



Mid Term- Evaluation Report

The Integrated Programme to Build Resilience and Adaptive Capacity of Vulnerable communities to Climate Change in Kenya



Table of Contents

Table of Contents	1
Executive Summary	3
1. Introduction	10
2. Methodology	14
2.1 Sampling Framework and Sample Size for household survey	14
2.2 Demographics	16
2.3 Literature Review	16
2.4 Key Informant Interviews (KIIs)	16
2.5 Focus Group Discussion (FGDs)	17
2.6 Observation	17
2.7 Data collection, quality assurance and analysis	17
3. Findings	18
3.1 Evaluation Objective i: Review and Assessment of Program Strategy	18
3.2 Evaluation Objective ii: Review and Assessment of progress towards results and impacts	20
3.2.1 Output level progress	25
3.2.2 Outcome level Progress	32
3.3 Evaluation objective iii: Review and Assessment of Program Efficiency and Effectiveness	37
3.3.1 Efficiency	37
3.3.2 Effectiveness	37
3.3.3 Work Planning:	38
3.3.4 Finance	38
3.3.5 Program-level Monitoring and Evaluation Systems	39
3.3.6 Stakeholder Engagement, reporting and communication	39
3.4 Evaluation Objective iv: Review and Assessment of Program Sustainability	39
4. Conclusion and recommendations:	41
4.1 Conclusion	41
4.2 Recommendations	43
5. Annexes	45
Annexe 1: Program logframe	45
Annex 2: Evaluation Matrix	50
Annex 3: Household Survey questionnaire	52
Annex 4: FGD guide	58
Annex 5: KII Guide	62



Acronyms

AF	Adaptation Fund
AWS	Automatic Weather station
CDA	Coast Development Authority
CFA	Community Forest Associations
EE	Executing Entities
FGD	Focus Group Discussion
GPS	Global Position System
HH	Household
IEC	Information Education and Communication materials
ISMEM	Integrated Shoreline and Mangrove Ecosystem Management
KII	Key informant Interview
KEFRI	Kenya Forestry Research Institute
KGs	Kilogrammes
KM	Kilometre
KU	Kenyatta University
MCA	Member of the County Assembly
M&E	Monitoring and Evaluation
MTE	Mid Term Evaluation
NEMA	National Environment Management Authority
NIE	National Implementing Entity
PAI	Phone Assisted Interviews
PPR	Program Performance Report
SRS	Simple Random Sampling
TARDA	Tana and Athi River Development Authority
UNFCCC	UN Framework Convention on Climate Change
ViRED	Victoria Research and Development
VSLA	Village Savings and Loans Associations
WUA	Water User Associations

Executive Summary

This report presents findings, discussions, conclusions and recommendations made following a Mid-term evaluation of the program titled “Integrated Programme to Build Resilience and Adaptive Capacity of Vulnerable Communities to Climate Change in Kenya”. A-One (1) billion Kenya Shillings programme was funded by the Adaptation Fund (AF) and implemented by the National Environment Management Authority (NEMA) as the National Implementing Entity (NIE). In the implementation of the programme, NEMA is working with Coast Development Authority (CDA), Kenya Forestry Research Institute (KEFRI) and Tana and Athi River Development Authority (TARDA) as executing entities (EEs). There are six Sub- Executing Entities (SEEs) which include; ADRA, Caritas Nyeri, Horn Aid, NASARU CBO, Kenyatta University (KU) and Victoria Research and Development (ViRED). The overall objective of the programme is to enhance resilience and adaptive capacity to climate change for selected communities in Kenya. The Programme covers 14 counties in Kenya (Garissa, Homabay, Kajiado, Kilifi, Kitui, Kisumu, Kwale, Laikipia, Machakos, Makueni, Marsabit, Muranga, Taita Taveta and Wajir).

The programme is implementing an integrated adaptive mechanism to increase community livelihood resilience to climate change. There are five components in the programme that cut across several sectors most vulnerable to climate change. The sectors are water resources, agriculture, livestock, agro forestry, coastal and mangrove ecosystems management, energy and infrastructure, human health and gender in relation to climate change. Component one of the programme is on food security by promoting the adoption of drought-tolerant crops and value chain approaches. Component two is on the development of climate-resilient water management systems to enhance food security. Component three is on resilience to climate change of shoreline and mangrove ecosystem in Kenyan coastal zone. Component four is on disaster risk reduction and preparedness while component five is on knowledge management and raising awareness on Climate Change Adaptation. The programme period is January 2016 to December 2022. From October 2021- March 2022, NEMA conducted a mid-term evaluation (MTE) of the programme to review and assess program strategy, progress towards results and impacts, programme efficiency, effectiveness and sustainability aspects.

Methodology: The methodology used for the MTE involved collecting and analysing qualitative and quantitative information from secondary and primary sources. Four key techniques were used to collect data, namely: literature review, key informant interviews (KIIs), household survey and observation. Simple Random Sampling was applied for the household survey with a confidence level of 95% and a margin error of 5%. Purposive sampling was applied for selecting qualitative data respondents. Quantitative data were analysed using STATA Statistical software while qualitative data were thematically coded and analysed using the MTE thematic areas of interest.



Summary of the MTE findings

Component 1: Enhancing Climate Change resilience for improved food security in selected

Counties: The component aims at enhancing Climate-resilient agricultural, agro-forestry, pastoral and agro-pastoral production systems to improve food security. The interventions focus on increasing the adoption of drought-tolerant food and high-value crops, introducing appropriate and efficient irrigation methods, establishing a value chain system for the introduced crops, diversifying alternative livelihood sources, increasing animal production through the adoption of drought-tolerant fodder and enhancing land productivity through ecological land-use systems, conservation strategies and management technologies. The MTE established that the program had achieved approximately 60% of the planned component activities. Food security assessment showed that 70% of the targeted households were consuming less than three meals per day. The program target was to reduce the proportion of households consuming less than three meals per day from 41% to 30%. The deteriorated food security is mainly attributed to prolonged drought in targeted areas despite program intervention. Further assessment showed that the number of months per year that supported households experienced food shortage changed with a majority 56% reporting 6 months from 7 months at baseline. Assessment of sustained climate-resilient livelihoods strategies adoption among the targeted households showed an increase from 15% at baseline to 21% against a target of 25%. In terms of food production, farmers supported with drought-tolerant and high-value seeds reported an average of 23% yield increase per Ha against a target of 30%. Assessment of adoption of - climate-resilient agriculture techniques showed an increase from 14% to 50% against a target of 60%.

Component 2: Improving -climate-resilient water management systems to enhance food security in selected Counties.

The component aims at improving -climate-resilient water management systems to enhance food security through the provision of roof water catchment structures, construction of water pans, djabias and irrigation water pipelines. The program changed the initial approach of delivering resilient water management systems through water pans by adopting the “adaptation village concept”. The Adaptation Village concept saw the programme shift from a water harvesting approach through the digging of water pans to boreholes drilling coupled with demonstration and learning centres with an aim of having better longer-term benefits as the initial lesson learnt showed that small capacity water pans that were being done by the program were not suitable in most of the program areas due to extended droughts. MTE that the program has already established 17 out of the 27 planned adaptation villages. The percentage of households with - climate-resilient water management systems to enhance food security in selected counties increased from 11% at baseline to 28% against the 40% program target. The total volume of water provided by the program’s physical assets and infrastructure for water harvesting, storage and irrigation was 14,191,200M³ against a target of 609,527M³ serving a total of 7,630 households and approximately 38,750 individuals.

Component 3: Increase resilience to climate change of Shoreline and Mangrove Ecosystem

in Kenyan coastal zone: The component aims at increasing resilience to the effects of sea-level rise and shoreline changes in Kenyan Coastal shoreline and mangrove ecosystem through the implementation of

the Integrated Shoreline and Mangrove Ecosystem Management (ISMEM). The assessment showed that an additional 4.81KM of shoreline has been stabilized and 70Ha of mangrove ecosystem rehabilitated in the program target area. The length of coastline with coral reefs rehabilitated and protected in the targeted area increased from 39.12 KM to 43.32KM while the number of households secured from the effects of sea-level rise and shoreline changes has increased from 644 at baseline to 1,290 translating to 49.9% increase against program target of 60%.

Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities:

The program is aiming at reducing exposure to climate-related disasters and threats and increase adaptive capacity among the vulnerable communities and stakeholders under this component. The activities involve conducting risk and vulnerability assessments, establishing early warning systems, construction of dykes and evacuation centres as well as desilting of canals to enable communities to withstand conditions resulting from climate variability and change. Half of the activities under this component have been accomplished. Assessment of outcome indicators showed an increase in number of targeted community members reporting a reduction of flood-related damages from 12% at baseline to 49% against the programme target of 70%. There is a 71% increase in disaster awareness from a baseline of 32%. The population in the targeted area reporting improved adaptive capacity to disaster occurrence has also risen from 12% at baseline to 44% against the programme target of 70%.

Component 5: Strengthening capacity and knowledge management for Program Implementation and Climate change adaptation: The component is aimed at strengthening institutional capacity, knowledge management, awareness raising and promotion of adaptation mechanisms to improve resilience on climate change to selected vulnerable communities in Kenya. Specifically, the component activities entail generating information and knowledge on climate change adaptation through information systems (database, website and IEC materials), radio/TV shows and participation in national and international forums on climate change adaptation. The MTE showed that 50% of the component's planned activities have been accomplished. 52 % of the targeted population are aware of predicted adverse impacts of climate change and how to respond appropriately from 15% at baseline against 70% program target.

Program Strategy and relevance: The program implementing design through the EEs and SEEs was well thought but at the same time ambitious with the overreaching assumption that EEs and SEEs had the required experience, technical and financial systems. The assessment showed that some of the EEs and SEEs lacked strong procurement, human resources and financial systems which affected program implementation. The program depicts a strong internal and external coherence being aligned well to other NEMA's programs such as the World Bank project (Africa Environmental Health and Pollution Management) and Adopt a River. The program activities are addressing the country's priorities in the National Climate Change Action Plan 2018-2022, National Climate Change Framework Policy, Nationally Determined Contributions (NDCs) objectives as well as Sector Specific Policies and Legislation including

the Water Act (2016), Disaster Risk Financial Strategy (2018-2022), Kenya Climate-Smart Agriculture Strategy (2017-2026). Program components are well linked however, component five on knowledge management ought to have been implemented as a cross cutting component within the four other components. The Decision-making process is clear and is done through Adaptation Fund (AF) board, NEMA's board of management, the NIE secretariat, EEs and SEEs guided by the AF policy. The program is addressing gender issues with needs for both men and women factored in its components. Program objectives and outcomes are clear and practical. However, some of the targets are un realistic and unachievable and have been highlighted under the findings section of this report.

Progress towards Results and impacts- Assessment of how well the program has met its objective and logframe indicators against the end of programme-targets showed an average overall achievement of 60% with the implementation of remaining activities underway. The program has already created some impacts such as increase in land value and an increase in household income generated from horticulture and fruits selling as well as carbon credits payments from of mangrove protection project. The barrier identified to achieving the objective and targets in the remaining period of the program is the lack of clear communication strategy between NEMA and EEs/SEEs. To achieve the targets, enhanced coordination will be key in the remaining program period.

Efficiency and effectiveness: The program worked with EEs and SEEs who were already present in the respective counties with an established presence which provided an efficient way of entry into the communities and other stakeholders. The evaluation identified solid traces of adaptative management geared towards program efficiency as depicted by the adaptation village concept which provides an environment for continuous learning and innovation in the climate change adaptation facet touching on components one and two from a central point thus enhancing program efficiency. The effectiveness of some of the EE and SEE towards programme delivery was weak due to limited technical, procurement, financial and management capabilities to execute the agreed-upon activities. Assessment of the effectiveness of responsibilities and reporting lines and decision making processes where NEMA played the overall oversight role with EEs supervising SEEs was weak due to a lack of clear communication strategy and lack of structures to monitor implementation of their memorandum of understanding (MoU). However, effectiveness was enhanced when the implementation approach was changed after the first year of implementation which saw NEMA take over the procurement role from the EE and SEEs and directly supervised SEEs and all service providers enhancing monitoring, compliance and reporting. Remodelling of program water provision approach by switching from water pans to boreholes drilling enhanced both program efficiency and effectiveness as the amount of water supplied increased from 352,000M³ to 14,191,200M³ using lesser resources than previously allocated.

Work Planning: There was a year delay in program start-up due to the Adaptation fund and the Kenyan government protocols in the release of funds. Several activities have been dropped and revised after realizing the budget allocated was not sufficient. Implementation of the programme was also affected by the COVID-19 pandemic. The MoUs shows a result-based working model however, the MoUs have not been

fully followed affecting results delivery. Quarterly coordination meetings have been used as the forums for work planning. MTE established that the quarterly meetings have not been held since year 2020 mainly attributed to lack of clear post Covid-19 framework and implementation strategy.

Finance: The program has the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget. However, EEs and SEEs reported delays in disbursement of funds which has affected implementation of some of the project activities. NIE conducts frequent financial monitoring to EEs and SEEs as stipulated in their respective MoUs. The inability of some of the EEs and SEEs to institutionalize the agreed upon procurement processes was detected. Resulting in the NIE to take up significant procurement responsibility, the aim being to cushion loss of program funds. The program undertook budget revisions in the inception phase based on market assessment of planned activities which was found to have been appropriate and relevant for objective targeting. The change of implementation approach where NEMA centralized the procurement and took direct supervision enhanced financial control, reporting and planning.

Program implementation adheres to all Generally Acceptable Accounting Principles (GAAP) regarding control, transparency and documentation, and have processes, procedures and necessary infrastructure is in place for an appropriate audit system. Internationally accepted firms have been engaged to undertake regular annual programme financial audits guided by the AF and Kenya government approved regulations, procedures and guidelines for procuring goods and services.

Program-level Monitoring and Evaluation Systems: The program does not have a monitoring and evaluation (M&E) system with clear objectives, indicators, means of data collection for each indicators, data analysis tools and responsibilities. Assessment of results framework/logframe showed that indicators related to income generation, governance and gender aspects were missing in the logframe as well as targets to the most of the indicators. The program lacks a programme level baseline survey, instead each EEs and SEEs conducted individual baseline surveys which has not been harmonised. There is no M&E personnel at NIE level and sufficient resources for monitoring and evaluation were not allocated to EEs and SEEs. Joint monitoring between NIE and EEs has been happening but there is no structured forum for feedback. The program lacks gender disaggregated tools to effectively monitor and report gender aspects.

Stakeholder Engagement, reporting and communication: There was wide awareness, participation and engagement of the national and county stakeholders in the programme planning and implementation. All adaptive management changes have been reported by the program management and shared with all the stakeholders. Quarterly coordination meetings were held with NIE, EEs and SEEs during the first year of implementation were posed as effectively channel for stakeholder engagement, communication and feedback. The coordination meetings and communication have become less frequent in the subsequent years occasioned by lack of communication strategy and non-adherence to the MoU. The program has a draft grievances and redress mechanism (GRM) planned to be the channel for complaints, feedback and response for both the executing entities and the community but has not been finalized.



Program Sustainability: The program has strong sustainability components exhibited by the local institutional capacity building and socio-physical structures developed in collaboration with the community. Solarized boreholes have huge sustainability potential. County governments have been engaged in the implementation and have taken over some of the programs such as desilting of canals in Kisumu county. County governments' engagement will support the gains made by the programme after its exit. However, some of the completed programs have raised serious sustainability concerns such as the Masinga irrigation scheme which was not functional at the time of evaluation due to a faulty pump, and the community is unable to repair or procure a new one raising alarm for related programs in the programme. Most of the capacity-building and training activities in the program have not been implemented. However, these will be undertaken under the adaptation villages that are being developed.

