



## Farming as a livelihood source for urban dwellers: Results from a research project in Nakuru, Kenya

### Urban poverty and urban livelihoods

Millennium Development Goal 1 calls for a reduction of 50% by 2015 in the number of people who are living on less than US\$1 per day and/or who are undernourished. However, during the 1990s, the percentage of those in sub-Saharan Africa living below the poverty line increased as did the number of undernourished people. Instead of a reduction in poverty, it is in fact on the increase in this part of the world. By 2015, about half of the region's population will be living in urban centres and poverty will have increasingly moved from rural to these urban areas.

Africa's urban areas have been hard hit by declining economies and the resulting structural adjustment policies, the cost of which have been disproportionately felt by the urban poor. Life in the urban areas has become more expensive while employment in the formal sector has decreased and real wages have not kept pace with prices or have even declined in absolute terms.



Cultivation of vegetables in front of a one-room house in a municipal estate [photo: Sam Owuor]

Many urban households are facing a serious decline in their purchasing power. People have responded in various ways, most notably by diversifying their income sources. A wide range of activities are being employed, all in the informal sector. For instance, among a small group of low-income households in Nakuru town (approx. 250,000 inhabitants), livelihood sources ranged from four to seven. Many of these activities are undertaken in the people's own neighbourhoods and almost exclusively by women.

### Farming in town

The most common informal source of income in town is farming, with about 40% of the Nakuru households being involved in either crop cultivation or livestock keeping. This is practiced everywhere: in people's compounds, along streets and river banks, under power lines, or on any piece of empty space. Farming in school compounds is also quite common: about half of the primary schools and 90% of the secondary schools are engaged in it.

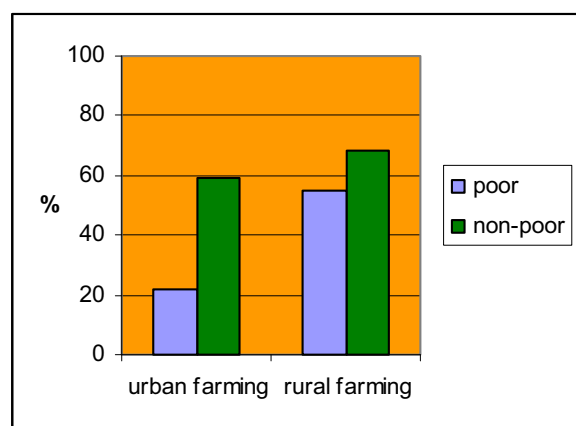
The crops grown are mostly basic food stuffs like maize, beans and kale (*sukuma wiki*) and are primarily for self-consumption. Cultivation techniques are very simple and productivity is low. Livestock keeping is very common as well: in the built-up area of Nakuru alone, an estimated 25,000 livestock (cattle, sheep, goats,



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pigs) and some 380,000 smaller animals (mainly chickens) are kept. Zero-grazing is fairly common, but many animals (including cattle) also roam freely in the streets.

Urban farming has increased considerably over the past decades. It is a way to improve the food situation of urban households and to diversify their livelihood options under conditions of persistent economic uncertainty and threats. It is widely believed that the urban poor could benefit from farming in town because of the relatively low start-up investments. In Nakuru, however, the poor are underrepresented among the urban farmers, with a lack of land and capital being the main constraints.



Percentage of households engaged in urban and rural farming by income level (1999)

Those urban poor who do practice urban farming generally do not do as well as their better-off colleagues and this applies in particular to female-headed households. It can largely be attributed to smaller plots and a lack of inputs, especially 'modern' and more expensive inputs like irrigation and chemicals in urban crop cultivation and improved breeds, veterinary drugs and feed supplements for livestock. Dairy cattle (the most rewarding type of animal in financial terms) are rare among poor households, so many have turned to chickens. Few of the poor urban farmers can afford to hire additional labour and they also receive less attention from professional advisors.

