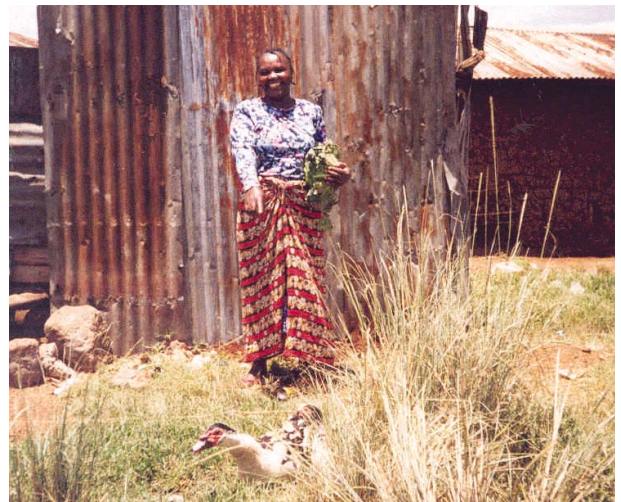




Urban livestock keeping in sub-Saharan Africa

Report of a workshop held on 3–5 March 2003 in Nairobi, Kenya



Urban livestock keeping in sub-Saharan Africa

Report of a workshop held on 3-5 March 2003 in Nairobi, Kenya

Edited by Wyn Richards and Sarah Godfrey, NR International, UK

Organised by

DFID Livestock Production Programme (LPP), NR International, UK

Mazingira Institute, Nairobi, Kenya

Resource Centre on Urban Agriculture and Forestry (RUAF), the Netherlands

With financial support from

Commission of the European Communities, Technical Centre for Agriculture and Rural Co-operation (CTA)

and

Pro-Poor Livestock Policy Facility (PPLPF) of the Food and Agriculture Organization (FAO) of the United Nations

Published by NR International. Short extracts of material from this publication may be freely re-produced in any non-advertising, non-profit making content as long as the source is acknowledged as:

RICHARDS, J.I. and GODFREY, S.H. (Eds.) (2003) *Urban livestock keeping in sub-Saharan Africa: Report of a workshop held on 3-5 March 2003 in Nairobi, Kenya*. Natural Resources International Ltd, Aylesford, Kent, UK. ISBN: 0-95329274-9-0

© Natural Resources International Ltd

This publication is an output from the Livestock Production Research Programme of the UK Department for International Development (DFID), for the benefit of developing countries. The views expressed are not necessarily those of DFID Livestock Production Programme.

ISBN 0-95329274-9-0

To order copies of this report please contact

The Communications Manager
NR International
Park House
Bradbourne Lane
Aylesford
Kent
ME20 6SN
UK
www.nrinternational.co.uk

Photo credit: Mazingira Institute, Nairobi, Kenya

Editors' preface

This report summarises the presentations, discussions and working group sessions of a workshop on urban livestock keeping (ULK) in sub-Saharan Africa held at the International Livestock Research Institute (ILRI), in Nairobi, from 3-5 March 2003.

In response to the increasing number of poor people in developing countries living in cities, the Department for International Development (DFID)'s Livestock Production Programme (LPP) commissioned five in-country teams to carry out scoping studies into the opportunities and constraints faced by urban livestock keepers in the following East African cities: Addis Ababa, International Livestock Research Institute (ILRI); Dar es Salaam, University College of Lands and Architectural Studies (UCLAS); Kampala, Ibaren Konsultants; Kisumu, Lagrotech Consultants and Nairobi, Mazingira Institute. The studies were co-ordinated by Sabine Guendel of the Natural Resources Institute (NRI), UK. Terms of reference for the scoping studies can be found in Annex 1. Presentations were also given on gender relations and livestock keeping in Kisumu, and a study on urban livestock keeping in the Congo, a study funded by the Belgian Government.

Although this was a new study area for the LPP, we realised that we were only one of many players, hence the presence of Urban Harvest, the Resource Centre on Urban Agriculture and Forestry (RUAF), Prince Leopold Institute of Tropical Medicine (ITM), and the Food and Agriculture Organization of the United Nations (FAO) at the workshop. We realise that we did not include all organisations working in ULK at the workshop, and extend our apologies to those not invited.

The studies highlight the fact that ULK is on the increase, especially among the poorest section of society, that there are few, if any, institutions representing the needs of resource-poor urban livestock keepers, that ULK is perceived to be illegal and a public health threat by most city authorities, that this is often accompanied by harassment, and the idea that there are strong rural-urban linkages is not necessarily the case.

The workshop participants, around 60 in number, consisted of a wide range of stakeholders from the five aforementioned cities including: representatives from the Ministries of the Environment and of Planning; the City Council Minister for Social Improvement for Community Development from Kampala; researchers; NGOs and other civil society groups; and urban livestock keepers. Participants included the study teams who had carried out the scoping studies and the Project Leader of a longer-term urban agriculture/livestock scoping study in Brazzaville, Congo (supported by the Belgian Government). A list of participants can be found in Annex 2.

The workshop began with presentations on the scoping studies followed by questions and general discussion. Participants were asked to break into 4 city groups (Addis Ababa, Kampala, Kisumu, and Nairobi), to address the following questions:

1. Where are we now? What is the state of current knowledge and issues that need to be addressed?
2. Where do we want to be? Realistic aspirations on knowledge/issues to be addressed over the next 5-10 years.
3. How are we going to get there? Processes, actions, policies that need to be changed and/or implemented.

It was decided to limit the number of working groups to four; hence the lack of working groups discussing ULK in Brazzaville or Dar es Salaam.

A field visit to two slums in Nairobi (Kibera and Maili Saba) covered in the scoping study took place on the afternoon of the second day of the workshop.

This report has been organised by city, rather than chronological order of the workshop; thus presentations, questions and answers, and working group discussions relating to Addis Ababa, Kampala, Kisumu and Nairobi appear first; followed by presentations and discussions relating to the Dar es Salaam study and the synthesis presentation, then the study on Brazzaville. Background information on the site visits to Kibera and Maili Saba, two slum areas of Nairobi, has been put at the beginning in order to set the scene for the reader.

The CD at the back of the report contains the full scoping study reports (Addis Ababa, Dar es Salaam, Kampala, Kisumu and Nairobi, plus the synthesis report). References have not been given in the presentations, but can be found in the full scoping study reports contained in the CD.

In editing the contributions made by the speakers and participants some omissions and misinterpretations of the facts may have been inadvertently made. For these the editors apologise.

Wyn Richards and Sarah Godfrey

Acknowledgements

For funding, thanks should be given to: Commission of the European Communities, Technical Centre for Agriculture and Rural Co-operation (CTA) for their sponsorship of twelve of the participants at the workshop; the Food and Agriculture Organization of the United Nations (FAO) for contributing towards the cost of the workshop; and the UK Government's Department for International Development (DFID)'s Livestock Production Programme for funding the five case studies, contributing towards the cost of the workshop and funding the report of the workshop¹. In addition, the following individuals and institutions deserve thanks for contributing towards a successful workshop:

All staff at the Mazingira Institute for organising the workshop and for their hospitality

Edward Ndegwa, of Silanga Ya Ngombe Group for organising the very informative field visits

The International Livestock Research Institute (ILRI) for hosting the workshop

Urban Harvest and the Resource Centre on Urban Agriculture and Forestry (RUAF) for their input into the workshop, and subsequent involvement of Urban Harvest in the Kampala city stakeholder workshop.

The scoping study authors and co-ordinator ILRI Addis Ababa; University College of Lands and Architectural Studies (UCLAS) Dar es Salaam; Prince Leopold Institute for Tropical Medicine (ITM); Ibaren Konsultants, Kampala; Lagrotech Consultants, Kisumu; Mazingira Institute and the Natural Resources Institute (NRI) for producing such informative studies

All participants of the studies for their time in contributing to new knowledge.

All participants at the workshop for working together in such a co-operative manner and for bringing forward so many new ideas.

¹ This publication is an output from the Livestock Production Research Programme of the UK Department for International Development (DFID), for the benefit of developing countries. The views expressed are not necessarily those of DFID Livestock Production Programme.

Acronyms and abbreviations

Acronym	Full name
CBO	Community Based Organisation
CIAT	Centro Internacional de Agricultura Tropical
CTA	Commission of the European Communities, Technical Centre for Agriculture and Rural Co-operation
DFID	Department for International Development
FAO	Food and Agriculture Organization of the United Nations
FHH	Female-headed household
IDRC	International Development Research Centre
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
KCC	Kampala City Council
LPP	Livestock Production Programme
MHH	Male-headed household
MI	Mazingira Institute
n	Number
NRI	Natural Resources Institute
PMA	Plan for Modernisation of Agriculture (Uganda)
PPLPF	Pro-Poor Livestock Policy Facility
PRSP	Poverty Reduction Strategy Paper
PRSP	Poverty Reduction Strategy Paper
RPLK	Resource-poor livestock keeper
RUAF	Resource Centre on Urban Agriculture and Forestry
SAPs	Structural Adjustment Policies
SWOT	Strengths, Weaknesses, Opportunities and Threats
UA	Urban agriculture
UCLAS	University College of Lands and Architectural Studies (Dar es Salaam)
ULK	Urban livestock keeping
ULP	Urban livestock production

Table of contents

Editors' Preface.....	i
Acknowledgements.....	iii
Acronyms.....	iv
Executive Summary.....	1
Setting the scene: site visits to Kibera and Maili Saba.....	3
Introduction and comments from supporting organisations.....	7
Addis Ababa	
Scoping study on peri-urban and urban livestock production in Addis Ababa, Ethiopia.....	9
Results from working group discussions for Addis Ababa.....	17
Kampala	
Urban and peri-urban livestock keeping among the poor in Kampala City.....	21
Results from working group discussions for Kampala.....	31
Kisumu	
Scoping study of urban and peri-urban poor livestock keepers in Kisumu.....	39
Scoping study on interactions between gender relations and livestock keeping in Kisumu.....	43
Results from working group discussions for Kisumu.....	51
Nairobi	
Scoping study of urban and peri-urban poor livestock keepers in Nairobi.....	53
Nairobi working group discussions.....	59
Dar es Salaam	
Urban livestock keeping in Dar es Salaam.....	67
Synthesis	
Peri urban and urban livestock keeping in East Africa: summary findings from a scoping study.....	75
Brazzaville	
Urban livestock keepers in Brazzaville, Republic of Congo results of the surveys of 2001-2002.....	81
General discussion	
Study visits.....	87
Next steps.....	88
Conclusion.....	91
Annexes	
1 Terms of reference for scoping studies.....	93
2 List of participants.....	95
3 Like minded groups.....	107

Executive Summary

Increasing numbers of people in developing countries are moving from the rural to the urban areas and this is an ongoing trend. Rapid urbanisation has resulted in **increased urban poverty**. People in urban areas keep livestock for a number of reasons including income generation; household food supply, and security in times of hardship.

Relatively few studies have been carried out on the **opportunities** and **constraints** faced by urban livestock keepers. Studies were commissioned by the UK Government's Department for International Development's (DFID) Livestock Production Programme (LPP) into urban livestock keeping in five East African cities: Addis Ababa; Dar es Salaam; Kampala; Kisumu and Nairobi. Local teams were contracted to carry out the work with the study being co-ordinated by the Natural Resources Institute (NRI), UK.

The workshop provided an opportunity for the five scoping studies, plus a study on gender and livestock keeping in Kisumu, and a study on urban livestock keeping in Brazzaville (the latter funded by the Belgian Government) to be presented to and debated by, an audience consisting of a **wide range of stakeholders**: provisional and local leaders; decision makers; representatives of poor livestock keepers from slum areas; non-governmental organisations (NGOs) and extension agents; researchers; donors and other supporters. The presentations acted as a stimulus for the four (Addis Ababa, Kampala, Kisumu and Nairobi) working group discussions on: **analysis of the situation so far**: discussion of **where we want to be**, and finally; **how to get there**.

The studies found that urban livestock keeping **benefits the poor** and provides a way of diversifying livelihood activities that are accessible to vulnerable groups, as well as providing a source of locally produced food projects for people living near the livestock keepers. There are, however, issues such as **access to clean drinking water, product safety, environmental contamination** and the **risk of zoonotic diseases** that need to be addressed.

The working groups reached different levels of agreement and at times had to work through seemingly opposing stakeholder perspectives before coming to any agreement. Each working group produced a vision and mission statement for their city. There was agreement by each group that these statements should be discussed at a wider city stakeholder level.

It was agreed that each city should identify a city focal point (an organisation represented by an individual present at the workshop) to organise city-specific stakeholder workshops, and to liaise with the other city groups.

A regional forum on urban agriculture and livestock keeping would be created. The forum would be open and informal and would include representatives from each city.

Donor and supporting organisations should work together to support these activities and avoid duplication of effort.

Setting the scene: visits to Kibera and Maili Saba²

The site visits took place on the second day of the workshop. The visits helped focus the participants on the purpose of the meeting; and that is why they have been placed at the start of the workshop report, to help focus the reader.

Descriptions of the areas

Kibera

Kibera is the largest slum area in Nairobi (229 hectares), and the second largest in all of sub-Saharan Africa. There are eight villages that make up Kibera: Makina; Mashimoni; Laini Saba; Kisumu Ndogo; Silanga; Lindi; Gatwikira and Soweto.

Although official estimates place the population of the area at around 500,000, most people agree that this is conservative figure and that the actual population is nearer to 700,000. This means that anywhere from a quarter to a third of Nairobi's population lives within Kibera. The population is increasing rapidly. In 1993 the area had a population of 248,000, which increased to 317,000 in 1998.

Life expectancy in Kibera is 10 years lower than the area next door. There is higher infant mortality in Kibera than in the neighbouring area.

The planning and zoning byelaws of the city do not recognise Kibera (as it is constructed on public land) so any construction that takes place there is regarded as only temporary, if it is recognised at all. Most of the buildings are constructed of very basic materials such as low-grade wood, mud, corrugated iron or cardboard.

Many of Kibera's residents survive on less than Ksh 80 per day (one USD) per day. Most are either unemployed or work in the informal sector, although skilled labour does exist in Kibera. There are also a number of resident university graduates and other highly educated individuals. These factors contribute to the state of the environment in Kibera. Almost half (49%) of residents are self-employed, 38% are in formal labour and about 26% engaged in urban agriculture.

Few dwellings possess running water. Most residents obtain their water from communal standpipes, water kiosks or wells near the river, which is often severely contaminated.

Due to a lack of formal planning a build up of waste occurs in many areas since waste removal is often not taken into account during construction. This indiscriminate construction has also led to a lack of accessibility for service vehicles in most of Kibera. Poor accessibility, difficulty in collecting service fees, and Kibera's informal status have prevented the Nairobi City Council (as well as private agencies) from organising any refuse collection services in Kibera. Thus, most residents resort to throwing solid waste into open drains. The railway track and the river are the primary dumping grounds. Kibera is believed to be on one the largest contributors to the high pollution levels in the river and Nairobi dam.

The villages have no sewerage toilets and simple pit latrines (often incredibly derelict) serve many households. Up to 150 people may share the same latrine. When a pit

² Descriptions of Kibera and Maili Saba based on text put together by the Mazingira Institute and distributed at the workshop prior to the site visit.

becomes full, a passage is opened up so that when it rains, the contents flow into one of the drainage channels, thereby partially emptying the pit. Visitors to Kibera are advised to look out for 'flying toilets' – plastic bags containing human waste being thrown from homes into the street.



Photo credit: Mazingira Institute

Pictures of Kibera

Maili Saba

The Maili Saba slum is about 15km east of Nairobi city centre, bordering Dandora area 5km to the North and Saika Estate to the South. The only road to the area forms the Western boundary.

The slum consists of three villages, namely: Maili Saba, Mwengenyua and Silanga. The area used to be part of a sisal plantation whose workers later settled on the land. They were then joined by scores of migrants from the rural areas. In the early 1980s the area had a population of about 10,000 people with around 68% practicing farming.

A survey in the late 1990s indicated that the area is among the poorest of Kenya's slums, with an average income of Kshs 700-1,000 per month. There is also minimal infrastructure and severe environmental degradation.

The majority of area residents are within the active working age range of 20-39 years. Studies have shown that a large proportion of the population is single (62%) and most of the adults do not have paid employment. The area has a very low rate of school attendance and about 68% of the children living there suffer from malnutrition or have worm infestation.

Shelters in Maili Saba are mainly made of mud and wattle with corrugated iron roofs. Homes are severely congested. However in Silanga, dwellings are made of mud block walls and are well spaced. In this village the soils range from rocky/murram to red loams.

While there is little or no farming activity in Maili Saba village due to congestion, many households in Silanga have kitchen gardens, keep pigs (a major activity in the area), goats, chickens, ducks and turkeys as well as indigenous and dairy cattle. The farmers in Silanga seem to favour planting maize and beans in their compounds. The village in general, although recently settled, seems to be well planned and maintained, when compared to its two neighbouring villages.

In Silanga there are eight Christian churches of varying denominations, two children's centres, two informal primary schools and several water pipes. The area has no

medical facilities. For administrative purposes, small sections within each village are headed by a chairman who reports to an overall village chairman.

In a nearby valley, farmers use sewage water to grow an assortment of crops including maize, beans, cowpeas, bananas, pigeon peas, amaranthus, pawpaws, tomatoes, sugar cane and arrowroots.

Recently, the area was 'reallocated' to the residents and all former sewage-irrigated farms turned into settlements. However, the owners have no legal documents to prove they own the land they are currently using.

A very small proportion of farmers have attempted to grow flowers for export and keep dairy cattle. This is an indication that farming can be a profitable activity in the area.

In Mwengenye village, the main crops grown are similar to the Silanga area, but goat keeping seems to dominate in the village. Open spaces (adjacent to the village) where sewage irrigation is not possible are being used to grow maize and for construction of hosing units.

The livestock sector wholly depends on farming activities and the local hotel industry. While most pig farmers are concentrated in the Silana area, poultry and goat farming was observed to be mainly in the Mwengenye village, which is the oldest section of Maili Saba.

According to the crop farmers interviewed, livestock farmers buy the animal feed from them and later sell milk to the local families. Pigs are either sold to Farmer's Choice Ltd or to local pork butchers. Livestock farmers also sell manure to the crop farmers, thereby completing the nutrient cycle and preventing severe environmental degradation.

The Maili Saba area is believed to be one of the best illustrative cases of waste and nutrient recycling in an urban setting.

In Maili Saba, youths are active in crop production (compared to other slum areas). However, the majority of youths still seem to be employed in informal businesses outside the area. Discussions held with some of them indicate that they view farming as a less rewarding activity than construction or hawking.

Feedback from site visits

Participants found their site visits informative as well as shocking, and recommended that those carrying out legislation for Nairobi should visit these sites.

Kibera

People were 'completely stunned' by the observation that human beings can survive in such an environment and felt that attention should first be spent on improving the subhuman environment that the people live in before focussing on the animals. Participants said they had never seen such poor sanitation with such high risks of zoonoses and cysticercosis.

They observed that animals were kept in such poor conditions and even if people had good husbandry techniques, the environment in which they were living was very insecure and unhygienic.

Livestock keepers said they were not keeping livestock for pleasure but for necessity. Urban livestock keeping is an indication of a population in crisis – it can be viewed as people using their creativity to survive, rather than a totally negative situation

Mali Saba

This site visit was not such a 'shocking' one. People visited were living in a recent settlement. It would be very easy to provide technical back up to assist these people because they have already started to organise themselves, however they lack extension advice. The people visited experience problems of local gangs eg control over the sale of manure.

