1) (b) to allocate land to a targeted group of persons or groups in order to ameliorate their disadvantaged position.

Gaps in Legislation: The Land Act does not appear to empower the National Land Committees to allocate land to needy individuals, but only to groups, and may therefore not address fully the Constitutional value and principle of equity with respect to land.

2.2.7 The Environment and Development Policy

The Sessional Paper Number 6 of 1999 on Environment and Development Policy recognizes that environmental protection is a component of sustainable development. It seeks to achieve the conservation of natural resources including air, land, flora and fauna, the promotion of conservation of soil fertility, biodiversity, the fostering of afforestation, and the protection of catchment areas.

The Policy attributes adverse climatic changes to deforestation and "greenhouse gases". It directs the provision of economic and financial incentives for sustainable utilization, conservation, and management of natural resources, the development biotechnology guidelines while encouraging beneficial genetic engineering. Government sets out to provide advice on sustainable land use practices in various agroecological zones and would also popularize the use of organic manures in order to improve soil fertility, texture, and moisture and the use of integrated pest management to combat pests.

The Policy recognizes that inappropriate agricultural practices may lead to contamination of water courses and bodies through excessive use of agricultural pesticides and fertilizers. It directs revision of law on water resources, waste-water and solid and refusedisposal and agricultural practices with the aim of improving water quality. It promotes integrated watershed development programmes along mountain slopes and forested areas, with the participation of local people, to prevent further damage. It also directs the undertaking of research in water conservation as well as provision of incentives for rain water harvesting.

The following are gaps in the Environment and Development Policy:

The Policy is apparently still in "draft form" though it has a Sessional Number which is only allocated by Parliament; the document is not bulleted, thereby making referencing and citations not possible.

This is a pre-Constitution policy and there required revision and updating.

As an environmental policy it pays too little attention to climatic change and largely suggests only studies and impact assessments for mitigation.

The policy narrative uses uncommon titles such as "integrated pest management" and "integrated watershed development" without definition, thereby rendering interpretation variable.

2.2.7.1 National Climatic Change Strategy

The National Climatic Change Strategy is one of the instruments of implementing the Policy. The Strategy sets out to reduce the vulnerability to impacts of climatic change and to catalyze transition to cleaner, lower emission and less carbon-intensive development in the country. Government commits in the Strategy to enhance climatic resilience and adaptive capacity and put in place mechanisms for sustainable utilization of natural resources. The Strategy directs integration of climate change risk and vulnerability assessment in the Environment Impact Assessment and the Strategic Environment Assessment. It lays the blame for emissions of green-house gases largely to agriculture, more so livestock, and in land-use change and suggests deterrent taxation and friendly regulatory environments for low carbon-pollutant activities.

The following are policy gaps on the National Climatic Change Strategy:

A National Climatic Change Strategy document should elaborate and clarify a policy in greater details. The directed enhancement of climatic resilience and adaptive capacity should therefore have shed light into specific interventions that would be done during implementation; this is the same for the vaguely mentioned "mechanisms for sustainable utilization of natural resources".

The analysis of the problem of emissions of green-house gases in the National Climatic Change Strategy is largely incorrect. Green-house gases are methane, carbon dioxide, nitrous oxide and ozone. Animals contribute a third of methane emissions, with the rest being largely produced by natural wetlands, rice paddocks, gas/oil fields, biomass-burning, termites, landfills and coal mines. And the contribution of methane to green-house effect is much less than of carbon dioxide which livestock do not contribute.

2.2.7.2 Legislation on Environment and Development Policy

The Environmental Management and Coordination Act (EMCA), Number 8 of 1999 is an instrument of implementing the policy. It supersedes all other legislations in matters relating environment. The Act is a powerful legislation with respect to application of *elum* principles and practices. It provided for public participation in decision making especially on Environmental Impact Assessment (EIA) matters. Section 47 of the Act empowers the National Environment Management Authority (NEMA) to develop and publish in the Kenya Gazette guidelines for the protection of hilltops, hillsides, mountains and forests.

The Integrated National Land-Use Guidelines (hereinafter referred as "the Guidelines") were publicized by NEMA in 2011. Land-use is defined in the guidelines as "social and economic purposes for which land, including water is managed". The Guidelines acknowledges that poor land use planning, climate change, deforestation, loss of biodiversity, hazards and disaster management are constraints in land use. The objectives of the Guidelines include preventing and mitigating land degradation and promoting sustainable land management. The Guidelines prohibits cultivation

on slopes beyond 55% while requiring adoption of soil and water conservation measures that are set out in agricultural legislation in case of cultivation on slopes between 12%-55%. It encourages agroforestry and woodlands on farmlands and sets a target of 10% land holdings under trees, citing Farm Forestry Rules of 2009. The Guidelines encourage afforestation as a measure for flood control.

In section 51 of EMCA, NEMA is supposed to encourage conservation of biodiversity. The Guidelines provide for the conservation of biodiversity and require that key biodiversity areas be identified, delineated and protected. It requires that endemic, rare and endangered species be protected. It directs that access to genetic resources, benefits, intellectual property rights as it relates to biodiversity including indigenous knowledge, the acquisition, development and use of new technologies, such as biotechnology, and integration of biodiversity, including agrobiodiversity, be addressed through policy.

Through the Guidelines, EMCA recommends crop production to be done depending on adaptation to designated agroecological zones, soil characteristics, recommended agricultural practices and appropriate technologies while the stony, shallow soils on hilly areas should only be used as controlled pasture or forest or should have stone terraces. The Guidelines direct support for organic farming in peri-urban areas and recommends soil protection against erosion through ploughing and planting along the contours while practicing crop rotation, applying manure and crop residues to crops in place of fertilizers, as well as utilizing integrated pest management plans and terracing. The Guidelines provide for identification and mapping of flood-prone areas which should also be supported with afforestation, tree-planting, as well as water and soil conservation in catchment areas and along water courses while discouraging human settlement in the area.

In the Guidelines there is provision that agricultural, industrial and domestic waste/effluent treatment be designed to avert pollution of lakes and other water bodies. It also requires that water bodies be protected from contaminants from agricultural activities and encourages water harvesting and protection of riparian reserves. The EMCA (Water Quality) Regulations, Legal Notice Number 120 of 2006 aims at preventing water pollution and overabstraction.

The following are the gaps in Policy and Legislation on environment and development:

The Integrated National Land-Use Guidelines were not gazetted as required by section 47 of EMCA and therefore may not be enforceable; PELUM interests in the policy would therefore be difficult to realize. Gazettement could solve the policy gap.

The Guidelines contradict themselves in the matter of organic farming; on one side they promote organic peri-urban farming while on the other they promote optimal use of agrochemicals.

2.2.8 The National Social Protection Policy

The Kenya National Social Protection Policy is a newly adopted policy as Sessional Paper Number 2 of 2014. It has the goal of ensuring that all Kenyans attain social and economic development as provided in Article 43 of the Constitution. Individuals and households would be protected from adverse shocks to their consumption that is capable of impoverishing them while those already under social assistance would be lifted to self-sufficiency. The policy provides the framework for social assistance, social security and health insurance. Programmes such as Njaa Marufuku, Health Voucher Scheme, National Accelerated Agricultural Inputs Access Program and Hunger Safety Net Programme are examples on on-going interventions within the social protection policy environment.

The Policy document acknowledges poverty and observes that subsistence economies in areas with declining soil productivity and large households are likely to engage in competition for various land uses. Social protection policy issues on social assistance are identified and include: safety nets and consumption transfers to sustain livelihoods and to build human capital, the protection of assets and their rehabilitation to re-establish livelihoods, for example re-stocking and providing farm inputs for farmers, supporting access to micro-insurance, asset development, income opportunities to sustain livelihoods and strengthening of cooperative societies and self-help groups.

The Policy notes the need to extend social security in terms of worker's compensation for injury and disease to the informal economy. Government commits to establish comprehensive social security arrangements that will extend legal coverage to all workers, whether in the formal or informal sectors, and their dependants. Government commits to expand National Hospital Insurance Fund into a fully-

fledged comprehensive national health insurance scheme, which covers all Kenyans, and to which those who can afford it must contribute while those unable to pay would be facilitated to access a core package of essential health services. A National Social Protection Council would be established to implement and coordinate social protection.

2.2.8.1 Legislation Implementing Social Protection Policy

The Social Assistance Act, Number 24 of 2013, is an instrument for implementing the Policy. The Act establishes National Social Assistance Authority. It sets out criteria for social assistance in section 17. It empowers the Cabinet Secretary in section 24 (a) to provide a programme for assisting individual, family and community members to become self-reliant.

The following are policy gaps in social protection legislation:

The Social Assistance Act does not specifically identify poor people for assistance, except elderly-poor and unemployed but industrious youth; however, the Cabinet Secretary has power to add to the list of individuals eligible for social assistance.

The Act is silent on implementation of the policy directions on comprehensive health insurance and on social security.

2.2.9 Biotechnology Policy

The Biotechnology Policy, 2006, provides an alternative policy direction to the *elum* principles and practices. It was apparently not submitted to Parliament for debate and adoption. It aims at achieving reduction of poverty and improvement of food security, health and environmental sustainability by using the tool and vehicle of biotechnology. It elaborates on the benefits of biotechnology including improved yields and the quality of crops due to resistance to diseases and pests, tolerance to drought, salinity and other strenuous environmental

conditions as well as improvement of domestic animals by selective breeding or cross-breeding through assisted reproductive technologies and genetic manipulation that could have a positive impact on public health and well-being. Biotechnology would reportedly also benefit the pharmaceutical industry with new products and also reduce the costs of agricultural inputs such as fertilizers and pesticides. To achieve this objective, the Policy directs the prioritization, promotion, and coordination of research in basic and applied sciences in biotechnology, the promotion of sustainable industrial development for the production of biotechnology-derived products, the facilitation of biosafety, the establishment of mechanisms to address ethical issues relating to biotechnology and the promotion of public understanding of the potential benefits of biotechnology.

The Policy document acknowledges concerns on safety and ethics in biotechnology and directs a focused approach to basic research, product development and marketing, public protection and support, financial & business support while addressing the relevant national and international biosafety concerns. It recognizes local and international agreements and protocols such as the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2000, the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures, the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights and the International Convention for the Protection of New Varieties of Plants. It directs that for any generation or development of a product of modern biotechnology there will be adequate information on the extent of modification, effect on environment and consumer safety. It would enhance collaboration with relevant national, regional and international agencies to ensure that biotechnology and its products meet the required safety and ethical standards. It provides for the creation of a National Commission on Biotechnology to oversee the Policy and a National Biosafety Authority to assure safety.

The following are gaps in the Biotechnology Policy:

The Policy was apparently not submitted to Parliament for debate and adoption.

While listing the successes cases and benefits of biotechnology, the Policy is silent on the potential harm, or on any case-study countries of the harm that may emanate from biotechnology.

The policy document is silent on a precautionary approach in releasing a genetically-modified organism to the environment; it directs a legislation that will define a liability regime for damage resulting from the use of modern biotechnology but this would be after the event have already occurred.

2.2.9.1 Legislation on Biotechnology Policy

The Biosafety Act, Number 2 of 2009 is an instrument of implementing the Policy. The Act sets out to facilitate research in biotechnology and protect humans and the environment from adverse effected of products of biotechnology. It prohibits in section 18-22 any person from conducting any activity with or introduce into Kenya genetically-modified organisms (GMO) without the authority of the Biosafety Authority. A person wishing to engage in any work with or introduce a GMO is required to apply to the Authority, which shall inform members of the public of such application through a notice in two national newspapers and give them 30 days to submit any views on the application. If the application is adjudged complete, the Authority vide section 27 would carry out a risk assessment or audit a risk assessment report submitted by the applicant. The views of other regulatory agencies would be considered i.e. Department of Veterinary Services for genetically-modified animals, Department of Public Health for genetically-modified food and Kenya Plant Health Inspectorate Service for genetically-modified plants. In accordance with section 28, the Authority may waive risk assessment if it considers that adequate information is available that the GMO or its product is safe.

