Chapter 6
Urban Agriculture and the Building of Communities

The worldwide practice of urban agriculture has shown itself to be an often-successful model for the inclusion of different urban sub-communities into an intentional social organisation typically focused on producing the necessary resource of food. But the general value of urban agriculture as a means of achieving several other community objectives – in building community capital – is of equal significance. This chapter suggests how community capital is composed of seven dimensions, each of which is commonly addressed in some way through the practice of urban agriculture. The multi-faceted character of successful community-based urban agriculture examples is based upon the addressing of one or more of these seven dimensions to create a place-based form of grassroots community development, while also involving representatives of often-marginalised subgroups, such as women, youth and the poor.
Cities in the 21st century contain many different “communities”. One can distinguish between communities of interest (belief, cultural background, football, golf, learning), communities of circumstance (race and ethnicity, disabilities, prisons, orphanages), and communities of place (cities, villages, gated communities, refugee camps, Wall Street). Members of each of these communities recognise the commonalities that link them as a community, but do not see themselves as separate from the rest of urban society.

Examples of urban agriculture worldwide, including many described in this book, display situations where the practice of city farming accommodates often marginalised subgroups. Urban farming repeatedly allows for the inclusion of women, children, the poor, the homeless and the elderly into constructive food production activities (see chapter 5). Thus urban agriculture, in a manner consistent with the practice of conventional community (social and economic) development, can be a constructive contributor to city neighbourhoods, and the social networks of entire cities (see also the discussion in chapter 1 on social impacts). This goal is articulated in the mission statement of the American Community Gardening Association, a key non-government supporter of city farming in the US and Canada:

The Association recognises that community gardening improves the quality of life for people by providing a catalyst for neighbourhood and community development, stimulating social interaction, encouraging self-reliance, beautifying neighbourhoods, producing nutritious food, reducing family food budgets, conserving resources and creating opportunities for recreation, exercise, therapy and education. (ACGA, 2006)

Evidence for the growing of food within the social structures of cities can be found throughout recorded history. As societies and cities have changed, so too has the role of urban farming and food production – particularly when much of the world’s population, especially those in developed nations, participates in an efficient global system of food production and distribution. In richer countries, urban and peri-urban food production, whether through community gardens in the US or allotment gardens in Europe, is viewed primarily as a desirable addition to the global corporate food network. In developing nations urban agriculture maintains its importance as a source of meat, fruit and vegetables for those lacking the access and income to participate in the global food economy.

Whether practiced in rich or poor nations, certain forms of urban agriculture display a social organisation that focuses on creating stronger urban communities. These activities reflect a grassroots understanding of local needs and skills, and link this to a complementary understanding of the multiple functions of urban agriculture in a way that, when successful,
grants participants a sense of shared accomplishment in how the methods and results of food production and distribution translate into something more encompassing. We call such activities community-based urban agriculture (CBUA), and they are the subjects of this chapter.

The thesis of the chapter is that urban agriculture, as a community-driven and community-managed activity, makes significant direct and indirect contributions to urban residents and urban regions. These contributions are similar to the targeted goals of place-based community development as set by national, sub-national and local governments, foundations, and international and local aid agencies. But instead of seeing the members of an urban community as the object of technical development planning, CBUA is a vehicle for a more grassroots form of community development; one that grants its practitioners a sense of inclusion, dignity and accomplishment that might not occur through standard community development practice.

A “community” practicing urban agriculture is often – though not necessarily – a community of place, whose participants share a common home location and create a framework for involvement and inclusion connected to the sharing of this space over time. These actions improve the lives of those in the community both individually and collectively. The concepts underlying CBUA across the world are similar to those of “civic agriculture” in the US, and centre within urban contexts and locations the characteristics of civic agriculture that “reference the emergence and growth of community-based agriculture and food production activities that not only meet consumer demands for fresh, safe and locally produced foods but create jobs, encourage entrepreneurship, and strengthen community identity.” (Lyson, 2004).

Although their differences are not always distinct (and indeed community building requires entrepreneurship), we can distinguish CBUA from other proactive forms of urban agriculture (that also of course may have an important social impact), in particular from: (1) subsistence farming by individuals for themselves and their families; (2) entrepreneurial, market-oriented urban agriculture, often consisting of privately-owned, profit-making businesses; and (3) leisure or recreational gardening (see also chapters 1, 4 and 7 for a discussion on different types of urban agriculture). CBUA, in contrast, is a shared activity focused on intentionally building communities, while producing fresh food, fuel, medicine, ornamentals and handicrafts for local consumption and distribution. At its core – whether through community gardens or allotments, school gardens, cooperative farming on commonly-owned sites, etc. – CBUA provides social interaction, a key attribute of any thriving community. And as food is a basic need of all community members, CBUA provides a centrepiece for shared stakeholder interaction around a necessary activity. This interaction involves mobilisation of the community to establish the objectives and form of the urban agriculture activity, the acquisition of needed resources, the understanding of relevant regulations, and the organisation of the project’s execution.

It is important to understand that CBUA is not scale-dependent; in theory, the affected community could be an entire city or a single neighbourhood. In practice, however, CBUA works well when it builds upon the initiator’s cognitive understanding of a particular community, whether a prison or a housing estate, to which the project can be tailored and the benefits appropriately directed. And at the larger scale of the city, the aggregation of many CBUA activities can have a significant effect on the total quantity of locally-produced food available, the reuse of municipal waste, and lower living expenditures among the poor.
Cities are complex social, economic and political entities. Thus the ownership and administration of CBUA activities can also be complex when compared to rural agriculture. Examples of this complexity would include self-organised community gardens and gardens supporting community kitchens; food cooperatives and community supported agriculture sites (CSAs); leases based on payment of a share of the crop or of its value; leases to not-for-profit organisations (NGOs and CBOs) with subcontracts to the farmer; company gardens for employees; and perhaps most typical, land use arrangements with outside parties owning the land or controlling it in some other way. Although, in general, CBUA has a permanent social and economic role in modern cities, individual operations are often only temporary occupants of urban sites.

