



by Gareth Haysom: Sustainability Institute

“The world food situation is being rapidly redefined by new driving forces. Changes in food availability, rising commodity prices and new producer-consumer linkages have crucial implications for the livelihoods of poor and food-insecure people.”

Von Braun. 2007



Urban Agriculture (UA) can be defined as an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows and raises, processes and distributes, a diversity of food and non-food products, (re)using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area (Mougeot. 2005).

### Sustainable Urban Agriculture

While there are many critical contributors to the advancement of or decline in sustainability, four key focus areas are where we live and work and the related contributors (shelter); the fuel that “powers” our way of life (energy); how we, and the goods we consume, are moved (transport); and lastly, what we eat and

how the food we eat is produced (agriculture). A sustainable neighbourhood recognises the interrelationship between these contributors that together with many local and site specific needs become critical in the formulation of strategies and approaches pertinent to the functioning of the urban environment. The nexus between development, ecological services preservation, social justice and the economy impacts directly on all strategies and policies of a neighbourhood development.

This chapter attempts to address what is required for a neighbourhood to effectively support its residents to access healthy, nutritious and local food. Specifically, what is necessary for this to be done in a manner that enhances social justice, the supply and maintenance of ecological services and a neighbourhood's effective functioning? At a time of great insecurity that requires approaches to consider a far deeper and longer term view, strategies must be adopted that actively build capital (not only economic, but also social and ecological capital) instead of degrading it?

The recent review of the current industrialised approach to food production by the United Nations International Assessment of Agricultural Knowledge, Science and Technology for Development report (UN IAASTD. 2008) highlights the significant flaws of this approach. The report argues for fundamental changes in the world's agricultural systems. It highlights the inequitable distribution of costs and benefits of the present agricultural systems, particularly the pervasive influence of agribusiness and unfair trade policies that have negatively impacted on communities in the developing world. According to Washington-based International Food Policy Research Institute (IFPRI), low growth rates in food production "will be insufficient to meet the expected increase in demand. IFPRI research suggests that prospects for a food secure world in 2020 look bleak if the global community continues with 'business as usual,' (Scherr. 1999). In this regard the IAASTD report proposed that smallholder agro-ecological farming will be more effective at meeting today's food production challenges than the old energy and chemical-intensive paradigm of industrial agriculture, if societal inequalities are to be reversed.

Urban neighbourhoods are becoming the dominant human environment and between now and 2050, the bulk of urbanisation is expected to occur within developing world urban centres. It follows that efforts to address food and nutritional security need to be identified within the urban context. Food production in urban neighbourhoods has a long tradition in many countries and the UNDP (1998) has estimated that urban agriculture produces between 15 and 20 % of the world's food.



The real potential of urban agriculture is the satisfaction of basic needs by providing food through improved production and distribution systems, income, employment, environmental protection, and savings in transport and foreign currency costs in developing countries (Egziabher. 1994). Analysis of a number of experiences in several cities regarding the integration of urban agriculture in urban planning (Dubbeling et al. 2001), leads to the conclusion that these experiences, although developed separately, follow a similar logic and methodological process which include:

- Creation of an enabling institutional policy framework
- Diagnosis and prioritisation
- Elaboration of Action Plans
- Implementation and monitoring
- Institutionalisation / upscaling

## Why Urban Agriculture?

Urban centres require processes to close open loop systems in which consumables are imported from a distance into urban areas. In these open loop systems, post-consumer packaging and other waste materials affect local and distant biospheres via ground, air and coastal water pollution, disease and other knock-on effects. This throughput of resources in towns and cities must be reduced.

Urban agriculture has the potential to link cities and their environments, and in so doing reduce these throughputs. Urban agriculture is an increasingly acceptable, affordable and effective tool for sustainable urbanisation (Girardet et al. 1999). Potential benefits include food security, food sovereignty, ecological and biodiversity restoration, urban greening, water recharge and cleaning, the fostering of social cohesion and general urban renewal. Urban agriculture is not limited to poor areas within the urban form, but rather, it responds to the needs of city dwellers living in a variety of different urban modalities, from differing economic backgrounds.