The following are gaps in Policies Legislation on Biotechnology:

The discretion on section 28 of the Biosafety Act, i.e. waiver of risk assessment, may be abused and an unsafe GMO released if the integrity of members of the Authority is in question.

A valid risk assessment is always a public process, a fact that is not provided for in the text of the Biosafety Act. The assessment process involves identifying the stakeholders, getting their concurrence or views on the "risk question", getting them to decide on the "acceptable risk" or the "acceptable level of protection", communicating with them in an iterative manner during the assessment per se and seeking their views on risk management and the options available.

The period of 90-150 days specified in the Biosafety Act for making a decision upon an application may be too short to carry out a Risk Assessment for an annual or perennial organism.

2.2.10 The Micro- and Small Enterprises Development Policy

The Sessional Paper Number 2 of 2005 on Development of Micro- and Small Enterprises for Wealth and Employment Creation for Poverty Reduction defines Micro- and Small-Enterprises (MSE's) in para.1.1 as the farm and non-farm businesses in both the formal and informal sectors employing 1-50 workers. It notes that constraints of poor access to markets and financial services inhibited realization of the potential of the sector. Lack of financial services is attributed to lack of tangible security and also a regulatory framework that do not recognize innovative strategies of lending to MSE's. It directs incentives to attract savings and investment and development of venture capital. Government would establish Micro-Finance Trust Fund from which Micro-Finance Institutions (MFI's) can borrow and lend to MSE's at affordable interest rates, with an insurance scheme to under-write risks to the MFI's.

The Policy has the objective of achieving a competitive MSE's through reducing the cost of doing business and promoting MSE's, including commercial small-scale agriculture. The Policy commits the government to stabilize the micro-economic policy, improve infrastructure, remove legal and regulatory burden on businesses and provide incentives for vertical and horizontal growth of MSE's. It sets out to integrate small-scale commercial farming into the MSE's sector. It directs the enactment of dynamic laws that are responsive to the needs of MSE's while providing for harmonization of trade licensing and regulatory services to make them more efficient and user-friendly.

The Policy document observes that lack of information is a constraint in MSE's and commits government to provide incentives to the private sector toward establishing an information clearinghouse. It also directs improvement of product designs and development to meet international standards in order to access export markets.

2.2.10.1 Legislation Implementing Micro- and Small Enterprises Development Policy

The Micro- and Small Enterprises Act, Number 55 of 2012, is an instrument for implementing the Policy. The Act has the objective of promotion, development, and regulation of micro- and small enterprises. In section 5 there are provisions for registration of MSE's umbrella organizations while section 28 empowers the Cabinet Secretary to determine the category of SME to be assisted and the kind of assistance to be rendered. Section 30 sets out the membership of the Micro- and Small-Enterprises Authority responsible for promoting the interests of MSE's. In section 31, the membership of the Authority should include a member drawn from an agri-business umbrella organization. In sections 46-50 the Act provides legal foundation for promoting the development of MSE's including setting aside land for MSE's, development of infrastructure, capacity-building programmes, development of markets and marketing and technology transfer. It establishes a Fund in section 51 which would finance the promotion and development of micro- and small enterprises and also provide affordable and accessible credit to micro- and small enterprises.

Policy Gap: Assigning the criteria, category and kind of assistance to give to MSE's to the discretion of the Cabinet Secretary as the Act portends does not appear right; it makes the Cabinet Secretary a day-to-day operator instead of a policy-maker and would also would delay decision-making. It would have been better to set the criteria, category and kind of assistance in the law and let the Authority administer the subject matter.

2.2.11 The Cooperatives Policy

The cooperatives policy in Kenya is reflected in the Cooperative Societies Act, Chapter 490. The objective of the Act is to provide for the constitution, registration and regulation of cooperative societies and for other purposes incidental these objectives. Section 4 of the Act lays out the principles which every cooperative society have to incorporate, including voluntary and open membership, economic participation by members and concerns for the community in general. As provides in section 5, at least 10 persons may form a cooperative society if they are over 18 years, their employment, occupation or profession falls within the category or description of those for which the co-operative society is formed and they reside within, or occupies land within, the society's area of operation as described in the relevant by-law of the society. Section 31 provides the framework for integration of producers for input supply and for marketing their produce while sections 42-43 provide for financial loans to the members of a cooperative society.

2.2.12 The Forests Policy

The Sessional Paper Number 1 of 2007 on the Forests Policy has the objective of sustainable management of forests and trees. To achieve this objective, the policy directs the sustainable use, conservation and management of forests and trees for climatic amelioration, sustainable land use through soil, water and biodiversity conservation, tree-planting and the promotion of farm and dryland forestry to produce timber, woodfuel and other forest products. It directs in para.1.2 the reservation of existing indigenous forests in public land. It directs the encouragement of land owners to have sufficient land under tree-cover while government would support with improved seeds

and better markets for farm-forestry products. It provides for encouraging the private sector to develop and manage plantation forests. It supports the establishment of forest-based micro-enterprises and community forest associations. It provides for rehabilitation of degraded and over-exploited areas and directs research in the subject matter of forests and trees.

Policy Gap: The Policy has not considered the promotion of multipurpose trees, or the cautious risk-based process of introduction of exotic trees, though it indicates a clear bias to the promotion of indigenous trees.

2.2.12.1 Legislation Implementing Forests Policy

The Forests Act, Chapter 385, is an instrument for the implementation of policy on forests. The Act has the objective of the establishment, development and sustainable management, including conservation and rational utilization, of forest resources for the socio-economic development of the country. The Board of the Kenya Forests Service is empowered by section 7 to provide incentives in the promotion of forestry and tree-planting. In section 25 farmforests are registered with the Forestry Service, thereby entitling them to receive technical advice, financing and land-rate exemptions. Section 63 cross-references with EMCA in the requirement for environmental impact assessments (EIA).

The following are policy and legislation gaps on forests:

The Forests Act is silent on specific measures on promotion of multi-purpose trees and the prevention of introduction of unsuitable exotic plants.

The EIA requirements are instruments to direct a precautionary approach, "a look-before-you-leap attitude", and may not prohibit un-informed introductions of invasive exotic tree-plants; clear legal prohibitions are required, together with a formal cautionary process for introduction of exotics plants.

2.2.13 The National Productivity Policy

The Sessional Paper Number 3 of 2013 on the National Productivity Policy is a policy response by the government to low productivity directs corrective measures. Low productivity is attributed in the Policy document to inadequate adoption of productivity management standards and practices, lack of knowledge in productivity and management techniques and absence of a national integrated institutional framework for productivity promotion and management. The Policy aims to achieve accelerated economic growth through high investment and productivity growth, being the incremental growth of 5% per year up from current less than 1%. It also aims at increased productivity awareness and consciousness level in the country from the current level of about 1 percent to 60 percent of the population. It proposes training programmes outside the formal education system for skills transfer to the labour force. It will also support technological change and innovation.

Policy Gap: The Policy is geared to formal labour productivity and has paid little regard to informal, self-employed labour as applied in agricultural production.

2.2.14 The National Policy on Water Resources Management and Development

The Sessional Paper Number 1 of 1999 on the National Policy on Water Resources Management and Development provides the direction for availing adequate water for domestic, industrial and commercial uses. It aims at achieving sustainable development and management of the water sector. It integrates elum principles and practices in its objective of preserving, conservation and protecting the available water resources and allocating it is a sustainable, rational and economic way.

In order to achieve the objective, the Policy directs the formulation of a national water conservation programme through which water catchments and other sources would be protected, and reservoirs for run-off water and for regulating river-flows would be constructed. It directs the integration of environmental impact assessment with water development. It also directs the prevention of pollution and improvement of water quality through the formulation of standards and guidelines for the disposal of undesirable elements in water and

introduction of legislation to ban or regulate their discharge into water bodies with appropriate fines and tariffs. At the same time it directs the strengthening of water quality monitoring programme.

Policy Gap: The Policy is over 16 years old and therefore its validity for the current exigencies may stand to challenge, more so under the new Constitution where water as food is a right.

2.2.14.1 The Water Act

The Water Act, Chapter 372, is an instrument of the water policy. The objective of the Act is the management, conservation, use and control of water resources and for the acquisition and regulation of rights to use water and to provide for the regulation and management of water supply and sewerage services. The Act controls pollution by human activities of the water used by industry, agriculture and individuals.

The Act establishes a Water Resources Management Authority which has power under section 8 to regulate and protect water resources from adverse impacts and to manage and protect water catchments. Pursuant to section 17 the Authority may declare a catchment area as a protected area and impose requirements or prohibit such activities so as to protect the area and its water resources. In accordance with section 25, a permit is required for discharging a pollutant into any water resource, among other purposes. The Authority may also use its powers under section 44 to declare a ground water conservation area and impose requirements, regulations and prohibitions for the protection of its ground water. A general restriction is imposed by section 94 against any person from throwing into a water resource any matter or thing likely to cause pollution of the water resource.

Policy Gap: The Water Act does not implement the policy direction of the promotion of water harvesting and storage.

2.2.15 The National Food and Nutritional Security Policy

The Sessional Paper Number 1 of 2012 on the National Food and Nutritional Security Policy aims at achieving safe food in sufficient quantity and quality to satisfy the nutritional needs for optimal

health of all Kenyans. It also aims at providing accessible and affordable food and protects vulnerable populations by using innovative and cost-effective safety nets linked to long-term development. It addresses associated issues of chronic, poverty-based food insecurity and malnutrition, as well as the perpetuity of acute food insecurity and malnutrition associated with frequent and recurring emergencies.

The Policy acknowledges the contribution of smallholders, particularly women, in on-farm employment. It notes that incomes from smallscale farmers are threatened by loss of markets. It directs the support for integration of small producers in cooperative societies, out-grower schemes, fair-trade initiatives and other collective action to increase their share in production and marketing. In directs the support for small rural business by developing value chains and agro-processing zones by increasing access to technology, infrastructure, water, credit, savings and insurance schemes. The Policy directs the promotion of sustainable food production systems with particular attention to increasing soil fertility, agro-biodiversity, organic methods and proper range and livestock management practices. This would include targeted subsidization of critical production inputs using appropriate mechanisms and support for agro-forestry, afforestation and re-afforestation to enhance livelihood systems and Kenya's environmental resources.

The Policy addresses the impacts of droughts, serious floods and fires on essential household capital and assets including food. It directs restorative interventions such as non-food assistance, basic farm inputs such as seeds, fertilizer, tools and capital. It commits the government to assure safe and quality food which would necessitate hygiene measures from farm-to-folk. It recognizes the safety concerns of genetically modified foods and leaves the protection to the Biosafety Act while committing the government to provide guidelines on the production and utilization of genetically modified products, including bio-fortified products.

The Policy observes that access to agricultural fertilizers faces constrains owing to high global prices and suggests price-cushioning of farmers.

The Policy notes incorrect land-use practice of continuous cultivation of soils, loss of forest cover and over-emphasis on maize production have led to a decline in soil fertility and yields. In other areas there is unexploited potential as a result of high input costs. The Arid and Semi Arid Lands (ASALs) has the highest rate of food insecurity owing to unsustainable land management practices where natural resources are degraded. This has led to a significant loss of bio-diversity which has adversely affected traditional sources of food, income and other basic needs of many rural communities.