Conclusions

- The Program Strategy is anchored on the Project Steering Committee (PSC) as the key policy and decision-making unit of the programme, this was inefficient as so far, they have had very few meetings thus significantly affected project decision making at policy level, and coordination. Similarly, the project coordination unit has challenges in terms of adequate office space, staff time among other implementation resource. This was attributed to that fact that the project had not provision for hiring specific project staff. Therefore, the NIE staff apart from engaging in the project activities were also required to undertake other institutional responsibilities, resulting in to limited staff time on the program.
- Review and Assess Progress towards Results and impacts: the MTE rates progress towards results and impacts at slightly above 60%. The program need to put deliberate effort and plan to implement the unaccomplished program activities.
- The Adaptive Management adopted was effective and more responsive to climate change than the initial design. In overall, the adaptation villages are centers of community learning/capacity building and demonstration as well as increasing water security. This re-orientation, slowed down implementation. This change is considered as important to the design and implementation of future projects/programmes to enhanced resilience to climate change. And has potential for replication upscaling.
- The project work plan experienced significant delay in implementation. This is attributed to several factors including; i) government and donor protocols thus delayed released of funds for project activities. ii) Covid-19 pandemic created an uncertainty and restricted movements and gatherings, during the active project implementation period. iii) some procurements were non responsive these forced the process to be repeated causing delays in planned activities.
- Prudent financial management necessitated the project to leverage on the government financial controls and procurement protocols, these resulted in delays which negatively affected project implementation time. As the most EEs and SEEs had challenges in adhering to these protocols.
- The midterm evaluation established that the project as design was well intended but the communication strategy to ensure adequate stake holders engagement was not elaborate and almost non-existent. This

is illustrated by the inadequate communication between NIE EEs, SEEs and all relevant stakeholders during the implementation of the project activities.

- Program-level Monitoring and Evaluation Systems has weaknesses in the monitoring and evaluation system with inadequate: SMART indicators, harmonized tools for data collection, means of data collection, data analysis software and responsibilities.
- The programme has strong **sustainability components** exhibited by the local institutional capacity building and socio- physical structures developed in collaboration with the community. Adaptation village concept and solarized boreholes (in component 2) have huge sustainability potential. While public institutions such as schools and churches as well as the county governments have been engaged in the implementation of the program enhancing sustainability. However, the program faces major sustainability potential if a clear exit plan is not developed with clear support structures and partnerships in place.

Recommendations

1. There is need for an elaborate communication strategy to enhance coordination and communication in the remaining period of the programme and for future similar projects.
2. The collaborating EEs and SEEs should be capacity built; especially in terms of technical, financial and procurement protocols capability.
3. The programme requires additional time to effectively undertake the delayed heavy infrastructural activities (construction of evacuation centres, construction of dykes, fruit and plant processing plants, bore hole construction etc.) at no cost extension or the project funds for such pending project activities should be committed before the project end date.
4. NEMA in collaboration with EE and SEEs should develop a work plan on how to accomplish and fast track the remaining activities
5. The project Steering Committee as the key policy and decision making unit of the project should be more proactive and enhance frequent meetings so as to effectively deliver the project outputs.
6. The project pivotal role played by NEMA as NIE is unique because most of the accredited NIE implementing Adaptation Fund are international NGOs; who are facilitated by being provided with specific budgets for; office space, staff time among other implementation resource. Therefore, the project coordination unit for future similar projects requires to factor in: office space, staff time among other implementation resource.
7. Draw a clear exit strategy and start linking completed programs e.g. Masinga and Thome Irrigation schemes with potential stakeholders such as county governments for continued support and sustainability
8. Remaining capacity building and training components should be fast tracked to foster sustainability
9. For future engagements, there is need to undertake feasibility studies and in depth organization capacity analysis for the EEs and SEEs, identify the gaps and areas of support then capacity build them based on the analysis



I. Introduction

The Republic of Kenya, located in East Africa, has a landmass of about 582,350 km² of which only 10.19 percent is arable¹. Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Kenya, while considered a lower middle-income country, has the largest economy in East Africa. It has a population of 47,564,296 people². Like other countries in the world, Climate change and climate variability pose major threats to the environment, economic growth and sustainable development. The negative effects from Climate Change experienced in Kenya include reduced agricultural production, food insecurity, increased incidences of flooding and droughts, widespread disease epidemics, and increased risk of conflict over scarce land and water resources. These impacts of climate change are further compounded by local environmental degradation caused by illegal encroachments, deforestation and unsustainable livestock grazing. Kenya aims to become a newly industrialized country by 2030, which will require expanding climate change resilience efforts while also increasing its domestic energy production; including through the use of renewable sources. Adaptation efforts are focused on the country's energy, infrastructure, land use and environment, health, water and irrigation, agriculture, and tourism sectors.

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty where Kenya is a Party to the Convention. The Adaptation Fund is a self-standing fund established under the Kyoto Protocol of the UNFCCC. The Fund is designed to finance concrete climate change adaptation programs and programs based on the needs, views and priorities of developing countries. The Adaptation fund works through the country's nominated National Implementing Entity (NIE). NIE is National legal entities/organisations nominated by a Party / Government and accredited by the Adaptation Fund Board to vet eligible programs for funding from the adaptation fund. The NIEs- bear full responsibility for the overall management of the program and programmes in terms of financial, monitoring and reporting responsibilities. The National Implementing Entity for Adaptation Fund in Kenya is NEMA. NEMA is the agency of the Government of Kenya, established in 2002 charged with the overall coordination and supervision of all matters relating to environmental management. It serves as the main national body to implement environmental policies in all sectors within the country. NEMA was nominated by the Ministry of Environment, Water and Natural Resources to be the NIE under the Adaptation Fund. In March 2012, NEMA obtained its accreditation by the Adaptation Fund Board of UNFCCC. This accreditation gave NEMA the mandate to offer vetting, approval and supervision of programs financed by the Adaptation Fund.

In 2016, the Adaptation Fund approved its first five year program in Kenya, titled the "Integrated Programme to Build Resilience and Adaptive Capacity of Vulnerable communities to Climate Change in Kenya". This is a One (1) Billion Kenya Shillings programme aimed at building resilience among vulnerable

¹ World Bank collection of development indicators 2018
² KNBS 2019 Census



communities who are susceptible to the adverse impacts of climate change. NEMA as the NIE for Kenya is the program's national implementing entity. NEMA has then disbursed the monies from the fund to its three main Executing Entities (CDA, KEFRI and TARDA) who are the programme implementers. The executing entities have partnered with Sub-Executing Entities to implement the program at the county level. The Sub-Executing Entities under TARDA are ADRA, Caritas Nyeri, Horn Aid and Kenya Red Cross Society. The Sub-executing entities under KEFRI are NASARU CBO, Kenyatta University (KU) and Victoria Research and Development (ViRED). The overall objective of the programme is to enhance resilience and adaptive capacity to climate change for selected communities in Kenya. The programme is being implemented in 14 counties (Garissa, Homabay, Kajiado, Kilifi, Kitui, Kisumu, Kwale, Laikipia, Machakos, Makueni, Marsabit, Muranga, Taita Taveta and Wajir). The Programme cuts across several sectors most vulnerable to climate change: water resources, agriculture, livestock, agro forestry, coastal and mangrove ecosystems, energy and infrastructure, human health and gender in relation to climate change. The programme has the following five components:

Component 1: Enhancing climate resilience for improved food security in selected counties

Component 2: Improving climate-resilient water management systems to enhance food security in selected counties

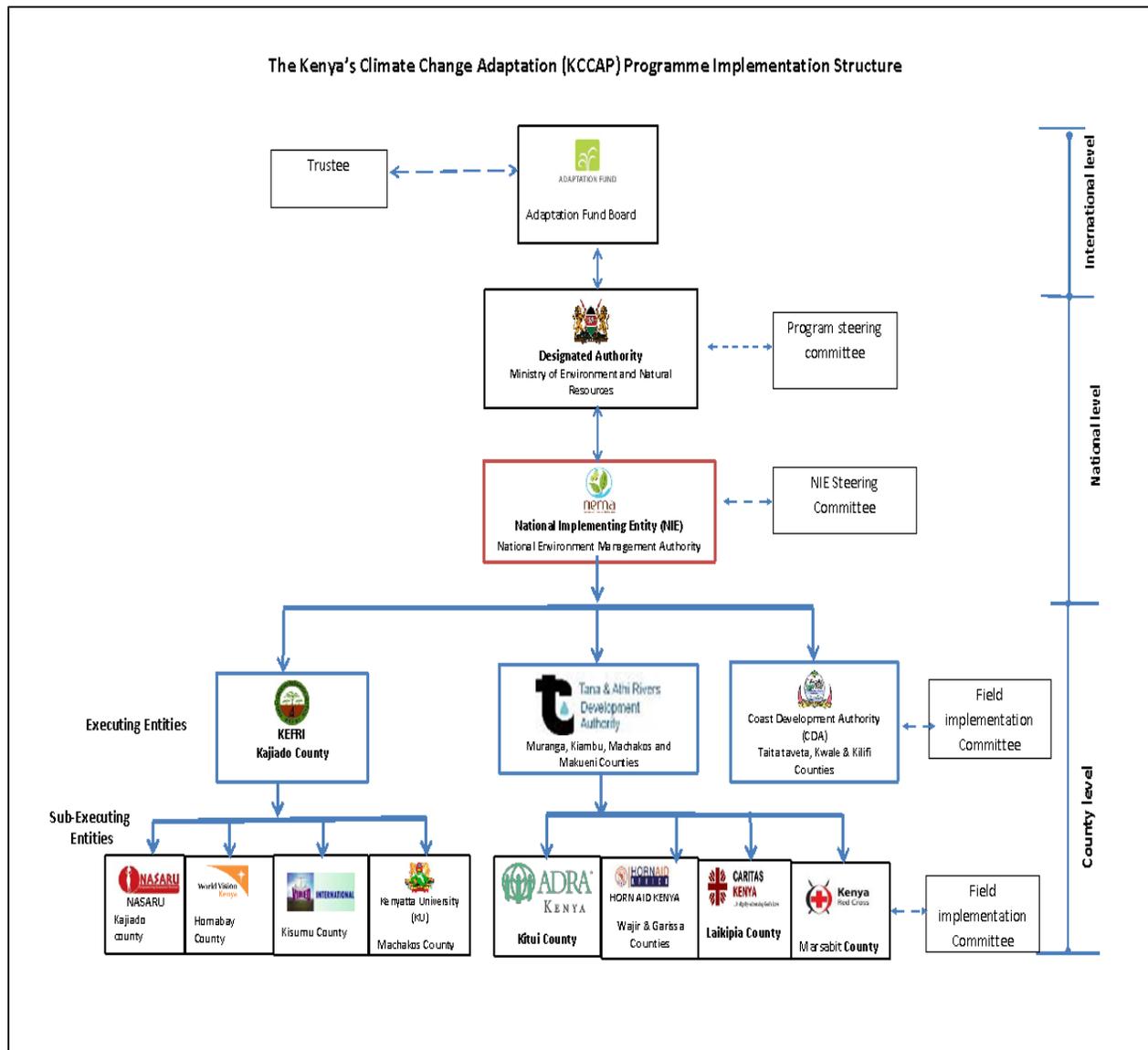
Component 3: Increase resilience to climate change of shoreline and mangrove ecosystem in Kenyan coastal zone

Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities

Component 5: Strengthening capacity and knowledge management for programme implementation and climate change adaptation.

NEMA, being the NIE commissioned the Mid-term Evaluation as per the programme design to review and assess program strategy, progress towards results and impacts, programme efficiency, effectiveness and aspects of sustainability. The MTE was also made to provide recommendations on modifications to increase the likelihood of success as well as guiding adaptive management and decision making in the remaining period of the program.

Figure I Governance Structure of the Adaptation Fund in Kenya



Source: NIE Secretariat, NEMA



Table 1: Programme Components and Funding

PROJECT/PROGRAMME COMPONENTS	EXPECTED OUTCOMES	AMOUNT (US\$)
Component 1: Enhancing Climate Change resilience for improved food security in selected Counties	Enhanced food security and improved livelihoods	2,522,245.71
Component 2: Improving climate resilient water management systems to enhance food security in selected Counties	Increased access to water and enhanced food security	3,210,455.64
Component 3: Increase resilience to the effects of sea level rise and shoreline changes through Integrated Shoreline and Mangrove Ecosystem Management (ISMEM) in Kenyan coastal zone	Secured human habitation and development	1,086,478.00
Component 4: Disaster risk reduction among vulnerable communities	-Improved disaster preparedness and risk reduction -Improved flood control -Secured human habitation during flood -Reduced flood related damages	1,176,999.65
Component 5: Strengthening capacity for program Implementation and Climate change adaptation	-Increased knowledge base on climate change adaptation for better decision making -Increased knowledge base on Climate Change adaptation	476,958.06
Total Project/Programme Cost	8,473,137.06	
Execution Cost by Executing Entities - 9.5% of Total Project Cost (C)	804948.02	
Project/programme Cycle Management Fee / National Implementing Entity (if applicable)	720,216.65	
Total programme Budget	9,998,301.74	

Source: NIE Secretariat, NEMA



2. Methodology

The methodology used in the MTE involved primary and secondary data collection. The direct data collection was done through FGDs, KIs and household surveys to the programme beneficiaries and stakeholders. Secondary data collection was done through extensive literature review. To demonstrate programme achievement at mid-term, an objective comparison was done with the baseline report. The methodology included household survey, literature review, key informant interviews, focus group discussions and observation. The triangulation approach in the methodology eliminated data biasness.

2.1 Sampling Framework and Sample Size for household survey

The MTE covered the programme sites as per the sampling framework explained below. Sampling framework for household survey was based on the five program component areas. All the outputs in each component were considered as a verifiable indicator in the MTE. The evaluation used multi stage sampling approach. The first sampling approach was to purposively select all the program outputs as they were considered verifiable indicators of the evaluation. Purposive sampling was again used to select the counties to be visited by selecting the counties with majority of activities contributing to the various outputs of each component. The evaluation team then visited the specific program sites in the selected counties and randomly selected beneficiaries of each component who were interviewed. To calculate the sample size Fisher's formula for cross sectional studies (Fisher et al; 1998) was used. Program targeted beneficiaries for the different activities was used as the survey population. The total sample size was then distributed in the selected counties based on the number of components implemented;

$$n = \frac{z^2 \cdot deff \cdot p \cdot (1-p)}{Standard\ error^2}$$

Where:

n = sample size

deff = design effect

z = standard score corresponding to a given confidence level (z = 1.96 for the 95% confidence level)

Standard error = acceptable error level

p = expected proportion of the population expressing a particular characteristic.

(1-p) = expected proportion without the characteristic

Where, p has a value of 0.5 to maximize the influence the proportion of the population with any given characteristic on the size of the sample, z and p have value of 1.96 and 0.5 respectively. A design effect (deff) of 1.5 was used, mainly due to only one stage of random sampling applied. 95% standard error and a confidence level of 5% was applied.



