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ASSESSING INSTITUTIONAL BARRIERS TO NATIONAL ADAPTATION PLAN (NAP) IMPLEMENTATION IN KENYA'S AGRICULTURAL SECTOR

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Contents

List of acronyms

ACTN	AFRICA CONSERVATION TILLAGE NETWORK
ADS	ANGLICAN DEVELOPMENT SERVICES
AFFA	AGRICULTURE, FISHERIES AND FOOD AUTHORITY
AGRS	ANIMAL GENETIC RESOURCES
ALDF	ARID LANDS DEVELOPMENT FOCUS
ASALS	ARID AND SEMI-ARID LANDS
ASCU	AGRICULTURAL SECTOR COORDINATION UNIT
ASDS	AGRICULTURAL SECTOR DEVELOPMENT STRATEGY
ATWG	ADAPTATION THEMATIC WORKING GROUP
CARROT	CARBON REDUCTION, RESOURCES AND OPPORTUNITIES TOOLKIT
CBIN	CLIMATE BUSINESS INFORMATION NETWORK
CBOS	COMMUNITY BASED ORGANIZATIONS
CC	CLIMATE CARE
CCA	CLIMATE CHANGE ACT
CCAFS	CLIMATE CHANGE AGRICULTURE AND FOOD SECURITY
CCCF	COUNTY CLIMATE CHANGE FUND
CCCSC	COUNTY CLIMATE CHANGE STEERING COMMITTEE
CCD	CLIMATE CHANGE DIRECTORATE
CDKN	CLIMATE AND DEVELOPMENT KNOWLEDGE NETWORK
CECS	COUNTY EXECUTIVE COMMITTEES
CGIAR	CONSULTATIVE GROUP FOR INTERNATIONAL AGRICULTURAL RESEARCH
CIAT	INTERNATIONAL CENTRE FOR TROPICAL AGRICULTURE
CIDPS	COUNTY INTEGRATED DEVELOPMENT PLANS
CIS	CLIMATE INFORMATION SERVICES
CS	CABINET SECRETARY
CSA	CLIMATE SMART AGRICULTURE
DAI	DEVELOPMENT ALTERNATIVES INCORPORATED
DANIDA	DENMARK'S DEVELOPMENT COOPERATION
DFID	DEPARTMENT OF INTERNATIONAL DEVELOPMENT
DFID	UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
EDE	ENDING DROUGHT EMERGENCIES
EE	EXECUTIVE ENTITIES
FAO	FOOD FOR AGRICULTURE ORGANIZATION
FICCF	FINANCE INNOVATION FOR CLIMATE CHANGE FUND
FNSP	FOOD AND NUTRITION SECURITY POLICY
GCF	GREEN CLIMATE FUND
GDC	GEOTHERMAL DEVELOPMENT CORPORATION
GDP	GROSS DOMESTIC PRODUCT
GHG	GREENHOUSE GASES
GOK	GOVERNMENT OF KENYA
IAD	INSTITUTIONAL ANALYSIS AND DEVELOPMENT
ICAF	ISIOLO COUNTY ADAPTATION FUND

List of acronyms

ICRAF	WORLD AGROFORESTRY CENTRE
IIED	INTERNATIONAL INSTITUTE OF ENVIRONMENT AND DEVELOPMENT
IISD	INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT
ILRI	INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE
INDC	INTENDED NATIONALLY DETERMINED CONTRIBUTION
JICA	JAPAN INTERNATIONAL COOPERATION AGENCY
KACCAL	KENYA ADAPTATION TO CLIMATE CHANGE IN ARID AND SEMI-ARID LANDS
KALRO	KENYA AGRICULTURAL AND LIVESTOCK RESEARCH ORGANIZATION
KALRO	KENYA AGRICULTURAL LIVESTOCK RESEARCH ORGANIZATION
KAM	KENYA ASSOCIATION OF MANUFACTURERS
KCCWG	KENYA CLIMATE CHANGE WORKING GROUP
KCIC	KENYA CLIMATE INNOVATION CENTRE
KCYN	KENYA CLIMATE YOUTH NETWORK
KEFRI	KENYA FORESTRY RESEARCH INSTITUTION
KENAFF	KENYA NATIONAL FARMERS' FEDERATION
KEPSA	KENYA PRIVATE SECTOR ALLIANCE
KFC	KENYA FLOWER COUNCIL
KFSSG	KENYA FOOD SECURITY STEERING GROUP
KIIS	KEY INFORMANT INTERVIEWS
KIPPRA	KENYA INSTITUTE OF PUBLIC POLICY RESEARCH AND ANALYSIS
KMD	KENYA METEOROLOGICAL DEPARTMENT
KMFRI	KENYA MARINE AND FISHERIES RESEARCH INSTITUTE
KRCS	KENYA RED CROSS SOCIETY
KU	KENYATTA UNIVERSITY
M & E	MONITORING AND EVALUATION
MDAS	MINISTRIES, DEPARTMENTS AND AGENCIES
MODP	MINISTRY OF DEVOLUTION & PLANNING
MOF	MINISTRY OF FINANCE
MTEF	MEDIUM-TERM EXPENDITURE FRAMEWORK
MTP	MEDIUM TERM PLAN
NAMA	NATIONALLY APPROPRIATE MITIGATION ACTIONS
NAP	NATIONAL ADAPTATION PLAN
NCA	NORWEGIAN CHURCH AID
NCCAP	NATIONAL CLIMATE CHANGE ACTION PLAN
NCCRS	NATIONAL CLIMATE CHANGE RESPONSE STRATEGY
NCCS	NATIONAL CLIMATE CHANGE SECRETARIAT
NCCSC	NATIONAL CLIMATE CHANGE STEERING COMMITTEE
NDMA	NATIONAL DROUGHT MANAGEMENT AUTHORITY
NEMA	NATIONAL ENVIRONMENTAL MANAGEMENT AUTHORITY
NGOS	NON-GOVERNMENTAL ORGANIZATIONS
NIE	NATIONAL IMPLEMENTING ENTITY
PACIDA	PASTORALISTS COMMUNITY INITIATIVE AND DEVELOPMENT ASSISTANCE

PSP	PARTICIPATORY SCENARIO PLANNING
RAP	RESOURCE ADVOCACY PROGRAM
REDD+	REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION PLUS
SDGS	SUSTAINABLE DEVELOPMENT GOALS
SEKU	SOUTH EASTERN KENYA UNIVERSITY
SERP	SUSTAINABLE ENVIRONMENT AND RESTORATION PROGRAM
SIDA	SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
STARCK+	STRENGTHENING ADAPTATION AND RESILIENCE TO CLIMATE CHANGE IN KENYA–PLUS
UN	UNITED NATIONS
UNDP	UNITED NATIONAL DEVELOPMENT PROGRAM
UNECA	UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA
UNEP	UNITED NATIONS ENVIRONMENT PROGRAMME
UNFCCC	UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE
UON	UNIVERSITY OF NAIROBI
WFP	WORLD FOOD PROGRAM

Executive summary

Preamble

This study was commissioned by the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) under the project "Supporting Developing Countries to Integrate the Agricultural Sectors into National Adaptation Plans (NAPs)". One of the key objectives of this project is to strengthen the institutional capacity for climate change adaptation planning within the agricultural sector in Kenya. With agriculture being one of the key economic sectors adversely affected by climate change, it is important to ensure that the National Adaptation Plans are efficiently and effectively implemented. The specific objectives of the study are to:

1. Identify the agricultural sector-related drivers (incentives) and institutional barriers to implementation of Kenya's NAP,
2. Define specific strategies to strengthen institutional and regulatory framework for climate change adaptation planning, in reference to the institutional barriers, and
3. Develop a framework to operationalize the NAP.

The study applied two broad methodological approaches: policy review and institutional analysis. It covered the whole country, though data collection was done in Nairobi where the headquarter offices of many of the actors/organizations are located. However, efforts were made to collect data from selected counties through telephone and email.

Key Results

Policy landscape for agriculture, climate change and food security in reference to NAP/CCA mainstreaming into planning and budgeting

A critical review or relevant policies and legislations in the agricultural sector was done to identify policy and legislative complements as well areas that may hinder implementation of climate change adaptation actions. Similarly, the NAP and the Climate Change Act were critically reviewed to identify any contradictions, policy gaps and barriers that can hinder successful implementation of climate change adaptation in the agricultural sector. Also, any incentives for successful implementation of the NAP are indentified. This is done while noting that the NAP was drafted before the Act was enacted.

The key drivers or incentives for NAP implementations identified from the review are:

1. The agricultural sector has already acknowledged policy gaps in relation to climate change and adaptation planning and so far has come up with Climate Smart Agriculture Strategy and a Framework to facilitate implementation of climate change activities. These two will be key incentives for successful implementation of the NAP in the Sector.
2. The provision of delegated legislation in the Act, hence giving power to different entities and sectors for implementation of the NAP and other interventions according to regulations made by the CS, in consultation with the Council.
3. The membership in the Council is all-inclusive, of all relevant stakeholders, including gender, with important consideration for expert skill and experience, locking out purely political appointments,
4. Public participation is at the heart of the NAP as well as in the Act
5. There are clear details of response measures and actions, most of which are related to activities in the agricultural sector. These response measures and actions are expected to provide guidance on the focus on NAP implementation in the Sector

The key barriers to NAP implementations identified from the review are:

1. Lack of clarity in roles and functions, leading to overlapping mandates of different institutions;
2. Lack of incorporation of climate change adaptation planning in most policy recommendations and action plans in the agricultural sector;
3. Lack of harmonization of the national and county objectives/goals, leading to lack of synergies in the implementation of the NAP;
4. Conflicting roles of different sector institutions, including national and county ones, in climate change adaptation;
5. Lack of clarity of NEMA's role in climate adaptation in the Sector and particularly after the creation of Climate Change Directorate
6. There are no express provisions in the Act for funding at the county level, and this may result into a barrier of meaningful implementation of the NAP

Other existing and potential institutional barriers to implementation of NAP among agricultural sector actors are:

i. Existing institutional barriers

Administrative barriers: arise from the fact that national and county governments not working harmoniously. Even county Executive Committees (CECs) and county agricultural staff do not coordinate in climate change related activities.

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Human resource barriers: there is shortage of staff among key state actors such as the current CCD and climate change MDAs desks. The existing staff are overstretched with many responsibilities and within the MDA desks, very few are full time. There are also staffing problems at the county level. This brings about inefficiencies in implementing climate change tasks at both the county and national level.

Technical capacities barriers: very few institutions of higher learning offer climate change studies indicating low capacity development in country. The agricultural sector has limited technical experts available to support climate change adaptation activities especially at the county level. This poses as a challenge towards the implementation of the NAP.

Financial management barriers: sector ministries do not have funds specifically designated for climate change activities. Majority of the counties also do not have specific funds for climate change. Usually they tap funds from other government votes. Also, county governors have a tendency of misappropriating funds. This will adversely affect implementation of the NAP.

ii. Potential institutional barriers

Inadequate coordination of climate change adaptation funding: There is need for guidelines on how actors can benefit from NIEs in the GCF fund.

Inadequate mechanisms of channeling climate adaptation funds to the counties: In as much as mobilization and lobbying for climate funds from donors has been effective, without proper channels for funds to reach the local levels, benefits of implementation of the adaptation action plans proposed in the NAP may not be fully realized.

Lack of coordinated funding of actual adaptation activities in the counties: Much of the funding has been on 'capacity building'. Very little funds are used for actual implementation of adaptation activities.

Lack of gender mainstreaming as a barrier to implementation of NAP

The failure to recognize the different roles played by women and youth, and their vulnerability to climate change poses as a potential threat to NAP implementation. While efforts to ensure gender inclusion were made during policy formulation and development on climate change issues, there are still some gaps in achieving gender equality in NAP implementation.

Opportunities for successful implementation of the NAP

Funding of climate change adaptation activities

Several funds are available for climate change adaptation activities and the national and county governments should device mechanisms of tapping into them in order to successfully implement the NAP.

Opportunity of devolved county funding that can be out scaled

The County Adaptation Fund was piloted in Isiolo County through primary funding from the UK Department for International Development Aid (DFID) and Catholic Organization for Relief and Development Aid. This successful model of county adaptation fund should be scaled out in other counties in Kenya.

National Performance and Benefit measurement framework

The National Performance and Benefit Measurement framework is a monitoring and evaluation tool that has been proposed in the NCCAP and recognized in the NAP. The indicators identified in this framework will be important for monitoring and evaluation of NAP activities.

Stakeholder participation and support

Most communities who have been affected by climate change have shown the willingness to participate and provide the support required in the implementation adaptation activities. So they are likely to support NAP implementation in future.

Strong support from non-state actors (NGOs, CBOs and private sector actors)

The non-state actors in Kenya have already shown tremendous support for the government in the fight against climate change. This support is an opportunity for the agricultural sector and particularly for successful implementation of the NAP

Strategic actions and interventions to address barriers to implementation of the NAP

The following have been identified and prioritized as strategic actions or intervention that will address barriers to NAP implementation. In prioritization, the criteria considered were getting the foundations right (policy and legal aspects), strengthening institutional capacity/arrangements, and building financial and human capacities, while ensuring up-scaling of adaptation activities that are already been conducted. However, it is also important to note that an intervention like advocacy will always be needed by the stakeholders. Following these criteria the order for the interventions (starting with the most important and most urgent) would be:

1. Advocacy
2. Mainstreaming NAP prioritized actions into policies and development plans

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3. Gender mainstreaming in the sectoral adaptation actions and NAP performance indicators
4. Strengthening institutional arrangements within national and county levels
5. Creating mechanisms for coordinated funding at both national and county levels
6. Strengthening uptake of insurance and credit
7. Building adequate human resource capacity at the county level
8. Scaling up the county adaptation fund model to all the counties

Framework to operationalize the NAP

In operationalizing the NAP it is considered that the vision is to have 'enhanced climate resilience towards the attainment of Vision 2030' though achievement of strong economic growth, resilient ecosystems, and sustainable livelihoods. The framework considers that interventions to address barriers to implementation of the NAP should be incorporated as the first priority action. Further, three of the six priority actions in NCCAP have been considered since these are addressed directly by the agricultural sector. Thus the priority actions included in the framework are:

1. Addressing barriers to implementation of the NAP
2. Improved water resource management
3. Restoration of forests on degraded lands
4. Climate smart agriculture and agro-forestry

The outputs linked to the 10 top-down county level institutional adaptive capacity indicators and the 10 bottom –up vulnerability indicators have been considered and linked to the priority actions. Additional outputs and especially those relevant to interventions for addressing barriers to implementation of NAP have been derived. Finally outcomes of the outputs and stakeholders who will be involved in each priority action have been identified.

1. INTRODUCTION

1.1 Background and Rationale

In Kenya climate change, as evidenced by climate variability and extreme weather events such as recurrent droughts and floods, has posed a major challenge to the ability of the government and communities to fight poverty and food insecurity. If this challenge is not addressed it will translate to country's inability in to achieve Vision 2030. Agriculture, being a major contributor to the GDP of the country and a primary source of income for most people in Kenya, has been identified as one of the most vulnerable sectors of the economy (NCCRS, 2010). This is because of the extensive overreliance on rainfall, high seasonal climate variability, recurrent droughts and flooding, and the high poverty levels that limit the capacity to adopt sustainable livelihood strategies (UNDP, 2016). Further, agriculture is the largest greenhouse gases (GHG) emitter in Kenya with emissions up to 30% in 2010 (NCCAP, 2013-2017). Therefore in the face of climate change, agricultural sector will have to employ certain climate change adaption measures to ensure continued provision of adequate food for the growing population and sustainable economic growth.

Even before the enactment of the Climate Change Act, 2016, the country had drafted the first plan on adaptation, the National Adaptation Plan (NAP), which seeks to operationalize NCCAP. The aim of NAP is to consolidate the country's vision on adaptation, supported by macro-level adaptation actions that relate with the economic sectors and county level vulnerabilities, in order to enhance long term resilience and adaptive capacity. NAP is anchored to the Constitution of Kenya, Climate Change Act (as it had been anchored to the Bill) and Vision 2030. It is also aligned to Medium Term Plan (MTP) and Medium-Term Expenditure Framework (MTEF) planning processes.

In addition to the policy and legislative developments, the government has established an appropriate institutional framework for climate governance in the country. In particular it has already created Climate Change Directorate (CCD)[1] at the Ministry of Environment and Natural Resources which provides day to day technical coordination of all matters on climate change. Further, the CCD has established climate change unit/desk offices in various government ministries, departments and agencies (MDAs). This is particularly so in the Agricultural Sector Ministries and parastatals.

For effective implementation of climate change action and plans, NCCAP (2013-2017) recognizes that institutional reforms are necessary and there is need to establish a framework that coordinates and mainstreams climate change response across government MDAs. Similarly, NCCAP recognizes key institutional barriers to implementation of NAP and effective performance of climate change related functions by both national and county government institutions. Understanding and addressing these issues of institutions and coordination mechanisms is key to identifying entry points for 'unblocking' many of the barriers to NAP implementation at national and county level.