The Policy directs that different approaches to food production are adopted based on the agro-ecological diversity which should include promoting irrigation. It advances several *elum* principles and practices, specifically market access for smallholders, collective actions, sustainable food production systems through increasing soil fertility, observing agrobiodiversity and biodiversity, organic production, proper range and livestock management practices, agro-forestry, afforestation and sustainable land management.

The following are gaps in the National Food and Nutrition Security Policy:

The Policy pays little attention to safety of food from the use of agrochemicals, pesticides and fertilizers that it promotes.

The Policy does not pay attention to environmental health in relation to agricultural activities which ultimately would impact of the safety of food and the health of the public.

It contradicts itself by promoting organic farming alongside greater use of chemical and industrial fertilizers.

2.2.15.1 Legislation Implementing National Food and Nutrition Security Policy

Aspects of the Policy are implemented through the Public Health Act, Cap 242, the Food, Drugs and Chemical Substances Act, Cap 254, the Standards Act Cap 496, and the Biosafety Act. The Public Health Act aims at achieving good human health while the Food, Drugs and Chemical Substances Act assures the safety of human food. The Standards Act gives the legal framework for food quality control which the Biosafety Act regulates the introduction or release of biotechnological commodities to protect human and environmental health as elaborated in paragraph 2.2.9.1.

2.2.16 The National Pharmaceutical Policy

The Sessional Paper Number 4 of 2012 on the National Pharmaceutical Policy addresses policy issues concerning medicines and their use in promoting human and animal health. It has the objective of achieving continuous availability of safe and effective essential medicines especially in the public sector and ensures the quality, safety and efficacy of human and veterinary drugs in Kenya, in line with internationally acceptable standards. It also sets out to encourage the development and appropriate regulation of traditional, complementary/alternative and herbal medicines in line with national health goals.

The following are gaps in the National Pharmaceutical Policy:

The Policy has no policy provisions for agrochemicals such as pesticides, herbicides or fungicides and consequently has no policy interventions to protect the soils, water, air, biodiversity and other components of the ecosystem from adverse effects of these drugs.

The Policy was apparently not submitted to Parliament for debate and adoption.

2.2.16.1 Legislation Implementing Pharmaceutical Policy

The Pharmacy and Poisons Act, Cap. 244, the Pest Control Products Act, Cap 346, the Animal Diseases Act, Cap 364, and the Kenya Plant Health Inspectorate Service (KEPHIS) Order under the State Corporations Act, Cap 446, are instruments of the policy.

The Pest Control Products Act provides alternative interventions to the *elum* principles and practices. It regulates the agricultural chemicals used for the control of pests, where "pests" are defined to include any injurious, noxious or troublesome insect, fungus, bacterial organism, virus, weed, rodent or other plant or animal pest and includes any injurious, noxious or troublesome organic function of a plant or animal. It regulates the approval, registration and distribution of pest control products. It also regulates disposal of a pest control product or its containers to ensure safety to animals and the environment through the Pest Control Products (Disposal) Regulations, 2006.

A new Kenya Plant Health Inspectorate Service Act, Number 54 of 2012, was enacted by Parliament but has not yet been allocated a commencement date. The KEPHIS Order establishes and sets out its functions which include in clause 6 (a) and (n) the responsibility to coordinate all matters relating to crop pests and disease control and establish the machinery for educating the public on safe use of agro-chemicals.

The following are policy gaps in the legislation on pharmaceutical policy:

The same power to control crop pests and diseases under the KEPHIS Order is also provided by the Plant Protection Act, Cap 324 to the Director of Agriculture and officers under him in the Ministry of Agriculture who are not directly officers or agents of the KEPHIS Board. The duplication of powers may precipitate a gap where none of the parties offer the service and the health of crops and other plants as required in elum practices is compromised.

The Pest Control Products Act does not address inspection and investigation of the use of pest control products for protection of the public and the environment. This public health role is left to extension officers and other regulators like Kenya Plant Health Inspectorate Service who may not have the same technical information or legal powers to enforce compliance.

2.2.17 The National Livestock Policy

The Sessional Paper Number 2 of 2008 on the National Livestock Policy aims at achieving sustainable development of the livestock industry while improving and conserving animal genetic resources. It guides effective control of animal diseases and vectors and directs the increase of the competitiveness of the livestock industry. It is presently the framework through which *elum* principles and practices on livestock are set out. It addresses livestock breeding by directing a survey to establish demographics of animal genetics to inform conservation measures. It also directs superior breeding programmes, including programmes

to improve indigenous breeds without losing the resource, while strengthening breeding services. The government commits to issue guidelines on breeds and production systems for different ecological zones in the country.

The Policy promotes good animal nutrition where it directs diversification of feed base, including utilization of crops residues, rangeland management with fodder and forage conservation, research in better-performing forage, and integration of commercial feed millers. It provides for monitoring and mitigating animal welfare infringements and awareness creation on the importance of good animal welfare.

The Policy commits the government to improve livestock health by controlling notifiable animal diseases which would be implemented alongside an inspection and compliance system. It also directs integration of producers and marketers to achieve economies of scale and the subsequent better performance. It recognizes the problem of access to credit and other financial services by smallholders and commits government to develop mechanisms of extending affordable credit facilities to both small and large-scale livestock farmers.

The following are gaps in the National Livestock Policy:

The Policy was enacted before the new Constitution and therefore needs to be revised to fit into the veterinary policy provided in the Constitution.

The Policy is silent on organic livestock farming and also on the inter-dependence between livestock and crops, for example the benefits of utilization of manure in the latter.

2.2.17.1 Legislation Implementing Livestock Policy

The main Acts implementing policies on livestock health are the Animal Diseases Act, Cap 364, the Fertilizers and Animal Foodstuffs Act, Cap 345, the Prevention of Cruelty to Animals Act, Cap 360, the Pest Control Products Act, Cap 346 and the Veterinary Surgeons and Veterinary Paraprofessionals Act, Number 29 of 2011.

The Animal Diseases Act provides for the prevention, detection, notification and control of diseases, especially notifiable diseases, and the authorization

of the use of any vaccine or drugs for treatment of animals. The safety of agricultural fertilizers and animals foodstuffs in animals and in the human food-chain is assured through implementation of the Fertilizers and Animal Foodstuffs Act. The training, practice and conduct of animal health service providers and veterinary private practices are regulated under the Veterinary Surgeons and Veterinary Paraprofessionals Act. Good animal welfare is safeguarded under the Prevention of Cruelty to Animals Act.

The following are gaps in Livestock Policy and Legislation:

The Animal Diseases Act, the Fertilizers and Animal Foodstuffs Act, the Prevention of Cruelty to Animals Act and the Pest Control Products Act were enacted before the new Constitution and therefore require revision and updating.

The Fertilizers and Animal Foodstuffs Act exempts straw, chaff, underground hay, silage, cereal in the grain form, manure, compost, wood ash, gypsum or refuse when sold in its original condition and under the same name, organic fertilizers, other than lime, from the provisions of the Act and therefore does not provide mandates to regulate their safe disposal in the environment.

The Fertilizers and Animal Foodstuffs Act does not provide for monitoring the impact in the environment of the use agricultural fertilizers and animal foodstuffs.

In an unusual provision in section 36, the Prevention of Cruelty to Animals Act assigns a non-governmental organization (the Kenya Society for the Protection of Animals) the central role to protect animal welfare and to advise the Cabinet Secretary and relegates veterinary service authorities who have the professional and international mandate. Nevertheless, veterinary service authorities may be indirectly involved in section 30 which opens up responsibility to protect animal welfare to "any person".

The freedom of an animal to exhibit natural patterns of behaviour is not expressly provided for in the Prevention of Cruelty to Animals Act.

2.2.18 The National Wildlife Conservation and Management Policy

The Wildlife Conservation and Management Policy, 2012, is apparently still in draft form and has not yet been adopted by Parliament. It promotes the conservation of biodiversity by protecting wild fauna and flora and regulating their exploitation for human development. It has the objective of achieving the sustainable conservation and management of wildlife and their habitats in and outside the protected areas and the conservation and management of wildlife resources as a national endowment for sustainable development, wealth creation and employment.

The Policy provides direction for the management of problem wild animals and for minimization of damage to crops, livestock, property and loss of human life. It promotes land use zoning and barriers to minimize human/wildlife conflict as well as prompt payment of adequate compensation for human injury and loss of life, and damage to crops, livestock and property.

2.2.18.1 Legislation Implementing Wildlife Policy

The Wildlife (Conservation and Management) Act, Chapter 376 of the Laws of Kenya is an instrument for implementing the wildlife policy. It established the Kenya Wildlife Service (KWS) and grants it power to protect wild fauna and flora, including formulating conservation policies, managing National Parks and National Reserves, educating the public on conservation, carrying out research in the field, regulating movements and exploitation, controlling hunting and administering international protocols.

The Act provides for the establishment of County Conservation and Compensation Committees charged with the mandate to review and recommend claims by aggrieved persons resulting from loss, including death, and damage by wildlife for payment of compensation. It also obligates the KWS to destroy problem animals on private property, provide that the animal is dangerous. An owner of the property may also kill a problem animal, meaning an animal posing threat to human life, or in defense of self or other person, and immediately report to KWS.

The Act sets out the legal framework for variation of the boundaries of the national parks and reserves which is process involving recommendations by the National Land Commission after an EIA and after consulting members of the public.

2.3 Relevant County Policies and Legislation

County governments are required by the Constitution to implement national public policies and legislation by Article 183 (b) and (d). A county government may also enact policies, including laws, on matters unique to the county for implementation and enforcement within the boundaries of the county. Both national and county-level policies are integrated in the policy, programmes, projects and investment document called the County Integrated Development Plan which every county government is required to develop and implement by section 108 of the County Governments Act, Number 17 of 2012. The county assemblies are required by the Constitution in Article 185 (4) to receive and approve plans and policies for the management and exploitation of the county's resources and the development and management of its infrastructure and institutions.

The following counties have availed or published County Integrated Development Plan in various stages of completion: Baringo, Bomet, Bungoma, Busia, Embu, Homa Bay, Isiolo, Kajiado, Kakamega, Kericho, Kiambu, Kirinyaga, Kisumu, Kitui, Laikipia, Makueni, Meru, Migori, Murang'a, Nairobi, Nakuru, Nyandarua, Nyeri, Samburu, Siaya, Taita-Taveta, Tharaka-Nithi, Trans Nzoia, Vihigaand West Pokot. Table 1 is the detailed findings of the analysis of CIDP's and legislation therefrom with respect to integration of *elum* principles and practices.

Table 1: Findings of Analysis of County Integrated Development Plans and Relevant County Legislation

	me of unty	Findings on integration of ${\it elum}$ and smallholder interests		
k N I		The Baringo County Government has published only a Popular version of the CIDP. The CIDP directs the proper utilization of resources in a sustainable manner generally but with bias to conservation of forests. It also encourages use of traditional high value crop seeds. It directs the upgrading of livestock and also the promotion of good livestock health through disease and vector management. It directs the building of 3 cereal stores. Harvesting of rain-water is encouraged. Smallholders are to be assisted to access credit and also to integrate in cooperatives for the purpose of produce marketing.		
		Policy Gaps: The Popular Version of CIDP, assuming it is a true reflection of the CIDP, is very weak on integration of <i>elum</i> principles and practices. It glosses on sustainable development and is silent on sustainable land management. It does not address soil health and fertility and is also silent on organic farming and on the use of IPM. It does not address livestock feeding, animal welfare, harvesting and post-harvesting management practices, farm energy, afforestation, biodiversity, farm planning or the promotion of marketing of elum-derived produce.		
2.	Bomet	The CIDP provides for the mission of equity and "sustainable environment". It directs the transfer of "appropriate technology", which is undefined, but which opens room for incorporation of the technology on <i>elum</i> . It directs the assistance of small-scale farmers to develop facilities for improving post-harvest handling and for bulking prior to marketing. It also prioritizes the control of diseases, vectors and pests, extension services, including in animal health, welfare and production, integration of farmers, government subsidies, breed development, feed production, correction of environmental degradation by use of animal manure, agroforestry training and the laying out of soil and water conservation structures, promotion of sustainable commercial and domestic energy and the general intensification of fresh agricultural produce marketing.		
		Policy Gap : There are no explicit policy provisions for sustainable land management, organic farming (except use of manure), and integrated pest and disease management or biodiversity protection except with respect to animals.		