Based on the sampling approach above, household survey was conducted in the following sites:

Component 1		
County	Specific Location	Sub/Executing entity
Kitui	Lower Yatta(Kamuwongo, Nyanyaa)	ADRA
Kajiado	Oloitoktok	KEFRI
Kajiado	Kajiado West (Magadi, Keekonyike, Iloolodani)	NASARU
Machakos	Masinga	TARDA
Component 2		
Kitui	Lower Yatta(Kamuwongo, Nyanyaa)	ADRA
Kajiado	Loitoktok	KEFRI
Kajiado	Kajiado West(Magadi, Keekonyike, Iloolodani)	NASARU
Machakos	Masinga	TARDA
Kisumu	Kadibo	ViRED
Kwale	Midoine	CDA
Component 3		
Kwale	Vanga and Wasini	CDA
Component 4		
Kisumu	North Nyakach, Nyando and Kadibo	ViRED
Component 5		
Kajiado	Loitoktok	KEFRI
Machakos	Kathekakai and Vota	KU
Kisumu	North Nyakach, Nyando and Kadibo	ViRED

The Total sample size was 642 distributed as follows:

County	Total sample
Garissa	
Kitui	72
Kajiado	116
Marsabit	72
Machakos	102
Kisumu	96
Kwale	56
TOTAL	642

2.2 Demographics

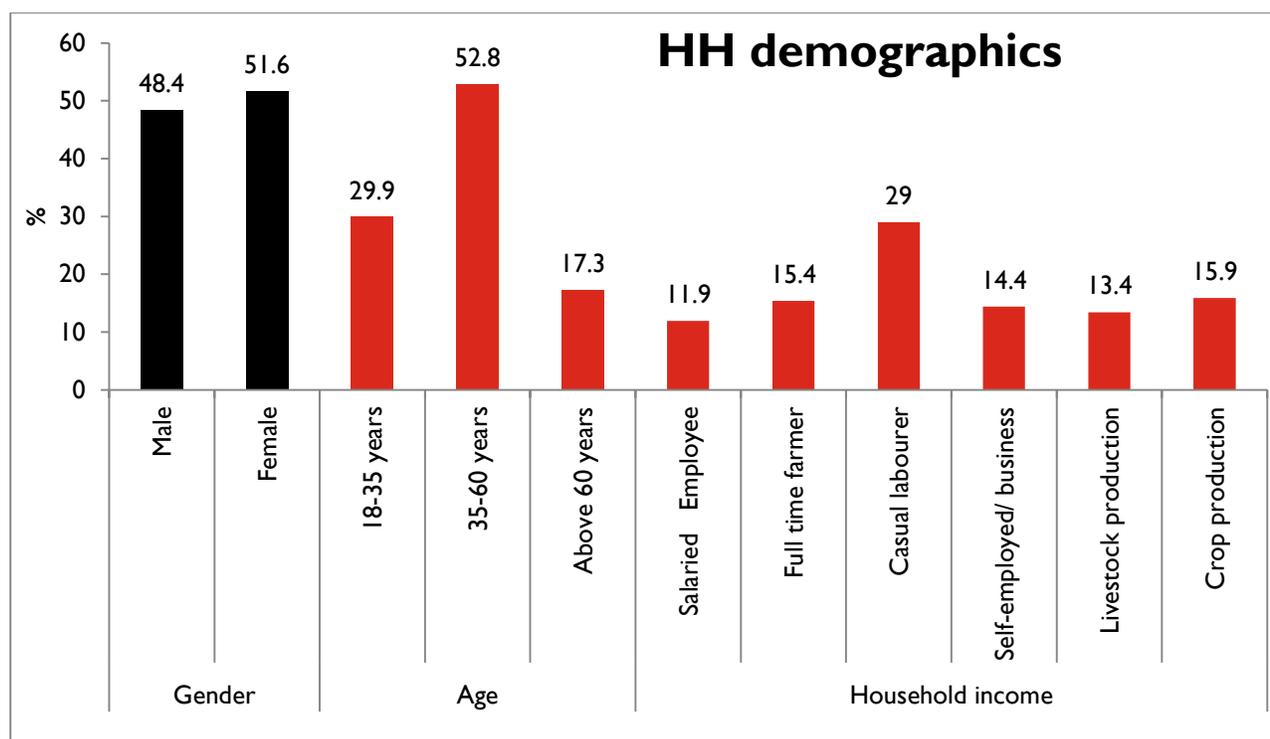


Figure 2: Household survey demographics

The demographics of the survey sample shows that 48.4% and 51.6% of respondents are female and male respondents respectively. Majority of the respondents are within 35-60 years age bracket with casual labour and crop production being the main source of household income at 29% and 16% respectively.

2.3 Literature Review

Secondary information was generated through extensive literature review of relevant documents which included the program's proposal document, baseline reports, Adaptation fund draft evaluation policy, AF strategic results framework 2019, Kenya's National climate change action plan 2018-2022, Program Performance progress reports and program budget revision reports.

2.4 Key Informant Interviews (KIIs)

The evaluation team conducted guided one on one interviews with purposively selected key individuals. KIIs were held with NIE program coordinator, NIE program officers, programs focal point persons the three Executing Entities (CDA, KEFRI and TARDA) and the Sub- Executing Entities (ADRA, Caritas Nyeri, Horn Aid, NASARU CBO, Kenyatta University and ViRED). KIIs were also held with community leaders in the program sites who included the sub-chiefs, chiefs, youth leaders including the members of the county assemblies (MCAs). Finally, the consultant conducted KIIs with NIE team members including the NIE

Coordinator, Deputy Coordinator and programme officers. The KIIs targeted all focal EEs and program implementation team leaders for each specific program sites visited.

2.5 Focus Group Discussion (FGDs)

This qualitative research method involved conducting interviews with groups of 6 to 8 Programme beneficiaries respondents using tailored FGD guide to programme's beneficiaries from the following AFP's programme target sectors; water resources, agriculture, livestock, agro forestry, coastal and mangrove ecosystems, energy and infrastructure, human health and gender in relation to climate change. For each program specific location visited one program beneficiaries FGD was conducted.

2.6 Observation

The Consultant also used observation technique to ascertain the actual progress of the programme activities in the field as supporting evidence to the information that was gathered from other sources. Some of the targeted activities targeted assessed through this approach were value addition, water harvesting, and irrigation structures. Observation list/guide was developed to guide the type of structures observed.

2.7 Data collection, quality assurance and analysis

The evaluation questionnaires were administered using Smart phone data collection software, KoboToolkit. A well-planned system of procedures, performance checks, quality audits, and corrective actions were put in place for data quality assurance. Findings from qualitative data were summarized into programmes thematic components. Quantitative data was analysed through descriptive statistics (frequencies, means, totals, percentages and measures of dispersion) using STATA software.

3. Findings

3.1 Evaluation Objective i: Review and Assessment of Program Strategy

Project design

The Program is designed to promote appropriate and feasible resilience mechanisms and adaptive capacities of selected communities in Kenya depending on the respective diverse economic and social status in the targeted counties. It has been established that the program activities are objectively addressing climate change-linked problems in water resource management, agriculture, rangeland management, livestock, forests and agro forestry, coastal and marine ecosystems, energy and infrastructure. The program design has embraced inclusivity since the targeted areas are spread across the country among communities with diverse cultures including indigenous population who derive their livelihoods from the environment and are most vulnerable to the effects of climate change. Women are mostly affected by the effects of climate change and climate variability because of their roles in the society especially cooking energy, water collection and food preparation, the program design has addressed the issue through gender angled targeting approach where intervention such as provision of the drought resistant seed varieties, fruit trees seedlings, roof water catchment structures and hay-machines were targeting mostly women. The midterm evaluation established that the general project design was well intended but the communication strategy to ensure adequate stake holders engagement was not elaborate and almost nonexistent. This is illustrated by the inadequate communication between NIE EEs, SEEs and all relevant stakeholders during the implementation of the project activities.

Initial lesson learnt in the first and second year of program implementation showed that small capacity water pans being done by the program under component two were not suitable in most parts of the program areas due to extended droughts. As a way of adaptive management the program adopted “Adaptation village” approach or “Green point concept”. The Adaptation village consists of Water point - Solarized borehole, Water storage facility (Raised steel tanks), Fenced area of about 2-acre space – Chain link fence, concrete posts and a gate, and a Basic village hall- that employs the concept of green architecture and sanitation facilities. Adaptation village is made to serve as a point of social transformation among communities providing a centre for communities’ continuous learning and innovation in the climate change adaptation facet thus ensuring sustainability. The Adaptation Village concept saw the programme shift from water harvesting approach through digging of water pans to boreholes drilling with an aim of having better longer-term benefits.. On the other hand, training/capacity building elements, will be under taken in locations where adaptation villages have been established, such that where a water structure has been constructed, there will be demonstration sites and trainings using the farmer field concept taking place in the same locations as well. As with all programme assets, the Adaptation villages would be handed over to the communities and the County Governments for management, maintenance and use on completion of the programme.



The programmes, design, components and implementation strategies are in line with the Adaptation Fund regulations. The project is managed through Adaptation Fund board, NEMA as the NIE, several EEs and SEEs. Although the project design envisaged that the EEs will supervise SEEs, there was no clear budget provision and management plan to actualize this role. The design of implementation through the EEs and SEEs was well thought and ambitious at the same time with the overreaching assumption that EEs and SEEs had the required experience, technical and financial systems. Assessment showed that some of the EEs and SEEs lacked strong procurement, human resources and financial systems which affected program implementation an indication that proper capacity assessment of the EEs and SEEs was not conducted. The project activities are addressing the country's priorities in the National Climate Change Action Plan 2018-2022, National Climate Change Framework Policy, Nationally Determined Contributions (NDCs) objectives as well as Sector Specific Policies and Legislation including the Water Act (2016), Disaster Risk Financial Strategy (2018-2022), Kenya Climate Smart Agriculture Strategy (2017-2026). Programme components are well linked however, there exists a very thin line between components one and two as their overall contribution is towards food security and could have been merged. On the other hand, all components are lacking clear mechanism for gathering and disseminating knowledge and lessons learnt. Component five on knowledge management ought to have been implemented as a cross cutting component within the other four components to generate and disseminate lesson learnt and good practices emanating from each component. Experience from other resilience building programs in developing countries has shown that its difficult to build adaptive capacity through one off intervention when supporting the most vulnerable community members as the intervention gains will be easily lost before the community is in a position to support themselves due to their vulnerability level. On this note, the program ought to have been designed such that activities such as distribution of fruit tree seedlings, drought resistant crop and fodder seeds as well as desilting of canals in components one and four were implemented continuously for at least three years by targeting a lower number but supporting them for a longer period/repeated cycles before exit. The program depicts a strong internal and external coherence being aligned well to other NEMA's programs such as the Adopt a River, Kenya Environmental Information (KEIN) and World Bank project (Africa Environmental Health and Pollution Management). Program decision-making process is clear and is done through Adaptation Fund (AF) board, NEMA's board of management, the NIE secretariat, EEs and SEEs guided by the AF policy. Climate change affects gender differently across socio and economic activities that determine community's livelihoods. The Program has considered various gender roles in various activities with needs for both men and women factored in its components activities. However, the program lacks data collection tools with gender angle to effectively collect gender disaggregated data for gender centred reporting and decision making.

During implementation, the lesson learned was that Climate Change scenario was an evolving target and it requires one to adapt to the changing situations. This is observed by the changes made by NIE from the initial design; driven by the need to build long-term resilience and adaptive capacities of communities. The program adopted the concept of Adaptation villages as vehicles to deliver most programme outputs. The Villages will be centres of community learning/capacity building and demonstration as well as increasing

water security. This re-orientation, though necessary, initially slowed down implementation. This change is considered as important to the design and implementation of future projects/programmes to enhance resilience to climate change. The adaptation Village concept has potential for replication and upscaling.

Results Framework/Logframe

The five program objectives and outcomes are well linked to the components. The proposed logic level is clear and practical based on the project activities to produce the desired results at each level. However, some of the sectors such as food security and marine ecosystem requires relatively longer period to create adaptative capacity. The program implementation was rapid while some activities linked to food security, marine ecosystem and disaster reduction required repeated cycles of support to objectively achieve the targets in the logframe. Overall and the program period is relatively short and may not be feasible to build the long-term adaptive capacity anticipated in the results framework.

3.2 Evaluation Objective ii: Review and Assessment of progress towards results and impacts

Component I: Enhancing Climate Change resilience for improved food security in selected Counties

This component has six concrete outputs and five outcome indicators whose adaptation activities across selected sites will contribute to increased resilience of local and vulnerable communities. Output one is on adoption of drought tolerant food and high value crops and enhance efficient utilization through value chain approach. MTE established that certified seeds of drought tolerant and orphaned/high value crops namely; sorghum, amaranthus, millet, green grams, cassava, cow peas, pigeon peas, water melons, pumpkins, butter nut were procured and distributed to approximately 73% of targeted farmers in Kitui, Kajiado, Machakos and Wajir counties. The famers were expected to establish seed bulking centre of selected drought tolerant crops to ensure sustainable supply and access of seeds to targeted farmers which will be implemented under the adaption villages concept. The farmers who received seeds in the first season were expected to donate at least one kilogramme of seeds for distribution to a second target group of farmers to have a multiplier effect which was not actualized due to recurring drought were some farmers did not harvest and those harvested reported to have consumed the seeds reserves due to food unavailability in their households. The targeted farmers were also expected to establish demonstration fields for each selected drought tolerant crop in order to improve awareness and promote drought tolerant/orphaned crops. Only one demonstration plot has been established in Oloitoktok Kajiado county. The remaining demonstration sites are being implemented within the adaptation villages. Farmers field extensions and exchange programmes visits for learning purposes were also planned to support the output. Only one farmer exchange visit has been held between farmers in Kajiado and Makueni counties. All the remaining learning activities are etched within the adaption villages. Fruit processing plant has been established in Kirinyanga county for value addition of the introduced drought tolerant fruit varieties.

Output two under this component was to provide diversified alternative livelihood sources as opportunities for farmers to spread climate related risks and increase resilience to climate change. This output was

dependent on distribution of drought tolerant and improved fruit trees (Mangoes, pawpaw, passion, avocados etc), seed bulking activities, fish and milk value addition and creation of market linkages for the same. MTE established that the drought tolerant and improved fruit trees were distributed but there is no evidence of market linkages. Construction of fish cooling plant in Ekalakala (Machakos county) is on going while milk Cooling Plant has been established in Emali (Makueni county) in partnership with Makueni county government.

Output three under this component was geared towards increasing food production through appropriate and efficient irrigation methods. The output was to be achieved by setting up drip irrigation kits and undertake capacity building to selected groups of farmers in Loitoktok, Waldaa, Wajir, Garissa, Thome, Yatta, Tana and Athi Rivers Basins to support agricultural productivity. Establish irrigation schemes in Waldaa (Masarbit county), Masinga (Machakos county) and Thome (Laikipia county). The evaluation established that 10% of targeted drip irrigation kits were distributed. Thome irrigation scheme has been established successfully. Waldaa irrigation project was supported but later washed away by floods. Ngetani irrigation scheme in Masinga was established and performed well in the first year of establishment but later run down due to operational issues associated with water pump and un coordinated community management committee. Capacity building activities to the farmers have not been done and are expected to be undertaken through the adaptation villages.

Output four is on enhancing efficient food utilization through implementation of post-harvest strategies and value chain approach as a strategy of building food security resilience. The program aims to achieve this by establishing common grain storage facilities. Holding demonstrations on improved post-harvest strategies for fruits, wild fruits and other target high value food crops (to include traditional and modern foods preservation methods). Training and sensitizing target communities on post-harvest strategies and value chain management. Establishment of farmer Cooperative societies, Village Savings and Loans Associations (VSLA) and Economic Empowerment Committees as part of sustainability strategy. The MTE did not find any evidence of activity implementation under this output.

Component one output five is pitched at increasing animal productions through promotion of drought resistant fodder crops; pasture conservation and emergency fodder banks. The output is to be achieved through procuring and planting drought and climate-resilient accessions/varieties of grass and forage constructing fodder storage facility, establishing mechanized fodder processing unit, , establishing green zones for pasture production through purchase of grass seeds, establishment and rehabilitation of livestock watering points, linking farmer groups across implementing sites to special livestock insurance schemes and micro finance services and finally provide extension services per farmer group. The MTE established that that drought resistant varieties of fodder seeds and forage were distributed to approximately 20% of targeted farmer groups. The planned mechanized fodder processing unit and establishing of green zones has not been accomplished. Animal water points which are serving both domestic and wildlife have been establishment and rehabilitated in Kajiado county. Discussions had been initiated to link farmer groups with special livestock insurance schemes and micro finance services but has not materialized.

The last output of component one aims to enhance land productivity through ecological land use systems, conservation strategies and management technologies. The activities contributing to this output are introduction and upscaling of soil technologies that increase rain water infiltration, adoption of terracing across implementing and adoption of improved fallow species with high nitrogen content to reduce application of inorganic fertilizer in agricultural crops. Other contributing activities include establishing herbal gardens to selected farmer groups so as enhance tree crop integration and landscape protection as well as undertaking enrichment planting in various forests and establishment of tree nurseries and woodlots. The MTE established that, ecological land use, management systems and conservation strategies around terracing and adoption of nitrogen fixing crops had been introduced in Kajiado and Kitui counties during the first year of implementation. The planned herbal gardens, tree nurseries and woodlots have not been established.

