



The work shop also considered a part of the work plan for the development of the National Climate Change Response Strategy Action Plan. The overall objective of the consultation is to provide an opportunity for stakeholders from each of the counties to prioritize climate change concerns and required actions to inform the Action Plan.

The following are some of the socio-economic and geographic characteristics of the counties (Embu, Iololo, Kiambu, Machakos, Makueni, Meru, and Tharaka-Nithi) represented in the work shop: all the eight counties are in different agro-ecological zones (AEZ) with Embu, Meru and Tharaka-Nithi being classified in Zone II (agricultural production), while Kiambu, Makueni and larger part of Machakos are semi-arid, while Meru is arid. The main economic activities in the counties hereof are all in accordance with the agro-ecological zone in which they are found. In Embu, Meru and Tharaka-Nithi, crop cultivation is the main activity, Kiambu, Makueni and Machakos are characterized by agro-pastoralism, while in Iololo and Meru, pastoralism dominates.

A summary of the results of the consultation has been prepared based on the eight thematic areas/sub-components of the Action Plan.

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This particular component of the NCCRS Action Plan deals with both adaptation and mitigation and based on the diagnosis in the Northeast. Mitigation issues are captured for SC 4 and adaptation issues for SC 3 (see the section below) apply to SC 1.

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Mitigation actions that are currently being implemented in Embu, Iololo, Kiambu, Machakos, Makueni, Meru, and Tharaka-Nithi include:

1. Energy saving jiko as mentioned by most counties
2. Alternative fuel charcoal and biogas. The use of solar for cooking processes in each factory (alternative to firewood) in Embu is noted. The potential for small, mini and micro hydro power generation to provide power for rural connectivity and replace biomass energy (charcoal and firewood) in Embu and Meru is particularly acknowledged. The making of briquettes from charcoal and biomass is also mentioned in Tigania
3. Forest conservation, afforestation and re-afforestation were proposed. Embu proposed a clear policy on different species for afforestation projects including the need for arboriculture on the policy on the calendar should be drafted. The role of WRUA and CFA is highlighted
4. Charcoal making is under regulation. It is highlighted that the need for controlled charcoal making (addressed as a ban on the industry) and efficiency improvements
5. In the agricultural sector, CA, agroforestry and land management are the areas of interest

In summary, sectors for which mitigation is proposed are , (household energy demand, in particular) and .

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Adap a ion recei ed a lo of a en ion in erm of he n mber of ra egie c rren l being implemen ed and/or p for ard. C rren and propo ed adap a ion mea re incl de:

1. Dro gh oleran and pe -re i an crop arie ie (nd ma arie , Simba arie , and Ba ian coffee)
2. Ne me hod of farming, e.g. T mb ki a me hod
3. Ri er bank pro ec ion-di co raging people from c li a ing ri er bank
4. Clearing of home ead and rro nding of a er pool and rela ed mo q i o habi a
5. De- ocking a a ra eg again deple ing pa re and a er. Thi fea red prominen l in I iolo and Mar abi .
6. Fodder pre er a ion/ orage
7. Wa er rea men o minimi e a er-borne di ea e ho e incidence increa e d ring e condi ion
8. People ha ing o dig deeper borehole o ge a er
9. Alerna i e li elihood -e.g. prod c ion of fi h, frog and crab mainl for ale
10. Con r c ion of a er pan , borehole , rface dam (FH-Ken a, Ac ion Aid) - en ire I iolo co n
11. Dro gh mi iga ion ac i i ie e.g. relief food (Ac ion Aid, ACF, World Vi ion), chool feeding in programme boh I iolo and Garba lla Di ric . Plan ing dro gh oleran arie ie of eed b MoA e.g. NALEP, Ac ion Aid
12. Direc Ca h Tran fer Programme in Garba la, I iolo, and Mer i di ric o adde food in ec ri implemen ed b Ken a Red Cro Socie , ACF and GoK, hro gh he Mini r of Children and Gender
13. Rangeland Managemen hro gh reng hening local comm ni r c re in Mer i and Garba la di ric e.g. Rangeland U er A ocia ion (RUA)
14. Li e ock marke ing and linkage o be enhanced and en i i a ion done on emerging oppor ni ie
15. Clima e-proofing of infra r c re impro emen e.g. road , bridge

In mmar , (par ic larl , he li e ock b ec or), infra r c re and are he main ec or con idered for clima e change adap a ion.

