

**KIPPRA ANNUAL REGIONAL CONFERENCE 2018**  
***BUILDING RESILIENCE TO MITIGATE THE IMPACT OF DROUGHT AND FLOODS***  
**5<sup>TH</sup> – 7<sup>TH</sup> JUNE 2018, HILTON, NAIROBI, KENYA**



**DAILY CONFERENCE SUMMARY REPORT OF PROCEEDINGS**

**DAY 1**

**DAY 1: TUESDAY, 5<sup>TH</sup> JUNE 2018**

**OVERVIEW OF DEVELOPMENTS AND EMERGING ISSUES RELATED TO DROUGHT AND FLOODS IN THE REGION**

**Remarks by Dr Rose Ngugi**

- The KIPPRA Executive Director stated the objectives of the conference as:
  - Sharing lessons from good practices across the region
  - Disseminating research results across the region

- Meeting and networking with relevant stakeholders
- Identifying and making recommendations for action on key policy issues relating to droughts and floods
- She noted that the conference date (5<sup>th</sup> June) coincides with the **United Nations World Environment Day** and KIPPRA chose to contribute to marking this day by providing a forum for stakeholders to discuss how to mitigate the impacts of climate hazards such as drought and floods, and building resilience to mitigate the impacts of these hazards.
- These dialogues will contribute to policy frameworks for managing disaster risks.
- She emphasized the government's commitment on ending drought emergencies.

**Presentation on Droughts and Floods: How do they Become Emergencies?** (*John Nyangena, Policy Analyst KIPPRA*)

The presentation highlighted trends and patterns of drought and floods in Kenya, and focused on reviewing changes in weather patterns and climate change hazards such as droughts and floods that precipitate to disasters

**Highlights of the presentation**

**Kenya's vulnerability to droughts and floods is driven by many factors, including:**

- High dependence on rainfall in economic and social development
- Low adaptive capacity - low technology, inadequate finance, weak institutions
- Unplanned urbanization
- Land use changes
- Poor watershed management/destruction of catchments
- Reactive disaster management approaches as opposed to proactive

It was noted that:

- The responses to drought and floods emergencies cut at international, regional and national level and include the adoption of the Sendai Framework on Disaster Risk Reduction, the Nairobi Strategy 2011 on Ending Famine in the Horn of Africa, and the End Drought Emergency Common Programme Framework
- Droughts and floods are expected to increase due to climate change
- Opportunities exist in reducing vulnerability and in reducing exposure

**Critical Questions on drought emergencies**

- What is it that countries that experience drought do not get right all the time? what measures can the country take to avoid these disaster risks?
- Do we have policy frameworks in place? Are these frameworks implemented in dealing with emergencies?
- These are the questions the policy makers need to have answers to.

**Recommendations**

Policy recommendations should address, among others, the following concerns:

- i. Static rather than dynamic nature of contingency plans
  - Lack of definition of drought/flood
  - Delayed activation of responses
- ii. Lack of consistency of responses
- iii. Weakness in inter-agency coordination/institutional aspects
- iv. Administrative and thematic focus while disaster respects no boundaries
- v. Low participation of stakeholders - communities/county governments
- vi. Inadequate funds and high reliance on donor funding

**Presentation 2: What we Have Achieved with Ending emergencies of droughts and floods** (*Paul Kimeu, Director, National Drought Management Authority - NDMA*)

### **Highlights of the presentation**

- Background on what NDMA is doing in relation to ending emergencies of drought and floods
- Noted that resilience is a process that requires targeting and social protection for the affected
- Will require effective solutions for disaster, including technical, political and stabilizers
- Examples of success stories are water harvesting in ASALs (e.g. Isiolo), water trucking, turning resources into enterprise venture (tannery to process Hides and skin in Turkana) and dry fish storage for future use

### **Critical Questions are**

- How do we get out of disaster risks?
- We focus on short term measures than long term, why?