Box 6.1 Community Supported Agriculture

A growing number of consumers in the US and elsewhere are forming new communities around food through the mechanism of community supported agriculture (CSA). In the standard CSA model, a farmer sells “shares” to individuals and families who invest in the farm through a single payment at the start of the growing season, then receive a steady supply of seasonal vegetables and other farm products when harvested. In addition to developing a close acquaintance between farmer and consumer (in essence, shareholders take on the farmer’s risk), CSAs promote a sense of local community by encouraging shareholders to spend time working on the farm, by making the regular receiving of food an opportunity to meet other shareholders, and by the arrangement of “worker shares” or other subsidy mechanisms to allow poorer residents access to the fresh produce of the farm. In the US, CSAs often involve smaller peri-urban or rural farms close to metropolitan areas, but urban CSA farms also exist (see the Troy Gardens case study below)

The CSA concept originated in Japan in the mid-1960s, was later adopted in Switzerland, the UK, and the rest of Western Europe, and since the mid-1980s has taken hold in North America. There are now over 1,100 CSA farms in the US, concentrated in the Northeast, the upper Midwest and along the Pacific coast. The concept is attractive to more affluent urban consumers who appreciate the direct supply of produce and the “farmer’s face on the food” philosophy behind the CSA movement. In the villages and cities of poorer nations the CSA principle of direct delivery from farm to consumer occurs through traditional methods of barter and informal exchange. For example, it is common practice in Latin American cities to swap crops from community gardens to adjacent community kitchens.

CSA operations have evolved into different farmer/consumer linkages, and can creatively incorporate new technologies. In Washington, DC, laptop communication is employed to allow local farmers to receive daily food orders from the chefs of Clyde’s, a nine-restaurant corporation in the Washington area, and package the orders for delivery the next day.

Reference: Robyn Van En Center 2006

According to surveys by WHO, FAO and UNICEF, the cost of food to low-income communities in most countries demands one-third to two-thirds of family income. Since food production through urban agriculture takes place within the community, food acquisition need not go through the money or formal economy, and thus can direct scarce individual or family resources toward other needs. The social ties among community members establish efficiencies in the informal economy between CBUA production and distribution through, for example barter. By combining the economic and food security benefits of CBUA, participating individuals and families are able to purchase better health care, housing and education, common goals of community development. These individuals can also improve their standard of living by becoming greater consumers of products from rural areas and the global marketplace. When such improvements in living standards through urban agriculture occur within certain sub-populations, such as the poor and homeless, it supports the argument made by CBUA advocates that outside support for urban agriculture can and should come from the traditional supporters of these sub-populations.
As important as food production and distribution are to the concept of CBUA, the fact that it occurs in a specific location, or place, having a physical identity and established social connections, is equally important. The term “place” consolidates in a single location a social component; a built environment of housing, institutions, infrastructure and other land uses; a natural environment of air, water, earth and vegetation; a localised economy; and some form of governmental or institutional structure. It is in terms of “place” that CBUA most is strongly integrated with community development:

[Urban development] find[s] realization in a place, in a specific spatial context in which… social processes and institutions intersect with the lives of the city’s most vulnerable citizens. And it is in a place that over time… social burdens accumulate. We need to understand those places and make them better for, more than anything else; city-making is place-making (Bender, 2000).

Box 6.2 Past examples of community-based urban agriculture

Agriculture as an important element of daily urban life dates back to the beginnings of urban civilization. Documented records show farming being mapped inside cities on both the Euphrates and the Tigris Rivers 4,000 years ago. More recently, the Holy Roman Emperor Charlemagne issued empire-wide edicts concerning the crops, land management and processing of community agriculture. Maps of medieval cities typically show one-third of the land within fortifications as devoted to agriculture. Benedictine monks are credited with conveying, in practice and writing, Near Eastern and Mediterranean community agriculture methods throughout Europe during and after the Middle Ages. The monastic farms and cloister gardens that adapted ancient methods from Persia, Egypt and Asia were valued for the medicinal plants grown and for providing a strong sense of place to their ecclesiastical communities. They were copied far and wide through the 14th century. From the 15th to the 17th centuries this form of intensive urban food production diminished due to the decline of the monasteries, the arrival of the plague and a widespread degeneration of social order. Perhaps the most famous contemporary case of effective community-based urban farming practice is the seven-year siege of Leiden, Holland during the Thirty Years’ War, when the city survived because of its intensive production of crops within city walls during most of each year.

In the late 19th century, and continuing throughout the 20th century, the United States witnessed several periods during which urban food production was established to ease the domestic burdens caused by depression and war (Lawson 2005). Beginning with the “potato patches” initiated by Detroit mayor Hazen Pingree for the benefit of those in his city affected by the 1893 depression, and continuing through the federal War Garden programme during World War I, the work-relief gardens and cooperative farms of the Great Depression of the 1930s, and the “victory gardens” during World War II, federal and local governments created programmes that organised urban communities around food production during troubled times. Later in the century, urban agriculture, in the form of community gardens, was an active component of the grassroots urban movements of the 1960s and 1970s (Warner 1987). Today, this spirit is continued by the American Community Gardening Association (founded in 1978) and its members across the US and Canada, who are at the vanguard of organising urban neighborhoods around the shared social experience of gardening.


