ANALYSIS OF SOCIO-ECONOMIC AND ECOLOGICAL USEFULNESS OF URBAN FARMING IN NKUBU TOWN, MERU COUNTY, KENYA

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DECLARATION AND RECOMMENDATIONS

This thesis is my original work and has not been presented for an award of a diploma or conferment degree in any institution.

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Recommendations

This thesis has been examined, passed and submitted with our approval as the University supervisors.

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DEDICATION

This work is dedicated to my parents Mr. and Mrs. Isaya Mung'atia, my siblings, my loving husband Dr. Shadrack Kirimi and my lovely sons, Trevor and Harvey whose unwavering support has lightened my academic path.

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ABSTRACT

For a long time, agriculture has been seen as an activity that better fits in the rural areas. Nevertheless, this is no longer true in the current world where urbanization has been on the rise, hence reducing the agricultural lands. There has also been an increase in the rural –urban migration, which means high demand for food in the urban areas. This has led to increased urban farming hence attracting a number of researchers to carry out research work on the same. In as much as urban farming has attracted much attention from researchers, this study will narrow down to the socio-economic and the ecological utility of urban farming systems in Nkubu town, Meru County. The study was directed by the following objectives: to map out the spatial distribution of town regions where urban farming is practised in Nkubu town; to establish the socio-economic benefits of different urban farming systems in Nkubu; to examine the ecological usefulness of urban farming systems in Nkubu; to identify emerging challenges of urban farming systems in Nkubu. The study sampled 95 households actively practising urban farming in the town. Primary and secondary data was used to enrich the study findings. The study used the concurrent mixed method approach, which entails collection and analysis of quantitative and qualitative data at the same time in order to support the findings. Landsat 8 images of Nkubu for 2010-2020 were obtained to help identify the greenness index in the town for the stated years. The study revealed that most parts of the town practise urban farming with crop production leading at 54.40%, mixed farming 36.70% and animal rearing only at 8.90%. The study also revealed that farming activities increased as one moves from the town. The study revealed that many farmers practise urban farming as a source of income and employment. For the ecological usefulness of urban farming, the Landsat 8 images were analysed using the Normalized Difference Vegetation Index. (NDVI). They revealed that the green spaces have been reducing with time in the town and this brings about the issue of reduction in air purifiers and ground water infiltration in the town. The study concluded that urban farming is very vital in the town and has great benefits when maximally practised. This study recommends promotion of more knowledge sharing networks, promotion of crop diversification and uptake of the new urban farming technologies