While urban agriculture may seem to be a somewhat simple process, it falls prey to many obstacles. How urban agriculture is integrated into existing policy and development strategies in urban neighbourhoods, and in particular how urban agriculture is viewed by planners and key decision makers, is core to the success or failure of urban agricultural practices.

**Considering the food needs of a city and using the City of Cape Town as an example and by applying the internationally recognised norm of 0.4 hectares of arable land to feed a person, the food needs for the City of Cape Town, using the 2006 population figures of 3 240 000 (PGWC. 2006), would mean that Cape Town requires 1.3 million hectares to sustain its population. This is in fact 9.2 percent of South Africa's arable land. This means that footprint in terms of food production is significant. Food plays a vital role in broader sustainability issues and food production is seen as a key element within future strategies for an urban area or even region in terms of both footprint reduction but also social justice and ecological sustainability.**



## URBAN AGRICULTURAL POLICIES

Food security is a national issue. The obligation to protect, or at least insulate, the populace, and in particular the poor, from erratically fluctuating food prices is a core responsibility of government. However, it is naive to expect that government alone will be able to address these challenges. Civil society and the private sector must become core partners in any endeavour to address issues of food security. Current price fixing in food production and manufacturing provide evidence of a lack of cooperation and partnerships. What then should the policy frameworks be that will ensure that all the various parties work together towards an environment that ensures food security within the urban context?

As argued in this chapter, one of the core thrusts of any urban agriculture policy is to ensure that planning directorates recognize urban agriculture as a core activity within the urban form. At a national level, Urban Agriculture is recognized within the Land Care Department, as evidenced by Land Care's involvement in the Green Lungs project which is a large macro projects that seeks, for example, to create over 1000 food gardens<sup>2</sup> within a limited period of time. While this is certainly a critical project, the ability for Land Care officials to implement this without other local policy mechanisms being in place is questioned.

At a more regional level, urban agriculture is a core component of the Gauteng Agriculture, Conservation and Environment Ministry. The foresaid Ministry developed the Gauteng Agricultural Development Strategy or GADS which was implemented to take advantage of the sector's potential for economic empowerment and growth (Mosunkutu. 2007). It is however questioned how pro-poor the strategy actually is, with its focus on bio-technology, agro-processing and high value and niche market crops.

The recognition of urban agriculture as a key activity within the various centres within South Africa is evidenced in how urban agriculture is articulated within the various strategies and policies. The City of Cape Town is the one metropole that has a specific Urban Agriculture Policy (CoCT. 2007); while other centres such as the City of Tshwane have developed an Urban Agriculture Development Policy<sup>3</sup>; Port Elizabeth has established the Urban Agriculture sub-directorate which aims to provide infrastructure for commercial and emerging agricultural activities to take place<sup>4</sup>, and Durban has an Informal Economy Policy (2001)<sup>5</sup>, of which urban agriculture is one component.

The great challenge that emerges with all the various policies and strategies being located within different ministries and directorates is the ability to develop coherent and effective national initiatives that work with existing policy instruments and frameworks, while complimenting one another through shared learning and

<sup>2</sup> The Green Lungs/Urban Agriculture – Project (DOA Presentation May 2007)

<sup>3</sup> Only a Draft submission of this document could be located, dated 2007.

<sup>4</sup> See: <http://www.mandelametro.gov.za/Content.aspx?objID=388>

<sup>5</sup> See: <http://www.streetnet.org.za/English/policydurban.htm>

experience. While all policies share similar goals, such as the creation of an enabling policy environment, capacity development, infrastructure development, the recognition of cross-cutting issues, market and demand challenges, national and international trade opportunities and synergy, this is often read as jargon with limited implementation demands or requirements.

The need to align urban agriculture policies from the various centres and to link these to existing macro level strategies or mechanisms such as the Expanded Public Works Campaign, Microeconomic Reform Strategy and the Agriculture Sector Plan, is critical.