The visitors realised that advisers need to understand the aspirations of the urban livestock keepers and respond to them, rather than impose 'expert advice'. They realised that if extension advisers met with people at the beginning of their activity they would be able to provide the most appropriate advice to the urban livestock keepers. The following positive observations were made about Maili Saba:

- There was a high level of biodiversity within a small area eg maize, banana, sugar cane, fodder sources
- It was good to see the confidence the livestock keepers had in themselves
- The group were brought together by the land and by the Church, not by tribal links
- The farmers are innovative
- Participants were impressed by the quantity of manure, it was different to that in other urban and peri urban areas. Lots of farmers add to manure eg sawdust, but this group had pure manure

Suggestions arising from the site visit

- There is a need to investigate the minimum standards required in order for hygienic urban livestock keeping to take place
- Urban livestock keeping should only be encouraged in certain restricted areas
- The infrastructure needs to be improved to help people in Kibera
- There is a need for animal hygiene
- People (policy makers, researchers etc) need to visit the areas urban livestock keepers are living in
- Access to Kibera in terms of security needs to be addressed. For example extension workers do not visit due to the danger of the area, thereby not building up the knowledge of local inhabitants.
- In Kisumu, livestock are recognised as contributing to the economy of the city. A pro-poor agricultural policy for urban centres is needed for the city planners.
- Agriculture should be viewed as an enterprise so planners can plan for livestock housing just like they do for trade stalls in the city.
- Plans should be based on policies and should cover issues such as land tenure.

Introduction and comments from supporting organisations

The workshop was opened by Dr W Thorpe on behalf of the Director General, Dr C Sere of the International Livestock Research Institute (ILRI). Participants were welcomed to ILRI and thanks were given to the funding agencies for supporting the workshop. The topic of urban agriculture is an important one for ILRI to learn from. Thanks were given to ILRI for hosting the workshop.

Comments from representatives of organisations supporting the workshop

Wyn Richards, DFID Livestock Production Programme (LPP)

I would like to thank ILRI for hosting the workshop. The issue of urban livestock keeping is a relatively new issue for both livestock research and ILRI. There has been interest in urban agriculture for over 10 years, but the emphasis has been on crops and urban gardens, rather than urban livestock keeping. In putting together this workshop we have tried to invite as wide a range of stakeholders as possible: national, provisional and local leaders, decision makers, representatives of poor livestock keepers from slum areas, non-governmental organisations (NGOs) and extension agents, researchers, donors and other supporters. What we get out of the meeting depends on what we put in, so we would like people to contribute their thoughts as much as possible.

The Livestock Production Programme is one of ten renewable natural resources programmes funded by the UK Government's Department for International Development (DFID) but, apart from work funded by the Crop Post Harvest Research Programme on urban street markets, we are the only one dealing with urban agriculture. The majority of research commissioned by DFID has focused on the rural areas. However, with the rapid increase in urbanisation in the developing world we see a need to commission research on livestock keeping in urban areas. The scoping studies presented at the workshop are a first step in identifying issues which research might help.

Henk de Zeeuw, Resource Centre on Urban Agriculture and Forestry (RUAF)

I am very happy to be here to discuss the topic of urban livestock, which in my view is a very critical issue for sustainable urban development. Urban livestock is often not discussed so it is good that we are holding a workshop on this important topic and I hope we can look at the opportunities it provides. RUAF is a programme that facilitates the uptake of urban agriculture into city policies, mainly by exchanging information between different policy makers etc from different countries. We also do this by producing a magazine, organising electronic conferences and workshops. Some of the magazines are on display here. We don't have any money to fund activities in the south, but we can bring you into contact with people who do have the money. Our work is mainly information exchange.

Katinka de Balogh, Pro-Poor Livestock Policy Facility (PPLPF) of the Food and Agriculture Organization of the United Nations (FAO)

The Pro-Poor Livestock Policy Facility (PPLPF) became operational at the FAO in 2002. This DFID-supported facility is based at FAO Headquarters in Rome, Italy and is embedded within the Animal Production and Health Division.

The facility envisages contributing to poverty reduction through the formulation and promotion of international and national livestock policies that ensure equitable, safe and clean livestock farming. For this, the facility collects, analyses and disseminates information/data and sets out studies to fill existing information gaps; this is with the aim of assisting policy makers in the decision-making process. In addition, the existing policy processes are analysed and stakeholder consultation and advocacy for the poor is promoted.

Due to the differences of regional/local differences, a number of regional “hubs” are envisaged. In the first instance they will cater for South-East Asia, Southern Asia, the Andean Region, East Africa and West Africa and will address specific issues of importance for poor livestock farmers in the respective regions. Furthermore, a number of actions address issues across geographical zones; these correspond to the delivery of livestock services, public health and food safety issues, dairy production as well as access to international markets. The facility liaises with a wide spectrum of local, national and international players

This workshop is very relevant to us and we are looking forward to hearing your recommendations to see how we can integrate them into our further activities.

Diana Lee Smith, Urban Harvest (formerly the System Wide Initiative on Urban and Peri Urban Agriculture – SIUPA)

Urban Harvest is a system wide activity of the Consultative Group on research. Although there has been research on urban agriculture for a couple of decades, it was more along the lines of socio economic research and not agricultural research. It came to people’s attention gradually that due to increased food security etc the issue of urban agriculture needed to be addressed. Urban Harvest is hosted by the Centro Internacional de la Papa (CIP) but works closely with the Centro Internacional de Agricultura Tropical (CIAT) in Kampala, the International Institute of Tropical Agriculture (IITA) in Cameroon, the World Agroforestry Centre and the International Livestock Research Institute (ILRI), both in Kenya. I think the value added of this activity to the agriculture research system is that it brings in new partners. Participants at this meeting represent a new dimension. It is unusual for the CG centres to relate to the ministries of local government, planning and health etc. It is a very exciting area of work. There are opportunities to make very interesting scientific breakthroughs. My own personal interest (in Urban Harvest) is that we are working on a number of initiatives and it is good to meet new partners. We also want to carry out collaborative work with all of you on making it possible to have an exchange of information at a more rapid rate in the region and to do more training. Future plans include a regional health workshop with the International Development Research Centre (IDRC).

Scoping study on peri-urban and urban livestock production in Addis Ababa, Ethiopia

Azage Tegegne¹, Miliion Tadesse¹, Mengistu Alemayehu¹, Dereje Woltedji¹, Zinash Sileshi²

¹International Livestock Research Institute (ILRI), Debre Zeit, Ethiopia

²Ethiopian Agricultural Research Organisation (EARO), Addis Ababa, Ethiopia

Background

Addis Ababa is the capital city of Ethiopia and was founded in 1886. The city's total land area is around 54,000 hectares. The human population is 2.7 million with a population growth rate of over 5%. Administratively, the city is divided into 6 zones: 28 *Woredas* and 328 *Kebeles* (this arrangement is currently under revision)

The table below shows the projected increase in population size and demand for food types in Addis Ababa.

Table 1 The projected population and food demand for Addis Ababa

Year	Population (million)	Cereals (million tones)	Meat (million tones)	Milk (million tones)
2000	2.40	5.62	0.52	115.57
2010	3.33	7.49	0.70	154.15
2020	4.25	9.55	0.89	196.67
2030	5.08	11.45	1.07	235.63

Table 2 The livestock population in major urban and peri-urban centres in Ethiopia

Species	No	Remark
Cattle	169,264	40,000 crossbred
Sheep	64,767	
Goats	22,630	
Donkeys	15,886	Pack animals
Chicken	415,680	

Source: MoA, 2001

Materials and methods

The study was conducted in Addis Ababa and Debre Zeit town. This report covers Addis Ababa only. Twenty farmers were involved in the study. The following zones were covered in the study: Zone 2: West, Jimma Road; Zone 3: Northeast, Debre Berhan Road; Zone 4: North, Gojam Road; Zone 5: North West, Wellega Road.

Study approach

The team reviewed relevant published literature (proceedings, annual reports and scientific findings); collected analysed secondary data from research and development organisations, NGOs and public organisations; carried out field visits and undertook group discussions with representatives of government, NGOs, private and smallholder farmers; collected data from selected farmers using a questionnaire.

The following tables show the characteristics of livestock keepers, their education and occupation, type of farm and farm size, livestock species kept and details of livestock husbandry issues.

Characteristics of livestock keepers

The following tables illustrate the characteristics of livestock keepers in Addis Ababa. In general, they are most likely to be older than 30, (95%), married (80%) and male (55%). They will not have a diploma or degree and are slightly more likely (35%) to have received primary or secondary education rather than being illiterate (30%). They are more likely to be a part-time farmer (85%) combining farming with other income-generating schemes. They are most likely to keep cattle (45%), having an average of 8 cattle. They are most likely to have a long experience of livestock keeping (50% having over 40 years); reflecting the fact that 55% of livestock keepers are over 50. It is most likely their parents kept livestock (90%). They are most likely to look after the livestock themselves (50%). Stall feeding is more popular than grazing for both cattle (90%) and small ruminants (67%), whereas poultry are equally as likely to be scavenging or enclosed (both 36%), with the remainder (28%) being both. Livestock are most likely to be given supplementary feed consisting of home mixed agro-industrial. In married households, the decision maker is most likely to be the husband (55%).

Table 3 Age, marital status and sex of livestock keepers

Category	No	Per cent
Age		
<30	1	5
30-50	8	40
>50	11	55
Marital status		
Married	16	80
Widowed	4	20
Sex		
Male	11	55
Female	9	45

Table 4 Education and occupation of livestock keepers

Category	No	Per cent
Education		
Elementary	7	35
Secondary	7	35
Diploma	0	0
Degree	0	0
Illiterate	6	30
Occupation		
Civil Servant	1	5
Retired	4	20
Farmer	15	75
Trader	0	0

Table 5 Type of farm and farm size

Type of farm	No	Per cent
Full time	4	15
Part time	17	85
Farm size, ha		
< 0.05	6	3
0.05 - 0.10	10	5
> 0.10	4	2

Table 6 Livestock species kept

Category	No	Per cent
Cattle	9	45
Cattle and Poultry	2	10
Cattle and small ruminants (SR)	1	5
Cattle, poultry and SR	5	25
Cattle, poultry, SR and donkey	3	15
Cattle	9	45

Table 7 Livestock holdings by species

	Dairy	Sheep	Poultry
Mean	8	6	12
Minimum	3	2	1
Maximum	19	10	29

Table 8 Experience in livestock keeping

	No	Per cent
Years of Livestock keeping		
<20	6	30
20 to 40	4	20
> 40	10	50
Did your parents keep livestock?		
Yes	18	90
No	2	10

Table 9 Labour utilization for livestock management

	Number	Per cent
Children	1	5
Hired labour	2	10
Owner	10	50
Owner + Family	3	15
Owner + Hired labour	3	15
Relatives	1	5

Table 10 Type of livestock management systems

	Number	Per cent
Dairy		
Stall feeding	18	90
Grazing	2	10
Small ruminant		
Stall feeding	8	67
Grazing	3	25
Both	1	8
Poultry		

	Number	Per cent
Scavenging	4	36
Enclosed	4	36
Both	3	28

Table 11 Types of supplementary feeds used for livestock production

Supplementary feed	Number	Per cent
None	2	10
Commercial concentrate	2	10
Home mixed agro-industrial products	14	70
Both	3	15

Table 12 Decision maker on the sale of livestock and livestock products

Decision maker	Number	Per cent
Husband	11	55
Wife	4	20
Both	5	25

Summary

- Livestock keeping is an important economic activity
- Women and children play an important role in urban livestock keeping
- Livestock keepers generally have a low level of education
- There is a shortage of land and space for livestock
- There is no adequate legal support
- There is no adequate extension service

Recommendations

- Assess potentials and constraints of urban livestock production systems
- Identify policy support and strategic approaches with the objective of integrating it in urban planning
- Establish, promote and strengthen producers/marketing associations, unions and federations
- Avail adequate land to producers

- Improve market information system
- Support enterprises through finance and training services
- Pay attention to environmentally sustainable production system
- Ensure access to employment, credit and income generating opportunities for women
- Provide and implement sanitary inspection and quality control
- Train and improve awareness of producers, processors and traders on the importance of quality and safety of food
- Strengthen institutional capacity of livestock and products markets, food inspectors and regulators
- Capacity building in planning, managing and implementation, and monitoring and evaluation of development programs
- Establish new markets, upgrade and expand markets in terms of transport systems, space and sanitation facilities
- Establish animal products processing units, increase the number of slaughter houses and support the participation of the private sector

Research Issues

- Policy issues (recognition, land, price, quality, financing, etc)
- Zoonoses and public health
- Animal management (housing, care, etc)
- Feeds and water
- Waste handling and management
- Quality control and food safety
- Market structures
- Animal genetic resources

Discussions, questions and answers on the presentation

What definition of poor was used in the study? The presentation gives an average of 8 animals per person, so was this defined as poor in a wealth ranking exercise?

The study team did not carry out any wealth ranking in the household survey and suggested that the definition of the poor, along with the definition of the urban and peri urban areas, were topics that could be discussed at the workshop.

Have you included any study on the welfare of animals? There is evidence of poor handling of animals in Addis

Azage Tegegne (study member) is a founding member of the Addis Animal Welfare organisation so can provide up to date information on the welfare of the animals kept by urban livestock keepers. It was agreed that the issue of animal welfare needs to be looked at.

On the topic of institutional involvement, are the different institutions involved in urban livestock keeping and agriculture working together?

In Addis Ababa in February 2003 the government set up the Urban Agriculture Office (Diribu Jemal, participant at the workshop is Head of the Office). This is a giant step as far as the Addis Ababa study team are concerned. The new office in Addis will be able to co-ordinate the different institutions supporting or not supporting livestock.

Some of the sites in the study are very small and yet the study recommendations appear to be derived from elsewhere

The study team did not just focus on the survey but also carried out a literature review, so recommendations are a synthesis of all the research carried out.

The recommendations are targeted at different actors as they vary and touch a number of areas, so has the study identified the contribution of urban livestock to the economy.

Were the constraints identified by the participants?

The stakeholders were interviewed individually but the study team did not have time to organise a stakeholder workshop.

Results from working group discussions for Addis Ababa

Developing an understanding of the present situation: where are we now?

The level of understanding had been very limited and non-systematic. The scoping study has shed some light on the situation. Future improvements include the following:

- There should be better co-ordination between research and development, and also better policy co-ordination
- Research and development plans should be based on the needs and participation of the key stakeholders (ie the farmers themselves)
- There needs to be recognition of urban agriculture (and integration of urban livestock into urban agriculture), and the contribution of urban livestock to the urban economy needs to be recognised
- Urban agriculture needs to be understood as a response to crisis and transformation of economic activity
- There needs to be improved market integration for resource-poor urban livestock keepers
- The institutional set-up needs to improve
- There is currently no continuum of production to consumption
- Livestock mapping (poor, non-poor, vulnerable, urban, peri-urban) should take place
- Co-ordination of urban agriculture stakeholders and networking (nationally and internationally)

The government has recently recognised the importance of urban agriculture and is committed to improving work in this area, for example, an Urban Agriculture Office has recently been established.

The desired future position: where do we want to be?

Issues raised by stakeholders include:

- Production efficiency (animal management, breed types, productivity)
- Institutions – co-operatives, unions delivery systems, extension work
- Environment/waste management
- Policy issues – land, enabling urban livestock environment (taxes)
- Marketing and processing
- Technological options

Institutional empowerment needs to include

- Development of guidelines and minimum standards of livestock keeping in agriculture to cover:
 - Management
 - Quality control
 - Delivery systems
 - Environmental management
 - Animal health
 - Marketing
- Central information / data management
- Focal group to be established for urban agriculture

Policy issues

- Development of guidelines and acts on
 - Waste management
 - Animal movement
 - Water quality and requirements
 - Animal feeding, management and health
 - Land tenure
 - Safety nets / risk management
 - Food safety and quality
 - Utilisation of public land for feed

The route from the present situation to the desired future position: how do we get there?

Vision

Better quality of lives for all

Mission

Sustainable and systematic research and development on urban agriculture

Goal

To improve the wellbeing of people through efficient, sustainable affordable, equitable and environmentally friendly urban livestock production systems

Objectives

1. To develop policies and an institutional framework that creates a conducive and enabling environment to enhance urban livestock production and development in a health and environmentally friendly way
2. To improve access to information, inputs and services, concerning urban livestock production
3. To enhance urban livestock production to contribute to poverty reduction and economic development
4. To provide quality and safe livestock products
5. To enhance the competitiveness of national and regional enterprises or urban livestock production (through markets, technical options and added-value)

Strategies

Objective 1: To develop policies and an institutional framework that creates a conducive and enabling environment to enhance urban livestock production and development in a health and environmentally friendly way by

- 1.1 establishing a strong network including all stakeholders
- 1.2 conducting participatory policy research to provide policy options
- 1.3 learning from others (workshops, tours etc) and capacity building
- 1.4 (re)formulation of rules, norms, standards and regulations
- 1.5 establishing mechanisms for monitoring and evaluation of impacts on urban livestock development

Objective 2: To improve access to information, inputs and services, concerning urban livestock production by

- 2.1 promoting private input providers/services
- 2.2 developing and disseminating urban livestock technical options
- 2.3 enhancing and promoting indigenous knowledge in livestock production

Objective 3: To enhance urban livestock production to contribute to poverty reduction and economic development by

- 3.1 developing social maps with a focus on poor livestock keepers
- 3.2 enhancing efficiency of urban livestock production systems
- 3.3 developing appropriate safety net mechanisms/risk management

Objective 4: To provide quality and safe livestock products by

- 4.1 applying the norms and standards defined in the policy framework
- 4.2 training and education for producers and consumers
- 4.3 establishing/implementing functional quality control services
- 4.4 setting up a well-designed waste management system at different levels

- 4.5 developing and applying appropriate animal management and care to ensure welfare and safe production of animals
- 4.6 institutionalising the monitoring and evaluation of quality assurance

Objective 5: To enhance the competitiveness of national and regional enterprises or urban livestock production (through markets, technical options and added-value) by

- 5.1 enhancing post-harvest technology and processes to meet different market needs
- 5.2 enhancing the cost effectiveness of the system
- 5.3 enhancing product quality and marketability
- 5.4 promoting co-operativeness and small-scale enterprise
- 5.5 developing and implementing reward systems
- 5.6 exploring market opportunities
- 5.7 developing entrepreneurship

Urban and peri-urban livestock keeping among the poor in Kampala City

Sarah Ossiya, Nelly Isyagi, Lucy Aliguma, Charles Aisu

Ibaren Konsultants, Kampala, Uganda

Historical background of Kampala City

Kampala City dates back to 1350. It was originally known as Kibuga, the seat of the Kabaka. It became a colonial settlement in 1890. The city merged into Greater Kampala (Kampala and Kibuga) in 1966. It is the largest urban centre in Uganda, 13 times the size of the next town (Jinja) and is home to 42% of the total urban population of Uganda. However, its prominence is diminishing with the current decentralization. Kampala City is also a district, with five divisions: Rubaga, Kawempe, Nakawa, Makindye and Central. The population pattern is diurnal, consisting of 1,500,000 people by day and 1,000,000 people by night. It is predominantly a young population, with 67% below the age of 24.

The rural comes to urban: livestock keeping in Kampala - a growing phenomenon

“In Kampala, where besides the city centre most empty spaces are covered by perennial crops, one gets the feeling that the rural sector is overtaking the city instead of the reverse”
(Bigsten and Kayizzi-Mugerwa (1992))

Urban livestock keeping and urban agriculture in general, are becoming increasingly common phenomena in Kampala, with livestock scavenging on refuse dumps, and “road-runners” or urban chicken being common sights.