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Rele an i e men ioned incl de enforcemen of land e la /policie , re ie of policie and la ha are no in andem i h ainabili agenda, implemen a ion of he polic on 10% of indi id al land for affore a ion, and reng hening e i ing en ironmen al managemen r c re . Clear polic on differen pecie for affore a ion projec incl ding he need for ar ic la ion on he polic on e cal p are e ample of polic and reg la or i e ha need o be adde ed.

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I e of rele ance o SC 5 on echnolog re ol ed aro nd he echnolog for adap a ion and mi iga ion a ha alread been highligh ed abo e. In adap a ion, rele an echnologie incl de EWS hich o ld compri e an ICT em, dro gh oleran crop , fa -ma ring crop arie ie , and impro ed li e ock. In mi iga ion, he are rene able energ echnologie ch a olar, bioga , and rene able bioma ell a a e handling/proce ing echnologie .

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For the other work shop, it is decided under this component related indicators for performance/measurements of the proposed action. This is also the case in the Nairobi consultation.

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Key highlights relevant for this SC include awareness creation and capacity building on climate change implications on the sector through baraza and other forums and education, and mainstreaming of climate change in education and development plan/project, and strengthening of education for sustainable development.

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Additional funding for climate change activities and various financial instruments for clean energy projects have been identified for solar are some of the key relevant to SC 8 on finance have been mentioned. Increasing the contribution budget from the cheque from the proposed 15% to about 40% to enable contribution implementation related projects as mentioned by Embury Consultants.

The workshop was convened as part of the work plan for the development of the National Climate Change Response Strategy Action Plan.

The main objective of the workshop was to collect climate change related information from key stakeholders in Embu, Kiambu, Machakos, Makueni, Meru, and Tharaka-Nithi counties in support of the development of the National Climate Change Response Strategy Action Plan.

The workshop had the following three specific objectives:

- (i) To inform stakeholders of the ongoing activities geared towards developing the NCCRS Action Plan;
- (ii) To obtain stakeholder input for incorporation into the Action Plan; and
- (iii) To engage and interact with stakeholders as a basis of building their ownership of the proposed process.

The workshop was attended by key stakeholders on climate change (from government, private sector, media and civil society organizations and community representatives) from the eight counties of Embu, Iololo, Kiambu, Machakos, Makueni, Meru, and Tharaka-Nithi, representatives of the Climate Change Secretariat in the Ministry of Environment and Mineral Resources, and the consultants working on the different components of the Action Plan. There were 15 representatives of CSOs and NGOs, 11 women representatives, 18 youth representatives, 3 persons from the media, 3 representatives of faith-based organizations (FBOs), 26 from the government, 29 representatives of farmer organizations, and 6 from the academia/research sector. The meeting was also attended by Taskforce member (4), consultants working on the Action Plan (3) and Thematic Working Group (TWG) (3). Representation by county was as follows: Embu-20; Iololo-8; Kiambu-10; Machakos-10; Makueni-10; Meru-13; and Tharaka Nithi-10. The list of participants is here attached as Annex I.

The workshop was called to order by Mr. Joseph Kamau from the Planning Division, Ministry of Environment and Mineral Resources (MEMR). He welcomed the participants and thanked them for honoring the invitation to come and share their experiences and contribution on and experience in climate change on the consultation towards developing the National Climate Change Response Strategy Action Plan. He informed the participants that the workshop was meant to obtain input for the Action Plan in fulfillment of the Constitutional requirements that stakeholders be consulted in such processes.

Stakeholders were asked to provide their specific input from the workshop. The following were captured:

1. One participant asked whether participants would be awarded certificate of participation. It was observed that his expectation would not be met as this was a no-a-raining-workshop.
2. To learn more about the impact of climate change on Kenya.
3. To learn how to address the impact of climate change, both negative and positive.
4. To learn more about the implication of climate change on the health sector, agriculture (particularly the food security situation in the lower Eastern region, which is an area that is drought-prone and hot), and the environment.
5. To be informed on the impact of climate change on women and children, i.e. the gender dimension of climate change.
6. To learn about climate change in the specific county region /constituent represented in the workshop.
7. To learn about environmental conservation measures.

The programme of the Workshop is hereby attached to this report as Annex II.

