

Research Application Summary

**Effects of Urban Agriculture on poverty reduction in Mombasa County, Kenya**

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**Summary**

Urban Agriculture has served as a vital input in the livelihood strategies of urban households in Mombasa, Kenya. Urban dwellers rely on the market for food but with the tremendous surge in food prices beyond the reach of the majority of the population, poor urbanites have resorted to intensifying urban agriculture as a coping strategy to meet their immediate food requirements, and income generation. Data collection for this study involved structured and semi structured household questionnaires administered to urban farming households, field observations and key informant interviews. Information gathered included urban farming practices, agricultural and sale of output, food sufficiency and socio-economic characteristics, in the selected residential areas. The sample of 150 households engaged in urban agriculture was randomly selected to participate in the survey. The households sampled per residential area were as follows: Kisauni (50), Likoni (50) Changamwe (30) and Mvita (20). Urban agriculture was found to play an important role in the lives of residents currently engaging in the practice. The practice has a dual impact on poverty conditions: it provides food which would otherwise be unaffordable to many residents, and by utilizing money saved from buying food, it helps ease poverty conditions thus improving livelihoods. The study recommends that urban agriculture be integrated into urban planning.

Key words: Food security, household survey, incomes, Kenya, urban farming

**Résumé**

L'agriculture urbaine a joué un rôle essentiel dans l'amélioration des conditions de vie des ménages urbains de Mombasa, au Kenya. Les populations urbaines dépendent du marché pour l'approvisionnement en nourriture, mais la flambée des prix des denrées alimentaires hors de portée de la majorité de la population, les pauvres populations ont intensifié l'agriculture urbaine comme stratégie d'adaptation en vue de satisfaire les besoins alimentaires immédiats et générer des revenus. Les données ont été collectées à l'aide des questionnaires structurés et semi-structurés administrés aux des ménages d'agriculteurs urbains, des observations de terrain et des entretiens avec des personnes ressources. Les informations collectées renseignaient sur les pratiques agricoles en milieu urbain, l'agriculture et la vente de la production, l'autosuffisance alimentaire et les caractéristiques socioéconomiques, dans les zones résidentielles sélectionnées. Un échantillon de 150 ménages engagés dans l'agriculture urbaine a été donc aléatoirement

sélectionné. Les ménages ont été échantillonnés par zone résidentielle: Kisauni (50), Likoni (50) Changamwe (30) et Mvita (20). L'agriculture urbaine a joué un rôle important dans la vie des résidents actuellement engagés dans la pratique. Cette pratique a un double impact: elle fournit des aliments qui seraient autrement inaccessibles pour de nombreux résidents et, en utilisant des économies faites, cela contribue à atténuer la pauvreté, améliorant ainsi les conditions de vie. L'étude recommande donc que l'agriculture urbaine soit intégrée à la planification en milieu urbain.

Mots clés: Sécurité alimentaire, enquête sur les ménages, revenus, Kenya, agriculture urbaine

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## **Introduction**

Kenya, with an area of 582,646 sq. km, is located on the East Coast of Africa, with its capital in Nairobi. Its strategic location makes it one of the continent's regional hubs. It is also the gateway to the Eastern and Southern Africa region. According to the Kenya Population and Housing Census, the population of the country was 40 million in 2009 with an annual increment of one million. The Country's GDP was US \$30 billion (2010) with a growth rate of about 5.6% (GOK, 2010). The Kenya Vision 2030 is a long term development strategy, whose aim is to drive the country into a globally competitive and prosperous economy with high quality of life by 2030.

The World Bank (2005) stated that about two thirds of the world population poor mainly depends on agriculture as their source of income. Therefore in respect to Poverty reduction and raising the welfare standards of the population, more focus should be placed on agricultural activities. In Kenya agriculture is central to economic development. It contributes up to 35% of gross domestic product (GDP) and constitutes 40% of export earnings (FAO,1997; GoK, 2010). It is a sector that underpins the country's industrialization framework by supplying raw materials for industries and generation of foreign currency through the export process of agricultural products. Agriculture is a source of employment to the majority of population through farming and business activities. It generates income through sale of agriculture produce and supplies food to individuals. Agriculture is a source of market to local industries therefore raising the standard of living of individuals. This study investigated the effects of urban agriculture in enhancing poverty reduction in Mombasa County as part of understanding the significance of urban agriculture in the county.

## **Research Approach**

Mombasa County is situated in the South Eastern part of Coastal Kenya. It was formerly called Mombasa district before it was split into four districts which are now the four sub counties. The constituencies are in the four sub counties namely Kisauni, Mombasa, Changamwe and Likoni. The total area of Mombasa County is 212.48 km<sup>2</sup> with 129.1 km<sup>2</sup> being arable land. The total urban area is 140.6 km<sup>2</sup> (GoK, 2010).

This study focused on Mombasa County, an urban area in Coastal Kenya. The county is part of Mombasa city. The total population is 924,143 persons (GoK, 2010).

An integrated methodological approach was employed in both quantitative and qualitative methods to give the research statistical and conceptual significance. Primary data were collected from urban farming households in low income residential areas of Mombasa between January and March 2013. The investigation was confined to four areas: Kisauni, Likoni, Changamwe and Mvita. In order to obtain information regarding effects of urban agriculture in enhancing poverty reduction respondents were asked to state effects of income generation from urban agriculture on poverty reduction and to what extent income generation affected poverty reduction. The results are presented in Table 1 and Figure 1. Respondents were also asked their perception on the effects of food supply from urban agriculture on poverty reduction and how this supply affects poverty reduction. The results are presented in Table 2.