Before the crisis periods of the 1970s and 1980s, most urban dwellers relied on rural food supplies. However this now appears to be changing.

Entry into urban livestock keeping reflects both rapid urbanization (responding to market demand) and the severe economic crisis, brought on by structural adjustment policies (SAPs), which have resulted in massive retrenchment, devaluation of the Uganda shilling and an increase in the cost of imported inputs.

There are gender differences in the major reasons for keeping livestock: men keep livestock mainly for income generation whereas women tend to keep it for food security and household welfare.

Entry into livestock keeping: a reflection of economic hardship

The graph shows that at times of major political upheaval, an increasing number of people in Kampala kept livestock. For example, there are peaks in the early 1970s (the start of Idi Amin’s reign), the late 1970s/early 1980s (the end of Idi Amin’s reign), the mid 1980s (Milton Obote’s reign ends) and the late 1990s (structural adjustment policies causing over 26% of Uganda’s civil servants to be ‘retired’).

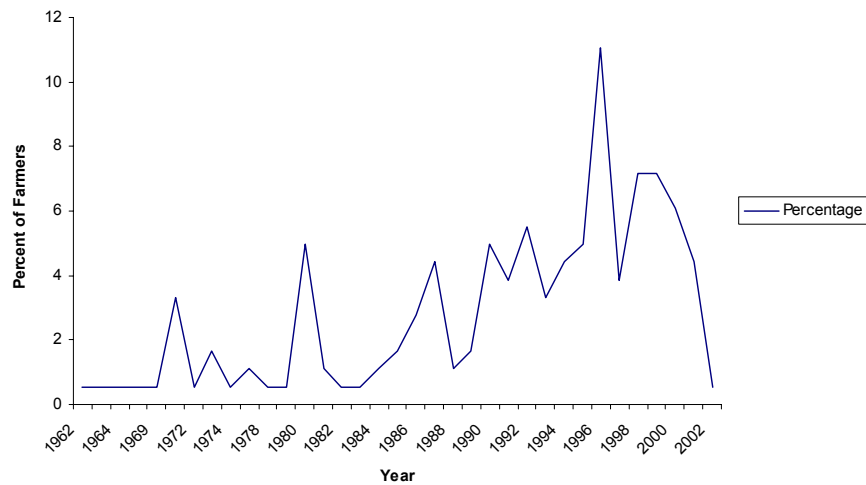


Fig 1 Graph mapping the percentage of people keeping livestock in Kampala against political upheavals

Who are the poor urban and peri-urban livestock keepers in Kampala?

As a result of focused group discussions and interviews with the 184 representative households surveyed during the scoping study the following observations were made about the poor urban and peri urban livestock keepers in Kampala.

Table highlighting characteristics of urban livestock keepers

Characteristic	Observations
Poverty	Poverty is an overarching characteristic, with over 72% of livestock keepers in Kampala in the low-income bracket.
Male or female headed households	The majority (80%) are male headed; of the 20% female headed households, 65% of these are headed by widows and 11% headed by married women. Livestock keeping is seen as a social safety net for widows.
Age	Most are aged between 30-60 years
Education	Urban livestock keepers had some education, with only 4% (mostly women) having no education; 25% had primary education; 35% had secondary education and 15% had tertiary education.
Tribe	Most livestock keepers are from the Baganda tribe, which dominates Central Uganda
Employment	35% are employed in the formal sector, 32% in business or are self-employed, 19% employed in livestock, 11% in mixed farming and 35% in crop farming
Main income source	For 31% of people surveyed it was salary; 25% said business profits and 25% relied on livestock
Secondary income source	For 38% of households this was livestock
Age differentiation of income	Younger people (aged 21–30) business, 31-60 formal sector, over 60 livestock keeping. Therefore urban livestock keeping can be said to be a social safety net for retired persons
Gender differentiation of income	42% of female-headed households are dependent on livestock and 22% relied on business. 34% of male headed household relied on the formal sector, and 25% relied on business
Access to land	61% of urban livestock keepers owned land, 27% rented land, 5% had access under customary tenure and 5% utilized City Council land. Most owned less than 0.25 acres
Urban-rural link	<p>This was found to be a myth.</p> <p>Only 40% and 27% of male and female household heads respectively, owned land in the rural areas i.e., 60% and 73% of male and female household heads, respectively, are urban poor – rural landless.</p> <p>Only 17 % and 14% of male and female livestock keepers respectively, owned livestock in the rural areas.</p> <p>For all livestock species except goats, urban livestock keepers received less than 10% of their stock from relatives in the rural areas (goats 25%)</p> <p>The strongest rural-urban linkages were found to be the passing down of the tradition of livestock keeping and livestock keeping information</p>

Ownership demographics: gender matters

Table showing male, female and joint ownership of different livestock species

Livestock type	% Households keeping	Male ownership	Female ownership	Joint ownership
Improved cattle	60	64	9	6
Local cattle	21	58	34	8
Improved sheep	3	62	25	13
Local sheep	26	34	50	15
Improved goats	2	50	50	0
Local goats	4	67	33	0
Improved pigs	14	35	50	15
Local pigs	12	35	50	15
Improved chicken	27	21	75	0
Local chicken	27	31	51	0
Improved rabbits	3	71	29	0
Local rabbits	3	67	17	0

The figures in bold show the most dominant type of ownership. The larger stock plus rabbits are more likely to be owned by males rather than females.

Livestock husbandry practices and strategies

Women performed most of the routine, day-to-day tasks, men mostly concentrated on more specialized, occasional activities

The list below shows the types of feed fed to different types of livestock. The feed type is listed in order of popularity (ie for cattle, elephant grass is the most common feed, followed by commercial feed).

Cattle	Elephant grass, commercial feed, crop residues, household waste, improve grasses and legumes, brewery waste, salt/lick supplements
Shoats ¹	Crop residues, household waste, elephant grass, improved grasses and legumes, commercial feed
Pigs	Household waste, commercial feed, crop residues, elephant grass
Poultry	Commercial feed, improved grasses and legumes, elephant grass, household waste, brewery wastes, crop residues
Rabbits	Crop residues, improved grasses and legumes

¹ Sheep and goats

Constraints

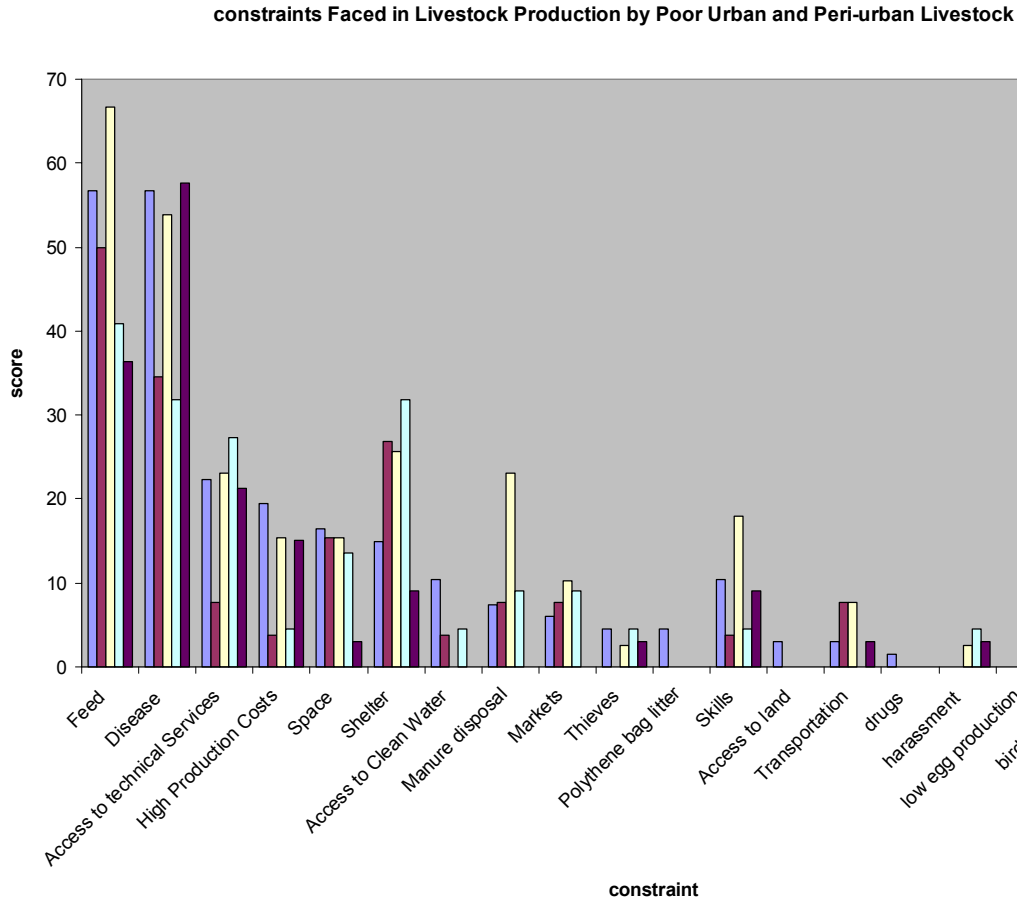


Fig 2 Graph showing constraints faced in livestock production according to livestock species

Key:

- Cattle = blue
- Goats – red
- Pigs = yellow
- Rabbits = pale blue
- Poultry = dark red

The graph illustrates that the top two constraints identified are feed and disease.

Services and institutional support

Veterinary services

Most veterinary services are provided by private veterinarians (this is the case for 58% of the households). The Government and Makerere University staff also prominent

service providers. Seventy eight per cent of households had access to a drug stockist in their vicinity. However, constraints were found to be:

- Expensive drugs
- Expensive services
- Adulteration of drugs
- Few qualified vets
- High transport costs
- Expired drugs
- Slow response to service request
- Unethical service providers

Information sources

Male and female livestock keepers have similar information needs for modern methods, treatment, feeding, disease diagnosis, and poultry management. The graph below shows the preferred source of information.

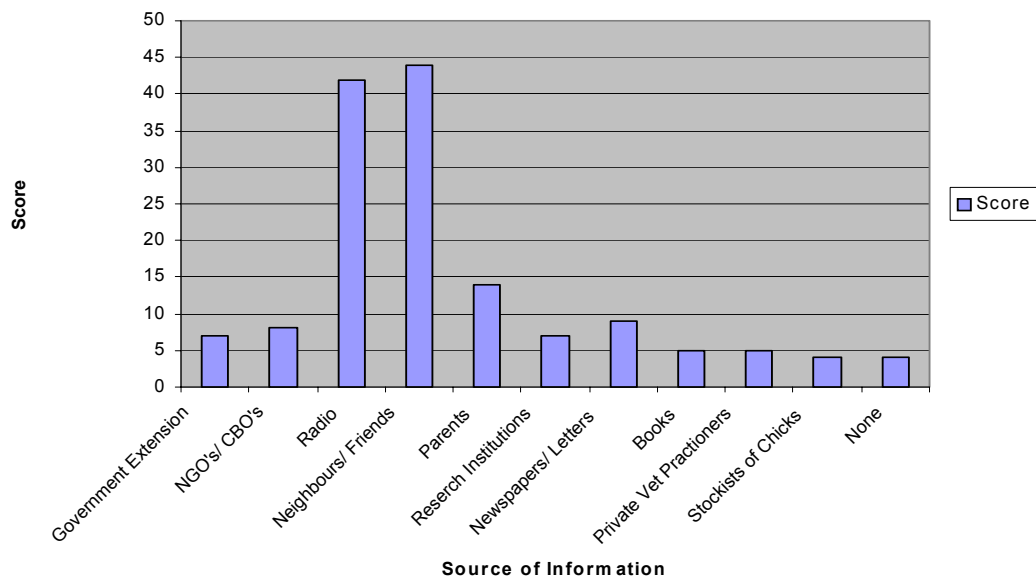


Fig 3 Graph showing the preferred source of information of urban livestock keepers in Kampala

Training

Prior to 1996, almost no women were trained in husbandry techniques. After 1996, the number of people in general trained in these techniques increased drastically, and the majority of those trained were women.

Extension services

The pie chart below illustrates the lack of contact the urban livestock keepers had with extension services. This was a point confirmed by the other city studies.

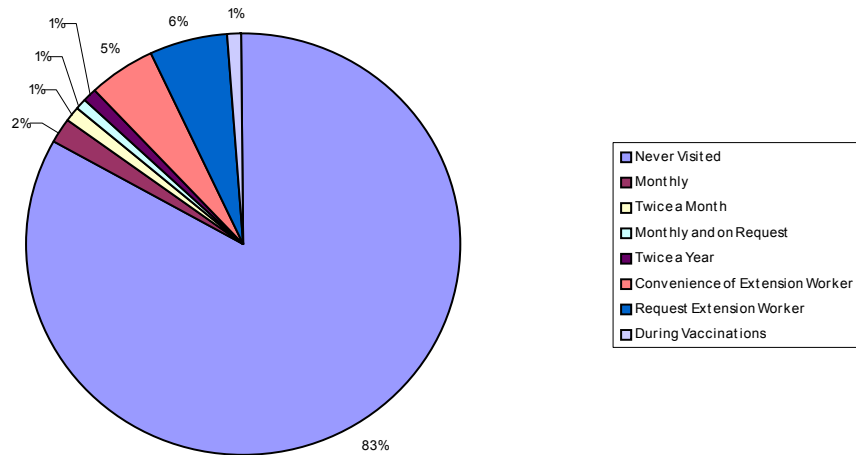


Fig 4 Pie chart illustrating the lack of contact between extension workers and urban livestock keepers

Credit

Very few households used credit despite 46% of households having credit facilities in their vicinity. Of the 42% of households who had access to credit facilities, 52% felt there was equal access for men and women and 48% said there was a bias towards women. Men and women were felt to face similar constraints in using credit, which included: high interest rates; pressure to repay the loan increasing the sense of risk in livestock keeping (ie making it less secure); the pay back time being on an unrealistic weekly basis meaning that credit would need to be repaid before the investment became productive; insecurity in livestock keeping may make it more difficult to repay the loan.

Policy support and networking

There are currently no policy institutions specifically targeting urban and peri-urban livestock producers which means they fall under the general livestock sector. Livestock policies are in line with overarching government targets such as poverty reduction, diversification, liberalizations and privatisation, and the move from subsistence to commercial production.

The study did not find evidence of networking or urban farmer associations.

Legislative framework pertaining to livestock keeping

Implementing and enforcing authorities

Legislation dates as far back as 1922, some laws are still in effect, some were reviewed in early 1960s. The laws do not reflect the prevailing realities "colonial regulations and by-laws are excessive, unenforceable or inappropriate to local conditions." Kironde (1992). Legislation should be reviewed given the changing climate of urban livestock keeping, particularly the following Acts: The Public Health Act, The Cattle Grazing Act, The Cattle Traders Act, and The Animal Straying Act.

Kampala City Council (KCC) is the major implementing authority. Up until 1995 the KCC prohibited and restricted livestock production in urban and peri-urban Kampala often resulting in harassment of urban livestock keepers. The KCC has now revised official position to recognize existence and benefits of urban agriculture. The KCC has included elements of urban agriculture in Kampala City Structural Plan, and solicited government and academic departments to submit recommendations. The Kampala City Structural Plan has yet to be made public.

Understanding and compliance by livestock keepers

The majority of livestock keepers were unaware of most of the laws and regulations governing livestock keeping in urban/peri-urban areas. Those that were known of and complied to were those that were enforced and exacted penalties for not following. The livestock keepers indicated that the regulations they knew of made common sense, but often their lack of resources affected their capacity to comply

Some lower level local councils also had their own by-laws, which were often better enforced. These were often discussed with local council members

Public health concerns

Public health concerns included the following:

- Animal waste disposal
- Zoonotic diseases
- Public Nuisances
- Withdrawal period after drug therapy
- Environmental and animal welfare issues

Knowledge deficiencies and research opportunities

Technical issues

These include: animal health, reproduction and breeding, feeds and feed production, shelter, training, extension and information packaging, small scale processing of by products, public health issues

Socio-economic issues

These include: institutional support, policy and interest groups, systems cost-benefit analysis, gender, social safety nets and networking

Challenges and potential of livestock keeping in urban and peri-urban Kampala

Challenges

Challenges identified during the study (some of which have been mentioned earlier in this presentation) include:

- Space Limitations
- Lack of research and service provision

- Shelter and housing
- Feed costs and availability
- Feed quality
- Costs of veterinary services
- Access to input capital and credit
- Lack of support institutions
- Lack of definitive and published supportive legislature and policies
- Poor networking among livestock keepers

Potential

Despite the many constraints faced by urban livestock keepers, there are potential advantages to resource-poor people living in the city to keeping livestock. Opportunities and advantages identified by the study include:

- Market shifts that favour livestock production by the poor
- Space limitations that favour livestock keeping over crop production
- Employment opportunities for auxiliary service providers
- Production of non-traditional livestock products
- Provision of a social safety net for vulnerable groups
- Opportunities for response to low cost/high impact interventions

Recommendations

- Full recognition of urban livestock keeping and the creation of definitive legislative and policy support
- Participatory planning and implementation
- Accessible and responsive services (credit, veterinary, extension, training, network support, information provision) to be made available to resource-poor urban livestock keepers
- Institutional support to be provided to resource-poor urban livestock keepers
- Knowledge gaps between research and extension to be closed
- Lessons learned to be documented
- Networking with other cities

Discussions, questions and answers on the presentation

Why has research at Makerere not focussed more on urban agriculture?

Research at Makerere is funded by Danida and their emphasis is on rural agriculture rather than urban agriculture.

Most urban livestock farmers are of the Baganda tribe. Maybe there is no rural urban link because people have no historical links with the urban areas.

Of the urban livestock keepers questioned (regardless of tribe), 64% said they were originally from the rural areas.

Did the researchers come across any participants commenting on the influence of politicians? For example, it has been heard of politicians encouraging people to go into rabbitries, when politicians themselves have no knowledge of rabbits or market for rabbits.

Politicians often want to start income generating activities, but may act without technical information. The conflict on income generation as opposed to eg household food security may cause conflict over stakeholder (household) resources.

Are backyard gardens being replaced by livestock or have they been integrated? They are important for waste management

Backyard gardens in the 1970s with the growing of tomatoes and onions. Urban agriculture has now increased to include the keeping of large stock. Urban agriculture has changed because of people's economic needs, with lots of people entering urban agriculture to counteract the negative effects of the Structural Adjustment Policies (SAPs). Waste management practices are generally very poor, but people do not realise this. Waste management is mainly carried out by the women, although it is the men who attend the training courses.

Lots of the crop residues are now used for feeds so increased livestock production is changing the make up of waste (ie crop residues decreased but animal waste increased). Poultry manure is seen as a new feed for pigs.

Is there any way of comparing urban to peri urban within the sample of 184 households?

It was often difficult to define whether households were within the peri urban or urban areas, but the study team will re-examine the data to see if it can be disaggregated.

Results from working group discussions for Kampala

The desired future position: where do we want to be?

Vision

Healthy people, healthy livestock, and a healthy environment in the urban and peri-urban areas of Uganda.

Mission

Ensuring a systematic sustainable urban livestock production system for a better nutrition, health and income of the urban and peri-urban people.

