

# SUSTAINING FOOD IN CITIES:

## The integration of urban agriculture into planning processes

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### Abstract

Discussions on urban planning in developing countries often highlight the widespread rapid urban development and population increase. These are contrasted with recent trends in the western world. Generally spoken, the city infrastructure, has been unable to cope with this influx of people. Rapid, largely unchecked, urbanisation in many cities changes their basic and originally planned layout. In Kumasi (Ghana), for example, this spells the end to its claim of being the 'Garden City of West Africa'. Land use patterns in developing country cities have become increasingly complicated and no viable planning concepts are in sight.

Conflicts between customary and modern land tenure systems are inevitable. Most of the conflicts have to do with the transition from communal land to freehold land tenure. This leads to fundamental changes in land use. The role of Land Boards and traditional authorities in manipulating and interpreting local land rights is unclear. Critical issues for planning include adapting to new realities instead of using inappropriate either out-dated or high-tech "western" planning instruments.

Key problems identified are:

- ❑ Increasing Urban poverty and food insecurity
- ❑ Exclusion of the poor from urban land markets, and
- ❑ Wide-spread unsustainable urban development.

The creation of "sustainable cities" and the identification of ways to provide food, shelter and basic services to the city residents is a challenge to many city authorities around the world. In developing countries the capacity of governments to manage this urban growth is threatened; in many countries capacity is already on the decline. Witnessed around the world is the phenomenon of growing numbers of residents engaging in agricultural activities in urban and peri-urban areas, especially in less developed countries.

Urban food production is in many cases a response of urban poor to:

- ❑ inadequate, unreliable and irregular access to food supplies, due to either a lack of availability or a lack of purchasing power and/or
- ❑ inadequate access to formal employment opportunities, especially for women, and caused by deteriorating national economies in developing countries

In contrast to the increasing number of urban food producers, land preservation and land provision for this activity is rather limited. The main arguments for the promotion of food production in cities are that it:

- ❑ improves food security, thereby reducing malnutrition in cities;
- ❑ reduces poverty by enabling income generation;
- ❑ promotes household stability by diversifying livelihood strategies;

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- ❑ potentially improves the urban environment, making cities more habitable;
- ❑ helps close the urban nutrient cycle, reducing the demand on fragile and often nonexistent urban sanitation systems, and;
- ❑ promotes social justice and communication.

Therefore, food production in cities needs to be incorporated into the formal planning process. This paper identifies some key issues that need to be addressed in this context.

### The issue

The developing world has been predominantly rural but is quickly becoming urban. In 1950 only 18% of people in developing countries lived in cities. In 2000, the proportion was 40%. By 2030 the developing world will be 56% urban. While the developed world is more urban, 76% urban in 2000, developing countries have much higher urban population growth rates — an average annual urban growth rate of 2.3%, which far exceeds the developed world's urban growth rate of 0.4% (UN POPULATION DIVISION 2000). In the developing world there is also significant variation in the regional rates of urbanization. While in Latin America it is estimated that fully 74 per cent of the population is already urbanized (UNDP 1996), in Africa urbanization is relatively new. Nonetheless, in Africa over a third of the population already lives in cities and the rate of rural-to-urban migration is increasing.

***“The process of formulating and implementing land policies is not only politically and technically difficult, it can also be costly. However, the costs of not formulating and implementing them are much higher” (Dowall & Giles 1997).***

Cities do not develop according to planners' wishes. To the contrary, cities have always shown their own dynamic of development. In many cases this has led to crowded, ill-ventilated, unplanned, unwieldy, unhealthy cities – “ulcers on the very face of our beautiful island” as expressed by Howard (1902), regarding Britain at the turn of the century. Howard's Garden City proposals addressed many aspects of the food system – production, distribution, collective preparation and consumption, and waste recycling – as integral to the city (Pothukuchi & Kaufman 2000), an idea that is only now just reemerging in planning circles (Groppo 1997).