It is against this background that project "Supporting Developing Countries to Integrate the Agricultural Sectors into National Adaptation Plans (NAPs)" of the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) commissioned this study. In particular the project intends to pursue its objective on strengthening the institutional capacity for climate change adaptation planning within the agricultural sector in Kenya. With agriculture being one of the key economic sectors adversely affected by climate change, it is important to ensure that the National Adaptation Plans are efficiently and effectively implemented.

Weak institutions, high poverty rates and low management capabilities have been identified as some of the major inhibiting factors in the country's ability to cope with climate change. It is therefore important that these institutions with the mandate to perform climate change and related functions are well understood. This is in terms of the institutional arrangements that exist and any institutional barriers that may hinder effective implementation of climate change policies. Enhancing institutional arrangements and eliminating any institutional barriers that may hinder implementation of NAP in the agricultural sector would not only enable farmers to adapt to climate change but would also strengthen their resilience and improve economic development in the country.

1.2 Objectives and Scope of Work

The overall objective of this study is to assess the institutional barriers to effective climate change adaptation planning and implementation in Kenya's agricultural sector.

The specific objectives are to:

1. Identify the agricultural sector-related drivers and barriers (institutional) to implementation of Kenya's NAP,
2. Define specific strategies to strengthen institutional and regulatory framework for climate change adaptation planning, in reference to the institutional barriers, and
3. Develop a framework to operationalize the NAP.

1 Once the Climate Change Act is operationalized, the National Climate Change Council will be established as an overarching high-level national climate change mechanism.

The study was guided by the following research questions:

1. What is the policy landscape for agriculture, climate change and food security in reference to NAP/CCA mainstreaming into planning and budgeting?
2. Which are the actors/institutions at the national and county level and their roles and functions in the design and implementation of policies for agriculture, climate change and food security? This includes:
    a. What is the role of research institutes?
    b. What institutions exist to build capacities on climate change?
3. How effective are actors/ institutions in Question 2 in terms of coordination, resource and technical capacities in the steering and implementation of the identified policies?
4. How effective is donor coordination in climate change activities?
5. What institutional arrangements exist within the national and county governments for climate change adaptation coordination and planning?
6. What institutional arrangements exist to collect and disseminate climate information?
7. What is the current interplay between state and non-state actors involved in climate change adaptation planning?
8. What are the existing and potential institutional barriers to implementation of NAP among agricultural sector actors
9. To what extent is gender mainstreamed in the NAP?
10. What opportunities exist for different agricultural sector actors in the implementation of NAP?
11. What are the priority strategic actions and interventions needed to address the barriers to implementation of NAP?
12. What framework is needed to operationalize the NAP?

In addressing these research questions and pursuing the identified objectives, the study contributes towards achievement of two of the four outcomes of the UNDP/FAO project: 1) strengthening of technical and institutional capacity the Ministry of Agriculture, Livestock and Fisheries; Ministry of Environment, Natural Resources & Regional Development Authorities; Ministry of Devolution & Planning (MoDP); Ministry of Finance (MoF) or The National Treasury; National Drought Management Authority (NDMA) and Ministry of Water and Irrigation; and 2) development of integrated roadmaps for incorporating climate change risks management practices in the planning and budgeting process of the agricultural sector over the medium and long term.

2. METHODOLOGY

2.1 Study areas and general approach

This section details how the study tasks were addressed through collection of various data. The data collection methods outlined in this section are informed by the tasks of the study and the objectives and research questions.

Although this study covers the whole country, data collection was done in Nairobi where the headquarter offices of many of the actors/organizations are situated. However, efforts were made to collect data from selected counties through literature review, telephone calls and emails.

Two broad methodological approaches were employed in this study: policy review and institutional analysis. The latter incorporates the former (since polices are institutions) and is very important in providing a comprehensive understanding of institutions and institutional arrangements when several actors are involved in different but related activities. Thus this approach is relevant in understanding how actors in the agricultural sector and their institutions (modalities of operations, policies, mandates, laws, regulations, etc.) favor or hinder effective implementation of the NAP. Institutional analysis is a participatory approach that is used to assess the capacity, behavior, interactions (institutional arrangements) and outcomes of actors or organizations that carry out development activities. It also helps in identifying constraints that may undermine policy implementation within and across organizations. Such constraints may exist at the level of internal processes, relationships among organizations or system wide (FAO, 2001).

2.2 Desk review and collection of secondary data

A desk review of the policies and other relevant issues of the study that cannot be captured directly from the key informant interviews (KIIs) was conducted. Besides, this review was important in informing the structure of checklist of issues for the KIIs. Literature materials for the desk review were collected from CCD, MOALF, Finance Innovation for Climate Change Fund (FICCF), internet and university libraries. The NCCRS, NCCAP, Climate Change Act (2016), draft NAP and draft Climate Smart Agriculture Strategy were there main reference materials for the review. Further, all the relevant polices guiding operations of MDAs in agricultural sector were reviewed. The consultant worked closely with the FAO Kenya office and CCD in order to gather quickly all the relevant materials important for the study. In particular, CCD was important in supplying and prioritizing the policy documents that were reviewed.

When visiting the offices of the actors, any important secondary data related to the objectives of the study was also collected. Such data include expenditures and budget allocations to climate change activities, impacts and other climate change relevant information and any recent reports on policies and implementation of climate change activities that may not be available in the internet.

2.3 Sampling procedure and collection of primary data

As inference of the results generated from primary data is not required, a non-probability sampling design was applied to select key informants among agricultural sector actors working on climate change issues, staff of programs with climate change activities, development partners and county officers. This was done in order to get key informants with a high diversity of opinions, adequate knowledge of or linkages to relevant climate change activities and interventions, and are easily accessibility. Thus a purposive sampling approach was adopted whereby a combination of chain (starting with staff at CCD), extreme case and typical case (e.g. NDMA) sampling techniques was employed.

Collection of primary data was achieved through direct observation and key informant interviews of various persons who are directly involved in climate change activities and are in managerial positions. The key informant interviews were conducted with various actors from departments and agencies that have linkages to the Agricultural Sector at the national and county level as well as non-state actors. The actors interviewed include managers of the following organizations such as:

i. Climate Change Directorate
ii. NDMA
iii. Ministry of Agriculture, Livestock and Fisheries (Climate Change Unit)
iv. National Treasury
v. FICCF
vi. Counties - Marsabit, Nyeri and Embu
vii. ASDSP
viii. Kenya Climate Change Youth
ix. University of Nairobi's School of Law - lawyer Felix Odimmasi

The KIIs were conducted using a checklist of issues that is derived from the research questions of the study (Annex 1). Notably this checklist only served as a guide to various study issues. Thus the approach differed with the type of actors and in some cases a general discussion was preferred to asking questions direct from the checklist.

3. POLICY LANDSCAPE AND ITS RELEVANCE TO NAP IMPLEMENTATION

The review of policy landscape in this section focuses on policies, plans and Acts of Parliament related to agriculture, climate change and food security, and relevant for implementation of NAP in the agricultural sector. It also determines if these policies favor or hinder development of agriculture, given the climate change challenges in Kenya.

The current discourse on the need to achieve food security, energy sufficiency, end of drought emergencies, sustainable tourism, etc. while conserving natural resources in order to reduce climate change effects (Maina et al., 2013), is taken into account. At the same time emphasis is placed on the role of non-state actors gaining from climate change related initiatives/activities such as planting of bio-fuels, carbon trading, Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+), etc. which may have impact on food security as well as on climate change.

3.1 The Importance of the Agricultural Sector

The agricultural sector is acknowledged as the mainstay of Kenyan economy and sector-wise is the largest contributor to the country's Gross Domestic Product (GDP). This contribution is estimated at 30% in 2015. Besides direct provision of food, the sector provides 18% of formal employment in Kenya (ASDS, 2010). However even with the high GDP contribution of the sector to the economy, Kenya is not yet food sufficient in terms of food production and has to rely on formal and informal food imports to feed the growing population (WFP, 2016). The national poverty level in Kenya is still very high, at 45.2% in 2015, even after the country was categorized as a lower middle income economy in 2014 (WFP, 2016). For instance, in 2011 the overall number of people who were food insecure and required urgent cross-sectorial interventions stood at 3.2 million (KFSSG, 2011).

The Government of Kenya, in its various policies, recognizes the critical role that the agricultural sector plays in spearheading overall economic development in the country. This is why the Agricultural Sector Development Strategy (ASDS) calls for the rationalization, streamlining and enhanced coordination of agricultural services. This is in order to position the agricultural sector as the key driver for delivering the 10% annual economic growth envisaged under the economic pillar of Vision 2030.

Small scale farming dominates in the agricultural sector and is mostly characterized with low use of inputs such as fertilizer and hybrid seeds and consequently low productivity. An estimated 11 million people (27%) are actively employed in primary production agriculture (World Bank; CIAT 2015). The country mostly relies on rain fed agriculture from its 4.89 million hectares of arable land (9% of total land area) with a very small area of land (6-8%) under irrigation.

Generally, the agricultural sector is faced with several challenges including poor input and output market access and integration, post-harvest management challenges and low value addition of the produce. There is also over extraction of forestry and water resources leading to depletion of natural resource base. Recently climate change has emerged as a major challenge facing the agricultural sector as manifested in recurrent and prolonged drought spells. This is particularly so in the ASALs where livestock production mostly takes place. The country has unreliable rainfall patterns which lead to crop failure and experiences increased temperatures which have negatively affected major subsectors such as tea and coffee.

3.2 Climate Change Policies and Legislation on Implementation of the NAP

Several strides in addressing climate change have been made as noted in the document 'addressing climate change: success stories from Kenya' (GOK 2015). Among these are; submission of the second national communication to the UNFCCC in 2015, submission of nationally appropriate mitigation actions (NAMA), operationalization of the National climate change action plan (NCCAP), the Climate Change Act, the National Adaptation Plan (NAP) and Kenya's Intended Nationally Determined Contribution (INDC) in July 2015.

Following the recognition of the increased threats by climate change to the national development of the country, the National Climate Change Response Strategy (NCCRS 2010) was launched in 2010. This Strategy identifies climate change impacts and vulnerabilities in Kenya and proposes adaptation and mitigation measures that should be implemented in all the major sectors of the economy. Since then several policy and legislative efforts have been made to help the country meet international obligations under United Nations Framework Convention on Climate Change (UNFCC) and make progress towards attainment of Vision 2030 and Sustainable Development Goals (SDGs). These include the launching of the National Climate Change Action Plan (NCCAP 2013-2017) in 2013, the drafting of the National Climate Change Framework Policy and Climate Change Bill in 2014, and the enactment of the Climate Change Bill into an Act of Parliament on 6th June 2016.

In the following subsections, the NAP and the Act are critically reviewed to identify any contradictions, policy gaps and barriers that can hinder successful implementation of climate change adaptation in the agricultural Sector in Kenya. Similarly, any incentives for or drivers of successful implementation of the NAP are indentified. This is done while noting that the NAP was drafted before the Act was enacted. The NAP was later printed and disseminated in July 2016 after some making some revisions.

3.2.1 The Kenya National Adaptation Plan 2015-2030

The Kenya NAP is the first adaptation plan formulated to assist the national and county governments implement the NCCAP by providing guidance on priority action (MENRM, 2016). The NAP takes on a mainstreaming approach where the adaptation and development goals are complementary. This is in line with recommendations of the NCCAP and as articulated in the draft Climate Change Framework Policy and Climate Change Act. The NAP was developed through a participatory consultative process that was coordinated by the National Climate Change Secretariat (NCCS) through the Adaptation Thematic Working Group (ATWG). The thematic working group comprised of representatives from government ministries, departments and agencies, civil society, academia and private sector.

The National Adaptation Plan (NAP) lays down Kenya's climate change national circumstances, focusing on current and future climate trends. It also elaborates institutional arrangements including monitoring and evaluation processes. The government aims to integrate NAP in the national development agenda not only for the attainment of Vision 2030, but also for the realization of the goals of the Paris Agreement and the UN Sustainable Development Goals.

The NAP largely adopts the coordination and institutional structures recommended in the NCCAP and established in the Climate Change Act, 2016. The Climate Change Directorate (CCD) is currently responsible for coordination of climate change activities in the country. The CCD works with the Ministry of Devolution and Planning to ensure integration of climate change in the MTP, and the National Environmental Management Authority (NEMA) as the National Implementing Entity (NIE) for the adaptation fund and Green Climate Fund (GCF). The National Treasury is the national designated authority for the GCF while the NDMA oversees the adaptation and resilience building in 23 ASAL counties.

Other key areas addressed in the NAP are climate hazard and vulnerability analysis where drought, floods and sea level rise are major components of the analysis. Further, the NAP addresses the priority adaptation actions focusing on agriculture, livestock, water, environment, infrastructure, sustainable livelihoods, energy infrastructure and tourism sectors. The identified actions consider the macro adaptation action, related sub-actions, ongoing projects/initiatives, timeframes, budget and proposed implementing agencies. Finally, the NAP looks at the adaptation monitoring and evaluation process where performance indicators have been proposed against the major changes expected. The county governments are also expected to formulate their own indicators borrowing from the NAP ones.

3.2.2 Climate Change Act 2016

The *Climate Change Act 2016* was enacted against the backdrop of proposals by the National Climate Change Action Plan (NCCAP) to provide for framework for climate change law encapsulating legislative, policy and institutional recommendations. This Act provides for a regulatory framework for enhanced response to climate change as well as mechanisms and measures to achieve low carbon climate resilient development in the country. Among other things it stipulates that environment and climate change is a function of both the national and county governments and requires concurrent jurisdiction across both levels.

The Act creates the National Climate Change Council as the top most governing organ under the chairmanship of the President of the Republic – elevating the issues of climate change to a position of great national importance. This Council is to be assisted by an executive body known as the Climate Change Directorate (CCD). The functions of the Council are clearly spelt out, and this includes a requirement that it meets at least 4 times annually.

According to the Act, the National Climate Change Council is mandated to handle climate change affairs with the overall function of oversight on the mainstreaming of adaptation functions at national and county levels. NEMA is proposed to take on the role of monitoring and enforcing compliance of climate change and integration of climate change risk. NDMA retains its role of overseeing the adaptation and resilience building in the ASALs. It is important to note that the Council with recommendation of the CS and in consultation with relevant Cabinet Secretaries and county government, has power to impose duties relating to climate change on any public entity at all levels of government.

The Act lays down in detail the various roles to be played by the established institutions, the qualifications for appointment of persons to such institutions and connected purposes. Also provided for in the Act are the Climate Change Response Measures and Actions in line with the NAP. For instance, Section 13 of the Act empowers the Cabinet Secretary for Environment and Natural Resources while being guided by Article 10 of the Constitution and Section 3 of the Act and through Public Consultation, to formulate a NCCAP.

In formulating the NCCAP, the Act stipulates key issues that shall guide the CS and which are very pertinent to implementation of NAP in the agricultural sector. These are:

a. Scientific knowledge about climate change

b. Technology and technological innovations relevant to climate change

c. Economic circumstances, in particular the likely impact of the action plan on the following –
   i. The economy
   ii. The competitiveness of particular sectors of the economy
   iii. Small and medium size enterprises
   iv. Employment opportunities; and
   v. The socio economic well-being of any segment or part of the population
d. Fiscal circumstances, in particular, the likely impact of the action plans , strategies and policies on the marginalized and disadvantaged communities
e. Social circumstances, in particular, the likely impact of the action plans, strategies and policies on biodiversity and ecosystem services
f. International law and policy relating to climate change (i.e. Paris Agreement and the UN Sustainable Development Goals)
g. Indigenous knowledge related to climate change and adaptation (very relevant in the ASALS).

The important role of the NCCAP under Section 13(3) takes into consideration all sectors and relevant stakeholders, and in Section 14(2) allows room for relevant modifications, thus providing for the proper implementation of the NAP. The NAP actualizes the duties that are provided for in the legislation under Part IV, detailing them to both the public and private entities, and generalizing the remedies and actions for unsatisfactory performance, and roping in the already established NEMA under Section 17.

3.2.3 Incentives for and barriers to successful implementation of NAP emanating from the Climate Change Act 2016

One of the incentives provided for in the Act is the provision of delegated legislation (see Part VIII), hence giving power to different entities and sectors for implementation of the NAP and other interventions according to regulations made by the CS, in consultation with the Council. Thus agricultural sector would always be supported through any regulations the Council would deems necessary.

Just like the NAP, the Act considers in Sections 7 & 8 the gender angle and the administration. The Council membership is all-inclusive, of all relevant stakeholders, with important consideration for expert skill and experience, locking out purely political appointments. There are clearly defined roles for both parliament and CS, ensuring accountability through periodic reporting and meetings.