Goals

Three goals based on stakeholder interests were identified as follows:

1. Appropriate policy framework in place
2. Establish responsive support and service systems
3. Implement research and production system priorities

Specific objectives

Goal 1 Develop and promote appropriate policy framework in place

- 1.1 Promote Pro-poor policies
- 1.2 Integrate Urban Livestock Production (ULP) in existing policies including the Plan for the Modernisation of Agriculture (PMA) and Poverty Reduction Strategy Papers (PRSPs)
- 1.3 Establish minimum standards for ULP systems
- 1.4 Incorporate measures for better public health
- 1.5 Promote Adequate and effective legislation/regulation
- 1.6 Incorporate ULP in urban planning
- 1.7 Develop and promote effective taxation system

Goal 2 Establish responsive support and service systems

- 2.1 Promote better marketing systems
- 2.2 Develop and disseminate of appropriate technologies
- 2.3 Establish effective information channels
- 2.4 Enhance networking among UL stakeholders
- 2.5 Enhance Networking among UL farmers
- 2.6 Support to UL farmers groups

- 2.7 Promote Education and training – urban livestock production at all curriculum levels

Goal 3 Implement research and production system priorities

- 3.1 Quantify in urban livestock production:
- Urban livestock production (including monetary dimensions and contribution)
 - Nutrient flows/waste management
 - Employment
 - Zoonoses burden
- 3.2 Understand livestock values and perceptions
- 3.3 Link crop-livestock production systems
- 3.4 Develop and enhance better waste management systems
- 3.5 Enhance better animal and human health
- 3.6 Improve food security through the ULP system

The route from the present situation to the desired future position: how do we get there?

Goal 1 Appropriate policy framework in place

Objective 1.1 Promote pro-poor policies

Strategies

- 1.1.1 Develop national policy on UA (crop, livestock, fisheries)

Actions

- 1.1.1 Advocacy
- 1.1.2 Identify gaps in existing policies
- 1.1.3 National workshops
- 1.1.4 Wide consultation
- 1.1.5 Exchange within and between countries

Objective 1.2 Integrate UA in existing policies

Strategy

- 1.2.1 Participatory process and advocacy

Actions

- 1.2.1 Identify existing policies
- 1.2.2 Identify gaps

1.2.3 Wide consultation

Objective 1.3 Establish minimum standards for urban livestock production systems

Strategy

1.3.1 Research, stakeholder consultation

Actions

1.3.1 Meetings, consultations

1.3.2 Review existing standards

1.3.3 Targeted research

1.3.4 Sensitisation

Objective 1.4 Adequate and effective legislation/regulation

Strategy

1.4.1 Develop national legislation on UA through consultative processes

1.4.2 Develop good hygienic practices and best practices in urban livestock production

Actions

1.4.1 Consultations

1.4.2 Review existing regulations

1.4.3 Lobbying and advocacy

1.4.4 Sensitisation

1.4.5 Enforcement

Objective 1.5 Incorporate ULP in urban planning

Strategy

1.5.1 Urban planning as a participatory process

Actions

1.5.1 Zoning to include UA

1.5.2 Involve LCs in urban planning

1.5.3 Formation of interest groups

Objective 1.6 Effective “taxation” systems

Strategy

1.6.1 Consultative process with Stakeholders

Actions

- 1.6.1 Review of current taxation system on UA
- 1.6.2 Sensitisation
- 1.6.3 Broad consultation
- 1.6.4 Surveys of affordability and willingness to pay

Goal 2 Establish responsive support and service systems

Objective 2.1 Better marketing systems

Strategy

- 2.1.1 Study of market systems and information dissemination
- 2.1.2 Sensitisation
- 2.1.3 Capacity building

Actions

- 2.1.1 Assessment of existing market systems regulations and bye laws to identify gaps and opportunities
- 2.1.2 Sensitisation
- 2.1.3 Mobilization and training of farmer associations
- 2.1.4 Assessment of rural-urban market linkages

Objective 2.2 Development and dissemination of appropriate technologies

Strategies

- 2.2.1 Participatory Action oriented research and participatory technology development
- 2.2.2 Client oriented information dissemination

Actions

- 2.2.1 Assessment of existing/available technologies and gap identification
- 2.2.2 Research and participatory development of appropriate, affordable and sustainable technologies
- 2.2.3 Characterize and assess benefits and health risks of ULP from farm-to-farm
- 2.2.4 Participatory development and dissemination of information materials
- 2.2.5 Establish model/extension link farmers

Objective 2.3	Establish effective information channels
Strategies	
2.3.1	Empowerment of farmer groups/associations
2.3.2	Cultivation of specific information channels
Actions	
2.3.1	Development of a farmer database
2.3.2	Lobbying and Advocacy for information infrastructure
2.3.3	Farmer competitions and shows
2.3.4	Participatory development of electronic and print media channels including Internet, radio, TV, newspaper, video and posters
Objective 2.4	Networking among stakeholders
Strategies	
2.4.1	Capacity building
2.4.2	Intercity/town and regional cooperation
Actions	
2.4.1	Stakeholder analysis
2.4.2	Mobilization and sensitisation
2.4.3	Meetings, visits and exposure
Goal 3	Implement research and production system priorities
Objective 3.1	Quantification of ULP (including economic-monetary value), nutrition flows/waste management, employment and zoonoses
Strategy	
3.1.1	Commissioning of studies
Actions	
3.1.1	Undertaking studies to provide data for decision making in the areas of: <ul style="list-style-type: none"> • Economic- monetary value of ULP [benefits] • Nutrition flows/waste management • Employment • Zoonoses [risks]
3.1.2.	Wide dissemination of results across stakeholders

Objective 3.2	Understanding livestock values and perceptions
Strategy	
3.2.1	Participatory consultations and sensitisations
Actions	
3.2.1	Documentation of existing indigenous knowledge and perceptions
3.2.2	Strategic interventions to influence perceptions
3.2.3	Sensitisation
Objective 3.3	Linking crop-livestock production systems
Strategies	
3.3.1	Participatory systems research
3.3.2	Capacity building
Actions	
3.3.1	Identify appropriate interventions e.g. urban-rural linkages
3.3.2	Identify optimum mix of crop-livestock production in ULP
Objective 3.4	Better waste management systems
Strategies	
3.4.1	Review the waste management ordinance
3.4.2	Intercity and inter-country collaboration
3.4.3	Capacity building
Actions	
3.4.1	Assessment of situation and gap identification
3.4.2	Highlighting the positive contribution of livestock in waste management
3.4.3	Exchange/exposure visits
3.4.4	Development and dissemination of options
3.4.5	Training in appropriate waste management alternatives
Objective 3.5	Better animal and human health
Strategies	
3.5.1	Operationalising the minimum standards
3.5.2	Capacity building
3.5.3	Sensitisation
Actions	
3.5.1	Developing user-friendly information packages

- 3.5.2 Translating information into common language
- 3.5.3 Training of farmers and extension workers

Objective 3.6 Better food security through ULP systems

Strategies

- 3.6.1 Promotion
- 3.6.2 Capacity building

Actions

- 3.6.1 Assessment of crop/livestock contribution to food security
- 3.6.2 Assessment of rural/urban contribution to food security
- 3.6.3 Assessment of nutrition and health issues in Uganda ULP system
- 3.6.4 Promotion of ULP systems in urban settings
- 3.6.5 Documentation

Strategic actions agreed upon by Kampala working group

Strategic Action 1 Focal Point for urban livestock farming in Uganda

A focal point for urban livestock farming will be located in a secretariat headed by the Kampala City Council District Extension Office. The focal person will be the District Extension Coordinator Kampala, who is presently Ms. Margaret Ssemuwanga Azuba.

The focal point will be constituted of a number of stakeholders including the following persons/representatives:

1. The District Extension Coordinator Kampala
2. Stakeholders
3. Farmers, farmers groups
4. Local government
5. Central government
6. NGOs
7. Academia
8. Research
9. Service providers (e.g. Urban Harvest)
10. Private sector
11. Donors, supporters

The Kampala Working Group agreed on three other members of the focal point:

1. Dr. Ayo-Odong Julius – vice focal persons

2. Secretary – Dr. Julius Kyaligonza
3. Member/farmer representative – John Sseruwanga

Strategic Action 2 Study visits/exchange visits with other cities in the region

The Kampala Working Group agreed on the basic modalities of the study/exchange visits with other cities in the region

1. Kampala will be represented by a multi-stakeholder team (a maximum of 7 persons)
2. The visits will include discussions on key issues/concerns as well as field visits. A national workshop may be included in the program
3. There will be inclusion of other urban centres in Uganda other than Kampala
4. Focus of the outward visit i.e., what Kampala/Uganda urban centres can learn from other cities would include waste management and other topics to be identified
5. Issues that Kampala and other urban centres in Uganda could offer other cities include the decentralization process, review of legislation, urban livestock keeping as a social safety net, and institution of urban agriculture issues into the education system. Some production concerns that Kampala City could demonstrate are the use of chicken manure as feed, and pig farming and marketing in urban areas.

Strategic Action 3 Formation of core lobby and advocacy team

The Kampala Working Group also identified the formation of a Core Lobby and Advocacy Team as a strategic priority. This team would be charged with getting the concerns and aspirations of urban farming (both urban livestock keeping and crop farming) on key policy and develop agendas. The team, which would be separate from the focal point, would be constituted of representatives of:

1. Farmers, farmers groups
2. Local government
3. Central government
4. NGOs
5. Academia
6. Research
7. Service providers (e.g. Urban Harvest)
8. Private sector
9. Media
10. Donors, supporters

Scoping study of urban and peri-urban poor livestock keepers in Kisumu

Moses Onim

Lowland Agricultural and Technical Services Limited (Lagrotech), Kisumu, Kenya.

Introduction to Kisumu

The city of Kisumu is on the shores of Lake Victoria, the second largest fresh water lake in the world. It has an area of 395 square kilometres of which 36% is covered by water and a mean population density of 835 people per square kilometre.

The city is bordered to the northwest by the Nyando Escarpment, Lake Victoria to the Southwest, Kano Irrigation Schemes to the East, and Miwani-Kibos sugar plantations to the east.

The areas with the lowest incomes are the ones with the highest population densities, namely Kondele and West Kolwa.

Study team

Lagrotech Consultants specialise in the supply of seeds and other agricultural implements. The study included feed producers and butchers.

Study findings

Larger families (6-8 children) can be found as you move away from the city centre. There are at least 14 different kinds of livestock in Kisumu including ducks, quails, guinea pigs, fish, and bees. Only 3% of cattle in the city were exotics whereas 60% of pigs and 64% of turkeys were exotics. Most exotic cattle were kept by the richer individuals. The main impediment to livestock keeping included the high cost of housing and drugs. Although cattle are much fewer than poultry in numbers, they are much more significant in terms of biomass.

Livestock housing was a major constraint on livestock keeping in the city. The majority of sheep and goats (78%) were housed at night, but 73% of these scavenge. Pigs were also housed at night but scavenge.

Most respondents started rearing livestock in the last 20 years.

Ownership of livestock

Table 1 Ownership of different types of livestock

No. of families owning the type of livestock	Type of livestock	Husbands %	Wives %	Adult sons %	Adult daughters %	School going sons %	School going daughters %	Relative s %	Institutions %
573	Cattle	65.0	29.8	3.6	0.2	0.2	0.2	0.0	1.2
232	Goats	70.5	24.5	2.9	0.0	0.0	0.0	0.4	1.8
182	Sheep	66.7	27.8	2.5	0.0	1.0	0.0	0.0	2.0
92	Pigs	62.3	18.4	17.5	0.0	0.0	0.0	0.0	1.8
587	Poultry	32.3	61.6	4.6	0.6	0.3	0.3	0.1	0.7
17	Rabbits	5.3	0.0	26.3	0.0	63.2	0.0	0.0	5.3
4	Guinea fowls	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Bees	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Fish	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Means for the family		66.9	18.0	6.4	0.1	7.2	0.1	0.1	1.4

The number of families studied was 736.

The table shows that for all types of livestock apart from poultry and rabbits, husbands owned more than wives who owned more than anyone else apart from:

Poultry: where wives owned almost double the amount that husbands owned

Rabbits: where school-going sons owned two thirds of the rabbits, adult sons owned approximately one quarter of the rabbits and the remainder were split between husbands and institutions.

It is important to note that both the adult daughters and school going daughters virtually own no livestock. This is setting a very weak investment base for the daughters.

Recommendations

Very little up to date information on urban livestock keeping exists so this needs to be improved

The city bye-laws for livestock in the city need updating as they are out of date, they were last updated more than 50 years ago.

Donors have attempted to fund livestock programmes in the city, but these programmes were only of benefit to the rich as the poor could not afford to buy the equipment (supplements, medication etc) for the exotics. Future projects on livestock in the city of Kisumu should target the poor, and project managers should make sure the project is not diverted away from the poor.

Poultry, goat and pig farming should be strongly encouraged in the city since there is a large range of cheap feeds from by-products of food milling and processing. This study shows that poor livestock keepers readily kept poultry, goats and pigs.

Urban and peri-urban livestock keeping should be given adequate the priority it deserves, and information and reporting on this subject should be treated like any others in the rural administrative units like Divisions and Districts.

Extension and veterinary services should be improved for better livestock production in the city. However, private extension and veterinary services are too expensive for the poor city livestock keepers.

Livestock production in the city should be strongly supported by the city and government authorities since it has a big potential. Large quantities of livestock products like milk, meat and eggs are imported into the city from far off districts, and even other countries.

Vaccination for livestock should be emphasized as the first line of defence against killer diseases, such as Newcastle disease (affecting chickens), since vaccines are cheap and very effective in disease control. This is very important for the poor livestock keepers who often, for example, lose all their chicken to these diseases.

A thorough follow-up study should be conducted on the benefits of the urban and peri-urban livestock for poor and unemployed families in the slums.

City planning should also provide for the safe disposal of animal manure, for example, for crop production, and charge the livestock farmers a minimum fee for the service.

To improve on their services and production, the city livestock keepers should have a network or an association that can help them with better bargaining powers for marketing and services.

Observations

- There is general laxity among city authorities to enforce the byelaws which could result in, for example, the increase in transmission of zoonotic diseases
- Nearly 70% of animals are freely grazed or are scavenging
- Livestock are one of the largest economic activities in Kisumu city, with the bulk of economic contribution coming from cattle
- As with other cities, expensive animal health care is an impediment to exotic livestock rearing in the city
- Livestock rearing may be important informal employment for unemployed people

Discussions, questions and answers on the presentation

Why do people in the urban areas not have the agricultural knowledge people in the rural areas have? Is this because people keeping livestock in Nairobi and Kisumu are born in the urban areas, rather than moving there from the rural areas?

The studies found that most people were resident in urban areas for a long time so had either lost their linkages with the rural areas or had been born in the urban areas. A lot of knowledge was being lost with people moving to the urban areas.

Have religious and marital practices (ie polygamy) had any impact on livestock keeping, possibly the type of livestock kept?

The study did not find religious practices influencing any livestock keeping practices. The polygamy status in Kisumu is 37%.

What are the types and sources of feeds of urban livestock in Kisumu?

Many of the livestock are free grazing in the city and quite a few of them scavenge. Dairy animals are kept in zero grazing units. Feeds for cattle and poultry are available from industrial manufacturers.

The scoping study focused a lot on the peri urban fringe, which happens to be the ideal location for most marginalized groups. However there are certain planning ideals regarding public health and space that may constrict urban livestock keeping. How should livestock keepers interact with their livestock in terms of the space that should be available? Is there enough space available to look after livestock? There is competition between the needs of urban livestock keepers and the aesthetic nature of the city. Kenya has an Urban Environment Act that entitles everyone to a hygienic environment.

The government needs to come up with acts that can protect the livestock keepers in Kenyan cities. There is no clear policy in Kenya re livestock keeping within the cities. This is an area where work needs to be done. It can be economical to keep livestock within the cities as it can improve the standard of living.

Scoping study on interactions between gender relations and livestock keeping in Kisumu

Zarina Ishani¹, P. Kuria Gathuru², Davinder Lamba¹

¹Mazingira Institute, Nairobi, Kenya

²Kenya Green Towns Partnership, Nairobi, Kenya

Introduction

Information from a limited survey of communities was gathered, through a questionnaire, and case studies from 55 respondents in six urban and peri-urban areas of Kisumu. Men and women were interviewed separately. Thus both quantitative and qualitative data was gathered. The six areas selected were: Manyatta, Bandani, Nyawita, Kibos, Nyalenda and Migosi. Migosi is middle-low income whereas the others are low-income areas.

The focus of the study was the improvement of gender-based division of labour, inequalities between males and females in power and resources and gender biases in rights and entitlements.

Findings of the study

Livestock keeping aspects

Characteristics of the livestock keepers in terms of age, sex and marital status

Over half of the livestock keepers were older than 45. Close to two-thirds were married, one-fifth were widows and over a tenth were single women. Twenty nine per cent of the respondents were members of female-headed households (FHH).

Different types of livestock kept by male (MHH) and female-headed households (FHH)

In general, the most common type of livestock kept was goats but in terms of numbers, chickens were the greatest.

In FHH households, the most common type was goats. In MHH it was pigs. Pigs were not common in FHH because the work involved in pig keeping was heavy and the women found pigs to be dirty animals. Other livestock not commonly kept by FHH were turkeys, geese, guinea fowl and pigeons (not traditional animals).

Work is involved in livestock keeping

Not much care was required as the livestock were of the local variety and mostly roamed about. Where the livestock were kept indoors, most of the work was done by hired labourers.

In MHH households, men claimed that they shared the work with their wives, but the wives indicated that they were the ones who did most of the work.

In MHH, men were involved in animal health care. Routine work of feeding and cleaning was done by women.

Children were not involved except in waste disposal and collection of eggs. Girls were rarely involved. In FHH, the mother and sons took care of the animals, especially concerning the health of the animals.

Main source of income in FHH and MHH?

One third of the MHH depended on livestock for their main source of income compared to only one eighth of FHH.

Almost half of the FHH depended on rental income compared to one tenth of the MHH. Reasons could be that the FHH were mostly elderly and did not have the energy to look after the livestock. Also, the houses had been left by their husbands and could be rented out. The MHH, on the other hand, were young and did not have the resources to build rooms for rental but could afford to keep a few livestock. Also the MHH knew that the women would look after the livestock.

Table 1 Main reason for keeping livestock in female-headed households

	Manyatta	Bandani	Nyawita	Kibos	Nyalenda	Migosi	Total
Commercial	0	1	0	0	2	0	3
Subsistence only	1	0	1	0	1	0	3
Emergency	1	0	0	1	0	1	3
Occasions	1	0	1	1	0	0	3
Supplementing income	1	0	0	0	1	0	2
Total	5	2	2	2	4	1	16

Table 2 Main reason for keeping livestock in male-headed households

	Manyatta	Bandani	Nyawita	Kibos	Nyalenda	Migosi	Total
Commercial	0	2	1	0	9	0	12
Subsistence only	0	0	0	0	0	0	0
For sale and subsistence	1	2	0	4	1	1	10
Emergency	0	0	1	1	1	1	4
Occasions	1	0	0	0	0	0	1
Supplementing income	3	1	1	2	0	6	13
Total	5	5	3	7	11	7	39

Livestock as property

Different classifications of property, ownership and control

Different types of property can be distinguished: financial; consumption and production.

Gender relations are contextual. In MHH, in all three cases, men have the upper hand. In FHH, women had the upper hand.

“**Ownership**” in this case is defined as the right of possession (of livestock, house, land or other property).

“**Control**” in this case is defined as the power to direct or determine the use of a resource – that is who is the decision maker on how the resource (livestock) was to be used.

