Stakeholder Forum: The Future of Urban Agriculture in Kenya

WORKSHOP PROCEEDINGS, NAIROBI, 3RD-4TH AUGUST 2011

Photography: Solidarités International and Partners
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Food security for urban population has become a matter of concern in the recent past. The number of people living in urban slums that have no access to food either due to lack of income or cannot afford due to sudden increase in food prices has been on the rise. In Kenya, the last few months have seen serious shortages of key food items such as maize and sugar.

Solidarités International has been working in the slums of Nairobi for the last three years. One of the key challenges of working in the food security sector is the lack of coordination among stakeholders in the urban slums. Donors, humanitarian organizations and governments have not given urban food security the attention it deserves. As a result, there are few agencies with specific funding focused on improving urban food security. Governments have also failed to invest in food security programmes focusing on urban dwellers.

It was against this background that Solidarités International organized a stakeholder forum to deliberate on issues of urban food security. The forum was intended to review actions being undertaken, challenges encountered and opportunities for progress. This publication documents the outcome of this stakeholder meeting and also marks a beginning of coordinated efforts for urban food security.

Solidarités International appreciates all the stakeholders who participated in the forum held on the 3rd to 4th of August, 2011. Also appreciated are the work and efforts of every stakeholder working within the slums of Nairobi and elsewhere within and outside the country, whose aim is to increase food access, availability and utilization for the urban poor.

Towards Urban Food Security

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INTRODUCTION TO THE WORKSHOP

Bringing Stakeholders Together for Urban Agriculture

Introduction

The question of food security in Kenya and the larger East and Horn of Africa region is not new as the region has a history of famine disasters over the years. Sadly, food security is still a major challenge even with the lessons learnt in the past. A big challenge here is coordination of the various stakeholders to find sustainable solutions to food insecurity. Various forums have become dealing with aspects of food security such as nutrition, agriculture and livestock development but are not entirely inclusive and very often do not interconnect to strengthen and enforce the outcomes of the deliberations.

The number of urban low income consumers has been increasingly steadily over the years. The food security of these people, who often settle in the urban slums, depends upon the cost of food, the variety and quality of food available to them and their access to the labour market for income.

In Kenya, food availability is heavily reliant upon the agricultural sector. Persistent rain failures and changing weather patterns have affected the agriculture sector while at the same time productive land area is reducing and giving way to housing. This calls for innovative and efficient ways of increasing food security especially for the urban poor.

A very effective way of enhancing urban consumers' food security is to improve the efficiency of activities that bring food into cities and make it available within urban areas. City and local authorities, relevant government ministries, Non-governmental organizations, individuals, donors and other actors can do a great deal to enhance the food security of low-income urban consumers by supporting the development of efficient food production and circulation systems. However, their actions face a number of constraints:

- Lack of appropriate policies that support the growth and development of Urban Agriculture
- Lack of proper coordination and among actors
- Lack of adequate funding to grow this crucial sector
- Unregulated housing that consumes every available space
- Untapped technical and human capacity to support the development and sustainability of urban food security sector.

Ongoing efforts

Solidarités International is one of the agencies supporting Urban Agriculture in Nairobi slums. The ‘garden-in-a-sack’ concept was introduced by Solidarités International following post-election violence and food insecurity in 2008. In Mathare, Kiambu, Mukuru and Kibera slums, Solidarités International, has so far brought garden-in-a-sack to 22,000 households, directly benefitting over 110,000 people. Other innovative agricultural production efforts supported by Solidarités International include green house farming and poultry rearing in small cages in the slums. The current programme is funded by European aid (EU) and French Development Agency (AFD). Other actors on the ground include COOPI and the Ministry of Agriculture.

It must be acknowledged that there are some significant efforts already being made in Urban Agriculture, but more actors must come together to facilitate the development of technically sound urban food production development policies and programmes. At a time like this when many Kenyans cannot afford basic food items, efforts to support proper structures and systems of food production need to be a priority. This is not withstanding other benefits that come with Urban Agriculture such as better nutrition, employment and improved household economies as well as greening the environment.

In its efforts to support Urban Food security, Solidarités International acknowledges the role and presence of other stakeholders and calls for a more concerted effort towards building Urban Agriculture as a sector.

Objective of the Workshop

The workshop aimed at providing a way forward on how various stakeholders could contribute to improve urban food security.

Various participants from research, policy and humanitarian backgrounds made presentations highlighting the context, policy challenges and some of the innovative practices in place. There were also panel discussions on the way forward. This document presents the outcomes of the workshop and presentations made by the various stakeholders representing different institutions.

Participants

The participants were drawn from the Government of Kenya, donors’ representatives, humanitarian players in the slums, representatives of community and faith based agencies as well as beneficiaries.

URBAN FOOD SECURITY

Food Security Programming in Urban Slums

Introduction

Solidarités International has organized this workshop to provide a forum to share experiences in agriculture and food security within the urban sector; to openly discuss successes and constraints; and to highlight issues that need to be addressed at field and policy level. Urban Agriculture is gradually becoming recognized as part of the solution to achieving food security for vulnerable urban households. At the same time as the urban and peri-urban population density increases, available land area is diminishing. City planners need to start factoring in food production capacity in the urban areas.

It is crucial that stakeholders in the urban food security sector look at urban food production and its sustainability within the framework of sustainable economic development. Solidarités International has been implementing garden in a sack project in and around the Nairobi Slums of Kibera, Mathare, Kiambiu and Mukuru - Lunga Lunga. The project has established that the sack garden has great potential to improve food security for urban poor. Case studies on the Garden-in-a-Sac revealed the following:

- Most people in the slums (and the urban sector generally) do not have access to land for productive use
- A single sack occupies an area of 0.35m² and takes 40 plants. A similar number of crops in the field would take an area of 4.4m²

BY KEITH PORTER
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• Sack gardens require very little water (5 litres a day), and certain types of domestic waste water can be used

• The sacks and other required materials are accessible and familiar to households

• There is potential for own food provision and supplementing income where households decide they want to invest in sack gardening as an income generating activity.