Regardless of the various needs, wants and political imperatives, Drescher, Nugent and de Zeeuw (2000) argue that the critical focus of any urban agriculture policy should be:

- Food security and nutrition
- Health and the urban environment
- Urban planning

While the economic component is recognized as being important, the dominance of this within the South African policies and strategies is questioned. If planning facilitates the correct urban environment to promote public health, nutritional and food security, it is argued that the economic component will follow. Conversely, focusing on the economic component in order to address the broader issues may prove to be counterproductive and further alienate the vulnerable and insecure.

## The Nexus Between Urban Agricultural and Policy

There are critical connections where urban agriculture and urban policies bisect and are intrinsically linked. The following recommendations have been adapted from de Zeeuw (2003):

- **Integration in Urban Land Use Planning:**

The revision of urban zoning by-laws which can determine the prohibition, allowance or promotion of urban agricultural zoning within specified modalities. Access to land can be enhanced by offering vacant urban open spaces and semi-public spaces (grounds of schools, hospitals, prisons, etc.) with medium-term leases. The promotion of multifunctional land use<sup>6</sup>, the promotion of community participation in the management of urban open spaces, the inclusion of space for individual or community gardens in new housing projects and in private building schemes.

- **Inclusion of Agriculture in Urban Food Security Policies:**

The provision of budget and expertise to boost the preparation of broader urban agriculture programmes. The stimulation of participatory adapted research, oriented towards development of technologies suitable for farming in confined spaces and with low risks for health and the urban environment. The organisation of farmers' study clubs and the provision of training and technical advice to urban farmers. The improvement of access of urban farmers to credit schemes for investments in production infrastructure and innovation

<sup>6</sup> This refers to land that is used for a variety of functions and would not be exclusively for agriculture. This could include commonage areas where there are a mix of uses or could be areas that are used at specific times of the year only.

of production technologies as well as the facilitation and the local marketing of fresh urban produce and finally, the promotion of small-scale enterprises linked with urban agriculture.

- **Integration of Agriculture in Urban Environmental Policies:**

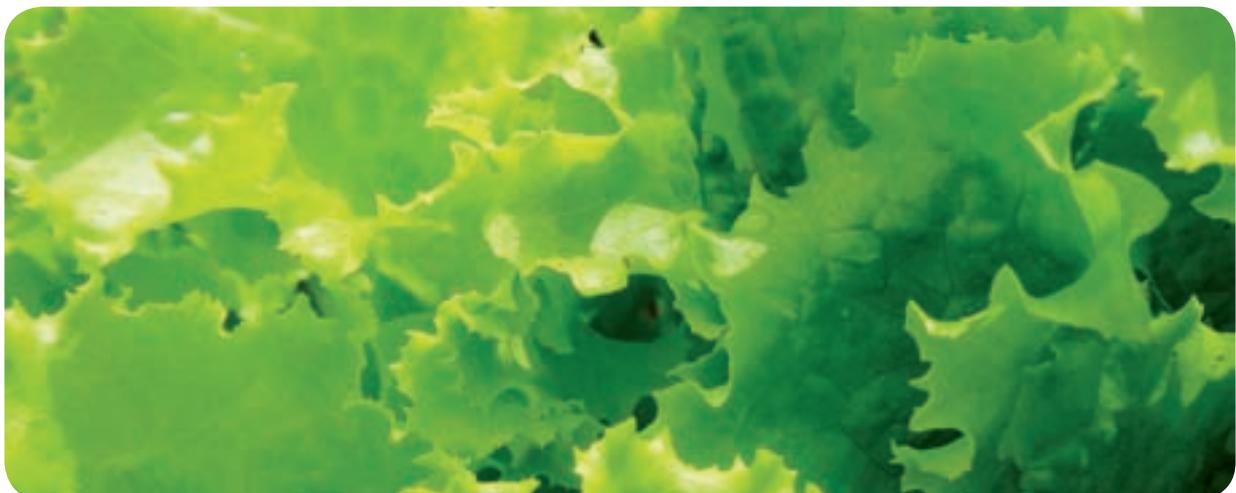
The establishment of low-cost facilities for sorting of organic wastes and the production of compost and animal feed or biogas; stimulation of practical research to develop adequate composting and digesting technologies. The promotion of investments in systems for rainwater collection and storage and the establishment of localised water-efficient irrigation systems in order to reduce the demand for expensive municipal water. The implementation of projects with decentralised collection and treatment of household wastewater for use in agricultural production and the promotion of the supply of natural fertilisers, bio-pesticides, soil amendments and quality seeds to urban farmers.