In FHH, women had absolute ownership and control over their property. Women were free of the constraints imposed on their counterparts in MHH. They exercised their will regarding financial, consumption and production property (even where there were adult sons and their families living in the same compound). Sometimes the sons were consulted but not the daughters.

In MHH, men predominantly owned and controlled livestock. Women had ownership and control over small livestock. Even where the woman had bought the livestock, she did not own or control the livestock – in these cases, there was joint ownership and control. This was for cultural reasons.

There was some joint ownership in MHH, over one tenth and also about one tenth of the wives owned the livestock. However, control of the livestock was in male hands.

Table 3 Ownership of livestock in male-headed households

	Manyatta	Bandani	Nyawita	Kibos	Nyalenda	Migosi	Total	Total %
Head of household	9	4	2	6	11	6	38	69
Spouse	0	2	1	0	2	0	5	9
Son	0	0	0	0	0	0	0	0
Daughter	0	0	0	0	0	1	1	2
Other relative	0	0	1	1	0	0	2	4
Joint	1	1	1	1	2	2	8	16
Total	10	7	5	9	15	9	55	100

Acquisition of livestock

Table 4 Acquisition of livestock in female-headed households

	Manyatta	Bandani	Nyawita	Kibos	Nyalenda	Migosi	Total
Inheritance	3	1	0	1	2	0	7
Bought	0	1	2	1	2	1	7
Friends	1	0	0	0	0	0	1
Dowry	1	0	0	0	0	0	1

Table 5 Acquisition of livestock in male-headed households

	Manyatta	Bandani	Nyawita	Kibos	Nyalenda	Migosi	Total
Inheritance	2	0	1	1	2	1	7
Bought	2	4	2	5	9	7	29
Friends	0	0	0	1	0	0	1
Dowry	1	1	0	0	0	0	2

Role of inheritance in the acquisition of property, including livestock

According to Luo custom, male heirs inherit property (including livestock). Wife inheritance is customary. However, in Kisumu, inheritance of property by male heirs was not clear.

In general, 64% had bought the livestock; 25% was through inheritance; 7% from dowry and 4% as gifts.

In FHH, inheritance and purchase played an equal role. This was surprising, as female heirs do not inherit yet in Kisumu; the wives had inherited their husband's property. 2 respondents had received the livestock as dowry when their sons got married. Therefore norms are changing but further research is required.

The daughter-in-law had control (not ownership) of the property if she was widowed and living in the same compound and living with the mother-in-law.

In MHH, 74% had bought the livestock and only 18% had inherited the livestock.

Impact of HIV/AIDS on traditional inheritance practices

Widows are not inherited by the brother-in-law, but their property could be – more research is required.

In FHH, the mother-in-law looked after her widowed daughter-in-law and the grandchildren. More research is required.

Who should inherit livestock?

Forty two per cent of households said that they would leave the livestock to their sons; thirteen per cent said to their spouses and thirty six per cent were undecided.

Inputs and outputs

Inputs used and products generated

Commercially bought feed was rare. Only those with large numbers livestock bought the feed. Most of the livestock keepers allowed their livestock to roam freely (including pigs). Shelter and water were adequate in most cases – space was not a problem in Kisumu. The main problem was a lack of know-how in the treatment of the animals. Traditional medicines were used to treat livestock.

The most important product was eggs. Milk for sale was not common as the families were large and the milk produced was for home consumption. Meat was not consumed regularly – only during special occasions.

Main constraints faced by livestock keepers

One half of livestock keepers questioned said that they faced no constraints. This was probably due to the fact that they used traditional methods and did not have knowledge on modern methods of rearing livestock.

Other constraints were theft of livestock and nuisance to neighbours.

Representatives of FHH mentioned lack of veterinary services; lack of knowledge in treating the animals and MHH cited financial resources and lack of information.

Socio-economic aspects

Socio-cultural networks and their function in FHH and MHH

In FHH networks were firm and not fluid. In MHH the networks were loose and not strong. FHH were members of both formal and informal groups whereas very few MHHs were affiliated to any groups or associations.

Objectives of FHH joining associations included obtaining funds for small businesses and for the purchase of household goods. Very few took money for production purposes.

Men said that merry-go-rounds (rotating credit systems) were “women’s things”.

None of the livestock keepers were part of livestock groups or associations as they had not thought of forming such groups and did not view livestock as a high priority asset.

Credit

Credit for livestock was insignificant. Only 2 respondents had taken credit. Reasons for not taking credit were: fear of defaulting, lack of information on credit organizations, high interest rates and misuse of loans by family members.

Lending institutions for livestock were non-existent.

Government or private sector research and development strategies targeted at the livestock keepers

No evidence of this was found. No training programmes had ever been carried out by the government. Government extension workers rarely visited the farmers, if at all.

One private company, UNGA, has started a programme for the livestock keepers very recently. Community Based Organisations (CBOs) for livestock keepers in Kisumu did not exist.

Sale and marketing of livestock and products

Where large numbers of livestock (cows, pigs, broiler chickens) were kept for commercial purposes, the livestock were sold to butcheries.

Those who kept goats and sheep found ready buyers within their area of residence.

In FHH, women were the ones involved in marketing. Children were not involved (even married ones).

In MHH, both the husband and wife were involved but the wife could not sell without her husband’s authority.

Products were not sold in large quantities. Less than a dozen eggs were sold, in most cases to neighbours. Milk was also sold to neighbours. The production of milk for commercial purposes was not found.

Environmental and health pollution

Sixty four per cent of respondents cited no environmental problems resulting from livestock keeping. Eleven per cent mentioned animal waste as a hazard as it attracted a large number of houseflies.

It was observed that the waste was dumped in the compound and some littered the living areas as the animals were kept indoors. However, it was also observed that the livestock keepers tried to clean the areas.

There were no safety measures taken in the handling of the livestock or products. Livestock was not inspected after slaughtering and proper hygienic measures were not undertaken for milk production. No cooperatives or organized bodies for regulating livestock products were found.

An interview with a veterinary doctor indicated that common zoonotic diseases are: salmonellas through consumption of eggs; water borne diseases through drinking water

contaminated with livestock faeces; anthrax through from consumption of uninspected meat; and brucellosis from drinking raw, untreated milk.

The respondents cited malaria and typhoid as common diseases. Malaria and brucellosis have common symptoms. Typhoid is caused by drinking contaminated water and consumption of contaminated food such as vegetables.

Discussions, questions and answers on the presentation

The findings are interesting but how can they be used at the policy level?

This study looked at livestock as property, rather than livestock *per se*, then carried out a gender analysis on access/ownership to property (livestock) and the customs inhibiting women's control of property (livestock). If the study had looked at livestock purely as livestock the lessons on property ownership would not have been learnt. For example, in a household where the husband and wife both earn money, the woman would not be allowed to use her own money to buy something for herself or her children whereas the man would. Patriarchal customs are still very much in place. There are laws promoting gender equality, but there are still customs and attitudes against this.

The livestock keepers in Kenya seem to be so much older than the livestock keepers in Uganda. What are the entry points? Why is the age bracket so small? Age captures knowledge, wealth etc, so what can we do with this? In Kampala, men entered in their 20s, and women in their 30s, so what is keeping other people out?

The study looked at the issue of age. In Nyanza province the life expectancy is 48. This raises the question of why are people keeping livestock so far at the end of their life cycle. From discussion with study participants it became apparent that livestock is kept as a retirement policy, which highlights the lack of social security.

Some people said they wanted to keep the livestock so that they could be slaughtered for their funeral. You cannot keep livestock when you are a tenant so maybe that is why younger people do not keep livestock (have not yet bought their own property).

There seems to be a lack of concern about hygiene conditions relating to public health. For example, slaughtered animals are not investigated. Why is this the case?

A lot of people carry out the slaughter themselves or take it to the local butcher. Slaughtered animals must be inspected but some areas are very difficult to access. It is illegal for people to sell meat if it hasn't been inspected. So if people are found selling un-inspected meat they are meant to be arrested, but security in the slum areas is difficult. At a funeral the meat inspectors are meant to inspect the meat, but because of the cost enforcement can be difficult. Pigs with cysticercosis are not inspected so that they cannot be confiscated.

What is the incidence of HIV/AIDS in Kisumu?

There is a high incidence of HIV/AIDS in Kisumu.

There appear to be different definitions of poor between cities. For example, people in the study have been described as 'poor' yet they have a number of livestock, which by Ugandan standards would mean they were not poor.

The people in the study had not seen their livestock as an asset, thereby considered themselves poorer than they potentially were.

We need to look at what are people's goals and aspirations, because people in Kisumu appear to view livestock as something cultural, and therefore find it difficult to translate it into a business. Maybe this is because people view it as something to pass on as a legacy or dowry. Therefore we need to translate this into policy. This will then affect the type of enabling environment created to assist these urban livestock keepers.

Results from working group discussions for Kisumu

Developing an understanding of the present situation: where are we now?

The group listed the following as priorities. Please note they are not necessarily listed in order of priority.

- Bye laws, enforcement
- Extension knowledge
- Animal health care
- Capital/credit/housing
- Gender/ownership
- Waste management
- Theft

The desired future position: where do we want to be?

- Farmers - within 2 years would like to have information on animal husbandry and marketing structure, have a fair price for quality produce, and access to micro-credit available
- Central Government - self-sufficiency in livestock products for the whole urban population; and enabling but controlled environment for keeping livestock in urban location available
- City Council - a food-secure community deriving optimal benefit from local agricultural resources within a well-planned environment
- NGOs - prosperous livestock keeping which is environmentally-friendly and sustainable; and an institutional structure specifically for UA dealing with policy formulation and regulation of poor urban farmers with interface with relevant coordination bodies in order to make UA an activity which is viable and environmentally friendly

Policy issues of stakeholders

- CG - need national policy on urban agriculture (livestock) which encourages urban agriculture with controls
- City Council – need to harmonise bye-laws to reflect dynamics of the day and the CG policies; to include elements of enforcement
- Farmers – controls acceptable especially on confinement; extension services, water and sanitation

Researchable issues

- Intensive pro-poor livestock production systems and environmental impact

- Alternative/traditional livestock feed sources eg fishmeal, lake weeds etc
- Zoonotic diseases, brucellosis, TB, anthrax
- Optimal use of restricted land size for crops/livestock
- Update information on livestock numbers, contribution of livestock to local economy
- Institutional framework for supporting UA

Non-researchable issues

- Provision of credit system
- Greater sensitisation of local and national authorities on UA and urban livestock keeping

The route from the present situation to the desired future position: how do we get there?

Overall Vision

Improved well-being and welfare in urban and peri-urban areas through socially-acceptable and environmentally sustainable urban agriculture.

Goals

Improved livelihoods of the urban poor through promotion of pro-poor environmentally favourable livestock production systems

Objectives/outputs

- Strengthened stakeholder institutional capacity
- Improved voice/bargaining power for resource-poor livestock keepers (RPLKs)
- Improved service delivery system (on extension/environment/animal welfare) to RPLKs
- Access of micro-credit to RPLKs

Strategies

- Formulate a national policy on UA through consultative process
- Review and up-date (laws, bye-laws and standards) to provide a conducive environment for urban farmers (including livestock)
- Form urban (and peri urban) farmer associations in order to lever service delivery and micro-credit
- Educate stakeholders on urban livestock issues
- Establishment of a steering committee on urban agriculture and livestock

Scoping study of urban and peri-urban poor livestock keepers in Nairobi

Zarina Ishani¹, P. Kuria Gathuru², Davinder Lamba¹

¹Mazingira Institute, Nairobi, Kenya

²Kenya Green Towns Partnership, Nairobi, Kenya

Introduction

Information was obtained from a limited survey of representative communities, through case studies, using a questionnaire; information from stakeholders through interviews, using checklists and through stakeholders brainstorming; using Strengths, Weaknesses, Opportunities and Threat (SWOT) analysis and information from official and grey literature. The study was carried out in eight urban and peri-urban slum areas of Nairobi – Soweto-Kahawa, Kibera, Kangemi, Maili Saba, Silanga, Kawangware, Bulbul–Ngong, Kinyago and Sinai.

The aim was to determine the issues facing poor livestock keepers in the urban and peri-urban environs of Nairobi.

Concerning institutions representing needs of poor livestock keepers

There are hardly any institutions representing the needs of poor livestock keepers in Nairobi. Provincial livestock extension services are available but out of reach of the poor livestock keepers. The livestock keepers are not aware of these services and do not know how to access them. The provincial officers said that they are constrained by lack of resources.

Recommendation

The possibility of forming a “network association” therefore exists. A cooperative could also be formed which could deal with marketing of livestock/products, purchase of inputs, accessing and sharing of information.

Concerning characteristics of poor livestock keepers involved in the study

The average age of the livestock keepers was just below 40 years. One third had no formal education and none of them had reached university level. One third worked in the informal sector.

Two thirds of the households were male-headed households (MHH). In MHH livestock was said to be jointly owned and controlled. There was joint responsibility in the care of the livestock, although women tended to take on a larger burden than men. Decisions were also jointly made. The reason could be that the ethnic group in these areas was the ‘Kikuyu’. The Kikuyu woman is considered to be “the keeper of the home”.

One-third of households involved in the study were female-headed households (FHH). In FHH, the women were responsible for the care of the livestock. They were reluctant to involve their children, especially male children. In Kikuyu culture, men look after the

livestock. In the urban setting, women have tended to take over the roles and responsibilities of men as men look for formal employment.

Recommendation

More research is required in the area of gender relations and interactions in livestock keeping in Nairobi.

Concerning livestock species and constraints

Table 1 Number of livestock kept

Type of livestock	Location								Total
	Kange mi	Maili Saba	Kawangware	Kibera	Kinyago	Sinai	Bulbul	Soweto	
Cattle	18	37	4	10	0	0	0	4	73
Sheep	5	4	36	5	0	0	0	9	59
Pigs	0	5	7	4	0	0	0	13	29
Goats	29	0	2	79	57	4	64	0	255
Chickens	39	5	50	11	30	1	23	26	185
Ducks	4	0	15	32	25	0	0	18	94
Rabbits	20	2	0	0	0	0	0	0	22
Geese	2	0	0	5	0	0	0	0	7
Turkeys	13	0	0	4	0	0	0	0	17
Others	0	0	2	0	0	0	0	0	2

Livestock species

Local goats and sheep featured most prominently. Reasons given were that there was less work involved in keeping goats and sheep, initial investment was low/affordable, demand was high and returns were good.

A study carried out in 1985 by the Mazingira Institute (MI) study showed that small livestock were preferred. In this study (2002), small livestock, especially chickens, were not preferred because of problems of theft and diseases. Even the poorest livestock keepers said that if they had money they would keep goats and sheep.

Pigs were fewer as they were considered 'dirty' animals and the workload was considerable. In the earlier MI study pigs were not kept. The costs and benefits of pig keeping were not clear to the farmers.

Generally the livestock were not kept for commercial purposes. The number of livestock kept was small and only milk, as a product, was for sale. The space for keeping livestock was inadequate.

The type of rearing practice (zero grazing or free range) was dependent on the availability of space and security of the animals. In Kibera and Kawangware, the animals were not herded and roamed freely to and from their homes, finding their own way home. At night they were locked up in sheds. Where theft was a problem, the animals were zero-grazed, as was the case in Kangemi.

Constraints

Insecurity of land tenure in most poor areas inhibits the expansion of many activities, including livestock keeping.

Constraints cited include inadequate space, lack of money and theft of livestock. Disease was a factor in pig, chicken and duck keeping. In the stakeholders 'brainstorming' session, the livestock keepers ranked health (diseases) and environmental hazards as the number one threat to livestock.

Recommendation

Knowledge on animal husbandry and health was poor. This is an area which needs to be looked at. There is opportunity for improving the knowledge, information and skills of livestock keepers.

Table 2 Ownership of premises

Type	Kangemi	Maili Saba	Kawangware	Kibera	Kinyago	Sinai	Bulbul	Soweto	Total
Own	5	0	2	2	0	0	0	0	9
Rented	1	0	1	1	1	0	0	0	4
Squatter	3	6	1	6	9	2	3	2	32
Other	1	0	0	0	0	0	0	1	2
Not indicated	3	1	3	0	1	0	0	1	9
Total	13	7	7	9	11	2	3	4	56

Concerning policy associated with livestock keeping

Respondents were not aware that livestock keeping was illegal. The last time the Nairobi City Council had harassed them was in 1998.

Livestock keeping falls under five government ministries: Agriculture and Rural Development, Local Government, Lands and Settlements, Environment and Natural resources and Public Health. It was found that there was lack of policy coherence and coordination.

In the SWOT workshop, officials from the Ministry of Agriculture said they support urban agriculture (UA) but there is a need to legalise and regulate it.

Concerning knowledge deficiencies

Although the livestock keepers did not express any serious knowledge deficiencies, a closer examination showed that there is much scope for improving the knowledge of livestock keepers. This was the case for all sites studied.

Education and dissemination of information is vital. There was a knowledge deficiency even in some basic, necessary information.

Further research

There are diverse opportunities for reactive and proactive research.

Reactive research topics include: health and environmental risks of livestock keeping; unsafe and unhygienic animal feeding and handling of products; effects of random waste disposal and improving productivity given the constraints.

Proactive research is required to provide policy-relevant information such as the extent of livestock keeping nationwide and how to create an enabling environment for the stabilisation and specialisation by the poor.

Concerning environment, public health and animal welfare

According to the livestock keepers, there were no problems in keeping livestock.

Public health concerns include the consumption of garbage by the animals; animal waste throughout the streets due to the animals roaming around; random waste disposal and contamination of water.

Random disposal of waste in rivers, dams, open drains and dumping grounds has implications for the environment and particularly impact on health of both people and animals.

The incidence of zoonotic diseases could not be ascertained as a more scientific study needs to be undertaken

Differences between urban and peri-urban livestock keeping

Feature/Issue	Difference between urban and peri-urban livestock keeping
Associations representing the interests of livestock keepers	None in urban or peri urban areas.
Social characteristics of the areas	No significant difference.
Livestock keeping	More widespread in peri urban areas, due to increased space availability.
Number and type of livestock kept	Larger stock (cattle and pigs) and higher numbers kept in the peri urban areas due to more space and security of tenure.
Share of total household income from livestock	Higher in the peri urban areas, although it was difficult to determine the actual share of income from the livestock, compared to earnings from other activities
Female livestock keepers	More in the urban areas.
Reasons for keeping livestock	These were the same in both areas: supplementing income and contingency purposes. The poor livestock keepers were unable to make livestock keeping a commercial activity in either the peri urban or urban areas.
Knowledge deficiencies	These were apparent in both areas, thus location did not have anything to do with information and skills. In one area, Kahawa West, there were some livestock keepers using very hi-tech equipment and modern methods of rearing livestock but the livestock keepers surveyed had no idea of what was happening in their neighbourhood.
Government support services such as veterinary and	These were non-existent in both areas. Only -one area, Bulbul, had support as the area is opposite a livestock

Feature/Issue	Difference between urban and peri-urban livestock keeping
extension services	research centre.
Cleanliness and sanitation facilities	Random waste disposal was found everywhere. There was little recycling of waste. Peri urban areas were generally cleaner and had better sanitation facilities than the urban areas.

Other observations

The high-income peri-urban areas of Nairobi have some very sophisticated livestock systems. This was not the case in the areas surveyed as the areas were low-income ones.

Milk was the only product sold on a regular basis in the peri-urban areas but as a proportion of total household income, it did not seem to contribute much.

In general, none of the respondents cited health problems related to livestock keeping. In one peri-urban area, Sinai, the health of the residents and the animals appeared to be very poor. Jiggers were a common sight in both animals and humans.