Community Capital: How urban agriculture builds place-based communities

A significant percentage of the 80,000 residents of Nakuru town, located in Kenya’s Rift Valley 150 km northwest of Nairobi, have been affected by the HIV/AIDS plague devastating the countries of sub-Saharan Africa. Poverty is evident in the many slum areas of Nakuru and the resources to acquire HIV/AIDS antiretroviral medicines are scarce. Nevertheless, in early 2005, as many as 80 community groups, many organised by women directly affected by HIV/AIDS in some way, have established or are creating, with the help of outside
agencies, small bio intensive vegetable gardens to improve their diets and those of their families. These community groups, with names such as the Together Home Craft Self Help Group and the Baraka Kiamunyi Women’s Group, are growing food organically on sites as large as 0.6 ha outside Nakuru and as small as 50 m² in backyards behind slum homes in town. In these gardens, one finds maize, bananas, passion fruit, beans and other vegetables, grown through the use of compost and manure. Many of these projects are given technical assistance by the Kenya Green Towns Partnership Association together with Urban Harvest in Nairobi. To these poor urban farmers, the nutritional value of the food produced is often as important as the income generated by selling their food to others in town (in the case of the Together Home Craft Group this is combined with the selling of textiles they make and market.)

Similarly, in cities across North America urban NGOs have dedicated many of their projects towards helping poor and at-risk city children and teenagers discover how the life lessons of food production and distribution can help them overcome the negative influences of their home environments. In the Roxbury and Dorchester sections of central Boston, The Food Project enables young people to attain the skills and confidence to become agents of change in their often-troubled neighbourhoods. Each summer for over ten years, 140 young people – both from inner-city Boston and from its affluent suburbs – come together to grow food on urban and suburban sites, donate or sell the food throughout the Boston area, and, most importantly, share their knowledge and pride in their accomplishment with others across the US. The Food Project is at the forefront of developing a new community development model that combines food security actions with youth leadership training using a genuinely modern, even hip-hop, approach.

These examples from Kenya and the US epitomise the way that urban agriculture serves as an intentional vehicle for a special form of place-based community development. The term intentional signifies awareness on the part of the initiating group that urban agriculture represents both an end in itself (through the harvesting of nourishing food) and a means by which to strategically achieve additional social and community ends. The women’s groups of Nakuru, for example, are largely composed of members of the neighbourhoods where the gardens are located, and view urban agriculture as a means of exercising their sense of self-determination and dignity in the face of hardship. The groups are self-organised, and individually solicit the outside assistance they know they lack to fully achieve their goals. Most importantly, their collective action strengthens their identity as part of a social assemblage, an interacting population in a common location.

This building of community can also be expressed as increasing community capital. Seven dimensions comprising community capital have been identified, and their interaction through the production of food and other agricultural products of CBUA will be discussed. Chapter 10 of this book follows a similar and complementary approach by identifying five dimensions of household-based assets found in the literature on rural livelihood strategies (such as Farrington et al., 1999) that are also applicable to poor urban households striving to earn a living. The seven dimensions of community capital introduced in this chapter are adapted from community development and sustainability studies in the US (such as Flora et al., 1999), and aim to more precisely define the particular social outcomes of CBUA.
These dimensions of community capital found within CBUA activities are:

- **Human Capital**: the health, education, skills of the individuals involved
- **Social Capital**: the strength of groups, networks, the common vision among their members, and the creation of bridging networks across different groups
- **Political Capital**: the dynamics of group organisation and leadership, and relations with government and supporting agencies
- **Cultural Capital**: the values and heritage of the community, and the celebration of such
- **Economic Capital**: the investments, savings, contracts and grants
- **Built Capital**: the physical settings – land, housing, other buildings, infrastructure
- **Natural Capital**: the local air, land, water, biodiversity, scenery

This deconstruction is useful for the analysis of social communities needed for programme and project planning and evaluation, partner identification, leadership training, networking, the acquisition of funding, and political support. It is essential to identify each of these dimensions and bring them into focus for the community and for outsiders in order to conceive, design, and implement community building projects, such as CBUA. Defining the outcomes and results of community development programmes requires establishing indicators for each of these seven dimensions through, for example, surveys and goal identification. The practice of CBUA can and does contribute to all seven essential dimensions of community capital. The following is a brief overview of how each is displayed in CBUA. (Note that several of these dimensions are discussed in greater detail in other chapters of this book.)

**Human Capital**

The building of human capital within each individual begins with good health that, in turn is built upon good nutrition. At its highest level of community benefit, CBUA reduces a community’s level of food insecurity, seen in the lack of access by individuals and families to nutritious food, whether by availability or cost, over the course of a week or month. CBUA makes nutritious food directly available, often through the informal economy, and is a significant source of nutrition and health (Bellows et al., 2004; Patel, 1996). Locally grown and raised vegetables, fruit, herbs, fish, poultry, livestock and dairy products can have one-third to two-thirds more essential micronutrients, minerals and beneficial fats than the same foods that have been stored, packaged, processed for more than a day or two. Better nutrition contributes to community development through improved brain development in the young, more vigorous work days for adults, and, in general, a stronger, healthier population. From a nutrition perspective, one of the most compelling justifications instituting CBUA is to provide sources of fresh vegetables to HIV/AIDS patients receiving antiretroviral drugs through community health providers, especially in situations when poor diets compromise the effectiveness of the medications.

A community-based food system is a secure source of good nutrition, but also strengthens other forms of human capital. For example, many studies examining conditions over the entire 20th century identified school gardens as an excellent educational laboratory – not only for the practical knowledge of how food is cultivated and harvested, and for an awareness of composting and recycling, but for also introducing discipline, organisation and responsibility. As for adults, city farming grants an individual certain practical skills in production, processing and marketing unavailable in other urban industries.

**Social Capital**

Social capital can be built in place-based communities that often lack social cohesion and shared participation around a common vision. Urban farming within or at the edge of a location brings the members of that location together, most frequently outdoors, and generates interaction. As mentioned earlier, a distinguishing characteristic of successful CBUA is that it
generates groups to organise and manage a project(s). Additionally, CBUA often forms bonding and bridging networks that did not exist prior to its initiation. In the US, Aspen Farms, a community garden in primarily African-American West Philadelphia, represents many similar projects in the manner by which its democratically-based organisational structure evolved over time.