Mr. Sam Kinyua, the Regional Director of Meteorology provided the opening remarks and invited the Provincial Commissioner to officially open the workshop. In his remarks, he noted the negative impact of climate change particularly on the agricultural sector, with increasing reduction in agricultural yield in the lower part of Eastern Province being singled out. He emphasized that a major challenge of climate change is the negative impact on the economy that the government decided to give priority to climate change; and hence the reason the workshop was convened. He underscored the need for a concerted training and knowledge and information dissemination on climate change.

Mr. Wilson Ole Saka, the Deputy Provincial Commissioner, Eastern Province, delivered the opening remarks on behalf of Mr. Claire Omollo, the Provincial Commissioner (PC). He commended the PC for apologizing for not being able to attend and open the workshop in person due to exigencies of duty. He emphasized that the Constitution 2010 required concerted collaboration for processes such as the Action Plan development; hence the reason the workshop was convened. The PC's remarks are attached to this report as Annex III.

Mrs. Lucy Kamande from the Climate Change Secretariat (CCS) in the Ministry of Environment and Mineral Resources provided an overview of the objectives of the workshop. She informed the workshop that the main objective of the collaboration was to ensure that the Action Plan was informed by stakeholders across the country in line with the 2010 Constitution. Mrs. Kamande emphasized that the government's decision to have the Action Plan development process be a participatory and inclusive including CSOs, government, the private sector, and the Bn ananchi (i.e., the common citizen). The presentation of the objectives of the collaboration is attached to this report as Annex IV.

An overview of the National Climate Change Response Strategy (NCCRS) Action Plan was prepared by Dr. Charles Mutai, who was also from the CCS. The aim of the Action Plan was to operationalise or implement the NCCRS, which was launched at COP 15 in Copenhagen for the purpose of engaging and involving the international community on Kenya's efforts to address climate change, and formally in Kenya in April 2010. The preparation of the overview was ached on his report by Anne IV.

The participants then divided into different groups based on their countries of origin to deliberate on a number of climate change related topics such as the evidence of, impact on and current as well as proposed/recommended actions to respond to climate change in their countries. The following is a summary of the deliberation:

<ul style="list-style-type: none"> - Low/Reduced crop yield - Drought of seasonal rivers, e.g. Thura and Thica - Prolonged drought... Mbeere had to have one season per year; no longer one consecutive season - Increased incidence of diseases like malaria and TB - Recen fro (for the first time) on the perimeter of the coast - Receding Mt. Kenya snow cap - Increased or reduced number of certain species, e.g. adpole and [Njiri] 	<ul style="list-style-type: none"> - Poor food shortage leading to malnutrition, poor health, school dropouts, early marriage and unwanted pregnancies - Water shortage for domestic use and reduced fish stock in rivers due to drying up of rivers - Water-borne diseases during flood - Landlide caused by heavy rain/flood, e.g. in Ena in Embu - Potential for a river from borehole being sunk across the coast [a result of drought] being unsafe for human consumption
<ul style="list-style-type: none"> - Drought tolerant and perennian crop varieties (ndama, arabica, Simba arabica, and Baian coffee) - New method of farming, e.g. Tumbuka method - River bank protection-dicouraging people from clearing river bank - Water harvesting- aeration, dam - Clearing of home land and rroding of aeration pool and related moqiohabia - Energy saving jiko, biogas and solar home em - De-ocking a aeration again depleting pasture and aeration - Fodder preparation/aeration - Water reamen - Deeper borehole aeration - Alternative livelihood -e.g. production of fish, frog and crab mainly for sale 	<ul style="list-style-type: none"> - Foreconeration, afforestation and re-afforestation - Alternative fuel for cooking process in each facorie (alternative to firewood) - Investment in aeration infrastructure-dam, pond, and bank and creating aeration on sustainable use of aeration resource - Increasing the coastline budget from the cheque from the proposed 15% to 40% to enable coastline implementation related projects - Clear policies on different species for afforestation projects including the need for ariculture on the policy on ecop - Climate change aeration raising - River bank protection including aeration in sustainable and mining - Community involvement and empowerment