Public participation and access to information on climate and related aspects is at the heart of the NAP as well as in the Act. Section 24 of the Act provides for public entities at each level of government, when developing strategies, laws and policies relating to climate change to undertake public awareness and conduct public consultations. There are laid down procedures on conducting public participation and consultation which include publication of a notice in a gazette or in at least one newspaper circulating in the locality to which the climate change policy, strategy, programme, plan or action relates and in at least one Kenyan radio station broadcasting in that locality. This will enhance smooth implementation of NAP projects as the public will feel involved.

Part VI of the Act provides for the Climate Change Fund being domiciled in the National Treasury and it is the financing mechanism for priority climate change actions and interventions approved by the Council. The fund can receive grants, donations and endowments to further its purposes while being guided by the CS National Treasury who should develop a strategy and make regulations setting out procedures and powers to identify sources of climate finance, to monitor uses by various state, non-state and private actors, to enhance integrity, and to eliminate corrupt practices. This is very important regulation since some of the NAP projects require massive finances and there is need to have safeguards to ensure the funds are put in to effective use, free of irregularities in order to ensure realization of maximum benefits.

The objectives of the Act (Section 3 (2)) are broad enough while at the same time list specifics that lend focus to the Act and give credence to the specific aims of the NAP. Thus it is an enabling instrument for pursuing the objectives under the NAP. Quite distinct is the intention to involve everyone in the broader community and all levels of government.

Also, Part III of the Act details the response measures and actions most of which are related to activities in the agricultural sector. These response measures and actions are expected to provide guidance on the focus on NAP implementation in the Sector.

There are however several barriers to implementation of the NAP:

1. The role of NEMA in the Act has been enhanced or increased to include monitoring and enforcement of climate change activities and yet the organization is already experiencing challenges in curbing environmental degradation in the country. Also, it looks like NEMA will be supervising activities of CCD and other government entities in the agricultural sector.

2. The role of the Cabinet Secretary at times is in conflict with that of the CCD, though the hierarchy may seem clearer in the organogram, it is not very clearly spelt out in the Act, thus it may not be very clear who originates the information to advise the Council. Thus Section 13 may lead to turf wars between the roles of the Directorate and the CS, if they are to be in line with the earlier ones under Section 8 & 9.
3. There are no express provisions for funding at the county level, and this may result into a barrier to meaningful implementation of the NAP.
4. The huge mandate of the Council may seem to be a barrier in the absence of a strong CCD as it is charged with the huge mandate of both imposing duties and monitoring & evaluation.
5. The right to take away, especially private property, may be challenging the principles and rights enshrined in the constitution.
6. Section 24(6) introduces a barrier to access to information by introducing the confidentiality clause.
7. Section 25(4) on management of the fund by the Council may defeat any gains made since the Council may meet only 4 times. This may also be worsened by the provision that the funds may be used for loans and the duties of the Principal Secretary are not clearly defined.
8. Although the Act recommends the establishment of the Climate Change Fund, there are no express provisions for funding at the county level. It is not specified how the Climate Change Fund will be distributed among the national and county governments.

3.3 Other Climate Change, Agricultural and Food Security Policies related to NAP implementation

The aim of the review done in this subsection is to identify policy and legislative complements as well areas that lack harmony among the different policies in the agricultural sector and particularly on issues of climate change and adaptation. The key aspects that may hinder successful implementation of the NAP are then summarized in a table in Section 3.3.2.

3.3.1 A critical review of selected polices and legislations

Agricultural Sector Development Strategy (ASDS) (2010-2020)

The ASDS outlines the major challenges experienced in the agricultural sector and recognizes climate change as a threat to the achievement of improved agricultural productivity and the consequent effects on the food security in the country. However as noted by Ongugo et al., (2014), the ASDS does not explicitly address issues related to climate change but recognizes likely impacts on the agriculture and proposes the implementation of the NCCRS as one of the strategies in addressing climate change. As such, the ASDS being the main agricultural policy in Kenya advocating for increased agricultural productivity should be comprehensive enough to include the defined roles, mandates and institutional arrangements of the national and county actors in the agriculture value chains dealing climate change matters including the resources (human and funding) of the climate change desks in the relevant institutions.

Agriculture, Fisheries and Food Authority (AFFA) Act, 2013

AFFA has agricultural land guidelines that focus on conservation of soil and prevention of adverse effects of soil erosion. The Act does not consider climate change effects on agricultural land though the stipulated guidelines are similar to the Programmatic results area 2, Component 1 of the Climate Smart Agriculture (CSA) framework. Thus much of the emphasis is placed on improving soil health and rehabilitation of degraded lands through adoption of climate smart soil management technologies and practices, drought resistant crops, and indigenous livestock species without consideration of broad adaptation measures. Similarly, the Act defines agriculture as a devolved function under the county governments though calls for close collaboration with the national government. Therefore, in the process of discharging its functions AFFA may come into conflict with the county government. There have been reservations from the county leadership that the Act would serve the national interests at the expense of county governments. This is likely to affect implementation of the NAP.

Livestock Policy, 2008

The livestock sub-sector appreciates that over 80% of Kenya's land mass is in the ASALs and that livestock is the main activity in these areas. However, among the key challenges addressed in the policy, climate change is not considered as a major threat to the livestock sub-sector. It is treated as a minor threat. Nevertheless there are some possible adaptation measures identified to increase resilience in the ASALs. These include conservation of animal genetic resources (AGRs) and water harvesting for livestock. Largely there is a policy disconnect as livestock development is very well articulated in the NAP with enhancement of resilience of the livestock value chain as a key action.

National Oceans and Fisheries Policy, 2008

The policy mentions climate change as a negative effect to fish production and generally emphasizes there is need to investment in sustainable resource management. The institutional framework in the policy proposes creation of a coordinating institution for fisheries research, development and management but does not specify the roles and mandates. The policy does not include adaptation and resilience to climate change in the suggested strategy of research and development.

The NAP acknowledges there is limited research done on climate change impacts on fishing in Kenya. Thus with no inclusion of climate change in the fisheries policy, implementation of the NAP in terms of technical capacity may pose as a challenge.

Devolution Policy, 2015

As acknowledged in the devolution policy, conflicts between the national government and the county and within the county (County assembly and County Executive) exist. This mostly pertains to budget allocations since there is pressure to allocate funds to activities outside the CIDPs. If county governments do not put up measures that ensure budget allocation is done through CIDPs projects, then implementation of NAP may be hindered. Similarly county governments are still struggling with the 70:30 percent rule which stipulates that 30% of the funds should be directed towards development.

The NAP adapts a multi-sectoral approach involving national and devolved governments in the formulation and implementation of the action plans. Here, the county governments are expected to mainstream climate change adaptation into County Integrated Development Plans (CIDPs) whereas the national government plays leading role of delivering the NAP and building Kenya's resilience through policy guidance.

National Forestry Policy, 2015

This policy recognizes that forestry can play an important role in mitigation and adaptation of climate change and towards green growth. As noted in the NCCAP, some of the ongoing responses to climate change include intensified afforestation, promotion of agro-forestry based alternative livelihood systems, promoting alternative community forest management, REDD+ initiatives and reduced mono-species plantations stand.

The forestry policy acknowledges presence of inadequate data and lack of research on the impacts of climate change on forest resources and biodiversity. Therefore, it outlines the strengthening of institutional linkages between research centers, universities and public forest agencies as a strategic intervention. However, the policy does not define the mandates and roles of the actors nor the coordination mechanism that will be employed among the actors conducting climate change research. This may affect implementation of the NAP because of lack of properly defined roles in the forestry sub-sector. There are also chances of duplicating research done by universities and other institutions.

National Irrigation Policy, 2015

The irrigation policy names climate change as one of the challenges facing the sub-sector and therefore mitigation of climate change effects is identified as one of the irrigation development strategies. The policy further outlines the climate change coping and adaptation strategies such as advocacy for irrigation, water harvesting and storage and emergence of pests and diseases. The NCCAP puts an emphasis on drip irrigation technology as one way of coping with climate change and enhancing resilience. The irrigation policy has clearly defined the roles and mandate of all the stakeholders involved in the subsector both at the national and county level.

National Food and Nutrition Security Policy, 2011

The FNSP has largely recognized climate change as a key constraint affecting food security in the country. It acknowledges the negative effects of high frequency of droughts and flash floods, increased temperatures and rainfall variability on crop and livestock enterprises. In light of this, the FNSP has devoted a section on climate change where it discusses the causes and possible implications. Further, the policy document outlines actions the government should take in addressing climate change related challenges. These are mostly in line with the objectives of the NAP. With the current state of the devolved form of government the policy should be amended to include the roles, mandates and functions of both county and national government in both matters food security and climate change.

Ending Drought Emergencies Common Program Framework, 2015

Drought as indicated in the NAP is a climate hazard that badly affects the ASALs and therefore establishment of the EDE common program framework is a positive step towards tackling climate change and enhancing adaptability and resilience of communities in the ASALs. However from the framework it is noted that there are three distinct types of interventions i.e., those delivered by the national government through sector plans, those delivered by county governments through County Integrated Development Plans (CIDPs) and those implemented directly by NDMA and partners. This may pose as a challenge in the implementation of the NAP because some of the action plans proposed cut across from national to county and community levels. There might also be

chances of effort duplication if proper coordination is not ensured. Similarly, anticipated conflict of interest between national and county governments may also hinder implementation of the NAP especially in the financing. For instance the National Treasury is the National Designated Authority for the GCF and the Climate Change Act proposes creation of a Climate Change Fund. Given that devolution is in its early stages and counties are yet to be fully resourced and capacitated, lack funds for implementation of NAP might be a major bottleneck.

Draft Kenya Climate Smart Agriculture Strategy, 2016

The CSA is the first strategy that creates a direct link between agriculture and climate change in Kenya. The CSA strategy aims at sustainably increasing agricultural productivity and incomes, adapting and building resilience to climate change and reducing and/or removing greenhouse gas emissions.

Implementation of the strategy is by both national and county governments. The strategy proposes that national government will be responsible for policies, strategies and regulation of services. It also proposes formation of National Climate Change Steering Committee (NCCSC) and its secretariat to coordinate implementation of CSA program and projects. Similarly the county governments are also expected to formulate own policies, strategies and plans to guide implementation. This shall be through formation of County Climate Change Steering Committees (CCCSC) and Secretariat. If CCCSC does not liaise well with NCCSC and the National Climate Change Council, coordination of activities and implementation of the NAP is likely to be negatively affected. Looking at the roles and functions are described in the Strategy, it seems like there are two parallel organizations (CCCSC and NCCSC) having similar roles at different levels of operations. They might therefore compete with one another rather than complement each other.

Draft National Policy for the Sustainable Development of Northern Kenya and other Arid Lands, 2015

The draft national policy for the sustainable development of Northern Kenya and other arid lands 2015 was formulated with a goal, to facilitate and fast track sustainable development in Northern Kenya and other arid lands, and to address development gaps in line with the regions realities. The policy recognizes drought and climate change as the first major challenge in the ASALs and that with the chronic poverty and vulnerability in the ASALs, adoptive capacity is generally low. This policy presents as an opportunity to the implementation of the NAP as some of the policy measures stipulated are in line with the action plans proposed in the NAP. These are such as establishment of national drought response fund and mainstreaming climate foresight and climate adaptation into all planning levels i.e national and county government levels.

Draft Agriculture Policy , 2014

This policy was established with an objective to improve food and nutrition security and maximize incomes through optimal utilization of resources in the agricultural sector. It recognizes climate change as a major impediment to development and has dedicated a section of the policy on environment and climate change addressing it at both national and county levels. It proposes policies such as implementation of the NCCAP, promotion of adoption of climate change research findings and capacity building of the agricultural value chain players in matters climate change. These provisions will play a key role as enabling factors for the implementation of the NAP.

Tana River Delta Strategic Environmental Assessment (SEA) Scoping Report, 2012

The SEA was conducted with the aim of enabling government, local communities and other stakeholders make better and more informed decisions on alternative land use and natural resources management in the Tana River Delta. The overall goal is promoting of sustainability of the Tana Delta, through integration of socio-economic and ecological aspects of the land use plan. Climate change and variability is acknowledged as one of the priority issues for the SEA. In particular, the report calls for assessment of climate change and variability as an externality in the management of the delta. This is because of the potential effects on the livelihoods, future land use, vegetation and biodiversity it may pose in the delta. While recognition of climate change and its effects on the Tana River Delta is a positive move, the report fails to give guidelines on how it intends to tackle the potential effects through adaptation activities. Rather, it just calls for an assessment of climate change as an externality in the management of the delta. The NAP under the land reforms section notes preparation of land use policy as one of the ongoing projects /initiatives and calls for capacity building of land planners in climate change land use planning. With lack of incorporation of such recommendations in the Tana River Delta land use plans, implementation of the NAP may be hindered.

National Land Reclamation Policy, 2013

The national land reclamation policy of 2013 was formulated with a goal of integrating national interests and stakeholders' participation, including those whose actions affect and or are affected by land and water degradation, and consolidate and coordinate all reclamation initiatives. Climate change has been named as one of the challenges facing the land reclamation sub-sector and therefore the policy places an emphasis on putting the country's climate change strategy into consideration during its implementation. The policy further recommends synchronizing of the land reclamation policy with climate change policy as one of the measures in dealing with marshland and coastal lands' invasion by sea water. The policy in its funding strategies proposes

use of the proceeds from the carbon markets. However, as much as the policy identifies climate change as a challenge, it has not detailed down how climate change affects the sub sector. Similarly the policy does not give clear guidelines on how to deal with climate change in terms of any proposed action plans, roles and mandates and any technical capacities to be placed in the MDAs as required by the NAP. In addition the policy has not covered both levels of the government (national and county) as required by the NAP. This may pose as a challenge to the implementation of the NAP because of lack of synergy creation in matters land reclamation and climate change adaptation in the country.

National Drought Management Authority Act, 2016

Chapter 3 of the NAP outlines drought as one of the three key climate hazards and vulnerabilities in the country. The National Drought Management Authority Act, 2016 was enacted as an act of parliament following the recognition of perennial drought faced by certain sections of the country and especially the ASALs which results in severe negative economic, social and environmental effects. This Act establishes the National Drought Management Authority (NDMA) who's among others, main functions include; overall coordination over all matters relating to the drought management including implementation of policies and programs relating to drought management. NDMA is also mandated to coordinate drought related initiatives being undertaken by other bodies, institutions and agencies. Other functions include establishment and review of drought preparedness strategies, development of early warning systems and drought contingency plans. The NDMA is mandated to execute these functions at the national and county government levels. The act also establishes a fund known as National Drought Emergency Fund. The fund is meant to facilitate timely response to drought during different stages, provide for a common basket emergency fund in order to minimize the negative effects of drought, provide funds for capacity and technical expertise development to improve on drought management; and finance the establishment, management and coordination of projects, activities or programs. The National Drought Management Authority Act, 2016 creates an enabling environment when it comes to implementation of the NAP. It does not only provide for performance of coordination roles but also for implementation of some of the action plans proposed in the NAP.

Water Act, 2016

The Water Act 2016 explicitly mentions climate change and has provided provisions in the water sub-sector that directly have an impact on climate change adaptation actions. These include the establishment of Water Resource Regulatory Authority with mandates such as designation of water basin areas in the country. It also provides for establishment of basin water resource boards responsible for the management of water resources in the country. Other provisions which may directly affect climate change adaptation is the establishment of a National Water Harvesting and Storage Authority with a function among others of undertaking on behalf of the national government the development of national public water works for water resources storage. Protection of catchment areas and conservation of ground water are other provisions in the Act. County governments have been accorded the mandate to put in place measures for the provision of water services that are considered viable on a commercial basis in the rural areas. While these are some of the provisions that may have a direct impact on climate change adaptation in the country, the act provides for appointment of staff which may have some political orientation. Similarly, incorporation of staff with both water and climate change technical capacities are not specified in the Act and therefore addressing or implementing the actions plans proposed under the water sector in the NAP may be hindered.

Intergovernmental Relations Act, 2012

Intergovernmental relations Act of 2012 was enacted as an Act of Parliament with the main aim of establishing a framework for consultation and cooperation between the national and county governments, and to establish mechanisms for the resolution of intergovernmental disputes pursuant to Articles 6 and 189 of the Constitution. The Act provides an enabling environment in the implementation of the NAP. This is because the NAP is designed in such a way that implementation of the proposed action plans are at the national and county level. Therefore the act provides legal mechanisms under which these two levels of government can work harmoniously towards achievement of the common goal of climate change adaptation. Ultimately, the act plays a role in enhancing the effectiveness of the actors at national and county government especially in coordination, resource mobilization and use, and technical capacities.

Second Medium Term Plan II (2013-2017)

The Second Medium Term Plan 2013-2017 has recognized climate change as an emerging issue and a challenge in two of its pillars. Specifically the economic pillar under agriculture and livestock ; environment, water and sanitation identify unreliable weather patterns and effects of climate change characterized by extreme weather events such as droughts floods and landslides while in the manufacturing sector climate change effects are manifested through short supply of power and reduced raw materials from the increased droughts. In the financing sector climate change fund is seen to be a key vehicle for mobilizing and allocating resources from the international development partners towards climate change related activities. While the MTP II has recognized climate change as an impediment to development and has called for implementation of the NCCAP in one of the sub-sectors, climate change adaptation issues have not been discussed in details. It can therefore be recommended the next MTP (2018-2022) should adequately address adaptation actions stated in the NAP and provide budget lines for them.