Aspen Farms looks like a miniature farm, but it is more like a town, with individual plots and common ground… There are meeting places and shared resources, like the greenhouse, the compost pile, the water supply and irrigation system. Originally colonised in 1976… the garden has continued to change, with individual initiatives, negotiations, and group decisions. The gardeners set the rules and elect officers, including a chaplain. (Spirn, 1998)

Social capital is also built by the contributions CBUA makes to community food security. A sense of community ownership over its local food system leads to a collective sense of empowerment, with those involved thinking better of themselves and their neighbours and being proud of their shared accomplishment. Similarly, an important sub-dimension in the building of social capital through CBUA is the opportunity for women to collectively initiate, structure and implement successful projects tailored to the identified food security needs of their home communities, despite local constraints on resources or control attributable to gender-based discrimination (see Chapter 5).

The high rate of criminal incarceration in the US is an issue of national concern, as is the experience of individuals while in prison, and their preparedness for life following release. Several projects have successfully brought urban agriculture and horticulture into city prisons; notably the Cook County Jail in Chicago and the Rikers Island Prisons in New York City. On Rikers Island, a composting facility processes a portion of the city's food wastes, and the compost is delivered to the prison farm where inmates grow and harvest vegetables, while also learning new skills in farming, horticulture and landscaping. In Chicago, 200 inmates at the Cook County Sheriff’s Garden farm, a 557 m² plot within the county prison, produce fresh vegetables for donation to the homeless and for sale to low-income consumers receiving government food-buying subsidies.

Lowering rates of recidivism is a common goal of prison garden programmes. A pioneering garden project at the San Francisco County Jail led to the 1992 creation of The Garden Project, a local non-profit organisation offering released inmates opportunities to productively use the agricultural and horticultural skills learned while in prison. By planting street trees and growing food for the homeless and elderly, participants in The Garden Project are 25 percent less likely to return to prison than those not involved (See Martin, 1999; Sneed, 2000).

Catherine Sneed, of the County Jail Horticulture Project in San Francisco says "For most prisoners...something happens and something changes, the cycle of growth and renewal allows prisoners to see their own potential for change..." (Sneed, 2000).

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Box 6.3 Supporting HIV-AIDS communities through CBUA

In August 2005, a sub-Saharan African experts’ study visit on the impact of UA on HIV/AIDS in Johannesburg and Cape Town, South Africa was jointly organised by RUAF/ETC, CTA and Abalimi Bezekhaya (see case study). The study found that members of community-based projects were spontaneously providing fresh organic vegetables to HIV/AIDS affected individuals, with the clear knowledge (intuitive and taught) that good nutrition is a vital component of the treatment of chronic illness, including HIV/AIDS. Furthermore, HIV/AIDS-affected individuals who involved themselves in group gardening activities and/or had access to fresh vegetables reported improvements to morale and physical health.

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Box 6.4 Prison communities and CBUA

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Political Capital

Building community through CBUA in most cases requires political action, and identifying and measuring political capital is constructive in guiding these programmes. One measure is programme organisation, and how decisions are made – democratically, autocratically, or some combination of the two. Another measure of political capital is the relationships with those having municipal power in the town or higher government levels. Typically, it is empowering to create active connections to political parties and advocacy groups.

Leadership, and the voice that accompanies leadership, is perhaps more essential to the dimension of political capital than to the other dimensions of community capital. Identifying and promoting leadership within a CBUA activity is thus an essential element in developing its associated community; this is a characteristic objective of youth-centred NGOs involved in urban food production, such as Added-Value in the Red Hook neighbourhood of Brooklyn, New York City, which (in a similar manner to The Food Project in Boston) simultaneously addresses both community food insecurity and the need to provide Red Hook youth, and particularly young women, with avenues to develop their leadership capacities. And in democracies where citizens have some influence over public policy, the concept of municipal and regional food policy councils can structure and facilitate the creation of supportive policies by those empowered through their CBUA experiences (Borron, 2003).

Cultural Capital

Cuisine is an important element in building cultural capital through CBUA. Too often the cuisine of urban neighbourhoods is determined by outside food retailers with little thought to any distinct cultural traditions. Alternatively, a community-based food system empowers its members to express and enjoy their cultural cuisine as part of a larger set of cultural traditions. Rural farming is a valued element in the heritage of many cultural groups, and reactivating it in the cities of urbanising countries through the cultivation and processing of traditional crops creates significant ties to past traditions. Celebrations around food production, such as harvest festivals, are common, and are particularly important in connecting youth to their community’s traditions.

The future of CBUA in North America is strongly tied to the growth of urban immigrant communities, and in how city farming is employed as a vehicle for assimilation and productive activity. From Afro-Caribbeans in Toronto (Werkele 2001) to Latinos in Los Angeles (Green 2004) immigrants lacking individual access to land are growing ethnic herbs and vegetables, both on highly visible sites and on sites more hidden from view. (As of this writing in March 2006, the 5.7-hectare South Central Farm in Los Angeles, and the organised community of 350 primarily Latino families who have farmed it for 13 years, are threatened with eviction by local authorities. Their mobilisation to save the farm has generated a nation-wide show of support for a notable example of sustainable urban farming, a cultural centre in multi-ethnic Los Angeles, and a symbol of the grassroots renewal of a section of the city devastated by the riots of 1992, the year the farm began.)

Economic Capital

The economic capital of a community is largely built upon the development of human, social, cultural and political capital, in that a healthier, socially and politically stronger community is better positioned to increase its wealth. City farming is a prime poverty-reducing industry. It empowers workers to greater productivity and can represent an
expansion of a city’s formal and informal economy. (Urban agriculture, whether producing food, fuel or ornamentals, is often the largest industry in the informal local economy.) To a greater extent than rural agriculture, the income generated by urban agriculture turns over within the community and city. It is a stable form of industry, in that the demand for food never fades and the urban producer is closest to and best attuned to market demand. Urban agriculture provides a part-time but stable income source for low and middle-income households engaged in non-secure employment. Savings are increased, particularly for those families that have direct access to local production without having to go through the formal economy.

