**FORK TO FARM DIALOGUES IN RABAI COMMUNITY REPORT**

**1.0 Introduction**

The food policy dialogues were held between 7th September and 6th October 2021, and were attended by indigenous farmers from Rabai community, Kaya elders, village elders, area chiefs as well as policy makers from National Museums of Kenya, County departments of Agriculture from Mombasa and Kilifi Counties, Department of Environment from Kilifi County, as well as representatives from Kenya Forestry Research Institute who facilitated the policy dialogue. About 30 participants attended the policy dialogues.

Dr. Chemuku Wekesa, the project Coordinator welcomed members to the policy dialogues. He introduced the policy dialogues in the context of climate change and Covid-19. He emphasized that the fork to farm dialogues is an initiative of Nourish Scotland which provide a platform for advancing the voice of small-scale farmers. He highlighted the agenda of the dialogues as outlined below.

**1.1 Agenda for the discussions**

The discussions revolved around seven agenda items as outlined below;

1. Sharing of indigenous food production models by Rabai community.
2. Highlighting of the benefits of indigenous vis a vis conventional farming methods by the Rabai community.
3. Explanation of the concept of community seed bank by members of Rabai cultural village
4. Showcasing of the processes involved in preparation of traditional cuisines by Rabai community.
5. Discussions on the role of indigenous food systems in coping with the COVID-19 pandemic and climate change mitigation.
6. Discussions on how to seek support and commitment from governments to create enabling policies that support local farmers and recognizes the concept of Biocultural Heritage Territory (BCHT) and its critical role in supporting local food systems.
7. Exploring how governments can work together with indigenous communities to scale up BCHT as an approach for managing community landscapes that are rich in agrobiodiversity and are centres of endemism for indigenous foods.

The participants who were drawn fromCounty governments of Mombasa and Kilifi’s departments of Agriculture and Environment, National Museums of Kenya, KEFRI, kaya elders and indigenous farmers from Rabai communitymade their contributions as follows.

**1.1.1 Background to the food policy dialogue by KEFRI**

Dr. Wekesa highlighted that:

* Rabai landscape has diverse food plants hence the community play a critical role in conserving the rich agrobiodiversity.
* The Rabai cultural landscape faces threats due to its proximity to Mombasa City.
* The landscape also faces threats from climate change which is increasingly becoming a threat to indigenous food systems.
* The concept of Biocultural Heritage Territory is being advanced in Rabai cultural landscape to help in integrated management of biological resources and cultural heritage of the Rabai community.
* Role of indigenous food systems in climate resilience is key.
* The UN Food summit held every 5 years is heavily focused on large scale commercial farmers; small scale farmers have largely been neglected.
* Fork to farm dialogues aim at providing a platform for advancing the voice of small-scale farmers. Financial support provided by Nourish Scotland to support policy dialogues with indigenous farming communities.
* Key messages from the dialogues will be presented at COP 26.

**1.1.2 National Museums of Kenya (NMK)**

* The Curator, Rabai Museum emphasized the need to enact enabling policies to address population growth and climate change which have significant negative impacts on local food systems.
* He noted that climate change is a major challenge to local farming systems. Moreover,

food preservation is a major challenge and often leads to excessive food losses for staple crops such as traditional vegetables and cassava. Further, traditional Knowledge on food preservation has been lost and should be revived.

* Research findings should be widely disseminated in a language easily understood by locals to facilitate uptake.
* Research should be community led with focus on community needs. Moreover, community members who have rich traditional knowledge in critical areas such as ethnobotany and herbal medicine should be actively involved in the research process for effective implementation of integrated landscape management approaches.
* Governments (both national and county) should ensure knowledge transmission to grassroot communities who are the largest audience for transformative change.
* Collaboration between government institutions, NGOs and Community-Based Organizations is critical in generating and disseminating knowledge for climate change adaptation and mitigation.
* Some tree species when leaves are burned into ash and applied to crops, it prevents pests and diseases.
* Support (both financial and capacity building) to community-based institutions such as Kaya Council of elders is critical for successful implementation of integrated landscape management.