3. Bungoma

The CIDP has largely integrated most of the elum principle and practices and has paid significant attention on the subject. It integrates sustainable development in its vision and also aspires to achieve the vision through clear interventions in environmental and land use management and on agricultural practices. Afforestation is integrated. The CIDP also desires to enhance biodiversity.

The CIDP recognizes soil health challenges and directs the support to improve soil fertility, encouragement of organic manure, soil conservation, agro-forestry and conservation agriculture. It sets out to management soil fertility as a priority. It partially also addresses the health of crops by supporting with certified seeds, agrochemicals and fertilizers. It directs training on post-harvest management and storage.

It directs investment in superior livestock breeds and improvement in vector management. It aspires to achieve animal disease-freedom. There is also support with feeds for fish and promotion of animal feed processing.

The CIDP addressed efficiency of water harvesting and use. It directs awareness creation on rain water harvesting while the county government will install rain water harvesting systems in all public institutions. Springs would be protected in each ward while minimizing water use and improving the efficiency of water use would be promoted.

The principle and practice of efficient use of farm energy is integrated where direction is given for encouraging non-forestry activities such as fuel-switching, energy efficiency at the community level, and the use of bio-fuels. Other policy measures toward prudence in energy are the promotion of agro-forestry, subsidizing local energy savers such as saw dust jikos, solar, economy fire wood cookers, fireless cookers and biogas.

The CIDP directs the support to achieve vibrant smallholder and large scale farming including supporting with farm inputs and extension. It promotes the integration of producers and facilitation for their access to markets.

Policy Gaps: The CIDP does not wholly integrate the principle and practice of organic farming which appears deliberate since the concept is acknowledged in the narrative. It also has not incorporated integrated pest and disease management. It has not paid attention to animal welfare. It is also silent on farm planning.

4. Busia

Overall, *elum* principles are embedded in the CIDP. It provides for promotion of sustainable development, green economy, and adoption of environmental conservation and management practices, sustainable management of land resources, sustainable commercial agriculture, social welfare services, production of organic fertilizer, promotion of agricultural mechanization, animal breed improvement, disease, vector and pest management and the general stimulation of marketing of agricultural produce. It directs integration of smallholders and equitable distribution of resources.

Policy Gap: There are no explicit policy directions to address animal welfare or to provide for integrated pest and disease management.

5. Embu

The CIDP has the mission of improving livelihoods while maintaining sustainable environmental management practices. It directs sustainable land management by promoting the adoption of proper farming methods, though details of what is proper are not provided. It also sets out to protect catchment areas and river-banks while promoting rain-water harvesting. It promotes utilization of ecological land use management methods, the reduction of post-harvest losses and general access to markets. It directs the promotion of animal and crop health, improved breeds as well as the development of pastures. There are directions for capacity building on farm forestry, afforestation, energy saving devices and for provision of seeds.

Policy Gap: There are no explicit policy directions to promote integrated pest and disease management or to provide good animal welfare. There is also no specific consideration for small-scale farmers, except training in the proposed "agri-business centre" and the general promotion of agricultural enterprises.

6. Homa Bay

The CIDP has the mission of sustainable development to guarantee livelihoods, including sustainable livestock and fisheries development. It directs strengthening of extension services for adoption of appropriate technologies, "protected farming" (though undefined), and promotion of soil and water conservation, conservation agriculture, agroforestry, carbon sinks and organic inputs. Farmers would be supported to integrate and also adopt mechanization. It supports the promotion of access to financial services and support with farm inputs. It provides for disease, vector and pest control to improve livestock health as well as breed and feeds improvement to increase production. It directs development of a post-harvest handling improvement scheme and the general promotion of agricultural produce marketing.

Policy Gap: There are no explicit policy directions to promote animal welfare (which is mistaken for "animal control" in the document), protection of biodiversity, and sustainable land management (though the CIDP correctly sets out to apply the national environment and land policies to realize this objective)

7. Isiolo

The Isiolo CIDP declares the mission which includes sustainable utilization of resources. It directs the training of farmers on environmental conservation and appropriate farming methods so as to reduce environmental degradation and also directs their support to develop resilience and adaptation skills. Further in agriculture, the CIDP aims at achieving the improvement of livelihoods through promotion of competitive agriculture, and sustainable livestock and fisheries sub-sectors. It directs the dissemination of sustainable land use management practices to farmer groups for replication. It prioritizes organic product industries, organic farming, clean production systems and renewable energy. Interventions in animal disease control, pest control, breed improvement, and feed and pasture production and conservation would improve the largely livestock-based economy of county. In the crops subsector, the CIDP prioritizes increasing the awareness on technologies to increase soil fertility, water harvesting, post-harvest food handling and storage, linking farmers to produce markets and accessing cheap credit to encourage farmers to adopt modern agronomic practices.

Policy Gap: the CIDP has no specific policy interventions in the areas of animal welfare, agroforestry, protection of biodiversity, and integrated pest and disease management.

8. Kajiado

The Kajiado CIDP provides for sustainable socioeconomic development as a mission of the county government. It also elaborates policy directions on the principle and practice on environment. It integrates sustainable land management in agriculture as well as an as agricultural mission. The CIDP incorporates conservation agriculture.

The CIDP partially integrates the maintenance of healthy and fertile soils by promoting the conservation of soil but directs fertility promotion by using general fertilizers within the national flagship project of fertilizer cost-reduction. It promotes the supply of seeds and the enhancement of quality seed production and availing certified seeds. It encourages training on post-harvest management practices to reduce losses. There are policy directions for the promotion of health and upbreeding of livestock and supply of their feeds.

The CIDP directs efforts toward conservation and storage of water as well as water harvesting. Similarly, it encourages adoption of alternative sources of energy, including forestry and green energy development. Rural afforestation is promoted as well as imparting skills in the area to civil society organizations. It attempts to integrate biodiversity protection though the measures are more toward institutional frameworks, land-use policies, forest plantations and forestry conservation and protection.

Smallholders may be facilitated to access credit and physical markets and their enterprises would be promoted as and their integration through cooperatives is encouraged.

Policy Gaps: The CIDP has not addressed soil fertility using elum principles and practices and there is no integration of organic farming at all. The Plan recognizes the constraint of crop pests and diseases but does not address it through policy whether through integrated pest and disease management or non-organically. It has no specific directions on animal welfare and farm planning and neither does it give special attention to small-scale farmers except in the ongoing time-limited projects.

9. Kakamega

The CIDP partially integrates elum principles and practices but has not dealt in details in any one of them. Though sustainable development is a national value and principle and should bind all state agencies which enacting public policy, the CIDP institutionalizes the principle with respect to conservation of the environment, in livestock, fisheries and in forestry and in the economy while leaving it out altogether with respect to directions on crops. It directs the sustainable and intensive land use management practices which it defines as the use of fertilizers, modern methods of farming, use of suitable highly yielding seeds and intensification of extension services.

The CIDP observes that the county faces declining soil fertility which it remedies by conserving the soil, supplying subsidized fertilizers, carrying out on-farm and on-station trials and soil-testing as well as liming to neutralize acidity. It also directs the harnessing of organic manure though it does not elaborate on its application. It directs the promotion the use of suitable highly yielding seeds. On livestock-related good practices, the CIDP directs the provision of animal disease and vector control services, assurances on animal welfare, promotion of breed improvement and improvement in the supply of feeds.

The CIDP directs the encouragement of water harvesting and storage by individual persons and by institutions. On farm energy, the CIDP promotes the use of energy-saving devices as well as solar energy and use of biogas. There is also direction on afforestation by communities.

Generally, farmers, including smallholders, would be supported with mechanization services, subsidized farm inputs and the provision of incentives, according to the CIDP. It proposes enacting a legislation to allow subsidizing of prices. The cooperative movement is encouraged to play a big role in mobilizing savings and provision of credit to farmers, procurement, production and supply of farm inputs, marketing and processing of farmers produce and procurement of land for cultivation by members.

Policy Gaps: The CIDP does not integrate organic farming, except glossing over use of manure, nor does it direct any crop pest and disease management at all. It offers no policy direction on harvesting or post-harvesting management practices, except for honey and is also silent on farm planning and the protection of biodiversity. It has not special policy directions for smallholders despite their unique needs. Its direction of a bill to subsidize prices may be an incorrect policy since price controls are largely unsuitable in free markets and also a single county within a common market like Kenya would distort trade with such a measure.

10. Kiambu

The CIDP integrates the principle of sustainable development but under labour and trade development and in educational development. This is a rather low prioritization of a national value and principle. It prioritizes sustainable land management as a county mission. The county land use planning and in the division of roles of stakeholders directs the development of strategies for sustainable agriculture. Environmental protection is a mission of the county government with biodiversity being promoted through natural forest rehabilitation.

The CIDP glosses over soil health issues by directing the maintenance of healthy and fertile soil by promoting Greviellarobusta in farms as being good at improving soil fertility. Soil and water conservation is captured as a county function and measures to promote agroforestry, increasing forest cover, and soil conservation are set out. Training farmers in water harvesting and efficient management is directed, including training on storage and recycling.

Production of healthy crops is directed through the promotion of use of certified seeds and use of alternative or IPM. Unfortunately certified seeds and IPM are also prescribed for livestock development which appears to be erroneous as the terms and measures are not with regard to livestock. Communities are encouraged to put up an organic fertilizer factory. There are directions to train farmers on post-harvest technologies that would target the reduction of losses.

The CIDP has policy directions to improve livestock health through regular vaccinations. It also encourages introduction of superior breeds and facilitates access to feeds and fodder.

Energy is a pillar of the CIDP and various sources are promoted, including biogas, biodiesel, solid wastes, traditional sources of energy and the concept of renewal energy. Afforestation is promoted in the CIDP.

The CIDP encourages integration of smallholders to facilitate marketing of their produce, development of marketing infrastructure and also directs support with access to credit.

Policy Gaps: The CIDP pays very little attention to organic farming. It is silent on specific directions on animal welfare and agrobiodiversity. It also has no consideration on farm planning unless under a revitalized extension services. It has no provisions for promoting marketing of elum-derived produce.

11. Kericho

The CIDP partially integrates the elum principles and practices. It acknowledges sustainable development as a national value and principle and integrated part of the concept with respect to economic development and in environmental management. Sustainable livestock development and sustainable land resource management is a mission of the county government. It encourages the harvesting and storage of water through construction and rehabilitation of water schemes.

The CIDP aptly addresses the principle and practice of maintenance of healthy and fertile soil where it directs the promotion of organic means such as compost manure, crop residues, fertilizer trees, intercropping legumes with cereals, conservation agriculture and soil resting. It sets out to support with supply of seeds, promotion of extension on pesticide use, proper food storage and reduction of post-harvest losses. It provides for livestock health services, feed supply and breed improvement.

The CIDP provides aspects on efficient use of farm energy. It identifies and promotes biogas, biodiesel and solar energy and encourages farmers to practice agroforestry as a source of energy.