Environmental Management and Co-ordination Act, 2015

EMCA Act was first enacted in 1999 by the Parliament under the premise that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. The Act establishes the National Environment Management Authority (NEMA) whose mandate is to exercise general supervision and coordination over all matters relating to the environment and to be the principal instrument of government in the implementation of all policies relating to the environment. Besides the provisions in the act, NEMA plays a key role in the climate change matters in the country. At the moment, NEMA is the only accredited NIE for GCF and adaptation fund in Kenya. The CCA has accorded NEMA the role of monitoring and enforcing compliance of climate change interventions. The EMCA act 2015 has also created provisions for the county governments in the management of the environment

Land Act, 2012

The Land Act of 2012 was enacted by as an Act of Parliament with the aim of revising, consolidating and rationalizing land laws and to provide for the sustainable administration and management of land and land based resources in Kenya. The Act in Section 11 (2) requires identification of sensitive areas that are within public lands and demarcate or take any other justified action on those areas and act to prevent environmental degradation and climate change. While the act has given provisions of management of public lands, it does not give management guidelines that explicitly address climate change. Also there is little attention given to issues related to degradation of private land. The NAP under land reforms sections proposes integrating climate change scenarios into spatial planning as one of the medium term sub-actions. Without inclusion of climate change in the Land Act, actualizing this aim of the NAP may be difficult.

Public Finance Management Act,2013

The objective of the Public Finance Management Act is to ensure that public finances are managed at both the national and county levels of government in accordance with the principles set out in the Constitution while ensuring accountability to the public. The Act gives guidelines on the national budget process, establishment of the national treasury and its responsibilities regarding administration of public funds and also gives guidelines on management of county funds. Contingency fund as one of the identified public funds has provisions relating to effective disaster management thus enhancing climate change management and in essence enabling operationalization of the NAP. However, the Public Finance Management Act stipulates that there are amounts due to county governments but it does not clearly stipulate the mechanisms regarding the transfer of funds from the national treasury to the county treasuries. This therefore poses as a potential barrier towards the implementation of the climate change fund specified in the CCA.

3.3.2 Policy and legislative incentives for and barriers to successful implementation of the NAP

Kenya is yet to become food sufficient and reliance on agriculture as a livelihood is common among its population. From the agricultural policies reviewed in Section 3.3.1, a disconnect is evident where most of the agricultural policies and laws do not explicitly incorporate climate change adaptation measures in their development activities. It is generally assumed that agriculture sector ministries and departments are components whose synergistic functions should lead to attainment of the food security and climate change adaption objectives. Further it is implied that sector ministries have to align their operations to the principles of the NCCRS, NCCAP and NAP. If this is done then the agricultural sector will respond effectively to the challenges of climate change and climate variability (UNECA 2013; Maina 2013; Ogungo et al., 2014). The agriculture sector is acknowledging this shortcoming and so far has come up with the Climate Smart Agriculture Framework Strategy that directly links agriculture and climate change. This will be a key incentive for successful implementation of the NAP.

There are however a number of policy and/or legislative gaps that have to be addressed to remove any hindrances to successful implementation of the NAP. These are summarized in Table 1. Notably, there are other policies included in Table 1 in addition to the ones reviewed previously in this section.

Table 1: Hindrances to implementation of the NAP arising from policy gaps in different polices and legislations

Policy/Legislation/Regulation	Identified Gap	Likely effect on NAP implementation
Agriculture Sector Development Strategy	Does not explicitly deal with climate change issues but proposes implementation of the NCCRS. Does not consider the current devolved government system in the country nor their roles and mandates in climate change matters.	Poor coordination and lack of synergism in increasing productivity and reducing effects of climate change as proposed in the NAP.
Agriculture Food and Fisheries Authority Act	Lack of harmony among the different policies that led to development of the Act.	Duplication of efforts likely to arise in different levels of government. There is likely to be a conflict of interest as the county governments have reservations that AFFA Act may serve national objectives at the expense of the county government's.
Livestock Policy	Though it considers climate change as a challenge to the livestock sub-sector, it does not identify most of the possible adaptation measures that can increase resilience in the ASALs. The link to NDMA is not clear.	May lead to poor coordination with the ministries, departments and agencies (MDAs) responsible for climate change in the sub-sector. Lack of synergy creation in the sub-sector and particularly with NDMA.
National Oceans and Fisheries Policy	Does not include adaptation and resilience to climate change	Lack of technical capacity especially if implementation of the NAP is through the climate change desks identified in the NCCAP.
Ending Drought Emergencies Common Program Framework	The three distinct types of interventions for national government, county governments, NDMA and partners are inseparable.	High chances of effort duplication as some action plans cut across the national to community levels. Conflict of interest between national and county governments, especially in financing.
National Irrigation Policy	Although it explicitly addresses climate change, technical capacities of human resources required are not specified. It is expected these would have a combination of climate change and irrigation capacities.	Delivery of action plans stipulated in the NAP may not be effective due to lack of the required human capacities.
National Food and Nutrition Security Policy	With the current state of the devolved form of governments, the policy has not included the roles, mandates and functions of both county and national government in matters of food security and climate change.	The NAP is set such that implementation of action plans is both at the national and county government levels. Lack of clarity of roles and functions will slow down NAP implementation.
Devolution Policy	Budget allocations outside the County Integrated Development Plans (CIDPs). Existing conflicts between national government and the county and within the county (County Assembly and County Executive).	Implementation of the NAP within the stipulated period of time (2015-2030) may not be possible as conflicts are like to slow down the speed of accomplishing proposed activities.
National Forestry Policy	Does not explicitly outline adaptation and resilience actions such as REDD+ No clearly defined mandates and roles of the actors nor the coordination among these actors in conducting climate change research.	Poor coordination and chances of effort duplication with other organizations are high.
Tourism Act	Insufficient provisions requiring actors in the tourist industry to develop effective planning for climate change adaptation and mitigation.	May slow down NAP implementation since the activities of the industry players are not clear.
The National Wildlife Conservation and Management Policy, 2012	Does not sufficiently incorporate climate change adaptation and mitigation in its plan but rather proposes a contingency plan	May affect planning and budget allocation for action plans proposed in the NAP.
Cooperative Act	The Act does not provide any provisions on climate change adaptation and mitigation even if it is well known that climate change affects local communities engaged in cooperative activities.	Lack of integration of climate change in cooperatives may negatively affect shaping of adaptations and capacity improvement of vulnerable social groups.

Policy/Legislation/Regulation	Identified Gap	Likely effect on NAP implementation
Draft Kenya Climate Smart Agriculture Strategy	Roles and functions of CCCSC and NCCSC are similar and therefore there might be duplication of activities	Hinder effective coordination of adaptation and resilience activities between the national and county governments
Draft National Policy for the Sustainable Development of Northern Kenya and other Arid Lands 2015	It presents as an opportunity to the implementation of the NAP. Some of the policy measures stipulated are in line with the action plans proposed in the NAP	Likely to enhance implementation of the NAP
Tana River Delta Strategic Assessment scoping report 2012	The report fails to give guidelines on how it intends to tackle the climate change issue but requests for an assessment of climate change as an externality	Lack of incorporation of climate change recommendations such as building technical capacities may hinder NAP implementation
Draft Agriculture policy 2014	Recognizes climate change at both national and county governments. Calls for implementation of the NCCAP and promote adoption of climate change research findings and capacity building for agricultural value chain players	Acts as an enabling environment for the implementation of the NAP in the agriculture sector
National Land Reclamation Policy 2013	Does not detail down how climate change affects the sub sector nor does it give clear guidelines in dealing with climate change	Lack of synergy creation in land reclamation and climate change adaptation
Land Act 2012	Gives provisions for management of public land but does not explicitly address climate change in management of land	Without inclusion of climate change in the land act, implementation of the NAP may be hindered
National Drought Management Authority Act,2016	The act mandates NDMA to performs overall coordination of drought issues in the country and implementation of some of the action plans in the NAP	Creates an enabling environment for implementation of the NAP given its roles
Water Act, 2016	Provides for appointment of staff which is likely to create political line appointments hence may lead to political interference	Lack of having staff with both water and climate change technical capacities may hinder effective implementation of the NAP
Intergovernmental Relations Act, 2012	Provides a legal mechanism under which the national and county governments can work harmoniously	Enhances coordination between the two levels of government
Public Finance Management Act	Does not clearly stipulate the mechanisms of funds transfer from the national treasury to the county treasuries	Flow of climate change funds may be ineffective hindering implementation of the NAP
Environmental Management and Co-Ordination Act, 2015	Establishes NEMA with an overall role of coordinating and supervising all matters of the environment. Provides provisions for county governments in management of the environment	Creates an enabling environment in the implementation of the NAP with roles such as NIE for GCF and Adaptation fund
Second Medium Plan (2013-2017)	Fails to address climate change in detail when climate change is identified as a major challenge in most critical sectors	Emphasis to be placed on climate change and proposed actions when developing the next MTP

4. ACTORS/INSTITUTIONS INVOLVED IN POLICY IMPLEMENTATION AT THE NATIONAL AND SUB-NATIONAL LEVEL

4.1 Categorization of actors/institutions

The main actors involved in climate change related policy design and implementation are majorly categorized into state and non-state actors. The main state actors are: county governments; and government ministries, departments and agencies at the national level. The latter include all ministries in the agricultural sector, Ministry of Devolution and Planning and The National Treasury. The state corporations involved include NDMA, NEMA, KALRO, public universities, among others. The main non-state actors are: donors and development partners such as DfID, JICA, DANIDA, SIDA, UNDP, World Bank, among others; international research institutions such as CGIAR centers; private sector such as Kenya National Farmers' Federation (KENAFF), Kenya Association of Manufacturers (KAM), Kenya Climate Innovation Centre, and Africa Conservation Tillage Network (ACTN). Non-Governmental Organizations (NGOs) include Red Cross, Care International Kenya and Faith-based organizations.

4.2 Actors/institutions and their roles and functions

As elaborated in Tables 2-3, the main roles of the state and no-state actors is provision of technical capacities required in the formulation of the climate change policies in the country, including the NCCRS, NCCAP, NAP and the Act. They also offer technical capacity in the implementation of various projects related to building climate change resilience and adaptation. Research institutions are heavily involved in conducting research on climate smart agriculture and on innovations such as crop and livestock index based insurance while the donors provide the financial support at the national and county levels that is required in mainstreaming climate change into sector ministries and County Integrated Development Plans.

Table 2: Roles and functions of different state actors involved in policy implementation

Type of Actor	Level of Operation	Actor/ institution	Roles and Functions
National Government Ministries and Agencies	National	National Climate Change Council (NCCC)	• Ensuring mainstreaming of climate change function by the national and county government • Approving and overseeing implementation of the National Climate Change Action Plan • Advising the national and county governments on legislative policy and other measures necessary for climate change response and attaining of low carbon climate change resilient development • Approving a national gender and intergenerational responsive public education awareness strategy and implementation • Providing policy direction on research and training on climate change including collection and dissemination of climate change information • Providing guidance on review, amendment ad harmonization of sectoral laws and policies • Administering the climate change fund • Setting targets for the regulation of greenhouse gas emissions
	National	Climate Change Directorate	• The lead agency of the government on national climate change plans and actions • Provide analytical support on climate change to the various sector ministries, agencies and county governments • Establish and manage national registry for appropriate mitigation actions by public and private entities • Serve as the national knowledge and information management center for collating, verifying, refining and disseminating knowledge and information on climate change • Collaborate with other agencies at national and county levels to identify low carbon development strategies, coordinate actions to build resilience and enhance adaptive capacity, and to mobilize climate finance • Coordinate adherence to the country's international obligations • Coordinate implementation of the gender and intergenerational climate change education, consulting and learning at the national and county government levels • Provide technical assistance based on needs identified by the county governments.
	National/County	National Drought Management Authority (NDMA)	• The principal instrument of the government in ensuring the delivery of all the policies and strategies that relate to drought management and climate change adaptation • Exercise general supervision and coordination over all matters relating to drought management in Kenya

Type of Actor	Level of Operation	Actor/ institution	Roles and Functions
	National	National Environment Management Authority (NEMA)	• Monitor, investigate and report on whether public and private entities are in compliance with the assigned climate change duties • Ascertain that private entities are conforming to the climate change laws as prescribed in the Climate Change Act • Regulate, enforce and monitor compliance on levels of greenhouse emissions as set by the National Climate Change Council • National Implementing Entity (NIE) for the Adaptation Fund and GCF
	National	National Treasury	• National Designated Authority for the Green Climate Fund • Custodian of the Kenya Climate Fund • Responsible for the allocation of climate change funds from the exchequer
	National	Ministry of Environment and Natural Resource	• Coordination of climate change response in the country • Responsible for policies and strategies for conservation of forests, water catchments, water towers, wetlands, riparian areas and rehabilitation of degraded areas. • Formulation of programs for promotion of dryland forestry to create resilience in the ASALs
	National	Ministry of Agriculture, Livestock and Fisheries	• Promotes and facilitates production of food and agricultural raw materials for food security and incomes • Lead implementing institution of policies and strategies in the agricultural sector such as Climate Smart Agriculture
	National	Ministry of Water and Irrigation	• Formulation of policies, strategies and programs for sustainable development and management of water resources. • Reclamation of degraded lands for sustainable development • Prioritize investments such as infrastructure for water harvesting and storage alongside irrigation systems needed to build resilience and support strategies such as climate smart agriculture
	National	Ministry of Planning and Devolution	• Responsible for national development planning and associated monitoring and evaluation in Kenya • Leading in the process of mainstreaming climate change into national plans including the 5 year MTPs under vision 2030. • Analysis of risks and impacts of climate change to national development using threshold 21 model
	National	Ministry of Health	• Participated in the development of NAP and contributed climate change implications on health
	National	Kenya Meteorological Department (KMD)	• Provides climate information that informs decisions that are made regarding climate change adaptation. • Coordinates research in meteorology and climatology
	National	Kenya Wildlife Service	• It undertakes climate change adaptation projects and also showcases protected areas as natural solutions to climate change adaptation • KWS is in the process of developing a National Wildlife Climate Change Adaptation Strategy
	National	Kenya Climate Innovation Centre (KCIC)	• Provides incubation, capacity building services and financing to Kenyan entrepreneurs and new ventures that are developing innovative solutions in energy, water and agribusiness to address climate change challenges
Counties	County	County Governments	• Integrate and mainstream climate change actions, interventions and duties into the County Integrated Development Plans (CIDPs) • Designate a County Executive Committee member to coordinate climate change affairs • Report on progress of implementation of climate change actions to the County Assembly for review and debate, with a copy to the Climate Change Directorate for information

Type of Actor	Level of Operation	Actor/ institution	Roles and Functions
Research Institutions	National	Local Universities (mainly UON, KU, SEKU)	• Offer courses in knowledge management and capacity development in climate change studies • Conduct research on climate change adaptation innovations • Provide technical support in the formulation of climate change policies, mainly NCCAP and the NAP
	National	Kenya Agricultural and Livestock Research Organization (KALRO)	• Conduct research on climate smart agriculture innovations such as improved adaptable livestock breeds and crop varieties that are drought resistant and disease tolerant • Implementation of relevant climate change adaptation projects • Provide technical support in the formulation of climate change policies i.e. NCCAP and NAP
	National	Kenya Forestry Research Institution (KEFRI)	• Disseminates information for implementation of adaptation mechanisms in the NCCRS • Development of climate change adaptation and mitigation options • Conservation of water resources through rehabilitation and protection of water sources • Capacity building of human resources through outreach training programmes • Climate change research
	National	Kenya Marine and Fisheries Research Institute (KMFRI)	□ Contribute to research on both marine and fresh-water aquatic systems while taking cognizance of climate change

Table 3: Roles and functions of different non-state actors involved in policy implementation

Type of Actor	Level of Operation	Actors	Roles and Functions
International Organizations and UN bodies	National	UNDP	• Provide advice to government on key development issues and challenges • Collaboration with government MDAs on various climate change adaptation projects under UNDP Dryland Development Centre • Supporting developing countries to integrate agriculture into National Adaptation Plans Program
	National	UNEP	• Supporting preparation and coordination of NCCAP • Spearheading the formation of Global Climate Change Adaptation Network • Collaboration with MDAs in climate change capacity building projects in the country
	National	International Institute for Sustainable Development (IISD)	• Works with governments and non-governmental organizations in developing strategies, tools and offers policy advice needed to respond effectively to the impacts of climate change
	National	United Nations Framework Convention on Climate Change (UNFCC)	• Keen on international environmental treaty that resulted from the Earth Summit, held in Rio de Janeiro 1992. The objective of the treaty is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system • Kenya is a non-annex 1 party to this convention
International and National NGOS	National	Care International	• Provide technical support in the formulation and coordination of climate change policies mainly NCCAP and NAP • Implementing climate change adaption programs such as Adaptation Learning Programs for Africa with the aim of increasing capacity of vulnerable households
	National	Kenya Red Cross Society	• Collaboration with MDAs (Ministry of Environment and Natural Resources and Ministry of Water and Irrigation) in implementation of the Sustainable Environment and Restoration Program (SERP)
	National	Christian Aid	• Provides assistance in dissemination and transfer of climate change information to the vulnerable communities in Kitui and Makueni Counties • Provide technical support in the implementation of County Adaptation Fund in Kitui and Makueni Counties