Progress and lessons learnt from sack gardening

• Solidarités International has so far supported 44,000 slum households to develop sack gardens

• Food production is possible in the urban environment, even in the narrow corridors of the slums

• Sack gardening is particularly relevant solution for persons with no employment or people who have some income and can spend extra time to work on their little “farms”

• For most households, the benefits of sack gardening come mostly from savings, although some households decide to invest in extra sacks as an income generating activity

• Income generated or saved from sack gardens is used for other essential needs such as paying of school fees, meeting medical bills, etc.

• Food costs continue to rise globally and locally. Urban Agriculture holds great potential to enable the urban dweller access food from own production thus providing resilience to market increases.

• Garden-in-a-Sac has increased households’ food intake and diet diversification

• Sack gardeners have first hand control over the quality of the food they produce

• In the slums, Garden-in-a-Sac has come as a positive way of occupying unemployed youth – many youth groups have taken the idea as an income generating activity

• Strengthening of the community social fabric: Household farmers come together to protect open public lands for Garden-in-a-Sac

• Positive environmental impact: Conversion of dumping sites into group sack garden sites

• “Greening” of the slums: Slums getting greener as more and more people plant vegetables and reclaim waste ground.

Food Security Programming in the Urban Slums

Background

An assessment of poverty and food security comes at an important time for Kenya. This is at a time when inflation is at an all time high. Commodity and transport prices have risen rapidly since January 2008. An increase in the cost of living without corresponding increase in income has pushed more Kenyans below the poverty threshold. In 2008, an increase in staple food prices caused “riots of hunger” in several capitals across the world. In less than a year, the price of wheat rose by 130% and rice by 74%.

Nationally, in 2005/6, almost 47 % (17 million Kenyans) were unable to meet the cost of buying the amount of calories sufficient for the recommended daily nutritional requirements. Analyses of informal settlements (slums) in Nairobi show that poverty incidence is high—63% of Nairobi’s slum residents

Poverty and Food Security in Nairobi’s Slums

Findings and Policy/Programme/Research Implications

BY MARTIN KAVAO
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Poverty and Food Security in Nairobi’s Slums

fell below the poverty line in 2006. African Population and Health Research Centre (APHRC) findings show that slum residents score poorly on non-income measures of poverty as shown in the following indicators:

- Unemployment levels are high (26%)
- Secondary level education or more (24%)
- Only 3% of households living in housing with a permanent wall, access to piped water and electricity connection.

What is Food Security?

According to the World Food Summit, food security is “when all people at all times have physical and economic access to sufficient, safe and nutritious food for a healthy and active life”. This points to the issue of access and affordability of food. Food insecurity is the absence of food security and in extreme cases can lead to hunger. Hunger has been defined as a situation in which someone cannot obtain adequate amount of food; hunger therefore represents the more severe form of food insecurity.

Objectives of the assessment

The assessment seeks to answer the following:

- What forms of food insecurity exist in urban slums?
- What is the food security situation for households in urban slums in the city?
- What are the drivers of food insecurity?

The findings sought first to distinguish the five food situation statuses:

- ‘food secure’
- ‘food insecure without hunger’
- ‘food insecure with adult hunger’
- ‘food insecure with child hunger’
- ‘food insecure with both adult and child hunger’

Overall, only one fifth of slum households are food secure whilst nearly half (48.4%) are food insecure with both adult and child hunger (extreme food insecurity) prevalent. Food deprivation was higher for very poor households when the household head is not educated, is female or has joined the slums as a migrant. Households with children aged below 11 and adults aged over 50 are most likely to be food insecure. There was significant variation between the two slums - nearly three-quarters of households in Korogocho experience food insecurity with both adult and child hunger compared to just over 20% in Viwandani.

Policy/Programme/Research Implications

- The urban poor need to be included in emergency programmes such as the government food aid programmes which have largely targeted rural communities
- Expansion of income earning opportunities
- Involve urban residents in coming up with solutions to food insecurity since this is also a problem they deal with
- Amenities in slums need urgent attention - slum upgrading programme in the right direction but there is need to address ownership of units. (Compare Dakar and Nairobi slums).

Way Forward

- Conduct further research to include non-slum urban areas to assess the extent of food insecurity in these areas.
- Policy formulation and implementation
- Identify programmes benefiting the poor and protect these through administrative measures
- Necessity of targeting
- Target large families mainly those comprising teenagers and young children.
- Target geographical zones lacking basic amenities
- Long term strategy: improve education level to curb poverty in the future.

URBAN FOOD SECURITY

Dealing with Challenges in Urban Farming

Lessons and Opportunities Drawn from Solidarités International’s Experience in the Slums

BY WINFRED MUENI MBUSYA
Solidarités International

Introduction

Most urban centres in the country and the region as a whole experience tremendous urban population growth rates. Food production has, on the contrary, been outpaced by the rapid urban population growth. With constant rain failures and other vagaries of global warming, there has been renewed public interest in Urban Agriculture owing to its potential contribution to food security and the rarely talked benefit of ecological health. As urban populations increase, agriculture in the cities and towns has also been on the rise. Initially, Urban Agriculture was practiced as a survival strategy among the poor who farmed on riparian land. Today, Urban Agriculture has grown from a basic survival activity to a reliable source of food and livelihood especially for the urban poor.