In many reports on urban planning in developing countries the rapidity of urban development and population increase is highlighted which differentiates the recent trend different from what happened and happens in the western world. Harare's infrastructure, for example, has been unable to cope with this influx of people (Dengu & Mugova 1996). Rapid, largely unchecked, urbanisation like for example in Kumasi, Ghana, has called an end to its claim of being the 'Garden City of West Africa'. As a result, land use patterns have become increasingly complicated and no viable planning concepts are in sight (Pender 1998). Therefore, urban planning instruments need to be adapted to the relatively new situation instead of using out-dated, old-

fashioned, post-colonial planning instruments and data, which are no longer in use in their countries of origin (Dowall & Giles 1997).<sup>3</sup>

Conflicts between customary and modern land tenure systems cannot be avoided. Most of the conflicts have to do with the transition from communal land to freehold land tenure. This leads to fundamental changes and conflicts in land use. The role of Land Boards and traditional authorities in manipulating and interpreting local land rights is unclear (Richard 1991). Field experience from West Africa underpins Richard's observations and shows that the original urban landowners are from outside the city. The people actually working the fields in the city these days are not the owners, but sub-contractors of the land. While officially there has been a decentralization process implemented granting jurisdiction of urban land to municipal governments, still the national government gives land rights to certain people. No information is available on negotiations between either the national or the municipal government and the original owners of the land. The same situation applies to cities in other parts of Africa such as Nairobi<sup>4</sup>.

Although public awareness for farming activities in cities is slowly increasing, agriculture is still in many cases "by definition" not practised in cities, and is often seen as "economically unimportant", "just gardening", "a temporary phenomenon", or a "mere coping strategy". For example, UNDP-Habitat recently issued the following opinion. "[S]upporting or encouraging the allocation of land for permanent agricultural practice in urban areas would be a contradiction in terms. Of course, peri-urban agriculture is of a different nature and is usefully practised in many countries" (UNDP-Habitat 2003).

Indeed, peri-urban agriculture and the peri-urban are generally but not always quite different from urban agriculture and the urban environment. Figure 1 shows how the different intervention strategies and models, underpinning current programs and projects deployed over the last two decades or so, tend to address different urban and periurban types (Allen 2001; Drescher & laquinta 2002; based on a concept by Allen & Davila 2001). Broadly speaking, these intervention models are associated with one or more of three main planning perspectives:

- rural, tends to focus on localised and discrete actions;
- regional, attempts to act upon rural-urban pressures and flows;
- urban planning, seeks the transformation of planning systems and their allied institutions.

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<sup>3</sup> Often in developing countries outdated maps and other data is used within the planning process – application of modern planning instruments (like remote sensing and use of Geographic Information systems) are still lacking (Ballaney & Nair 2003) give an example from India).