Promotion of afforestation is integrated of the CIDP. Activities that harm to biological diversity are identified and mitigation measures are provided which includes increasing the forest or vegetation cover, planting the right tree species in the recommended locations and conservation of wetlands.

Smallholder interest are addressed through support with inputs and training on commercialization, improving access to credit and insurance and provisions for integration through cooperatives as an intervention to mobilize resources and facilitate access to markets.

Policy Gaps: The CIDP would need to be clearer in integration of sustainable development in agriculture. It is also silent on seed health and organic farming except with respect to soil fertility. It does not institutionalize integrated pest and disease management. It also has not addressed animal welfare in general and is silent on efficiency of the use of water as well as on farm planning.

12. Kirinyaga

The CIDP is weak on integration of elum principles and practices. It integrates sustainable development as a county government vision and also in policy directions in livestock and forestry development, in infrastructure, in trade, in environment and in education. It directs sustainable land management. It recognizes an existing status of low soil fertility in the county which is noted as cause of low agricultural productivity; nevertheless it does not have a specific policy direction to address this problem, unless the decision of training on new farm technologies would include soil health provisions. There is prioritization of the prevention of soil erosion. The CIDP provides direction for seed bulking and the facilitation of the supply of seeds. On livestock, the CIDP promotes health improvement through surveillance, vaccination, control of vectors and disease barriers.

The CIDP recognized poor storage of the harvest as a cause of low earnings in the market and sets out to support with storage facilities, specifically for Gichugu. It encourages water harvesting and directs civic education on proper water management and treatment. It suggests promotion of solar and wind energy and the promotion of unspecified renewable energy.

The CIDP glosses over directions on afforestation but including a project on the principle but not as a policy. On smallholder interests, the CIDP encourages the formation of groups where transport and marketing costs would be shared. It also promotes cooperatives through which savings would be mobilized and credit facilitated. The county government undertakes to improve the infrastructure for marketing.

Policy Gaps:The CIDP is very weak on the integration of *elum* soil fertility practices. It also does not integrate organic farming, any crop pest and diseases management, farm energy, livestock feeding and breeding, animal welfare, biodiversity, farm planning, *elum*-marketing and is also silent on seed health, except for fish. Though it records water pollution by pesticides and fertilizers, it offers no remedies in policy.

13. Kisumu

The CIDP has the mission of improving livelihoods through promotion of competitive agriculture, sustainable livestock and fisheries sub-sectors, equitable distribution and sustainable management of land resources and sustainable management of forestry and wildlife resources. It sets out to improve livestock and plant health and trade, improve breeds to get better production and encourage fodder production and conservation. It also directs training farmers on on-farm value-addition to their produce and the dissemination of sustainable land use management practices. The county government would reduce or subsidize the cost of farm inputs, promote high-yielding crop varieties, agroforestry and high-producing livestock breed while assisting with prevention of post-harvest losses. Farmers would be encouraged to use fertilizers as well as organic manure while improving land management for soil and water conservation.

Policy Gap: the CIDP has no special policy directions for addressing the plight of small-scale farmers. It is also missing directions on animal welfare, biodiversity protection and adoption of integrated pest and disease management.

14. Kitui

The CIDP capture the mission of the county government to include sustainable socio-economic development. It directs strengthening of extension services, including on post-harvest food protection, promotion of good practices in soil and water management, water harvesting, agroforestry, mechanization, seed production, environmental management to protect biodiversity, and the control of diseases and pests. Farmers would be made aware on available credit facilities and would also benefit from integration. There would be promotion of sustainable use of land and water resources and general support with post-harvesting food protection and marketing of produce. Livestock breed improvement would be done through artificial insemination and together with improvement of the quality and quantity of pastures would increase production.

The Kitui County Sorghum Act, Number 8 of 2014 and the Kitui County Markets and Farm Produce Trade Act, Number 4 of 2014 and the Kitui County Charcoal Management Act, Number 6 of 2014, are an instruments of the policy

The objective of the Kitui County Sorghum Act is to provide for growth, development and regulation of sorghum industry and related matters in the county. The Act is section 5 and 6 empowers the county government to promote and develop sorghum crop from planting, growing, harvesting, processing and marketing. Section 12 lays the legal foundation for levying on sorghum and its products.

The Kitui County Markets and Farm Produce Trade Act sets out to establish and manage markets, including markets of agricultural produce as well as regulate trade in the county. The Act provides in Section B for places of the trade, inspection and licensure

The Kitui County Charcoal Management Act has the objective of regulating production and trade in charcoal in order to conserve biodiversity and contribute to sustainable land use.

The following are policy gaps in Kitui CIDP and legislation therefrom:

- (a) The CIDP has no explicit policy directions for organic farming, integrated pest and disease management and good animal welfare. The Plan notes that small-scale farming predominates in county, which means the group would benefits with all the interventions; however, small-scale farmers need special measures for example to build resilience to adverse climatic change effects.
- (b) The Kitui County Sorghum Act;
 - i. is silent on application of elum principles and practices with respect to sorghum but is open to implementation of any policy under section 5(3).
 - ii. addresses the same policy issues as the national Crops Act, which is does not cross-reference or align with. This would bring legal conflict between the county government and the Agriculture, Fisheries and Food Authority which administers the Crops Act; the Crops Act, being a national legislation romoting sorghum in all counties of Kenya under the common market, would prevail over this Act as set in Article 191 of the Constitution.

15. Laikipia

The CIDP is strong on integration of most of elum principles and practices, though the document is poorly bulleted and therefore difficult to reference specific paragraphs. The County Government has a clear mission of sustainable development which principle is also specified in livestock, fisheries, education and environment subsectors. The CIDP also directs as a mission the sustainable land management which is also an objective in agriculture. This objective would be achieved through protection of river banks, catchments and wetlands, promotion of conservation agriculture and mechanization and the training of communities on the principle.

The CIDP directs the improvement and maintenance of healthy and fertile soils through soil fertility analysis, mapping and management. It also provides for facilitation of the supply of better performing seeds as well as the management and control of pests and diseases in crops. It directs improvement of livestock health through control and eradication of animal diseases and vectors. There is direction for improvement of livestock genetics as well as the institutionalization of animal welfare.

The CIDP promotes pre- and post-harvest management through training of producers and construction of storage structures. Similarly for water, it promotes water harvesting for irrigation purposes. It sets out to promote farm and renewable energy development, specifically biogas, solar and wind energy and energy-saving jikos. It promotes the increase in forest cover through re-afforestation. It further directs the initiation of biodiversity programmes though it is unclear what those programmes would comprise.

The county government has the objective of supporting farmers integrate and access inputs and credit through setting up a county cooperative development revolving fund, according to the CIDP. It also encourages the formation of marketing groups and cooperatives as well as promote farming-as-a-business concept. It directs facilitation of the participation of smallholder groups in government tendering process.

Policy Gaps: The CIDP does not integrate organic farming, use of integrated disease and pest management, and farm planning. It is silent on livestock feed improvement, except documenting the present situation on hay production by farmers. Though it decries inefficient water use, it prescribes no policy direction on the practice. It is also silent on afforestation through it encourages re-afforestation.

16. Machakos

The Machakos CIDP has not yet been published or accessed.

The Machakos County Agricultural Development Fund Act, Number 6 of 2014 is a pronouncement of public policy in the county. The Act provides for the growth and development of the agricultural sector, enhancement of production and value addition, and marketing of agricultural products in the county. The Act in section 2 defines "agriculture" and "crop" to include the interests represented by PELUM. Section 3-6 empowers the county government to facilitate and develop agriculture and to establish a County Agricultural Development Fund to support agricultural services, including the *elum* practices of agroforestry, soil and water conservation, crop-diversification and agricultural land-use.

Policy Gap: The Act usurps and ignores, and therefore conflicts with, the national legislation on the same objects, i.e. the Agriculture, Fisheries and Food Authority Act, the Kenya Plant Health Inspectorate Service Order and the Seeds and Plant Varieties Act

17. Makueni

The mission of the CIDP includes sustainable livestock and fisheries development, sustainable management of land resources, forestry and wildlife. It has the objective of sustainable utilization of resources like land, with emphasis on conservation of forests and water catchments areas, reducing soil erosion, increasing land under farming, environmental conservation and promotion of farm forestry and agroforestry. It directs efficient rural finance and credit supply system for small-scale farmers, and improving the governance of farmers cooperatives' which would financially empower farmers and help them acquire better technology to boost their productivity. Cash transfers would be upscaled for social protection. It would strengthen extension to guide appropriate technology transfer, improve animal husbandry practices and reduce post-harvest food losses. It prioritizes promotion of high-value crops such as horticulture, improvement on livestock productivity through breed improvement, disease control and feed production through agroforestry. There are also directions for water harvesting and promotion of proper farming practices with respect to water conservation.

Policy Gap: The CIDP has no specific policy directions on protection of biodiversity and animal welfare and neither for promotion of pasture management, organic farming, integrated pest and disease management and afforestation.

18. **Meru**

Sustainable development is a mission of the CIDP. In the agricultural sector, this mission would be achieved through promotion of sustainable, competitive agriculture, livestock, veterinary, irrigation and fisheries while conserving natural resources and the environment. It directs improvement in food storage facilities, animal & produce markets, seed bulking, breed improvement & fingerling production, value addition & processing, technology and knowledge transfer through extension services, support for supply of production inputs and affordable credit and for marketing, animal, fish and crop disease, vector, & pest management using the integrated pest and disease management system, and the promotion of soil fertility and water management and conservation. It provides for utilization of rural organic wastes to make composts, promotes fertilizer trees and the increase in awareness and land under biodiversity conservation.

The Meru County Microfinance Corporation Act, Number 4 of 2014 and the Meru County Co-operatives Societies Act, Number 7 of 2014 are instruments of policy in the county.

The Meru County Microfinance Corporation Act provides for the establishment of a microfinance Corporation and facilitate the provision of financial services to microand medium enterprises in order to promote local business and investment growth, enhance access to capital and credit and financial services to small and medium enterprises, reduce poverty and unemployment and promote economic growth in the county.

The Meru County Co-operatives Societies Act provides for the promotion of establishment and development and regulation of co-operative societies in the county.

The following are policy gaps in the Meru CIDP and legislation therefrom:

- (a) The CIDP has no special policy direction on organic farming, sustainable land management and animal welfare.
- (b) The Meru County Microfinance Corporation Act does not specify the beneficiaries of the Corporation and the Fund it establishes in sections 4 and 18 and therefore it is not clear if small-scale farming, which in national policy are micro- and small enterprises, would be supported by the Corporation.
- (c) The Meru County Co-operatives Societies Act usurps and ignores, and therefore duplicates, the national legislation on the same objects, i.e. the Cooperative Societies Act, Cap 490, contrary to the provisions of Article 183 and 191 of the Constitution.

19. Migori

The Popular Version of the CIDP directs the strengthening and improvement of farmers' access to subsidized farm inputs, including credit financing, research and extension services, the diversification of agricultural production, irrigated farming of high-value crops, breed improvement, disease and pest control, fodder bulking, improvement in marketing and sustainable capture fisheries. It promotes mechanization of land preparation as well as alternative energy sources, particularly, wind, solar, and bio-gas and use of improved cook stove. It directs conservation of ecosystems and wetlands, and disaster management.

Policy Gap: The availed version of CIDP has no explicit policy directions on sustainable land management, ecological agriculture, organic farming, agrobiodiversity conservation, animal welfare, integrated pest and disease management or support for crop-produce marketing.