While urban agriculture can offer certain economic benefits to individual actors operating independently from their communities, successful CBUA activities can channel the economic benefits that accrue to individuals into the larger community. One straightforward example is the successful cooperative vegetable and horticulture operations described in Chapter 7.

By investigating and implementing various entrepreneurial options CBUA can be an economic activity that facilitates the creation of communally-run economic activities such as farmers’ markets, eating places, manufacture of handicrafts, retailing, and export commodities (Feenstra et al. 1999, Kaufman and Bailkey 2000). This is particularly true for activities involving women and the elderly, where established skills can be used, and those involving youth, through which new skills can be taught. Outside contractual relationships for inputs and products are increased through the introduction and expansion of new community businesses. The financing of community endeavours takes on a new dimension - grants and loans can increase in response to evident signs of a self-determined community implementing a sustainable urban development model (see Chapter 4).

**Built Capital**

The built capital associated with the physical qualities of CBUA is an important, often overlooked, form of community capital that is worth measuring and promoting. Taken in aggregate, the variety of urban agriculture in any one locale – whether in-ground cultivation, balcony gardens outside homes or greenhouses, or a small woodlot providing a village with fuel wood – creates a visible physical infrastructure similar to those of industry, retail, etc. CBUA makes productive use of available, often underutilised urban, suburban and periurban land for community benefit. In doing so, it represents an investment of shared effort on the land that has intrinsic aesthetic value (like the urban greening activities described in Chapter 14). Fruit-bearing street trees, a schoolyard with a thriving garden, and a busy street-side market clearly identified as a community endeavour are positive images to outsiders and a source of pride to community members. And at a different, more individualised scale, a home with a green roof, a dooryard garden and orchids growing in the kitchen has increased value. From a community development perspective, the principle of low-cost income-generating housing can be significant insofar as the value of each unit of the house is worth more than its shelter value.
Natural Capital
For 10,000 years, individual communities managed natural resources and biodiversity through mechanisms such as the commons, the sacred grove, the city forest, the annual assignment of user rights by community elders, and the public right of access to large bodies of water. Today, with large-scale environmental management primarily in the hands of governments and corporations, CBUA managers strive to incorporate modern principles of sustainable project management, such as composting and the reuse of solid wastes and wastewater, at a smaller scale. At one level, this represents simple practicality. Urban farmers are not inherently more environmentally conscious than rural farmers – they utilise urban waste because they farm the 2.5 percent of the earth where waste is most concentrated. But natural capital is further built in communities through the employment of newer techniques such as Permaculture and Agroforestry. Their employment in CBUA requires educating the community as to their rationale and methods, and their role as alternatives to other methods of food production. This strengthens communities in several ways, including building the self-confidence that encourages individuals to reach out and share this knowledge with others.

As with other dimensions of community capital, the building of natural capital lends itself appropriately to different forms of youth involvement. Growing Power, a community-based NGO currently operating in Milwaukee, Wisconsin and Chicago, has built its youth training programmes around its philosophy of advancing urban agriculture through small-scale, environmentally sustainable practices. Children participating in Growing Power’s Youth Corps programme enjoy learning about and assisting with the low-tech, hands-on vermiculture and aquaculture projects that utilise donated outside waste products to produce vegetables, fish, and fertiliser made from worm castings.

The Establishment of Community-based Urban Agriculture Following Natural and Human Disasters
In this chapter, community-based urban agriculture has been presented as the result of a deliberate process of organisation that takes time to mature. Yet CBUA can be important in situations where time is of greater essence. For example, many, if not most, locations devastated by natural and human disasters have a need for the community-building practices of urban agriculture. Urban agriculture in post-disaster situations can provide several direct benefits to recovering areas: nutritious food, a mini-economy centred on food, useful new technologies, the conservation of local culture and the empowerment of women and youth. The experience of farming cooperatively during a crisis thus supports the community as it resettles in its home place. There is a basic procedural model. Just after a disaster, during their time in camps, refugees learn different urban agricultural techniques through technical training offered by NGOs, often humanitarian organisations. These techniques are then brought back to their home places upon leaving the refugee camps.

Recent major natural disasters have created new CBUA opportunities. In summer 2005, hurricanes Katrina and Rita ravaged an area along the US Gulf of Mexico coast equal in size to many small countries. Because the storms occurred near the end of the growing season, traditional agriculture in a three-state region was severely damaged. To mitigate the loss,
urban agriculture is being introduced on an interim basis. Raised-bed bio-intensive horticulture is being established in temporary mobile home parks, and small greenhouses are to employ innovative production methods. Internally displaced families are thus able to grow key elements of their traditional cuisine and supplement relief supplies with high vitamin and other micronutrient foods. A centuries-old way of life along the Gulf Coast will be at least partially restored.

On the other side of the world, the Sri Lanka Department of Agriculture has initiated a community agriculture programme to address the environmental, economic and, especially, the psychological damages resulting from the December 2004 tsunami. Authorities are offering to partner with residents (primarily in the western coastal districts of Kalutara, Colombo and Gampaha) to help develop projects ranging from the creation of “Family Business Gardens” within reconstructed housing, to small- and medium-scale agro-entrepreneurship, to the improved value-added processing of fish harvests. The psychological recovery of tsunami-affected communities thus is built upon the relief supplied by the sum total of individual urban food production activities.

The methods of CBUA are also of value to communities formed by human disasters such as armed conflict. The siege of Sarajevo in the mid-1990s, for example, forced residents to engage in urban agriculture to replace food supplies that once came from outside the city. A more recent example is Somalia, a nation that has been in a state of war for over a decade. Refugees have emigrated north to Ethiopia, south to Kenya and west to Sudan. In all three places humanitarian organisations have assisted the refugees to establish agriculture within their campsites. Displaced persons within Somalia, fleeing from fighting in the north to the more stable centre and later from the disintegrating centre to the south, have also received assistance in establishing more intensive methods of agroforestry, small livestock and vegetable production than had traditionally been practiced in their rural villages.