<p>Tree planting spearheaded by Ministry of Agriculture (MoA)</p> <ul style="list-style-type: none"> - Tree nurseries established in school 	<p>in environmental conservation</p> <ul style="list-style-type: none"> - Provision of/loans for malaria control equipment - community education - Additional forest officer - Alternative farming practices - mixed farming, agro-forestry and oil conservation
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<ul style="list-style-type: none"> - Drop of E a o N iro, I iolo and Bi anadi ri er - Unpredictable rainfall pattern - Severe prolonged drought - Drop in water level in bore hole and river leading to increased water shortage - Increased prevalence of diseases in both livestock and human - Increase in human/wildlife conflict as a result of diminishing resources (pasture, grazing land, water, etc) - Increased inflow of both human and livestock - Environmental degradation - Increased food shortage and malnutrition - Shortened life expectancy as a result of malnutrition, diseases, food insecurity, etc - Increased school drop-out rate - Increased emigration 	<ul style="list-style-type: none"> - Women and girls walk longer distances in search of water for domestic and livestock use (gender face of climate change) - Food insecurity, malnutrition, flash flood, infrastructure deterioration e.g Garfaa, Kiping, Mmchro, Mericentral and I iolo. - Death of livestock, increased poverty, increased malnutrition, increased domestic conflict - Change in livelihood pattern - Environmental deterioration increased (e.g., charcoal burning, and harvesting, increased logging) - Loss of human life and wildlife - Crop deterioration as a result of sudden inflow of wildlife in search of pasture and water - Increased conflict among neighboring communities as a result of scarce/depleted natural resources e.g., water, pasture, etc - Land slide, soil erosion, land degradation, etc - Increased cases of diseases like Diarrhea, kahiorkor, malaria, in both children and elderly - Over-dependence in relief services and food - Emergence of instances of child labor and increased illiteracy level, and calendarling and general increase in poverty. - Drought, unemployment, dehydration, high emigration rate, biodiversity/comfort
<ul style="list-style-type: none"> - Diversification of economic activities (i.e. income generating activities) to improve livelihood - the role of I iolo community - Construction of waterpan, borehole, surface dam (FH-Kenya, Action Aid) - ensure I iolo community - Drought mitigation activities e.g. relief food (Action Aid, ACF, World Vision), school feeding in programme both I iolo and Garbilla District. Planning drought tolerant varieties of seed bank MoA e.g. NALEP, Action Aid - Undertaking afforestation projects and programmes e.g. in school, by E a o N iro North 	<ul style="list-style-type: none"> - Provision and promotion of alternative sources of energy to reduce the reliance on charcoal and firewood e.g. energy saving Jiko, solar energy for domestic use - Water harvesting system should be expanded through construction of the bank and dam and drilling/rehabilitation of drought resistant borehole - Promotion of dryland farming techniques like rapeoidal bed and semi-circular bed - Planning of high altitude radiation crop like millet, sorghum, cassava and maize - Early warning system for disaster preparedness related to climate change impact

<p>Development Authority (ENDA), Food for the Hungry (FH) Kenya, and CBO .</p> <ul style="list-style-type: none"> - Direct Cash Transfer Programme in Garba la, Iiolo, and Meridi to address food insecurity implemented by Kenya Red Cross Society, ACF and GoK, through the Minister of Children and Gender. - Rangeland Management through strengthening local community structure in Meri and Garba la districts e.g. Rangeland User Association (RUA) - Sensitization and public awareness on climate change adaptation and resilience projects by IIED, Minister of Northern Kenya and Arid Land , Kenya Meteorological Department , WRAP, and 5 environmental areas (Garba la, OloNiro, Kina, Meri, and Sericho) 	<ul style="list-style-type: none"> - Develop planning and the grassroots /community level and mainstream climate change information - Build the capacity of rangeland user association (RUA) for sustainable management of natural resource . - Improve the drainage and re-vegetation especially in the major zone . - Improvement of managing the available water resource through formation of advisory water management board /association - Public Awareness and sensitization of the community through Iiolo Community in alliance of community FM Radio station in Garba la to enlighten on climate change - Livestock marketing and linkage to be enhanced and sensitization done on emerging opportunities e.g. re-orientation opportunities through and outside Iiolo Community - Infrastructure improvement e.g. road , bridge to be put in place - Protection of water catchment area e.g. Biyadi, Iiolo and WaoNiro River through afforestation and fencing of the spring around Biyadi and Go - Enforcement of environmental law through concerned ministries and departments like KFS and NEMA
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<ul style="list-style-type: none"> - Prolonged drought - Increased temperature - Water shortage for both domestic consumption and watering of animal - Change in rainfall pattern marked by extended drought and extreme rainfall events /flash flood - Erratic and unreliable rainfall - Extinction of some species -bird and animal 	<ul style="list-style-type: none"> - Increased crop failure - Drier bed and spring , water scarcity - Severe soil erosion and water pollution - Wide spread malnutrition - Human wildlife conflict -Kora and Taora area - Famine and dependence on relief food - Decreased crop and livestock production - Increased poverty level /destitution - Increased criminal activities /hedge-rolling of livelihood - Rural-urban migration - Increased school drop-out - Increase in the cost of living/food price - Biodiversity loss /decrease
<ul style="list-style-type: none"> - Afforestation and re-afforestation - De-logging - Protection of river bank -ban on and harvesting 	<ul style="list-style-type: none"> - Strengthening climate change awareness efforts - Water capture and conservation-earthen dam , and dam ,pan and borehole