<sup>4</sup> Drescher, personal communication

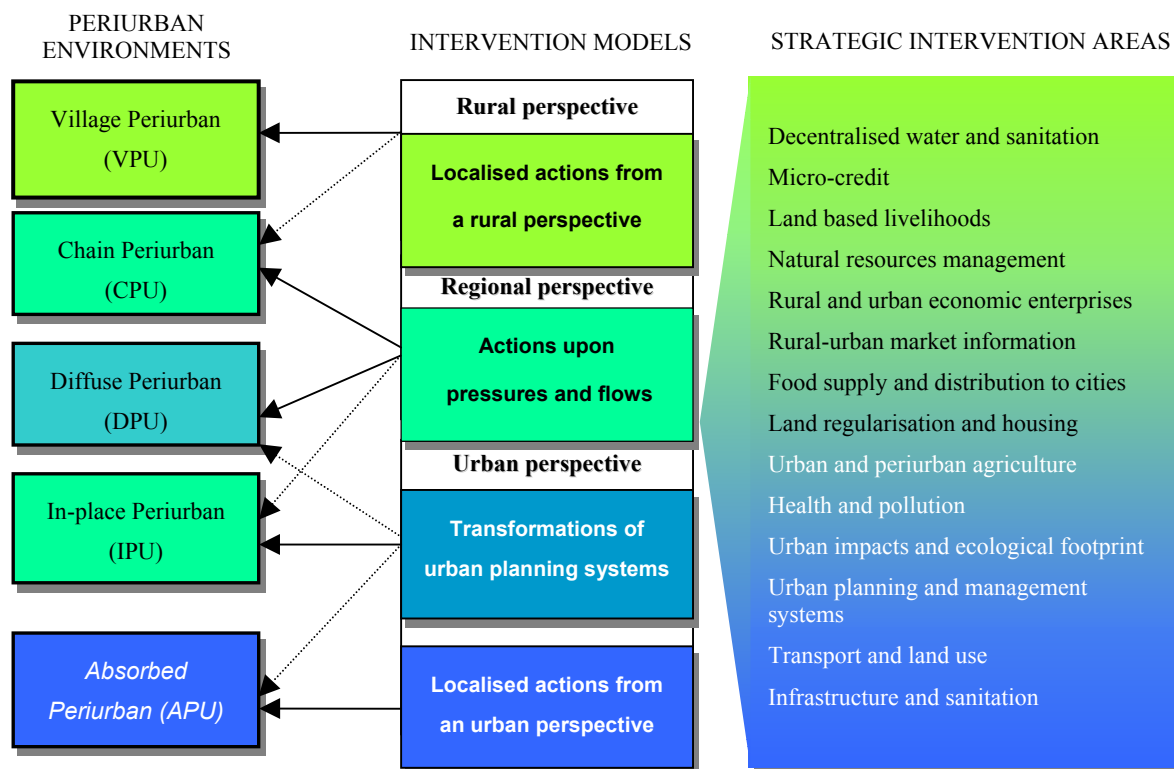


Figure 1: Intervention models, environments and strategic intervention areas<sup>5</sup>

Importantly, the boundaries between these three planning traditions are increasingly blurred as each intervention model draws from the others in terms of approaches, methods and themes.

For example, localised actions aimed at improving land-based livelihoods in periurban villages are likely to address issues of rural-urban market flows, while planning interventions targeted at urban authorities are likely to promote collaborative efforts with rural authorities. This can cut off small-scale periurban farmers from urban markets (Drescher & Iaquina 2002).

Yet, UNDP relies on a simplistic definition of peri-urban and a false dichotomy as its basis for differentiating urban and peri-urban. To the degree that urban agriculture is a contradiction in terms derives entirely from a definition of urban overly reliant on a limited economic model. The neoclassical economic model assumes away social and environmental values and costs at its roots. Therefore, it of course dictates that agriculture in the city is an oxymoron. However, this is the fault of economic hegemony in thinking and “technological-fix” hegemony in practice rather than an indictment of the phenomenon itself. Agriculture has always taken place in the city and likely always will. The reasons have differed under varied historical circumstances, levels of economic development and social class. Nevertheless, the practice continues worldwide.

<sup>5</sup> The distinction of the different types of peri-urban have been described by the authors elsewhere, see Iaquina & Drescher 2000, also available online: <http://foodafrica.nri.org/urbanisation/urbspapers/AxelDrescherTypology.doc>