**1.2 County Departments of Agriculture, Mombasa and Kilifi Counties**

**1.2.1 Department of Agriculture, County Government of Kilifi**

* The County Agricultural officers noted a major decline in agricultural productivity from an average of 40 bags per acre in 1963 to 28 bags currently after heavy fertilization.
* They noted that over-use of synthetic fertilizers has altered soil pH leading to reduced soil fertility and decline in agricultural productivity.
* Poor farming practices such as slash and burn method of land preparation also affects soil health leading to low agricultural productivity.
* Conservation tillage and crop rotation were encouraged for enhanced soil fertility.
* Climate change has heavily affected agricultural production, and drought has currently been declared as a natural disaster by the Government of Kenya.

**1.2.2 Department of Agriculture, Mombasa City County**

* Climate change driven by the people-human activities contributing to climate change.
* Healthy food/nutritious food key for humanity.
* Emphasis made on the need to prioritize food preference.
* Land becoming smaller in Mombasa. Agriculture department coming up with alternative ways of food production.
* Farmers using sacks filled with soil to grow vegetables.
* The concept of kitchen gardens being advanced in peri-urban areas where agricultural land is limited.
* Water is a challenge to crop farming, but the county promoting climate smart farming.
* Farmers producing for local markets (Kongowea) especially vegetables.
* Water pans and boreholes (44) have been sunk for water provision to support farming.
* Zai pits technology being used for dry areas.
* Availability of water the greatest problem to Rabai community-lack of constant water supply and erratic rainfall patterns.
* Community should take lead on the initiatives such as ensuring 10% tree cover on farmlands aimed at improving the management of the landscape.

**1.2.2.1 Challenge in Mombasa in achieving Sustainable food systems**

* County has a program to train farmers on climate smart technologies - but adoption rate is still low.
* Land tenure not clear - water pan was dug but later on the owner reclaimed the site leading to loss of water by the community. Water storage tanks for water storage at community level a challenge due to lack of funds.
* Infrastructure development is another challenge-farmlands being converted to urban centres.
* Low youth involvement in agricultural activities due to their negative attitude towards farming – youth grants are being channeled to support agribusiness projects amongst youth.
* The County Agricultural steering committee has a youth representative to advocate for the agenda of the youth and enhance their participation in agricultural activities.

However, there is County agricultural steering committee to tackle most of these challenges.

**1.3 Covid-19 and food challenges**

* Population get food from the markets.
* Delayed food supplies due to Covid-19 – hence access to food has reduced.
* Reduced availability of food has made food very expensive.
* Loss of jobs/income has made food less accessible to majority of the population due diminished purchasing power.

**1.4 Mitigation measures for drought disaster**

* Government support through relief food.
* Agriculture officers provide technical/ advisory services.
* Soil testing is key to guide farmers on fertilizer application.
* Rainfall calendar difficult to know due to climate change; crop diversification important to mitigate against poor unpredictable rainfall.
* Preserve TK but also allow science to thrive – combining science and TK for sustainable food systems is key.
* Farmers urged to diversify crops grown to include cowpeas and cassava among others which are drought tolerant to avert climate-related disasters and food insecurity.
* Need for land use planning to secure land for agricultural production