20. Murang'a

The mission of the CIDP is equity and sustainable development which in agricultural sector would involve sustainable management of land resources and has institutionalized most of the elum principles and practices. It provides for promotion of reforestation to replace the trees that have been felled in search of wood fuel while exploring other alternatives of fuel such as biogas and solar energy. It recognizes adverse effects of climatic change and directs mitigation measures including application of modern and appropriate farming technologies, promotion of carbon sink and sequestration through enhancing forest cover and reducing environmental degradation as well as use of carbon credits. It promotes water harvesting and its efficient utilization. It directs diversification of crops to help cope with shifting rainfall patterns and the growing of drought resistant or tolerant crops as well as promotion of good agricultural practices such as the use of efficient nitrogen fertilizers, organic soil fertilization, agroforestry, and farm-forestry, alternative fuels such as bio-diesels, on-farm energy generation, reduced tillage system and cover cropping. It has provided for the promotion of market and product development such as strengthening of marketing cooperatives, agro-branding and implementation of a marketing strategy. It promotes improvement of agricultural productivity and production through improving access to credit facilities, extension services, technology transfer, disease and vector control using environmentally friendly products, high-quality seeds, fodder and pasture, improvement in storage to reduce post-harvest losses, value addition, soil and ecosystem conservation and economical and sustainable use of land resources. It promotes the use of compost and manure on farms and the growing of high-value traditional drought resistance crops e.g. cassava, sweet potatoes, sorghum to ensure food security during dry seasons.

Policy Gap: The CIDP has no special policy directions on animal welfare, agrobiodiversity conservation and the use of integrated pest and disease management.

21. Nairobi

The Nairobi City County Government directs the promotion of urban and periurban agriculture, though the policy measures are unclear and also do not seem informed by how peri-urban farms are run elsewhere in the world. Land-size being a limiting factor in agriculture in these areas, land-saving farming technologies are prioritized such as industrial farming, a glaring oversight in the draft County Integrated Development Plan.

The CIDP directs the integration of the principles of sustainable development into county policies and programmes. It also upholds the direction under physical planning on the promotion of sustainable land and urban development. It does not explicitly provide for maintenance of soil health but undertakes to reduce environment degradation generally in the hilly areas such as Ngong'.

The CIDP partially directs the production of healthy crops in the projects. It directs support for school farms with seeds and fertilizer though it does not provide for seed health. It directs the introduction of organic farming along rivers and the training of the youth and women groups in organic farming skills. Farmers would be trained in plant disease and pest control as well as in post-harvest management practices. There is partial direction toward good livestock practices, i.e. the reduction of incidences of notifiable animal, the diseases transmissible between animals and humans and the promotion of good livestock breeding and feeding.

The CIDP provides for water harvesting. However, in the priority projects, the county government desires to procure water-harvesting equipment implying that the measure would be a public good service, thereby putting its sustainability into question. It directs conservation of biodiversity and afforestation/

Policy Gaps: The CIDP has no specific directions on soil health, seed health, use of integrated pest and disease management, animal welfare, farm energy, or any provisions for supporting the marketing *elum*-based farm products or the enterprise development for smallholders. Further, if its support with fertilizers refers to chemical formulations, this would contradict its organic farming promotion.

22. Nakuru

The CIDP underlines the mission of sustainable socioeconomic development. It sets out to promote sustainable development through intensification of extension services, promotion of agro-forestry and orphaned crops, afforestation, irrigation, and support for environmental conservation. It directs initiation of research in farm inputs, sustainable crop and animal improvement, entrepreneurship development, alternative sources of energy, catchment and riverbank protection and other agro-technology. It requires the full enforcement of the Forests Act and the Environmental Management and Coordination Act in the county while directing soil and water conservation, use of organic manure and nitrogen-fixing plants, support for organic farming, conservation agriculture and a 10% tree cover. It provides the framework for disease, pest and vector management with subsidy on pesticides to increase their use. It directs capacity building of farmers on safe and responsible use of pesticides. It has a framework for diversification of crops to include horticultural and industrial crops and traditional highvalue crops. Promotion of the development of pasture, fodder and commercial feeds is captured in the document. The interventions for improved agricultural productivity would be enhanced by integration of farmers into cooperatives, value addition and with technology to reduce post-harvest losses.

Policy Gap: the CIDP has no special policy direction with respect to sustainable land management, conservation of biodiversity, integrated pest and disease management and protection of animal welfare (except for welfare inspection and supervision). Its promotion of organic farming contradicts its pursuit to increase the use of pesticides.

23. Nyandarua

The CIDP commits the county to achieve higher levels of sustainable development. It aims to increase agricultural production in an environmentally sustainable manner, including sustainable management of land resources. It encourages organic farming, soil and water conservation, and an improved land use management by promoting soil conservation and intensive farming. It directs the reduction of post-harvest losses through extension on relevant technical and production skills to the farmers. The county government would explore new markets and support with marketing. The document promotes on-farm seed production and the diversification of crop enterprises. It directs the promoting of the use of drought tolerant crops in areas with inadequate rainfall alongside irrigation. It commits to allocate at least 15% of the county budget to agricultural sector which would strengthen extension and training, promote mechanization, post-harvest storage and processing, greenhouse technology, farmforestry, afforestation, carbon-credit services, water-harvesting, feed supply, disease, vector and pest control, breed improvement, development of efficient energy stove, biogas and wind-energy, and support for marketing and the integration of farmers in revived cooperative societies with enforcement of the Cooperative Societies Act. It directs the integration of biodiversity management principles in county development planning.

Policy Gap: the CIDP has no directions on animal welfare and on integrated pest and disease management. It simultaneously promotes organic farming as well as increased pesticide use which is contradictory.

24. Nyeri

The Nyeri CIDP has integrated a number of *elum* principles and practices. It has integrated sustainable development as a mission of the county government and as an objective in the area of environmental management, in livestock and fisheries development, in education and in land management. It also integrates sustainable land use as a vision of the lands subsector. It promotes soil, water and environmental conservation. On soil fertility it promotes policies that conflict between organic and non-organic farming, i.e. use of both chemical and organic fertilizers, respectively.

The CIDP sets out to supply appropriate seedlings to farmers and to build their capacity. It directs the promotion of green economy which it defines as promotion of agroforestry, renewable energy (solar, hydro, wind and biogas), organic farming and zero-tillage agriculture. It commits the county government to provide food cold storage facilities. On livestock practices, the CIDP prioritizes disease and vector management, fodder production and conservation and promotion of upbreeding through artificial insemination.

The CIDP integrates water harvesting with the intension of conserving the water for continuous use in agriculture throughout the year. There is also integration of farm energy principles where there is direction of research and exploitation of alternative and renewable energy sources, specifically energy-saving jikos, solar energy and biodegradable waste. It directs the promotion of biodiversity principle, agroforestry and re-afforestation.

The elum-interests of farmers in general are integrated as follows: subsidization of inputs, facilitation of access to credit, strengthening of farmers marketing groups, cooperatives and self-help groups and promotion of marketing. The CIDP also directs support for smallholder horticulture improvement and provision of marketing infrastructure.

Policy Gaps: The CIDP acknowledges that crop pests and diseases cause low productivity but offers no policy direction. Therefore it is silent on integrated pest and disease management practice. It also does not integrate animal welfare, farm planning, and the efficiency aspect of water use nor *elum*-principles in smallholder marketing endevours.

25. Samburu

The CIDP assures sustainable development, including sustainable development and utilization of the land resource. It directs the increase of awareness on technologies to increase soil fertility and water harvesting for irrigation. It promotes modern agronomic practices and model farms. It also provides the policy foundation for promoting afforestation, forest-protection, soil and water conservation, while preventing farming and settlement along river-banks. The county government would introduce earlymaturing tree species to provide wool fuel while promoting other environmentally friendly sources of energy. To improve agricultural productivity, the CIDP promotes the use of drought resistant food crops e.g. sorghum, finger-millet, cow peas, maize, green grams and local vegetables, new marketable crops, use of certified seeds, fertilizers and crop-protection chemicals, use of farm manure to improve soil fertility, community seed-bulking, proper post-harvesting handling and processing, the management of diseases, vectors and pests, strengthening of extension services and use of animal draught-power from land preparation. It will initiate small-scale irrigation. It directs a campaign for adoption of agriculture as an alternative livelihood to pastoralism and also intervenes to prevent overgrazing of lands. It directs the integration of farmers into cooperative societies and marketing groups with support for marketing.

Policy Gaps: the CIDP has no policy directions for animal welfare protection and the integrated pest and disease management system. Some directions are contradictory, for example promotion of organic manure alongside promotion of inorganic fertilizers and pesticides. It leaves the responsibility of conserving biodiversity to the Kenya Wildlife Services and the African Wildlife Forum instead of integrating it in all county development plans. The county government should ensure that the proposed cadre of Community Health Worker is formally trained, registered and licensed under Kenyan law and that the Kenyan law is in conformity with international law on qualification to offer health services.

26. Siaya

The CIDP aims at achieving sustainable development in the county. It sets out the framework for increasing the quality and quantity of farm produce using sustainable interventions including improving mechanization, provision of quality and affordable farm inputs such as fertilizers, plant and livestock health measures, improvement of breeds, feed supply, seed-bulking, diversification of crops with introduction of high-value crops and cash crops as well as on-farm and communal post-harvest food storage. Farmers would be supported to access credit facilities and would be facilitated to integrate in cooperative societies and to access markets. The CIDP directs efficient management and utilization of excess water, promotion of afforestation, farm-forestry, protection of water catchment and riparian areas, use of Integrated Soil Fertility Management and the setting of soil erosion traps. The Spatial Planning of the county would promote sustainable use of land and natural resources for investment and development, including the sound planning principles of: efficient management, equitable access, secure tenure and improved access.

Policy Gap: the CIDP does not lay policy foundation for organic farming, biodiversity conservation, animal welfare protection and the use of integrated pest and disease management.

27. TaitaTaveta

The TaitaTaveta CIDP has largely integrated many of the elum principles and practices. Though it has not directly captured sustainable development in agriculture, it has integrated the same as a goal in the physical planning of the county and as a county mission for environmental management. It directs the promotion of sustainable land use. It promotes soil and water conservation through terracing and tree-planting and directs the improvement of soil fertility through improving access to fertilizer, training on technologies in soil fertility, and promoting agroforestry and conservation agriculture.

The CIDP provides some direction on production of healthy crops and livestock. It encourages the use of certified seeds and improvement of crop pest and disease surveillance and control. Farmers would be trained in proper post-harvest handling of farm produce while the county government would facilitate provision of storage and cooling facilities for perishable produce. It directs strengthening of education in integrated pest management. Livestock health is promoted through directions on vector and disease control measures. It also promotes improvement of breeds, feed and pasture supply and rangeland management.

Efficient water harvesting and use is promoted where there is direction for construction and rehabilitation of harvesting and irrigation infrastructure, including installing roof harvesting and storage tanks in public institutions. The CIDP also promotes alternative source of energy such as solar and biofuels and encourages aggressive tree-planting, reforestation, afforestation and the promotion and protection of forestry and biodiversity.

Farmers are encouraged to integrate in marketing groups and cooperatives and to produce high value horticultural crops and high value traditional crops. Training on entrepreneurship is provided which the county government sets out to facilitate access to credit and markets.

Policy Gaps: The CIDP is silent on general organic farming, animal welfare, and farm planning. It also has no directions on elum-compliant marketing for smallholders though the general interventions may benefit small-scale farmers.

28. Tharaka-Nithi

Tharaka-Nithi CIDP partly integrates the elum principles and practices. Sustainable development is a mission in livestock, fisheries, infrastructure, economic, education and environmental interventions, respectively. It directs sustainable land management. It integrates the maintenance of healthy and fertile soil by directing soil and water conservation, conservation agriculture and the promotion of environment friendly farming practices that reduce soil erosion and pollution of surface water. It directs the facilitation of access to chemical fertilizers to address soil fertility.