### **Recommendations**

- Building resilience to ensure ability of the population to adopt
- Need to have early warning systems and communication

### **Presentation 3: Kenya's Achievements with Ending Emergencies of Drought and Floods: A Vision 2030 Flagship** (*Veronica Okoth, Director, Economic Pillar KVDS*)

#### **Highlights of the presentation**

- Brief on the pillars of the Vision 2030 and climate change is anchored in the social and economic pillar
- Various projects implemented during the first 10 years
- Highlighted the impact of droughts in terms of cost incurred during emergencies in term of per capita contribution to GDP
- Factors contributing to severity of droughts include interference with watershed, increased deforestation

#### **Recommendations**

- Devolution is an asset, and could be used to tackle the impacts of droughts and floods

### **Presentation 4: The Changing Weather Patterns: What we Need to Know** (*Peter Ambenje Director, Kenya Metrological Department*)

#### **Highlights of the presentation**

- Rainfall and temperature are the most important climate parameters
- The two parameters have the longest data collection
- Change in weather pattern observed over the last 50 years
- Temperature trend increasing and declining trends on annual rainfall
- Increase in temperatures have shown that areas that never had malaria are now prone to malaria. KEMRI and KMD are now working closely to use this information/data to develop early interventions in malari-prone parts of the country). Other institutions using the knowledge from KMD include the Red Cross.

#### **Recommendations**

- We need to act considering these changes

### **Issues arising from plenary discussion**

- How the impact of droughts and floods affect lives, in addition to economic impacts.
- What is the country doing to reduce droughts? Initiatives such as tree planting can help deal with this.
- Why is the use of climate information in policy and decision making low?
- Are there deliberate efforts to take care/incorporate/mainstream People With Disabilities during disasters?
- Disaster and emergencies escalate due to the inaction by the institutions/organizations concerned

## **PLENARY SESSION 1.1 - ECONOMIC IMPACT OF DROUGHT AND FLOODS**

- Interlude – Makueni tree planting session reminded the participants of the country's target to attain 10% tree cover.

Key Note Address on the Macroeconomic Costs of Droughts and Floods: Kenya Experience (*Julius Muia, PhD, PS Planning*)

Started by giving comments before reading the speech.

- He referred to the National Drought Management Authority (NDMA) message from previous event that the cost of dealing with disaster is more than seven (7) times the cost of preventing.
- He reiterated that devolution is expected to play key role in disaster and floods emergencies management.
- The PS noted that V2030 flagships (such as Galana Kulalu project which targets irrigation) are in line with disaster and floods emergencies management and building resilience.
- The government has various other programmes such as supply of seeds to farmers, especially drought resistant seeds.
- Implementation rate on ending disaster and floods emergencies was rated the least, with level of performance 32%, in the review of the implementation of V2030. However, the country recognised droughts and floods as a key sector, which has been introduced in MTPII as well as climate change as a sector in MTPIII
- The PS indicated that droughts and floods as well as famine were intertwined in culture and tradition, such as in naming children after episodes of famine.
- The PS commended AFC, KIPPRA, NDMA for such a timely forum. World Environment Day offers opportunity to reflect on climate change especially on floods and drought; while monitoring the intensity and frequency of D&F; while preparing to reduce their effects on livelihoods, agriculture and the value chain of agriculture products. Agriculture contribute about ¼ of GDP.
- The PS further noted that V2030 identifies ending droughts and emergencies; MTPII and MTPIII, as new sector. In this plan, it is noted that food security relies on drought management. In the SDG13 climate action, resilience and adaptive capacity are expected of all players. The full drought and floods cycle shows that the country continuous to experience the effects throughout.
- The PS indicated that in the 2011 drought, 3.7 million Kenyans were affected; and 0.7-1% reduction in GDP was experienced.

- In 2016, the National Emergency Fund was created; 16 counties affected; shock on GDP growth; 2.7 million affected. Dykes affected; displaced 25,000 people.
- In 2017 Kwale, Mombasa, Garissa, Taita Taveta counties were affected.
- Droughts and floods destroy infrastructure; bridges and roads; and lead to loss of lives, e.g. in Solai dam. They set in motion complex chain of events affecting individuals, HH and economy; human life; livestock; school, electricity, water reticulation, and the economic loss directly and indirectly. The country depends on rain fed agriculture.
- The PS noted that macroeconomic costs of droughts and floods emanate from reduction in productivity in agriculture and agro-processing. There are also fiscal implications; some mitigation measures include duty free imports on staples, maize subsidy and strategic maize reserves; donations exempted from income tax. There are also revenue effects.
- The government has various programmes which aim at mitigation on the effects of droughts and floods. For instance, livestock off-take through Kenya Meat Commission; National Emergency Fund to facilitate timely response, common basket for mitigation, capacity development on drought management; national contingency fund; Large scale dams and Institutions; NDMA, NDOC, NDMU. Framework on disaster management being developed.
- The PS informed participants that County Governments in their CIDP are required to include disaster and floods management plans. Further the government will seek to implement programmes sensitive to SDGs, UNFCCC, Sendai Framework Disaster Risk Management and climate change.
- Players will need to control environmental degradation because of the effects on disasters of drought and floods