**1.5 Cross-cutting issues in Departments of Agriculture, Mombasa and Kilifi Counties**

* Devolved governance system brought about a shift in policy framework. Prior to devolved governance system in 2013, there were District Agriculture Boards (DAB) and Provincial Agricultural Board (PAB) that used to develop regulations from the grassroot level and feed into the Central Agricultural Board at the National level. These Boards developed by laws on natural resource/agricultural management such as compensation for livestock damage. Now this has stopped, and the roles of Agricultural Boards taken over by Members of County Assembly (MCAs) who make laws. The current framework of MCAs is however not participatory.
* Climate change has had significant negative impacts on both the environment and natural resources. For instance, rivers that were permanent are now seasonal and associated vegetation has largely been lost. Farming activities and crop productivity are also declining.
* Adaptation to climate change is key to the community. Diversification of crops was emphasized as an adaptation strategy. Members of the community were encouraged to grow a combination of short, medium and long-term crops for adaptation to climate change.
* There is need to address cases of conflicts between crop farmers and livestock keepers which are prevalent in Malindi, Ganze and Rabai Sub-Counties to ensure harmonious co-existence amongst members of the community.
* Conservation tillage was also emphasized; traditional tillage has minimum disturbance of the soil hence should be encouraged.
* Members of the community were encouraged to maintain 10% of tree cover on their land to address climate change, though enforcement remains a challenge. It was further emphasized that Land with >35% slope should not be cultivated but planted with trees.
* Soil and water conservation measures should be entrenched in agricultural policies. Water conservation technologies such as construction of dams and reservoirs should also be prioritized.
* High value orphan crops should be revitalized because they don’t require a lot of water to be cultivated e.g., cassava, sweet potato and cowpeas. Policies should also focus on promotion/provision of incentives to encourage farmers to cultivate high value orphaned crops. For instance, in Cameroon/Democratic Republic of Congo, all bakeries must utilize 30% of cassava flour in making bread. This creates market for cassava and encourages farmers to grow it for both subsistence and commercial purposes.
* Human activities were mentioned as the biggest threat to environmental conservation. Thus, zonation of various land uses was encouraged to avert encroachment of natural resources and agricultural lands.
* The County Agriculture Steering Committee (CASC) ratifies all agricultural related activities in the counties. However, the committee has not been institutionalized through enactment of a law most county assemblies. In Kenya, only Kajiado and Trans Nzoia counties have institutionalized their CASC for effective implementation of agricultural related activities. Yet all agricultural related projects should be passed through CASC for approval, resource mobilization and allocation, and M&E.
* Quarries are eating into agricultural land compromising food security.
* Community participation should be ensured prior to establishment of industries to avoid encroachment of agricultural land. Zonation of land for various uses supported with law could also address this problem.
* Good working relationship and collaboration between government agencies and local communities in enacting laws and policies was emphasized.
* Industrialization for job creation was mentioned as a major driver of climate change in Rabai sub-county.
* Policy requires change in our practices e.g. alternative energy sources/clean energy should be adopted to replace fuel wood. Policies should also stimulate planting of indigenous trees for biodiversity conservation.
* Policy on integrated agriculture approach is needed to maximize gains for both environmental conservation and food security.
* Awareness creation on existing laws and policies, as well as the importance of integrated landscape management should be enhanced amongst members of the local community.
* There is need to focus on development of alternative livelihoods/income creation to reduce exploitation pressure on the environment. Examples include cultural tourism.
* Land use management/planning was emphasized. Restoration of degraded sites should also be ensured. Examples include reclamation of quarries and rehabilitation of deforested areas.
* The importance of a seed bank for biodiversity conservation was emphasized
* It was emphasized that although there are cross-cutting policies, there is need to enact area-specific regulations targeting unique areas such as protection of community cultural landscapes such as the Rabai cultural landscape.