### Urban farming as a livelihood source

Farming in town provides employment, food and income. The fact that some 35,000 households

are engaged in urban farming suggests that the sector provides work for at least the same number of people. For about a fifth of them it is a full-time job. Another 8,500 persons find work as labourers, either casually in crop cultivation or more or less permanently in livestock keeping.

A large majority of the urban farmers say they farm in town for food. For them, urban crop cultivation is an additional food source for the household, while for many of the poorer cultivators it constitutes a *major* food source. In general, the larger the household (more mouths to feed), the more likely it is to farm in town. And by growing (part of) one's own food, money is saved that can be used for other essential expenses. As one respondent explained,

"You know, if you manage to grow your own food for several months per year, then you can educate your children from your salary."

Livestock provide food, such as milk, eggs and meat. By selling these products, it can also be an important source of income.

The importance of urban farming for a household's food supply was shown during the droughts in 1999 and 2000. Since water is always scarce in Nakuru and most urban farmers have to rely on rainfall, hardly any crops were harvested. As a result, the percentage of poor urban-farming households for whom the activity constituted at least half of their food supply dropped from 60% in 1998 to 20% in 1999. People were forced to buy almost all their food. However, the poor could not afford to purchase all they needed: the percentage of households who did *not* always have enough to eat in that year jumped from 10% in 1998 (a normal year in terms of rainfall) to 75% in 1999.



Dairy cows in zero-grazing in a medium-density neighbourhood [photo: Sam Owuor]

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## *Rural farming by urban households*

Besides farming in town, *rural* farming activities are equally important for urban households' food supplies. People either cultivate a rural plot themselves (usually the wife) or benefit from the farming activities of family members at the rural home. No less than 85% of the Nakuru population have, in addition to their income-generating activities in the urban economy, such a rural foothold ('multi-spatial livelihood'). The food shortages in the poor Nakuru households in 1999 and 2000 were, therefore, not only caused by failing urban harvests but by bad rural harvests as well.



The rural home of an urban resident [photo: Sam Owuor]

As with farming in town, rural-to-urban food transfers are important for the urban households' food security and the ability of poor urban households to survive. More so than in the past, urban households are increasingly relying on their own rural food production for their food supply in town. For the low-income urban households, the 'traditional' flow of money and goods from town to the rural home has nowadays been reversed and has become a flow of both food and money to sustain the urban (part of the) household. A new form of urban-rural linkage is return migration, whereby members of the urban household go to live at the rural home as a cost-cutting measure.

## *Impact on local policy*

Urban farming is somewhat controversial. Many policy makers in Africa see it as an undesirable, 'non-urban' activity that causes nuisance, for example pollution. Indeed, over half of the Nakuru crop cultivators use chemicals. Keeping animals in free range is also quite common and one third of the livestock keepers dump their animals' waste in the street. Concentrations of

heavy metals in soils and plants are higher in areas where sewage water is used for irrigation and on the Nakuru dump (see photo below). There are therefore some grounds for the negative attitudes towards urban farming that were found among officials in 2000.

As a result of the ASC research project, an important policy change has taken place in Nakuru. A workshop in 2002 to present the results of the studies created an awareness among officials that urban farming is a fact of life and a very important livelihood source for the urban poor. It was suggested that it would be better to try to regulate the sector than simply to ban farming activities. The Director of the Department of Housing said the workshop to be "an eye-opener: we need to revise our housing policy". The Director of the Department of Environment was initially against any form of urban agriculture, but modified his opinion as the workshop progressed. Recently his department has become actively involved in a programme aimed at developing the sector, provided that farming is done in an environment-friendly way.

The most tangible proof of the impact of the research project is the drafting of Urban Agriculture By-Laws in 2006, which is unique in Kenya and indeed in many other parts of Africa. Based on the recognition that "every person within the jurisdiction of the Council is entitled to a well-balanced diet and food security" and that this entitlement "includes facilitation by the Council to acceptable and approved urban farming practices", farming is now legally recognised as an urban activity. This opens the way for the local government to stimulate the activity among the urban poor – for instance by creating easily accessible zones for farming – as a measure to combat urban poverty.