The CIDP directs the improvement of the supply of seeds and the training of farmers in seed productivity as well as crop pest and disease surveillance and control. The county government undertakes to encourage harvesting and post-harvesting management practices such as providing storage facilities. It integrates improvement of livestock health through disease and pest control, improvement in fodder and pasture production and conservation and the upgrading of breeds.

The CIDP provides for enhancement of water harvesting and storage. On farm energy, the CIDP promotes solar and biogas energy as well as wood saving devices and tree growing; it integrates afforestation through promoting the increase in tree cover. It directs re-afforestation with indigenous trees and biodiversity conservation.

The CIDP the county government directs the support to all farmers to access agricultural credit and to strengthen the marketing infrastructure. It provides for subsidizing farm inputs, promotion of drought-resistant crops and the traditional high nutritious value crops.

Policy Gaps: The CIDP has not integrated organic farming, integrated pest and disease management, animal welfare, farm planning and the development of smallholder enterprise and marketing within elum-practices.

29. Trans Nzoia

The mission of the county government as stated in the CIDP is sustainable socioeconomic development. It aims to improve livelihoods through sustainable use, conservation and management of forests and trees. In agricultural sector, it aims to increase agricultural production in an environmentally sustainable manner. To achieve food security and rural prosperity, the CIDP directs adoption of modern technologies and innovation, irrigation, strengthening of extension services including use of information technology, promotion of plant and animal health, enforcement of input and seed quality, facilitation of affordable fertilizer and other inputs, reduction of postharvest food losses, improvement of genetic quality, improvement of feed supply and improvement in agribusiness and market access. It further directs improvement in land use, water-harvesting, catchment and wetland protection, environmental conservation through integrating farming by using animal manure on crops, biogas production and use of fodder trees as well as promotion of other crops to reduce over-relying on maize. The county government undertakes to enhance farmers' access to credit, promote their integration through cooperative societies, encourage value addition, support with food storage facilities to reduce perishability and get better prices, and promote marketing and trade.

Policy Gap: The CIDP has no provisions for biodiversity protection, use of integrated pest and disease management and promotion of high-value crops. It is weak on organic farming and has only reference to the use of manure and abattoir waste as manure. It also has no provision on animal welfare protection, which it mistakes for licensing and vaccination of dogs and establishing two disposal pits for dead animals.

30. Vihiga

The CIDP sets out to reduce poverty, promote food security, develop agro-industries and create rural employment through sustainable utilization of the rural resources. It directs rehabilitation and improvement of the environment through soil rehabilitation, equitable distribution and sustainable management of land, promotion of green technology, agro-forestry, organic manure, farm-forestry, carbon-sink markets, water-harvesting, commercial high-value tree plantations, better farm-management and use, biodiversity conservation, forest conservation, afforestation, sustainable land use and climate change mitigation. It directs the improvement of agricultural production and productivity through subsidizing farm inputs, encouraging use of fertilizers and certified seeds, diversification of crops and introduction of new crop varieties, farmer empowerment through extension services, breed improvement, feed supply improvement as well as plant and livestock health services. Farmers are also supported with marketing services, integration in cooperative societies and technology transfer on farm and aquaculture inputs and processing of the produce.

Policy Gap: The CIDP does not have policy directions on integrated pest and disease management principles, animal welfare protection and is also weak on organic farming where it only encourages use of manure.

31. West Pokot

The CIDP aims at achieving equitable and sustainable social-economic development. In agricultural sector, it aims at equitable distribution and sustainable management of land resources. It directs increasing livestock production and food crop production through improvements in irrigation farming, farm mechanization, cash-cropping, extension services, seed and feed supply, support with drought-resistant crops, upgrading breeds, and plant and livestock health services. Sustainability would be assured by interventions including soil and water conservation, reforestation of hilly areas and rehabilitation of degraded areas, water-harvesting for crop production, soil and water conservation, farm forestry, rangeland rehabilitation, and protection of fragile ecosystems. Farmers and traders would be empowered to add value to produce, access markets, store cereals and milk, and to integrate in cooperatives societies.

Policy Gap: The CIDP has no explicit policy directions on organic farming, animal welfare and the use of integrated pest and disease management.



SECTION THREE

ASSESSMENT ON DEVELOPING ISSUES
RELATED SMALLHOLDER INTERESTS AND
elum PRINCIPLES AND PRACTICES



3.1 ASSESSMENT OF IMPLEMENTATION

The study demonstrates that there is a wide range of public policies and legislation in the field of *elum* principles and practices at the regional, national and county-levels. However, implementation of some of these policies is on-going or has stalled.

The EAC policies have not yet been fully domesticated in Partner States. Indeed many agricultural producers may not be aware that such policies exist and bind them while the Community is still facing problems with non-tariff trade barriers.

At the national level, the Constitution is only partially implemented, with the specified agricultural policy and veterinary policy not yet published, debated and adopted by Parliament. Further, the legislation for giving effect to Article 11 on cultural rights, including recognition and protection of the ownership of indigenous seeds and plant varieties and their genetic and diverse characteristics, has not yet been enacted, yet the grace period given of 5 years from the effective date is over, though the National Assembly has extended this period by 1 more year.

The letter and spirit of the 6th Schedule to the Constitution is a general "perpetual succession" of legislation unless otherwise stated, meaning that, as set out in clause 7, the pre-new-Constitution laws would "continue in force" in the new dispensation, and "shall be construed with the alterations, adaptations, qualifications and exceptions necessary to bring it into conformity with this Constitution".

From the foregoing, the following policy decisions and instruments have not yet been rolled out:

Kenya Vision 2030: the measures for the expected increase in productivity for crops and livestock; the expected better supply-chain management for improving market access for smallholders may still not be apparent.

Agricultural Sector Development Strategy: increasing agricultural competitiveness and productivity may still not be apparent

National Agricultural Sector Extension Policy: pluralistic extension services and a regulatory body for extension service providers are not in place.

Biotechnology Policy: the expected Commission for Biotechnology is yet to be established.

National Livestock Policy: the expected guidelines on breeds and production systems for different ecological zones in the country are yet to be issued.

Agriculture, Fisheries and Food Authority (AFFA) Act and Crops Act: appointment of AFFA Board and gazettement of regulations have not been done; the present AFFA Board members were nominated to act on interim basis.

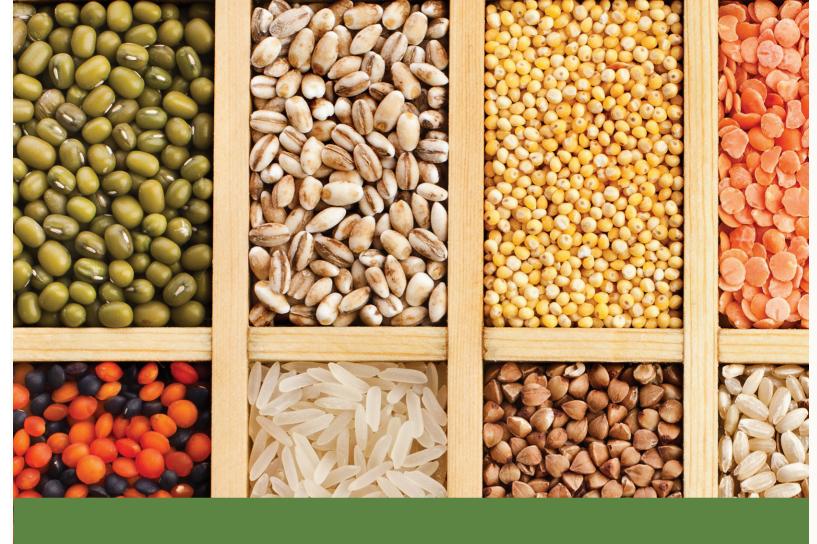
Environmental Management and Coordination Act: the Integrated National Land Use Guidelines should have been gazetted.

Biosafety Act: based on media reports, there are lots of activities on biotechnology, yet there has not been any advertisement of any application for a release of a genetically-modified organism (GMO) or the process and results of any risk assessment for a GMO.

Fertilizers and Animal Foodstuffs Act: the operationalization of inspectors and analysts is not apparent

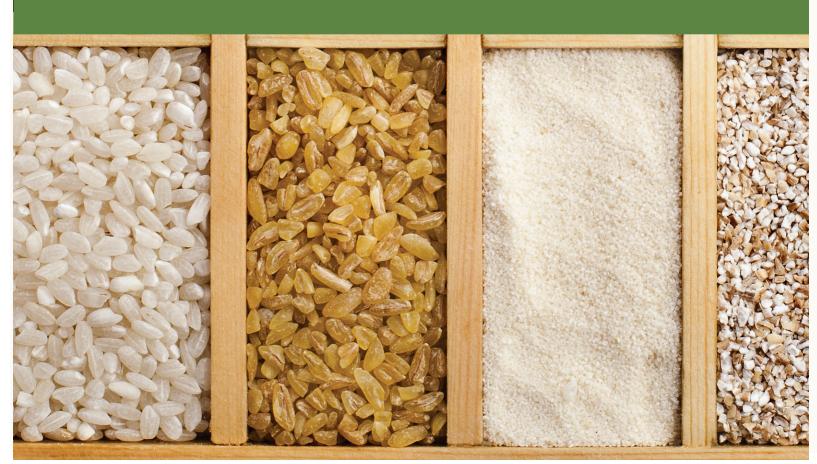
3.2 ASSESSMENT OF BUDGETS

The Commission on Revenue Allocation has reconciled county budgets for the Financial Year 2013/2014. The following **18** PELUM-counties have also published the respective appropriation legislation for 2013/4, namely: Bomet, Bungoma, Elgeyo-Marakwet, Kakamega, Kirinyaga, Kitui, Laikipia, Machakos, Meru, Nairobi, Nakuru, Nyandarua, Nyeri, Samburu, Homa Bay, Isiolo, Kisumu, and West Pokot. From this information, an analysis of 2013/2014 expenditure budgets was done specifically to find out the extent of budgetary support that county governments are giving the agricultural sector development votes in general. The results of the analysis are detailed in Annex 2. It noteworthy that expenditure budgetary support for the agricultural sector development vote ranged from **0% to 11.47% (mean = 3.76%)** of the total county expenditure budget, and from **0% to 34.66% (mean = 8.36%)** of the total county expenditure budget under the development vote. The economy of most of the assessed counties is based on the agricultural sector and county residents would perform better in terms of livelihoods if the budgetary support for agricultural development by county governments was much better.



SECTION FOUR

RECOMMENDATIONS



4.1 RECOMMENDATIONS FOR ADVOCACY WORK

The advocacy work for PELUM on the matter of integration of *elum* principles and practices in public policies is two-fold, i.e. advocacy for integration and advocacy for implementation. Where there is no integration or only partial integration of *elum*, PELUM would advocate for such integration, targeting to influence the policy makers; where *elum* is properly integrated, PELUM would advocate for implementation or audit the implementation to assess if the expected benefits are accruing.

4.1.1 STRATEGIES FOR ACHIEVING INTEGRATION OF elum

The strategies for engaging policy-makers at regional, national, and county levels to incorporate *elum* in the draft or reviews of public policies and legislation are elaborated hereunder.

Presenting petitions on the executive organ that is responsible for developing the policy. At county governments, the organ would be the county executive committee member, while at national level it is the Minister; at regional level it is the Secretary General of the EAC. The petition would be a well-articulated and evidenced technical document able to convince the technocrats at the executive organs, preferable with statements of benefits and of costs of the proposed elum principle and practice. The technocrats would be easily convinced if the elum principle or practice of concern is already integrated in a higher-level or more overarching or supreme policy like the Constitution or a treaty. Governments ordinarily do not wish to be in contravention of a superior or supreme law and would readily accept such a petition. Integration of *elum* would then be done immediately if a draft policy is being developed or it would be done during a review of the policy.