The most extended projects have been along the border between southwest Somalia and northeast Kenya. Agriculture in Relief and Transition, a small group based in Washington DC, is a central agent behind the incorporation of food production into these camps. In this process refugees learn new skills in production, processing and marketing. Women are the predominant producers of vegetables and raisers of poultry, and also prepare food for local market sale (see for instance at www.theirc.org).

A positive outcome from this human disaster is that refugee women and men will eventually take home a new and more varied agricultural technology than that practiced before their displacement. At the conclusion of the crises several humanitarian organisations will move with the refugees to their former settlements and assist with the restoration of the local economy through the incorporation of these new skills.

**Conclusion**

The energy and motivation among city residents, particularly the poor, to allow urban agriculture to form a critical component of their shared wellbeing has been a constant in the history of community-based urban agriculture. The argument of this chapter is that the effective practice of CBUA, in both developing and developed nations, displays patterns
similar to the best practices of local, place-based community development: self-determination, goal identification, the ability to access the necessary technical, financial and knowledge resources from outside the community, and the inclusion of marginalised segments of the community. Similarly, effective CBUA practice is accomplished by recognising from the beginning those dimensions of community capital – human, social, political, cultural, financial, built and natural – to be directly or indirectly enhanced through the creation and execution of the individual project. In essence, CBUA integrates and combines the actions and objectives of most, if not all, of the chapter themes contained in this book – community economics, gender, recycling and waste management, and the individual activity areas of urban agriculture (horticulture and forestry, livestock and aquaculture) – in a holistic manner.

Since 2000, CBUA has greatly benefited from the increased capacity of NGOs to support grassroots projects. In Cape Town, South Africa, Abalimi Bezekhaya (see the case study) represents a strong organisation focused at the local level. In North America, Heifer International has transferred the expertise gained at addressing hunger worldwide to projects in Canada and its home country of the US, particularly in Toronto, Chicago and New York. Heifer’s North American projects have been particularly beneficial in immigrant communities, helping new Americans assimilate into new cities, while at the same time using farming to maintain important traditions of their home cultures.

Also in the new century, modern technology – the internet and mobile phones – is spreading new knowledge of organic and alternative farming practices developed by universities, extension services and other NGOs into more remote communities to improve urban agriculture production while also building the dimensions of community capital. In addition to longstanding problems of poverty and poor nutrition, community-based urban agriculture is being applied to more contemporary problems involving specialised sub-groups of larger communities. For example, in Kenya, Ethiopia, Zimbabwe, South Africa and other African nations, urban agriculture, in association with community-scaled health services, is seen as an important tool in the fight against HIV/AIDS (Small, personal communication).

While one is encouraged by the continued, and increasing, evidence of CBUA worldwide, one can also legitimately ask if the sum total of CBUA activities since the end of the last decade represents a true movement, or merely the simple aggregation of many disconnected examples. Many CBUA examples, such as Troy Gardens in the US, operate without the benefit of direct national and regional programmes that incorporate urban agriculture into community development planning. Commonly, national and municipal leaders and planners witnessing CBUA may simply see small initiatives on underused land, and not see the ways that these practices facilitate the same goals as their existing policy objectives. Advanced governmental policies supporting CBUA should begin with efforts to adapt the regulatory power of a jurisdiction to city farming practice. Recent guidelines to permit and regulate urban agriculture in Kampala, Uganda are based upon the recognition of its value to city residents. The guidelines go on to address the possible harmful effects of urban farming on the environment and public health (KUFSA, KUFSA and Urban Harvest 2005). Such guidelines for Kampala reflect the well-known role of government as regulator in the public interest.

A more advanced form of government policy towards CBUA would go beyond regulation by identifying policy objectives within the separate dimensions of community capital as described earlier. For example, micro-enterprise loans can be provided to local community groups organising food distribution/marketing or some form of value-added processing and sale. In this role, government is not a barrier to CBUA as when it acts as regulator, but is instead a facilitator, supplying resources to self-directed groups that have displayed a requisite level of commitment and organisation to build their communities economically, and on their own terms.
With increasing urbanisation worldwide, community-scaled urban farming is assuming greater significance. Yet the opportunities for urban agriculture to strengthen both local food security and the economic and environmental health of cities are limited by the lack of widespread awareness of the multiple benefits of CBUA and by the general lack of relevant policies that recognise how CBUA is, in essence, an application of accepted place-based community development objectives centred around food production and community food security. Urban agriculture advocates would do well to remember this when urging increased support for their objectives.

References

Small, Rob. 2006. personal communication.
Websites of Mentioned Activities and Organisations

Added-Value, Brooklyn, New York, USA  www.added-value.org
Abalimi Bezekhaya, Cape Town, South Africa  www.abalimi.org.za
The Food Project, Boston & Lincoln, Massachusetts, USA  www.thefoodproject.org
The Garden Project, San Francisco, California, USA www.thegardenproject.org
Heifer International, Little Rock, Arkansas, USA www.heifer.org
South Central Farm, Los Angeles, California, USA www.southcentralfarmers.com
Troy Gardens, Madison, Wisconsin, USA www.troygardens.org
Urban Harvest, Sub-Saharan Africa Region www.cipotato.org/urbanharvest/regions/africa/index.htm
Abalimi Bezekhaya (Planters of the Home) is the leading urban agriculture organisation in Cape Town. Abalimi provides support services such as supply of low-cost bulk compost, seed, seedlings, training and on-site project extension. Abalimi’s two non-profit People’s Garden Centres annually supply agriculture and horticulture inputs to, on average, 2,000-3,000 home-based survival and subsistence gardeners and approximately 200 community agriculture and greening projects. Abalimi projects are encouraged to be 100 percent organic. The economic potential for community agriculture is significant, as there is a high and ever-growing demand for organic vegetables in Cape Town. Organic markets and retailers both large and small are always undersupplied. There is now an increasingly organised community-based organic farming and gardening movement, led by associations such as the Vukuzenzela Urban Farmers Association (VUFA), which is supported by Abalimi1.