Findings of the SWOT workshop

Threats	Opportunities	Weaknesses	Strengths
Health and environmental Hazards	Livestock for obtaining cash/subsistence	Lack enough knowledge and skills for livestock keeping	Have cash coming it from livestock keeping
Competition in selling of livestock/products	Forming networks	Lack enough time and own labour to tend livestock	Have enough place for livestock keeping
Worry about loss or theft of livestock	Suitable environmental conditions for diverse types of livestock	Lack enough space for livestock keeping	Get food from livestock
	Outlets for selling of livestock products	Lack outlets for selling livestock/products	Have enough time and own labour to tend livestock
	No interference from the administration	Lack capacity to expand livestock keeping	Have some knowledge and skills for livestock keeping

Discussions, questions and answers on the presentation

Why did the study not mention urban deforestation or reforestation?

These issues had not been mentioned in the terms of reference of the study

Why do people in the urban areas not have the agricultural knowledge people in the rural areas have? Is this because people keeping livestock in Nairobi and Kisumu are born in the urban areas, rather than moving there from the rural areas?

The studies found that most people were resident in urban areas for a long time so had either lost their linkages with the rural areas or had been born in the urban areas. A lot of knowledge was being lost with people moving to the urban areas.

Is there a rural urban linkage? It is surprising to see there are only local breeds in Nairobi as in Kampala there are improved livestock.

Improved livestock is too expensive for the resource-poor livestock keepers living in Nairobi.

Nairobi working group discussions

Summary of different stakeholder perspectives on the Nairobi scoping study and urban livestock keeping in general

Central government

- We have the figures on urban agriculture for the past 15 years but we need to do something with these figures
- Not enough information exists on urban livestock keeping
- Policy and legislation are fragmented (involving more than one Ministry) and this needs to be addressed
- Nairobi is the only city in Kenya to offer extension services, through the Ministry of Agriculture, to urban farmers including livestock farmers. There are different styles of extension services, one of which is demand-driven
- Important discussions on urban livestock keeping took place in Addis Ababa May 2002 where a memorandum of understanding was developed and the Ministry of Agriculture was officially recognised as providing extension services to farmers including urban livestock keepers
- A disciplinary stakeholder committee has been set up to look at issues like waste management.
- The main concern is space. Even if urban livestock keeping is viewed as a good thing, it has to be promoted in the appropriate areas to avoid problems of public health or aesthetics

Local government

- The scoping studies have done a good job
- Urban livestock keeping is a new concept and we need more information/statistics for example, on where it is taking place
- In this forum we can only come up with recommendations. It is not our role to make policies
- Issues for inclusion in city bye-laws include the recognition of poverty alleviation through urban livestock keeping

Livestock keeper

- The byelaws of the former government make poor livestock keepers live like slaves. Now we have started cultivating land on the sides of the road. People in power take land for greed but poor people use it for survival.
- The group of urban livestock keepers who took part in the stakeholder workshop at the Mazingira Institute had not realised they were breaking byelaws by keeping livestock, but were interested to be recognised by local government.
- A local group negotiated on behalf of the livestock keepers with local government to provide land for the livestock keepers so they could build shelter for their animals. The livestock keepers rely on their livestock for their income so need the sheds, but are still waiting to hear back from local government.

NGO

- This NGO integrates livestock keeping into planning using 'participatory environmental planning and management
- There is concern over conflict between local and central government concerning policies which makes it difficult for the NGO to carry out its work eg local government might be supportive but central government might prevent and vice versa. Smaller towns tend to have a more accommodating policy environment
- The NGO is part of a waste management committee looking at how to cut through policy issues

Pro-Poor Livestock Policy Facility (PPLPF) of the Food and Agriculture Organization of the United Nations (FAO)

- The role of the PPLPF is to look at how policies (rather than technologies on their own) can help poor livestock farmers to improve their livelihoods.
- The PPLPF is interested in seeing how policies are made and changed in Kenya? For example, what information is required to change policies?

Urban Harvest

- Urban Harvest's activities currently include the linking of waste management groups, for example links between livestock keepers (manure suppliers) and composting groups which can be income-generating for the livestock keepers and can provide compost groups with better compost
- There is need for support on private waste management, there is no-one to follow up on dumping of waste, people need to be made more responsible for their actions

University of Reading

- In 1999 a study was carried out on the supply of veterinary services to poor livestock keepers. Very few studies appeared to have been carried out on urban livestock keepers. More research has now been done, and researchers need to move away from eg baseline surveys to more adaptive research that needs to be carried out in a holistic way

Summary

In Nairobi there was a situation of denial of urban livestock keeping which is now moving to acceptance

All accept urban livestock production should be viewed in a holistic way

Next steps

The next steps involve:

- Policy issues, which require:
 - Taking action, which requires resources; and
 - Outcomes, which requires understanding the policy process

Nairobi city policy issues

Public health

The Community Based Organisation (CBO) has said there is a difference in what large landowners can do compared to what landless livestock keepers can do, they need to use land that belongs to others

There is conflict between different types of poverty alleviation: in the interest of public health (and poverty alleviation) people should not be allowed to share rooms or live in small areas with their livestock. However by preventing people from doing this you may not be alleviating their poverty.

The Ministry of Agriculture has stated that one of its biggest concerns about urban livestock keeping was public health. However, the discussion group felt that as long as the city council recognises that people keep livestock to alleviate poverty, other organisations (including other ministries) need to provide the appropriate infrastructure eg health and sanitation

Access to land

One solution might be the temporary leasing of land to urban livestock keepers. However, where would this land be leased from? The Department of Environment itself has a shortage of land with nowhere to take the city rubbish. As well as needing access to land, people need permission to use the land for agricultural purposes.

Policy process

- How does city hall make decisions? Do they demand facts or do they wait to be supplied with them?
- Why are city hall and local government not demanding facts?
- Urban livestock keeping is not in the vocabulary of the city government

The planning department said that information on urban agriculture is non-existent. The planning department needs to be shown the contribution of agriculture to livelihoods so that it can feed this into city planning.

- What is the entry point for urban livestock in the planning department?
 - Poverty Reduction Strategy Papers (PRSPs)
 - Need for the planning department to refocus at the micro level.
 - Very few people realise that cities feed people
- The new Bill of Rights in the new constitution will provide people with more rights
- The logic behind the acts needs examining: for example; was livestock keeping banned in order to prevent disease?
- Need new institutional frameworks (rules of the game) need to be set up
- There needs to be an increased awareness of urban livestock keeping
- Government needs to be aware of livestock keeping – why people are doing it (poverty alleviation, forced into it through lack of alternatives); how many people

are doing it; what the trends are; economic contribution of urban livestock keeping to the city

- Planners need to be involved from the start in the policy process so they are aware of the needs of the urban livestock keepers
- Urban livestock keeping is now on the policy agenda (has taken 17 years)
- Issues of space, public health and different stakeholders can now follow

Observations

Other groups eg hawkers have been able to organise themselves together to campaign for better treatment. Why has this group been able to? Is it because they can demonstrate their economic contribution? As urban livestock keeping is illegal, does this make it harder for people to group together as they may not want to admit to keeping livestock?

There is the perception of livestock as a 'nuisance'. In some areas (rural) non-livestock keepers do not consider them a nuisance, as they know they are the source of their cheap milk and manure.

Resource-poor urban livestock keepers face either the short term threat of starvation or the long term threat of Zoonotic disease

Where do we want to be?

If alternatives were provided to poor urban livestock keepers eg more jobs, more opportunities in the rural areas, they might not keep livestock.

Livestock keeper

- Harmony and co-operation between different stakeholders
- Not to be in urban livestock keeping, or else to be doing it in a better place
- Want to own land (not be tenant)
- Want to make a profit and have no public health problems
- Want livestock to be protected
- Do not want animals to have to scavenge
- To carry out livestock keeping in safety with support from City Hall

Environment Department

- To have a healthy population with no dangerous foods or communicable diseases
- Urban reforestation with no conflict from other stakeholders
- Green and appealing environment, good trees, safe water

NGOs and CBOs

- To be more advanced

- To have more members

Central government

- As a service delivery organisation would want a legal framework through which services can be delivered to be monitored by local councils
- Wants more awareness of technologies generated to encourage urban livestock keeping. Wants groups of urban livestock keepers to be more empowered and active
- NGOs and CBOs could strengthen the groups

Local government planning department

- Stakeholders accepting each other
- Special zones for livestock keeping, developed in a more sustainable way
- Cities to be more responsive to the needs of their communities in an integrated and harmonious way

Research

- New forms of governance eg more transparent self-regulation on common property
- Enjoyment of human development
- More agreement
- Reframe production systems in the city; look at the difference between subsistence and commercial
- Do not under-conceptualise livestock production system
- Participatory system of setting policy agenda for the city
- Formal understanding of livestock and crop production on city policy agenda This will mean the city is being responsive; the government cannot just rely on research reports
- Need to look at wellbeing, and the allocation of determinants of wellbeing
- Need to develop more understanding by poverty maps

Urban Harvest

- More research carried out on health and zoonotic diseases
- More research on livelihoods; the contribution of livestock at household level and accessibility of keepers to livestock
- Marco information including marketing
- Positive attitude towards livestock keeping
- Strengthen partnerships between research bodies and Nairobi City Council
- Dissemination of research findings to farmers via dissemination

How do we get there?

Vision

A well-governed, enabling, equitable, participatory, healthy, sustainable, nourishing, secure, people-centred city and environment

Goals and objectives (not ranked)

- Improve wellbeing of poor urban population
- Sustainable and healthy environment
- Better waste management: animal waste and sustainable waste management
- Influence the policy agenda regarding livestock production
- Positive management of livestock
- Make livestock keeping and livestock products safe
- Legitimise livestock keeping and recognise it as a livelihood strategy
- Improve communication between stakeholders as participation in decision-making creates platforms for the exchange of views
- Civic strengthening of urban livestock keepers
- Broader governance moving from conflict to cooperation amongst stakeholders
- Acceptance of each other by stakeholders
- Well-informed livestock practitioners
- Review governance of urban common property resources
- Review formal institutional framework governing livestock marketing and products
- View the city as being a producer of food
- More research on health, wellbeing, role of livestock in the household

Actions, strategies and actors

The actions below are *examples* of those that could come under the strategy. The actor refers to the strategy not the action

Strategy	Action	Actor
Promotional	Create awareness of importance of urban livestock farming of improving food security	Central government Others
Technology	Promotion and development of biogas	Central and local government, NGOs, researchers, multi-sectoral
Institutional frameworks	Review of laws and bye-laws	Central and local government
Conflict resolution	Resolve conflict between livestock and non-livestock keepers and between different stakeholders	All stakeholders including city government
Common property resource strategy	Sustainable waste management	
Collective action		
Knowledge creation (and application?)	Poverty maps Sustainable extension services Dynamic knowledge	
Livestock extension services strategy		

Next steps

- Meet together as national stakeholders on next steps
- Formalise this team so it can share information with others
- Have a few more meetings then present at a wider workshop
- Design the processes for outcomes

Outcomes

- Action plan
- Co-ordination mechanism
- Forum of different stakeholders
- Commitment of stakeholders to work for urban livestock keepers

Urban livestock keeping in Dar es Salaam

Dr Aldo Lupala

University College of Land and Architectural Studies, (UCLAS), Dar es Salaam, Tanzania

Introduction

The diversity and numbers of livestock in cities in Tanzania have been increasing over years due to their unique ability to utilize empty plots, and rubbish, provide fresh food and generate cash for low income residents. On the other hand, they contribute to pollution and environmental degradation and can be a nuisance to the public at large. The city of Dar es Salaam is estimated to hold just over three million inhabitants. Since 1867 (date of first population record) the city population growth rate has resulted in a doubling of the population every decade, one of the highest in urban sub-Saharan Africa.

Land holdings

About 80 per cent of the respondents (that is, the livestock keepers) in the city are plot owners. Land prices are relatively low and, therefore, affordable. However, tenants can barely afford to keep livestock in urban areas. The scoping study emphasised the importance of land tenure arrangements with regard to urban livestock keeping. Livestock are kept under free range and zero grazing systems.

Importance rural urban linkages

Listed below are examples of rural urban linkages identified in the scoping study:

- Surplus livestock is often transferred to farms in the peri-urban area.
- Fodder is collected from the peri-urban areas and taken to the urban areas
- After harvesting, peri-urban households supplying maize to relatives keeping livestock in urban area, usually free of charge.
- Manure collected from the peri-urban area is used for gardening in the urban areas

Access to medical goods and feed

The study found that 82% of the respondents indicated that they have no problem with the location of these services but they were unable to benefit from them because they are too expensive.

Table 1 Access to medical and food supply

S/N	Degree of accessibility	Per cent (%) (n = 71)
1	Located nearby but cannot afford	82
2	Partly accessible	12
3	Accessible	6
	Total	100

Table 2 Acceptability of keeping livestock by neighbours of livestock keepers

S/N	Degree of acceptability	Per cent (%) (n = 71)
1	Acceptable	55
2	Not acceptable	45
	Total	100

Table 3 Adjustment made by livestock keepers to market strategies

S/N	Adjustment Strategies to markets	Percent (%) N=71
1	No problem (largely keeping goats), so no need to revise strategy	27
2	Selling on credit	16
3	Expanding the number of customers by increasing the distance to reach new markets (customers)	16
4	Reducing the price	15
5	Selling produce to relatively large-scale livestock keepers	12
6	Scaling down production, especially for broilers	6
7	Selling through livestock unions	4
8	Doing nothing	4
	Total	100

Characteristics of livestock keepers

Table 4 Age of livestock keeping respondents

As with Addis Ababa, the majority of livestock keepers were older, over 50 in this case, and again, there were slightly more men than women.

S/N	Age	Percent (%) N=71
1	18-26	5
2	27-34	14
3	35-42	10
4	43-50	21
5	Above 50	51
	Total	100

Table 5 Sex of livestock keeping respondents

S/N	Sex	Percent (%) N=71
1	Male	52
2	Female	48
	Total	100

Table 6 Reasons of keeping livestock

S/N	Reason for keeping livestock	Percent (%) N=71
1	Supplementing household income	39
2	The only economic activity to engage	20
3	As a security against household problems	13
4	To reduce domestic expenditure by consuming part of it (product)	8
5	Commercial and meet some cash requirements	6
6	As agricultural heritage (village lifestyle in the urban)	6
7	Best way of optimising prime land uses	4
8	Readily available meat during special holidays and ceremonies	4
	Total	100

From the citywide case studies and the two specific cases, it is clear that livestock keeping from the poor household's point of view is mainly for income generation and rarely as a hobby.

Table 7 Contribution of livestock keeping to household incomes

Contribution to household income	Percentage (%): N=71
Very Little	6
Little	13
Moderate	78
High	3
Very High	0
Total	100

Table 8 Decision-making on keeping livestock in the city

Decision makers	Percentage (%): N=7
Women	48
Men	19
Household Members	16
Men and women	13
Extension officer	2
Friends and labourers	2
Total	100

It was revealed that in the urban settlement of Mabibo 90% of the people in charge of keeping livestock were reported to be women.

Table 9 Livestock keepers with access to infrastructure.

S/N	Type of service	Percentage (%) N=71
1	Water	63
2	Electricity	66
3	Road	66
4	Telephone	4

Table 10 Sources of Capital

S/N	Source of capital	Percent (%) N=71
1	Accumulation through monthly revenues	58
2	Terminal benefits	17
3	From other economic projects/activities	10
4	Inheriting	7
5	Credit facilities	4
6	Gifts	4
	Total	100

Table 11 Labour

S/N	Type of labour	Percent (%), N=71
1	Employing a labourer	56
2	Households labour is enough	44
	Total	100

Problems and constraints facing poor livestock keepers

- Lack of space
- High cost of livestock treatment
- Inadequate forage
- Unreliable market for animal products
- Inadequate knowledge of livestock keepers
- Diseases
- Theft
- Prejudice against certain livestock

Needs for poor livestock keepers

- Medicine and food for their livestock
- Stable markets sell their livestock products
- Basic education on livestock keeping
- Access to credit facilities

Environmental impacts of livestock keeping

- Destruction of trees
- Pollution
- Eroding the river by using marginal lands

Recommended areas for future research

Animal husbandry

- Better husbandry practices identified taking into account the constraints of restricted space, poverty and land ownership
- Look at ways of transferring and adapting lessons learnt from peri urban livestock keeping to urban livestock keeping
- Map the resources flow (technology, manpower and innovations) from urban and peri urban zones
- Analysis of the distribution of benefits accruing from livestock keeping
- Conditions required for instituting credit facilities for the urban poor especially in the peri-urban and urban zone
- Health and safety issues relating to foraging and waste management

- Extent of child labour in urban livestock keeping particularly in animal feeding and foraging
- Improved understanding of the relationship between livestock keeping under poverty and the environment
- Improved efficiency in marketing livestock products with increased focus on the flow of market information

Institutional framework

- Investigate whether existing by-laws condoning or prohibiting certain types of urban agriculture activities are relevant to urban livestock keeping today and in the foreseeable future
- Investigate whether livestock keeping can continue to be carried out in residential areas of very high population density
- Search for ways through which networking among institutions involved in livestock keeping can either be established or enhanced and properly coordinated.
- Investigate the minimum standards required for integrating informal groups in livestock keeping into policy making

Discussions, questions and answers on the presentation

The sale of manure to intensive farmers is a source of income for livestock keepers in Kisumu. However, manure can be a nuisance; Lots of people are not aware of the health problems it causes. How is the sale of manure co-ordinated? By the government or individuals?

Manure is a source of income. A good number of larger farmers who use manure in the urban setting often get it from the peri urban setting. They carry it using their own vehicles to help with their gardening. This is more applicable to the rich than the poor.

The presentation stated that a lot of research has been carried out on minimum standards for urban livestock keeping and creating associations. Have any inroads been made?

In 1991 there was a sustainable agriculture project in Dar es Salaam, resulting in a lot of studies; however the focus was on farming and not specifically on livestock keeping. The following studies have not been co-ordinated which is a loss.

There are currently no minimum standards in Dar es Salaam however there are attempts by urban planners in Dodoma to bring together the planners and other stakeholders to work out standards that could be appropriate for integrating urban farming. Some standards were set up. Part of the implementation was hampered by a lack of infrastructure eg water supplies

What are the health concerns given the space restrictions?

Policies state that people are not meant to keep more than 4 cows on their plot, but the size of the plot is not specified, so it is difficult to implement this byelaw.

Health is seen as a big issue. Dar es Salaam is unique in Tanzania because there is still fairly cheap land available in the peri urban areas. The problem is how much land you need and for what purpose.

People often refer to Dar as a flagship city for urban livestock keeping, so are there any lessons learnt from Dar the other cities can learn from?

Although a lot of work has been carried out in Dar es Salaam regarding urban livestock keeping, the lessons learnt have not been co-ordinated.

Institutional Frameworks, including standards and norms, are often functions of policy, so what policy recommendations are there arising from the research?

The policy recommendations will be subject to further discussion

Peri-urban and urban livestock keeping in East Africa: summary findings from a scoping study

Sabine Guendel¹ and Wyn Richards²

¹Natural Resources Institute (NRI), University of Greenwich, Central Avenue, Chatham Maritime, Kent, ME4 4TB, UK

²NR International, Park House, Bradbourne Lane, Aylesford, Kent, ME20 6SN, UK

Objectives and focus

- To understand the roles and functions of livestock kept by the poor in urban and peri-urban settings in East Africa
- To identify gaps in current knowledge and research issues of a reactive and predictive nature
- To identify issues which might be sensitive to policy changes
- To focus on poor livestock keepers and poverty reduction strategies

Methodology

Five cities (Addis Ababa, Dar es Salaam, Kampala, Kisumu and Nairobi) were identified for a case study approach. The studies were carried out by local consultant teams, with the overall study being co-ordinated by Dr Sabine Guendel of the Natural Resources Institute (NRI), UK

Teams were asked to: use purposeful sampling and checklists; hold stakeholder meetings; and review secondary data – all within a short deadline. The terms of reference for the study can be seen in Annex 1.