<ul style="list-style-type: none"> - Control on charcoal making and trade - High altitude/radiation/droughtolerant crops such as millets, sorghum, etc - Water harvesting in conjunction with water conservation efforts being promoted-Umaa Dam and Kalind Dam through the Ministry of Water and Agriculture - Public awareness on climate change issues -GoK, NGO and other stakeholder - Crop diversification in droughtolerant commercial crops - maize, aloe and jatropha, e.g. at Nambani Village in Yaya District - Small scale irrigation schemes e.g. in Yaya and Nambani districts through the Catholic Diocese of Kisumu, and through other initiatives elsewhere in the country - Protection of water catchments, ban on deforestation for agricultural purposes - Zero grazing and animal feed-livestock keeping practices, e.g. in Malindi, Kisumu, etc - Introduction of dairy goats - Alternative energy - solar, wind - Energy efficiency, e.g. efficient cooking stoves 	<ul style="list-style-type: none"> - Enforcement of the 10% agroforestry/10% of individual farmland planted initiative - Large scale, drip irrigation schemes to increase food production - Protection of water resources/riparian areas - Droughtolerant crops - millets, sorghum, cowpea, etc - Droughtolerant livestock - goats, Zebu and Boran cattle, and camels - Meteorological advisory for decision making elsewhere - Rehabilitation of VokARI research station - Strengthening linkage between researchers of research findings and end users, e.g. farmer, planner, etc - Proper/increased budget allocation - Eco-friendly housing, e.g. re-designing of buildings - Alternative/renewable energy - solar, wind and biogas available - Droughtolerant cash crops - e.g. cotton, coffee and flowers
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<ul style="list-style-type: none"> - Change in/increased temperature - Unpredictable/erratic rainfall pattern - Rising poverty levels - Outbreak of diseases and pests 	<ul style="list-style-type: none"> - Poorly performing crop / yielding, low crop yield and livestock deaths - Drowning of rivers, earthen dams due to increased siltation - Human-wildlife conflict - Flooding, water logging during flash floods - Delayed onset of heavy rain - Soil erosion - Displacement of people - Reduced livelihood options, poverty increase and increase in crime rates - Scarcity of water for domestic consumption and watering of animals - Inter-clan and inter-community conflicts over diminishing resources - Electric power shortage, reduced industrial output, leading to unemployment - Water-
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<p>Miki o Self Help Gro p</p> <ul style="list-style-type: none"> - Tree plan ing, e.g. b he K am ee Women Gro p - Con r c ion of a er pan e.g. b K am ee Farmer - Eco-friendl jiko b Eco-Care Africa hro gh K am ee Women Gro p - Dro gh oleran crop and fr i ree being in rod ced, e.g. hro gh KARI - Ban on and har e ing - Ban on/con rol of charcoal making and rade 	<p>affore a ion projec</p> <p>Con r c ion of a er dam</p> <p>Enforcemen of la on na ral re o rce pro ec ion and con er a ion</p> <p>Sinking of more borehole in area ha don ha e ea onal ri er</p> <ul style="list-style-type: none"> - S reng hening linkage be een me er ice and end er like farmer - Gabion in area ha e perience hea oil ero ion d ring fla h flood -K a Mb h , Ka hiani, e c - Clima e change a arene / en i i a ion - Alerna i e farming echniq e -agrofore r , con er a ion agric l re, mi ed cropping e c - Eco-friendl cook- o e and alerna i e energ o rce - Dro gh oleran crop and fr i ree
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<ul style="list-style-type: none"> - Dr ing p of ri er , e.g. Ri er Makind - Erra ic and rong ind , probabl al o d e o red ced co er - Change in rainfall pa ern - Soil ero ion 	<p>Decrea e in food prod c ion/crop ield</p> <p>Increa ed po er le el</p> <p>Social conflic and moral deca , e.g. increa ed ra e of crime</p> <ul style="list-style-type: none"> - Decrea e in prod c ion of commercial crop and o her prod c , clo re of a ocia ed fac orie , e.g. he Mak eni Ginner and coffee fac orie in Mbooni - Increa e in d rela ed di ea e ch a TB - Increa ed ra e of r ral- rban migra ion
<p>Affore a ion and re-affore a ion, e.g. hro gh he effor of o n co ncil</p> <ul style="list-style-type: none"> - Ban on charcoal making in he lo er par of he co n - Ban on imber logging in Mbooni area and Kil ng Hill - Tree n rerie e abli hmen f nded b he CDF in Mak eni, Kai i and Kib e i - Sand dam con r c ion, a er har e ing from ri er bed / cooping of and in Kilili, Ka hekani Ri er in Kib e i, M n ni Ri er in Kai i - Ban on and har e ing in M ooni Ri er in Emali and Ka ike - Fore con er a ion/pro ec ion in Ki nd B Fore in Mbooni hro gh GoK and he Co n Co ncil - In rod c ion of agro-fore r in Kil ng Di ric - In rod c ion of dro gh oleran crop - Drilling of borehole 	<p>S reng hening of clima e change a arene / en i i a ion effor</p> <ul style="list-style-type: none"> - E abli hmen of ree n rerie - More f nd for en ironmen al pro ec ion - Terrace in lopp area like Mbooni and Kil ng Hill - Dro gh oleran crop like orgh m - More and dam in ri er - A oiding o er-gra ing, red cing ock - Pro ec ion of a er ca chmen /riparian one - E panding agro-fore r and o her form of ainable agric l re