Main Challenges

Solidarités international staff identified the following major challenges affecting agriculture within the slums:

- Uncontrolled movement of birds and animals: Solidarités has encouraged social networks among the various farmers to ensure each farmer benefits without harming the other farmer’s food.
- Inadequate extension services: There is a shortage of agricultural extension workers in the urban centers compared to the population size in need of extension support. For example, the whole of Kibera slums is served by only two government extension workers. Typically, on closure of the programme, the two staff of the Ministry of Agriculture will be expected to follow up over 50,000 farmers spread across the slum.
- However, there are significant efforts from the Government, and in particular the Ministry of Agriculture in providing open days where the urban farmers can get together and acquire knowledge of new technologies and farming methods.
- Urban policy: Urban Agriculture is on a collision course with urban planning. Current City Council bylaws do not legitimize Urban Agriculture. Although there seems to be a level of tolerance of the practice, it would be far better to review city laws and council regulations to regularize use.
Dealing with Challenges in Urban Farming

of land and water, as well as small-scale livestock keeping as an economic activity.
- Coordination and collaboration among the actors need to be strengthened
- Cooperation among the farmers to sustain supply in order to establish their niche in the market
- Farming on contaminated land (presence of heavy metals due to carbon emissions from engines and industries), poor waste disposal habits (in particular industrial waste) and poor water use are prevalent
- Need for Government (and all actors) to ensure safe environment for farming activities - key policy issue
- Competition over scarce resources
- Development of capacity among urban farmers
- Most of the people migrating to urban centers have a mindset of white collar jobs and industrial employment and not farming. Majority of farmers take up the practice as the last option.
- Lack of inputs e.g. soil, manure, seeds for sack gardens
- High cost of inorganic crop improvement and protection products
- Land grabbing resulting in negation of results already achieved. A single case of land grabbing in Kiambiu reveals that in the month of July 2011, the practice resulted in the loss of livelihood for over 200 farmers farming on the edge of Ngong River.
- Vandalism of erected sacks by hoodlungs
- Pests and diseases
- Lack of cooperation from landlords
- Lack of land to put up nurseries

How to deal with the challenges

Solidarités International has learnt two major lessons from the food security programme:

1. That whatever problem the project faced, solutions lay with the local populations and local resources
2. It is essential to engage all stakeholders - beneficiaries, government and other players – in order to find solutions to problems as they arise.

In this respect, Solidarités engaged the local target community, partners and the authorities to find solutions to arising problems. Though some challenges such as land ownership and utility and policies to support interventions may take long, it is always best to flag out such issues as often as possible. Beneficiaries would normally be interested to protect their investments if they bring positive change to their wellbeing. That makes it easy for them to find homemade solutions to challenges that could be resolved within their means.

Conclusion

Safe Urban Agriculture provides an important opportunity for the farmers to gainfully participate in national development. In order to realize the full potential of Urban Agriculture, there is need to develop a policy and institutional framework for the sector. This would enable urban farmers to unlock critical technical and financial support services. Also, Urban Agriculture would be carried out in designated and safe places. This would be mutually beneficial to the farmer as well as the unsuspecting consumer who would be guaranteed of safe produce.1

Mireri et al, 2008 Urban Agriculture in East Africa: Practice, Challenges and Opportunities

Concern Worldwide has been running a nutrition programme in Nairobi and Kisumu towns (covering 9 and 1 district respectively) targeting urban vulnerable. The goal of this programme was to improve child and maternal nutrition through enhancing capacity of partners (Ministry of Health, NGOs and CBOs) to deliver effective preventative and curative nutritional services. The programme targeted pregnant and lactating women as primary beneficiaries and health workers and CHWs as secondary beneficiaries.

Programme scope

- Technical assistance to Ministry of Health (MoH) at national level in policy work in management of malnutrition
- Technical assistance to MoH and other partners in essential nutrition services to regular primary health care services
- Technical assistance in management of severe malnutrition in paediatric HIV – Two partners since 2009.

National sharing forum for innovations and best practices

Concern Worldwide observes that sharing forums have immense programme gains. These include:
- Increased coverage of services
- Increased admissions
- Improved performance
- Improved quality of care
- Integration of OTP/ SFP/ IYCF into the health services delivery system
- Increased referrals
- Increased coordination

However, nutrition programmes cannot work alone without partnerships with other stakeholders. Food insecurity on its own was a leading cause of malnutrition and hence the need to get on board stakeholders working in food security sector, the health sector etc.

Lessons learnt from this intervention clearly outline the need for sector inter-linkages. Some of these lessons include:
- Partnership critical to enhanced coverage and sustainability
- Linking nutrition to TB & HIV/AIDS services improves quality of care for SAM children
- Continued community mobilization is of paramount importance to improve coverage and performance
- A multi-sectoral approach towards tackling the problem of malnutrition needs to be linked.
Partnerships and Networking

How important are partnerships and networking?
Regardless of who is in the driver’s seat, partnerships and networking are key to success in any work, be it individual business, humanitarian or development work. The most successful managers are those who are able to forge a formidable team and work together for the common goal of their organizations. Similarly, in food security, partnerships with all stakeholders will not only help to manage resource utilization, but also the success of those endeavors.

In the recent past, international humanitarian agencies and governments have formed partnerships with local agencies, institutions and community based organizations to implement activities together. There are huge advantages of such partnerships:
1. These partnerships emphasize the fact that the local institutions are capable and can actually handle their own problems
2. They help to transfer knowledge to local institutions, organizations etc. at the lowest level of society
3. They enable better implementation of programmes especially if the international agency/governments concerned does not have adequate knowledge of the local context
4. They create jobs for local people
5. They promote ownership of interventions and projects
6. They become more appropriate to intervene without necessarily contracting the culture and the needs of the various groups represented locally.
7. The international/national agencies are able to assure quality of service and observance of rights, laws and other standards (Humanitarian Laws, Sphere Standards, Do No Harm (DNH) principles etc.)
8. International/national agencies can focus on fundraising and highlighting important needs beyond the local market
9. International/national bodies can follow up on documentation and information sharing across larger society
10. The subcontracting/contracting body can ensure that gaps and new needs created/emerging are addressed as appropriate or given adequate voice for the purpose of learning.

So how is this partnership and networking applicable to the urban food security context?

The voice of urban poor has been suppressed for a long time. One reason for this suppression is the thinking that people in urban areas have better access to jobs than their rural counterparts. Secondly, there has not been proper statistics to support needs expressed among urban poor. This has denied decision makers the foundation to base decisions in favour of the urban poor. It is therefore the business of urban actors to find ways to measure the magnitude of need among the urban poor and put it in record for learning and intervention.

It is important for stakeholders in the urban sector to form a coordination forum where they can develop strategies on information gathering and dissemination. This would enable them to acquire the needed population statistics, appraise existing interventions, identify gaps and make a decision of which way to intervene.

