



12 Urban Agriculture



Food is vital to life. A well-balanced diet made up of fresh fruit and vegetables, protein and dairy is essential for the continued mental and physical development of children, teenagers and adults. Currently, many communities globally and within the KwaDukuza municipality are facing food insecurity and poor access to affordable fresh vegetables and fruit. This means that residents do not have sufficient food to prevent hunger either on a daily basis or at certain times of the month and year when a family's income is reduced. Food insecurity also refers to residents not having sufficient access to healthy food through urban food markets or from local food gardens, whether in their own gardens or shared within a community.

The built environment can play a key role in increasing food security by incorporating urban food gardens and through the planting of edible landscaping. Land can be allocated for shared urban agriculture projects or allotment farms. High-value agricultural land along the urban edge can be used for food production thereby preventing urban sprawl through improved urban management practices. The way in which food is produced can also impact the environment. Farms that reduce or omit the use of harmful fertilisers and pesticides reduce the negative effects of agriculture by preventing the pollution of rivers, soil and air. Urban farms can therefore also serve to enhance local ecosystems and biodiversity. The use of chickens or ducks for pest control provides an innovative and reliable source of protein and manure.

In KwaDukuza, 17% of households are agricultural households with the vegetable and poultry farming being the most common. The vast majority of these agricultural households earn less than R40 000 annually and therefore can be considered subsistence farmers.

12.1 What changes do we need?

The need to make healthy food affordable and accessible to residents in the KwaDukuza Municipality is essential to improving the livelihoods of residents and offers an opportunity to reconnect with local ecological systems. These guidelines provide ideas and guidance for building owners and developers to establish and support small-scale agriculture, from tiny window box vegetable gardens to larger allotments or whole properties given over to vegetable farming. This can in turn offer new employment opportunities because the benefits of urban agriculture



Green Economy Enabler

Urban agriculture

The provision of food from within urban areas holds opportunities for job creation and economic development throughout the supply chain. This begins with the provision of seeds and seedlings, equipment, the manufacturing of organic fertilisers and compost, and the making of structures to support farming practices. This is followed by the need for food markets, especially informal trading stalls, and transport operators to access consumers on a regular basis. Informal trade is more labour intensive with lower start-up and operational costs therefore giving economic opportunity to a wider group of residents in the municipality.



12.2 How do we design our buildings?

12.2.1 Include useful plants in the design of landscaping and roof gardens

Building owners and developers are encouraged to plan the landscaped areas of a site so as to provide the opportunity for planting of edible and medicinal plants. This could take place along common verges and areas of general public accessibility, on balconies, podiums, roof gardens and in courtyards, or through innovative green edible walls. Plants such as strawberries, herbs and nasturtiums all grow well in vertical planters. Such produce could be harvested by the building occupants, sold or donated to local community groups/NGOs.

12.2.2 Consider opportunities for on-site food productions

Taking this one step further, larger developments would do well to consider the formal allocation of space for communal or managed food gardens. This can be done through allocated space for allotment farming, or carefully managed and planned hydroponic schemes and hothouses.

12.2.3 Design space and systems for composting organic waste

All retail, residential and commercial buildings should consider how best to manage their organic waste, specifically restaurants and retailers. This can be done through arranging for collection by a specialist company, through on-site composting, bokhasi or establishing a worm farm (vermiculture). Compost and worm juice produced from these processes can then either be used locally or sold. (Also refer to the section on waste management.)

12.3 How do we manage our buildings

12.3.1 Consider edible plants when planting on site

The seasonal planting of planters and flower beds presents the facilities manager or building owner with an opportunity to rethink the landscaping philosophy, and to introduce edible or medicinal plants into the area. Building managers should consider the introduction of organic composting and vermiculture if they are not already practiced on site.

12.3.2 Implement an organic waste management system

The diversion of organic waste from landfill can contribute to a closed-loop system where this is used to make compost for feeding the soil. This can either be done on site and contribute to the composting used for plants, or can be collected by a service provider and managed off site.

12.3.3 Innovation

Consider different ways in which urban agriculture can be promoted, such as acting as a distribution point for local “vegetable boxes”.

12.4 How do we enhance our precincts?

Fantastic opportunities exist at community scale for the introduction of edible landscaping. Areas suitable for allotment gardening, community gardens and greenhouses need to be identified by both private developers and the municipality.



Space should be provided for local food markets and fresh produce grocery stores, so as to stimulate and promote this sector. South Africa, along with the other countries around the world, is witness to a growing trend towards residents seeking out locally grown organic food, and it is something that all communities should have access to.

The establishment of a neighbourhood organic composting program can generate employment and economic activity in an area, but dedicated areas should be demarcated for this. Organic waste can be collected from surrounding properties, composted and sold.

Case Study

Waste to Food

Closing the Loop

Roger Jaques

Pick n Pay and the City of Cape Town have a “Waste to Food” project, which was started in Philippi. Food waste and organic waste are mixed to produce compost. It is used to feed earthworms, for pest and disease control, as liquid fertiliser and to grow crops. This project is creating jobs, as it is structured as enterprise development, and operates as a franchise, and Pick ‘n Pay is now buying the compost back. The people working on this project can obtain a second franchise, manage it and repay their loan.

Source: Sustainable Settlements Innovation Summit, 2015, Western Cape Provincial Government



Source: <http://wtf.waste-to-food.co.za>



Case Study

Farm-to-Fork

Buy Local Campaigns

Abalimi Bezekhaya and Harvest of Hope

Abalimi Bezekhaya (“Farmers of the Home”) is a non-profit development organisation based primarily in township communities like Nyanga and Khayelitsha. Residents in these townships are encouraged and supported to grow their own organic vegetables to feed their families. Vegetables are now grown in hundreds of gardens in the townships, sustaining thousands of individuals and families. Some of the micro-farmers are now producing more than enough to feed their families, even after giving to needy neighbours and selling “over the fence”. However, in the past there was little or no access to markets outside the immediate neighbourhood to sell the high quality organically grown produce.

Abalimi’s “Harvest of Hope” project provides a much-needed outlet for excess produce by selling this produce on behalf of the farmers in the form of a weekly organic box scheme. Harvest of Hope contracts with the farmers in advance, guaranteeing to purchase their produce and thus giving them some income security. Members of Harvest of Hope sign up for the box scheme and pay for their weekly delivery of vegetables in advance. Thus Harvest of Hope is a community supported agriculture scheme (CSA) that facilitates the commitment between the micro-farmers and the consumers/members. This has become so successful that even the CTICC and Mount Nelson Hotel are procuring some of their vegetables from Harvest of Hope.

Source: <http://harvestofhope.co.za/about-us/our-story/>