The terms “agriculture” and “urban planning” seem to be incompatible. What we find in literature on urban agriculture in western countries refers to allotment garden schemes mostly. High costs of green open space management tend to dominate the thinking of planners and authorities. A more “agricultural” approach or an approach focusing on public-private partnerships can help to reduce costs. Agricultural activities tend to be shifted to outskirts of cities, far away from markets and infrastructure without analysing the economic and environmental costs or considering its interrelation with other sectors. Urban agriculture is often informal. This refers to the land occupied, the labour market, and the sale of the produce. No official authority deals with informal activities. For one or another of these reasons, urban planners tend to exclude agriculture from their terms of reference. Nevertheless, leaving the urban farming sector out of planning activities creates many problems in the cities of the South. Urban agriculture is a reality and in many cases a response to crisis and a coping strategy of the urban poor (Jacobi, Drescher & Amend 2000). As reported from Mozambique, for example, uncertainties about property rights affected land outside the state farm sector, and had an impact on investment, productivity, and social relations throughout the country (University of Wisconsin 2000). In many countries the best and highly productive soils are gradually becoming built-up areas, forever losing their potential for food production (Pujol, & Beguier 2000). Urban agriculture is often shifted to marginal soils thwarting the goal of high productivity and potentially exacerbating negative environmental side effects..

Our position is that both urban and peri-urban agriculture (PUA) need to be acknowledged as a significant contributor to an overall societal agricultural policy for all nations, but especially for developing countries where urban poverty is so widespread and growing. There are economies of scale associated with UA and PUA that differentiate them from each other and from more traditional, rural agriculture. Nonetheless, these economies exist and they exist side-by-side numerous social and other benefits that UNDP acknowledges before dismissing them as mere “coping strategies”. Our own work has strongly advocated that planners exactly set aside land for UA and plan for it as a sector, combining it with other important planning goals (e.g., green space, carbon sinks, urban wildlife habitats, etc.) In addition, we have advocated that planners look to UA as a potential solution to other urban problems or challenges (e.g., waste recycling, water recycling, nutritional deficiencies, status of women, niche marketing, etc.).

Always there will be those who grow food for aesthetic or cultural reasons. Always the poor will see growing food as at least one “coping solution” to their paucity of income and food insecurity. Similarly, always some will eschew any relationship to producing the food upon which they depend. For them food will simply remain a commodity to be purchased and strictly neoclassical economic arguments like UNDP’s will be palatable. For the rest of us living in the real world, we will require more thoughtful analyses, more humane policies and less adherence to strict ideological models that omit realistic and integrated solutions to food security, poverty alleviation, empowerment and all those other “messy coping solutions”.

### **Urban poverty and food insecurity**

More poor people are now in urban areas than ever before. The process of urbanization, though stimulated by economic development, has also led to sharp divisions in growth between cities and among social groups. Nearly one billion urban residents in the cities of the developing world are poor, and the next decade will witness increased urbanization of poverty if current trends continue (UNCHS 2000).

Poverty can be found in cities everywhere. But in cities in the developing world, it is deeper and more widespread. A child born in a city in a least-developed country is 22 times more likely to die by the age of five than his counterpart born in a city in a developed country. In richer countries, less than 16 percent of all urban households live in poverty. But in urban areas in developing countries, 36 percent of all households and 41 percent of all female-headed households live with incomes below the locally defined poverty line. The urbanization and feminisation of poverty have resulted in over one billion poor people living in urban areas without adequate shelter or access to basic services (UNCHS 2001).

It is estimated<sup>i</sup> that between 1/4 and 1/3 of all urban households in the world live in absolute poverty. Vulnerable to a number of hazards, the urban poor are always at risk. They live densely packed, subject to heavy rains or sudden fires that can wipe out their homes. They have precarious employment, in the formal or informal sector. They are exposed to higher incidence of disease, arbitrary arrest and forced eviction. Neglected by formal institutions, they are often left unprotected against violence, drug dealers, corrupt officials, unscrupulous slumlords and organized crime. Lack of resources, hence lack of political power, is a main cause of their vulnerability.

The urban poor also spend a disproportionate amount of money on food making them vulnerable to changing macro-economic conditions. Poor residents of Kampala and Accra spend up to 75 percent of their incomes on food, and still they universally endure decreasing food supply and quality. No formal safety nets address poverty and hunger, and thus the poor have adapted numerous survival strategies (Maxwell 1998).