So far, there are a number of food security actors supporting initiatives in agriculture and livestock. Coordination to bring these actors on one table must be done. Secondly, a review of the bylaws, and government completion of agriculture policy need to take place to support ongoing initiatives. Even so, other agencies like National Environmental Management Authority (NEMA), The Horticultural Crops Development Authority (HCDA) and the relevant line ministries must establish partnerships with implementers to ensure the implementation of food security programmes are within the regulations laid down. Similarly, actors on the ground need to form partnerships for coordination and complementarity.
The Horn and East of Africa has suffered from a lack of proper mechanisms and policies to prevent the effects of famine on both agricultural and pastoral livelihoods.

The push to have good and functional disaster risk reduction strategies, as well as collaboration between nations facing frequent famines caused by rainfall failure has been the key.

Basically, there has been acknowledgement of the fact that if proper policies are not developed and implemented, then the nations of East and Horn of Africa may not feed their people. It is due to this realization that the Heads of State summit was preceded by ministerial meetings in an effort to ensure that country level programmes are developed to address food security, humanitarian aid and security within and across the borders. Adoption of these country programmes will mean that the citizens of the region will be safer within and without the borders of their nations and trade will be boosted. Most importantly, the signature and consents of the Heads of State was vital not only in highlighting the magnitude of the problem but also in the way of finding solutions to the region’s most recurrent crisis, drought, and its consequences.

Deliberations of this summit can only bear fruit only if they are followed with actions. These actions include laying down of strategies that support increased food production, its free flow and accessibility to the population. It means increasing jobs and sources of income; an environment that allows investment so that all can afford to buy this food. It means dealing with the Somalia crisis to ensure peace for Somalis as well as the security of the region as a whole. It also means supporting pastoral livelihoods to ensure adequate growth and peace for the pastoralists, including timely implementation to avert the huge loss occasioned by the recurrent drought.

Finally, it means a systematic change in the way of thinking, partnerships and collaborations. This change must be embraced by everyone - governments, humanitarian actors, religious groups and the local populations. We all have to create forums for information sharing, learning and accountability so as to increase impact of our work.
Horticulture in Kenya
Urban Settlements

About HCDA
Horticultural Crops Development Authority (HCDA) is a state agency under the Ministry of Agriculture in Kenya, founded in 1967 under the Agriculture Act. Its mandate is to develop, promote, coordinate and regulate the horticulture sub-sector in Kenya.

What is horticulture?
Horticulture is a branch of agriculture that encompasses growing of vegetables, fruits and flowers which has been practiced in Kenya since pre-colonial days.

Resources necessary for horticultural development
- Land (including water)
- Labour (manpower, knowledge, skills)
- Capital

Challenges in urban horticulture, formal and informal settlements
- Inadequate land
- Inadequate water
- Limited knowledge and skills
- Limited capital

Interventions in urban horticulture
Government interventions
- Promotion of green house technology in peri-urban areas
- Promotion of mushroom production
- Kitchen gardens
- Water harvesting technologies

Other government interventions
- Njaa Marufuku programme (NMK) started in 2005 through the support of FAO and Millenium Development Goals (MDG)
- NAAIAP (National Agricultural Accelerated Input Access Programme)
- Kilimo Biashara

Non-governmental organizations
- The ‘garden-in-a-sack’ concept promoted by Solidarités International
- Green house technology

Individual initiatives
- Commercial greenhouse flower and vegetable production in peri-urban areas e.g. Karen, Kitengela, Athi River, Kikuyu, Kiambu and Thika
- Sourcing of horticultural produce mainly vegetables and fruits through links to rural areas of origin

Emerging challenges
- Sustainability issues
- Dependency
- New constitution – food rights

Conclusions
- Horticulture in urban settlements has the potential of improving food security
- Resources for horticulture production in an urban setting are limited and therefore innovation and support is necessary
- Knowledge and skills in urban areas are limited and hence the need for building capacity.

Cash Programming

What is cash programming?
“Cash and voucher transfers are used to meet basic food and non-food needs or to purchase assets enabling people to resume economic activity.” (Sphere standards, 2011)

Why use cash or vouchers?
There are two main reasons why cash transfer would be necessary:
1. Humanitarian reasons – to offer recipient choice of flexibility without making him or her feel less dignified, transfer power as well as linking emergency to recovery. Cash transfer is very effective where structures are in place but for one reason or another, humanitarian access is limited.
2. Pragmatic reason – there a number of pragmatic reasons that make cash transfer an ideal option. These are:
   - Cost efficiency
   - Multiplier effects
   - Support to local trade linked to economic recovery
   - Fewer costs for recipients

Preconditions for cash or vouchers
- Functioning markets
- Availability of and accessibility to products
- Geographical accessibility of shops/markets to recipients
- Payments system
- Recipient identification method
Programme Objective
• To prevent malnutrition in PEV affected population
• To support the immediate needs and livelihood recovery for PEV affected households

Rationale
• Unmet immediate and basic needs
• Very diverse livelihoods
• Displaced population
• Need to reinforce markets

Approach
• €100 for 1000 household direct transfer into bank accounts
• 2 installments to cover immediate needs and longer term livelihood recovery
• 54% saved average of €24 (2,412 KSh) per household
• Approx. €12,000 € of €100,000 totally saved
• Cost efficiency - Cost/BNF €145.43 = 68.76% (€100) cash itself and 31.24% support costs

Importantly to remember
The Cash Learning Partnership (The CaLP) believes that cash transfers and vouchers are a tool that can contribute to making humanitarian preparedness and response more effective at meeting the diverse needs of affected people, while promoting recovery.

Urban Food Security and Related Policy Issues

RESEARCH BY NANCY KARANJA, MARY NJENGA, DIANA LEE-SMITH AND MARIELLE DUBBELING
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Key problems facing low-income urban families are:
• Scarce employment
• High cost food
• High cost of other services (education, healthcare, transport)
• Lack of social and physical infrastructure
• Health and nutrition problems (double burden)

On the other hand, some of the key challenges to sustainable urban development are:
• Overpopulation. UN Habitat in 2003 estimated that 1 billion people lived in cities. Today the figure must be much higher.
• Solid waste management – which flows over to the associated health and hygiene risks.
• Sack gardening has been seen as a response to urban food crisis (Sack Gardening, Karanja et al., State of the World 2011). The key advantage of sack gardening is the fact that it uses less space and provides food and nutrition security.