Type of Actor	Level of Operation	Actors	Roles and Functions
	National/County	International Institute of Environment and Development (IIED)	• Supports public planning processes in delivering climate resilient development outcomes for the poorest • Supports climate change negotiators from poor and vulnerable countries for equitable, balanced and multilateral solutions to climate change • Building capacity to act on the implications of changing ecology and economics for equitable and climate resilient development in the drylands
	National/County	Met Office	• Develops improved climate information services (CIS) in Wajir, Makueni, Garissa, Kitui and Isiolo Counties • Develops and delivers demand-led and decentralized services of the Kenya Meteorological Department (KMD) in some Western Kenya counties
	National/County	Anglican Development Services (ADS)	• It has operations in Machakos, Kitui, Makueni and Garissa counties • Participates in improving communities resilience to effects of climate change • Promotes reduction of climate change effects through environmental conservation and provision of climate information • Promotion of adaptable seed varieties to cope with changing weather patterns
National NGOs	National/County	Caritas Kenya	• Strengthens the resilience of vulnerable and marginalized communities to climate change shocks through mitigation and adaptation measures • Promotes environmental conservation initiatives • Supports production of drought tolerant and drought resistant crops
	National	Norwegian Church Aid (NCA)	• Assists vulnerable population groups (e.g. smallholder farmers) to become less vulnerable to climate change through various adaptation measures
Community Based Organizations	National	Resource Advocacy Program (RAP)	• Promotes and facilitates community access and management of the resources upon which local livelihoods depend • Capacity building of customary institutions at the local level • Provide technical support in the implementation of County Adaptation Fund in Isiolo County • Provide support during enactment of drought Act in the ASAL counties • Provide assistance in dissemination and transfer of climate change information to the vulnerable communities
	County	Arid Lands Development Focus (ALDF)	• Provide assistance in dissemination and transfer of climate change information to the vulnerable communities in Wajir County
	County	Woman Kind Kenya	• Provides technical support in the implementation of County Adaptation Fund in Garrisa County • Provide assistance in dissemination and transfer of climate change information to the vulnerable communities
Donors and Development partners	National	World Bank	□Support climate change projects, e.g., Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)
	National/County	UK Department of International Development (DFID)	• Providing financial support in the preparation and coordination of climate change policies in Kenya i.e. NCCAP and NAP • Providing financial support in the development and implementation of County Adaptation Funds and climate change adaptation projects in 5 ASAL Counties • Funds 'Strengthening Adaptation and Resilience to Climate Change in Kenya – Plus (StARCK+)' programme which aims to focus its resources in (a) catalyzing private sector innovation and investment, (b) climate change governance, focusing on stronger policy, institutional and regulatory framework, and (c) enhancing capacity of civil society
	National	Catholic Organization	• Financial support in the development and implementation of County Adaptation Fund and climate adaptation projects in Isiolo County
	National	SIDA, DANIDA, JICA and CDKN	• Providing financial support in the formulation of the National Climate Change Response Strategy and National Climate Change Action Plan

Type of Actor	Level of Operation	Actors	Roles and Functions
Research Institutions	National/County	Climate Change Agriculture and Food Security (CCAFS)	• Conducts research on climate smart agriculture innovations to increase agricultural productivity, climate change adaptation and mitigation measures • Piloting the innovations among vulnerable communities in the country e.g. Climate-smart villages in Lower Nyando, Kisumu
	National/County	International Livestock Research Institute (ILRI)	• Undertakes research in developing resilience and adaptation to climate change in the livestock sub-sector through programs such as index based livestock insurance • Provides technical support in the formulation of climate change policies such as NCCAP
	National/county	World Agroforestry Centre (ICRAF)	• Undertakes research on developing climate change mitigation and adaptation measures through agro-forestry in the country. Through implementation of programs such as Payment for Ecosystem Services
Civil Society Organizations	National	Kenya Climate Youth Network (KCYN)	• Involved as stakeholders in the formulation of the NCCRS and the NCCAP • Involved as a stakeholder but not from the initial stage of development of the NAP
	National/County	Kenya Climate Change Working Group	• A forum that brings together Civil Society Organizations in Kenya and donor partners, government departments and agencies working on climate change and for climate justice • It creates synergies, harmonizes and strengthens their efforts in the design and implementation of activities that address Climate Change • It lobbies and advocates for favorable national policies in the promotion of climate justice for all, especially for the most vulnerable
Private Sector Institutions	National	Kenya National Farmers' Federation (KENAFF)	• Provision of technical support and advice to farmers through extension services on selected climate smart agriculture technologies in its projects such as scaling out approaches to climate smart agriculture in Eastern Africa project
	National	Kenya Association of Manufacturers	• KAM is leading the private sector in the commitment to limiting the global warming temperatures to below 2 degrees centigrade • Providing support to the Ministry of Environment and Natural Resources on the Climate Change Policy and Bill • Participated in the development of the NAP
	National	Kenya Private Sector Alliance (KEPSA)	• Helps the private sector manage climate change risks and access opportunities. It has also developed the Climate Business Information Network (CBIN), a network of interested firms that aims to help the private sector understand the risks and opportunities associated with climate change. • It was also involved in the development of the NCCAP.
	National	Kenya Flower Council (KFC)	• Is an association of independent growers and exporters of cut-flowers and ornamentals that aims to foster responsible and safe production of cut flowers while protecting the environment • It has developed a Carbon Reduction, Resources and Opportunities Toolkit (CaRROT) as a mitigation measure towards climate change.
Other International Organizations	National	DAI	• Establish and manage the FICCF under the StARCK+ programme
	National	matrix	• Establish and manage the FICCF under the StARCK+ programme
	National	GEF	• Provides funding to assist developing countries in meeting the objectives of international environmental conventions such as the United Nations Framework Convention on Climate Change (UNFCCC) • An example of the GEF co-funded projects is Kenya Adaptation to Climate Change in Arid Lands (KACCAL)
	National	Africa Conservation Tillage Network (ACTN)	• They facilitate mutual sharing of information and knowledge on experiences or lessons on promotion of conservation agriculture in Africa. They also actively engage in the building of political will and activity support for Conservation Agriculture
	National	Climate and Development Knowledge Network (CDKN)	• Supports decision-makers in designing and delivering climate compatible development. For instance they supported development of the NCCAP

Type of Actor	Level of Operation	Actors	Roles and Functions
	National	Finance Innovation for Climate Change Fund (FICCF)	• Implementing a component of the StARCK+ programme and provide technical assistance to the government • Aims to support the scaling up of innovation and investment in climate change adaptation/ resilience in the agricultural sector • It is managed by a consortium of Development Alternatives Incorporated (DAI), Matrix Development Consultants and the International Institute for Sustainable Development (IISD) • Supports Kenya Association of Manufacturers (KAM), Climate Care (CC) and United Nations Development Programme (UNDP) in climate change related initiatives • Supports Climate Smart Agriculture (CSA) in collaboration with microfinance institutions

4.3 Effectiveness of actors/institutions in policy formulation and implementation

4.3.1 Effectiveness of actors/institutions in coordination of policy formulation and implementation

The state actors are mostly the initiators of policy formulation in climate change. The engagement of non-state actors comes later at the development stage of the policies. Nevertheless there are some non-state actors such as KCCWG who are involved in advocacy and thus contribute to policy formulation.

Stakeholder engagement in policy formulation has been relatively an effective process for both the state and non-state actors. A fair representation in terms of age, gender, disciplines and institutional affiliation is evident in records of persons who were involved policy formulation. For instance the development of NCCAP involved representation from both state and non-state actors, research institutions, donor and development partners, civil society organizations, NGOs, private sector and the youth groups such as Kenya Climate Youth Network (KCYN). This shows an all-inclusive process in policy formulation and some appreciable level of coordination of actors.

However there are notable inconsistencies in representation of the non-state actors and this might hinder effectiveness in policy implementation if not addressed. For instance, farmer organizations were strongly involved at the county consultative level but not so much at the national level. Also, despite success in terms of inclusiveness in policy formulation, there are still some challenges with regards to effective participation in international fora on climate change issues. Lack of proper coordination is evident especially in deciding who represents Kenya in global climate change meetings. Each Climate Change Unit in sector ministries as well as the non-state actors is left to decide on its own. In particular this disadvantages the participation of the Units since they do not have own funds designated for such activities.

To an extent, effective climate change policy implementation has been affected by lack of coordination among the implementing actors. This is mainly due to political interference in climate change activities. It was found that the government has competing priorities within and across the sector ministries.

National and county coordination especially on funding issues has been difficult, thus adversely affecting implementation There has also been a disconnect in coordination between policy recommendations and actual adaptation activities carried out in the counties. However with the recent enactment of the Climate Change Act 2016, roles and responsibilities have been spelt out on NAP implementation. It is anticipated that these clearly defined roles and mechanisms will favour NAP implementation.

4.3.2 Effectiveness of actors/institutions in coordination of climate change adaptation actions

Several climate change adaptation activities have been carried out but there has been little coordination. Thus this has resulted in duplication of efforts, since unlike in policy development, most of the actors work independently when it comes to actual implementation of adaptation activities. This trend is linked to capacity to raise adaptation funds in individual institutions as currently there is no pooling of financial resources. There are also few projects that are jointly implemented.

Prior to the formulation of climate change policies such as Climate Smart Agriculture Framework and Climate Smart Agriculture Strategy, poor coordination among non-state actors in agriculture sector was evident where several and different projects or programs were implemented towards building climate resilience and adaptation. This lack of coordination results in lack of synergy creation among the actors, leading to an insignificant impact among the vulnerable communities. For instance, the Kenya National Farmers Federation (KENAFF) had a project on 'Scaling out approaches to climate smart agriculture in Eastern Africa' which focused on Sustainable Agricultural Land Management and Conservation Farming in some parts of the country. Research institutions were not involved in this project though it is a well known fact that conservation farming and its applicability in the country is not well researched in Kenya. Furthermore its adoption is questionable as tilling land is treated as an occupational role and a livelihood strategy for women in Africa (Maina, 2013). Therefore for greater impact to have been realized in this project, coordination with research institutions would have been necessary.

Creation of devolved government has to some extent improved the working relationship of most non-state actors. However, selecting a specific county to work with is proving difficult for most non-state actors and especially NGOs. Thus there are tendencies to work mainly with counties providing enabling environments. For instance Makueni and Wajir counties have enabling environments in terms of legislations that support climate change activities and therefore attract several adaptation funding and projects. This trend might lead to having some counties 'left behind' in terms of NAP implementation.

Adaptation activities and stakeholder involvement differs with county governments and vary from county to county. For instance, Makueni and Isiolo have a climate fund in their budgets and Kisumu has a climate change department in Governor's office. Thus there is need to bring all the counties to some appreciable level of implementation of adaptation activities.

4.3.3 Effectiveness of actor/institutions in resource mobilization and utilization

A number of funds are available for implementation of climate change adaptation activities. As stipulated in the action plan, several mechanisms for climate funds mobilization have been proposed and are in the process of being set up. These include the Kenya Climate Fund at the national level which is to be used in tapping international climate change funds such as the Green Climate Fund (GCF). Other proposed mechanisms include use of carbon trades and increasing the absorptive capacity of the country. At the county level, County Adaptation Funds have been proposed and are to be mainstreamed into the County Integrated Development Plans (CIDPs).

Currently, and among the state actors, NEMA is the only National Accredited Entity (NIE) to the GCF in Kenya. Private institutions that have also applied for accreditation to GCF include Geothermal Development Corporation (GDC) and Kenya Commercial Bank. Acumen and Deutsche Bank are international institutions that have already received accreditation and have projects that are set to operate in Kenya. This is through KawiSawi Ventures Fund in East Africa and Universal Green Energy Access Programs, respectively. Both projects have regional operations dealing with provision of clean energy.

Other institutions that have funds available for climate change adaptation activities include NDMA and National Environment Fund (NETFUND). NDMA supports programs that promote drought resilience while NETFUND's strategic direction is to support the development of 100 green companies by 2025.

A few counties have so far created climate adaptation funds i.e., Makueni and Wajir. However both are from the ASALs and there is non from high potential areas. As mentioned earlier, these two counties have legislations on County Climate Change Fund (CCCF) and have committed a percentage of the county development funds towards climate change adaptation. With the legislation, the counties have an opportunity of accessing more funding for climate change adaptation from the national government and other national sources such as the GCF. For instance, Wajir County set aside around 80 million from its development funds and also received 62.7 million from DFID, totaling to 142.7 million shillings for climate change adaptation and resilience.

It is clear climate fund mobilization has been given good attention and so far positive results are visible. However the impact of utilization of these funds in the agricultural sector is yet to be clearly seen. So far no climate funding has been earmarked by the government for CSA in the agricultural sector. The climate change unit desks in various sectors have confirmed allocation of some climate money but channeling of the money from the exchequer to the units is still a challenge which translates to underutilization of climate funds.

4.3.4 Effectiveness of donor coordination

There are several donors that fund climate change activities in Kenya. As indicated in Section 4.2 these include but not limited to World Bank, GIZ, DFID, UNDP, SIDA, DANIDA, and JICA. Several climate funds are also available such as GCF and NETFUND. However, with the exemption of funding from DFID and World Bank, coordination of donors is not yet optimal and particularly at the county level.

DFID climate funding is well coordinated because it is channeled through the StARCK+ programme. This program has 6 components managed by 5 contractors. The components include: FICCF; KCIC; Adaptation Consortium; Renewable energy and adaptation technologies; strengthening civil society engagement in climate change and Technical Assistance (TA) to the Government of Kenya (GoK). These components are also to be supported by other donors. For instance KCIC is also being supported by the World Bank.

Therefore this is a good example of how donor funding can be well coordinated at the national level.

4.3.5 Effectiveness of actors/institutions in terms of technical capacities

Most of the public institutions and actors have inadequate technical capacities to implement climate related policies and adaptation activities. For instance the Climate Change Unit in the State Department of Agriculture has only three staff assigned to climate activities while the other two State Departments (Livestock and Fisheries) use ministry staff deployed to perform other activities.

The Sector therefore has resulted into getting technical assistance from other non-state stakeholders such as the FICCF.

4.3.6 Role of academic institutions/universities in addressing policy gaps

One of the major roles of universities is generation of new knowledge through research and transfer of knowledge through teaching. With regards to climate change, they enhance technical capacities and also contribute to advancement of knowledge. However climate change research in Kenya has not grown so much as only University of Nairobi (UoN) and Kenyatta University (KU) are involved in extensive teaching.

The University of Nairobi has created the Institute for Climate Change and Adaptation (ICCA) that offers both masters and doctoral courses on climate change adaptation thus building technical capacities in climate change. It also gives policy advice on climate change and adaptation.

Kenyatta University has a School of Environment Studies that offers both masters and doctorate programmes on climate change and sustainability. This is also linked to the environmental governance studies provided in one of the departments

With few other universities offering climate change related courses, there is scope for academic institutions to participate in policy dialogues related to climate change and contribute towards addressing policy gaps related to NAP implementation. Most of the research done in the universities is accessible to policy makers and this can influence policy formulation and implementation. Also, lecturers from key public universities often participate in persons in policy discourse and thereby contribute to better understanding of policy gaps and incentives.

5. INSTITUTIONAL ARRANGEMENTS FOR THE IMPLEMENTATION OF THE NAP

Institutional arrangements play a crucial role in planning, regulation and effective management of organizations' activities as well as in assisting in effective coordination with other actors to fulfill their mandate. In Kenya the adaptation actions are supported by legal, regulatory and legislative frameworks, specifically action plans, policies and acts of parliament. These, according to the theory of New Institutional Economics, are institutions that guide behavior and interactions of actors when involved together in an activity. They are also the main determinants of the nature of outcomes that are generated by institutional arrangements between different actors.

In the implementation of the NAP, different institutional arrangements exist at both the national and county levels of government. These can be presented in an Institutional Analysis and Development (IAD) framework as shown Figures 1 and 2.

5.1 Institutional arrangements for climate change adaptation planning within the national government

The Constitution 2010, Vision 2010 and sectoral policies make up the policy and governance environment to which the implementation of the NAP is embedded. Key institutions at this level are the Ministry of Devolution and Planning and the Independent Electoral and Boundaries Commission (IEBC). The 'action domain' of the implementation of the NAP considers the core institutions, i.e. the NAP which gives guidance on the priority climate change adaptation action plans that are to be implemented and the CCA which stipulates the roles and mandates of the different actors to be involved in climate change activities in the country. It also has the key actors and their attributes, the activities and their attributes and institutional arrangements that govern how these actors behave. The actors and their attributes (mainly roles and functions) have already been described in Section 3 and therefore are not repeated in this section. However the core ones such as NCCC, CCD, Climate unit desks, NDMA and NEMA are highlighted since they are the main players of the 'action domain'.