### Results and Discussion

**Effects of income generation on poverty reduction.** It was noted that 69% of the respondents who were getting income agreed that income generation improved living standards and contributed to poverty reduction, 31% of the respondents also noted that the purchasing power of the population was improved through income generation, hence creating a market for industrial products. This would likely have positive impact on poverty reduction. Through income generation the purchasing power of the population is improved hence creating a market for industrial products. Ultimately, this also generates income and leads to improved living standards (Smit *et al.*, 1996).

**Extent to which income generation affects poverty reduction.** The research sought to find out to what extent the income generated from urban agriculture influenced poverty reduction in the study area. Most of the respondents indicated that indeed income generation had an effect on poverty reduction (Table 1).

Table 1. Effects of income generation on poverty reduction in Mombasa County, Kenya

| Effects of income generation and food supply | No of respondents | Percentage % |
|--|-------------------|--------------|
| Effects of income generation:                |                   |              |
| Improve living standard                      | 69                | 69           |
| Increase purchasing power                    | 31                | 31           |
| high   | 70                | 70           |
| moderate                                     | 25                | 25           |
| low  | 5                 | 5            |
| Effects of food supply:                      |                   |              |
| Increase food access                         | 17                | 17           |
| Increase food availability                   | 81                | 81           |
| Meeting nutritional requirement              | 2                 | 2            |

From the findings 70% of the respondents were in agreement that income generation highly contributed to poverty reduction while 25% felt that income generation only moderately affected poverty reduction. A smaller proportion (5%) were of the opinion that income generation had little effect. Overall findings show that income generation had a high influence on poverty reduction (Figure 1).

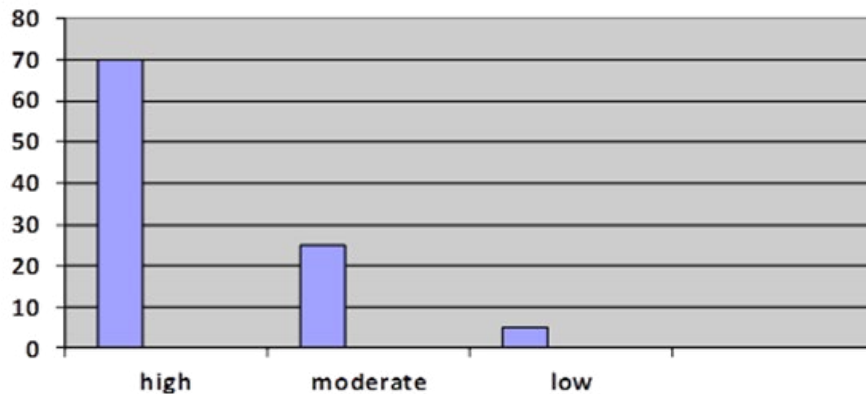


Figure 1. Extent to which income generation affects poverty reduction

**Effects of food supply on poverty reduction.** Urban Agriculture ensures a constant food supply thus enhancing food security for the population (Foeken, 2006). It ensures that the work force is fed with energy to supply labor to industries and other economic sectors. This in turn has a positive effect on the house hold (Maxwell and Ziwa, 2000). It also provides surplus money to invest in other areas (Landon-Lane, 2004).

From the findings, the majority of the respondents were in agreement that indeed food availability had an effect on poverty reduction. A majority (81%) argued that with the availability of food, poverty is reduced since food is one of the important basic needs. Often, most of the money generated goes to purchase of food. The money to be spent on buying food can be saved and used in other activities. Indeed, 17% of the respondents were of the view that food access had an effect on poverty reduction and urged that one only had access to food when one had purchasing power. Further, 2% of the respondents noted that meeting nutritional requirements had an effect on poverty reduction. Thus many of the respondent did not quite understand that meeting the nutritional requirement influenced poverty reduction.

The study investigated the extent to which food supply arising from urban agriculture was an essential input in improving food access, food availability, and in meeting nutritional requirements. From the findings a large percentage (88%) agreed that food supply had a high effect on poverty reduction. However 9% did not fully agree and were of the opinion that it only moderately affected poverty reduction, while 2% were of the opinion that it had little effect.

Table 4. Extent to which food supply affects poverty reduction

| Extent   | No of Respondents | Percentage % |
|----------|-------------------|--------------|
| high     | 88                | 88           |
| moderate | 9                 | 9            |
| low      | 3                 | 3            |
| Total    | 100               | 100          |

### Conclusion

The findings of the study confirmed that urban Agriculture is not practiced by urban poor only but more broadly across the population in the district. From the findings it is important to note that the income generation was found to influence poverty reduction. Thus, urban agriculture has great potential for reducing poverty. For this to succeed, it has to be made an integral part of urban land use and planning (Foeken, 2006). Urban agriculture needs to be viewed in a broader context not so much as a need to survive by the poor, but as a potentially lucrative commercial activity that can generate high incomes and provide employment.

There is therefore need to harmonize the different policy approaches in urban areas. Linking the various players so as to have an integrated approach to eliminating poverty in the study area should result in the recognition of urban agriculture as a viable poverty reduction strategy. There is also need for facilitative and responsive programmes to support urban agriculture for low income urban residents. Such programmes should be embedded in policies and planning frameworks. High value urban agriculture systems need to be adapted for use by small scale operations for low income residents. Additionally, there is need to revisit land use planning and regulation policies that restrict or inhibit urban agriculture. Negative policies that deem the activity unsuitable for urban areas need to be reviewed. Legal and institutional support should be afforded to the sector so that it can be systematically integrated into the urban ecological system.

Urban agriculture needs to address the whole spectrum of food production and marketing, land use and health concerns. Where land for carrying out urban agriculture is not available, technologies should be devised for poor households to make more efficient use of the spaces they are living in such as walls, rooftops, and multistory gardens.

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