**Building in the Impacts of Drought and Floods into the Macroeconomic Framework**  
(Dr Naomi Mathenge, Policy Analyst KIPPRA)

**Highlights of the Presentation**

- Some sectors such as agriculture, electricity and manufacturing are affected heavily, thus their contribution to GDP. Droughts and floods disrupt production and lead to loss in income. Growth in agriculture slows down in times of droughts and floods. There is a positive correlation between episodes of drought and performance in agriculture (both crops and livestock). GDP slows down by over 2% as a result.
- Electricity generation declines due to overreliance on hydro power and thus the need to invest more intensively in renewable energy such as wind, solar.
- Manufacturing growth reduces due to increase in energy costs and raw materials
- Affects country's Debt/GDP ratio, fiscal deficit/GDP, current account balance/GDP
- Public expenditures go up' due to temporary measures; tax revenue go down; increase in borrowing.
- Droughts and floods reduce exports and increases imports; current account balance becomes worse (in deficit). Exchange rate – negatively affected

**Solutions:**

- Diversify agriculture and electricity production. Develop more resilient infrastructure

Implications of drought and floods on cost of doing business

- Agriculture is one of the 14 sectors under KAM; 45% manufacture is agro-based.
- Building resilience will require more durable roads, sustainable harvesting of forests, food storage, reduction of post-harvest losses (by for example turning to dry milk powder).
- Early warning systems are critical for manufacturing to build resilience.
- Energy sector affects manufacturing since some manufacturing sub-sectors are energy intensive with 60% of power as input, e.g. in cement production.
- Kenya products are 12% off the international price competitiveness due to energy costs
- Energy Bill targeting net metering and renewable energy in wind and solar, is welcome.
- Partnership management are important in collaborative programmes such as in handling drought emergencies. KAM participated in the subsidy programme, millers worked together with government; 3.8 billion unpaid debt; prompt payment, lasting relationships

#### **Panellists comments**

- V2030 reiterated that the fact that 40% of manufacturing is agro-based manufacturing and the vulnerability of agriculture and electricity provides a scenario that calls for action.
- Institute of Economic Affairs (IEA): There are overlapping risks; management of risks; harvest effects, industry effects and political risks. Drought and floods reinforce the political environment.
- KenGen; Weather forecasts can be ignored at own risk; have energy mix; control power rationing; KMD gets information to KenGen in advance to manage electricity production. There has been consistence in early warning systems (EWS). Multi-purpose water harvesting; Cost of electricity being moderated not to bite manufacturing. Stakeholders' engagement for information sharing.

#### **Questions and Answers**

- Can Kenya introduce price control measures? How can Kenya build resilience around oil prices?

#### **Answers**

- KIPPRA: On controlling the shocks of price oils: This is a case of imported inflation for a small economy. On price controls, prices are derived from cost of production thus controls will affect investment and production. Kenya just absorbs the external shocks. Maybe exportation of oil can improve the situation on price stabilization.
- PS Planning – Kenya is a market based economy; regulation distorts production and distribution processes. Instead of price controls, we need to look at prevention and

resilience. On imports, Kenya is a net importer of food; maize wheat etc. We need to grow enough food. Benefits of drought are small than the negative effects.

- KAM – Tax rebates on wheat, solar energy can stabilize prices; illicit trade discourages investment, the government should act on illicit trade.
- IEA: Price controls; difficult to capture price points. Government attempts have been unsuccessful with rationing for low maize flour being frustrated by market dynamics.

### Question

The analysis on effect of drought and floods need to incorporate positive effects on horticulture.

### Answers

- PS Planning: There is need for balanced analysis since some sectors perform better during drought, such as horticulture, but the net effect of the entire effect of drought is negative.