The National Climate Change Council is the highest office in the country that deals with climate change affairs. The council has an overall mandate of oversight on the mainstreaming of adaptation functions at national and county levels and to approve and oversee the implementation of the National Adaptation Plan. The council geographically works at the national and county level of governments. It will interact with the other organizations as guided by institutional arrangements created by the NAP and CCA (Figure 1).

The Climate Change Directorate is the principle lead agency of the government on national climate change actions, and delivery of operational coordination. Among others the CCD mandate is to develop strategies and coordinate actions for building resilience to climate change and enhancing adaptive capacity. The Directorate's mandate geographically covers both national and county levels of government through the work modalities and rules stipulated in the NAP and CCA.

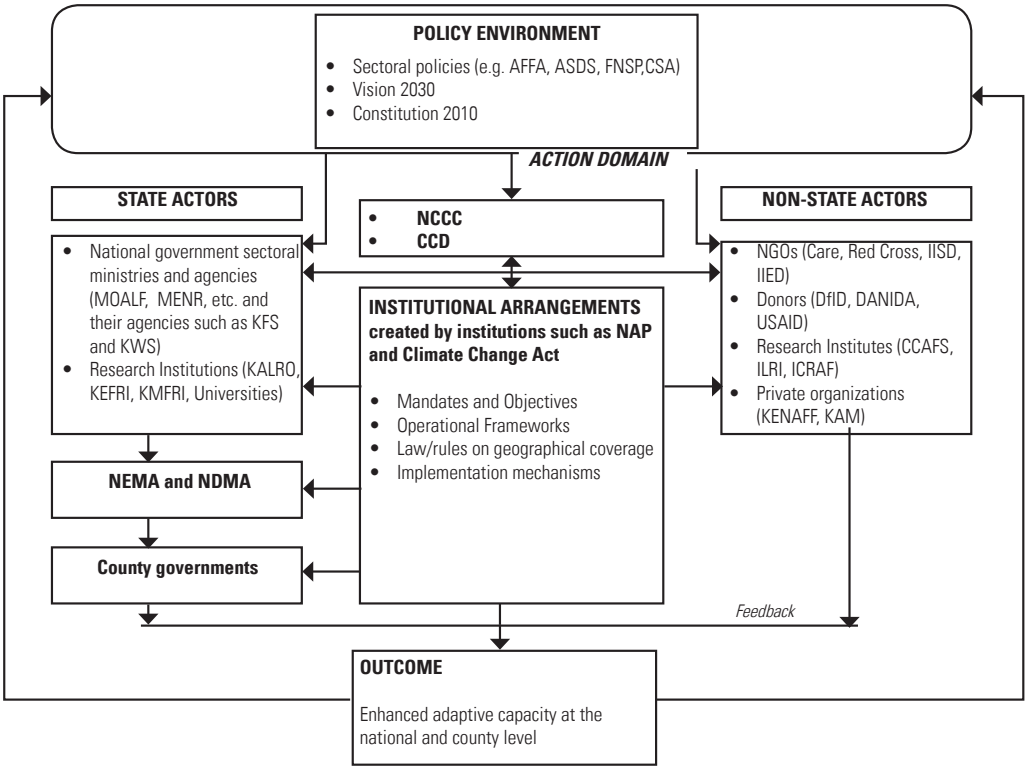

Figure 1: National Level Institutional Arrangements for climate change adaptation planning

The national government sectoral agencies comprise of the climate unit desks set up in the sector ministries. These are in the Ministry of Agriculture, Livestock and Fisheries, Ministry of Water and Irrigation Ministry, State Department of Cooperatives and state corporations such as Kenya Wildlife Service, KALRO, etc. According to the NAP and the Climate change Act the climate change units are supposed to be the implementing units of climate change issues within the sector. These are required to interact with the non-state actors as guided by the NAP and CCA.

It is important to acknowledge the important role played by NEMA and NDMA who have core functions in the climate change adaptation plan, both at national and county level. In particular NDMA geographically covers the national, county and community levels in its mandate. It is headquartered in Nairobi and has offices in the 23 ASAL counties and coordinates with the government and other stakeholders on matters relating to drought management. For instance the program on Ending Drought Emergencies (EDE) was developed nationally but the county NDMA offices are the ones implementing it. Thus this organization will be crucial in the achievement of successful implementation of NAP.

NEMA is semi-autonomous agency in the Ministry of Environment and Natural Resources and has links environmental committees in all the counties. According to the CCA, the agency is mandated to monitor and enforce compliance of climate change interventions. It is expected to report annually to the NCCC on the performance of functions as stipulated in the Act. Thus with the current institutional arrangements NEMA has important functions that will greatly influence successful implementation of the NAP.

As shown in Figure 1, the interactions among the actors and the activities performed in the action domain are expected to generate climate change adaptation outcomes. The main outcome in this case is the building a low carbon climate resilient development. This in the long run will improve the lives of the poor and environment while it reduces disaster risks and ensure sustainable development. It is expected that the feedback to the policy environment could lead to formulation of more efficient policies which would then positively impact on NAP implementation.

5.2 Institutional arrangements for climate change adaptation planning within the county government

A similar approach as in Section 5.1 is used to present the institutional arrangements for implementing NAP within the county government (Figure 2). However there are key differences between the policy environment, action domain and outcome of the national and county governments.

The policy environment at the county level included both national and county policies, including intergovernmental laws. Thus it is a more complex environment than that of the national governments. In particular the role of the Council of Governors (CoG) has to be considered. The CoG has already been reported as an impediment to implementation of agricultural activities in the counties.

The action domain has different actors, who have different characteristics/attributes and activities. For instance, the actors here do not have the financial resources that the national actors have. There are also more CBOs and NGOs at the county. The institutional arrangements are also expected to be different since NAP and CCA have different mandates and rules of behavior (institutions) for the counties. For instance, most of the adaptation actions are planned by the national government but implemented by the county governments. Also, some counties have their own acts and regulations on climate change.

Similarly the outcome is different since the adaptation actions implemented by the counties are more likely to be felt at the community level than those implemented by the national government (Figure 2). In particular the CBOs have a very good outreach of the local communities in terms of flow of climate information and implementations of adaptation activities.

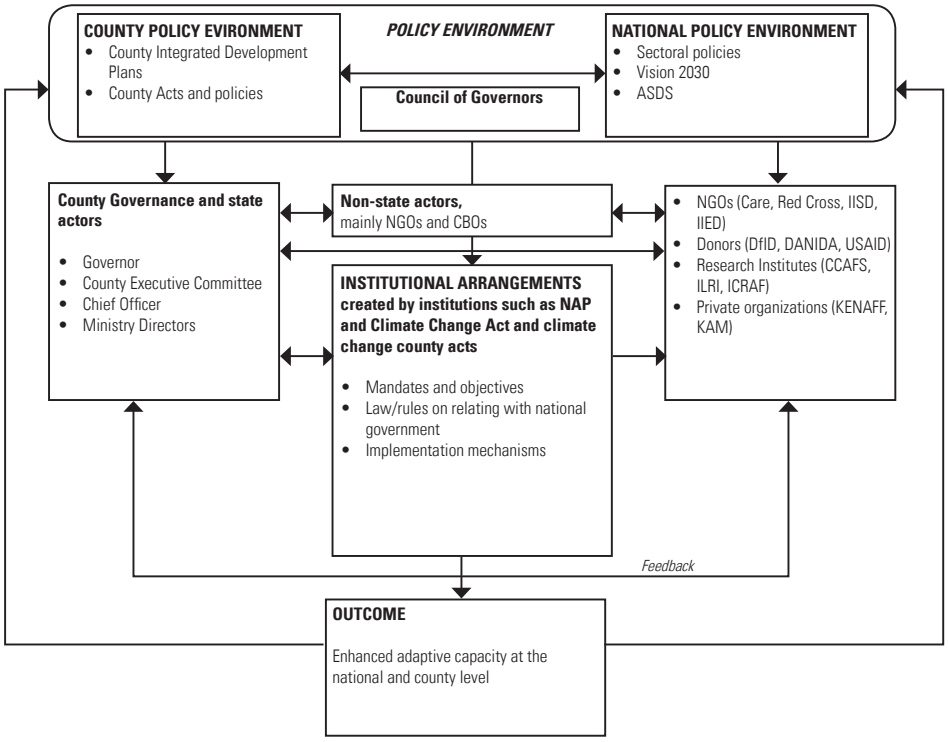

Figure 2: County level institutional arrangements for climate change adaptation planning

5.3 Institutional arrangements for collection and dissemination of climate information

Climate information is mainly generated by Kenya Meteorological Department (KMD) which is a national government agency. This information is made available on KMD website and is also daily disseminated through radio and television. The weather details include one day weather prediction and the prevailing weather conditions. KMD has devolved its activities to the counties and currently all the sector county ministries participate in climate information dissemination. Also NGOs such as Anglican Development Services (ADS) are involved.

Met office which is a UK based government organization also generates climate information for the country. It works together with Kenya Meteorological Department to disseminate this information in some Western Kenya Counties and 5 ASAL counties that are beneficiaries of the ADA Consortium.

The NDMA also uses the climate information generated by Kenya Meteorological Department to operate an efficient drought early warning system. It produces monthly bulletins for the 23 ASAL counties in Kenya that mainly communicate the counties' drought status to stakeholders. They use color coded flags to communicate the drought stage to communities within these counties. Green represents recovery/normal phase; yellow represents alert phase; orange represents alarm phase while red indicates the emergency phase. These flags are normally placed in public places such as schools and markets in order to communicate to majority of the populations. NGOs at the county level such as Pastoralists Community Initiative and Development Assistance (PACIDA) in Marsabit County also help in disseminating this information since community leaders have been trained how to interpret the early warning indicators.

The national government also uses climate information from Kenya Met to make informed decisions in terms of contingency planning and also to create public awareness in case of an expected extreme climate event. The main means of communicating this climate information to vulnerable communities is through radio and use of community leaders to disseminate to their respective communities. The main means of communicating to NGOs, other organizations and educated populations is through television, newspapers and the monthly bulletins.

One key activity of contingency planning process that is related to climate information dissemination has been the involvement of community members in Participatory Scenario Planning (PSP) whereby they are able to contribute to the mapping out of drought early warning signs and make suggestions for mitigation and adaptation measures. NDMA, ASDSP and county ministries have been involved in these PSPs. The local communities also do radio presentations in vernacular on drought early warning signs in order to boost community preparedness to handle drought emergencies.

It must be noted that local communities, and particularly those living in the ASALS, have their own or traditional early warning

weather indicators. These include: use of foretellers; observation of animal intestines; observation of animal behavior during watering; observation of the sky at night (moon and stars); drying up of some specific tree species; extreme high temperatures among others (Aklilu and Wekesa, 2002). These indigenous early warning indicators are mainly communicated through meetings (traditional weddings, thanksgivings, etc.) held within the community villages. Foretellers are often invited to these meetings whenever slaughtering of animals is being done and they are able to predict future weather conditions by looking at animal intestines.

The main problem affecting weather dissemination is that currently most pastoralists in ASALs do not trust the 'modern' signs of NDMA and often rely on the indigenous indicators to predict severity of droughts. This is because they have a long experience of using them, have confirmed that they are reliable, and have perceived them as not complicated as the 'modern' ones (FH, 2016). The unreliability of the 'modern' ones is being exacerbated by the fact that the predicted *El nino* of late 2015 and early 2016 never came to be.

Within the sectors, institutional arrangements for climate change information management are weak as awareness of what climate change units/desks are doing is low. Often staff members from other departments in the sector ministries do not have good knowledge of climate change issues in the county. They are therefore ignorant of the adaptation activities that should be included in their projects and plans.

6. CURRENT INTERPLAY BETWEEN STATE AND NON-STATE ACTORS

Climate change adaptation planning involves preparing for expected changes caused by climate change. This planning involves both the state and non-state actors in the agricultural sector working together to achieve the desired ecosystem resilience. The current interplay of these actors in climate change adaptation planning in different facets is examined in this section.

International meetings and agreements

The international agreements on climate change adaptation and mitigation mostly serve as guidelines to what will be implemented in the countries. These are important for both state and non-state actors. For instance, the recent Paris Agreement spells out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C. Kenya has already submitted its Intended Nationally Determined Contribution (INDC) to the UNFCC and aims to reduce 30 percent of GHG emissions by 2030. In reaching this agreement the state actors worked together with non-state actors and both groups were well represented in the Paris meeting.

Research

International research organizations have research programs directed towards climate change issues. For instance, CGIAR centers have the CCAFS research program led by CIAT. These non-state international actors often involve the state actors such as KALRO, KEFRI, KMFRI, etc. in the research. In particularly national universities which enhance local technical capacities and also contribute to advancement of knowledge on climate change adaptation, often work together with non-state actors in joint research projects.

Policy formulation

Mostly the non-state actors' contribution to policy formulation is through funding, technical support and lobbying policy makers while the contribution of the state actors is mostly to direct and coordinate activities. For instance, in the development of the NAP, the National Climate Change Secretariat was directing and coordinating the activities while FICCF was majorly offering technical assistance. Youth organizations, as an important part of the non-state actors, are also included in policy formulation at the stakeholder engagement level.

Another example is the development of Kenya's INDC. This development project was funded by Climate and Development Knowledge Network (CDKN) whereas Ricardo AEA and LTS International offered technical expertise. The project was led by a cross-ministerial task force convened by Kenya's National Climate Change Secretariat while the UNDP supported the stakeholder consultation process. The coordination of all these state and non-state actors led to the successful development of Kenya's INDC that was submitted to UNFCC in July 2015.

Contingency planning

The National Treasury sets aside contingency funds during budgeting and the NDMA operationalizes the drought contingency fund. The NDMA also facilitates multi-stakeholder contingency planning in each of the ASAL counties. These multi-stakeholders often include non-state actors.

National and international NGOs are also involved in contingency planning at the county level. For instance, VSF, an international NGO has been working in Kenya at the county level to enhance the capacities of communities to better manage disaster in the face of climate change. This was done together with state actors at the county level.

Implementation of adaptation activities

At the national level, the state actors develop strategies that are mainstreamed in line ministries MTPs. At the county level, a few county governments have also mainstreamed climate change adaption in their CIDPs. The implementation of the climate change adaptation activities is mainly done by the non-state actors while the state ones provide an enabling environment.

Another example is the working together of state actors with FICCF on CSA. FICCF is also implementing CSA interventions in coordination with microfinance institutions in 18 counties in Kenya. They are promoting chicken, dairy, cassava and sorghum value chains by offering loans and technical assistance to farmers.

A number of national NGOs are also actively involved in climate change adaptation activities together with state actors. For instance, Care Kenya is actively involved in climate change adaptation through the adaptation learning programs for Africa. It mainly works with county ministries dealing with livestock.

The Kenya Red Cross Society (KRCS) is one of the most active national non-state actors working with state actors in climate change adaptation activities through its disaster management program. It recently launched a tree challenge aiming at breaking the Guinness World Records by planting 5 million trees within one hour. This will be in collaboration with state actors such as KEFRI.

7. EXISTING AND POTENTIAL INSTITUTIONAL BARRIERS TO THE IMPLEMENTATION OF THE NAP

The institutional barriers that may hinder successful implementation of the NAP are first categorized into existing and potential (barriers). They are then classified into different groups such as policy gaps, human resource barriers and technical capacities' barriers.

7.1 Existing institutional barriers

i. Policy gaps or barriers

The NCCAP in its second subcomponent of enabling policy and regulatory framework has recognized the need for institutional reforms across all sectors that are affected by the impacts of climate change either directly or indirectly. Some of the policy barriers which may affect the implementation of the NAP include lack of clarity of roles and functions, overlapping mandates and lack of institutional capacity. These barriers have been discussed in details in Section 3. In summary the key specific policy barriers arise from:

- Lack of incorporation of climate change adaptation planning in most policy recommendations and action plans in the agricultural sector;
- Lack of harmonization of the national and county objectives/goals, leading to lack of synergies in the implementation of the NAP; and
- Conflicting roles of different sector institutions, including national and county ones, in climate change adaptation planning and implementation.