Assessment of the component's outcome indicators showed that; Percentage of female and male headed households consuming less than 3 meals per day has increased from 72% at baseline to 81.3% against ambitious program target of 55%. The reduction in number of months per year that female and male headed households experience food shortage increased slightly from seven months at baseline to eight months against a target of three months. The poor performance in program food security indicators is largely attributed to prolonged drought in most of the program areas and the general economic hardship experienced in the country. In terms of adoption of climate- resilient livelihoods strategies the survey showed that 21 % are practicing sustained climate- resilient livelihoods strategies compared to 15% at baseline and a program target of 25%. The farmers who received certified seeds of drought tolerant and orphaned/high value reported an average of 23% increase in yield compared to their previous production. The proportion of female and male headed households using climate-resilient agriculture techniques has increased from 14% at baseline to 60% against a program target of 50%.

Component 2. Improving climate-resilient water management systems to enhance food security in selected Counties.

The Component has one output and one outcome indicator pitched at establishing appropriate physical assets and infrastructure for water harvesting, storage and irrigation. The contributing activities to this output are construction of water pans to harness water harvesting to capacity of 352,000 m³ in the selected sites as follows; 6 water pans at capacity of 17,000 m³ each at Wajir and Garissa; 50 water pans at capacity of 3000 m³ each at Kajiado; 6 water pans at capacity of 5000 m³ each at Loitoktok district ; 2 water pans at capacity of 5000 m³ each at Thome in Laikipia and 12 water pans at Kwale, Kilifi and Taita-Taveta in Coast region and install equipment for constructed dams to support agricultural production and domestic needs. Other planned activities included construction of 300mm pipeline to approximately 9KM at Thome, Laikipia County, construction of irrigation points to improve water harvesting that can support rice farming at Nyando Wetlands, Tana and Athi River basins, installing water tanks and gutters to promote roof water harvesting, shallow wells, rock catchments, underground water tanks and sub-surface dams. Enhancing river banks, canals, retention ponds and protection by planting grasses/fodder grass, bamboo, bananas, sugarcane,



agroforestry trees and conservation of natural bushes including fencing of springs and water sources to protect them from further degradation were also planned activities under the output including establishing and strengthening water users' associations.

The MTE established that The 16 water pans have been constructed in Embu (1) Garissa (1), Kajiado (5), Kilifi (1) Kisumu (2), Kwale (1) Makueni (1) Muranga (1), Nyeri (1) and Wajir (2) counties. 9km of water pipeline have been constructed in Laikipia county. The program has also installed five roof water catchment structures in Kilifi and Kwale counties and one djabias (rock water catchment structure) in Kwale county. It has further been established that the program remodelled its approach in the delivery of this component base on lessons learnt. Lesson learnt in the first and second years was that the majority planned small capacity water pans were not suitable water provision option in most parts of the program areas due to extended droughts. The program has thus adopted Adaptation village approach where it has planned to drill 27 solarized boreholes to deliver the component objective. 17 boreholes have already been drilled. Its expected that upon completion the boreholes whose average production is 12,000 litres per hour will be supplying a total of 14,191,200 m³ per annum assuming only 12 hours operations per day against the initially anticipated supply of 352,000 m³ per annum through the water pans which only last between four and six months before drying up.

Assessment of the component's outcome indicator shows that the of targeted female and male headed households with climate-resilient water management systems to enhance food security in selected counties has increased from 11% at baseline to 28% against the 40% program targeted. It is expected that the proportion will rise as more solarized boreholes are being drilled.

Component 3: Increase resilience to climate change of Shoreline and Mangrove Ecosystem in Kenyan coastal zone

The component has five outputs and one outcome indicator aimed at increasing resilience to the effects of sea level rise and shoreline changes in Kenyan Coastal shoreline and mangrove ecosystem. The contributing activities includes rehabilitation of Vanga and Gazi Mangrove Ecosystems, rehabilitation and protection of Coral Reefs, shoreline Stabilization, erosion and accretion control and setting up of an Inventory and GIS Database for the shoreline and mangrove ecosystems. MTE showed that all the planned activities under this component have been accomplished except erosion and accretion control which is in progress. Further assessment showed that the accomplished activities did not meet the program targets which were found have been ambitiously set. For instance, only 70 Ha of mangrove ecosystem has been rehabilitated against a set target of 412 Ha.

Assessment of the outcome indicator showed 49.9% increase in number of targeted female and male headed HHs secured from the effects of sea level rise and shoreline changes from baseline value of 11% and a program target of 70%. The target was relying on assumption that all households within the stabilized shoreline and where erosion and accretion has been controlled have been secure from the effects of sea level rise and shoreline changes. However, information gathered through KIIs and FGDs with the communities living along the shoreline revealed not all the dwellers felt secured by the highlighted program interventions.

Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities

The component has one outputs contributing to two outcome indicators aimed at reducing exposure to climate related disasters and threats as well as increasing adaptive capacity among the targeted vulnerable communities and stakeholders. The contributing activities includes construction of flood control structures (dykes) and evacuation centres in Nyando wetland basin, unblocking by de-silting canals and planting bamboo to stabilize river banks. The other contributing activities includes conducting risk and vulnerability assessment, disaster awareness capacity building, establishing early warning systems by constructing and equipping Automatic Weather station (AWS), collating weather data and linking it to Kenya Meteorological Department to document weather change patterns and establishing community based friendly information dissemination system.

The MTE established that 60Km of blocked canals have been desilted, construction of 4Km of dykes and for evaluation centres are in progress. Risk and vulnerability assessment, disaster awareness capacity building and establishing early warning systems has been accomplished. Planting of bamboo, constructing and equipping of AWS, collating weather data and linking it to Kenya Meteorological Department and establishment of community based friendly information dissemination system has not been accomplished. Assessment of the outcome indicators showed 49% increase in number of targeted female and male community members reporting reduction of flood related damages against a baseline value of 12% and a target of 70%. The proportion of targeted female and male population aware of disaster awareness has increased from 32% at baseline to 71% against a program target of 80% while the number of targeted female and male population reporting increased adaptive capacity to disaster occurrence in the targeted counties increased from 18% at baseline to 88% against a program target of 80%.

Component 5: Strengthening capacity and knowledge management for Program Implementation and Climate change adaptation:

This component has four outputs and one outcome indicator pitched at Increasing awareness and ownership of adaptation and climate risk reduction processes at community level through the following activities developing information systems such as database and websites and airing radio/T.V shows. Other contributing activities include climate change adaptation related publications, participation in international meetings, seminars, national workshops and short courses on program management as well as supporting higher learning institutions to generate information and knowledge on environment, Climate change, international relations, water and irrigation. MTE established that all the planned activities under this component have been achieved except for the production of information, Education and Communication materials which is short by 30%. Assessment of the outcome indicators showed that Percentage of targeted population aware of predicted adverse impacts of climate change and the appropriate response has increase from 15% at baseline to 52% against a program target of 70%. To enhance component objective it is advisable that the reaming IC material are produced before program closure and some of the accomplished activities such as radio/T.V shows are re aired.

3.2.1 Output level progress

Component I. Enhancing Climate-resilient agricultural, forestry, pastoral and agro-pastoral production systems to improve food security in selected Counties in Kenya.				
OUTPUT INDICATORS	BASELINE	TARGET	ACHIEVEMENT	EVALUATION COMMENTS
1.1.1 Number of individuals- female and male headed household adopting drought tolerant and high value food crops	Negligible	15,000 individuals adopting drought tolerant and high value food crops;	(Partially achieved) Approximately 2,000 households with 6,000 women and 4,000 men (approximately 10,000 individuals) have been supported in Kitui and Kajiado counties to adopt drought tolerant and high value crops (green grams, amaranthus, maize, beans, pigeon peas, cow peas crops and dolichos).	The 20 Adaptation villages under construction once complete will be centres of demonstrations and promotion of the drought tolerant food crops and high value crops and this will increase the number of beneficiaries to meet the target. Household survey showed that 90% of supported households have adopted drought tolerant and high value crops.
1.1.2 Number and types of value chain approaches adopted/enhanced	Negligible; 1 value chain	6 value chains approaches adopted/enhanced)Fruit Value chain, 2)Aloe - vera value chain, 3)Fish Value chain , 4) Milk Value chain,	One complete and five in the process (Partially Achieved)	1) Feasibility study for Fruit processing plant in Kirinyanga county completed 2) Aloe - vera value chain - To be done in the Adaptation Villages through demos and trainings 3)Fish Value chain - the feasibility study for the fish cooling plant in Ekalakala (Machakos county) is complete 4)Milk Cooling Plant planned for Emali has been dropped to avoid duplication after county government of Makueni built a milk cooling plant in the same locality. 5) Granary establishment Value chain - To be done in the Adaptation Villages through demos,



		5)Grains Value chain, 6)Horticulture value chain		trainings, 6)Horticulture value chain- Horticulture crops planted (Butternut, Water melon and Garlic).
1.2.1 Number of female and male headed households adopting alternative climate-resilient livelihoods	0	5,000	2,500 (Partially Achieved) Consisting of 1350 female headed and 1,150 male headed households.	Household have diversified their livelihood by engaging in agro-business and fruit farming. Fruit processing and fish cooling plants once completed will provide more households with alternative climate-resilient livelihoods.
1.2.2 Number of alternative livelihood strategies adopted by household heads disaggregated by sex	0	4	4 (Achieved)	The alternative livelihood strategies adopted by the households includes Integration of drought tolerant, fruit tree farming and normal crop farming , aloe vera farming, Fishing, Milk production and Seedling bulking.
1.3.1 Number of individuals- female and male household heads using irrigation methods	0	3,000	508 (Partially achieved) households consisting of 203 female headed households and 305 male headed households.	infrastructure The program has supported irrigation farming in Masinga (80HHs), Waldaa 9128HHs) and Laikipia (400HHs) irrigation schemes. The MTE established that the indicator target of 3000 HHs is over ambitious and a revision is recommended.
1.4.1 Number of trainings and meetings held on post- harvest strategies and value chain approaches	0	10	3 (Partially achieved)	The Adaptation villages under construction once complete will be utilized for the remaining post-harvest strategies, trainings and value chain approaches.
1.4.2 Number of common grain storage facilities established	0	6	0	Procurement in process
1.5.1 Fodder Production (Kgs) per Ha per year	0	40	600 (Over achieved)	Production per Ha per season is approximately 300kgs with an average of 2 harvest cycles



				annually. The indicator target of 40kgs per Ha is very low and revision is recommended.
I.5.2 Number of targeted female and male headed households accessing sufficient fodder	0	100	(Over Achieved) 300 consisting of 100 female headed households and 200 male headed households	The 300 HHs were supported with drought resistant and early yielding fodder seeds. The program has also supported 50 youth and women groups in Kajiado county with 50 haybaliers for bailing hay and selling hay at affordable price which is enhancing fodder access.
I.6.1 Number and type of ecological land use, management systems and conservation strategies adopted	0	4	4 (Achieved)	(a) 37 Trainers of Trainers (TOT) have been selected and trained tree nursery management and environmental conservation and Agro economic practices of the mango tree (b) 37 demonstration plots on soil and Water conservation established (c) 14,500 trees planted in degraded animal watering points in Rombo, Kuku and Kimana Kajiado county (d) Adaptation villages are being established as centres of learning and demos for ecological land use and management systems
I.6.2 Number of targeted female and male individuals adopting ecological land use, management systems and conservation strategies	0	2,000	150 (Partially achieved) consisting of 50 women and 100 men	The farmers/ youths trained on soil and Water conservation methods and reported to be practising the strategies.

Component 2. Improving climate-resilient water management systems to enhance food security in selected Counties



2.1.1 Number of physical assets and infrastructure for water harvesting, storage and irrigation established with indication of number of female and male headed households benefiting	0	4	5 (Achieved) Estimated 7,630 households consisting of 3,891 female headed and 3,739 male headed households are benefiting from the programs' water infrastructure.	The physical water assets infrastructure includes: 1. 16 Water pans 2. 5 Water roof catchment structures 3. 2 Djabias 4. 20 Boreholes 5. 9km of irrigation water pipeline
2.1.2 Total Volume of water provided by physical assets and infrastructure for water harvesting, storage and irrigation established	0	609,527M ³	Over Achieved 14,191,200 M ³	Its expected that upon completion the 27 boreholes whose average production is 12,000 litres per hour will be supplying a total of 14,191,200 m ³ per annum assuming only 12 hours operations per day.

Component 3: Increase resilience to climate change of Shoreline and Mangrove Ecosystem in Kenyan coastal zone



3.1.1 Length (in Km) of shoreline stabilized	2.78	4.81	7.05	
3.1.2 Number of female and male headed households	644	1,290	1,290 (Achieved) 658 Female headed and 632 Male	Stabilization of the shoreline has been done in Vanga and Jimbo villages in Kwale county.
Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities				
4.1.1 Distance in Km of physical assets (dykes and canals) and number of evacuation centres strengthened or constructed to withstand conditions resulting from climate variability and change	0	4 physical assets •10 Km desilting of canals •4 Km of dykes •4 evacuation centres	I complete (Partially achieved)	<ul style="list-style-type: none"> • Desilting of 60Km of canals competed • Construction of 4 Km stretch of dykes in progress • Construction of 4 Evacuation centres in progress
4.1.2 Number of Risk and vulnerability assessments conducted and updated	0	1	I (Achieved)	Vulnerability report was utilized to develop the content for the sensitization forums and drills.
4.1.3 Number of early warning systems established	0	2	I (partially achieved)	Indigenous knowledge on Early Warning Systems has been collected and documented.
4.1.4 Number of sensitization forums / drills held	0	500	I (Partially Achieved)	The indicators target of 500 is too ambitious and revision is recommended.
3.4.1 Length of shoreline (in Km) where erosion and accretion has been controlled	2.05	9.56		



3.5.1 Inventory and GIS database for the shoreline and mangrove ecosystem in place	0	21	1 (Achieved)	Inventory and GIS database has been developed by CDA as well as MWABBOFU Management plan for Funzi bay.
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Component 5: Strengthening capacity and knowledge management for Program Implementation and Climate change adaptation

5.1.1 Number of information systems/ materials (database, website, Communication and visibility materials) documenting program implementation processes, information and best practices/lessons learnt developed	0	3	3 (Achieved)	<ul style="list-style-type: none"> • Database, Websites and IEC materials all developed • Web based information system developed for the programme hosted in the NEMA website; "http://www.kccap.co.ke/"
5.2.1 Number of meetings/forums, and information, Education and Communication (IEC) materials developed	0	12 meetings 30,000 IEC	10 Meetings 20,000 IEC materials (Partially Achieved)	<ul style="list-style-type: none"> • 4 Quarterly meetings with the programme, • 2 AF/ GCF committee meetings held • 2 Quarterly Field Implementation Committee Meetings held. • Selected farmers from Kajiado county visited two farms in Makueni County for lesson learning • 13 program sites branded and 20,000 IEC materials ((brochures, posters, banners) developed and distributed
5.3.1 Number of radio/T.V shows/ programmes aired, peer reviewed publications and information materials generated	0	2	2 (Achieved)	<ul style="list-style-type: none"> • Documentary on coral reef and sea grass restoration developed and aired on KBC TV and the print and social media "https://web.facebook.com/TheNextFrontierKe/videos/498005837484572" • 14 minutes video on success stories, best practices and lessons learnt developed.