<p>Poor rainfall distribution Increased temperature / increased rainfall - Increased wind speed Population inflow / increased economic climate-induced migration, etc - Increased water shortage Drought Haze - Human and livestock diseases have increased More land degradation</p>	<p>Vegetation cover loss - Frequency and extended drought Extreme flood Increased frequency of bush fire Displacement of people, poor livelihoods, and roof top being blown away by strong wind Socio-economic instability Loss of water bodies such as Lake Paradise in Marabi - Destruction of infrastructure by extreme events such as flood - Loss of forest cover Increased food insecurity - Disease outbreak - malaria and cancer</p>
<p>- Climate change mitigation through efforts of the government, NGO and other actors - Tree planting by school through establishments of reforestation, in Moleleke Protection of water resource by Ministry of Water and Irrigation and NEMA Rainwater harvesting e.g. the Bada Dam constructed by the Ministry of Water and Irrigation - Improving infrastructure, e.g. the Iloilo-Moleleke Road - Promotion of rooftop water catchment, e.g. by Red Cross and KHF in Marabi Drilling of borehole in Torbi and Kiniba - Irrigation scheme in Kalacha (KARI initiated)</p>	<p>- Awareness creation - More meetings in Torbi, Chalbi, Loian, Laikipia, North Horr, and Sololo districts - Afforestation to be increased to 20% of the country - Total ban on charcoal production - Construction of gabion in Gorro Masha, Odda location, Bori location and Dambala Fachana - Increase rainfall to 50% More water storage infrastructure - dam, borehole and pan Greenhouse and irrigation to increase food production and food security - De-stocking Increased budgetary allocation for climate change activities</p>

<p>Change in rainfall pattern Drought of some rivers / streams - Snowcap of Mt. Kenya receding Reported cases of increased drought episode in Rift Valley, Tigania East, and Baringo Flood and landslide in some places such as Malindi Extreme change in temperature</p>	<p>- Unpredictability of seasons Destruction of infrastructure such as roads Increased inter-communal conflicts over resources especially during drought (area bordering pastoral communities in particular) - Increased incidence of diseases such as malaria - Increased poverty levels - Equity issues --- how rich/leisure impacted the poor/most vulnerable</p>
<p>Afforestation efforts e.g. along River Moga, and</p>	<p>- Awareness creation, impact and measurement</p>