So, who is practising Urban Agriculture? It is quite obvious that Urban Agriculture growing with time, as the challenge of food security increases. Statistics from various researchers reveal that Urban Agriculture has been in existence for a while now.
• 800 m people are engaged worldwide (UNDP 1996)
• 200 m are market producers (iwmi-ghan@cgiar.org)
• 150 m are fulltime employed by Urban Agriculture (iwmi-ghan@cgiar.org)

It is estimated that by 2020 35-40 m urban Africans will depend on Urban Agriculture for food supply. (Mougeot 2000)

<table>
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<th>Potential compost (t/yr)</th>
<th>Potential economic benefit ($)</th>
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† Kiango and Amend (2001), ‡ Olufunke (2003), JICA (1998), Foeken et al., 2006 & Karanja et al., 2006
1 US $ = 76 Ksh

Policy challenges to UPAL

- The need to involve all stakeholders, particularly farmers, building on existing institutional development
- The need to move away from a purely regulatory approach to urban food production
- The need to focus on urban waste management through nutrient cycling
- The need to integrate the draft UPAL policy in draft legislation on county and urban devolved government in Kenya
- Integration of UPA in slum development and social housing programmes

Many of the draft policies and even existing policies have taken into consideration research outcomes. This creates a clear link between research and policy makers. Some of the policies that have taken consideration of research include:

- Nairobi: Policy dialogues and stakeholder consultation started in 2004 (Ayaga et al., 2004). Incorporation of Urban Agriculture in Nairobi Metro Vision 2030
- Nakuru: Draft UA bylaws being discussed by stakeholders led by Mayor
- National: Draft UPAL policy
- Kampa: Bylaws and guidelines developed through a participatory research and formulation process.

Future Research for Development Priorities

- Enactment of UPAL policy in line with the new constitutional dispensation and alignment with the Vision 2030 goals
- Up scaling of sustainable UPAL best bets practices for enhanced livelihoods, market value chains and enterprise dynamics
- Strengthening understanding of rural-urban linkages as a mitigating factor to migration (human and animal) due to climate change
- Health risk pathways and mitigation of negative health and environmental effects of UPAL
- Investigation on the potential of UPA as a means to create green jobs for young unemployed urban youth and women.

Urban and Peri-urban Agriculture Draft Policy

BY MARION GATHUMBI
Ministry of Agriculture

Introduction

In Kenya, urban areas are not only increasing but experiencing an upsurge of people looking for better livelihoods as a result of rural-urban migration. However, urbanization is increasing without an equivalent improvement in infrastructure and services, poverty driven land use responses and adequate shelter. Therefore, the question of organized urban land use will be critical and this should include Urban and Peri-Urban Agriculture and Livestock (UPAL) activities.

Objective of UPAL policy draft

The overall objective of Urban and Peri-urban policy (UPAL) is to promote and regulate sustainable UPAL development to improve incomes, food security, create employment and reduce poverty thereby enhancing living standards in urban and peri-urban areas.

Specific objectives

- Strengthen and enforce legislation to support UPAL development
- Enhance and strengthen collaboration and linkages between institutions, players and other agencies dealing with UPAL development activities
- Develop and strengthen institutional capacities to handle UPAL activities
- Formulate, develop and promote appropriate technologies for sustainable UPAL development
- Promote conservation of the environment by management of waste and other pollutants from the UPAL sub-sector
- Promote and coordinate marketing of UPAL products through improved markets, transport and information exchange

Major actors

In most urban centres, poor populations in the informal settlements are the main actors in this UPAL sub-sector. Vulnerable groups such as female–headed households, children, retired people, widows, and people with limited formal education are particularly involved in Urban Agriculture.

UPAL farming practices

Urban and peri-urban farming practices largely include small–scale rain-fed mixed farming, small scale river irrigation, wetland farming, fish farming and free range livestock keeping. They involve cultivation of crops such as kales, tomato and local vegetables for
Urban and Peri-urban Agriculture Draft Policy

the urban market. Keeping dairy animals and small stocks significantly increases yields and income.

Legislation that supports and hinders UPAL

- The Local Government Act (Cap. 265): Local authorities in Kenya have the power to lease, transfer or allocate land for temporary use (Section 144). Using some of these Acts, Nairobi City Council has used these powers to enact bylaws that prohibit cultivation on public streets and keeping livestock that create a nuisance.
- Section 155 (b) of the same Act, however, allows for agricultural and livestock undertakings and provision of services to them. In doing this, it refers to the Animal Diseases Act regarding prevention of outbreak and spread of diseases. Section 155 (c) also provides for the planting of famine relief crops by persons to support themselves in any part of the country where there is likely to be shortage of foodstuffs.
- The Public Health Act (Cap 242) in section 157 of the same Act, however, allows for agricultural and livestock undertakings and provision of services to them. In doing this, it refers to the Animal Diseases Act regarding prevention of outbreak and spread of diseases. Section 155 (c) also provides for the planting of famine relief crops by persons to support themselves in any part of the country where there is likely to be shortage of foodstuffs.
- The Land Control Act (Cap 302) provides for controlling transaction of agricultural land. However, the minimum agricultural land that can be transacted is about one acre. This is unsupportive of UPAL since smaller land parcels than these exist where intensive UPAL activities are practiced. In addition, the Act directs that any agricultural land in municipalities or townships must be declared by the Minister for Lands in the Kenya Gazette.

Constraints and policy interventions

Policy, legal and regulatory framework

Constraint: Review of the current legislation has not kept pace with the development of UPAL activities leading to insufficient coordination and support within the sub-sector.
Intervention: Review, develop and implement a regulatory framework that is supportive of UPAL farming by relevant public and private institutions.

Land use

Constraint: One of the major challenges to UPAL is the unavailability of adequate land. Competition between agriculture and construction of buildings for commercial purposes is on the increase due to rapid urbanization. Space for disposal of waste from UPAL activities is inadequate. There are difficulties in access and use of available spaces in urban areas.