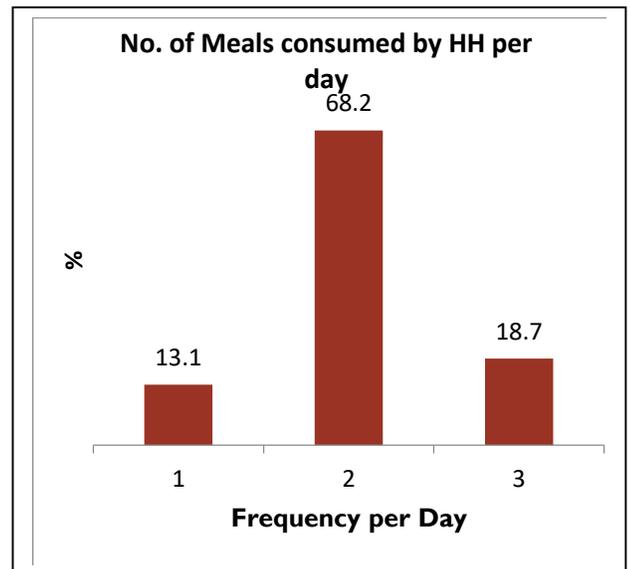
				<ul style="list-style-type: none"> • Knowledge Management system developed is awaiting operationalization
5.4.1 Number of International meetings, seminars, national workshops and short courses on program management and Climate Change adaptation held	0	2	7 Over (Achieved)	<ul style="list-style-type: none"> a) Participated in 1 International seminar in South Africa (b) Held the NIEs Readiness workshop in Kenya in April 2018; (c) Participated in 1 International seminars - Climate Finance readiness Seminar in Antigua and Barbuda in August 2019; (d) Participated in COP 25 in Spain, Madrid. (e) 2020 Annual Climate Finance Readiness Seminar for Accredited NIEs (f) Participated in the 2020 Virtual Annual Climate Finance Readiness Seminar for Accredited NIEs (g) Participated in the AF Virtual Knowledge Fair in December 2020
5.4.2 Number of Institutions of higher learning Supported to generate information and knowledge on environment, Climate change, International relations, water and irrigation.	0	2	1 (Partially Achieved)	<ul style="list-style-type: none"> A research case study has been conducted by Kenyatta university on best cropping systems for Climate Resilience

3.2.2 Outcome level Progress

Component I. Enhancing Climate-resilient agricultural, forestry, pastoral and agro-pastoral production systems to improve food security in selected Counties in Kenya.

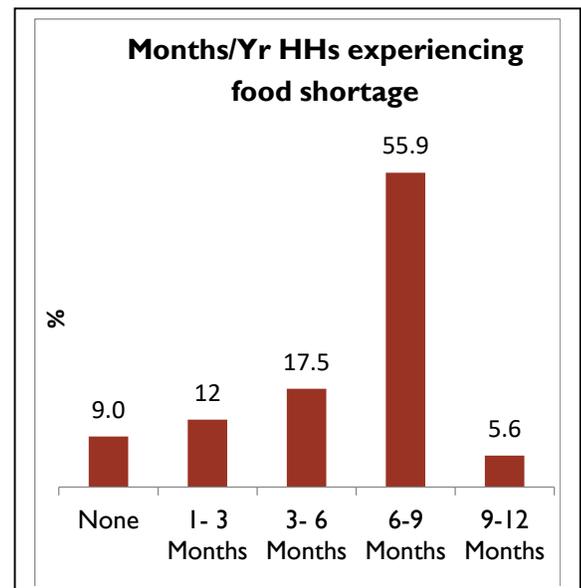
1.1 % of female and male headed HHs consuming less than 3 meals per day

Household survey administered to component one beneficiaries showed that 81.3 % of households were consuming less than three meals per day with 68.2% and 13.1% consuming two and one meal respectively. Only 18.7% reported to be consuming three meals per day. Data disaggregation by sex showed the proportion of women and men consuming less than three meals per day was 76% and 24% respectively. The program target was to reduce the proportion of households consuming less than three meals per day from 80% at baseline to 55% which has not been achieved. Information gathered through KIIs and FGDs attributed the low food consumption to prolonged drought in program areas during the first and second year of the program affecting food access. The program can leverage on irrigation agriculture through the adaptation villages and introduced irrigation schemes to improve household food consumption.



1.2 Reduction in number of months per year that female and male headed HHs experience food shortage³

The program target was to reduce the number of months per year that supported beneficiaries experienced food shortage from seven at baseline to five months. More than 72% of interviewed respondents reported to be experiencing food shortage for more than six months per year. Data disaggregation by sex showed the proportion of women and men experiencing food shortage for more than six months per year was 56% and 44% for female and men headed households respectively. Additional information collected through FGDs and KIIs revealed that reduction in food shortage was experienced in the first and second year of the program mainly due to drought. More qualitative information shows that the households that are practising irrigation in Masinga and Thome irrigation schemes did not experience food shortage for more than three months in a year.

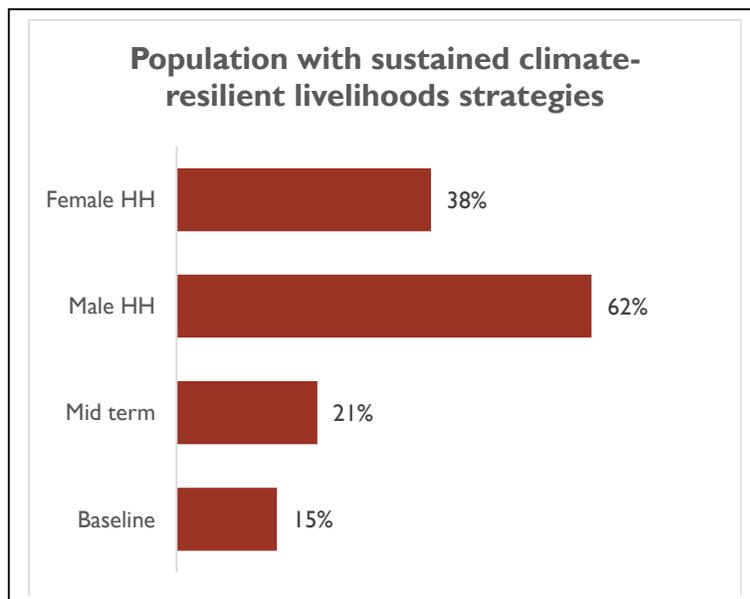


³ Household food supplies do not provide the energy and nutrients needed by the household members

1.3 % of targeted population with sustained climate-resilient livelihoods strategies disaggregated by sex of household head

In the wake of ensuring the targeted beneficiaries bounced back in event of shocks related to climate change, the program provided diversified climate-resilient livelihood strategies. At baseline, only 15% of targeted population had sustained climate-resilient livelihood strategies. The proportion has increased to 21% against the set target of 25% courtesy of program initiatives on agro-business and fruit farming as well as value addition in fish, milk, gains and horticulture.

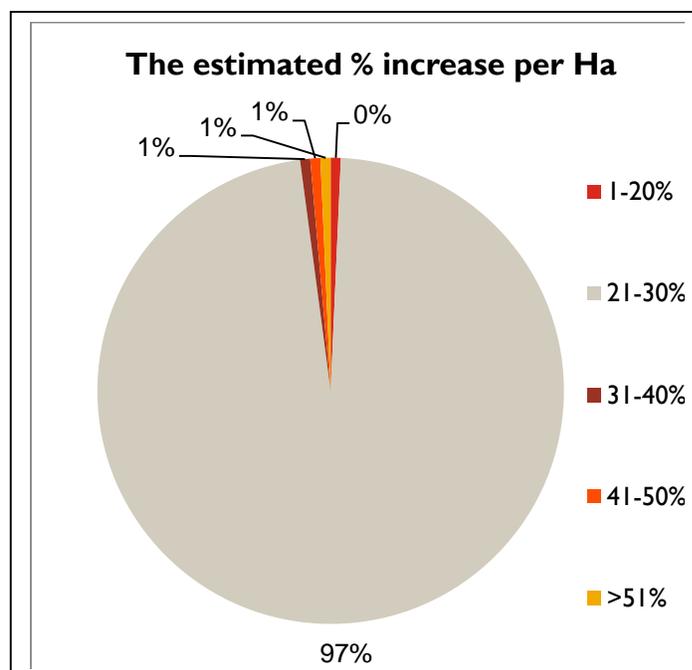
Data disaggregation by sex showed the proportion of women and men with sustained climate-resilient livelihoods strategies was 38% and 62% for female and men headed households respectively



1.4% Increase in food production per Ha

Beneficiaries of drought resistant and high value seed varieties were asked through a household survey if they had experienced an increase in yield compared their previous production. 76% of those interviewed reported to have experienced an increase in crop production per Ha. 1% reported to have experience an average increase of 31-40%, 41-50% and above 51%. Majority reported 21-30% increase.

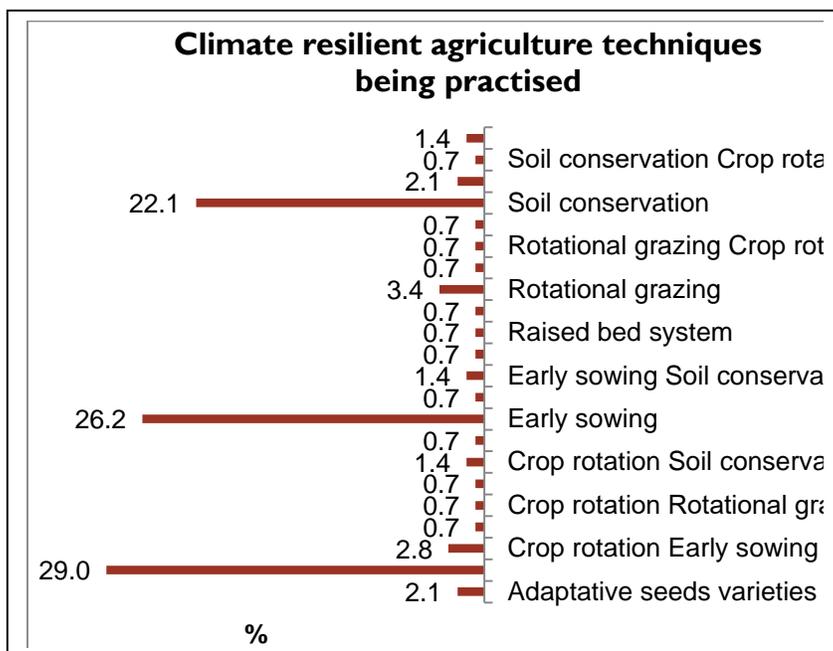
The program target was to have a 25% increase which had been achieved at midterm evaluation. However, the information gathered during FGDs revealed that the high production has deteriorated since the year 2020 as farmers had depleted the drought tolerant varieties provided by the program and were using the locally available seeds.



1.5 % of female and male-headed HHs using climate-resilient techniques⁴

The proportion of households practising climate-resilient techniques increased from 14% at baseline to 50% courtesy of program trainings and demonstrations through the adaptation villages. The program target is to have the proportion at 60% by the end of the program.

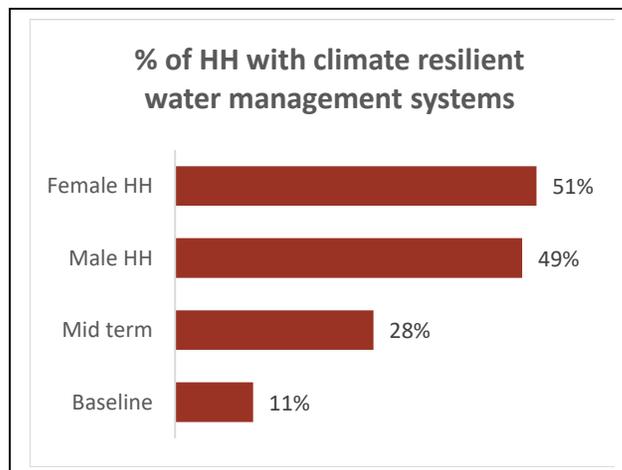
Crop rotation was highly practised at 29%, early sowing 26.2% and soil conservation at 22.1%. Other techniques were less practised scoring less than 10%. Data disaggregation by sex showed the proportion of women and men practising climate-resilient techniques was 51% and 49% for female and men headed households respectively.



Component 2. Improving climate-resilient water management systems to enhance food security in selected Counties

2.1 % of targeted female and male headed households with climate-resilient water management systems in selected Counties

Mid term evaluation showed that the proportion of households with climate-resilient water management systems increased from 11% at baseline to 28% against the set target of 40% at the end of the program. The program has supported 7,630 households consisting of 3,891 female headed (51%) and 3,739 (49%) male headed with water pans, water roof catchment, djabias and boreholes which are supplying a total of 14,191,200 m³ of water per annum to the targeted households.

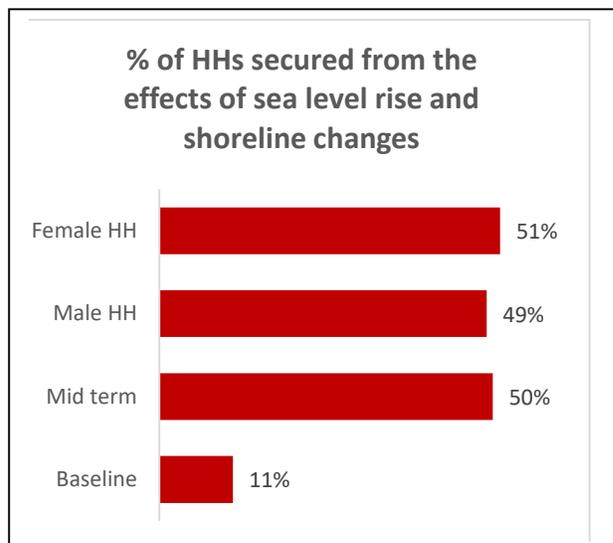


⁴ Techniques supporting sustainable use of existing natural resources for crop and livestock production

Component 3: Increase resilience to climate change of Shoreline and Mangrove Ecosystem in Kenyan coastal zone

3.1 % increase in number of targeted female and male headed HHs secured from the effects of sea level rise and shoreline changes.

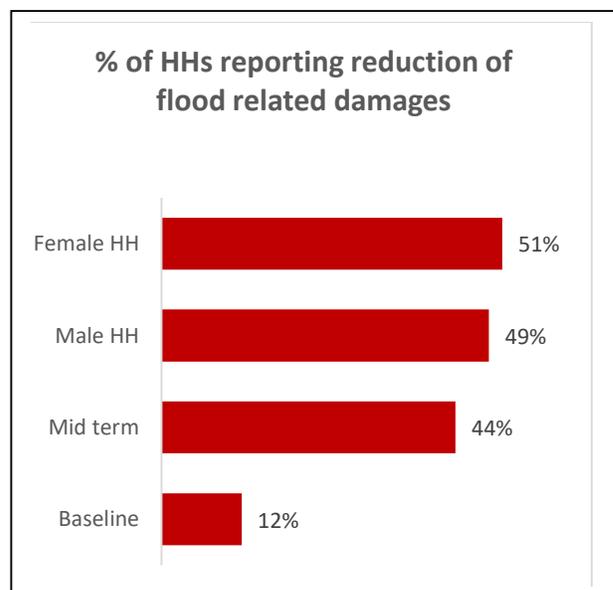
The proportion of community members dwelling in the area covered by the stabilization structures reported to be feeling more secure from the effects of sea level rise and shoreline changes increased from 11% at baseline to 49.9% at mid-term courtesy of the stabilization structures constructed. The structures are covering approximately 1,290 households. Data disaggregation by sex showed the proportion of women and men secured from the effects of sea level rise and shoreline changes was 51% and 49% for female and men headed households respectively.



Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities

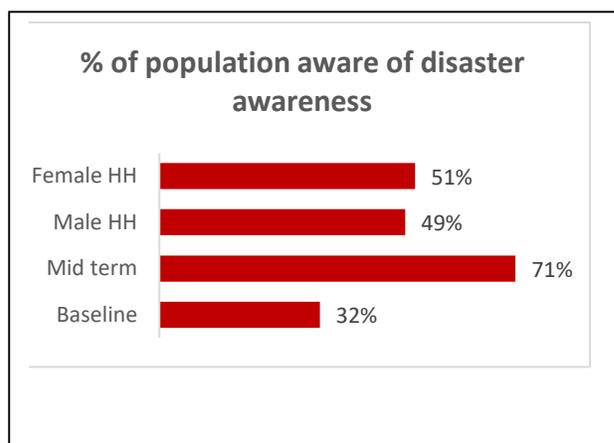
4.1 % increase in number of targeted female and male community members reporting reduction of flood related damages

Mid-term evaluation showed that the proportion of female and male community members reporting reduction of flood related damages increased from 12% at baseline to 44% against the set program target of 70% due to construction of dykes.