Closing remarks:

- V2030: About 80% of Kenya is ASAL; there are crops which can be grown in these areas. Irrigation is key. Adaptation plan for the shocks are necessary. Macroeconomic level risks through public goods are temporary measures; flood control and infrastructure development can ensure less effects.
- KenGen: Renewable energy is the plan; but uptake is low.
- KAM – invest in research and development; Implementation of findings. E.g. crops or livestock which are resistance. Invest in EWS; environmental security. Create buffer stocks; storage and reserves. Build resilient infrastructure – Sustainable infrastructure. Reduce cost of production through incentives and low cost electricity.
- KIPPRA: Concentrate in the Big 4 Agenda; Subsidy can be reduced by reducing vulnerability to droughts and floods.
- PS Planning – Information is power; find ways of disseminating the information in a sustainable way to individuals, institutions, and county governments and at national level. Business of business is business. KEPSA and KAM should tap on business opportunities that can exploit incidences of droughts and floods; diversification of food crops and production technology.

*Chair: Shah*

*Moderator: Oyier*

*Panellists: Dr Julius Muia, PhD – PS Planning; Dr Naomi Mathenge, PhD - KIPPRA; Job Wanjohi - KAM; KENGEN, Kwame Owino - IEA, Veronica Okoth - V2030.*

*Rapporteurs: Victor Mose - KIPPRA*

## **PLENARY SESSION 1.2: SOCIAL IMPACT OF DROUGHTS AND FLOODS**

**Title:** Show casing effects of droughts and floods on social lives: Experiences from Mitito Andei Primary School and Kano plains.

### **a) Experiences from Mitito Andei Primary School**

**Title of presenter:** Winfred Sila, Head Teacher, Mtito Andei Primary School, Kibwezi sub-county, Makueni County.

- School started in 1994, borders Nairobi and Machakos Counties
- School experience interference by wild animals such as monkeys and birds.

### 1. Objectives of the presentation

- Highlight effects of droughts and floods on Mtito Andei Primary School community.

### 2. Main highlights of the presentation:

#### a) Droughts affect schooling as follows:

- Water supply, food supply, pupils go hungry, lack concentration and lead to poor academic performance.
- Hygiene-life threatening disease due to scarcity of water; communities turn to untreated water sources; children drink water without thinking about its sources
- When families relocate to areas with better supply of water, children drop out of school.

#### Solutions to droughts management:

- Planting trees and increase forest coverage
- Drought resistant crops
- Digging water
- Sustainable waste management in schools
- Strengthen school feeding programmes to retain children in school
- Harvesting water system in schools
- Diversification of livelihood beyond those that are rain fed
- Promote safe healthy schools: which entails safety while in school, health and nutrition, community partnerships and linkages with community

#### Effects of floods in schooling

- Damaged Infrastructure,
- water borne disease,
- water pollution

#### How to address floods

- More flood barriers along rivers
- Better awareness systems
- Building dams and water reservoir
- Maintenance to dams and water reservoirs
- Map flood prone areas and put infrastructure in place

#### Main recommendations

- Take it as a personal initiative to mitigate droughts and floods; take up small steps like tree planting and trapping rain water
- Conserve the environment
- Turn challenges into opportunities, since fighting droughts and floods is not without challenges

#### Experiences from Kano plains

**Presenter:** Jane Anyango Andika, Makina sub-location, Nyando, Kisumu County

Jane Andika of **Serikali Saidia** fames also illuminated the conference with her narration of the effects of floods in the Nyando zone.

#### Objectives of the presentation

- Personified case of a Kenyan's encounter with floods

#### Highlights:

- A preview of a video of Anyango encounter with floods and her family in 2011; she is seen appealing to the government for rescue when her home had been swept with floods.

- She recalls the day flooding took place at her home: in 2011/2012. She was at her home, at 3pm, a dyke constructed by the government was outpowered by the floods, and it started flooding at her homestead. Her home was being swept away. Everything was destroyed. Maize was in the farm, home and belonging completely swept. Children did not return home due to floods. Did not know where the husband had fled to, nostalgically she recalled ... *'sikuona bwana karibu' .... 'niliita jirani wakakataa' ..... 'hata watoto hakurudi nyumbani sababu hakuna mahali pa kupitia'*.
- She noted that government always asks communities to relocate during flooding but it is difficult to move from a home before the floods sweep your home.
- On recovery, after flooding: Got assistance from Red Cross, chief informant of relief, food and household commodities
- No help was given to rebuild her home and prepare her land.

### **Recommendations**

- Increase sedimentation of River Nyando and increase in width span
- Reconstruction of dykes
- National government should provide insurance to people affected by floods to reconstruct their lives.