Presenting petitions to the legislative organ of the government. In a county government, there is the County Assembly while at national level there is the National Assembly and the Senate; at EAC there is the East African Legislative Assembly. The petition would be a technical and also a political (i.e. public governance) document, highlighting the *elum* issue, the benefits, the costs and the impact on the poor. Politicians ordinarily are moved by the plight of the poor and of conserving the environment and go out of their way to address these issues. The petition would therefore highlight impacts of the elum issue on small-scale farmers who are likely to be poor. It is also important in such a petition to suggest the leverage of PELUM of "political power" by including the number of stakeholders (which they would read as "votes") whose interests it represents. Politicians have the unique opportunity to push the proposal both at their assembly and at the executive organ. Participating in the policy-making, legislative and budgetary processes

Public participation is a national principle and value under the Constitution. PELUM would actively participate in the policy-making, legislative and budgetary process. It appears like all the CIDP's are yet to be considered by the respective county assemblies as required by section 108 of the County Governments Act, though this fact may have escaped the county administration. PELUM members in counties should verify if the County Assemblies approved the CIDP, which is done as a Motion, and if not, then influence incorporation of *elum* during the adoption process by engaging the respective committees or through individual legislators that PELUM should have created rapport with. If the CIDP has already been adopted, then a review is mandatory after 5 years from the date of publication, most likely done in 2013 or 2014, and during that time advocacy for integration of *elum* would have been commissioned.

Legislation is initiated through a Bill that is publicized in the Gazette. The Bill matures ordinarily in 90 days within which period PELUM would have lobbied for inclusion of the *elum* issue by engaging the respect committee of the legislature. Formal meetings and presentation may be more productive that written submissions. A similar process is used for Sessional Papers being considered by Parliament: the proposal is tabled through a Motion, then considered by the respective committee and thereafter a vote is taken by the House to adopt or reject the Sessional Paper.

The budgetary process is long and should be participatory. Around December, the audit reports of the accounts for the previous year are released by the Auditor General. Around January, the Commission on Revenue Allocation makes recommendations for the upcoming year. In February the National Revenue Bill and Policy Statement is submitted to and considered by the Parliament while at the county level, the fiscal

Strategy Paper is tabled at the various assemblies. Revenue sharing bills should be approved by Parliament and the Fiscal Strategy Paper by County Assembly around March. Budget proposals for the following year are submitted in April at both levels of government and by 30th June, Appropriation Bill should have been approved to authorize expenditures and both levels. At any of these steps, PELUM would participate and advocate for improvement of allocations to the areas of agriculture and environment of its interest. PELUM would concretize the issues requiring greater budgetary support, justify such improved financing and make presentations at appropriate stages in the process. Joining the respective executive organs and units

Some county governments have created Development Committees whose membership includes non-state actors and non-governmental organizations. Examples of such counties are Busia, Nakuru, Makueni, Kisumu, Tharaka-Nithi, Siaya, Bomet, West Pokot, Vihiga, Embu, Nyandarua, Kitui, Murang'a, Homa Bay, Isiolo and Meru. This is a welcome development and PELUM should agitate to take a seat in these structures. Nevertheless, any NGO-membership of such a committee would provide an "insider" avenue for influencing public policy and also the budget. Where PELUM or its affiliate is not a member of such a committee, it should work with the general NGO-nominee to prosecute its interests. PELUM would also do case studies on how successful such counties have been as compared to counties that have no committee. This will help lobby other counties to adopt the same.

At the national level, some state organs formally seek the services of stakeholder structures such as the National Environmental Council, the District Environmental Committee, the Board of Trustee of Kenya Wildlife Service, or the National Economic and Social Council. PELUM should work toward joining such structures as a member and use the structure to advance *elum* interests.

4.1.2 STRATEGIES FOR ACHIEVING IMPLEMENTATION OF elum

Three strategies may be applied to advocate for implementation of policies integrating *elum* as elaborated hereunder.

Awareness creation of the policy to its beneficiaries

PELUM could educate farmers and other users of the policy direction and their roles in its implementation. An informed farming community would be best placed also to hold to account other implementers of the policy. Government may recruit the services of a private entity such as PELUM to offer such a service under the vote-head called "contracted professional services" but this is done where the implementing government agency do not have the necessary capacity.

Influence sectoral annual workplans and budgets

Annual workplans and budgets set out the priority activities for the upcoming year and the financial resources required. This is done by government executives as guided by approved policies, programmes and projects. The workplans and budgets are interrogated by stakeholders at the time of negotiation and vetting of performance contracts. PELUM could use its good influence to influence workplans by various executives and also seek to influence at the level of negotiation of performance contracts, the latter which would entail working to be included in various performance vetting committees. Creating a rapport with various agencies may help to develop a working relationship and create entry-points for advocacy.

Audit implementation and give feedbacks to implementers

PELUM could develop a policy monitoring tool and use it to track or audit the implementation of a policy. The results of monitoring could be sent back to the responsible implementing agency as a compliment in case of good rating or to advice on change of tact in case of poor rating. The results may also be published in a mass media open to the public, first to inform them and secondly to galvanize them to act and urge the improvement of performance in implementation of the policy. For example, if the policy is water harvesting and storage and after one year, the agency have not caused any water harvesting, such a result may instigate administrative or political intervention to ensure water harvesting is done in the coming year. An example of such monitoring with open publication of the results is the work of Kenya Human Rights Commission or the social research commonly called opinion polls.

ANNEX 1: POLICIES AND LEGISLATION STUDIED

Regional Policies

- 1. The Treaty for Establishment of the East Africa Community
- 2. The East Africa Community 4th Development Strategy
- 3. The East Africa Community Agriculture and Rural Development Policy
- 4. Comprehensive African Agriculture Development Programme
- 5. Maputo Declaration of Agriculture and Food Security in Africa
- 6. The Agreement on the Creation of the African Regional Intellectual Property Organization (ARIPO)

National Policies and Legislation

The Constitution of Kenya, 2010, and the Rio Declaration on Environment and Development, the Convention on Biodiversity, the Cartagena Protocol on Biosafety to the Convention on Biodiversity, the African Convention on the Conservation of Nature and Natural Resources, the Langkawi Declaration on the Environment, the Stockholm Convention on Persistent Organic Polluters, the Vienna Convention for the Protection of Ozone Layer and the Convention on International Trade in Endangered Species.

- 1. The Kenya Vision 2030
- 2. The Agricultural Sector Development Strategy
- 3. The National Agricultural Research Systems Policy
- 4. The National Agricultural Extension Policy
- 5. The National Land Policy
- 6. The Environment and Development Policy
- 7. The National Social Protection Policy
- 8. The Biotechnology Policy
- 9. The Micro and Small Enterprises Development Policy
- 10. The Forests Policy
- 11. The National Productivity Policy
- 12. The National Food and Nutritional Security Policy
- 13. The National Pharmaceutical Policy
- 14. The National Livestock Policy
- 15. National Wildlife Conservation and Management Policy
- 16. The National Climatic Change Strategy
- 17. The Cooperative Societies Act
- 18. The National Policy for Water Resources Management and Development
- 19. The Water Act
- 20. The Agriculture, Fisheries and Food Authority Act
- 21. The Crops Act
- 22. The Agricultural Finance Act
- 23. The Seeds and Plant Varieties Act
- 24. The Law on Contracts Act
- 25. The Kenya Agriculture, Livestock Research Organization Act
- 26. The Science, Technology and Innovations Act
- 27. The Land Act
- 28. The Environmental Management and Coordination Act
- 29. The Social Assistance Act

- 30. The Biosafety Act
- 31. The Micro and Small Enterprises Act
- 32. The Forests Act
- 33. The Pest Control Products Act
- 34. The Animal Diseases Act
- 35. The Fertilizers and Animal Foodstuffs Act
- 36. The Prevention of Cruelty to Animals Act
- 37. The Veterinary Surgeons and Veterinary Paraprofessionals Act
- 38. The Kenya Plant Health Inspectorate Services Order
- 39. Wildlife (Conservation and Management) Act

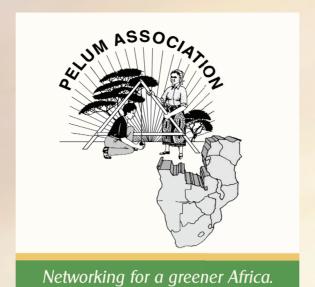
County Policies

County Integrated Development Plan for Baringo, Bomet, Bungoma, Busia, Embu, Homa Bay, Isiolo, Kajiado, Kakamega, Kericho, Kiambu, Kirinyaga, Kisumu, Kitui, Makueni, Meru, Migori, Murang'a, Nairobi, Nakuru, Nyandarua, Nyeri, Samburu, Siaya, Taita-Taveta, Tharaka-Nithi, Trans Nzoia, Vihiga and West Pokot

- 1. The Kitui County Sorghum Act
- 2. The Kitui County Markets and Farm Produce Trade Act
- 3. The Kitui Charcoal Management Act
- 4. The Machakos County Agricultural Development Fund Act
- 5. The Meru County Microfinance Corporation Act
- 6. The Meru County Co-operatives Societies Act

ANNEX 2: ANALYSIS OF 2013/14 FY EXPENDITURE BUDGETS (IN KSH.) BY COUNTY

ANNEX 2: ANALYSIS	Expenditure budget for agricultural sector	Total county expenditure budget	% Total budget for agriculture	Total expenditure budget for development	% Total development budget for agriculture
Baringo.	93.8	4,788	1.96	1,787	5.25
Bomet.	450.8	5,069	8.89	3,012	14.97
Bungoma.	496.3	8,703	5.70	3,637	13.65
Busia.	205.1	3,907	5.25	2,250	9.12
Elgeyo/Marakwet.	143	3,518	4.06	1,522	9.40
Embu.	246.2	3,247	7.58	1,560	15.78
Homa Bay.	188.4	5,734	3.29	2,658	7.09
Isiolo.	107.8	3,241	3.33	1,717	6.28
Kajiado.	47	4,033	1.17	1,063	4.42
Kakamega.	385	13,256	2.90	7,168	5.37
Kericho.	96.5	3,532	2.73	1,393	6.93
Kiambu.	136	12,631	1.08	5,468	2.49
Kirinyaga.	54	3,268	1.65	989	5.46
Kisumu.	0	10,201	0.00	3,412	0.00
Kitui.	437.7	6,406	6.83	2,690	16.27
Laikipia.	153.3	5,910	2.59	3,203	4.79
Machakos.	347.9	7,827	4.44	4,119	8.45
Makueni.	152	5,929	2.56	2,246	6.77
Marsabit.	186.8	3,985	4.69	1,966	9.50
Meru.	411.2	8,272	4.97	5,233	7.86
Migori.	200	6,501	3.08	2,241	8.92
Murang'a.	645	5,622	11.47	1,861	34.66
Nairobi	50	22,915	0.22	7,600	0.66
Nakuru.	117.7	9,273	1.27	3,497	3.37
Nyandarua.	16.7	4,305	0.39	2,614	0.64
Nyeri.	150	4,550	3.30	2,428	6.18
Samburu.	181.5	3,605	5.03	1,459	12.44
Siaya.	335.5	5,938	5.65	3,099	10.83
TaitaTaveta.	60.5	2,879	2.10	1,215	4.98
TharakaNithi.	262.8	2,379	11.05	1,314	20.00
Trans Nzoia.	89.4	4,713	1.90	1,650	5.42
Vihiga.	105.4	6,153	1.71	2,448	4.31
West Pokot.	43.5	3,631	1.20	1,149	3.79



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