

# Urban Food Security

## Urban agriculture, a response to crisis?

Urbanisation is one of the major problems of mankind in the near future. By 2015 about 26 cities in the world are expected to have a population of 10 million or more (figure 1). To feed a city of this size today - for example Tokyo, São Paulo or Mexico City - at least 6000 tonnes of food must be imported each day (FAO-SOFA 1998). In 1988, about 25% of the developing world's absolute poor were living in urban areas, by 2000 about 56% of the absolute poor would be living in urban areas according to the World Resource Institute (WRI 1996) while, urban areas are expected to surpass rural areas in population around the year 2005 (FAO 1998).

There are significant regional differences in the degree of urbanisation. In the past Africa was a predominantly rural continent. However, in the present the cities in Sub-Saharan Africa are growing with an exceptional rate of 5% or more annually, by the year 2020 half of the population in this region will be urban (WRI 1999).

The capacity of governments to manage this urban growth is threatened in many developing countries, or already on the decline. The identification of ways to provide food, shelter and basic services to the city residents and create "sustainable cities" are challenges for many city authorities around the world.

Urban food security depends on various factors:

- ❖ Availability of food (which depends on food production in the rural and urban sectors, food imports, marketing and distribution, infrastructure, availability of fuel energy, etc.)
- ❖ Access to food (depending on purchasing power of urban households, subsistence production, rural-urban linkages, household networks etc.)
- ❖ Quality of food (depending on preservation of street food, quality of production, abuse of pesticides, use of waste water for production, sanitary conditions on markets, air quality etc.).

### URBAN AGRICULTURE

The phenomenon that a growing number of urban dwellers are engaging in agricultural activities, especially in the less developed countries has been witnessed all over the world. We will further

mention "urban" areas here, referring to both, intra-urban and peri-urban areas (*the Editor: for definitions see the article by Mougeot in this Magazine*).

It is estimated that 800 million people are engaged in urban agriculture world-wide and play an important role in feeding the world's cities (UNDP 1996, FAO 1999). Urban agriculture is emerging strongly in Sub-Saharan Africa, where the fastest urban growth will occur in countries least equipped to feed their cities (Ratta & Nasr, 1996 in Mougeot 1999).

The objective of this paper is to discuss why people get involved in Urban Agriculture (UA). Food production in the city is in many cases a response of urban poor to:

- ❖ inadequate, unreliable and irregular access to food supplies, partly due to either a lack of availability or a lack of purchasing power<sup>1</sup>
- ❖ inadequate access to formal employment opportunities, due to deteriorating national economies in developing countries

Economic or food crises are certainly not the only driving factor behind the upsurge of UA. There are numerous cities where urban agriculture has developed without having experienced a special crisis period (or where the crisis - for certain categories of the population - is an intrinsic part of the urban system).

### URBAN AGRICULTURE AS INTRINSIC PART OF A CITY

Agriculture, in general and the food production for the urban population was, and still is, thought to take place in the rural sector only. In reality this undertaking has failed in many coun-



Fig. 1: The development of mega cities since 1950 (after FAO-SOFA 1998)

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Maize is cultivated at many open spaces in Harare, Zimbabwe

tries due to missing infrastructure (delivery of seeds and fertilisers to rural areas and delivery of the harvested produce to urban centres) and lack of purchasing power of the urban poor. Although the interest in agriculture in urban centres is quite recent, it is practised for a long time.

Evidence suggests that urban agriculture complements rural agriculture and increases the efficiency of the national food supply in that it (IDRC 1998):

- ❖ provides products that rural agriculture cannot supply as well, e.g. perishable products, export crops that require rapid delivery upon harvest;
- ❖ can substitute for food imports intended for urban consumption, and thus save on foreign exchange;
- ❖ can release good rural agricultural land for export-oriented production; and
- ❖ can reduce pressure to cultivate new rural land, relieving stresses on marginal rural lands.

Additionally urban food production:

- ❖ can contribute to the generation of income in the rural sector by various and multiple interactions between the areas and its inhabitants (Drescher & Iaquina 1999).