- The whole country in general
- New farming technologies, e.g. terraces, aipi (conservation agriculture) by the WHO in Tharaka
- A large-scale irrigation scheme (conservation method) in Machakos, Pan and Ankeni in Machakos and Bungoma
- Climate change adaptation efforts
 - Replacement of exotic rice species to be able to tolerate high temperatures and endogenous species along river channels
- Micro-hydro projects by the government in Kinoro, Imeni
 - A carbon offset project by TIST
 - Energy saving jiko (special) through ariomomen group
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<ul style="list-style-type: none"> o e hro gh KFS, Mini r of Agric l re, e c Ri er bank pro ec ion hro gh KFS, WRUA , e c - Forma ion and reng hening of WRUA - Promo ion of ne farming echnologie hro gh effor of KARI, MoA and indi id al farmer Po har e orage echnologie hro gh he MoA, FAO and o her par ner - Promo ion of ainable land e managemen hro gh he MoA arge ing farmer gro p - Implemen a ion of he polic on 10% of indi id al land for affore a ion 	<ul style="list-style-type: none"> Organic farming and o her ainable agric l re prac ice - A arene crea ion on clima e change and en ironmen al pro ec ion Promo ion of alerna i e o rce of energ o ake pre re off fire ood Dro gh oleran li e ock pecie and ero-gra ing - Fodder pre er a ion
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Mar abi clarified ha he increa e in pop la ion hich he had highligh ed a an impac of clima e change a mainl a a re l of clima e ind ced migra ion (mainl from he rro nding nor hern co n ie in o he co n (Mar abi).

2. A par icipan o gh clarifica ion from Ki i Co n on ha pecific biodi er i (plan or animal) had di appeared (or ho e n mber had red ced) a a re l of clima e change. Ki i re ponded b gi ing e ample of he dik dik (a pe of an elope), hich had migra ed o he e er rro nding T a o a ell a ome local ege a ion/ree pecie (nnamed).
3. Ano her par icipan o gh clarifica ion from Emb and Mer on he ca e of he receding M. Ken a no cap . He a informed ha hi a mainl de o he ri ing global empera re , hich had accelera ed he mel ing of no and ice cap .
4. [Tharaka Ni hi indica ed ha red ced reprod c ion in h man he had all ded o nder he impac of clima e change a an indirec clima e change impac , e.g. i re l from dro gh ind ced epara ion of familie hereb men migra e i h li e ock in earch of pa re and a er o a far a he Mer Na ional Park for mon h].
5. One par icipan o gh e plana ion on ha e en a er hor age in Ken a co ld be a rib ed o clima e change gi en ha he co nr a alread a er carce. He a informed ha he co nr a indeed a er carce and ha clima e change a aggra a ing he problem gi en for in ance, he repea ed and e ended dro gh hich ere f r her impac ing on a er a ailabili .

1. Emb e plained ha fi h farming had no impac on he pread of malaria a he pond ere loca ed far her a a from home ead , i h er li le chance of mo q i oe breeding in he pond reaching h man e lemen .
2. On he c ing of e cal p beca e of i apparen large a er req iremen , i a propo ed ha a be er ra eg o ld be o proo he plan a hi o ld en re ha no regenera ion occ rred.
3. Emb propo ed ha for e er ree c , fi e ho ld be plan ed a a ra eg in he fore r ec or.
4. The po en ial for mall, mini and micro h dro po er genera ion o pro ide po er for r ral connec i i and replace bioma energ (charcoal and fire ood) in Emb and Mer in par ic lar a ackno ledged.
5. I iolo propo ed in e men in h ge and man a er cap re and orage infra r c re ch a ear h dam and a er pan , no ing ha hi a he onl a o make good e of

6. Delegation of authority for handling of food (particularly grain) shall be important. It should be captured.

The conclusions presented in the workshop (SC 1, SC 2, SC 3 and SC 4 and SC 9) provided a high level of objective and scope of their assignments as well as the progress they had made.

Professor John Ngunjiri, representing SC 3 on adaptation, noted that climate change had both negative and positive impacts and that adaptation needed to address both, and his team had the SC 3 conclusions to look into. He further noted that adaptation must be both short-term and long-term, must be community-driven and local communities were at the forefront of climate change impacts, and must look to address the most vulnerable (poor, most vulnerable, women and children, etc). He informed the workshop that he would inform SC 3 inputs into the Action Plan.

Mr. Peter Oloo, representing SC 1, SC 4 and SC 9, indicated that SC 9 role in the process was that of coordination and management of the process. In addition, SC 9 would progress the work of the various components into one harmonized actionable work. He made a presentation of SC 4 work, which included the conclusions objectives, scope and the progress they had been made. SC 1 on long-term low carbon and resilient development path was also a key beginning. One of its major outputs would be mainstreaming of climate change into the development and planning processes.