### **GENDER AND ECONOMIC LIVELIHOODS**

**Presenter:** Dr Michele Leone (Senior Programme Officer, IDRC Climate Change Programme)

### **Highlights**

- Women and girls are uniquely affected by issues of climate change
- The way people experience and respond to risk varies with factors such as gender, size of family, who heads the households
- Programmes have not been measuring vulnerability across gender groups and social diversity
- Decisions on how to adapt are not dependent on how vulnerable you are but how you consider your vulnerability
- It is necessary to start challenging some assumptions around vulnerability including:
  - ✓ Women are more vulnerable than men,
  - ✓ Differentiate of livelihood: -too much diversification can be overwhelming for some gender group like women. More tasks are added to them.
  - ✓ Migration (internal) as a coping capacity, households have varying dynamics that lead to migration eg Women and children started migrating need for targeted services
- Data collection on droughts and floods need to be disaggregated to understand diverse factors

### **EFFECTS OF DROUGHTS AND FLOODS ON THE WELLBEING OF CHILDREN, THE ELDERLY, AND VULNERABLE GROUPS**

**Presenter:** Mr Patrick, Lavanghomme, UNICEF

### **Highlights**

- Natural disasters impact differently on different population groups

- Level of deprivation of the children, by end of 2017, 1.6 million children were food insecure.
- Nairobi has high cases of malnourished children
- Women and children are more vulnerable in times of droughts and floods since they receive less resources; women consume even less and leave to children to eat
- Children should also make decision in terms of what they would prefer to eat in times of droughts and floods
- Children's schools displaced in Nyakach
- Over 1,000 people displaced in Tana River, the cholera treatment centres already set up have turned out to be cholera transmission centre (children more vulnerable)
- 146,170 children displaced in ongoing- 2018 floods
- Over 700 schools closed due to flooding
- Schools act as points to receive IDPs

#### **Recommendations**

- Deepen system strengthening by government

### **LEARNING DRAWN FROM A PILOT STUDY ON DROUGHTS AND FLOODS**

**Presenter:** Sharon Kibor (Programmes Officer, Christian Aid)

#### **Highlights**

- Community indicated that they would like to be considered as the first responders
- Funds allocated for response, 16% were spent on livelihood related interventions, 25% health and 5%-conflict
- Developed an approach to design a response to
- Building capacity of communities to write proposals-used existing groups
- Demand lead response-6 local organisations worked with communities on how they wanted the response to look like.
- Communities expressed satisfaction on the funds were spent-

#### **Recommendations**

- Mainstream the communities voice in disaster response and

### **ISSUES ARISING DURING PLENARY DISCUSSION – ALL PRESENTORS ON SOCIAL IMPACTS**

#### **Questions by the Chair/session moderator** (*Prof. Nelson Wawire*)

Question 1: Do floods and droughts affect women and men differently?

- The prevailing school of thought is that women are more vulnerable than men
- Depends on when the disaster is occurring (if at night-women and children are more vulnerable like the case of Solai where more women and children were affected)

Question 2: Do women and men have different experiences which are overlooked in disasters management?

- There some uniqueness in each gender-capitalise on each strength
- Depends on time of emergencies-how well you are equipped and resources involved

Question 3: How does disasters affect the most vulnerable-poor, children, elderly, and persons with disability?

- Natural disasters affect the poor and the marginalised-those with disability mobility is hampered, children accessibility to schools affected, the elderly suffer most and die-during drought they lack food.

- Case of a person with disability who lost his job for failing to go to work due to difficulties in accessibility (ongoing floods)

Question 4: How are the needs of vulnerable groups affected in preparedness?

- Vulnerable groups not disaggregated from the rest in preparedness.
- Need to build capacity of communities to be able to prepare vulnerable groups for preparedness

#### **Questions from the floor:**

Question 1: How does Christian Aid (international NGO) build capacity within marginalised group minority? Hoping by building capacity of local community as first responders, they will integrate needs of minority group

Question 2: How is the capacity of the youth as first responders be strengthened?

- Youths join disaster organisation like Red Cross, St. Johns where their capacity can be strengthened

Question 3: What is being done to children to empower children on how to adapt?

- Population health and environment being skilled up by the government to build the capacity of policy makers programme implementers to implementing adoptive measures-population growth is what is leading to encroachment of forest, game parks/reserves.

