

Peri-urban and urban livestock keeping in East Africa - a coping strategy for the poor?

S. Guendel

Natural Resources Institute, Medway University Campus, Chatham Maritime, Kent ME4 4TB, U K

Introduction Until recently the main focus of agricultural development initiatives has been on rural areas with the view that improved food production in rural areas can supply the expanding urban population. This is especially true for livestock production which has received little attention from R & D initiatives in urban areas. During the International Symposium on Supply of Livestock products to rapidly expanding urban populations (FAO, 1995) peri-urban and urban livestock systems were considered as special cases. Main emphasis was given to rural livestock production systems directed towards the urban demand. Consequently, information on urban and peri-urban livestock production is limited. Recent data reveal that a significant proportion of the world's population growth expected between 2000 and 2030 will occur in urban areas (UN Habitat, 2002). Rapid urbanization has not been accompanied by equitable economic growth and has resulted in increased urban poverty. As a result of this worsening of urban poverty, many low-income households suffer from extremely limited livelihood security. The urban poor engage in urban livestock keeping as a response to limited alternative livelihood options and food insecurity. These livestock keepers, lacking control over and access to basic inputs, are seldom able to access support services and are either harassed or ignored by the city planners (Waters-Bayer, 1995).

The aim of the scoping study was to understand the current situation of poor urban livestock keepers, and identify areas where future research could make a contribution to the development and promotion of this activity. The main focus of the study was on poor livestock keepers.

Material and methods Five city case studies were selected in Tanzania, Uganda, Kenya and Ethiopia. The cities were Dar es Salaam, Kisumu, Nairobi, Kampala and Addis Ababa. Local consultant teams were employed to conduct the case studies. Purposeful sampling targeting poor livestock keepers and a combination of questionnaires and stakeholder meetings were used to obtain the information required. Secondary information was used to supplement primary data.

Results The case studies reveal that urban livestock keeping has benefits for the poor and provides a way of diversifying livelihoods activities that are accessible to vulnerable groups. It also provides a source of locally produced food products for people living in the vicinity of the livestock keepers. However, there are various externalities (zoonoses, environmental contamination, product safety) which require addressing. The following key strengths have been identified from the city case studies:

- 1 *Market developments that could favour urban livestock production by the poor.* The urbanization process will lead to increasing demand for livestock products. The proximity to these markets is an advantage for the poor. The case studies indicate that urban commercial livestock enterprises become less competitive due to high input prices (imported feeds and animal drugs) as a result of liberalization and structural adjustment programmes.
- 2 *Higher return per unit of land from livestock compared to crops.* Increasing demand for land in cities for housing favours urban livestock keeping as it requires less land and promises higher returns per unit land utilized.
- 3 *Flexibility in terms of land use.* Compared to urban crop production, livestock can be shifted easily to other urban areas as they become available.
- 4 *Use of existing resources.* Urban livestock keeping offers an opportunity to make use of household waste, agro-industrial by-products such as molasses and brewery residues, weed and grass from public lands and crop residues from markets and urban farmers.
- 5 *Provision of a social safety net for the poor.* The different case studies show that especially vulnerable groups, such as female headed households, children, retired people, widows and people with limited formal education are involved in urban livestock keeping as a form of social security strategy.
- 6 *Multi-purpose activity.* Urban livestock keeping fits different livelihood strategies and contributes to food security, income and employment generation, saving and insurance. It provides easily convertible assets for covering important expenditures (school fees, health treatments).

Weaknesses and constraints which affect the present situation of urban livestock keeping are the following:

- 1 *Inappropriate waste management.* There is strong evidence from all the case studies that animal waste disposal in its current form causes environmental and public health problems, which will become even more severe as urban livestock numbers increase.
- 2 *Water availability.* At present urban livestock keeping competes for water resources with humans as the demand for water for this activity is not taken into account by the supply services. In many slum areas municipal water has to be bought and, therefore, other water sources, which are often contaminated, are accessed for livestock.
- 3 *Poor livestock health and high cost of veterinary services.* The case studies show that animal health is often poor due to inadequate husbandry practises. Poor livestock keepers seldom vaccinate their livestock, especially smaller species

such as goats, sheep and chickens. Due to the high cost of veterinary services and livestock drugs treatment is sub-optimal.

- 4 *Feed availability and quality.* Feed availability is a particular constraint for larger livestock species such as cattle, which are usually zero-grazed. Feed quality is a problem for free-roaming livestock as there is no, or very limited, control over feed sources. The Nairobi case study shows that foraging at waste dumps is common in the slum areas.
- 5 *Low production levels.* Due to limited feed availability, poor quality and poor management practices the production level of livestock is generally low.
- 6 *Poor networking and organization among poor livestock keepers.* Poor livestock keepers are not organized and can, therefore, not express their demands in a concerted way.
- 7 *Lack of research and services provision.* Information access and adoption of improved technologies is limited for poor urban livestock keepers. This is made worse by the fact that existing services are not tailored to the needs and circumstances of the poor (e.g. extension services and training courses promote species which are less relevant for the poor).
- 8 *Limited knowledge of livestock husbandry practices.* As information sources and advice services are lacking, poor livestock keepers often have limited knowledge of livestock husbandry practices.

Conclusions Research studies are required to assess in more detail the current and potential impact these externalities have on urban people and to contribute to the development of strategies to overcome or minimise these.

- 1 *Livestock waste management.* The existing evidence of the negative impacts caused by inappropriate livestock waste management on water resources and public health calls for a more detailed analysis of the problem. Research is necessary to understand how this problem will develop with increasing livestock numbers and over time. Parallel to understanding the scope and dimensions of this problem, research is required to provide improved waste management technologies adapted to the specific circumstance of the poor. An important research component would be the potential for the intensification of urban/ peri-urban and rural linkages in terms of nutrient flow.
- 2 *Water availability.* For urban livestock, water supply is another issue which needs to be understood more thoroughly. Currently, city planners do not take into account the demands of urban livestock keepers. This results in competition for resources, over-use and conflicts between neighbours. Studies are needed which quantify the current and future water demand by urban livestock keeping. A participatory and multi-stakeholder approach is needed to identify potential water management strategies.
- 3 *Zoonoses.* The existing and potential health risks for humans caused by the transmission of diseases from livestock have to be assessed in more detail. As Mantovani (2000) points out there are a range of local factors involved which may increase the risk of zoonoses and which will expose especially vulnerable groups, such as children, pregnant women and poor people in general.

Policy. Relevant information is needed to advise policy makers and city authorities on these issues in order to provide guidance for the formulation of pro-poor urban livestock legislation. An aspect related to zoonoses, which needs to be taken into account for the formulation of new legislation is food quality standards and quality control processes.

The study also shows that poor livestock keepers are marginalized from existing knowledge and improved technologies. There is a clear opportunity to improve the current management system through capacity development and information sharing. However, in order to achieve this, organization and networking among poor livestock keepers is required to improve the access to services, information, technologies and markets.

Finally, there is a need to identify appropriate strategies to promote urban livestock keeping to other vulnerable groups who have not yet entered this activity. As a first step a participatory constraint and opportunity analysis with these vulnerable groups is required to identify the potential contribution urban livestock keeping could make to their livelihoods.

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