SCAGA
The Siyazama Community Allotment Garden Association (SCAGA) is a member of VUFA. Since 1997 its members have farmed 5,000 m² in a corridor previously under power lines (low-intensity feeder lines that were later decommissioned) in Macassar, Khayelitsha. SCAGA could provide 3-4 permanent full-time formal jobs, but decided instead to become a Livelihood Level garden, with up to 30 subsistence “jobs”, on a mixture of individual and communal plots. These form the centre around which a number of other entrepreneurial and service initiatives have been or are being developed. In SCAGA’s case, a small seedling nursery, a craft group, and a tea and catering service have been developed, with future plans for a soup kitchen and child care facilities. Adjacent land within the same servitude corridor – some 3 hectares of sandy wasteland – has now been fenced and is being developed to accommodate another 200-300 gardeners.

Each SCAGA member receives a minimum cash and food income, after costs, of R50-R100 per month (US $ 7-14), a lifeline to households with no discernable income. In 2005, the project hosted its fifth group of 30 people successfully marketing high-quality organic produce. Group savings at year end, after costs and own consumption, have varied between R2,000-R 20,000.

This community oriented project of SCAGA has had far-reaching impacts, both within the local community and on policy development in Cape Town. It has sparked hundreds of applications from new groups and has given planners solid proof to argue for community-managed open spaces and for self-help job creation. SCAGA is repeatedly visited by VIPs, including local government Ministers and senior officials. The Western Cape Department of Agriculture (in contrast to its national counterpart) has recently begun to give some solid support to community organic agriculture projects, mainly in the form of improved infrastructure.
Impacts on the local environment have also been quite substantial. Soil fertility inputs have decreased, while pests, once a headache, are hardly mentioned now. Improved health is also becoming evident, as are the medicinal use of fresh organic food for immune system building and the all-purpose therapeutic value of organic growing. New members often come with signs of malnourishment. They have low energy and little money. After one season, frequent remarks on all-round health improvement are often heard.

There have also been positive impacts on the position and role of women as leaders, through, for example, Ilima - traditional mutual-help work events. These have now become a practical tool in women’s empowerment and mobilisation, facilitating to obtain community support and muscle power for SCAGA projects. It began with SCAGA women recruiting unemployed men to do heavy work by re-introducing a traditional rural practice – serving of traditional beer and food after the work is done. These events cost very little, but more importantly the women earn wide respect and support in the community by the work they do. SCAGA is now firmly women-led, and women-run projects are now the norm. On occasion, male SCAGA members, offer time to activities (without the women’s additional responsibility of managing households). But friction arises whenever the men insist that all the food produced has to be sold. Such problems are now being minimised as female leadership is accepted. It has recently been decided that SCAGA men, while needed for the heavy work, should run their own gardens separately!

New developments
There have been two recent developments. First, a unique Development Continuum with measurements for project sustainability has evolved from actual field experience and is in the process of finalisation (see Figure 6.1). This continuum and measurement system tracks the development of community agriculture projects through four levels: from Survival, through Subsistence, into Livelihood and then to Commercial. The continuum takes into account social dynamics such as group conflicts and the “flow-through” of members, enabling these to become positive events rather than limiting factors. It is now known that new groups need about seven years to establish a relatively stable organisation for community agriculture, while sustainable-level skills and knowledge takes approximately three years to acquire within each level. The physical infrastructure for community agriculture, in contrast, can be delivered within one year – the exception being fertile soil.

The other new development, the Livelihood Garden, is a subsistence level garden with a commercial component that anchors several social and economic initiatives of the gardeners. These include crafts and refreshments for visitors and tourists, child care and soup kitchens (partly-funded by government grants) for the sick and needy, and seedling nurseries for the gardeners’ use and for sale to others. In this way, garden activities become multi-functional entrepreneurial and community support initiatives.

To further extend the community development potential of SCAGA, Abalimi’s organisation building arm uses tried and tested interventions to build farmer and gardener skills and organisational capacity (since 2000). Horizontal learning (farmer to farmer) exchange, action learning and savings mobilisation are key development activities in enabling development. Micro-credit to groups with consistent savings records will be available in the near future to projects entering the Livelihood and Commercial levels of the Development Continuum. Periodic farmers markets, tunnel greenhouses, cold-storage rooms and value-adding packing
sheds will follow in the next years, supplying a wide range of produce for cooperative marketing and creating new livelihood and job opportunities for the poor. Organic certification is now being sought, whereby Abalimi and VUFA will obtain “bulk certification”. Association members will then obtain certification more cheaply and thereby increase the external marketability of their products.

**Figure 6.1 The Sustainable Development Continuum for Organic Micro Farming Projects**

A step-by-step development continuum for community based agriculture has been developed (and will be ready for distribution in 2006). The development continuum takes the limiting factors into account and enables a constructive and empowering ‘flow-through’ of participants who have other aspirations and need to farm or garden only as a stepping stone. The notion of a development continuum is not new. However, a clear step-by-step pathway for the creation of sustainable community garden and farming projects definitely is. Distinct phases or levels have been identified from field experience, with sustainability measurements at each level. The continuum runs through four phases or levels, from Survival, to Subsistence, to Livelihood and finally to Commercial level. Energy is right now being wasted by donor agencies attempting to move Survival-level farmers up to Commercial level too quickly, while beneficiaries themselves are confused about which level they would like to achieve, or even if they want to be farmers at all!

Growing out of the continuum, Abalimi is developing a special training to provide community farmers and gardeners with sustainable assistance, while allowing ‘flow-through’ of temporary farmers. The training will enable both illiterate and literate people at Survival level to progress to the level that suits them, or to eventually achieve Commercial level. The training model also takes account of a new type of community garden that is emerging at Survival, Subsistence and Livelihood levels – this is the ‘treatment support garden’ which supplies fresh organic vegetables to the chronically ill.