Question 4: Is there any research done on issues of climate change and disability

- Not yet done, new research should be done. Even numbers are not clear, estimated there are 6.6 million persons with disability

#### **Recommendation**

- Communities require capacity building and integration in disaster management-Solai Dam-community responded first; Embrace the bottom up approach, Take the lessons from conference to communities

#### **BAG 1.1 (Group 1A)**

**Why do Droughts and Floods scale up to emergencies?** Victor Ongoma PhD, South Eastern Kenya University (SEKU)

Chair: NDMA

#### **Objectives of the presentation were to:**

- Discuss both rainfall and temperature variability
- Discuss the significant change in indicators in East Africa region
- Highlight the current rainfall and temperature seasonality and trends
- Study relevance and problem statement

#### **Highlights**

- Significant observed decrease in rainfall and temperature variability over East Africa region based on CRU data (1951-2010)
- Great shift in temperature distribution in the same period
- Low rainfall being experience in MAM and high temperatures in JJA in the period of 1951-2010 (CRU data)

- The CMIP model's performance do overestimate and also underestimate the rainfall in the months of MAM
- Increased warming trend in comparison to the earlier years from 1950 backwards
- Projections show positive times ahead based on the CRU model on rain but anomalies in temperature
- The possibility of UNFCCC's target to limit temp. increase within 1.5 - 2 °C above pre-industrial levels

#### **Plenary discussion**

- No clear address to the topic matter but great emphasis on the review of the laid down policies or rather strategies on the way of doing things
- Address the issues of climate change and dig deeper on the topic matter for greater insights in to the subject matter
- Prioritize the aspect of planning as a major milestone to realization the stated goals
- Establish the meaning and difference between climate change and climate variability
- Aspect of a robust coordination and monitoring on the current happenings on the subject matter
- Institutional collaboration is also key

#### **Way forward**

- Adaption of relevant models that are regional specific for regional climate modelling
- The models used should be cautiously picked regarding rainfall projection
- Diagnostics studies on GCM performance that give in-depth understanding to the subject matter
- Short time modeling is key to more accurate results that region based
- Multidiscipline collaboration in addressing the adverse climate change
- New ways of addressing climate change should be adapted.

### **BAG 1.2 (Group 1B): Climate Hazards and Resource Competition: A Catalyst for Conflicts**

**Presentation by Joshua Laichena, Policy Analyst, KIPPRA**

#### **Background:**

- Climate hazards such as drought identified as the major cause of resource-based conflict.
- Episodes of droughts occurrence reduced from a period of 10 years in the 1980s to almost a yearly occurrence.
- Areas mainly affected are in the arid and semi-arid regions. These areas are low in water, arable land, forests and pasture and receive very low rainfall.
- Grazing land and water have dwindled, reducing the pasture available for livestock.

- Due to drought, Incidences of resource based conflicts increased in frequency and magnitude.

### Research Objectives

- Identify perceived linkages between Resource competition, drought and conflict.
- Identify main actors in resolution of resource related conflicts.
- Establish counties prone to resource based conflicts as a result of climate hazards.

### Past Policy Actions

- **Sessional Paper No. 10 of 1965**, titled, "*African Socialism and its Application to Development in Kenya*"
- **Economic Recovery Strategy** for Wealth and Employment Creation 2003 – 2007.
- **Agenda 4 of the 2008** National Accord, that recognized both the threat posed by regional inequality and the potential that exists in all peoples and production systems was developed.
- **Sessional Paper No. 8 of 2012** on the National Policy for the Sustainable Development of Northern Kenya and other Arid Lands.
- The **outcome** of these efforts and commitments have **not been effective** in tackling inequalities and **reducing resource based conflicts**

### Key Messages

- Conflicts over **water points increases** during droughts.
- Surprisingly, there is **no change** in conflict incidences **over pasture points, arable lands, crop destructions** and **loss of human** lives.
- **Conflicts over livestock theft** increases during droughts?
- **County analysis** shows different scenarios.
- **Religious Leaders and village elders** are instrumental in resolving drought related conflicts arising from: Water point use and grazing/pasture points; Loss of human and livestock lives; Use of arable lands and crop destruction
- **CBO's and NGO's** are key in resolving conflicts over livestock theft during floods
- **County governments** are useful in resolving conflicts over livestock theft and use of arable lands during droughts and floods
- **Marsabit tops** the list with incidences of **water point conflicts** and **crop destruction**
- **Samburu is top** on the list with incidences of conflicts over **arable lands** and **loss of human lives**
- **Kitui is on top** of the list with incidences of **pasture/grazing lands, livestock theft** and **livestock loss** during droughts
- The **top 5 counties** which experience conflicts over resources are **Samburu, Isiolo, Kitui, Marsabit and Laikipia**.
- **Other counties** among **top 10** includes **Turkana, Baringo, Tana River and Garissa**.