Why focus on urban livestock keepers?

There are significant increases in the proportion of the poor living in urban areas – it is predicted that up to two thirds of the world's poor will live in cities by 2030. Currently around 30% of Nairobi household members are living below the poverty line. Very many of these keep livestock as a livelihood strategy. Urban livestock keeping has received little attention in research and development in contrast to urban agriculture. Urban livestock keeping is often viewed as undesirable by local authorities, but maybe the question should be asked: **Can urban livestock keeping make a larger contribution to poverty alleviation in cities?**

Who are the urban livestock keepers?

In the five East African cities, livestock keepers tended to be older (30-60 years), more likely to be male, with some basic education. Men generally see livestock as additional income whereas women see it as a source of household food security. Livestock are kept as social safety nets, retirement policies, deposits for funerals, sources of food and income.

The example below shows details of the wealth ranking exercise carried out in Nyaleneda slum, Kisumu.

Table 1 Results of wealth ranking exercise from Nyaleneda slum, Kisumu

Wealth ranking category	Percentage of people within this category	Relevance of livestock to the group or number of livestock generally kept
Rich (Jamoko)	15%	Livestock are not permanent proof of, and do not contribute to, wealth
Middle	25%	Households tend to have 10-40 animals in all, cattle, goats or pigs, poultry
Poor	40%	3-5 cattle or goats, 1-2 pigs and 2-10 chickens
Destitute	20%	A few chickens

To whom is urban livestock keeping particularly relevant

Urban livestock keeping is of particular relevance to very vulnerable groups, such as female-headed households, children, retired people, the sick and widows. People with limited formal education are particularly involved in urban livestock keeping. Urban livestock keeping is of great relevance to those in need of a social security strategy.

What are the benefits of urban livestock keeping?

- Provision of a social safety net
- Bank accounts for the poor – livestock can be used to facilitate credit services
- Sale of/access to, animal protein
- Utilisation of local resources
- Provision of transport/haulage services
- Livestock are flexible in terms of land use

Potential research contribution

- Understand scope and dimension of the waste management problem and provide improved low-cost technologies
- Quantify current and future water delivery mechanisms and demand for urban livestock keeping and identify mechanisms for improved management
- Assess potential and existing health risks for people and livestock

The case studies were carried out by the following people:

Nairobi – Ishani, Gathuru and Lamba, Mazingira Institute

Kisumu – Onim, Lagrotech Consultants

Kampala – Ossiya, Ishagi, Aliguma and Aisu, Ibaren Konsultants

Addis Ababa – Tegegne, Sileshi, Tadesse, Alemayehu and Woltedji, ILRI

Dar es Salaam – Lupala, UCLAS Consultancy Unit

Discussions, questions and answers on the presentation

Poverty, peri urban and urban livestock keeping

In defining 'poverty', 'peri urban' and 'urban' areas, each study team came up with different interpretations. It would be useful if a common definition could be used.

It was agreed that a common definition would be useful, however given the time constraints of the workshop it was felt advisable to use the definitions applicable to each case study report.

If we are to encourage livestock farming are we concentrating on the urban poor or are we also interested in the rich?

It is good to target the poor, but it would also be useful to look at livestock keeping within the more affluent areas for lesson learning.

Waste management

The benefits of biogas should be an area for further research

A lot of work has been carried out on biogas systems in East Africa. For instance, scientists in Uganda have been working on it for at least 15 years. Very advanced biogas units have been developed so technically there is no reason why they cannot be used. The main constraint will probably be cost as they have been designed for use by rural farmers with 'large' numbers of animals. They could be targeted for community use in urban areas.

The management of urban waste presents an opportunity for urban livestock keepers. There is a high proportion of organic matter in animal and household waste that could be disaggregated into soil supplements that would make it of great benefit for both composting and manure. Urban Harvest is currently carrying out research on this in Nairobi.

Technical issues and areas for further research

In Kampala people use indigenous knowledge of local herbs for animal husbandry/health; however not enough is known about the correct ratios to use, so further research should be carried out.

This is an important issue. A wealth of knowledge exists on plant materials for controlling worm burdens, including research commissioned under the LPP sheep and goat cluster¹. A lot of indigenous knowledge has been forgotten because many people who followed those practices have since died or else out of favour by 'modern thinkers'.

A lot of livestock keepers are using concentrates or fodder from rural areas, so what environmental impact does it have?

In India there are strong urban rural links. For example, on a daily basis forage is brought in to urban centres from rural areas, and dung is taken back to rural areas. This is a system that East African cities should look at.

¹ For more information please contact the Programme Manager, Livestock Production Programme, NR International, Park House, Bradbourne Lane, Aylesford, Kent, UK, lpp@nrint.co.uk

The production of milk is low compared to the population but there is also a shortage of milk due to marketing and handling.

Maybe the most important issue at the moment is the quality assurance side eg milk. Blood / milk contamination exists so milk contaminants need to be looked at.

In East Africa people boil milk, which makes it a lot safer to drink. The International Livestock Research Institute (ILRI) carried out a study looking at the formal and informal milk sectors in Kenya. Milk supplied by hawkers (informal sector) has a higher bacterial level, but can get rid of that by boiling, whereas milk produced in the formal sector has higher levels of antibiotics that cannot be removed.

I want to emphasise the need for good breeding practices in cities. There is currently random breeding leading to inbreeding which needs to stop. This is an area for further research

Education

This forum should address the issue of education. In Uganda agriculture has been made an examinable subject for primary schools.

I am delighted to hear that agriculture is now on the school syllabus for primary schools. There has been great frustration in the livestock research sector that schools have not taught animal husbandry, appropriate or otherwise. At the university level, the DFID Livestock Production Programme (LPP) is commissioning a new textbook on appropriate animal husbandry for smallscale livestock keepers in developing countries.

Waste management should be included in primary education. It would be important to also include it in secondary and tertiary levels. There are several groups in Nairobi already carrying out composting. In order for it to be of good quality it needs to be improved. There is a mixed range of education in the composting groups but still have limited knowledge on good compost.

Policy

Where are the policy recommendations arising from the study?

One of the policy actions is meeting today. It is only through influencing and providing knowledge.

There is concern as to where urban agriculture sits in the statutory framework of countries. For example in Kenya, who should be the main target person? We need to think about the desired lobbying and advocacy strategy in order to influence policy and urban planning.

The Aba Liden Dairy Co-operative in Addis Ababa fought for 3 years to get their legal certificate. It took 40 years to get land for their cooperative. From a practical point of view, policy recommendations are not enough. We have to fight the policy makers convincingly to give every opportunity for livestock keeping in urban areas.

One of the research areas should be linkage between urban systems and urban livestock. Unless we know the linkages to eg the economy we cannot provide sufficient policy recommendations.

Most of the cities have problems with regulations, existing laws not being maintained etc, so maybe a small group could put together guidelines on what should be included in their policies

The Kenya Poverty Reduction Strategy Paper (PRSP) has a very clear focus on food security in the urban centres. It is important to look at livestock and fisheries etc as a contributor to urban food security

The issue of livestock farming is being accepted slowly by policy makers, but we need to look at how waste management is incorporated into institutional frameworks.

Extension services

In some cities extension services are felt to be inadequate. It is not just a question of extension but also of technologies. The whole issue has been about enterprise because livestock farming needs to be commercialised. Issue of security as far as extension services in the city might be under estimated.

We should sharpen our thinking in two areas: identify an information package for urban farmers and an information package for urban communities

An LPP-funded project (reference R8110), led by Claire Heffernan of the University of Reading, is working on providing information packs for urban farmers. The project focuses on Kenya, Bolivia and India.²

² For more information please contact Dr Claire Heffernan, Department of Agriculture, University of Reading, RG6 6AL, UK, c.l.Heffernan@reading.aco.uk

Urban livestock keepers in Brazzaville, Republic of Congo: Results of the surveys of 2001-2002

Eric Thys¹, André Mfoukou-Ntsakala²

¹Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium

²Centre de Recherche Zootechnique et Vétérinaire, Brazzaville, Congo

Introduction

Brazzaville is the capital of Congo and is on the right bank of the Congo stream. There are approximately one million inhabitants and 100,000 households. The city consists of 7 districts. The city has an equatorial humid climate.

This study is part of a larger one which includes a study on Wagadougou. The findings of the study on Brazzaville only are presented here. The study was put together to help the Belgian Agency put together a better strategy on urban agriculture in the Congo. The population of Congo as a whole has been more involved in crops and less in livestock; people tend to work more with smallstock rather than cattle.

The study used a sample of 2,800 people. A cross-sectional study of the city took place rather than case studies. The sample was split into 4 groups: those not practising agriculture, crop only farmers; livestock only farmers; and crop livestock farmers.

Table 1 The number of livestock keepers

	No agricultural activities	Agricultural (crops)	Livestock	Both	Total
n	1,852	660	92	153	2,757
%	67.2	24.0	3.3	5.6	100

The table shows that 9% of the households keep livestock, 63% combine crops and livestock, but 67% of households do not carry out either type of urban farming

Effects of civil war on urban livestock keeping

Brazzaville has experienced several civil wars. The study investigates the effect of these.

A small ruminant keeper survey was carried out in 1993. This study tried to follow up the participants of the earlier study, and found the following results:

- Only 90 (36%) could be identified, the rest having died, moved or assumed missing
- 68% no longer possess livestock
- 28% possess livestock only, 3.3% practise mixed farming
- 45% of the livestock keepers shifted from larger stock to poultry

Civil war has led to a dramatic decrease in the number people keeping livestock, particularly larger stock, and the increased role that urban poultry keeping will have to play in the reconstruction process.

Table 2 Current figures of livestock kept in Brazzaville

Breed	%
Birds	77.9
Rabbits	8.6
Guinea pigs	3.7
Pigs	8.6
Small ruminants	1.2

Is livestock a survival strategy for poor dwellers?

The table below illustrates the living standards of people in Brazzaville and is broken down by agriculturalist (crop farmer), livestock keeper and non-urban farmer.

Table 3 Various resources available to different types of inhabitants in Brazzaville

Group	Durable house (%)	Water available (%)	Electricity available (%)	monthly income (USD)
Agriculturists	81.5	59.8	33.7	137
Livestock keepers	80.6	57.9	39.0	157
No producers	91.0	77.8	54.0	190

Urban farmers (whether focusing on crops or livestock) tend to have lower living standards (using the indicators in the table). Livestock keepers have slightly better access to electricity and higher monthly income than the agriculturalists.

Livestock was considered as important by all urban dwellers in terms of a survival strategy. The main motivation for keeping livestock is income generation (52%) followed by food (33%), tradition, tending to be bride price rather than sacrifice (10%) and savings for retirement (5%). In 1993, the average of livestock keepers was 54 years old.

Livestock tends to be kept by people who had experience of livestock keeping before the war (pre 1997). The use and sale of manure tends to be carried out by those livestock keepers with more experience, and those located in districts with important plant production.

Constraints

The cost of fodder is expensive as the feed mills were destroyed during the civil war, meaning that commercial feed has to be imported from Kinshasa and Cameroon, thus increasing the price.

Table 4 The main constraints to livestock keeping identified by the livestock keepers

Main constraints	%
Feed (cost and availability of fodder)	42.7
Thefts	18.5
Lack of financial resources	14.6
Animal diseases and drug availability	12.7

Conclusions

The studies on Brazzaville and Wagadougou concluded that there is a real urban and peri urban continuum; ie what is now peri urban will become urban. Urban livestock production has to be considered in a rural/peri-urban/urban continuum. Urban livestock systems have many interactions, as illustrated by the diagram on the next page. There are various flows of animal products and by-products, for example produce flowing from the rural areas to urban markets.

The increase in fast food is affecting the meat market. Increased urbanisation means space availability for urban orchards and forestry is decreasing so there is greater competition for resources.

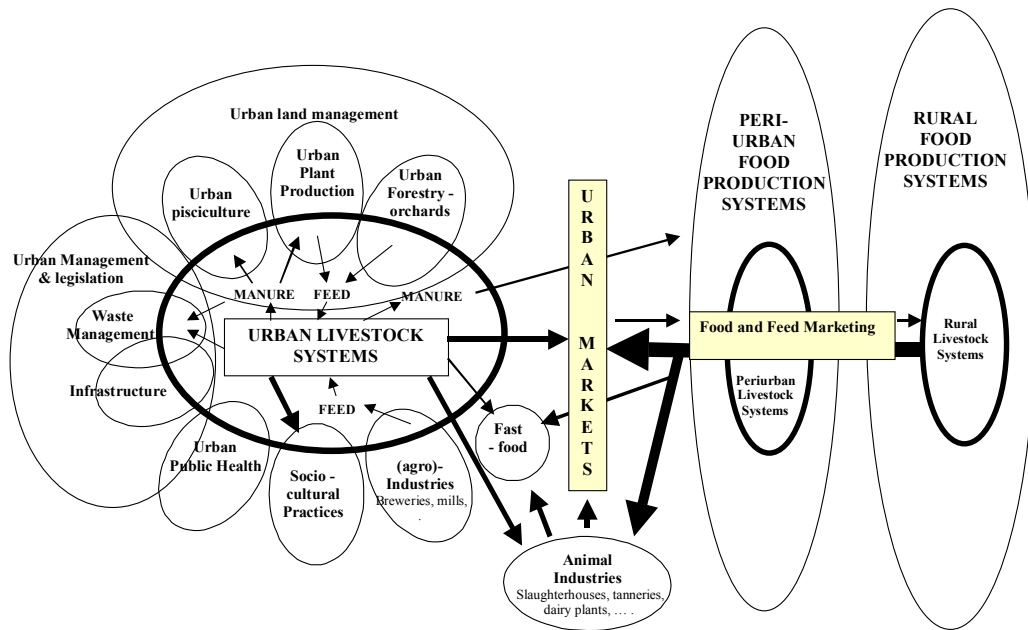


Figure 1 Diagram showing the many interactions of urban livestock systems

Discussions, questions and answers on the presentation

That study was carried out on a much larger scale (both in time and funding) than the East African ones. It illustrates the dynamic nature of agriculture and the importance of studying crop livestock systems, as well as just livestock systems.

Are urban farmers taxed on land ownership or livestock ownership or both? This could have implications for the types of urban farming carried out, as is the case in Addis Ababa.

Livestock are recognised as being important in Ethiopia which is probably why there are taxes relating to them. In the Congo their importance is not recognised and so there is no tax on their ownership.

Land tenure can be a problem particularly regarding livestock keeping, but if you have property you can keep livestock inside the compound so people try to get as large a compound as possible.

There are currently no bye-laws on livestock keeping in Brazzaville.

The model is very useful for giving an overview of the production systems. It was surprising that that animal diseases and drug availability ranked lower than the other factors, so is this a good reflection on the animal health delivery system in Brazzaville? With the emphasis on poultry keeping, it would be expected to see Newcastle disease identified as a problem, so how do the farmers cope?

Lack of feed is ranked as the major constraint because it is so difficult to get access to good feed. Therefore it becomes an even higher priority than drug availability and animal health, rather than drug availability and animal health not being particular problems.

As there are such low levels of livestock ownership in Brazzaville, how representative and useful is the framework?

The framework was derived from a number of studies. Brazzaville has low livestock ownership but that is a result of the war. We have no figures on the period before the war on numbers of livestock or livestock keeping practices, so that is why such a large sample size was used in the study. At the time of civil war, the population of the city had to flee, leaving behind their animals even their poultry. When they came back they found the army had killed all the livestock, thus destroying the urban livestock production system, which now needs to be increased.

Suggestion for lobbying policy makers in Kenya

I want to commend the presenter for his presentation and model. If I was to put the case for Kenya, I think those carrying out the research have a lot of lobbying to do with the government because we are more concerned with crop production than livestock.

If the researchers could use this model to sell urban livestock keeping to the policy makers they could be more successful. Urban livestock keeping needs to be viewed more holistically, ie as a waste management issue as well as a food production one.

Study visits

The topic of study visits was discussed by the workshop.

The cities represented at the workshop had different features that could be of interest to others, for example: Addis Ababa could teach others about its policy interventions; Kampala and Entebbe could show the effect of the decentralisation process on non-Kampala urban areas ie Entebbe; Dar es Salaam could show the benefits of the Dairy Development project.

After discussion, it was suggested that a desirable study visit would be a multi-stakeholder one consisting of 7 stakeholders. The visit would therefore need to include elements of interest to all 7 viewpoints. An exchange visit between two cities should capture the broad range of interest. This means that the organisation of the visit becomes more complicated. The visit should be seen as both a learning and disseminating experience.

If visits were limited to around 7 people, it was suggested that national workshops could be organised as a follow-on activity, so that the lessons learned on the visit could be shared with a wider audience. Groups should take the opportunity to learn from failures as well as successes. Prior to the study team going on their visit, they should be sensitised to the area they are visiting, so as to maximise learning potential once they are there. The study team could take a video camera with them to film their observations.

It was suggested that study visits could focus on the difference in innovations between the cities for example, policies in Addis Ababa as opposed to those in Kampala. One representative of each city group should be responsible for arranging study visits.

Their model is as follows: exchange visits are reported back to national workshops and training sessions. The visits include an action research component with the communities being visited. This means that the study visits have an important role in capacity building.

Summary and next steps

Representatives of the supporting organisations gave their views on the next steps for the issue of urban livestock keeping.

Department for International Development (DFID) Livestock Production Programme (LPP)

The purpose of the meeting was to bring together the different stakeholders potentially involved in urban livestock issues. This seemed to work, but what is not so clear is what can be done at the regional level. The Livestock Production Programme (LPP) would like to become more involved as independent arbitrators in the city meetings. If someone in for example, a ministry is identified as someone to convene the workshop, then vested interests might be perceived by others, therefore there may be a need for independent arbitrators. We could fund an independent person to be involved in these meetings.

Regarding regional activities, the ball is very much back into the courts of the cities. Regional activities become more political and are maybe for Urban Harvest rather than the LPP to promote. City groups should now develop documentation on who to lever in their countries to direct the products of this meeting. Maybe the PPLPF regional office could comment on the regional initiative. Issues identified within each city eg byelaws and researchable issues to be addressed. We would like to source support from other donors for urban livestock keeping, this is a new phenomenon for donors. DFID has offices in each city represented here and they should support city activities; the LPP supports generic activities. In some countries, DFID provides direct budgetary support to government, and therefore the DFID in-country office is unable to provide financial support to local initiatives. In these cases however, the DFID national office has a monitoring role and should be approached to liaise with the government.

FAO Pro Poor Livestock Policy Facility (PPLPF)

The PPLPF is looking to set up a regional facility in Nairobi that will cater for the East African region. We would be specifically interested in recommendation on how policies etc need to be changed to cater for urban livestock farming. Originally the PPLPF was not going to look at urban agriculture, but following this workshop it is likely that it will now be included.

Urban Harvest

The LPP and FAO have clarified some opportunities. Urban Harvest can be a contact between the cities and donors. Donor co-ordination is very key which is where Urban Harvest can help. The cities have a lot of power and the donors want to hear what the cities plan to do.