Ms. Rachel Shibalira of SC 2 indicated that the conclusions focused on the policy, legal and regulatory framework needed to address climate change. She indicated that one of the group's major outputs would be an analytical report with recommendations on the current national climate change policy and laws that should be enacted or have climate change embedded in existing policies and laws.

Mr. Wilson Ole Saka, the Deputy Provincial Commissioner, also provided closing remarks. He noted that ironmen/climate change is a cross-cutting issue and that the Ministry of Environment and Mineral Resources is only a lead agency in the fight against climate change. He urged collaborative efforts in addressing the challenge. In addition, he noted that climate change presents some challenges that need to be met in an appropriate, giving the example of the invasive species *Prosopis juliflora* (Bmahenge) which is being used to produce charcoal in Baringo (North Eastern Province). In this regard, he noted that Kenya could not ignore the food security challenge around the inclusion of men in irrigated agriculture.

Mr. Menda Mwangi, a NEMA officer, gave a vote of thanks. He acknowledged the PC for Eastern Province through the Deputy PC for officially opening the workshop, and the participants for honoring the invitation to come and share their experience and opinion on and experience in climate change.

Dr. Charles Mutai provided the next step in the process. Indicating the date of the remaining county, national (validation) and all the peer group consultations were provided. He indicated that a first draft of the Action Plan would be ready by August 2012. A National Validation Workshop would be held in Nairobi, and county representatives from all the 47 counties in the country would be elected to participate in this workshop. In addition, he mentioned that the counties involved would have come up during the county consultations would have been captured in the Action Plan. The Action Plan information resource, www.kccap.info, is also provided.

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There being no other business, the workshop was closed at 2.00 pm.

I would like to warmly welcome each one of you to this important meeting on behalf of the Kenyan Government and on my own behalf.

Agriculture is the mainstay of the Kenyan economy, directly contributing 26% of the GDP, and another 25% indirectly.

The sector accounts for 65% of Kenya's total employment and provides more than 70% of informal employment in the rural area.

The agricultural sector (including crop, livestock, horticulture, fisheries, aquaculture, cooperatives, artisans, regional development and forestry) is hence not only the driver of Kenya's economic growth but also the means of livelihood for the majority of Kenyan people.

Kenyan agricultural operations are mainly rain-fed, making agriculture extremely vulnerable to climate change and variability.

Climate change has impacted negatively on Kenyan agriculture, leading to heavy economic losses. Recent years have witnessed repeated crop failures in parts of the country due to prolonged drought, including in areas that were traditionally considered safe from extreme climate and weather events like drought and flood.

Other more recent examples of climate change impacts include the recent extreme frost that has especially affected the Highland East of the Rift Valley, among other areas. This is likely to result in heavy economic losses for the country, given that these areas are among the leading tea producing areas of the country; and also adversely impact on the country's food security due to the destruction of food crops.

Other climate events include drought and high temperature generation.

The Kenyan Government, with support from development partners and other stakeholders, is in the process of developing a comprehensive Action Plan to implement the National Climate Change Response Strategy (NCCRS) that was launched in 2010.

The Action Plan has eight operational components covering Low Carbon Development Pathway; Enabling policy and legal framework; National Adaptation Plan; National Appropriate Mitigation Action (NAMA); Technology Development and Transfer; Knowledge Management and Capacity Development; National Performance and Benefit Measurement (Measuring, Reporting and Verification); and Finance.

Once the Action Plan is ready, the eight operational components will be mainstreamed into the relevant socio-economic sector and fund identified for implementation. The Action Plan hence provides the potential for collaboration with Kenyan development partners to ensure full implementation of the National Climate Change Response Strategy.

The process is designed to involve all stakeholders in collaboration in line with the Kenyan Constitution 2010 to ensure a rare Kenyan process, owned by Kenyans. There is therefore a need for all of these stakeholders to play their role as stakeholders in order to inform this important process.

To make the Climate Change Action Plan respond to our need, we must be read and willing to share our experience of the evidence and impact of climate change; strategies are put in place to address it; what we think should be done to help cope; and the role we think the Government should play to help fight climate change.

I am informed that towards the conclusion of this process, the organisers will have invited the stakeholder their proposal on how to address climate change so that we can ascertain what has already been taken on-board.

I would therefore like to reiterate the need for all of us to pre-emptively help the Government formulate a plan of enhancing our resilience to climate change as well as ensuring that our development does not compromise environmental sustainability.

Lastly, allow me to thank all of you for being here and participating in this deliberation.

Thank you.