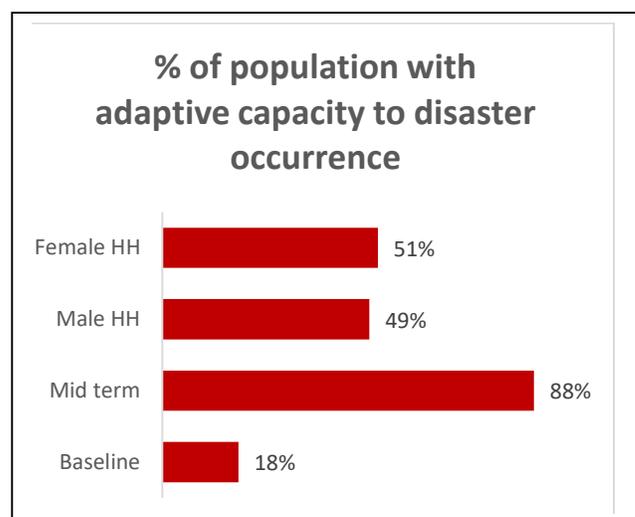
4.2.1 % increase in targeted female and male population aware of disaster awareness

The proportion of female and male community members aware of disaster awareness increased from 32% at baseline to 71% at mid-term against the set program target of 80% courtesy of sensitization forums on disaster awareness.



4.2.2 % increase in number of targeted female and male population reporting increased adaptive capacity to disaster occurrence in the targeted counties

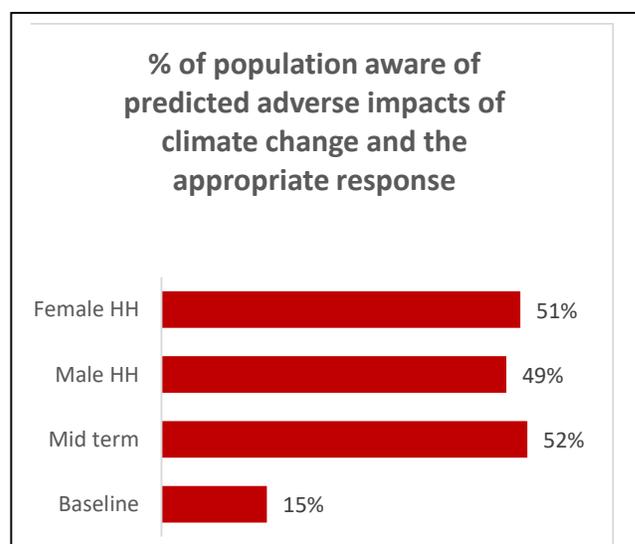
Household survey showed that the proportion of female and male community members reporting increased adaptive capacity to disaster occurrence increased from 18% at baseline to 88% at mid-term against the set program target of 80% courtesy of sensitization forums on adaptive capacity and construction of evacuation centres. Data disaggregation by sex showed the proportion of women and men with increased disaster awareness was 51% and 49% for female and men community members respectively.



Component 5: Strengthening capacity and knowledge management for Program Implementation and Climate change adaptation

5.1 % of targeted population aware of predicted adverse impacts of climate change and the appropriate response

The proportion of female and male community members aware of disaster awareness increased from 15% at baseline to 52% at mid-term against the set program target of 70% courtesy of TV programmes, IEC materials and information systems documenting effects of climate change, coping and adaptation strategies. Data disaggregation by sex showed the proportion of women and men with increased disaster awareness was 51% and 49% for female and men community members respectively.





3.3 Evaluation objective iii: Review and Assessment of Program Efficiency and Effectiveness

3.3.1 Efficiency

Program Project Implementation and Adaptive Management In the selection of EEs and SEEs NIE placed a nationwide call for proposal asking key stakeholders in the relevant sector to submit proposals. The selection was done based on stakeholder's presence in selected counties and regional representation with all climatic zones of the country is all represented (ASAL, Wetlands, and Coastal) considered. The approach ensured synergy of the components being implemented enhancing efficiency as well as avoided duplication of funding sources. The program utilized joint consultative meetings among EEs and SEEs which provided joint monitoring session feedbacks, experience and lessons learnt amongst various implementing entities in one forum. The program enhanced efficiency further by creating components synergies with water harvested in the component two being used as input in the food security interventions in component one which is being promoted by the adaptation village concept

On the other hand, the project Steering Committee as the key policy and decision making unit of the project was inefficient as they had very few meetings thus significantly affected project coordination and provision of policy decision making. Similarly, the project coordination unit has challenges in terms of adequate office space, staff time, among other implementation resource. This was attributed to that fact that the project had no provision for hiring specific project staff. Therefore, the NIE staff apart from engaging in the project activities were also required to undertake other institutional responsibilities, resulting in to limited staff time on the project.

The project has developed and leveraged the necessary and appropriate partnerships with EEs, SEEs and project beneficiaries, community leaders, public institutions such as schools and churches as well as the county governments. Distribution of drought resistant seeds varieties was done through community driven approach where men, youth and women groups were the entry point this enhanced efficiency. The county and national government support the objectives of the project although they do not have a direct active role in project decision-making.

3.3.2 Effectiveness

The remodelled implementation structure where adaptation villages approach is the centres for capacity building and points for access to water, seems to have enhanced the effectiveness of the Programme by employing an integrated delivery model with enhanced adaptation outcomes.

Effectiveness of responsibilities and reporting lines and decision making processes where NIE played the overall oversight role with EEs supervising SEEs was ineffective since the EEs did not have a budget line for supervising/monitoring the SEEs. However, the adaptive management changes arising from the continuous monitoring of the project by NIE were effective. This enabled the NIE, to detect and documented the inability of some of the EEs to undertake procurement during the early stage of the program.

Remodelling of program water provision approach by switching from water pans to boreholes drilling through the adaptation village approach enhanced both program efficiency and effectiveness as the amount

of water supplied increased from 352,000M³ to 14,191,200M³ using lesser resources than previously allocated.

NIE changed SEEs and engaged a government agency, where the SEE had limited capacities to execute the project activities i.e. Lake Basin Development Authority – LBDA substituted VIRED in the provision of technical assistance in construction of the flood control structures, a project activity that has significant delays in the initiation stage due to the lack of capacity of the executing entity.

The MTE reviewed the effectiveness of both internal and external project communication with stakeholders. Internally, NEMA has NIE secretariat for the adaptation fund project which is managed by a Coordinator. Communication within the secretariat, NEMA management and the board were reported to have been effective. Externally, there is project focal point person for each EE and SEEs who acts as the liaison officer. KIIs with the EEs and SEEs established that there were regular and effective communication channels through emails, phone calls and quarterly meetings in the first and second year of project implementation which became less frequent in the subsequent years. Communication with the donor and submission of Project Performance Reports (PPR) was found to be substantive.

3.3.3 Work Planning:

The MoUs between NEMA and EEs shows a result based working model however, the MoUs have not been fully followed and monitored. Quarterly coordination meetings have been used as the forums for work planning. MTE established that the quarterly meetings have not been held since year 2020 mainly attributed to lack of clear post Covid-19 framework and implementation strategy. The project experienced up to one year delay in implementation. This was attributed to several factors including; i) government and donor protocols thus funds delayed to be released for project activities. ii) Covid-19 pandemic created an uncertainty and restricted movements and gatherings, particularly between March to June 2020. Progressively, project activities have picked up with adoption of safe engagement protocols such as Virtual meetings, and limited in-person meetings in strict adherence to Covid-19 protocols were embraced to ensure continuity in project implementation. While contractors and service providers were advised to institute and adhere to the Covid 19 protocols. iii) some procurements were non responsive which forced the process to be repeated causing delays in implementation. NIE has been able to address the bottle necks experienced during the start of the program.

3.3.4 Finance

The project has appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget. However, EEs and SEEs reported delays in disbursement of funds which has affected implementation of some of the project activities. NIE conducts frequent financial monitoring to EEs and SEEs as stipulated in their respective MoUs. The inability of some of the EEs and SEEs to institutionalize the agreed upon procurement processes was detected. Resulting in the NIE to take up significant procurement responsibility, the aim being to cushion loss of project funds.

Program implementation adheres to all Generally Acceptable Accounting Principles (GAAP) regarding control, transparency and documentation, and have processes, procedures and necessary infrastructure is



in place for an appropriate audit system. Internationally accepted firms have been engaged to undertake regular annual programme financial audits guided by the AF and Kenya government approved regulations, procedures and guidelines for procuring goods and services.

3.3.5 Program-level Monitoring and Evaluation Systems

The program has weaknesses in the monitoring and evaluation system with inadequate: SMART indicators, harmonized tools for data collection, means of data collection, data analysis software, use of the collected data and responsibilities. MTE established that there were no dedicated personnel performing specifically monitoring and evaluation roles at NIE level. Assessment of results framework/logframe showed that indicators related to income generation, governance and gender aspects were missing in the logframe with missing targets to the most of the indicators. The program lacks a programme level baseline survey, instead each EEs and SEEs conducted individual baseline surveys with no harmonisation at NIE level. There were no specific resources for monitoring and evaluation allocated to EEs and SEEs. Joint monitoring between NIE and EEs has been happening but there is no structured plan for feedback and action. The logframe has been reviewed and engendered indicators introduced. However, project performance reporting does not follow the reviewed logframe and does not have data disaggregation by gender. This is mainly attributed to the lack of gender disaggregated data collection tools.

3.3.6 Stakeholder Engagement, reporting and communication

MTE established that there was a wide awareness, participation and engagement of the national and county stakeholders in the programme planning and implementation. All adaptive management changes have been reported by the program management and shared with all the stakeholders. Quarterly coordination meetings were held with NIE, EEs and SEEs during the first year of implementation and were posed as effectively channel for stakeholder engagement, communication and feedback. The coordination meetings and communication have become less frequent in the subsequent years occasioned by lack of communication strategy and non-adherence to the MoU. The program has a draft grievance and redress mechanism (GRM) planned to be the channel for complaints, feedback and response for both the executing entities and the community but has not been finalized. Information gathered through KIIs and FGDs established that community leaders, public institutions such as schools and churches as well as the county governments have been engaged in the implementation of the program for instance in Masinga, Machakos County representatives from the county government of Machakos had been involved in the irrigation project. Ministry of fisheries as well as KWS officials were involved in the rehabilitation of coral reefs under component three in Kwale County.

3.4 Evaluation Objective iv: Review and Assessment of Program Sustainability

By design, the program has a whole range of in-built strategies and implementation techniques that will spew sustainability and ownership largely through the constructive engagement, involvement and participation of the beneficiaries, community leaders, women and youth, and different stakeholders such as county government and state authorities in various key activities. The program has already demonstrated sustainability potential exhibited by the local institutional capacity building and socio-physical structures developed in collaboration with the community. Solarized boreholes have huge sustainability potential.



County governments have been engaged in the implementation and have taken over some of the program such as desilting of canals in Kisumu county. County governments' engagement will support the gains made by the programme after its exit. However, the eventual sustainability of the program after its closure faces a major threat if the necessary support structures and capacity are not developed for each component activities. The MTE did not identify solid external support structures/partnerships for activities under components one and two which will promote sustainability. For instance, some of the completed projects in component one such as the Masinga irrigation scheme have already raised sustainability concerns as the project was not functional at the time of evaluation due to a faulty pump, and the community is unable to repair or procure a new one. The Community has been unable to revive the Waldaa irrigation project after it was swept off by the floods. The increase in crop and fodder production gains courtesy of the drought resistant seed varieties has been eroded due to recurring droughts. Development of seeds bulking centres and demonstration sites were some of the avenues for program sustainability. Unfortunately, these activities have not been accomplished. The sustainability potential faces a further risk since most of the capacity building and training activities in the program have not been implemented.



4. Conclusion and recommendations:

4.1 Conclusion

a) The Program Strategy is anchored on the Project Steering Committee (PSC) as the key policy and decision-making unit of the program. This was inefficient as so far, they have had very few meetings thus significantly affected project decision making at policy level, and coordination. Similarly, the project coordination unit has challenges in terms of adequate office space, staff time among other implementation resource. This has been attributed to the fact that the program had not provision for hiring specific project staff. Therefore, the NIE staff apart from engaging in the project activities were also required to undertake other institutional responsibilities, resulting to limited staff time on the project.

b) Review and Assess Progress towards Results and impacts

The MTE rates progress towards results and impacts at slightly above 50%. The program need to put deliberate effort and plan to implement the following unaccomplished activities:

Component one

- i) Establishment of seed bulking centres of selected drought tolerant crops
- ii) Development of demonstration fields- Ensure the adaption villages under construction have demonstration fields for each selected drought tolerant and high value crop
- iii) Capacity building for farmer groups on irrigation agriculture such as drip irrigation, construction and management of trenches to increase food productivity – A deliberate training plan need to be in place
- iv) Follow up on construction of fish cooling plant in Ekalakala
- v) Follow up on Masinga irrigation scheme operational challenges
- vi) All Output four activities on enhancing efficient food utilization through implementation of post-harvest strategies
- vii) Establishment of mechanized fodder processing plant
- viii) Establishment of green zones for pasture production
- ix) Linking farmer groups to special livestock insurance schemes and micro finance services
- x) Provision of extension services to farmer groups
- xi) Establishment of herbal gardens, tree nurseries and woodlots.

Component Two

- i. Completion of boreholes drilling
- ii. Completion of djabias construction



- iii. Completion of roof water catchment structures
- iv. Establishment and strengthening of water users' associations – Focus on the established irrigation schemes
- v. Fencing of spring and water sources to protect them from further degradation.

Component Three

- i. Erosion and accretion control.

Component Four

- i. Completion of dykes and evacuation centers construction
- ii. Construction and equipping of an Automatic Weather Station including Collating weather data and linking it to Kenya Meteorological Department
- iii. Planting of bamboo
- iv. establishment of community based friendly information dissemination system

Component Five

- i) Produce remaining information, Education and Communication materials
- c) Project implementation and adaptive Management to determine efficiency and effectiveness; reveals the following;
- The Adaptive Management adopted was effective therefore more responsive to climate change than the initial design. Overall, the adaptation villages are centers of community learning/capacity building and demonstration as well as increasing water security. This re-orientation, slowed down implementation. This change is considered as important to the design and implementation of future projects/programmes to enhanced resilience to climate change and has potential for replication upscaling.
 - The project work plan experienced significant delay in implementation. This is attributed to several factors including; i) government and donor protocols thus delayed released of funds for project activities. ii) Covid-19 pandemic created an uncertainty and restricted movements and gatherings, during the active project implementation period. iii) some procurements were non responsive these forced the process to be repeated causing delays in planned activities.
 - Prudent financial management necessitated the project to leverage on the government financial controls and procurement protocols, these resulted in delays which negatively affected project implementation. As the most EEs and SEEs had challenges in adhering to these protocols.
 - The midterm evaluation established that the program design was well intended but the communication strategy to ensure adequate stake holders engagement was not elaborate and was almost non-existent. This is illustrated by the inadequate communication between NIE EEs, SEEs and all relevant stakeholders during the implementation of the project activities.



- Program-level Monitoring has weaknesses in the monitoring and evaluation system with inadequate: SMART indicators, harmonized tools for data collection, means of data collection, data analysis software and responsibilities.

d) The programme has strong **sustainability components** exhibited by the local institutional capacity building and socio- physical structures developed in collaboration with the community. Adaptation village concept and solarized boreholes (in component 2) have huge sustainability potential. While public institutions such as schools and churches as well as the county governments have been engaged in the implementation of the program enhancing sustainability. However, the program faces major sustainability potential if a clear exit plan is not developed with clear support structures and partnership in place.