- **Integration of agriculture in urban health policies:**

Farmer education on health risks associated with urban farming and the promotion of ecological farming practices such as integrated pest and disease management, ecological soil fertility management, soil and water conservation. The organisation of joint agriculture/health programmes on prevention of vector born diseases with emphasis on adequate environmental management and the placement of restrictions on production of certain types of crops or animals or certain farming practices in specific parts of the city where such crops, animals, practices may cause unacceptable health risks.

## Creation of an Enabling Environment

Girardet, et al (1999) argue that the interrelated nature of food, agriculture, health and ecology calls for a more integrated approach to urban agriculture and proposes the formation of municipal working groups that can deal with food issues from a total system perspective allowing for interventions that cross specific functions and needs within the neighbourhood. While cities often articulate these needs within policy, it is generally unclear how this would be achieved. These structures are seen as critical components of urban agriculture policies.



Another key approach to facilitate an enabling environment for urban agriculture could be the creation of cooperatives, organizations or agencies which support urban food issues. Urban food policy councils, for example, have been successfully formed in other countries to help guide government decisions on food. Food policy councils bring public and non governmental agencies into the debate.

These councils are often informal coalitions of local politicians, hunger activists, environmentalists, sustainable agriculture advocates, and community development groups which can allow food policy decisions to reflect a broad range of interests (Pothukuchi & Kaufman. 1999; Hamilton. 2002). In many cases, communities endeavour to address food security without reference to any overall strategy. When existing strategies are in place, mechanisms should be provided to integrate these strategies within communities.

Discussions on urban agriculture often result in a debate on challenges and constraints. Though these challenges can be valid, uninformed and outdated paradigms may generate negative responses. Those responsible for the development of urban agricultural projects should look beyond these challenges and seek out ways in which to turn these challenges into opportunities. When stated challenges are reviewed and alternatives considered, innovative solutions often emerge.



Urban agriculture could include a variety of farming typologies that vary from small scale backyard gardens to larger scale “urban farms”, from fish farming to horticulture. These require management teams that would be able to respond to the wide ranging options and support interventions in a proactive manner. Such an approach calls for a far broader view of the potential benefits and advantages that urban agriculture holds forth urban environment. The integrated nature of urban agriculture requires a holistic approach that should feature much more prominently in future planning of the functioning within the towns and cities.

What is the role of planning and policy in urban areas that will provide a response to the structural and policy challenge of “business as usual” what are the new perspectives required to incorporate these issues into the planning process? Halweil and Nierenberg (2007) argue that planners interested in making room for farming in cities must look beyond farmers’ markets and community gardens to much broader issues in overall city design.

Urban planners commonly consider urban gardening and livestock keeping as a ‘hang-over’ of rural habits, a marginal activity of little economic importance, or alternatively, a health risk and a source of pollution that has to be curtailed. Such biases, sustained by the limited exposure of policy makers and planners to grounded information on urban agriculture, have resulted in far reaching legal restrictions on urban agriculture. Nevertheless, urban agriculture has continued to grow in most cities in the South (de Zeeuw, 2003). However, few authorities recognise urban farming as an urban form of land use, despite its prevalence (Gabel, S. 2005).

The coordination of data sets on land suitability and availability, commonage, parks and green spaces, water courses, flood zones, etc.. is also a critical aspect of planning and strategy, and should be coordinated with reviews and audits. A starting point in any approach to an integrated urban agriculture strategy should be a thorough land audit.

It is believed that by adopting a proactive and integrative approach to urban agriculture that is firmly embedded within the planning processes, cities can unlock significant potential. Any strategy would need to incorporate proactive steps to reduce the footprint of the City without which efforts at sustainability will remain tokenistic and inconsequential.