**1.6 Rabai community**

* Members of the community emphasized that crop diversification is a major practice in the community; 3-5 crops (cassava, sweet potatoes, maize, cowpeas, green grams) are generally planted in farms. Crop farming is mainly undertaken for subsistence.
* Traditional crops preferred because they are drought tolerant and can be stored/preserved for a long time.
* The farms are small (0.25 – 0.5 acres is average land size per household). Cassava is resilient to climate change hence the most preferred food crop.
* Hybrids easily attacked by pests and diseases; farmers don’t prefer them.
* Rabai Cultural Village group leases 6 acres of land and plant landrace maize varieties. After harvesting, the group stores the maize for seeds which they sell/share among members.
* The community seed bank in Rabai cultural village play an important role in storage of landrace seeds hence sustaining indigenous food systems.
* Covid-19 cases are very few in the community. The community uses medicinal plants and indigenous foods to boost immunity.
* Covid-19 did not affect local food systems. Though income was affected – it decreased due to reduced number visitors to the cultural village which is a source of revenue from ecotourism.
* Covid-19 changed diets in homes. Most people shifted to traditional foods – cassava was largely consumed and played a critical role in cushioning the community against hunger.
* Locally available/produced foods consumed more since Covid-19 due to decline in household income resulting from loss of jobs.
* Modern crops are expensive to cultivate – large quantity of fertilizer required.
* There is rampant destruction of Kaya forests hence the need for specific laws to protect these unique forests.
* Mining of stones in rivers has resulted to drying up of rivers which are important sources of water for the community.
* Slash and burn agriculture should be banned as it has negative impact on soil fertility.
* Members of the community noted that devolution has hampered agricultural extension services and strengthening of extension services back to the level it was before devolution is urgently needed.
* It is also important to practice traditional farming methods. e.g., mixed farming of maize, cassava and sweet potatoes; indigenous food systems provide safety nets during drought.
* There is need to recognize the role played by traditional governance institutions in complimenting convectional laws/regulations whose enforcement is currently very weak.
* Inadequate resources by Kaya elders Council has hampered their role in sustainable natural resource management. Traditionally, the community could collectively contribute resources required to perform their functions such as conducting traditional rituals, but currently, there is no community contribution. There is thus need for compensation and financial support to the Kaya elders’ council for enhanced conservation of Kayas and the associated landscape.
* Human activities such as deforestation and quarrying have had significant negative effects on Kaya forests and the adjacent landscape, and exacerbated the impacts of climate change. There is general disregard for rules and regulations governing utilization of natural resources hence the need for adequate enforcement of these rules and regulations by relevant agencies. Erosion of traditional knowledge has further resulted to disregard for traditional institutions such as Kaya elders Council; subsequently, respect for Kaya elders is declining.
* Climate change has affected rainfall patterns leading to water shortages hence strong policies for water management including water harvesting and storage technologies should be put in place
* Gender mainstreaming in agriculture is important. This should include involvement of women and youth in key agricultural production and decision-making processes.
* A farmer, Mr. Mdzomba Ngala who had attended the COP-20 meeting and farmers’ exchange programme in Peru shared his experience and reiterated the important role played by indigenous knowledge in both increasing agricultural productivity and enhancing agricultural productivity.

**1.6.1 Actions recommended by Rabai community**

* Need for integration/complementarity between TK and conventional farming approaches.
* Participatory Plant Breeding is key in tackling climate change and food insecurity.
* SDGs very important in the discussion.
* Preservation of harvested foods need to be tackled to minimize wastage due to post harvest losses.
* Attitude change among communities is required e.g. recognizing cassava as an important crop in local food systems.
* Post harvesting handling needs to be addressed.

**1.7 Department of Environment, County Government of Kilifi**

* Integration of agroforestry into farming systems for soil improvement and enhanced conservation and livelihood benefits was emphasized.
* Agroforestry plays a major role in mitigating adverse impacts of climate change on farming systems.

**1.8 Local administration/Area chief**

* Most farmers have given up on farming due to reduced productivity and low returns from farming.
* Need to focus on climate-smart farming systems which will improve agricultural productivity and enhance resilience to climate change.

**1.9 Key recommendations from the dialogues**

* Need for change of attitude to embrace more diversified food/diets for food security.
* Farmers urged to diversify crops grown and practice crop rotation as means for adapting to climate change.
* Participatory plant breeding should be embraced for enhanced adaptation to climate change
* Food preservation is a key challenge that should be urgently addressed to avert food losses
* Need to focus on farming systems that are adopted to small land sizes in peri-urban areas
* Need to strengthen the farm to fork movement beyond COP-26 to advocate for the rights of small-scale farmers

**2.0 Key messages/outcomes of the dialogues**

* Constitutional changes from centralized to devolved governance in Kenya has reduced availability of agricultural extension services hence affecting food systems.
* There is need for community involvement in land use planning and management. This includes allocation of land for various uses such as industrial, agricultural production and settlement.
* The government should provide incentives to promote growing of high value orphaned crops for food security and livelihood improvement.
* Information sharing, and awareness creation on existing laws and policies at community level should be enhanced. Appropriate dissemination channels including peer learning visits should be employed to facilitate knowledge exchange and learning.
* Women and youth empowerment and inclusion in key agricultural production processes is vital in achieving sustainable food systems.
* Resource mobilization and support to alternative livelihoods is critical in reducing exploitation pressure and achieving sustainable natural resource management.

**2.1 Way forward**

* A livestreaming of Rabai community initiatives on protection of indigenous food systems is sheduled to be undertaken on 5th and 8th November 2021 to connect the community with proceedings at COP-26 meeting in Glasgow, Scotland. A preparatory meeting will also be held with participants prior to the livestreaming to discuss the salient issues and participatorily agree on the content of the presentations as well as the presenters.