4.2 Recommendations

1. There is need for an elaborate communication strategy to enhance coordination and communication in the remaining period of the programme and for future similar projects.
2. The collaborating EEs and SEEs should be capacity built; especially in terms of technical, financial and procurement protocols capability.
3. The programme requires additional time to effectively undertake the delayed heavy infrastructural activities (construction of evacuation centres, construction of dykes, fruit and plant processing plants, bore hole construction etc.) at no cost extension or the project funds for such pending project activities should be committed before the project end date.
4. NEMA in collaboration with EE and SEEs should develop a work plan on how to accomplish and fast track the remaining activities
5. The project Steering Committee as the key policy and decision making unit of the project should be more proactive and enhance frequent meetings so as to effectively deliver the project outputs.
6. The project pivotal role played by NEMA as NIE is unique because most of the accredited NIE implementing Adaptation Fund are international NGOs; who are facilitated by being provided with specific budgets for; office space, staff time among other implementation resource. Therefore, the project coordination unit for future similar projects requires to factor in: office space, staff time among other implementation resource.
7. There is need to draw a clear exit strategy and start linking completed programs e.g. Masinga and Thome Irrigation schemes with potential stakeholders such as county governments or other NEMA programs for continued support and sustainability.
8. Remaining capacity building and training components should be fast tracked to foster sustainability
9. For future engagements, there is need to undertake feasibility studies and in depth organization capacity analysis for the EEs and SEEs, identify the gaps and areas of support then capacity build them based on the analysis



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Mid Term Report - Kenya Climate Change Adaptation Fund Programme



5. Annexes

Annexe I: Program logframe

Component I. Enhancing Climate-resilient agricultural, forestry, pastoral and agro-pastoral production systems to improve food security in selected Counties in Kenya.				
LOGIC LEVEL	INDICATORS	BASELINE	TARGET	ACHIEVED
OUTCOME I: Improved and strengthened livelihoods, food sources and income for vulnerable people in targeted areas	1.1 % of female and male headed HHs consuming less than 3 meals per day	80%	55%	81.3%
	1.2 Reduction in number of months per year that female and male headed HHs experience food shortage	7	3	8
	1.3 % of targeted population with sustained climate- resilient livelihoods strategies disaggregated by sex of household head	15%	25%	21%
	1.4% Increase in food production per Ha2	National average	25%	23%
	1.5 % of female and male headed HHs using climate-resilient agriculture techniques	14%	50%	60%
Output I.1:Drought tolerant and high value crops adopted coupled with value chain approaches	1.1.1. Number of individuals-female and male headed household adopting drought tolerant and high value food crops	Negligible	15,000	10,000 6,000 (F) 4,000 (M)
	1.1.2 Number and types of value chain approaches adopted by household heads disaggregated by sex	Negligible; 1 value chain	6	6
Output I.2:Alternative livelihood sources diversified	1.2.1 Number of female and male headed households adopting alternative climate-resilient livelihoods	0	5,000	2,500 1,350 (F) 1,150 (M)
	1.2.2 Number of alternative livelihood strategies adopted by household heads disaggregated by sex	0	4	4



Output 1.3 Appropriate and efficient irrigation systems establishment	1.3.1 Number of individuals- female and male household heads using irrigation methods	0	3000	508 203 (F) 305 (M)
Output 1.4: Post harvest strategies and value chain approaches implemented for efficient food utilization	1.4.1 Number of trainings and meetings held on post- harvest strategies and value chain approaches	0	10	3
	1.4.2 Number of common grain storage facilities established	0	6	0
Output 1.5: Adoption of drought resistant fodder crops, pasture conservation and emergency fodder banks promoted.	1.5.1 Fodder Production(Kgs) per Ha	0	40	600
	1.5.2 Number of targeted female and male headed households accessing sufficient fodder	0	100	300 100 (F) 200 (M)
Output 1.6: Ecological land use systems, conservation strategies and management technologies promoted	1.6.1 Number and type of ecological land use, management systems and conservation strategies adopted	0	5	4
	1.6.2 Number of targeted female and male individuals adopting ecological land use, management systems and conservation strategies	0	2,000	150 50 (F) 100 (M)
Component 2. Improving climate-resilient water management systems to enhance food security in selected Counties				
OUTCOME 2: Improved climate-resilient water management systems to enhance food security in selected Counties	2.1 % of targeted female and male headed households with climate-resilient water management systems to enhance food security in selected Counties	11%	40%	28%
Output 2.1: Appropriate physical assets and infrastructure for water harvesting, storage and	2.1.1 Number of physical assets and infrastructure for water harvesting, storage and irrigation established with indication of no. of female and male headed households benefiting	0	4	5



irrigation established	2.1.2 Total Volume of water provided by physical assets and infrastructure for water harvesting, storage and irrigation established	0		
Component 3: Increase resilience to climate change of Shoreline and Mangrove Ecosystem in Kenyan coastal zone				
OUTCOME 3: Increased resilience to the effects of sea level rise and shoreline changes in Kenyan Coastal shoreline and mangrove ecosystem	3.1 % increase in number of targeted female and male headed HHs secured from the effects of sea level rise and shoreline changes	0	No target	
Output 3.1 Integrated Shoreline and Mangrove Ecosystem Management (ISMEM) implemented	3.1.1 Length (in Km) of shoreline stabilized	2.78	4.81	
	3.1.2 Number of female and male headed households secured from the effects of sea level rise and shoreline changes.	644	1,290	1,290 658 (F) 632 (M)
Output 3.2 Mangrove Ecosystem rehabilitated	3.2.1 Area (in Ha) of Mangroves Ecosystem rehabilitated in Vanga and Gazi.	342	742	412
Output 3.3 Coral reefs along the Shimoni-Vanga shoreline rehabilitated and protected	3.3.1 Length (in Km) of coral reefs along the Shimoni-Vanga shoreline rehabilitated and protected.	39.12	45.27	43.32
Output 3.4 Erosion and accretion along Vanga and Gazi shoreline controlled.	3.4.1 Length of shoreline (in Km) where erosion and accretion has been controlled.	2.05	9.56	0
Output 3.5 GIS Inventory and database for the	3.5.1 Inventory and GIS database for the shoreline and mangrove ecosystem in place	0	2	2



shoreline and mangrove ecosystems developed				
Component 4: Disaster risk reduction and increasing preparedness among vulnerable communities				
OUTCOME 4.1: Reduced exposure to climate related disasters and threats	4.1 % increase in number of targeted female and male community members reporting reduction of flood related damages	12%	70%	49%
Outcome 4.2: Increased adaptive Capacity among the vulnerable communities and stakeholders	4.2.1 % increase in targeted female and male population aware of disaster awareness	32%	80%	71%
	4.2.2 % increase in number of targeted female and male population reporting increased adaptive capacity to disaster occurrence in the targeted counties	18%	80%	88%
Output 4.1 Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.1 Distance in Km of physical assets (dykes and canals) and number of evacuation centres strengthened or constructed to withstand conditions resulting from climate variability and change	0	4 physical assets •10 Km desilting of canals •4 Km of dykes •4 evacuation centres	•60 Km desilted of canals •4 Km of dykes construction in progress •4 evacuation centres construction in progress
	4.1.2: Number of Risk and vulnerability assessments conducted and updated	0	1	1
	4.1.3 No. of early warning systems established	0	2	1
	4.1.4 Number of sensitization forums / drills held	0	500	30



Component 5: Strengthening capacity and knowledge management for Program Implementation and Climate change adaptation				
OUTCOME 5: Increased awareness and ownership of adaptation and climate risk reduction processes at community level	5.1 % of targeted population aware of predicted adverse impacts of climate change, and the appropriate response	15%	70%	52%
Output 5.1: Information systems for documenting program implementation processes, information and best practices/lessons learnt established	5.1.1 Number of information systems/ materials (database, website, Communication and visibility materials) documenting program implementation processes, information and best practices/lessons learnt developed	0	3	3
Output 5.2 Knowledge generated and disseminated	5.2.1 Number of meetings/forums, and information, Education and Communication materials developed	0	12 meetings 30,000 IEC	10 Meetings 20,000 IEC materials
Output 5.3 Climate change adaptation awareness and Sensitization conducted	5.3.1 Number of radio/T.V shows/ programmes aired, peer reviewed publications and information materials generated	0	2	2
Output 5.4 Capacity for program Implementation and Climate change adaptation strengthened	5.4.1 Number of International meetings, seminars, national workshops and short courses on program management and Climate Change adaptation held	0	2	3
	5.4.2 Number of higher learning institutions supported to generate information and knowledge on environment, Climate change, International relations, water and irrigation.	0	2	2



Annex 2: Evaluation Matrix

Broad task	Specific tasks	Methodology used
Task 1: Review and Assess Program Strategy	Program design Review the problem addressed by the program and the underlying assumptions;	Literature review of program proposal
	Assess the design of the program and the coherence of its strategies, activities, as well as interlinkages within the components;	Literature review of program proposal. KII with NIE
	Review the relevance of the program strategy and assess whether it provides the most effective route towards expected/intended results;	Literature review of program proposal and progress reports
	Review how the program addresses country priorities and ownership;	Literature review of both program proposal and Vision 2030, and Kenya's National climate change action plan 2018-2022. KII with NIE
	Review decision-making processes	KII with NIE and EEs
	Review the extent to which relevant gender issues were raised in the program design.	Literature review of program proposal, KII with NIE and EEs
	Results Framework/Logframe:	
	Are the program's objectives and outcomes or components clear, practical, and feasible within its time frame?	Literature review of program logframe
	Examine if progress so far has led to or could in the future catalyze beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the program results framework and monitored on an annual basis.	Program beneficiaries HH survey , FGDs with beneficiaries
	Examine if broader development and gender aspects of the program are being monitored effectively.	Literature review of program logframe for gender related indicators. KII with EEs, NIE and M&E unit
Task 2: Review and Assess Progress towards Results and impacts	Review the logframe indicators against progress made towards the end-of-program targets using the Progress Towards Results Matrix;	HH survey and literature review of program's progress and monitoring reports
	Compare and analyze the AF Results Tracker within the Program Performance Report (PPR) at the Baseline with the one completed right before the Midterm Evaluation;	HH survey and literature review of program's baseline, PPR, progress and monitoring reports
	Identify remaining barriers to achieving the program objective in the remainder of the program;	KII with EEs and NIE
	Review the aspects of the program that have already been successful and identify ways in which the program can further expand these benefits; and	KII with EEs and NIE. FGDs with program beneficiaries literature review of program's monitoring reports
	Assess the program's log-term impact on institution building	HH survey, KII with EEs and NIE
Task 3: Review and Assess Program Implementation	Efficiency and effectiveness.	
	Management Arrangements;	KII with EEs and NIE
	Review overall effectiveness of program management as outlined in the Program Document;	HH survey and FGD with beneficiaries



and Adaptive Management to determine efficiency and effectiveness.	Assess the adequacy and appropriateness of the program implementation modalities that have been put in place;	KII with EEs and NIE
	Assess the effectiveness of responsibilities and reporting lines as well as decision making processes and recommend areas of improvement;	KII with EEs and NIE
	Assess the effectiveness of changes made in the course of program implementation; and	KII with EEs and NIE
	Review the quality of execution of the Executing Entities and recommend areas for improvement.	Literature review of EEs reports, KII with EEs and NIE
	Work Planning:	
	Review any delays in program start-up and implementation, identify the causes and examine if they have been resolved.	KII with EEs and NIE
	Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?	KII with EEs and NIE
	Examine the use of the program's results framework/ log frame as a management tool and review any changes made to it since program start.	KII with EEs and NIE and M&E unit
	Finance	
	Consider the financial management of the program, with specific reference to the cost-effectiveness of interventions.	KII with EEs and NIE and Finance focal point
	Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.	Literature review of program document. KII with EEs and NIE
	Does the program have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?	KII with EEs and NIE and Finance focal point
	Program-level Monitoring and Evaluation Systems:	
	Review the effectiveness of the monitoring and evaluation system in place.	Literature of monitoring reports. KII with EEs and NIE and M&E unit
	Review the appropriateness of the monitoring tools currently being used.	Literature of monitoring reports. KII with EEs and NIE and M&E unit
	Assess the sufficiency and effectiveness of the resources allocated to monitoring and evaluation	Literature of program budget. KII with EEs and NIE and M&E unit
	Stakeholder Engagement:	
	Program management: Has the program developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?	KII with EEs, NIE, local administration & other developments partners in the program area
	Participation and country-driven processes: Do local and national government stakeholders support the objectives of the program? Do they continue to have an active role in program decision-making that supports efficient and effective program implementation?	KII with EEs, NIE, local administration & other developments partners in the program area
	Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of program objectives?	FGDs with community members. KII with community leaders
Reporting:		
Assess how adaptive management changes have been reported by the program management and shared with the Program Board.	KII with NIE and EEs	
Assess how well the Program Team and partners undertake and fulfil AF reporting requirements (i.e. how have they addressed poorly-rated PPRs, if applicable?)	KII with NIE and EEs	



	Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.	KII with NIE and EEs. Literature review of progress and monitoring reports
	Communications:	
	Review the effectiveness of both internal and external program communication with stakeholders.	KII with NIE and EEs. Literature review of progress and monitoring reports
Task 4: Review and Assess Program Sustainability	Assess if the policies, strategies adopted by the Program are sustainable in the long term.	Literature review of program proposal. KII with NIE and EEs.
	Assess how the local institutional capacity and structures have been prepared for the post program situation.	Literature review of progress reports. KII with NIE, EEs and community leaders. Beneficiary's' FGDs
	Validate whether the risks identified in the Program Document and the PPRs are the most important and whether the risk ratings applied are appropriate and up to date.	KII with NIE and EEs.
	Assess the following risks to sustainability: financial, socio-economic, institutional framework and sustainability, and environmental risks.	Literature review of progress reports. KII with NIE and EEs and finance focal point

Annex 3: Household Survey questionnaire

#	QUESTIONS	ANSWER
A. Identification of the questionnaire		
1	GPS coordinates	GPS coordinates taken with tablets/self-phone/GPS
2	Sub/Executing Entity	1.CDA 2.KEFRI 3.TARDA 4.ADRA, 5.Caritas 6.Horn Aid 7.Red Cross 8.NASARU 9.KU 10. ViRED NEMA county office
3	County	1.Garissa, 2.Homabay, 3.Kajiado, 4.Kilifi, 5.Kitui, 6.Kisumu, 7.Kwale, 8.Laikipia, 9.Machakos,



		10.Makueni, 11.Marsabit, 12.Muranga, 13.Taita Taveta 14.Wajir 15.Nyeri 16. Embu
B. HH demographics		
4	Gender of Household Head	1.Male 2) Female
5	Beneficiary age bracket	1. 18-35 years 2. 35-60 years 3. Above 60 years
6	Marital Status of the HH head	1 - Married 3 - Widowed 4 - Separated 5 - Divorced 6 - Single
7	Household size	----
8	HH main source of income	1.Salaried Employee 2.Full time farmer 3.Casual labourer 4.Self-employed/ business 5.Livestock production 6.Crop production
C. Components		
	COMPONENT I	Skip if N/A
9	How many meals per day does your HHs consume?	1.One 2. Two 3. Three 4. >Three
10	How many Months/Yr has your HH experienced food shortage since you joined the programme	1. None 2. 1- 3 Months 3. 3- 6 Months 4. 6-9 Months 5. 9-12
11	Has your HH adopted drought tolerant and high value food crops (green grams, amaranthus, maize, beans, pigeon peas, cow peas crops and dolichos)	1.Yes 2. No
12	If yes. What is the estimated % of your cultivated land have you cultivated drought resistant crops	1. 1-25% 2. 25-50% 3. 50-75% 4. 100%