## TYPES OF URBAN AGRICULTURE

Although this chapter starts with a definition of Urban Agriculture, it should be recognised that Urban Agriculture is not easily defined since a large variety of urban farming systems can be encountered, with varying characteristics according to local socio-economic, physiogeographic and political conditions<sup>7</sup>. A selection of other definitions and explanations are detailed below.

**Urban forestry** can be defined as an integrated approach to the planting, care and management of trees in urban and peri-urban areas to secure economic, environmental and social benefits for urban dwellers.

**Urban agriculture** produces and markets foods and fuel largely in response to the daily demand of consumers within a town, city or metropolis, on land and water dispensed throughout the urban and peri-urban area.

<sup>7</sup> Marielle Dubbeling, IPES/Urban Management Programme (UMP-LAC/UNCHS-HABITAT), with contributions from: Andrea Carrion (UMP-LAC, Ecuador), Maria Caridad Cruz (FUNAT, Cuba), Asteria Mlambo (Dar Es Salaam City Council, Tanzania) and Fernando Patiño, (HABITAT Regional Office, Brazil): Discussion paper for the Workshop on “Appropriate Methodologies for Urban Agriculture Research, Policy, Planning, Implementation and Evaluation”, Nairobi, October 02-05, 2001.

**Permaculture** is a sustainable form of agriculture highly appropriate to urban areas, and comprises a system of farming and gardening that combines plants, animals, buildings, water, the landscape and people in a way that produces more energy than it uses.

**Urban agroforestry** is the combination of agriculture and forestry on the same land with livestock or cropping enterprises running underneath a regime of widely spaced trees, either simultaneously or in sequence.

All these components can be applied to improve the quality of the urban environment, generally in open spaces. Urban open space management is not only confined to parks and roadsides but includes household gardens, factories, business areas, mine dumps, transmission lines, flood plains, taxi ranks, rooftops, schools, clinics and churches.



One has to consider various aspects of urban agriculture in order to arrive at a definition that is meaningful in the local context (Bruinsma & Hertog, 2003)<sup>8</sup>:

#### **Types of products:**

Urban agriculture may include different types of plants or animals, or combinations of these. Often the more perishable and relatively highly valued vegetables and animal products and by-products are favoured. Non-food products include aromatic and medicinal herbs, ornamental plants, tree products, tree seedlings, and so on. Production units in urban agriculture in general tend to be more specialised than rural enterprises, and exchanges take place across production units.

#### **Types of economic activities:**

Urban agriculture includes production activities as well as related processing and marketing activities, input production, services (e.g. animal health services) by specialised micro-enterprises or NGOs, etc... The interactions between these activities are also important (chains, clusters). In urban agriculture, production and marketing (and also processing) tend to be more interrelated in terms of time and space than is the case for rural agriculture, as a result of greater geographic proximity and quicker resource flow. Economies of agglomeration seem to prevail over those of scale.

<sup>8</sup> Adapted from Bruinsma, W. & Hertog, W. eds. (2003). Annotated Bibliography on Urban Agriculture. ETC – Urban Agriculture Programme in cooperation with TUAN and other organisations

### Types of location:

Urban agriculture may take place in locations inside cities (intra-urban) or in peri-urban areas. The activities may take place on the homestead (on-plot) or on land away from the residence (off-plot), on private land (owned, leased) or on public land (parks, conservation areas, along roads, streams and railways), or semi-public land (schoolyards, grounds of schools and hospitals).

### Scales of production and technology used:

In the city, we may encounter individual or family farms, group or cooperative farms and enterprises, micro, small and medium-sized enterprises, as well as large-scale undertakings. The technological level of the majority of urban agriculture enterprises in developing countries is still rather low. However, the tendency is towards more technically advanced and intensive agriculture and various examples of such can be found in most cities.