Most of the Nakuru dump is covered with a layer of soil on which maize and beans are cultivated. Both the soils and plants contained high concentrations of heavy metals. On the uncovered part, livestock roam around in the non-separated waste. [photo: Dick Foeken]

## The Nakuru Urban Agriculture Research Project (NUAP)

NUAP (Phase 1) consisted of the following studies:

- 1) General survey among 594 households (fieldwork: 1999) and additional interviews with 30 farming households selected from the study population of the general survey (2000).  
Researchers: Dick Foeken (ASC), Samuel Owuor (University of Nairobi).
- 2) Impact of urban farming on the food and nutritional situation of the households involved (fieldwork: 2000).  
Researchers: Wijnand Klaver (ASC), Dick Foeken (ASC), Samuel Owuor (University of Nairobi).
  - Foeken, D. & S.O. Owuor (2000), *Urban farmers in Nakuru, Kenya*. Leiden: African Studies Centre, ASC Working Paper 45 (also on [www.cityfarmer.org/nakuru.html](http://www.cityfarmer.org/nakuru.html)).
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  - Foeken, D., S.O. Owuor & W. Klaver (2002), *Crop cultivation in Nakuru town, Kenya: Practice and potential*. Leiden: African Studies Centre, ASC Working Paper 50 (also on [www.ascleiden.nl/pdf/workingpaper50.pdf](http://www.ascleiden.nl/pdf/workingpaper50.pdf)).
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  - Foeken, D. (2006), "To subsidise my income". *Urban farming in an East African town*. Leiden: Brill.
- 3) Environmental aspects of farming in Nakuru town (fieldwork: 2000).  
Researcher: Ernest Oyieko Nyandwaro (Kenyatta University).
  - Nyandwaro, E.O. (2006), *Environmental impact of urban farming: A case study of Nakuru town, Kenya*. Nairobi: Kenyatta University, School of Pure and Applied Sciences, MSc thesis (version submitted for examination).
- 4) Impact of support for urban farmers on the income, food and nutritional situation of the households involved (fieldwork: 2000-01). Researcher: Peter Wambugu King'ori (University of Nairobi).
  - King'ori, P.W. (2006), *Food security, child nutritional status and incomes of urban farming households in Nakuru town, Kenya: A comparative study*. Nairobi: University of Nairobi, Applied Nutrition Programme, MSc thesis (version submitted for examination).
- 5) School farming in Nakuru town (fieldwork: 2000-01).  
Researcher: Elizabeth Correta Odera (University of Nairobi).
  - Odera, E.C. (2006), *The implications of urban school farming on food security and nutrition: A study in Nakuru town*. Nairobi: University of Nairobi, Applied Nutrition Programme, MSc thesis (version submitted for examination).
- 6) Decision-making around farming in town (fieldwork: 2001).  
Researcher: Nicole Versleijen (Wageningen University).
  - Versleijen, N. (2002), *Sukuma! A social analysis of urban agriculture: Case studies from Nakuru Town, Kenya*. Wageningen: Wageningen University and Research Center, Department of Rural Development Sociology, MSc thesis.
- 7) Legal aspects of urban farming in Nakuru town (1998-2000/2005, interviews/literature study).  
Researcher: Dick Foeken (ASC).
  - Foeken, D. (2005), *Urban agriculture in East Africa as a tool for poverty reduction: A legal and policy dilemma?* Leiden: African Studies Centre, ASC Working Paper 65 (also on [www.ascleiden.nl/pdf/workingpaper65.pdf](http://www.ascleiden.nl/pdf/workingpaper65.pdf)).
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- 8) Rural farming by urban households: The case of Nakuru town (fieldwork: 2002-04).  
Researcher: Samuel Owuor (University of Nairobi).
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