13	Have you diversified your household livelihoods activities	1. Yes 2. No
14	If Yes. Which ones are you practising (Multiple choices applicable)	<ol style="list-style-type: none"> 1. Drought tolerant crops farming 2. High value improved fruit tree farming 3. Fish value addition 4. Fruit value addition 5. irrigation farming 6. Animal feed and pasture production
15	Have you registered an increase in food production (whatever food crop you are producing) per Ha since you joined the programme	1. Yes 2. No
16	If Yes, What's is the estimated % increase per Ha
17	Which of the following climate-resilient agriculture techniques is your HH practising? (Multiple Choice)	<ol style="list-style-type: none"> 1. Crop rotation 2. Rotational grazing 3. Adaptative seeds varieties 4. Soil conservation 5. Early sowing 6. Raised bed system 7. Drip irrigation 8. None
18	Have you experienced an increase in access to animal feed?	1. Yes 2. No
19	If Yes. How many months per year does your HH have sufficient animal feed?	<ol style="list-style-type: none"> 1. None 2. 1- 3 Months 3. 3- 6 Months 4. 6-9 Months 5. 9-12 Months
20	How many months per year does your livestock have access to sufficient drinking water?	<ol style="list-style-type: none"> 1. None 2. 1- 3 Months 3. 3- 6 Months 4. 6-9 Months 5. 9-12 Months
21	How far is the animal water point from your household in metres	<ol style="list-style-type: none"> 1. Animal Water source is in my HH compound 2. Less than 100M 3. Between 100-500 M 4. Between 500-1000M 5. Between 1000-2000 M 6. between 2000-5000 M 7. Between 5000-10,000 M 8. More than 10,000M
22	Do you have access to savings and loan services courtesy of program's finance cooperative societies	1. Yes 2. No



	(FCS), Village Savings and Loans Associations (VSLA) and Economic Empowerment Committees (EEC) established ?	
	Component 2	Skip if N/A
23	The HH has access to rain water harvesting systems (Roof water catchment systems, pans or dams)	1. Yes 2. No
24	How many litres of water does your household use per day	-----Litres
25	How far (in Metres) is your household to the nearest borehole?	<ol style="list-style-type: none"> 1. Domestic Water source is in my HH compound 2. Less than 100M 3. Between 100-500 Metres 4. Between 500-1000M 5. Between 1000-2000 6. between 2000-5000 7. Between 5000-10,000 8. More than 10,000M
26	How long (in Mins) does it take you to reach your nearest water point supplyMin
27	How long is the waiting time at the water point	-----
28	Did you benefit from water tanks distributed by the program	1. Yes 2. No
29	If Yes. How long does the water harvested last you	1. Less than a month 2. 1-3 months 3. 3-6 Months 4. 6-9 months 5. Over 9 months
30	Are you a beneficiary of water pans constructed by the program	2. Yes 2. No
31	If Yes. How long does the water pan last before dying up	1. Less than a month 2. 1-3 months 3. 3-6 Months 4. Through out the year
32	Are you a benefiting from the borehole water	1. Less than a month 2. 1-3 months 3. 3-6 Months 4. 6 -12 months 5. Through out the year
33	If Yes. How many months do you have access to the borehole water	1. Yes 2. No
34	Have you been trained on water management and maintenance of the water structures	1. Yes 2. No
35	If Yes. How would you rate the usefulness of the training	1. Not useful 2. Useful 3. Very useful
	Component 3	Skip if N/A
36	Do you now feel more secure from the effects of sea level rise and shoreline changes courtesy of program intervention?	1. Yes 2. No
37	Has mangroves ecosystem been rehabilitated in your area	1. Yes 2. No



38	Are you aware there is Exploitation and Socio-Economic Management Plan for your community	1. Yes 2. No
39	Have you been trained on mangroove education and awareness?	1. Yes 2. No
40	If Yes. How would you rate the usefulness of the training	1. Not useful 2. Useful 3. Very useful
41	Have you been trained on Participatory Forest Management	1. Yes 2. No
42	If Yes. How would you rate the usefulness of the training	Not useful 2. Useful 3. Very useful
Component 4		Skip if N/A
43	Are you aware of climate related disasters in your area?	1. Yes 2. No
	Are you aware of early warning disaster alerts that have been established in your community	1. Yes 2. No
44	If yes. Do you feel you have more adaptive capacity to deal with a disaster in case it occurs compared to the time before joining the programme?	1. Yes 2. No
45	Do you feel there is reduction in flood related damages due to programme interventions towards flooding disaster?	1. Yes 2. No
46	Do you feel there is reduction in flood related damages due to dykes constructed in Nyando wetland basin	1. Yes 2. No
47	Do you feel there is reduction in flood related damages due to de silting of canals and river channels	1. Yes 2. No
48	Are you aware of evacuation centres in your community	1. Yes 2. No
49	If Yes. Have you or members of your community used the evacuation centres	1. Yes 2. No
Component 5		N/A (Skip)
50	Did you receive Information Education and Communication (brochures, posters, banners) materials about the NEMA program	1. Yes 2. No
51	Are you aware of climate change?	1. Yes 2. No
52	If YES, How did you get the information on climate change?	<ol style="list-style-type: none"> 1. NEMA program 2. Other Government Agencies 3. Non-governmental Organisations 4. Learning institutions



		5. Others specify
53	Are you aware of causes of climate change	1. Yes 2. No
54	Do you have access to an early warning system for climate information and Adaptation?	1. Yes 2. No
55	If YES, who provides you with this information?	1. NEMA/NEMA partner 2. Other Government Agencies 3. Non-governmental Organisations 4. Learning institutions 5. Others specify
56	Are you aware/listened to Radio programme on climate change, awareness, impacts and adaptation courtesy of NEMA program	1. Yes 2. No
57	Have you received Information Education and Communication materials (IEC) on agricultural, forestry and pastoral ecosystem based adaptations courtesy of NEMA program	1. Yes 2. No
58	How many awareness creation and sensitization meeting have you attended on climate change adaptation	1. Non 2. <3 3. Between 3 and 5 4. More than 5
59	Do you have access to an information systems for documenting: coping and adaptation strategies and best practices/lessons learnt on climate adaptation?	1. Yes 2. No
60	If YES, who provides you with this information?	1. NEMA/NEMA partner 2. Other Government Agencies 3. Non-governmental Organisations 4. Learning institutions 5. Others specify
61	Have you used this information to cope and adapt to climate risk hazards (drought, Flooding) strategies	1. Yes 2. No
62	Are you aware of predicted adverse impacts of climate change and how to apply coping strategies	2. 1. Yes 2. No
63	If Yes. Which strategies have you used to cope and adapt to climate risk hazards (drought, Flooding) s	3. Planning your livelihood activities 4. Diversifying livelihood activities 5. Adopting climate smart productivity 6. Migrating 7. Others specify
64	Have you been trained on Community Disaster Preparedness Planning	1. Yes 2. No



65	If Yes. How would you rate the usefulness of the training	Not useful 2. Useful 3. Very useful
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Annex 4: FGD guide

Focus Group question guide – Program beneficiaries.

1	Facilitator name				
2	Group definition				
3	Date (dd/mm/yy)				
6	Name of the Specific Location				
7	No. Participants at start of FGD	Male		Female	
8	No. Participants at End of FGD	Male		Female	
9	Time	Start		End	

Introduction

Good morning/afternoon/evening.

My name isand I work with Ring Africa Consultants Ltd an international research, monitoring and evaluation organisation. We are conducting the Midterm review of the “Integrated Programme to Build Resilience and Adaptive Capacity of Vulnerable communities to Climate Change in Kenya” program.

You have all been identified as individuals familiar with the NEMA programs which is why we have invited you to participate in this conversation. We will treat your responses with confidentiality and great discretion.

Your participation is completely optional and voluntary.

Are you willing to participate? *Yes No



Opening

In this Discussion, we would love to hear about your experiences with the NEMA program. Your frank responses and genuine participation will be appreciated. There are no “wrong” answers. We are interested in what you think. Everybody’s view is valuable and important for us so we encourage each of you to speak freely and frankly. It is alright to disagree with another person’s view but it should be done respectfully.

Do you have any questions?



FGD QUESTIONS

1. Tell us a little bit about this group and your community.
2. How long have you been involved with the program?
3. What exactly were you supported with by the NEMA program?
4. To what extent was the community involvement in the design (before the start) of the program?
5. Were your views incorporated in the program? i.e. can you suggest and make changes to program activities?
6. Are you happy with the program? Has the program helped address your community's most important problems or issues? Why or why not?
7. What are the specific positive or negative attributes can you point out as a result of the program activities?
8. Are you happy with your participation in the program? Why?
9. Has the program done what you had hoped it would i.e. are the results what you expected?
10. What difficulties/challenges have you experienced with the program to date?
11. What else does the program need to do to make the good results last a long time?
12. If NEMA was going to start the same program again, what would you recommend to be changed?

FGDs questions relevant to component 1

13. Have you adopted drought tolerant and high value food crops in this community. If yes which ones
14. Do you think there has been increase in food production in the community due to program interventions?
15. How is the situation in terms of access to animal feed in this community. Do you think there has been a change in access to animal feed due to program interventions?
16. How is the situation in terms of access of animal drinking water? Do you think there has been a change in access to animal feed due to program interventions?
17. Are you members of finance cooperative societies (FCS), Village Savings and Loans Associations (VSLA) and Economic Empowerment Committees (EEC). If yes how has it benefited you?

FGDs questions relevant to component 2

18. What type/s of rain water harvesting systems have you been supported with? How has it changed your life?
19. How was the community involved in the construction of water systems infrastructure?
20. Do you have access to irrigation water. If Yes. How has access to irrigation water changed your life?
21. What change has it been there by solarizing boreholes. Do you have an idea how much the community is saving from diesel usage and amount of water supplied?
22. Have you been trained on water management and maintenance of the water structures. If yes how has it been beneficial to you?

FGDs questions relevant to component 3

23. What are your views on mangroves ecosystem rehabilitation. How has it impacted on the community in general?
24. Have you been trained on mangrove education and awareness? If yes what change has it brought?
25. Have you been trained on Participatory Forest Management. If yes what change has it brought?

FGDs questions relevant to component 4

26. Are you aware of climate related disasters in your area? If yes tell me some of the disasters



27. Do you have early warning disaster alerts that have been established in this community. If yes please name?
28. Do you feel there is been any change in regards to flood related damages due to NEMA program interventions? Give details
29. Do we have any change in terms of flooding connected to construction of dykes and desilting of rivers? Give details
30. Are you aware of evacuation centres in your community. How are they managed and used
FGDs questions relevant to component 5
31. Did you receive Information Education and Communication (brochures, posters, banners) materials about the NEMA program. How was it distributed
32. Are you aware of climate change and its causes? How did you get the information
33. Are you aware/listened to Radio programme on climate change, awareness, impacts and adaptation courtesy of NEMA program. Please give me more details
34. Have you been trained on Community Disaster Preparedness Planning conducted. If yes what change has it brought?



Annex 5: KII Guide

1	Facilitator name			
2	Name of and Tittle of Key Informant (KI)			
	Email and Phone contacts of KI			
3	Date (dd/mm/yy)			

Introduction

Good morning/afternoon/evening.

My name isand I work with Ring Africa Consultants Ltd an international research, monitoring and evaluation organisation. We are conducting the Midterm review of the “Integrated Programme to Build Resilience and Adaptive Capacity of Vulnerable communities to Climate Change in Kenya” program.

You have been identified as individuals familiar with the NEMA programs which is why we have invited you to participate in this conversation. We will treat your responses with confidentiality and great discretion.

Your participation is completely optional and voluntary.

Are you willing to participate? *Yes No

Opening

In this Discussion, we would love to hear about your experiences with the NEMA program. Your frank responses and genuine participation will be appreciated. There are no “wrong” answers. We are interested in what you think. Everybody’s view is valuable and important for us so we encourage each of you to speak freely and frankly. It is alright to disagree with another person’s view but it should be done respectfully.

Do you have any questions?





FGD QUESTIONS

1. Tell us your exact role/involvement in the NEMA program?
2. How long have you been involved with the program?
3. To what extent was the community involvement in the design (before the start) of the program?
4. Do you think the program helped address community's most important problems or issues? Why/How or why not?
5. What are the specific positive or negative attributes can you point out as a result of the program activities?
6. Has the program done what you had hoped it would i.e. are the results what you expected?
7. What difficulties/challenges have you experienced with the program to date?
8. What else does the program need to do to make the good results last a long time?
9. If NEMA was going to start the same program again, what would you recommend to be changed?

KII questions relevant to component 1

10. Has the targeted community adopted drought tolerant and high value food crops in this community. If yes which ones
11. How is the situation in terms of access to animal feed in this community. Do you think there has been a change in access to animal feed due to program interventions?
12. How is the situation in terms of access of animal drinking water? Do you think there has been a change in access to animal feed due to program interventions?
13. What has been the effect of finance cooperative societies (FCS), Village Savings and Loans Associations (VSLA) and Economic Empowerment Committees (EEC).

KII questions relevant to component 2

14. How was the community involved in the construction of water systems infrastructure?
15. How has access to irrigation water changed the lives of targeted beneficiaries ?
16. What change has it been there by the Adaptation village approach or Green point concept?
17. How was water management and maintenance of the water structures trainings conducted?
18. How is Inventory and GIS database used? By who?

KII questions relevant to component 3

19. Do think mangroves ecosystem rehabilitation has impacted on the community in general? How
20. How were mangrove education and awareness training conducted?
21. How were Participatory Forest Management trainings conducted?

KII questions relevant to component 4

22. Do you feel there is been any change in regards to flood related damages due to NEMA program interventions? Give details
23. How effective are evacuation centres. How are they managed

KII questions relevant to component 5

24. How was Information Education and Communication (brochures, posters, banners) materials about the NEMA program. Distributed?
25. How was Radio programme on climate change, awareness, impacts and adaptation conducted?
26. How was Community Disaster Preparedness Planning conducted?



	Specific questions in relation to Tasks
Task 1: Review and Assess Program Strategy	Did you consider coherence of the program strategies, activities interlinkages within the components during program design
	How is the program addressing Kenya's country priorities and ownership;
	How is decision-making processes for this program
	Did you consider gender issues in the program design. If yes Which ones
	Results Framework/Logframe:
	How do you monitor gender aspects of the program
Task 2: Review and Assess Progress towards Results and impacts	What are the aspects of the program that have already been successful. How can the program further expand these benefits
	What do you think are the possible barriers to achieving the program objective in the remaining part of the program;
	Has the program's interventions contributed to institution building? How
Task 3: Review and Assess Program Implementation and Adaptive Management to determine efficiency and effectiveness.	Efficiency and effectiveness.
	Has Program management been carried out as outlined in the Program Document; If No what changed?
	Are you satisfied with the implementation modalities that have been put in place?
	How you satisfied with reporting lines as well as decision making processes? Do you think there are areas for improvement
	Are you satisfied with the work of Executing Entities? Are there areas for improvement and to which EEs
	Do you have an idea how much the community is saving from diesel usage?
	Work Planning:
	Has there been any delays in program start-up and implementation? What were the causes? Have they been resolved?
	How often do you use program's results framework/ log frame as a management tool? Have you ever done changes to program's results framework since program start?
	Finance
	How is financial management done the program? Do you feel there is cost-effectiveness in the program interventions. If Yes. How?
	Have you done budget revisions. If Yes.Why?
	Which financial controls do you have in place? How and to who is financial reporting done?
Program-level Monitoring and Evaluation Systems:	
Does the program have monitoring and evaluation system? If yes how is it implemented	



	Do you feel the current monitoring tools are sufficient to capture all programs aspects? Which areas do you think need improvement.
	Are the resources allocated for M&E sufficient? Why? Why not
	Stakeholder Engagement:
	Who are programs partners/stakeholders? Who comprises Program Boar?
	Do local and national government stakeholders support the objectives of the program? Do they continue to have an active role in program decision-making that supports efficient and effective program implementation? How?
	To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of program objectives?
	Reporting:
	How do you report adaptive management changes? How is Program Board involved in adaptive management changes
	How well do you meet AF reporting requirements? What has been your reporting ratings?
	How do you document and share with key partners lessons derived from the adaptive management process?
	Communications:
	How is internal and external program communication done?
Task 4: Review and Assess Program Sustainab ility	Do you think the policies, strategies adopted by the Program are sustainable in the long term.
	Have you build local institutional capacity and structures for the post program situation. If yes How?
	Are you aware of risks identified during program design. If Yes, are they still the most important? Do we have new risk facing the program? If yes. Which ones?
	Do you think there is financial, socio-economic, institutional framework and environmental risks which might affect program sustainability?