Interventions: Set aside land for municipal waste management while building the capacity of farmers on refuse utilization. Integration of UPAL activities as a component of urban land planning by the Local Authorities and Central Government. Land should be zoned so that irrigation activities can take place next to treatment plants to allow use of treated sewage.

Crop and Livestock Production

Constraints: The major constraints faced in Urban and Peri-Urban Agriculture and Livestock are limited available land for farming, inadequacy of clean water for irrigation, agricultural and livestock as well as poor waste management and disposal.

Intervention: Availability of safe water, land intensive technologies and effective management of agricultural waste are critical to viable and sustainable UPAL activities.

Technology Development and Dissemination

Constraint: Inadequate linkages and networking between researchers and stakeholders coupled with unavailability of resources for research have led to poor prioritization and response to research needs of Urban and Peri-Urban Agriculture and Livestock sub-sectors.

Interventions: Promote public-private partnership to commercialize developed technologies. Promote collaboration between research and extension service providers. Enhance budgetary support for research and extension for UPAL activities.

Markets and Marketing

Constraints: Markets and marketing of UPAL products just like other agricultural products are faced by many challenges.

Intervention: Strengthen existing and promote formation of new commodity based producer organizations.

URBAN FOOD SECURITY

Safety of the UPAL Practice and Products

Constraints:
- Occasionally, products resulting from UPAL farming may not be safe for human consumption due to use of untreated waste water during production.
- Unsafe use of agrochemicals in crops and veterinary drugs and vaccines in animals.
- Discharge of industrial effluence into the open posing great hazard to the crops, livestock and human.

Interventions:
- Promote and build capacity in good agricultural and livestock production practices and enhance quality control in feed formulation and safe use of agrochemicals.
- Develop mechanisms for coordinated enforcement of product safety, traceability and standards.

Environmental Pollution

Constraints:
- Rampant use of raw sewage obtained from vandalized sewer lines for cleaning of produce and irrigation purposes.
- Exposure and susceptibility to diseases from use of raw sewage

Interventions:
- Mobilize the UPAL stakeholders to deal with dangers and risks associated with environmental pollution.
- Review and develop new regulations to bridge existing gaps and enhance coordinated enforcement of existing laws on environmental conservation.

Provision of Support Services

Constraints:
- Inadequate networking among the extension service providers and support service providers.
- Access to credit, microfinance and insurance is poor for UPAL farmers.
- High cost of farm inputs and sale of substandard farm inputs by unscrupulous traders.

Interventions:
- Form and strengthen producer organizations for UPAL activities to enhance access to credit, markets and other support services.
- Provide incentives to more players in provision of breeding services thereby making such services readily available and affordable.
- Build the capacity of various support service providers and beneficiaries including advocacy and sensitization to the farmers on the benefits of e-commerce.

Cross-Cutting issues also addressed under the UPAL
- Gender
- HIV/AIDS

Institutional framework

The UPAL policy is drafted on basis of inclusiveness. Institutions currently involved in UPAL Activities:
- Government Ministries
- Government Parastatals
- Agricultural International Research Institutions
- Processors
- Input suppliers
- Producer Associations
- Financial Institutions
- Community Based Organizations
- Non-Governmental Organizations
- Development Partners

Proposed institutional arrangement for UPAL coordination

National UPAL Steering Committee (NUSC)
It is the organ responsible for policy and overseeing of UPAL policy implementation in the country. The NUSC will comprise Permanent Secretaries of line ministries and chief executives of key private sector institutions involved in UPAL with the PS agriculture as the convenor.

UPAL Coordinating Committee
This is the technical committee with the responsibility of spear heading implementation of policy. It comprises directors of the line ministries, chief executives and representatives of key institutions involved in UPAL.

Municipal and Town Councils Agriculture and Livestock Committees (MCAL)
These will be charged with mainstreaming UPAL planning and implementation in all urban and peri-urban areas. These committees will comprise Heads of Departments of relevant line ministries, local authorities and representatives of key institutions within the Municipal and Town council jurisdictions.
The goal of social policy is to improve welfare of all people. It entails social protection of those in need and the whole process of ensuring the needs are met within a well established institutional framework.

**Institutional policy support**

The current policy environment is rather discouraging. The food security and nutrition policy has been drafted but not gazetted due to the time consuming push and shove between the various stakeholders. However, much of what is being proposed in that draft contradicts the City and Municipal laws already in place. This means there is need to review the City and Municipal laws to accommodate demands for Urban Agriculture.

Another challenge in the policy is the lack of coordinated institutional support. There are inadequate extension and training services to support food security with the urban areas in Kenya. This needs to be addressed through the policy and relevant line ministries.

**Action required**

- Ministry of Agriculture and stakeholders should spearhead the process of reforming and/or making relevant laws and regulations
- Enforcing of the Government’s de facto policy direction - through allocated funds for scale up even without a policy.

**City Council of Nairobi Urban Land Policy**

BY JANE W. GICHURE
City Council of Nairobi

**Introduction**

The City Council of Nairobi derives its mandate from CAP 265 of the Laws of Kenya. Its mission statement is to "To facilitate coordinated development and improved service delivery to stimulate economic activity, high quality of life and become one of the most attractive cities of the world".

The city plays a major role in economic, social and political development. Currently Nairobi City has a population of about 4 million people. About 60% of the Nairobi population occupies 35% of the land area. Nairobi scenery represents the face of all other upcoming cities with rapid urbanization and a situation where the majority poor live in slums with low economic activity.

**Urban Agriculture**

The national land policy document makes provision for Urban Agriculture and forestry (article 3.4.1.4). The City Council is, however, guided by the Agriculture Act CAP 268 in which Urban Agriculture is not explicitly institutionalized in its operational framework. The City bylaws prohibit keeping of livestock in the estates in a manner that causes public nuisance. Agriculture was further not captured in the Council’s strategic plan. In the informal settlements, security of tenure hampers land use within the slums. It is expected that with the slum upgrading programme, more land that could be useful in Urban Agriculture will be made available. However, if the laws remain as they are, then it will be hard to have the expected effect.