The challenge for urban local governments is to enable the development of sustainable livelihoods, household access to affordable and culturally appropriate food, safe and secure living environments and overall a better quality of life for the urban poor.

### **Urban land markets and sustainable urban development**

Land remains one of the controversial issues related to Urban Agriculture (Webb 1998) but access to land is generally more crucial than the *availability* of land (Mougeot 1994). Urban land management (as any other land management) should aim to put urban land resources into efficient and sustainable use (FAO 2000). This requires, first of all, recognition of the prevailing problems and acceptance of urban livelihood strategies including urban farming. However, it also requires recognition of the collateral benefits and opportunities created through productive use of green open spaces in cities.

The challenge for urban planners is to integrate into their planning strategies, the coping strategies of the urban poor, which are closely related to the informal land market in many countries. This requires the definition of rules and standards but also ways to increase the supply of and access to land by the poor and implementation of land legislation to enable sustainable urban development. The dynamics of peri-urban development will require even more flexible planning strategies. Planning will be necessary for the transition from exclusively traditional agriculture to new forms of agriculture adapted to the urban environment.

Recently, increased attention has focused on the role of gender relative to planning and agriculture in cities. Women, are major players on all levels of the urban food system: production, marketing, processing and street food vending. They have a basic interest in being considered an important interest group by urban planners (Tinker 1997). Children are another important urban dweller group, yet they are hardly ever mentioned in the planning process. Urban farms can also play an important role in community building and the education process (Ginsberg 2000). Despite little recognition of urban agriculture in the urban planning literature, urban planners are dealing with many other issues closely related to urban agriculture, e.g. squatter settlement development and urban poverty alleviation. We can learn from this experience.

### **Broad based people's participation**

“In order to understand the urban and periurban planning process one needs to know who the stakeholders are and how they manage to have their interests reflected in the plans that are implemented after all. Some stakeholders are always stronger than others and though one tends to think that big real estate development agencies, public or private, tend to be the strongest this is not necessarily the case. Individually weak stakeholders such as small-scale market gardeners have often proved to be able to get organised around a common interest. This enabled them to have plans revoked that ignored their interests and have these adjusted to their needs” (van den Berg 2000). It is proposed that the focus of planning for cities should shift from central government control and the international realm to local personnel and institutions concerned with urban issues who should be given a greater say in decision-making and policy implementation. Towards this end, a balance should be forged between public and private sector initiatives, along with local responsibility and central control (United Nations Population Division 1996).

Participatory urban planning is a new, complex and difficult process. Many stakeholders have to be involved. Experience from many cities in Europe show the difficulties inherent to this process, now embedded in the Local Agenda 21. Communities often organize themselves when they face a common threat or need. As soon as the threat is over the community organisation falls apart (Dowall & Giles 1997). Nevertheless, community organization, capacity building, and access to financing remain the key issues in participation. As a means for land development, communities could be supported through the establishment of savings and credit schemes e.g. “mini banks for the poor” (Dowall & Giles 1997) or community-based saving agreements. Participation requires extensive information and communication,

as well as consultation and mediation. There is a need to develop platforms for all stakeholders, which at least initially should be of an informal nature.

The primary goal should be to define stakeholders common problems and seek solutions that would bring about improvement to all (van den Berg 2000). However, many impediments exist to such efforts. Often stakeholders have different priorities than urban planners. With regard to urban agriculture, in most countries urban farmers are not organised and therefore do not have political power. Further, the farmers themselves often have widely divergent interests. Women farmers have other interests and approaches than male farmers. Agricultural production by women is often household-based and therefore less market oriented. Finally, agriculture in cities is often scattered over small areas, which makes it even more complicated to get the farmers organised. Nonetheless, this partial enumeration of challenges to participatory planning should not deter its use in the areas of urban and periurban agriculture.