In particular the review of the Climate Change Act, NAP and sector policies showed that NEMA's role in climate adaptation in the Sector is not clear and particularly after the creation of CCD. NEMA is currently the NIE for Adaptation Fund and GCF in the country and is also undergoing the GCF approval process to be accredited as an NIE for micro projects. The Climate Change Act on the other hand is seen to reduce the role of NEMA to just monitoring and evaluation of climate change. This leads to conflicting roles, functions and mandates which will ultimately affect implementation of the NAP.

ii. Administrative barriers

The national and county governments do not work harmoniously. For instance nothing much has happened in the counties since the enactment of the Act in June 2016. There is also frustration of extension staff in the counties with some, for instance in Bomet, being redeployed to perform non-sector activities. Further, there is lack of coordination between the climate change activities of the County Executive Committees (CECs) and those of the county agricultural staff.

iii. Human resource barriers

From the Kenya Climate Change Action Plan website, the Secretariat, which was converted to the current CCD, is made up of 7 technical staff members. This was confirmed by a key informant who felt that the CCD is overstretched in its responsibilities. In some cases, a staff member of the CCD is coordinating at least two components of NAP action plans. This is besides other duties that may be assigned to them by the Council and Cabinet Secretary. The NCCAP also acknowledges the shortage of human resource in all the sectors and calls for provision of adequate staffing capacity that will support the performance of the key functions.

In the climate change MDAs' desks, members of staff are mostly seconded from the respective ministries. In the Ministry of Agriculture, Livestock and Fisheries, for instance, only three staff members work full time on climate change issues. These are only in the State Department of Agriculture. In the other two Departments, current staff members working on climate change issues are also expected to perform other duties in the ministry. According to key informant interviews, low technical capacity is evident in all the MDAs and whenever a new task on climate change comes up, it is added on to the current staff instead of having new designated persons with climate change technical capacities. This leads to reduced efficiency not only on the climate change tasks but also on the other assignments. The staffing problem is mostly being experienced in counties where there is very low absorptive capacity.

iv. Technical capacities barriers

Subcomponent 7 of the NCCAP on knowledge management and capacity management seeks to achieve required levels of climate change related knowledge management, capacity development, education public awareness and communication. This is in line with the aim of ensuring that climate change decisions and investments made at the national and county levels are based on the best information and are guided by capable and well educated experts. However given that climate change gained full recognition by the government not so long ago, there is still a huge gap in terms of technical capacities:

1. Climate change as a subject is yet to be integrated in the schools system and very few institutions of higher learning offer climate change studies. Currently, mainly University of Nairobi and Kenyatta University are offering climate change

studies while the rest of the public and private universities offer courses in environmental science and natural resource sciences which may or may not have climate change course modules. The low climate change capacity development in the education sector will pose as a challenge in the implementation of the NAP in the agricultural sector.

2. The agricultural sector is currently experiencing a problem of low staffing and lack of employment of new extension officers and other staff members, both at the national and county levels. In particular dissemination of climate change information and training of the affected communities on agriculture climate smart technologies will be challenged by this inadequacy. For instance in the first phase of the Isiolo County Adaptation Fund (ICAF) program, one of the key difficulties faced was the limited availability of technical experts to support climate change adaptation activities. Particularly in the water subcomponent there was only one county water engineer supporting design and supervision of several water projects.

3. There is proliferation of 'climate change experts' who have no good knowledge of adaptation activities in the country. Although these have been performing well in advocacy, they cannot be actively engaged in the implementation of NAP action plans. In particular counties have very low local capacity for implementation of the NAP.

v. Inadequate coordination of climate change adaptation activities

There is lack of coordination of implementation of adaptation projects within and across counties. This is because those with funds do not invite those without to implement projects together. Thus there is need to harmonize activities of different actors within and across counties.

vi. Financial management barriers

The sector ministries currently do not have funds specifically designated for climate change activities. This is also the case for the counties. Most of the climate change unit desks use funds from general projects/government votes to fund their activities on climate change adaptations. As explained in the policy analysis, this problem arises mainly due to lack of planning and integration of climate change in Sector MTIPs and MTEFs.

From the informants it was note that stakeholders are concerned that county governors have not been complying with budget regulations. This is likely to hamper implementation of the NAP since funds designated for adaptation activities can easily be misappropriated.

vii. Lack of clear mechanisms of channeling climate adaptation funds to the counties

The NAP has stipulated clearly the role of the County governments and the expectation to mainstream climate change adaptation actions in their County Integrated Development Plans. While the accreditation of NEMA to become an NIE was seen as a big success, the government has paid little attention to the development of mechanisms through which climate funds can be channeled from the national level to the local and most vulnerable communities. This may pose as barrier to the implementation of the NAP. This is because as much as mobilization and lobbying for climate funds from donors is done, without proper channels for reaching the local levels, implementation of the adaptation action plans proposed in the NAP may not be fully accomplished. Currently the ADA Consortium gives support to the county governments in the establishment of the County Climate Fund. This has so far been piloted in Isiolo County and is ready to be scaled up to four other ASAL counties. The ADA Consortium has invested in the proof of the concept and it has found that it is a worthwhile investment. Therefore the government needs to come up with a clear mechanism for implementing this concept in the counties and especially if the scaling up is to be done.

7.2 Potential institutional barriers

i. Inadequate coordination of climate change adaptation funding

Efforts are being made to establish efficient financing mechanisms of climate change activities in the country. The National Treasury has been mandated as the institution that handles financing for priority climate change actions and interventions in the country and is the appointed National Designated Authority for the Green Climate Fund. The GCF is to be tapped through the Kenya Climate Fund which is being developed. The National Environmental Management Authority is the accredited National Implementing Entity for the GCF in Kenya. This is following its nomination by the National Treasury and approval by UNFCCC. Currently, the country does not have a framework to give guidance on who can be an NIE because the approval or accreditation is done by UNFCCC and not internally determined. This may pose as a potential barrier to the implementation of the NAP because anyone including private and public institutions can apply to become NIEs and yet actors in the sector do not seem to know how they can benefit from the fund. For instance Acumen Fund of the United States is a private company approved by the GCF as an NIE for micro projects in Kenya but information on how to benefit from the financing of micro-projects is not available to most of stakeholders in the agricultural sector.

ii) Inadequate coordination of funding of actual adaptation activities in the counties

There is also disjointed funding of climate change activities in the field. Funding has not been going to actual implementation of adaptation activities on the ground and this is likely to continue. Also a lot of the funding has been mainly on capacity building. Key stakeholders in the sector think that there is too much focus on funding 'capacity building' and a targeted approach in the funding of climate change activities should be adopted. In this case adaptation activities that can result into resilience of local communities should be targeted.

iii) Weak institutional arrangements

As explained in Section 5, there are many actors in climate change adaptation planning but they do not seem to be well coordinated since institutional arrangements guiding their activities have been week. In particular the working modalities between the national and county government are not well established. In addition, the current placement of State Department of Irrigation is still controversial among Sector stakeholders. This is worsened by the fact that the Department has not remained in one ministry for a long period. Thus its 'misplacement' not only affects funding for irrigation projects at the national and county levels but productivity of agricultural activities in the Sector. Equally important is the placement of the State Department of Cooperatives in the Ministry of Industry, trade and Cooperatives. This Department is key in mobilizing producers to form marketing cooperatives to enhance market access and therefore it would play an important role in the implementation of the NAP in the Sector.

iv) Political Interferences

Although the Act to some extent protects implementation of climate change activities from political interference, political interests are likely to take precedence over achievement of NAP objectives and particularly if there are no adequate investments in advocacy. For instance, implementation of the Act has been slow and thus some of the actors still do not understand their roles and mandates. Also, so far the Council is not in place and yet this is the main body that will guide implementation of NAP action plans. Political interference might particularly become a key barrier when it comes to the allocation of national funds to climate adaptation activities at both national and county government levels. This is mainly because allocation decisions are made by politicians who have diverse interests, some of which may not be related to adaptation activities in the agricultural sector.

7.3 Lack of gender mainstreaming as a barrier to NAP implementation

The failure to recognize the different roles played by women and youth and their vulnerability to climate change poses as a potential threat to NAP implementation. While efforts to ensure gender inclusion were made during policy formulation and development on climate change issues, there are still some gaps in achieving gender equality in NAP activities. For instance, the NAP thematic working group consisted of 33 percent women but youths/youth groups were not represented. According to the Kenyan Constitution 2010 this situation was not bad as far as participation of women is concerned. However, the youths were not so well represented. Thus as the sector embarks on NAP implementation there is need to involve more women and youths.

The sectoral adaptation actions in the NAP have identified gender, vulnerable groups and youth as a stand-alone action. It is difficult to advance gender considerations in isolation without integrating them in the adaptation action plans. There is also need to note that gender issues vary from one sub-sector to the other. For instance, women in the tourism sub-sector may be affected differently by climate change from women in the fisheries sub-sector. Gender should therefore be treated as a cross-cutting issue across all the adaptation actions.

The NAP has also outlined performance indicators for adaptation at the national, sectoral and county levels. These indicators however do not take cognizance of gender, vulnerable groups and youth. Therefore this serves as a potential barrier to NAP implementation because gender aspects in counties and sub-sectors may not be included in the planning and monitoring activities.

Notably, there is lack of gender facilitation skills for successful on-job training and capacity building on gendered implementation of adaptation actions. Due to lack of these skills, a clear understanding of climate change, effects on different gender, adaptation and mitigation measures, etc. have not been understood at the grassroots. Further, since most staff working on gender issues lack gender-sensitive facilitation skills, they are not able to break cultural barriers to promote participation of women and youth in adaptation activities.

7.3 Inadequate access to and utilization of insurance and credit

Since 2006 there has been a considerable re emergence of interest in agricultural insurance in Kenya and recently the Kenyan government launched the Kenya National Agricultural Insurance Program. This program uses an index-based insurance and targets both crop (maize and wheat) and livestock farmers and insures against large production shocks caused by droughts and floods. Despite the increased efforts by the government and other stakeholders to introduce index-based insurance, uptake has remained low and especially for livestock farmers. This is largely due to low financial literacy among targeted farmers which adversely affects demand for insurance products. Also most farmers complain that insurance is still expensive and therefore 'unaffordable'.

Access to credit by smallholder farmers largely remains a challenge despite Kenya having a relatively well developed banking system and favourable interest rates. This is mainly because most of the younger farmers (youths) do not have own land title deeds that can be used for collateral security. They mostly have access to informal credit from their farmer groups which is in itself is limited in terms of supply and availability. Therefore it becomes difficult for such farmers to innovate and invest in technologies that boost productivity in the face of climate change.

8. OPPORTUNITIES FOR SUCCESSFUL IMPLEMENTATION OF THE NAP

i) Actors working harmoniously especially in the development of policies

Upon realization of the threats posed by climate change in Kenya, the government has shown commitments to the cause and has put great efforts towards creating an enabling environment for the achievement of low carbon climate resilient development by 2030. Several policies, plans, strategies and initiatives have been formulated to provide a supportive framework for implementing climate change responses. Some of these include National Climate Change Framework Policy, Climate Change Act, NCCRS, NCCAP, National Green Economy Strategy and the NAP. Stakeholder processes have been used in the development of these strategies. Some of these stakeholders include the national and county government, the private sector, NGOs, iNGOS etc. Specific ministries such as the National Treasury have developed the Climate Fund Policy which is meant to help in fund mobilization and prioritize funding in climate action plans. Similarly, the agricultural sector has created an enabling environment for the implementation of the NAP through formulation of the National Climate Smart Agriculture Framework Program and more recently the draft National Climate Smart Agriculture Strategy. These two policies in agricultural sector have been developed by the Ministry of Agriculture Livestock and Fisheries and Ministry of Environment and Natural Resources, in collaboration with other state and non-state actors and will be implemented at the national and county levels of government. The collaboration exhibited by actors in different sectors poses as an opportunity for successful implementation of the action plans stipulated in the NAP.

ii) Opportunity of devolved county funding that can be out scaled

Prior to climate change financing mechanisms being established at the national level, the County Climate Adaptation Fund was set up by the Adaptation Consortium in collaboration with the National Drought Management Authority (NDMA). The County Adaptation Fund was piloted in Isiolo County through primary funding from the UK Department for International Development Aid (DFID) and Catholic Organization for Relief and Development Aid. The first phase of the Isiolo pilot was termed as successful with tangible benefits being realized. These include improved water availability, pasture management and livestock health with an estimated 18,825 beneficiaries. This success has resulted in more funding by DFID to the Adaptation Consortium to initially scale out this model in four other ASAL counties i.e Kitui, Makueni, Wajir and Garissa. This poses as an opportunity for the agricultural sector actors because it's a proof that the devolved government can manage climate change funds and achieve the intended purpose. Therefore with the continued support from different stakeholders including the national government, there are high chances of success if the County Climate Fund is scaled out in all the 47 counties in the country. Consequently implementation of the action plans in the NAP will have a smooth take off. Similarly, NDMA is pursuing accreditation to be a National Implementing Entity (NIE) for the GCF. This will institutionalize the process and enable county governments to be accredited as Executive Entities (EE). This means the county governments in the ASALs will have more or less direct access to the GCF.

iii) National Performance and Benefit measurement framework

The National Performance and Benefit measurement framework is a monitoring and evaluation tool that has been proposed in the NCCAP and recognized in the NAP. This framework will enhance transparency and accountability in regard to implementation of the adaptation actions in the NAP. The indicators identified in this framework will be important for monitoring and evaluation of NAP activities

iv) Stakeholder participation and support

The most affected communities have shown the willingness to participate and provide the support required in the fight against climate change. Most of the policy documents (NCCAP, NCCRS, NAP, etc.) have so far indicated stakeholder participation as the approach used in their formulation. For instance in the formulation of the NCCRS, there was participation country wide with two national workshops, nine regional workshops and clusters of participants including the Government, private sector, women groups, youth, civil society among others. This was with an aim of gathering all the climate change impacts and the recommended interventions.

Community participation and support to the government and the agricultural sector has been demonstrated in the implementation of projects that directly affected pastoralism through the ICAF. This is where the local customary institutions such as Dedha contributed 5 shillings per member for every shilling the ICAF provided to strengthen their institutions. This clearly shows that communities are willing to support activities that help them adapt and become more resilient to climate change for increased productivity and ultimate improvement in their livelihoods. This kind of support will also make implementation of the NAP an easier process.

v) Strong support from non-state actors (NGOs, CBOs and private sector)

The non-state actors in Kenya have shown tremendous support for the government in addressing effects of climate change and developing adaptation plans. This has been in form of collaborations with the government both at the national and county levels, working directly with the communities on adaptation projects. For instance the STARCK+ (Strengthening Adaptation and Resilience to Climate Change in Kenya) is a four year DFID funded program whose main focus is the private sector but plays other critical roles such as provisioning of climate change technical assistance to the Government of Kenya and especially in the operationalization of key climate change policies i.e. the NAP, NCCAP and the Climate Change Act of 2016. At the county level establishment of the County Adaptation Fund has come out strongly where the ADA Consortium is the lead in both in funding and implementation. The consortium partners work in close collaboration with the Kenyan institutions involved in climate change adaptation and resilience. These are mainly NDMA and Kenya Meteorological Department. Other non-state actors that have strongly supported the government on matters climate change are Care Kenya and the KRCS. In research and innovation the CCAFS has been in the front line in advocating for and running climate smart agriculture projects in the country. This commitment is an opportunity for the agricultural sector to successfully implement the NAP and especially because it will benefit from the climate smart agriculture technologies and innovations being generated by non-state actors.

9. STRATEGIC ACTIONS AND INTERVENTIONS TO ADDRESS BARRIERS TO IMPLEMENTATION OF THE NAP

The strategic actions and interventions identified in this section are indirectly derived from the existing and potential institutional barriers to and opportunities for successful implementation of the NAP. These interventions are discussed first before prioritization is done.

9.1 Description of strategic actions/interventions

1. Mainstreaming of NAP prioritized actions into Sectoral policies and development plans

As discussed in Section 3, most of the Sector policies do not include climate change adaptations. Thus urgent revision is required in all the policies that were development before the NCCAP and NAP came into place. If revisions are not done there will be need for development of relevant strategies and frameworks, similar to CSA, to guide implementation of adaptation actions in the Sector. Equally important there is need for alignment of strategic institutions such as State Department of Cooperatives, ASDSP and State Department of Irrigation with agriculture sectoral activities of the NAP.

As the policies are being revised, the NAP will also be revisited in order to align it to the Climate Change Act. There will also be a need to critically isolate short issues from the long term ones in the NAP. For instance the issue diversification of food diets or eating habits may not be a priority in the short term.

The new ASDS MTIP (2016-2020) should include the NAP prioritized adaption actions for the agricultural sector which will then be integrated into the country's third MTP (2017-2022). The actions in the new MTIP will also be integrated into the Sector MTEF. Once this is done the Sector will be sure that NAP is fully mainstreamed in the Sector's development plans

2. Building adequate human resource capacity at the county level

The low human capacity on climate change activities and especially in the counties will be addressed either by retooling of the current staff or employing new qualified ones. This will enable counties to generate their own action plans and M & E frameworks rather than being dependent on the national government. Since the national and county governments do not have resources to recruit so many new staff, a combination of employment and retooling could be explored. The retooling would involve: making current staff members understand climate change hazards and vulnerability issues, actualizing the NAP, mainstreaming gender in the NAP, development of the county adaptation M & E frameworks and linking them to international processes of climate change adaptation planning.