Urban people are not passive food recipients; in many cities they are actively involved in food production (Drescher & Iaquina 1999).

### URBAN AGRICULTURE AS A RESPONSE TO CRISES

Urban agriculture refers not only to food crops and fruit trees grown in cities but encompasses animals, poultry, bees, rabbits, snakes, guinea pigs and other indigenous animals. Urban fish production is also part of the food system in many tropical cities (Drescher & Iaquina 1999). The urban farming system is a composition of many different activities like gardening,

staple food production, gathering, hunting, and even urban forestry often combined with food production (figure 2, p.10).

The locus of poverty is shifting to urban areas (Haddad, Ruel, & Garrett. 1998). Economic crisis and structural adjustment policies introduced in developing countries have had a disproportionate impact on the urban poor, especially women, and have resulted in rising food prices, declining real wages, redundancy in the formal labour market, cuts in food subsidies for urban consumers, and further reduced public expenditure on basic services and infrastructure. It is often overlooked, that economic crisis has different impacts on women and men (see e.g. Drescher & Iaquina 1999, Foeken & Mwangi 1999, Hasna 1998, Mbiba 1999 and others).

The short- and medium-term results of conditionally programs have put an economic squeeze on poor populations in developing countries, narrowing of the income gap between rural and urban dwellers, and resulting in accelerated migration from rural to urban areas (Nugent 1997). These urban poor frequently resort to the non-market (informal sector) activities for survival, like urban food production (Drescher & Iaquina 1999).

Under such circumstances, urban food production can be defined as a “crisis induced strategy”, ensuring survival of the poorer segment of the population. The following examples of people’s survival strategies during periods of economic decline and social unrest in densely populated cities support the “crisis model” view.

Jakarta is one example in recent history. The economic turmoil that first hit Indonesia in 1997 has left millions of people vulnerable to food insecurity, without enough money to buy sufficient food.

*This article is partly based on information extracted from 20 city case studies on urban agriculture world-wide and additionally draws from experiences of the Urban Vegetable Promotion Project<sup>2</sup> in Dar Es Salaam (Tanzania). Most of the case studies were commissioned by the German Development Co-operation (GTZ) in 1998/1999 and presented at the International Workshop in Havana, Cuba in October 1999 (Bakker et al, 2000) Additional literature and own experiences of the authors in urban agriculture will complement the information.*

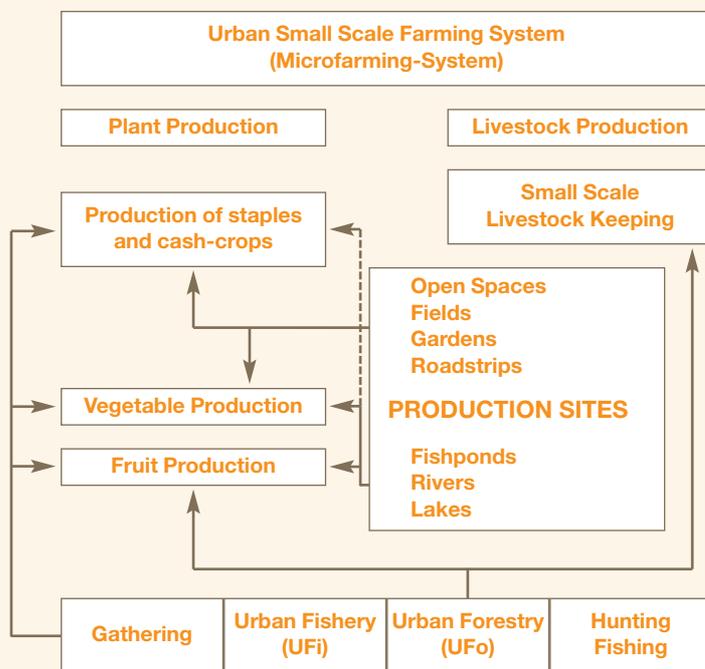
First urban areas were dramatically affected. Alarming food related problems were reported (FAO 1999a). As a reaction to this people started to produce food on small plots and open spaces all over the city—even transformed former public parks into gardens and government bodies encouraged the people of Jakarta to grow their own food. Problems started in urban areas to spread to rural areas later caused by migration. In some rural communities the population has increased up to 30%, putting severe pressure on those areas (FAO 1999a).

