

Gender Analysis of Urban Agriculture in Kampala, Uganda

Urban agriculture in Kampala City takes place on undeveloped land including institutional and mailo (privately owned) land, but also on risky areas like former waste-dumping sites, scrap yards, wetlands and roadsides.



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Women grow food crops that fetch lower prices.

The major potential health hazards associated with urban agriculture have been classified as physical, chemical, biological and psychosocial (Cole et al., 2003). The physical hazards may include injury from sharp objects such as broken bottles and needles in waste dumps. Chemical hazards involve exposure through contact of chemicals with the skin, inhalation of dust from contaminated soil or gaseous emissions and through ingestion of food crops contaminated with toxic waste from soil and wastewater. Psychosocial hazards may arise from insecurity due to unclear land tenure, loss of farmland, fear of theft and violence or overload due to long hours of work. Biological hazards may be due to parasitic worms, bacteria and vector-borne diseases, such as malaria parasites hosted by certain food crops with life cycles in humans and other media. This paper focuses mainly on crop production in areas that are receiving solid or liquid waste in urban and periurban areas of Kampala City.

Former dumpsites are used to grow food crops and vegetables, and some of them provide shelter to farmers residing in temporary houses. In addition, wastewater is channelled from industries and the city's discharge into the wetlands. The farmers of these areas are thus exposed to multiple health hazards and improper management may lead to contamination of food crops and vegetables. This situation is disapproved of by municipalities.

Although deemed illegal by the urban authorities, urban agriculture activities continue to be practised by both men and women. However, the division of labour in urban farming households exposes men and women to different health risks (Flynn, 1999). Women are more vulnerable to health hazards due to the multiple roles they perform. For instance, women and children spend long hours selling food products by the road and are thereby exposed to heavy metal pollutants.

METHODS

A study was carried out in Kampala City in 2001/2002 through a formal survey. A total of 250 semi-structured questionnaires were administered to farmers who were involved in growing food crops on the former dumpsites of Lugogo, Kinawataka and Wakaliga, and the wastewater irrigated areas of Namuwongo along the Nakivubo channel (see figure 1).

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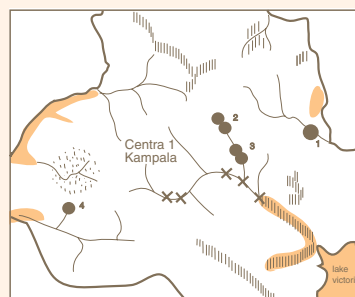
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Former Dumping sites in Kampala City



- /// Flooded areas
- river
- district boundary
- sampling sites
- 1. Kina Wataka
- 2. Lugogo I
- 3. Lugogo II
- 4. Wakaliga
- ▲ Wetland
- ✕ flooded areas

DIVISION OF LABOUR AND BENEFITS

Of the farmers growing food crops on contaminated sites in Kampala City, 55% were women, 41% had no other occupation other than farming, and 63% of these farmers were women. A greater percentage of women than men (34% compared to 30%) consumed all the food grown, while 53% of the women and 67% of the men sold some of the food produced. The women who grow crops on contaminated sites in Kampala use it mainly to feed their families.

Only 9% of all the farmers grew food crops “purposely for sale” (14% of the women and 5% of the men). But these women sold all the food grown on contaminated sites to consumers and used the money to purchase other foodstuffs for their families. The major source of food in the study households was bananas (matooke), while *Colocasia esculenta* (cocoyam) and maize (*Zea mays*) were the most frequently grown food crops on these sites. Other crops included cassava (*Manihot esculenta*), sweet potatoes (*Ipomoea batatas*), beans and vegetables.

Men and women were generally involved in different agricultural activities. The men in this study were involved mainly in the cultivation of sugarcane and cocoyam in the wetlands, while the women grew maize, sweet potatoes and vegetables. The men spent longer hours in the gardens than the women.

