## GRADIF-K INTERVENTIONS THE ULTIMATE SOLUTIONS TO FARMERS

By David Mugambi, GRADIF-K NRM& Climate Change Project Coordinator

In the humid slopes of Tharaka Nithi County is a unique farm that is a center of envy to the villagers as they not only flock-in in great numbers to admire the farm but also to learn. From the onset, the farm spells order with well-planned plots with different varieties of both food crops and cash crops.

The magnificent view of the thriving well subdivided small blocks carries you away; it's not until you go round the farm and back to point A when you stop and wonder of its beauty. But this was not always the case for Casty Kaimenti (45) and her husband Alexander Micheni (42), as previously before being enlightened by Grassroots Development Initiative Foundation- Kenya (GRADIF-K) all their farming ventures were a flop and unrewarding. For one, the adverse effects of climate change; unpredictable rainfall pattern and prolonged droughts were a hard nut to crack as the enormous effects were highly reflected on their farm by a series of issues that included withering and drying of food crops characterized by low crop yields forcing them to lack a consistency in food supply and turning to off farm jobs. During this hardship period, Kaimenti confesses of spending some sleepless nights out of hunger and often going with one meal per day; but not any more thanks to GRADIF-K intervention as they not only received trainings but were also practically shown how best to farm. Today the unpredictable rainfall patterns that lead to low food production and prolonged drought is a thing of the past and doesn't bother them anymore as they now have skills and competence to deal with the menace.

"GRADIF-K has taught us how to be resilient and not to be rigid when it comes to adapting to the new technology as they have taught us that we cannot survive tomorrow by using yesterday's methods which are outdated in today's world," Micheni attests. Kaimenti further adds that, "Some of the farmers who are still adamant and stuck to the traditional methods of farming are still crying out to the government for aid a thing that can be avoided by just adhering to the teachings offered by both the government and Non-Governmental organizations like GRADIF-

## K," she explains.



## A section of the farm plot with beans

The different sections on the farm reflect, hard work and determination in farming as the blocks have different varieties of crops in such a way that they are in different stages of growth; when one block is at its harvesting period the other block is at its flowering stage while the other one is at the seed bed germinating awaiting transplanting. The reason for this Kaimenti explains is to ensure a steady supply and remain in the market all year round and ensure a steady source of income. The couple grows vegetables namely tomatoes, cabbages, spinach, sukuma- wiki, onions and other food crops that include bananas beans and cash crop like coffee. The couple also practices dairy and poultry farming, keeps hybrid goats where the livestock supplies them with manure subsidizing their budget on fertilizer.

To ensure better yields the couple employs crop rotation as they attests of having learnt of the adverse effects of mono-cropping. Micheni explains that, "With repeated planting of one crop

there are many diseases that thrive, diseases that only affect a specified type of crop and again the soils weaken due to over exploitation as this leads to a decrease in availability of nutrients as mono-cropping encourages exhaustion of only one particular nutrients. He further attests of improved production overall after they employed crop rotation a thing that also helped reduce pests and diseases.



A section of a farm with Sukuma wiki vegetables

The couple harvest water for use during the dry season and integrates mulching to help in moisture retention as the area experiences unpredictable weather patterns with long periods of prolonged sunlight. With mulching they say they can grow all types of food all year round weather notwithstanding. "Since the intervention of GRADIF-K, our farming changed and today I can comfortable provide for my family basic needs educate my children with no worry," attests

## Micheni.



A water harvesting tank

The couple also practices drip irrigation as the method offers no wastage on water and fertilizer as it wets the root zone alone and meets the full water and fertilizer needs of the crop.



They also practice afforestation as trees provide shade and act as wind breakers on the farm. The couple has been taught on the importance of tree planting a thing that has compelled them to start a tree nursery that not only generates income for them but still use the same trees in their farm for their own benefits. On the tree nursery, different varieties of tree are planted that include gravellier, different varieties of fruit trees that include tree tomato, passion and also fodder trees among others. To preserve soil fertility the couple employs minimal tillage where they employ their hands and avoid using farm equipment that may encourage soil erosion and loss of the top fertile soils.

On every market day at Kaimenti attests to having different varieties of produce from tomatoes to cabbages to beans among other food crops to take to the market where on a good season she fetches up to 85,000ksh.



For Casty Kaimenti and her husband Alexander Micheni the venture has been a success as a result of the many trainings they have received and adhered to from GRADIF-K that include: training on agribusiness, record keeping, integrated farming, agro forestry, fruit farming, water harvesting, land use planning and management among other trainings and according to David Mugambi the Natural Resource Management & Climate Change Coordinator with Grassroots Development Initiatives Foundation-Kenya (GRADIF-K) "There is need to address the issue of household food security and also for farmers to adopt and integrate climate smart ideas which are cost effective and pro poor," he attests.