Kitchen gardens, poultry and dairy farming are practiced in backyards and small spaces available. Farming is also practiced along water courses in the Mwiki area, and also in the periphery districts of the city such as Dagoretti, Westlands, Ongata Rongai and Kasarani among others. The challenge comes in other essential resources such as water. The City Council water supply in Nairobi is scarce and often rationed. Though the Council laws forbid Urban Agriculture, it should be noted that it has been quite tolerant.

Land use within the urban area is governed by the Physical Planning Act. The current physical planning
Food distribution and marketing

The city assumes a major role in the distribution and marketing of the food commodity. The huge concentrated population makes an attractive market. Most food is procured from farms within Kenya and neighbouring countries namely Tanzania and Uganda. Food prices in the urban areas are usually higher than in rural areas, hence need to subsidize with Urban Agriculture. It is the mandate of the City Council to build the required marketing infrastructure to ensure efficient distribution of food. The Council operates 15 markets that deal with distribution and retail of foodstuff.

There are nine major markets located in proximity to slum areas. However, due to the high transport costs, the produce is usually more expensive than in the peri-urban and rural villages. In addition, the markets lack proper food storage and trading spaces. It must be noted that the current number of markets is not adequate. To curb market space challenges, the Council intends to expand some of the existing markets. The Council has marked several markets for expansion and while others will be newly constructed. These are Mwaro Market, Westlands, Mt. View (N), Karen, Woodley, Baba Dogo, Nairobi West, Kahawa West, Embakasi and Mabatini in Mathare 4A. Development of markets has lagged behind due to lack of capital and/or land user issues.

Catering for the vulnerable and needy groups

During the last national food emergency in 2009, the government reported that 9.5 million Kenyans did not have enough food to eat. Out of these, 4.1 million lived in urban areas. (Daily Nation, July 31st, 2011). Some of the people severely affected by the recurrent food insecurity and whom the Council would wish to give special attention are:

- Child headed households – usually as a result of HIV/AIDS
- Female headed households
- Youth population
- The aging population

There are programmes such as Urban Food Subsidy Programme that is meant to roll out the Urban Food Supply Cash Transfer to the needy people. Under this programme, heads of households are to receive regular cash to buy food for their families.

Challenges

- Lack of policies that address food production issues
- Rapid population growth vis a vis economic opportunities available
- Poor infrastructure network
- Lack of statistics and database on food supply and distribution

The way forward

- Enacting policies that support food production
- Land Policy –land ownership, provisions for food production in land demarcation
- Slum upgrading
- Construction of boreholes
- Upgrading available markets and building road networks to facilitate efficient food distribution.
- Building more markets to serve underserved areas
- Food value addition by way of processing and packaging food products
- Stepping up the urban food subsidy programme to assist the poor and vulnerable
- Water recycling and treatment
- Rain water harvesting
- Encouraging farming as an enterprise even among the youth coupled with capacity building

The City Council welcomes partnership in order to improve service delivery.

Legal framework guiding the Council’s operations

The Council provides services to the residents as per the Local Government Act CAP 265 and other Government priorities as documented in various Acts of Parliament and policy documents. The Council has identified over 30 statutes that guide its operations. These include:

- Limitation of Action Act, CAP 22
- Housing Act, CAP 117
- Education Act CAP 211
- Valuation of Rating Act, CAP 266
- Rating Act, CAP 267
- Local Government Loans Act, CAP 270

"The City Council of Nairobi, and all other urban authorities are interested in food secure citizens. So if the bylaws contradict them, it is the interest of the Council to ensure that they are structured in a manner to support food security for the people." - Jane Gichure, City Council of Nairobi.
Panel Discussions: Supporting Sustainable Urban Food Security - Way Forward

Panelists
- DR. ALFRED SEREM, HCDA
- PROF. NANCY KARANJA, UoN
- MARY NJENGA, UoN

Key Issues
- Sources of Water (Quantity, Quality, Reliability)
- Urban Planning: Land Issues (Space, Ownership)
- Sustainability
- Challenges in Implementation of Projects in the Urban Areas
- Policy

Sources of water (quantity, quality, reliability)
Crops require water as the consumer expectation also leans towards quality. It has been established that slum dwellers pay at least three times more for water than those residing in the up market parts of Nairobi. Kenyans are wasteful with water; around 40-50% of water is lost through carelessness. As such there is need for intensive sensitization on water use and management to avoid unwanted spillage. We need also to encourage water recycling. We should be able to borrow lessons from countries such as Egypt and Israel that have far less water resources compared to Kenya. While boreholes were suggested as a viable solution to water scarcity, it is noted that the drilling of the same may be difficult in the slums due to the regulations involving setting up of boreholes. The National Environment Management Authority (NEMA) should come up with policies, and proper regulations to ensure environment safety including water. Urban farmers should be encouraged to form water management and utility groups, in order to benefit more from these water resources. There is need to ensure that rivers flowing across Nairobi slums and other urban centres are made usable.

Key points to note from City Council perspective
- The safety of water harvested from asbestos-roofed houses needs to be reviewed and appropriate guidelines issued.
- Wetlands should be gazetted. It is important that before anyone invests on any land, he or she should find out if that land is gazetted as a wetland or categorized as riparian. Communities should take up the responsibility to safeguard public property.
- Nothing has been done on waste water. This is an area that the City Council is open for partnership with the private sector to recycle and reuse water.
- The Council should be able to curb the grabbing of wetlands rather than leave it to the community.

Urban planning: land issues (space, ownership)
The land issue is critical and requires firm policies. However, in the recent past, Kenya has seen expansive arable land fall into the hands of private developers. Worse still, wetlands have also been taken over for development and this is causing a cycle of resource depletion.

Sustainability
For an intervention to be sustainable, the beneficiaries must see that the project has answered some of their problems. A project would become sustainable if it answers the needs of the people it serves. There is need for documentation, publication and dissemination of lessons learnt and utility of this information to enhance project sustainability. Stakeholders need to cooperate and complement each other. This can be done if more information is shared. Project implementers need to focus on building the capacity of the beneficiaries, and engage the local authorities fully. This helps in getting the projects to run in the most effective and efficient way possible. But even more challenging is the idea of ensuring the rural interventions are sustainable and profitable to discourage rural urban migration. It is important to make the rural areas just as attractive as the cities to reduce on the rural-urban migration.

