

CLIMATE CHANGE ADAPTATION PRACTICES IN MWALA SUB-COUNTY, MACHAKOS COUNTY, KENYA



Climate has a key role in socio-economic development and environmental activities. It is a determinant on the space-time distribution of the world's resources. About 90 per cent of all natural disasters world-wide are climate-related. About 10 per cent of the disasters often emanate from geological, biological and anthropogenic activities. Climate change is a serious threat to sustainable development globally. In Kenya, as in other regions worldwide, climate change and variability are driving weather pattern changes, and causing seasonal shifts. Impacts of climate change have been experienced in many sectors such as environment, health, agriculture, trade, water, energy, transport and physical infrastructure. Climate change impacts are specific to local areas like in Mwala in Machakos County. Therefore climate change impacts adaptation methods which are well applicable to a given local perspective. Climate change impacts are disastrous to communities for it causes a disruption to their functioning; widespread human sufferings, material, economic or environmental losses which exceeds their ability to cope up with the impacts.

According to Onesmus Muange, a farmer and an agro forester in Nguuni location, Mwala in Machakos County, confirms climate change as a fact based on his experience as he grew up and in his occupation. He also adds that the climate change impacts are real and that they require to be reversed which again is a challenge in terms of resources including time of full restoration. He confirms of the biodiversity loss (flora and fauna) where indigenous trees and animals have dwindled due to high temperatures and low precipitations. He says poverty has increased due to changing weather patterns and seasons which has affected production of agricultural goods and services, therefore less returns and low household incomes. Unreliability of rainfall in some seasons has led to scarcity of water and drying up water sources this affecting the efforts of farmers in reversing the climate impacts. Food insecurity is an issue due to reduced agricultural activities due to rainfall fed agriculture which has reduced due to unpredictable rainfall patterns. This has exposed the population in the area at risk of famines, he says.

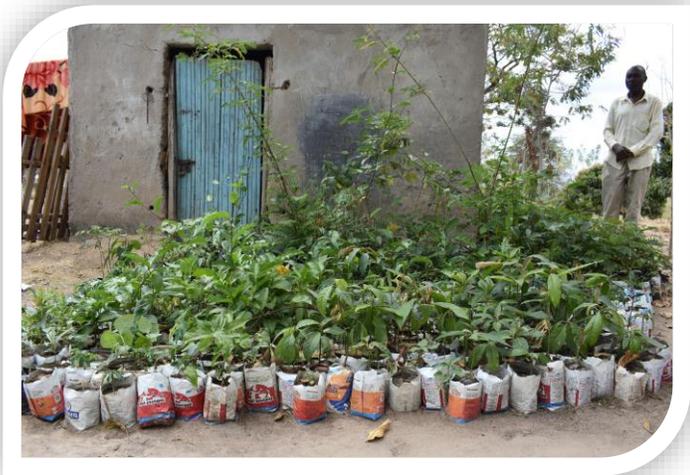


Onesmus says that it as a result of the above listed tangible impacts that he and other farmers decided to do agroforestry as means of source of income for his family, source of seedlings to the communities to enhance afforestation and also source of food (fruits), provision of firewood, habitat for fauna, means of water conservation.

He also adds that he would like to do bee keeping in the wood lot that he has established and he tells us that the beekeeping would enhance the pollination in his farm as well become an income generation for his family. Mr. Cosmas Munuve a fellow farmer and a community mobilizer tells us of a new way of farming using Zai-pits where a pit of a size (3ftx3ftx2ft depth, but it can be of any size) is prepared, manure put at the basement then soil, and you plant five maize seeds, is guaranteed that even during low precipitation the pit will hold and keep enough moisture to grow the maize until harvest. This is to ensure food security.

The farmers in Mwala, Machakos County like other farmers affected by climate changes impacts and more in Semi-arid areas are doing their best in collaboration with governments and non-governmental organizations to adapt to the best practices to reverse the impacts and sustain livelihoods. However the impacts are still strong and needs more diverse approaches to build the required resilience, for instance, it was evident to us during the documentation that the water resources depended by these farmers (Water pans) constructed with aid of the World Vision were dry and therefore had caused much loss to the farmers (Dried seedlings, vegetables, fruit trees etc.) Therefore water conservation is the key cry from the farmers; they call upon the partners to rehabilitate the existing water sources in the area to help increase water capacity and availability as well initiate more water projects.

Adaptation Practices



Trees and Fruit Farming



Water Pan for Water Harvesting



Zaipit Farming System