### Product destination / degree of market orientation:

In most cities in developing countries, an important part of urban agricultural production is for domestic consumption, with surpluses being traded. However, the importance of market-oriented urban agriculture, both in volume and economic value, should not be underestimated. Products are sold at the farm gate, from the cart in the same or other neighbourhoods, in local shops, at local (farmers) markets or to intermediaries and supermarkets. Mainly fresh products are sold, but part of these are processed for own use, cooked and sold on the streets, or processed and packaged for sale to one of the outlets mentioned above.

### Types of actors involved:

Many of the people involved in urban agriculture belong to the urban poor. However, they are often not the most disadvantaged people, nor are they (contrary to general belief) recent immigrants from rural areas, as urban farmers need time to gain access to urban land, water and other productive resources. In many urban centres, one will often find lower and mid-level government officials, school teachers and others involved in agriculture, as well as wealthier people who are seeking a good investment for their capital. Women constitute an important part of the urban farmer population, since agriculture and related processing and selling activities can often be more easily combined with their other tasks in the household. It is however more difficult to combine these with urban jobs that require travelling to the town centre, industrial areas or to the houses of the rich.

## URBAN FOOD SECURITY IN DEVELOPING COUNTRIES

In Harare, sixty percent of food consumed by low-income groups was self-produced<sup>9</sup>. In Kampala, children aged five years or less in low-income farming households were found to be significantly better-off nutritionally (less stunted) than counterparts in non-farming households<sup>10</sup>. Urban producers obtained 40 to 60 percent or more of their household food needs from their own urban garden<sup>11</sup>. In Cagayan de Oro, urban farmers generally eat more vegetables than non-urban farmers of the same wealth class, and also more than consumers from a higher wealth class (who consume more meat)<sup>12</sup>.

<sup>9</sup> Bowyer- Bower and Drakakis-Smith, 1996

<sup>10</sup> Maxwell, Levin and Csete 1998

<sup>11</sup> Maxwell and Zziwa 1992

<sup>12</sup> Potutan et al. 1999



## COMMUNITY ENGAGEMENT

There is a need for interventions that go beyond urban greening, second economy economic interventions and food security. It is essential that urban agriculture becomes a core thrust within the planning and development of the urban environment. In order for this to become a reality, urban agriculture needs to be multi-sectoral, diverse, innovative, and relevant, and at the same time, span economic sectors within the town or city.



### CASE STUDY

#### SEED

SEED (Schools Environmental Education and Development) works at transforming learning environments through Permaculture. SEED has grown out of the harsh Cape Flats Primary School Environment and is now rolling out a national programme that incorporates this school-based work and also focussed on Accredited Permaculture Facilitator Training. Seed has training sites in urban areas of Cape Town, Mamelodi and Bethlehem, among others. Some of the programmes run by SEED include:

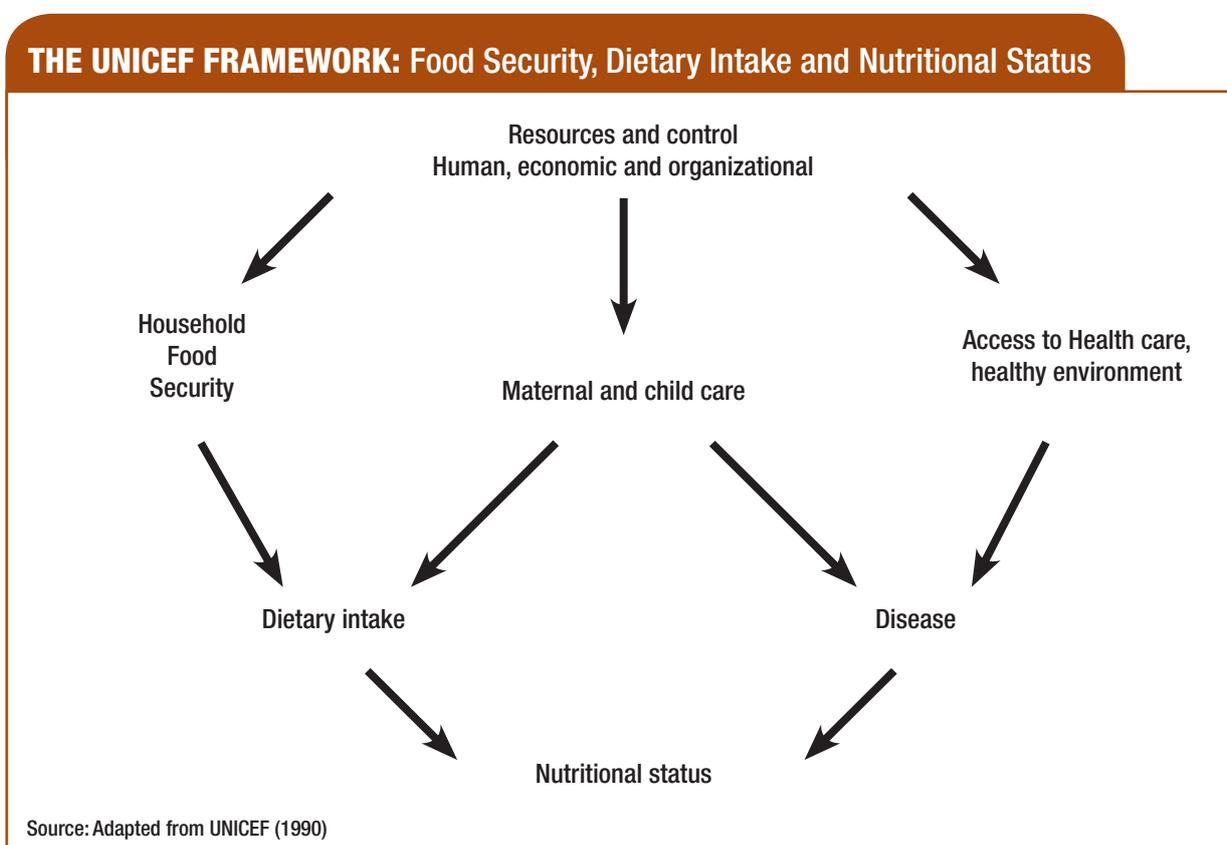
- **The Organic Classroom Program** partners schools for three years. The exit strategy ensures a sustainable Permaculture system providing food security, an education tool and a garden-based entrepreneurial project which generates sufficient income to employ one community member.
- **Teachers for Permaculture Education** this five-day course imparts teachers with hands-on Permaculture skills applied Outcomes-based Education. This course is usually the starting point for SEEDs school-based work and helps us identify our champions
- **Accredited Permaculture Training** This month-long course focuses on equipping facilitators with the skills to design and implement basic Permaculture gardens and use these gardens in the delivery of Outcomes -based Education lessons. SEED offers graduates intern positions.



Urban agricultural should be informed by the specific needs of the particular community. This identification of specific needs should evolve as part of a process that maps the food status of the various regions of the town or city. It should identify potential solutions that are specific to the various regions and community structures that could best be activated to support the development process.

The identified structures then need to work collaboratively to map out a path that is agreed upon, supported and sustainable. Only once these needs have been mapped out would a community be in a position to respond to the realities of each situation. Examples from existing groups that have worked to build social capital over time should be drawn on to support this process and to provide much needed insight into the strategies required. Small community based interventions, as evidenced in many cities around the world, such as Havana (Funes, et al. 2002), Addis Ababa and Harare (Mougeot. 2005) are able to address livelihood and nutritional needs while providing communities with the necessary resilience needed to sustain themselves and contribute in a positive manner to the city in question.

The links between urban food production and other urban related aspects are best illustrated if one considers health and nutritional aspects, which are becoming more relevant in developing countries, particularly in the light of the HIV/Aids pandemic and the essential links between treatment of HIV/Aids and effective nutrition. Another challenge facing many urban neighbourhoods is malnutrition. The UNICEF framework for understanding malnutrition has now been widely applied in urban areas. The framework notes the importance not only of access to adequate food in achieving adequate nutritional status, but also the importance of health and care practices.