### **Conclusions and consequences for the urban planning process**

Planning involves the anticipation of things to come, changes, crisis prevention and visions of the future design of cities. Planning involves forecasting or projecting future urban populations and land requirements for housing as well as industries, trade, offices, public facilities, transport, green open spaces, etc. To stimulate creative thought about all possible developments, it helps to draw a number of scenarios for the city in 10, 20 or 50 years' time. Surely, there is room for some of these scenarios to take account of urban agriculture?

An even more important element of foresight is to take preparatory measures that are consistent with Sustainable City Development. Urban and periurban agriculture is not yet fully recognised as an important factor in sustainable city development. Therefore, it is necessary to integrate UPA into the programs and best practices in urban and regional planning and into the latest concepts of sustainable city development (Drescher 2000).

The World Bank recently tackled the question of urban agriculture within the discussion on urban poverty. Urban agriculture can be supported with respect to planning by (Baharoglu & Kessides 2000; Greenhow 1994):

- Reviewing the land-use planning and zoning decisions and adopting more flexible regulations; (Regulations may need to be reviewed to see the extent to which they are relevant to urban poor and the city's current economic and social context. In cities where urban agriculture is a common subsistence strategy, more flexible regulations could be adopted to help the poor develop urban agriculture rather than prohibiting it.)
- Developing and disseminating information on land tenure and land capacity;
- Providing basic infrastructure, and developing and implementing environmental/public health measures against parasites and pests;



Additionally the North can assist the South by mobilizing the well organized urban agricultural associations in Europe and North America to take a more active part in Third World development by:

- Lobbying in their respective national donor agencies to become involved in this field; and,
- Building links with non-governmental organizations in developing countries and offering institutional advice and support (Greenhow 1994).

Some initial steps have been taken in this regard. For example, the American Community Garden Association which has developed guidelines to implement allotment gardens (ACGA 1998). Portions of these guidelines might be useful for developing countries as well. In addition the potential transferability of European allotment systems to other nations has been disseminated recently at various conferences in developing countries and countries in transition (Drescher 2001; Chatwin 1998).

To achieve better recognition for and protection of allotments, local authorities need to maintain better information about the demand for, and supply of, allotments. Planning departments and allotments management services need to better coordinate their work. Planners need to prepare more proactive allotments strategies to demonstrate their commitment to allotments. Planners also need to include indicators on allotments provision in “state of the environment” and other environmental audit reports (LGA 2001).

Recent experience from an urban food security project in the Philippines (Holmer et. al. 2001<sup>\*</sup>) shows that key issues to the integration of food production activities in cities are:

- Capacity building of communities and municipalities to achieve better recognition and acknowledgement of this important activity
- Ensured inclusion of the poor
- Institutionalisation of both city-based intervention and planning and citizen-driven (farmers) activities through more participatory planning processes and transparency
- Legalisation of/for farming activities in cities (which enables better control)
- Increasing visibility of the activity (for example, through integration of farming and recreation)
- Integration of farming activities with other urban problems or challenges (e.g., waste recycling, water recycling, nutritional deficiencies, status of women, niche marketing, etc.)

Major activities should therefore be directed towards the empowerment of all urban stakeholders, including urban farmer groups, and municipalities to develop their own vision of what their city should be in the future.

Equally important, however, is that those same stakeholders be enjoined to develop their own vision of how to transition from the present to that desired future. It is all too easy in the excitement of the moment to allow what is possible to overwhelm a

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<sup>\*</sup> One component of this EU Asia Urbs Project was the introduction of allotment gardens in the City of Cagayan de Oro, Mindanao.

clear commitment to what is necessary. There are too many planning examples from around the world where the goals of the many became the horror of the weak. Whether it is urban agriculture, “just gardening”, “a mere coping strategy” or a seemingly endless “transient phenomenon”, growing food in and around cities is an important part of our urban world for the foreseeable future. Let’s acknowledge this fact and build on it responsibly.

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