### Conclusions

- **Climate hazards** such as drought is the **main trigger** of resource based conflict.
- As the **underlying causes of conflicts become complex** and multi-dimensional, ranging from environmental socio-cultural and economic factors, the **conflicts are likely to escalate** into violent conflicts.
- The resulting situation will call for **paradigm shift** in tackling resource-based conflicts.
- Droughts, floods and conflicts are **national problems** and should be the subject of serious discussions and actions.

### **Recommendations**

- Have a **national dialogue** involving all stakeholders to interrogate **why previous measures** to eradicate conflicts over resources have not worked while building on **what has worked** to ensure development.
- Ensure **climate change adaptation** is treated as an integral part of **conflict prevention** in part because climate change impacts will significantly increase the likelihood of resource conflict.
- The proposal for **creation of Ward development** budget be supported.
- **Peace building**: current effort by the head of state to bring all communities together through peace building, aimed at ending violence experienced every election cycle is commendable and should be supported by all.

### **BAG 1.3 (Group 1C): Social Costs of Droughts and Floods? Venue: Tsavo**

**Topic: Housing Scheme for Residents: The Centre Nerve of Disaster Preparedness in the ASALs, Kenya** (*Dr Ben Musonye Akala, Lecturer, Department of Environmental Science, School of Environment and Earth Science Maseno University, Kisumu Kenya*)

Moderator: Paul Obunde, National Droughts Management Authority (NDMA)

#### **Introduction**

The study looked at the current housing patterns for the ASAL areas; for example they have temporary housing, which are ancient, have no windows for air circulation and prone to destruction by wind or floods, while the proposed housing plan was to have modern permanent housing with a kitchen, a storage area recreation facility, good ventilation and which cannot be blow by winds and formulate criteria for constructing houses for ASAL inhabitants.

#### **The main objectives of the study**

The objectives of the study were to determine the current and propose housing for ASALs people; to examine of housing as a buffer to drought-floods disaster cycle in the ASALs and to formulates criteria constructing houses for ASALs inhabitants.

The study had the following conclusions:

- ASALs people are most vulnerable to drought-flood disasters
- ASALs housing is contrary to the Habitat II agenda
- ASALs residents deserve descent housing
- The drought-floods cycle engulf humanity in the ASALs
- Drought-floods disasters retards disaster preparedness
- Criteria for ASALs housing programme is feasible
- Housing strengthen drought-flood resilience

#### **Recommendations**

- Integrate housing scheme in drought-floods resilience the goals
- Big Four Action Plan (2) to prioritise ASALs
- Redefine housing to include neighbourhoods
- Establish "The ASALs Habitat II" to champion ASALs housing

- Engagement of psychologists and sociologists
- Locate residential areas on elevated grounds
- Provide incentives in ASALs housing
- Emphasise community participation

### **Questions raised during the discussion (issues arising from the plenary)**

- a) Dr Edward Kusewa, of St Pauls University Department of IT and Economics commented that there was need for the communities to adopt new lifestyle changes that can accommodate the proposed housing plans. He posed a question on the issue about land use whereby in most ASALs areas land is communally owned and how can the proposed housing plan be implemented with the current land use policies in ASAL areas.

Dr Ben Musonye Akala (the presenter) responded by saying the government can redefine policies on land use to accommodate the ASAL areas where settlement areas can be created for housing. He emphasized the need to accommodate the proposed housing.

- b) Sharon Kibor, from Christian Aid having worked in ASAL areas for more than 10 years in Disaster Risk Rescue and Climate Change Adaptation projects posed a question on how the proposed housing plan will mitigate the challenges of culture and traditions that are heavily practised in those areas.

Dr Ben Musonye Akala responded that if change is good why not adopt it; he emphasized that education has enlightened us that you adopt what is good and discard the rest, cattle rustling, resource conflict, refusal to attend to maternal health are some of the cultures and traditions of ASAL communities which does not do good to them and only good cultures should be adopted such as the proposed housing which will save them from floods and droughts.

- c) Prof Nelson Wawire of Kenyatta University challenged the presenter that most of the ASAL areas are flat thus no possibility of moving to higher grounds.

The presenter pointed out that man-made raised grounds less prone to flooding, can be created to accommodate the proposed housing nothing is impossible to man.