## Abalimi

Abalimi is a Non-Profit Organisation which works to empower the disadvantaged through urban agriculture and environmental programs and projects. It operates in the socially and economically neglected townships of Khayelitsha, Nyanga and the surrounding areas on the Cape Flats near Cape Town. Abalimi means “the Planters” in Xhosa, which is the home language of the community Abalimi assists.

Through Abalimi’s experience, it can be seen that organic group gardening facilitates community building, and helps the personal growth and self esteem of individuals. Once produce has been harvested, approximately 50% gets packaged and sold on consignment through a project called Harvest of Hope, which has been set up in partnership with the South African Institute of Entrepreneurship (SAIE) and the Business Place Philippi, funded by the Pick ‘n Pay Foundation. The other 50% is consumed by the farmers, sold locally or given to sick or poor people in their neighbourhoods. Harvest of Hope was established to find and secure long term external markets for the farmers.

The farmers provide produce such as carrots, lettuce, tomatoes, potatoes and much more. By 2009/2010, there will be between 150-200 farmers in about 20 community gardens producing 600 boxes per week and earning up to R2000 or even R3000/month each. Over the last 25 years since its establishment in 1982, Abalimi has helped the community to initiate and maintain the growing of many thousands of organic vegetable gardens.



Photo: Vanessa Heyman



## URBAN AGRICULTURE AND THE URBAN ECONOMY

While urban greening is an important aspect of a sustainable city, it may result in land that is not suitably maintained by communities, which can place a burden on city budgets and management systems. In addition, some urban green spaces are inclined to become places that are unsafe or a security risk. Placing members of the community as “farmers” in these areas is an opportunity that can help resolve these challenges. Access to the land may need to be strictly controlled via allotment systems or other municipal land usage agreements.

International examples of allotments, such as in the town of Ely in Cambridgeshire, and in Kent can serve as examples of governance and leasehold models. Alternative economic models are also required. The establishment of cooperatives have proven effective in the stimulation of urban agriculture in other regions (Mougeot. 2005). The connection between urban agriculture and alternative localised economies, such as seed saving groups and seed banks also provide opportunities that are often not considered as benefits associated with urban agriculture. Seed saving, exchange and sharing is social capital that has been lost, but is central to the growing community of urban farmers (Saruchera. 2008). These alternative economies become a critical component of urban agriculture.

It is incorrect to assume that urban agriculture is carried out for solely economic activities. Urban agriculture is in fact often an indicator of alternative economies taking place within the communities. Urban agriculture is carried out, often directly related to nutritional security needs and for this reason is often not considered within the generalised planning and operational processes within the local governance structures. It is believed that by adopting a proactive and integrative approach to urban agriculture that is firmly embedded within the planning processes, communities can unlock the significant potential.



## CONCLUSION

With urbanisation rates of developing countries (and South Africa in particular) twice that of the world average, the focus of future food demands and consumption will be in the urban centres. International data reveals that the locus of poverty is increasingly urban, and that the most significant food security challenges

will be experienced in urban areas. This rising demand in urban centres suggests that poverty in South Africa is no longer only a rural problem. Urban agriculture should become a core area of development focus in the future. Strategies and plans to implement this in a manner that enhances social justice, ensures ecological sustainability and responds to the needs of all within the urban context will be critical.



## CASE STUDY

### Lindros Whole Earth Consultants

Lindros implemented a PAETA 30 day training program with the Kara Heritage Institute. 24 youths were trained at the Wildrocke Eco Centre, Midrand, Gauteng. Each Person had an individual plot and received the appropriate coaching throughout the process from seed to harvest. The initial site was an old horse training facility and the group of youth set about transforming this land into a productive urban agricultural site. Each participant was given a small section to tend and all transformed these areas into productive spaces.



Photos: Courtesy of Lindros



## CASE STUDY

### Skye Farm – Philippi

Faced with severe space shortages, limiting productivity and potential returns, Skye, an urban farmer in Philippi, Cape Town decided to start farming vertically, significantly increasing production and financial flows – This approach also brought about other benefits such as reduced water use, better pest control and improved product quality.



Photo: Tarak Kate