Challenges in implementation of projects in urban areas
The urban poor problem is underestimated while the problems are way too many and dynamic. Most donors are not interested in working with the urban poor; it is not easy to convince them of crisis in the urban context. Secondly, the heterogeneity of people, culture and the self oriented lifestyles make targeting a challenge. The reason why many projects in the urban centers are not sustainable is because they are not designed to accommodate the needs of people - where communities must engage to earn and pay for their living. Hence, communities abandon them, as they feel they do not directly or adequately address their needs.

Policy issues
Usually, policy issues are very long and complicated. What complicates the policy development process is the process of ensuring involvement of all the key stakeholders that the policy would serve appropriately and the also ensuring congruence with existing policies. Those that have to be taken through Parliament for approval take even longer especially considering that currently all the focus is on constitutional implementation. The important thing is for policy makers to give adequate time and speed up important policy formulation processes to ensure that there no gaps in Urban Agriculture and livestock farming.
Solidarités International Kenya-Somalia Mission

Solidarités International is a humanitarian organization which has been providing aid to victims of armed conflict or natural disaster since 1980. Solidarités International is currently present in 15 countries in Africa, Asia and the Caribbean.

Solidarités International launched its operations in Kenya in 2007 after the post election crisis and has been operating in Marsabit District, Turkana Central District and in the Nairobi informal settlements (Kibera, Kiambiu, Mathare and Mukuru). Solidarités has so far assisted 152,749 households in Kenya.

The Somalia programmes have assisted 206,202 direct beneficiaries since 2007 and are implemented successfully in South Somalia (Bardera, Amdadow and Aadaado). Solidarités International is providing assistance to pastoralists and agro pastoralists as well as internally displaced persons and host communities from our interventions on Livelihood Support and Food Security in the war torn country.

Activities Include:

- Seed distribution and technological support; Support in irrigation-based agriculture and Installation of model farms for neighbouring village groups; Improvement of access to drinking water through construction of wells, boreholes, Berkads and water treatment.

- Other activities include improvement of sanitation conditions through hygiene promotion, distribution of hygiene kits, construction of household latrines, training committees in hygiene and waste management.

- We are also involved in improvement of livelihoods through training and equipping of households for production of honey; support for revenue-generating activities, especially among women; installation of a water selling system in the most remote locations using donkey and cart to transport water and “cash for work” programme for the highly vulnerable.

Urban Food Security Programme:

Solidarités International has been working in Nairobi informal settlements (Kibera, Mathare, Kiambiu and Mukuru). The Nairobi Urban Programme is currently in its third phase with focus on improving food security for the urban poor through Urban Agriculture. This is done through sack gardens, poultry farming, food processing and green house farming as well as emergency food distribution.

Soaring food prices in the region aggravated an already bad situation. As such, Solidarités established that there was an urgent need to restore household’s financial capacity in order to secure their food security situation and their access to basic services such as health and education.

A total of 60,000 urban poor households affected by the ever increasing food prices have been assisted so far.

The overall objective of this intervention is to improve livelihood of the vulnerable populations affected by the food price crisis in Kenya. More specifically, the project seeks to improve the food security situation of vulnerable people affected by the food price crisis in Nairobi slums.

The project is based on innovative and practical ways of increasing access to household food security through farming in sack gardens, greenhouses and poultry production among the vulnerable households. It is intended that by the end of the project, 100,000 people will have secured their livelihoods.

Why sack gardening?

- Garden-in-a-Sack is ideal for persons with limited space especially in the slums where communities have limited land tenure. It is possible to carry out farming in the narrow corridors of the slums.

- Garden-in-a-Sack utilizes small quantities of water, usually recycled domestic non-soapy water. This is ideal for poor slum dwellers who have to buy every drop of water.

- Garden-in-a-Sack is ideal for unemployed people and has been quite attractive to among others, groups of people living with HIV/AIDS who have since adopted this to increase vegetable consumption for health purposes.

- Garden-in-a-Sack is not labour intensive and is affordable to majority of the poor.

- Garden-in-a-Sack is easy to replicate. Beneficiaries are able to pass the knowledge to their neighbours and hence wide replication.

Project benefits

Food security: The garden-in-a-sack has been accepted and practiced by a wide range of beneficiaries in the slums. At least 80% of these beneficiaries are using vegetables from the garden-in-a-sack for household food consumption and are able to save between Ksh 400-600 per month on food costs.

Income: Beneficiaries also sell vegetables from the garden-in-a-sack. An analysis of income generated from sale of excess vegetables show some families are able to make between Ksh 600 to 1500 per month. In a special case, Olympic Secondary School in Kibera buys vegetables from the students and the proceeds are injected into their school fees. The school has been working with Solidarités to support needy students put up gardens-in-a-sack with an aim of subsidizing their school fees which they may not otherwise manage to pay.

Employment opportunities: Individuals and groups engage in garden-in-a-sack project as a primary way of earning income. At the moment, 61 self help groups are working with Solidarités in the project to generate income. There are youths who provide soil to the beneficiaries of sack gardens for a small fee. Youths groups have also taken to collecting garbage at a fee as garbage sites were cleared for garden-in-a-sack farming.

Diet variation: The garden-in-a-sack has been most attractive to Persons Living with HIV/AIDS for its nutritive benefits. As such, more and more HIV/AIDS support groups have been erecting sacks for their members and creating awareness on the same to others in the community.

Environmental cleanliness and awareness: As communities seek places to raise sack gardens, groups of youths, men and women are clearing garbage dumping sites to erect the sack gardens. This has resulted in a relatively cleaner environment.

Reclaiming and protection of riparian land: The Quest for sustainable household livelihoods has resulted in the reclaiming and protection of communal land along roads and rivers. As it is, most slums are established along rivers and roads. These areas have been used to either dump waste or build “illegal” structures. Currently, communities are using these bare pieces of land to erect sack gardens. Communities go to the extent of seeking assistance from local authorities to use such pieces of land for sack gardens.

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