The presenter also pointed out that good physical and environmental planning is important to mitigate floods. In Nairobi, most of the land surfaces is carpeted with concrete which does not allow water to flow to the ground and because of poor drainage the floods are common. Policies needs to be put in place to have every house based on its surface areas to construct a storage tank to collect water to prevent loss of water which can result to flooding.

The presenter also pointed out that Makueni county has embarked on replacing traditional temporary grass thatched housing which are prone to flooding with semi- permanent iron sheets roofed housed which can withstand destruction caused by floods.

### **Way forward**

The presenter concluded that ASALs are marginalized and vulnerable to droughts and floods and there is need for better housing for them that will save them from floods. This can be undertaken at all the levels of government; the national government can come up with the infrastructure while the county government does the physical and environment planning while the community to do the actual construction.

**BAG 1.4 (Group 1D) Gender issues with drought and floods presented on 5<sup>th</sup> June, 2018 at 4-5 pm.**

**Title:** Changing gender roles in droughts and floods situation in Kenya: Paul Odhiambo, Policy Analyst in Trade and Foreign Policy Department in KIPPRA.

**Introduction**

- According to Thomas Sankara, inequality can be done away only by establishing a new society, where men and women will enjoy equal rights, resulting from an upheaval in the means of production and in all social relations.
- Gender deals with men, women, boys and girls in the society. This relaxes the assumption that gender deals with only women and girls.
- Gender issues are addressed in collaboration with other factors such as age, location among others and not independently.

**Highlights**

- Droughts and floods have increasingly intensified in Kenya in recent decades subsequently affecting a sizeable segment of the country's population.
- Periodic floods often lead to displacement of households and wreak havoc on infrastructure, farms and disrupt social and economic activities.
- In addition, many women and girls are affected due to differing gender roles, limited access and control to resources, unequal power gender relations and discriminations.

**Objectives of the Presentation**

- Examining the changing roles of men, women, girls and boys in mitigating the effects of droughts and floods
- Specifically, to assess how differing gender roles affect coping mechanisms and adaptation strategies

**Key Findings**

- The study was done in 27 counties and sampled men, women, girls and boys of different ages.
- Majority of the households sampled were headed by men and had an implication on terms of decision making.
- Female-headed households have been increasing among pastoral communities. however, women participation in decision making and resource use, allocation, investment and planning is still low.
- Generally, women are still in charge of reproductive roles including food preparation, nutrition; child care, caring of the sick and the elderly.
- It was established that men dominate economic activities, formal employment, ownership of family business, livestock and control over family agricultural holding.
- However, drought and flood occurrences have contributed to changing gender roles in disaster prone counties as women seek alternative livelihoods means - running small business, casual labour, selling animal and farm produce.

**Coping mechanisms from gender perspective**

- Migration/relocation, when men move in search of pasture for the livestock, women, boys and girls are left by themselves and this leaves most of the responsibilities to women.
- Livelihood diversification; this affects how various persons play their respective roles.
- Modification of food consumption affects eating habits and households are forced to change their feeding habits to mitigate the situation.
- Sale of households' property has future implications given that households are left without assets to cushion future eventualities.

- Engaging in extra income generating activities.
- Reduced expenditure on households' requirements.
- Distribution of family members elsewhere.
- Receiving support from government, relief agencies.

### **Recommendations**

- Mainstreaming gender concerns in policies and strategies that enhance disaster management systems at both levels of government. This is critical in addressing interests, needs and experiences of women, men, boys and girls in drought and floods situation.
- Conduct gender sensitive research to clearly understand gender dynamics. The findings of such studies could be critical in advancing gender responsive coping mechanisms and adaptation strategies.
- Capacity building should be geared towards enhancing not only practical gender needs but also strategic genders needs.

### **Comments from the plenary**

George Kimani from the National Gender and Equality Commission noted the following:

- Gender mainstreaming is practiced and effected to reduce vulnerability. It affects both men and women in the society.
- Men and women are homogenous. Women in urban areas and those in the rural areas face different vulnerabilities. In most instances, women in rural areas are the most affected when there is drought or flood disasters, given that they face difficulties in finding food for their children.
- In Kenya, for instance, the Disaster Risk Management states that the committee must have at least 30% of women representation. However, due to cultural norms, the women may not be given an opportunity to contribute in the discussions. They are sidelined when it comes to decision making.

### **Closing remarks**

There is need for all of us as a country to look at gender mainstreaming in a deeper perspective. At the same time, it is important to look at the policies that empower both men and women