Maidar (1996) reports an example from Mongolia. The recent “shock therapy” measures taken by the Government have created great hardship as prices for consumer goods rise while salaries remain unchanged. The prices for food, coal, wood, electricity, transportation, etc. are skyrocketing. In 1990/1991, 850 families grew vegetables in the city. In 1996 this number has increased over 20 times reaching 21,000. More and more families have begun to realise that urban agriculture might be a way to improve their standard of living.

Globally induced economic crisis, rapid population growth and rural to urban migration, deteriorating national economies or persisting economic difficulties

<sup>1</sup> Unreliable and irregular access can be caused by natural disasters (as the hurricanes Georges and Mitch in 1999, flooding or economic disasters (like recent strikes in Ecuador, causing lack of food provision for several days)

<sup>2</sup> The Urban Vegetable Promotion Project (UVPP) was launched 1993 as a bilateral project between the Ministry of Agriculture and Co-operatives (MAC) and the German Development Co-operation (GTZ). It is financed by the Ministry of Economic Co-operation (BMZ).



**Figure 2: The wide range of urban agriculture within an interaction system (after Drescher 1998, modified)**

are pre-conditions for urban food production in many developing countries and countries of transition. Nevertheless urban food production would by far have less importance if there would not be a shortage of adequate and accessible income opportunities and an unsatisfied demand for appropriate quantity and quality of agricultural products in cities.

Responsibilities have to be taken over by the appropriate authorities to ensure and to support food security in cities and have an impact on urban poverty alleviation.

### CRITICAL ISSUES

A major problem in the acceptance of urban agriculture as a serious contributor to food security in the city and sustainable urban development. Another critical institutional constraint to urban agriculture, particularly crop cultivation, is access to land. This uncertain legal status of urban agriculture is such that official projects or programmes aimed at improving urban agriculture have been relatively rare. Typically urban agriculture is not taken into account in the urban planning process (Drescher & laquinta 1999).

Urban agricultural activities must be integrated into cross-sectoral and multi-stakeholder strategies for mutually beneficial urban and agricultural development (Mougeot 1996). Gender plays an important role. Women tend to dominate urban cultivation because they are marginalised in other forms of employment in the for-

mal sector of the urban economy. The term urban greening could assist in broadening the idea of urban agriculture. The new concept of "urban greening" (Kuchelmeister 1997), comprises the planning, and managing of trees, forests and related vegetation to create or add values to the local community in an urban area.

There is an increasing perception that rural and urban environments operate as a system („continuum“) rather than independently. Therefore it is needed to bridge the rural-urban artificial detachment. In terms of migration and urbanisation, peri-urban environments play a

mediating role between rural and urban (laquinta & Drescher 1999). This implies manifold rural- urban linkages:

Local urban governments are often relatively weak. Municipal councils which started off as colonial institutions were never fundamentally transformed to cater for a growing urban population especially in Africa (Unchs 1998). They however play an increasing important role in development activities. Little is actually known on the functioning of these local institutions. We presume that local institutions (formal or informal) like e.g. farmer groups, water users etc. have little influence on the decision making in the urban centres. Capacity building for local institutions and support for the formation of new, more efficient and interdisciplinary institutional approaches towards the urban-rural continuum are therefore needed. Greater collaboration between research and development capacities in urban planning and those in agricultural development is needed to make urban farming more efficient and sustainable (Mougeot 1996).

### REMAINING QUESTIONS

Open questions will remain for discussion and solution:

- ❖ How does urban agriculture develop, when the "crisis" is over?
- ❖ How can UA be integrated in urban planning ?
- ❖ How can UA institutionally and technically be linked to sustainable city programmes?

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