The women grew food crops that fetch lower prices and require minimum capital, time and labour. This is partly because 70% of the women were married and had other traditional household roles to play like cooking for the family and caring for the children. Women therefore grew small-scale, perishable products that can be sold within the neighbourhood, either by the roadside, at a nearby market or at a stall in front of their homes. Moreover, most of the crops grown by men have a longer shelf life and can be transported long distances to reach a market.

The main benefit of urban agriculture and the reason most of the farmers cultivated was food: 41% of the respondents said they benefited from the free food, 21% from easy access to markets and 9% from economic empowerment. Moreover, 22% of the farmers would suffer an economic crisis if urban agriculture could no longer be

Attributes	All farmers (%)	Women (%)	Men (%)
Married	68	70	64
Farming is a major occupation	41	47	33
Have control over land	28	25	32
Dig and sell food products themselves	54	60	52
Own the food they grow	93	93	82
Spend income from UA on domestic needs	40	39	32
Use protective wear while working on land	38	37	42

practised (42% of the women and 22% of the men). Asked what they would do if stopped from using contaminated land, 12% of the men (and only 3% of the women) said they would change residence to where land is available; 14% of the men (and only 1% of the women) said they would not be affected. Women therefore benefit most from urban agriculture as a source of livelihood, food security and household income.

ACCESS TO LAND AND WATER

Only 28% of the farmers studied had control over their farmlands, 9% rented land and 22% used land that was freely available. The women grew food in high-risk areas, and therefore were more vulnerable to hazards. Most farmers did not have access to clean water: 17% got free water from a spring or well, 1% from a borehole and 77% bought either piped or spring water.

Fifty-six percent of the farmers (more women than men) did not use protective clothing while working on contaminated land (Table). In Uganda, cooking food is a woman’s responsibility. The study revealed that only 2% of the households that farmed on contaminated sites used electricity to cook, while 22% used firewood and 55% used charcoal.

RISK PERCEPTIONS

Over 80% of the farmers in Kampala were aware of the health risks of growing food in contaminated areas. Asked whether they approved of growing food on waste sites, 89% of the men and 84% of the women said they disapproved because it is not healthy, but they had no alternative since agriculture was their main source of livelihood, food security and income. Some of the farmers admitted to growing food on contaminated sites purposely for sale and not for household consumption. Lee-Smith (2003) observed that men and women perceive risks differently, depending on

what they know and what they stand to gain or lose, which also depends on what they value and who they are.

RECOMMENDATIONS

The Kampala City Council should integrate urban agriculture in its planning programmes as a mitigation measure to achieve a higher quality of food crops grown and sold in the city. The Council is currently reviewing Ordinances on Urban Agriculture and should liaise with various stakeholders like researchers, NGOs, development partners, institutions and landowners to help streamline policy initiatives in urban agriculture.

The council should facilitate the empowerment of urban farmers through environmental health education in relation to urban agriculture and necessary mitigation measures, such as use of low-cost treatment technologies of wastewater, use of appropriate farming techniques and careful selection of crops to minimise exposure to food contamination. The Council should empower the Urban Agriculture Office and its extension staff, and liaise with researchers together with the local Women and Youth Organisations at parish level to ensure implementation of the mitigation measures.

NOTE

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REFERENCES

- Cole, D.C.; Diamond, M.; Bassil, K. and H. J-Otazo (2003). Health Risk and Benefit Assessment in UPA. SSA Workshop on Health Risks and Benefits of Urban and Peri-urban Agriculture. Nairobi, Kenya. 9-12 June 2003.
- Flynn, K. (1999). Urban Agriculture and Public Health: Risk Assessment and Prevention for Contamination and Zoonoses. Cities Feeding People Program Initiative. International Development Research Centre, Ottawa (draft).
- Lee-Smith (2003), Risk Perceptions, Communication and Mitigation; Community Participation and Gender perspectives. Health Risks and Benefits of Urban Agriculture and Livestock in Sub-Saharan Africa. IDRC Workshop, Nairobi. 9 – 12 June 2003.