3. Strengthening institutional arrangements within national and county levels

The priority issue here will be creation of enabling working modalities between the national and county governments. In particular the national government will need to be facilitated by the county government in order to enhance capacity of county actors to raise adaptation funds, access climate information, and implement innovative projects related to NAP.

Within the National Government, the role played by ASDS in collection and dissemination of climate information and implementation of adaptation activities should be recognized by other government agencies and its activities integrated in sectoral planning. Equally important, stakeholders should inform the relevant authorities of the need to strategically place the Department of Cooperatives and that of Irrigation in the agricultural sector in order to enhance adaptation benefits.

4. Creating mechanisms for coordinated funding at both national and county levels

The Climate Change Directorate should develop a funding coordination unit that would have the functions that the (defunct) Agricultural Sector Coordination Unit (ASCU) had. This unit should have personnel recruited competitively from key constituent ministries (MOALF, MENR and National Treasury). Their role would be to coordinate climate change donor funding and to channel funding to needy sectors as well as counties. They will be expected to support CCD with proposal writing to raise funds and supervision of the use of funds. In the long run this would enhance successful implementation of the NAP as donors are likely to pool their resources as accountability increases and impacts become more visible.

5. Scaling up the county adaptation fund model to all the counties

As this strategic action has already being identified as an opportunity that would facilitate successful implementation of the NAP, launching it would not be difficult. However the Sector would require funds to support the scaling up activities. Also other actors, other than NDMA, would be required to assist in the scaling up in order to increase the funds and enhance adaptation benefits. Further, this adaptation fund model should be up-scaled to County Climate Change Fund so that counties do not have to set up another fund for mitigation activities.

6. Gender mainstreaming in the sectoral adaptation actions and NAP performance indicators

The sectoral adaptation actions should have gender as a cross cutting issue across all the sectors. This is because women and men play different roles in different sub-sectors which can only be manifested when the adaptation actions are being carried out. Drawing on the Human Development Report (2007-2008), the disadvantages of women, who historically have had limited access to resources, restricted rights and reduced voice in decision making, make them extremely vulnerable to climate change. Thus all adaptation actions should mainstream gender in the planning and monitoring activities. If possible all the NAP performance indicators targeting rural and urban populations should demonstrate effects on gender, vulnerable groups and youth at both the national and county levels

7. Advocacy

This intervention would target five key aspects in the sector:

i. Increasing investments in the Sector to 10% of National Budget (according to Maputo declaration and Malabo agreement) from the current 5% (2015 figures)

ii. Revisions of policies and development plans in the sector

iii. Harmonious working of national and county governments

iv. Generation and harmonious utilizations of funds from different donors

v. Implementation of the Climate Change Act

8. Strengthen uptake of insurance and credit

Insurers could borrow some strategies from R4 Rural Resilience Initiative (currently running in Ethiopia and Senegal) where farmers pay for insurance with their labour. In times of drought, this will prevent farmers and especially pastoralists from selling their productive assets for survival. Farmers can also be consulted on their insurance needs and be made to understand how index-based insurance works before insuring their assets. The insurance programs also need to be designed in a way that balances the interests of both the insurer and the insured. Lastly the insurers need to make quick payment of indemnity and if possible make mid-season payment if there is clear indication of ultimate crop or livestock loss.

Access to agricultural credit to smallholder farmers and especially the youth could be improved by offering innovative credit solutions such as farm input loans that are also linked to insurance. This would transfer potential chance of loss due to climate change to insurance and prevent loss of credit access.

9.2 Prioritization of the strategic actions/interventions

The prioritization of the strategic actions to address barriers to implementation of the NAP is heavily biased towards getting the foundations right (policy and legal aspects), strengthening institutional capacity/arrangements, and building financial and human capacities, while ensuring up-scaling of adaptation activities that are already been conducted. It is also important to note that an intervention like advocacy will always be needed by the stakeholders. Thus this is the most important intervention since it 'pushes' issues even when efficiency is not a consideration. Following these criteria the order for the interventions would be:

1. Advocacy
2. Mainstreaming NAP prioritized actions into policies and development plans
3. Gender mainstreaming in the sectoral adaptation actions and NAP performance indicators
4. Strengthening institutional arrangements within national and county levels
5. Creating mechanisms for coordinated funding at both national and county levels
6. Strengthening uptake of insurance and credit
7. Building adequate human resource capacity at the county level
8. Scaling up the county adaptation fund model to all the counties

10. FRAMEWORK TO OPERATIONALIZE IMPLEMENTATION OF THE NAP

In operationalizing the NAP it is considered that its (NAP) vision is to have 'enhanced climate resilience towards the attainment of Vision 2030' through achievement of strong economic growth, resilient ecosystems, and sustainable livelihoods. Notably, agriculture sector has all along paid attention to these issues except that the aspect of resilient ecosystems. Thus the focus of the NAP will be building of adaptive capacity in order to achieve low carbon climate resilient development pathway. This is where additional investments from the Sector are expected to go.

The framework considers that interventions to address barriers to implementations of the NAP should be incorporated as the first priority action (Table 4). Further, three of the six priority actions in NCCAP have been considered since these are addressed directly by the agricultural sector. The other three however have not been considered since it is most likely the Sector will only contribute to them indirectly. The three direct priority actions from the NCCAP for the Sector are:

1. Improved water resource management
2. Restoration of forests on degraded lands
3. Climate smart agriculture and agro-forestry

While attempts have been made to consider some of the outputs linked to the 10 top-down county level institutional adaptive capacity indicators and the 10 bottom–up vulnerability indicators, a few new outputs and especially those relevant to interventions for addressing barriers to implementation of NAP have been derived. It was however not possible to include all the NCCAP performance indicators since these are neither refined nor linked to the different sectors. According to the NAP, the indicators were to be refined after the finalization of the priority adaptation actions.

Table 4: Operationalization of NAP implementation in the agricultural sector

NARRATIVE / HIEREARCHY OF OBJECTIVES	OUTPUTS	OUTCOME	ACTORS/INSITUTIONS INVOLVED
NAP goal in agriculture sector			
Support the transformation of Kenya's agricultural sector into an innovative, commercially oriented and competitive industry that will contribute to strong economic growth, resilient ecosystems, and sustainable livelihoods	1. Contribution of agricultural sector to GDP increased 2. Rural poverty of male and female populations reduced 3. Frequency of famine occurrences and other climate related losses reduced	1. Economic conditions improved 2. Population living below poverty line reduced 3. Percentage of climate related national loss and damage in the public and private sectors reduced	All Sector Ministries, Department and Agencies Institutions of higher education Non- state actors
Purpose of the NAP in the agriculture sector			
Integrate climate change adaptation into national and county level development planning and budgetary processes, enhance resilience of investments to climate shocks, enhance achievement of a low carbon climate resilient economy, and enhance resilience of vulnerable populations through adaptation and disaster risk reduction strategies	Number of ministries, departments and agencies in the sector planning, budgeting and implementing climate adaptation action increased Amount of losses and damages from climate hazards reduced Household assets for women, youth and vulnerable groups increased	Resilience of economic growth increased Socio-economic stability of rural populations in counties increased Household wealth of women, youth and vulnerable groups increased	All Sector Ministries, Department and Agencies Institutions of higher education All counties Non- state actors

NARRATIVE / HIERACHY OF OBJECTIVES	OUTPUTS	OUTCOME	ACTORS/INSITUTIONS INVOLVED
Priority Actions			
Priority Action 1: Barriers to NAP implementation addressed **Objective**: Implement measures for addressing barriers to implementations of NAP while creating an enabling institutional environment for the realization of NAP objectives in the agriculture sector	NAP prioritized actions are mainstreamed into sectoral policies and development plans Adequate human resource capacity at the county level built Institutional arrangements within national and county levels strengthened Gender in NAP activities mainstreamed Mechanisms for coordinated funding at both national and county levels created County adaptation fund model scaled up in all the counties Advocacy activities performed Insurance and credit uptake strengthened	Mainstreaming adaptation in development increased Equality and equity in NAP implementation increased All counties budgeting and implementing adaptation programmes Ownership of relevant outcome-based county adaptation actions increased	Development partners who support sector wide institutions All Sector Ministries, Department and Agencies All counties Ministry of Planning and Devolutions The National Treasury Non- state actors
Priority Action 2: Improved water resource management **Objective**: increase ecosystem resilience through sustainable and socially-inclusive water resource management	Water demand that is supplied to men, women and youth increased Poor people by gender in drought prone areas in the county with access to reliable and safe water supplies increased People by gender in the counties permanently displaced from their homes as a result of flood, drought or sea-level rise reduced Cubic meters per capita of water storage increased Percent of urban households with access to piped water increased Percent of rural households with access to water from a protected source increased	Economic growth in counties increased Resilient ecosystems increased Sustainable livelihoods increased	Development partners who support sector wide institutions All Sector Ministries, Department and Agencies All counties Non- state actors
Priority Action 3: Restoration of forests on degraded lands **Objective**: increase ecosystem resilience through restoration of degraded lands	Number of ha of productive land lost to soil erosion reduced Percent of land area covered by trees increased Percent of area of natural terrestrial ecosystems in the counties that have been disturbed or damaged reduced	Economic growth in counties increased Resilient ecosystems increased Sustainable livelihoods increased	Development partners who support sector wide institutions and their activities All Sector Ministries, Department and Agencies All counties Non- state actors

NARRATIVE / HIEREARCHY OF OBJECTIVES	OUTPUTS	OUTCOME	ACTORS/INSITUTIONS INVOLVED
Priority Action 4: Climate smart agriculture and agro-forestry **Objective**: increase ecosystem resilience through climate smart agriculture and agro-forestry	Number households in need of food aid reduced Percent of land area covered by trees increased Number of ha of productive land lost to soil erosion reduced Percent of total livestock numbers killed by drought in the county reduced Percent of poor farmers and fishermen in the county with access to credit facilities or grants increased Percent of poor farmers and fishermen in the county with access to insurance increased	Economic growth in counties increased Resilient ecosystems increased Sustainable livelihoods increased	Development partners who support sector wide institutions and their activities All Sector Ministries, Department and Agencies All counties Non- state actors

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ANNEX 1: Checklist of issues for key informants

Please note that any information given will be treated with utmost confidentiality and will only be used for research purposes

Date:

Organization

Name:

Occupation:

Phone number:

ROLE OF THE INSTITUTION IN RELATION TO CLIMATE CHANGE

1. How does your institution (organization) facilitate the climate change adaptation process at the national, county and sub-county level? _____
2. How is the institution working towards strengthening the farmer community's resilience and adaptation to climate change? _____
3. What problems related to implementation of climate change projects do you face? _____
4. Which rules, regulations, policies, work ethics make your organization successful in the implementation of climate change adaptations? _____
5. Which rules, regulations, policies, work ethics hinder your organization success in the implementation of climate change adaptations? _____
6. Are members in your organization informed about climate change policies (adaptation, mitigation, resilience, risk management). If no, why _____
7. How well do you think climate change adaptation plans have been understood in your organization? _____
8. Is your organization running any project on climate change? What dimensions are being covered by the project? (adaptation, mitigation, risk management or climate change resilience) _____

INSTITUTIONAL ARRANGEMENTS

1. Please provide the description of mandates and objectives of your organization _____
2. What are the relevant operational frameworks e.g. programing principles, resource allocation strategies, coordination mechanisms for operations at different levels within your organization are related to climate change adaptation plan

and implementation _____
_____
_____

3. What is the geographical coverage of your organization? (global, regional, national, county, sub county or local level)
_____
_____

4. Who are the key stakeholders in matters concerning climate change adaptation plan and its implementation that you work with? What are the working modalities? _____
_____
_____

5. What are your implementation modalities/ delivery mechanisms in regards to climate change adaptation plans and implementation _____
_____
_____

6. What opportunities do you have in working with other organizations on matters related to climate change adaptations

INSTITUTIONAL BARRIERS TO CLIMATE CHANGE

1. Which actors are involved in the decision making, planning and budgeting processes for climate change? Is the information in form that can be understood by everyone? _____
_____

2. Are there any kinds of barriers or challenges that can be identified that divert, delay or stop implementation of climate change adaptation plan? (information, technology, finance and leadership, operation procedures) _____
_____
_____

3. What strategic actions and interventions have been put in place to address these institutional barriers identified? List and rank them starting with the most important _____
_____

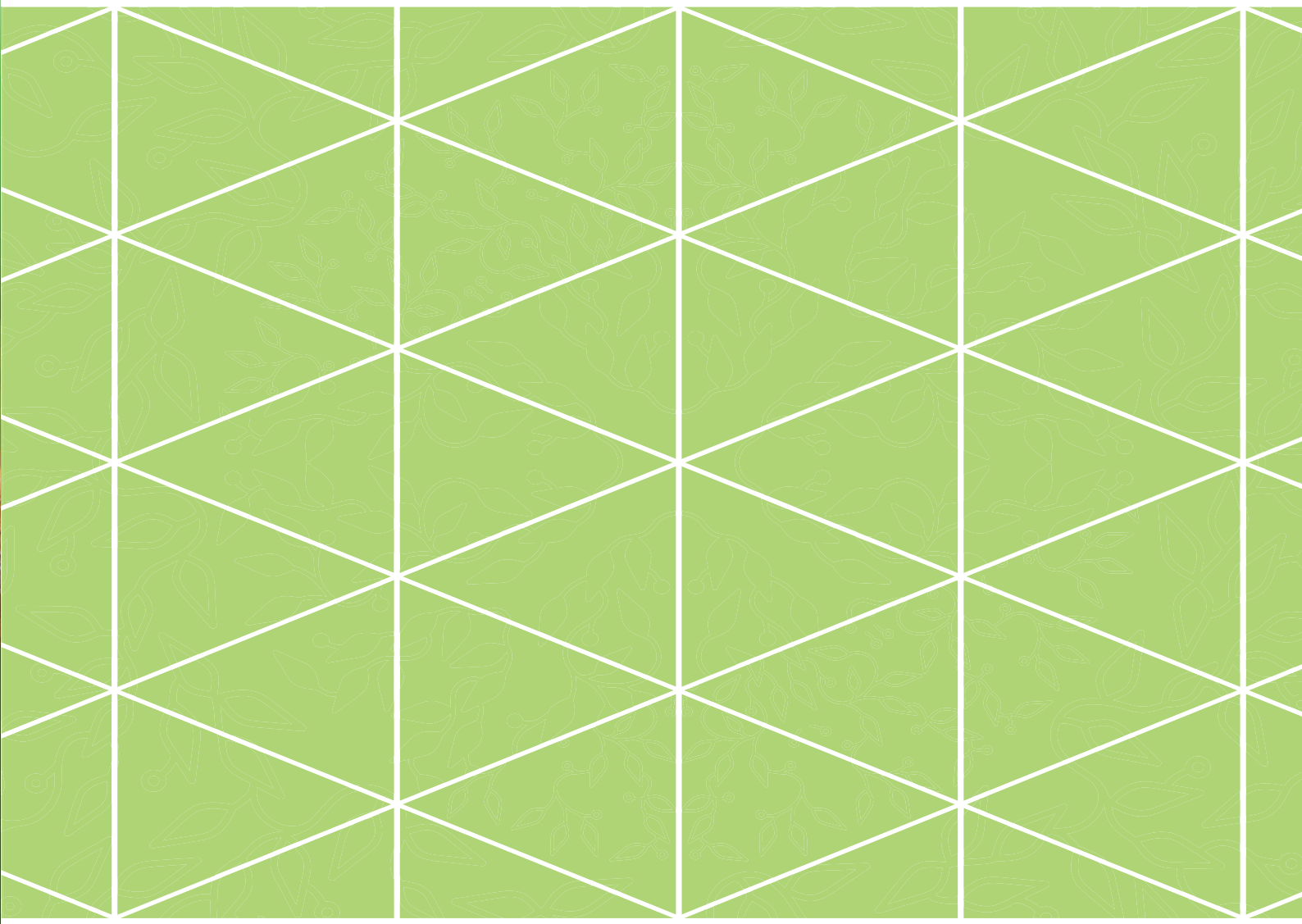
STATE AND NON-STATE INTERPLAY

1. Are there any linkages between your institution and non-state organizations with regard to climate change functions in Kenya? _____
_____

2. If yes, please provide the names and types of these organizations, their roles and the kind of collaboration that exists
    i. Name of institution _____
    ii. Type of organization (e.g. NGO, Private, CBO) _____
    iii. Role in the level of operation _____
    iv. Link to climate change subject _____
    v. Kind of collaboration _____

3. Are there any other actors/organizations that you think should be involved climate change adaptation planning and implementation but are not? Yes/No. Which ones and how? _____
_____

This study was commissioned by the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) under the project "Supporting Developing Countries to Integrate the Agricultural Sectors into National Adaptation Plans (NAPs)". One of the key objectives of this project is to strengthen the institutional capacity for climate change adaptation planning within the agricultural sector in Kenya. With agriculture being one of the key economic sectors adversely affected by climate change, it is important to ensure that the National Adaptation Plans are efficiently and effectively implemented.



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