RUAF

Most of us are not actually donors but are programmes with a specific mandate. What can RUAF do? First by linking up with cities with similar experiences eg idea of city forum also came up in Latin America. City network has been established with key issues identified then small working group set up for each issue. In other parts of Africa and Latin America they have developed policy briefs – you shouldn't copy these because they are specific to each city, but it gives you an impression of the type of documents produced. Issue of norms and regulations – partners in the RUAF programme have agreed to start sharing norms, regulations and bye-laws. Electronic conference could be set up to look at bye-laws etc and other issues and explore them with others. Study visit has already been discussed. Very concrete possibility is using what you've already done to put in an issue of the RUAF magazine. So, we can help in

capacity building, regional development, could get support for organising own process in your city.

The person in charge in the Ministry in Holland suggested cities contact Dutch embassies in their countries, so need to be aware of urban agriculture. RUAF can then put pressure on the government to put pressure on the embassies. RUAF will send copies of the magazine issue on this workshop to the embassies to sensitise them.

Next steps

The cities should establish contact individuals (focal points) to take the whole issue forward to identify own priorities and cross-cutting issues, support from local government etc then link up with regional institutions and donor communities on regional issues.

It was suggested that the donors and supporting organisations should form a support group consortium and invite others to join. However it was emphasised that the city groups should not wait to hear from the donors before planning their next steps.

It was felt that on a regional level, the minimum requirement was a cities forum on urban agriculture and livestock keeping. The forum should be informal and open, but should include key representatives from each city. There would then be a relationship between the cities form and donor consortium.

Each city stakeholder group to nominate a person to be a representative member of the core group, whilst cities constitute the forum. The person nominated is responsible to the city stakeholder group.

People identified were: Addis Ababa, Diribu Jemal Kampala, Margaret Azuba, Urban Harvest representative; Kisumu, Moses Onim and Esborne Baraza, Lagrotech Consultants; Nairobi, Davinder Lamba, Mazingira Institute.

The cities could approach respective national DFID offices or FAO for regional issues. It would be good to have a template for city approaches. It would be good to create a standard proposal for each city. The standard proposal could be generated by the city focal points.

Conclusions

The workshop brought together a wide range of stakeholders with different experiences in urban livestock keeping: some had been working in the urban agriculture field for a long while; some were familiar with the theory behind urban livestock keeping but had not actually seen it in practice; and some were very familiar with the every day reality of urban livestock keeping, but were not aware that there were organisations with interest in it.

Although the scoping studies had followed generic guidelines, the differing natures of the cities meant that different issues were studied: for example, the Kampala study has a focus on HIV/AIDS and the Dar es Salaam study looks at the issue of land tenure in greater detail. It is important to remember that the East Africa studies are *scoping* studies carried out under a short period of time.

The table below summaries the statements put together by the working groups.

City	Statements
Addis Ababa	<p>Vision Better quality of lives for all</p> <p>Mission Sustainable and systematic research and development on urban agriculture</p> <p>Goal To improve the wellbeing of people through efficient, sustainable affordable, equitable and environmentally friendly urban livestock production systems</p>
Kampala	<p>Vision Healthy people, healthy livestock, and a healthy environment in the urban and peri-urban areas of Uganda.</p> <p>Mission Ensuring a systematic sustainable urban livestock production system for a better nutrition, health and income of the urban and peri-urban people.</p> <p>Goals Three goals based on stakeholder interests were identified as follows: 1. Appropriate policy framework in place 2. Establish responsive support and service systems 3. Implement research and production system priorities</p>
Kisumu	<p>Overall Vision Improved well-being and welfare in urban and peri-urban areas through socially-acceptable and environmentally sustainable urban agriculture.</p> <p>Goals Improved livelihoods of the urban poor through promotion of pro-poor environmentally favourable livestock production systems</p>
Nairobi	<p>Vision A well-governed, enabling, equitable, participatory, healthy, sustainable, nourishing, secure, people-centred city and environment</p>

Stakeholders from Nairobi and Kisumu, the city focal points of those cities plus those of Addis Ababa and Kampala, a representative from Dar es Salaam and members of the

supporting group will meet together at the end of September 2003 to discuss the next steps with regard to the regional forum on urban agriculture and livestock keeping.

This report will be circulated widely to those working in the field of urban livestock keeping, and urban agriculture.

Details of the organisations represented at the workshop, plus a limited number of other like-minded-groups (LMGs) can be found in Annex 3. The websites of Urban Harvest (www.cipotato.org/siupa/urban_harvest_home_page.htm) and RUAF (www.ruaf.org) details of additional LMGs.

Urban livestock keeping is on the increase and cannot be ignored. We must work together to maximise its strengths and opportunities, minimise its constraints and weaknesses and thereby provide a better quality of life for all.

Annex 1

Generic terms of reference: Scoping study of urban and peri-urban livestock keepers

In general:

To compile information on issues facing poor livestock keepers living in urban and peri-urban environments in East Africa

Specifically:

1. In Dar es Salaam, Nairobi, Kisumu, Kampala and Addis Ababa, identify and source appropriate information from official and grey literature; and undertake a limited survey of representative communities in each of these cities.

2. Compile information under the following sub headings:

- Institutions (public, private and civil) which represent the needs of (speak for) poor livestock keepers in these environments
- Numbers and characteristics of livestock keepers in these cities: age and sex of the keepers; reasons for keeping livestock; linkages with relatives/friends in the P/U and rural environments.
- Number and species of livestock; constraints to livestock keeping – feeding, shelter, disease, governance, access to clean water etc;
- Knowledge deficiencies and research opportunities of both reactive and predictive nature
- Policy issues associated with livestock keeping in urban and peri-urban areas. Is there legislation re-keeping of animals?
- What are the existing / potential public health, environmental and animal welfare issues?

Annex 2

List of participants

Belgium

Eric Thys

Organization: Prince Leopold Institute for Tropical Medicine ITM

Address: B-2000 Antwerp, Nationalestraat 155, Belgium

Tel: 00 32 3247 6392

Fax: 00 32 2247 6268

E-mail: ethys@itg.be

Ethiopia: Addis Ababa

Azage Tegegne

Organization: ILRI Debre Zeit

Address: PO Box 5689 Addis Ababa

Tel: 251 1 33 95 66

Fax: 251 1 46 12 52

E-mail: a.tegegne@cgiar.org

Diribu Jemal

Organization: Head, Addis Ababa City Administration Agriculture Bureau

Tel: 251 1 52843, 251 1 516691

Fax: 251 1 526288

3. Name: Ms Menfese Abebe

Organization: Livestock Expert, Addis Ababa City Urban Agriculture Office

Tel: 251 1 525012, 251 1 159650

Fax: 251 1 526288

Dr Zinash Sileshi

Organization: Ethiopian Agricultural Research Organisation
Address: PO Box 25643, Addis Ababa
Tel: 251 1 463284, mobile 251 (0) 9 203863
E-mail: a.konde@telecom.net.et

Mr Yilma Getachew

Organization: Yilma Bio-consult
Address: PO Box 62214, Addis Ababa
Tel: 251 1 261190
E-mail: yilmaget@yahoo.com

Dr Assefa Adane

Organization: Dairy Association
Address: PO Box 33314, Addis Ababa
Tel: 251 1 186995
Fax: 251 1 63555
E-mail: asnakechg@scene.org

Dr Tesfaye Kumsa

Organization: EARO
Address: Addis Ababa
Tel: 251 1 462633 41
Fax: 251 1 461294
E-mail: iar@telecom.net.et, selamawittesfaye@hotmail.com

Mr Wassie Azashe

Organization: Ministry of Capacity Building
Address: PO Box 43300, Addis Ababa
Tel: 251 1 572212
Fax: 251 1 572472

E-mail: wasieazashe@yahoo.com

Mr Fanos Habit Wold

Organization: Urban Development Planning Department, Ministry of Finance and Economic Development

Address: PO Box 30055, Addis Ababa

Tel: 251 1 57 05 93, 57 05 90

Fax: 251 1 55 14 96

E-mail: fanhabt@yahoo.com

Mr Getahun Shibeshi

Organization: Environment Development Action

Address: PO Box 25718, Code 1000, Addis Ababa

Tel: 251 1 512186

Fax: 251 1 514580

E-mail: enda-eth@telecom.net.et, getahun@yahoo.com"

Hailu Araya

Tel: 251 1 669467, 251 09 246046

E-mail: sustain@telecom.net.et, hailuara@yahoo.com"

Dr Yohannes Michael

Address: PO Box 33569, Addis Ababa

Tel: 251 1 60 00 73

E-mail: yohannes@telecom.net.et

Colonel Kassahun Bekele Ergete

Organization: Ada'a-Liben Dairy Association,

Address: c/o ILRI Debre Zeit Research Station, PO Box 5689, Addis Ababa

Tel: 251 1 33 95 66

Fax: 251 1 46 12 52

E-mail: c/o a.tegagne@cgiar.org

Dr Kassie Hadeгу

Organization: FAO
Address: PO Box 5536, Addis Ababa
Tel: 251 1 444160
Fax: 251 1 51 12 92
E-mail: lwgethiopia.un.org

Mr Berhanu Admassu

Organization: Private dairy farmer
Address: PO Box 62891, Addis Ababa
Tel: 251 1 455660

Dr Tefera Abreha

Organization: Bureau of Agriculture, Addis Ababa Region
Address: PO Box 62349, Addis Ababa

Italy

Katinka De Balogh

Organization: FAO
Address: Viale delle Terme di Caracalla, 00100 Rome, Italy
Tel: 39 065 7056110
E-mail: katinka.deBalogh@fao.org

Kenya: Kisumu

George Nicholas Nyangechi

Organization: Provincial Public Health Officer, Nyanza Province
Address: PO Box 721, Kisumu
Tel: 035 40091
Fax: 035 23176

Wycliffe Omutsani

Organization: The Provincial Director of Agriculture and Livestock Extension, Nyanza Province

Address: PO Box 1700, Kisumu

Tel: 035 45106

Fax: 035 45106

Mr. George Wasonga

Organization: Kisumu City Council

Address: PO Box 205, Kisumu

Tel: 035 41994/ 0722 736845

E-mail: grwasonga@hotmail.com

Esborne Baraza

Organization: Lagrotech Consultants

Address: PO Box 1244, Kisumu

Tel: 035 41440

E-mail: lagrotech@net2000ke.com

Mrs. Elizabeth Adhiambo

Organization: Hosafi Self-Help group, Undugu Society of Kenya - Kisumu

Address: PO Box 2732, Kisumu

Tel: 0733 711859

Mrs. Okumu Ogaja

Organization: Undugu Society of Kenya- Kisumu

Address: PO Box 2732, Kisumu

Tel: 0733 711 859

Tom Onyango

Address: PO Box 1260, Kisumu

Kenya: Nairobi

Clarice Jerono

Organization: East African Standard
Address: PO Box 30080, Nairobi
Tel: 332658-10

Mary Njenga

Organization: Research Assistant, Urban Harvest
Address: PO Box 25171, Code 00603, Nairobi
Tel: 254 02 630743 x 4901
E-mail: m.njenga@cgiar.org

Peter Wambuga King'ori

Organization: Training Assistant, Urban Harvest
Address: PO Box 25171, Nairobi
Tel: 254 02 630743 x 4901
E-mail: p.kingori@cgiar.org

Davinder Lamba

Organization: Mazingira Institute
Address: PO Box 14550, Nairobi
Tel: 024443219/26/29
Fax: 024444643
E-mail: mazinst@mitsuminet.com

Zarina Ishani

Organization: Mazingira Institute
Address: PO Box 14550, Nairobi
Tel: 024443219/26/29
Fax: 024444643
E-mail: mazinst@mitsuminet.com

Emmy A M'bwanga

Organization: Ministry of Local Government, Urban Development Department
Address: PO Box 30004, Nairobi
Tel: 340972/5
Fax: 254 2 212434
E-mail: alividza2001@yahoo.com

Diana Lee Smith

Organization: Urban Harvest
Address: P.O. Box 25171 Nairobi 00603, Kenya
Tel: 254 2 630743 ext. 4942
Fax: 254 2 631499
E-mail: d.lee-smith@cgiar.org

Mr. Raphael K. Muneene

Organization: Environment Department, Nairobi City Council
Address: PO Box 30075, Nairobi
Tel: 254 733900410

Mr J P Cheruiyot

Organization: Assistant Director of Livestock Production, Ministry of Agriculture and Livestock Development
Address: Hill Plaza, PO Box 34188, Nairobi
Tel: 02722637
Fax: 02 727701
E-mail: ilrima@africaonline.co.ke

Mr William O. Omotto

Organization: Department of Research Development, Ministry of Planning and National Development
Address: PO Box 30568-00100, Nairobi
Tel: 02 219420/ 0722340368

Fax: 02 215349/336176

E-mail: ncst@insightkenya.com or omotow@yahoo.com

Mrs. Theresia R. Munyua

Organization: Physical Planner, Physical Planning Department, Ministry of Lands and Settlement

Address: PO Box 45025, Nairobi

Tel: 2716800

Fax: 2716800

E-mail: munyuatr@yahoo.com

Mr. Martin Isika

Organization: Provincial Director of Livestock, Ministry of Agriculture and Livestock Production

Address: Nyayo House, PO Box 34188, Nairobi

Tel: 023335577/02339908

P. Kuria Gathuru

Organization: Kenya Green Towns Partnership

Address: PO Box 54909-00200, Nairobi

Tel: 024442631, 0733 748 381

Fax: 024442631

E-mail: greentowns2002@yahoo.com

Mr Edward Ndegwa

Organization: Silanga Ya Ngombe Group

Address: PO Box 276, Dandora

Anastasia Warimu

Address: Kahawa West, Soweto, Nairobi

Rosalynn Gichimo

Organization: ICRAF

Address: PO Box 30677, Nairobi

Tel: 02 524000
Fax: 02 524001
E-mail: r.gichimo@cgiar.org

Netherlands

Henk de Zeeuw

Organization: Resource Centre on Urban agriculture and Forestry (RUAF), ETC-Netherlands
Address: PO Box 64, 3830 AB Leusden, Netherlands
Tel: 31-(0) 33-4326000/039
Fax: +31-(0) 33-4940791
E-mail: H.deZeeuw@ETCnl.nl or ruaf@etcnl.nl

Tanzania: Dar es Salaam

Aldo Lupala

Organization: UCLAS
Address: P.O. Box 35176, Dar es Salaam, Tanzania.
Tel: 255 22 0744 565655 or 2771272
E-mail: aldolupala@hotmail.com

Uganda: Kampala

Dr Sarah Ossiya

Organization: Ibaren Consultants
Address: Suite B2.5, Jambo Plaza, Parliament Avenue PO Box 5553, Kampala, Uganda
Tel: 256-77-511075
E-mail: SCOssiya@hotmail.com

Ms Winnie Makumbi

Organization: Kampala City Council

Address: PO Box 7010, Kampala
Tel: 077 508998, 256 41 236873
Fax: 256 41 254892
E-mail: mayor@afsat.com

Dr George William Nasinyama

Organization: Department of Veterinary Public Health and Preventive Medicine
Address: Faculty of Veterinary Medicine, Makerere University, PO Box 7062, Kampala
Tel: 256 41 531869, mobile 077 49 28 65
Fax: 256 41 554685
E-mail: gnasinyama@yahoo.com

Julius Ayo-Odongo

Organization: Director of Agricultural Production/Veterinary Officer
Address: Entebbe Municipality Building, Plot 2A Circular Road, Entebbe
Tel: 256 077 703146

Ms Semwanga Margaret Azuba

Organization: Kampala City Council
Address: PO Box 3146, Kampala
Tel: 256 77 456140
E-mail: msazuba@yahoo.com

Mr George Mutekanga

Organization: Senior Education Officer, Kampala City Council
Tel: 256 77 448240
E-mail: Mutekanga@yahoo.com

Julius Kyaligonza

Organization: Urban Harvest
Address: International Potato Centre (CIP), Uganda Liaison Office, PO Box 22274, Kampala, Uganda

Tel: 077 453595/ 041 287571

E-mail: dragonta@lycos.com

Lucy Aliguma

Organization: Ibaren Konsultants

Address: PO Box 5553, Kampala, Uganda

Tel: 256-77-511075

E-mail: lucyaiguma55@hotmail.com

John Sseruwanga

Tel: 0777 00493

E-mail: c/o scossiya@hotmail.com

Jolly Kabirizi

Organization: NAARI

Address: PO Box 7084, Kampala

Tel: 256 077 434937

Fax: 256 41 241 554

E-mail: jkabirizi@hotmail.com

United Kingdom

Federica Misturelli

Organization: University of Reading

Address: School of Agriculture, Policy and Development, University of Reading, RG6 6AL

Tel: 44 (0) 118 9316514

E-mail: f.misturelli@reading.ac.uk

Claire Heffernan

Organization: Livestock Development Group

Address: School of Agriculture, Policy and Development, University of Reading, RG6 6AL

Tel: 44 (0) 1189 875123
E-mail: c.l.Heffernan@reading.ac.uk

Ruth Fuller

Organization: Livestock Development Group
Address: School of Agriculture, Policy and Development, University of Reading, RG6 6AL
Tel: 44 (0) 1189 875123
E-mail: r.j.fuller@reading.ac.uk

Wyn Richards

Organization: Livestock Production Programme, NR International
Address: Park House, Bradbourne Lane, Aylesford, Kent ME20 6SN
Tel: 44 (0) 1732 878659
Fax: 44 (0) 1732 220497
E-mail: w.richards@nrint.co.uk

Sarah Godfrey

Organization: Livestock Production Programme, NR International
Address: Park House, Bradbourne Lane, Aylesford, Kent ME20 6SN
Tel: 44 (0) 1732 878663
Fax: 44 (0) 1732 220497
E-mail: s.godfrey@nrint.co.uk

Annex 3

Like-minded groups

Organisations involved in the scoping study and like-minded groups

Organisation name and description	URL
Cities Feeding People Program	www.cityfarmer.org
Commission of the European Communities, Technical Centre for Agriculture and Rural Co-operation (CTA)	www.agricta.org
Department for International Development (DFID)	www.dfid.gov.uk
Food and Agriculture Organization of the United Nations (FAO)	www.fao.org
International Development Research Centre (IDRC)	www.idrc.ca
International Livestock Research Institute (ILRI)	www.ilri.org
Livestock Production Programme	www.lpp.uk.com
Mazingira Institute	www.mazinst.org
Natural Resources Institute (NRI)	www.nri.org
Natural Resources International Ltd	www.nrinternational.co.uk
Prince Leopald Institute of Tropical Medicine, Belgium	www.itg.be
Resource Centre on Urban Agriculture and Forestry (RUAF)	www.ruaf.org
Support Group on Urban Agriculture	www.ruaf.org/sgua.html
University College of Lands and Architectural Studies (UCLAS)	www.uib.no/udsm/udsm/uclas/
Urban Harvest	www.cipotato.org/siupa/urban_harvest_home_page.htm

Urban livestock keeping... a coping strategy by poor people with no other alternative? A much needed food supply for a growing urban population? A threat to public health?

However you view it, it is here to stay

This workshop on urban livestock keeping in sub-Saharan Africa (predominantly East Africa) brought together stakeholders from Kenya, Uganda, Tanzania, Ethiopia, the Netherlands, Belgium, Italy and the UK.

The workshop debated the many opportunities and constraints posed by urban livestock keeping, as identified in scoping studies carried out in Addis Ababa, Brazzaville, Dar es Salaam, Kampala, Kisumu and Nairobi and led to the creation of city focal points and a regional forum on urban livestock keeping.



www.nrinternational.co.uk