



Tropentag, September 16-18, 2015, Berlin, Germany

“Management of land use systems for enhanced food security:
conflicts, controversies and resolutions”

Urban Farming as an Adaptation to Food Security and Climate Change in Nyeri County, Kenya

DAVID KARIENYE¹, DORIS NDERITU², GILBERT NDURU³, HELLEN KAMIRI⁴

¹*Garissa University College, Geography, Kenya*

²*Karatina University, Geography, Kenya*

³*Karatina University, Environmental Science, Kenya*

⁴*Karatina University, Crop Science, Kenya*

Abstract

Urban farming is proposed as a one of the key solutions to food insecurity especially in the developing countries where high population and declining land sizes have resulted to major food shortages. As land is being converted to commercial land for building residential houses which generate more profit as compared to farming, climate change has compounded the issues of food production under rainfed conditions due to declining rainfall amounts, droughts and floods thus requiring shift to other production innovations such as supplementation of soil water by use of drip irrigation and diversification of crops and farm animals. A study was carried out in selected urban centres in Central Kenya to investigate the type of urban farming, the dynamics and production potential. A total of 60 respondents who were directly involved with crop and/or livestock production in the urban centres were selected. Triangulation transect was used to ensure all farmers within the urban centres were given fair chances during data collection. Preliminary findings indicated that farming within the urban centres was prevalent with over 40 % of the households owning kitchen gardens of various sizes. The most common crops grown were indigenous and few exotic vegetables. A small percentage (12 %) had fruits and flowers, while 60 % of the households kept some form of livestock. There was differentiation on the type of urban agriculture between the urban centres and their suburbs. This was related to the population density, whereby the suburbs near high populated urban centres attracted a high proportion and more diversified form of urban agriculture (both crops and animal production) than low populated town centres. Due to the magnitude of the research data collected there is need to document the system of urban farming in relation to other factors such as economic capacity of the residents and location of the urban centre in relation to demographic growth. Challenges of urban farming need also to be explored in relation to climate variability. The current research results are being studied in order to advice the county government on the possibilities of incorporating and promoting urban farming within the devolved systems of government .

Keywords: Climate variability, food security, fresh vegetables, urban farming