*From CSI Handbook, 2006*

Abalimi is also determined to ensure that organic certification will not act as a deterrent to emerging players. It is developing a Master Gardeners training programme that, once accredited, will enable illiterate gardeners and farmers to move from Survival through Commercial development levels. This will also form the basis of a capacity building programme enabling genuine organic farmers to return to abandoned Eastern Cape lands.
The social impulse behind SCAGA, combined with its relative economic success to date, is South Africa’s first example of sustainable urban community organic farming as a permanent lifestyle choice. Consistent with the best intentions of community development, there is no limit to what can be achieved by Cape Town’s urban farmers once they find ways to work again on the land with trust and goodwill.

Note

1 VUFA is currently networking with other emerging small farmer formations provincially. Abalimi assists VUFA in enhancing its national and regional links. It is hoped that, over time, the emerging national and regional organic small and micro-farmers associations will federate in order to leverage increased benefits to the poor. www.abalimi.org.za
In 1995, the State of Wisconsin offered for sale 6 hectares of former farmland on the north side of Madison, the state capital. For several years, a local anti-poverty NGO had been permitted to manage community garden plots on the site, with gardeners drawn from both the surrounding neighbourhood and elsewhere in Madison. Upon hearing of the state’s wish to sell the land, gardeners and neighbours who valued the implicit quality of the site as informal public open space, organised to develop a strategy for keeping the rural character of the property. This began a 6-year effort that resulted in the sale of Troy Gardens (named after Troy Drive, which borders the land) – and to which the state added an adjacent 6 hectares – to the Madison Area Community Land Trust (MACLT) in 2001. MACLT now leases 10 hectares to the Friends of Troy Gardens (FTG) as undeveloped conservation land that will, by mutual and legal agreement, remain as open space for the community’s benefit, and will build 30 residential units on the remaining land under the co-housing model (see www.cohousing.org). MACLT will price 20 of these units at levels affordable to lower-income home buyers, in keeping with its organisational mission to make housing affordable in Madison’s increasingly expensive real estate market. For their part, FTG, a membership organisation run by a board of directors composed of community members, manages the different community-oriented programmes occurring on the site throughout the year.

From its beginnings as a citizen reaction to the state’s plan to sell the land, Troy Gardens has been marked by active community involvement. The existing community gardens established urban agriculture as a key component of the community’s vision for Troy Gardens, and ideas for involving stakeholders with urban farming evolved over the years of discussion and planning. Part of the richness of Troy Gardens is based upon the fact that these stakeholders are not drawn from a single social group, but include middle- and upper-middle class whites, a strong community of Hmong refugees from Laos and Southeast Asia, local school-age youth, and smaller groups of African-Americans and Hispanics. Today, Troy Gardens forms a rich display of community-based urban agriculture, both in form and in culture. About one-half of the almost 300 community garden plots of 50m² are efficiently farmed by Hmong families, who typically grow high quantities of indigenous vegetables. The remaining garden plots are equally divided into an organic, non-tilled section and a section tilled before each growing season.

A short distance away from the community garden plots, past the displays of edible and Hmong medicinal plants, and past the 2 hectares of tall-grass prairie now being restored by community volunteers, sits Madison’s first urban farm for larger-scale production. This 2-hectare community supported agriculture (CSA) farm completed its fourth year of operation in 2005. Under the CSA structure, individuals and families purchasing a share in the Troy Gardens farm prior to the growing season receive a steady supply of fresh, certified organic produce from June into October. There were 89 shareholders in 2005; of these 9 were worker shares (discounted shares for those doing significant farm work) and 4 were shares for low-income families, subsidised through outside donations of money. In addition to distribution
through CSA shares, the Troy farm sold fresh produce once a week at an on-site market stand, and at two Madison farmers’ markets. Produce was also sold at Madison’s leading cooperative grocery. The farm generated an income of US$ 54,700 in 2005, and FTG, the farm’s manager, projects an increase to over US$ 65,000 in 2006.

Multiple functions
The food production activities at Troy Gardens provide the framework for a rich variety of community-building activities. In addition to the daily sharing of experience among the community gardeners and CSA farm workers and volunteers, a number of programmes reach out directly to schoolchildren and high school students from Madison’s north side. The successful Farm and Field programme offers job training and other skills to high school students aged 14-17 each summer through exposure to ecological restoration, organic farming and the marketing of farm products. And the Kid’s Garden programme provides gardening, arts, nutrition, cultural and environmental education to children from the area’s primary schools. The programme is designed to coordinate school curricula with on-site activities at Troy Gardens. The children plant and maintain their own garden beds and participate in arts and crafts projects that enhance the garden’s appearance. Food grown in the Kid’s Garden is brought home to participants’ families, used for cooking lessons or donated to community centres and food pantries. In addition to youth activities Troy Gardens hosts several public events tied to the seasons, including a Savour the Summer Festival in August and a Harvest Festival in autumn. Whilst being a celebration of food and the changing seasons (important in the northern climate of Wisconsin), these events are enhanced by performances of Hmong music and dancing.

The permanence of Troy Gardens is a testament to the ability of several Madison NGOs with different missions to find common ground and work together on behalf of Madison’s north side community, independent from significant government involvement. The community land trust model has been a valuable tool in ensuring that the acquisition of the land from the state occurs in the best interest of the surrounding neighbourhood (Caton Campbell and Salus 2003). Faculty and students from the University of Wisconsin-Madison managed to overcome community concerns that they would impose their own agendas and have become valued players in, among other roles, developing the Troy Gardens site plan, guiding the prairie restoration and improving the productivity of the CSA farm. Recently, as a way to introduce the local Hispanic community to Troy Gardens, the University helped FTG develop a production and marketing plan for huitlacoche, a naturally occurring corn fungus that has been a delicacy in Mexican cuisine for centuries.

Challenges
As with many similar projects, the success of Troy Gardens as an example of Community-Based Urban agriculture (CBUA) is balanced by several challenges. With no direct government support, Troy Gardens, like so many similar CBUA activities in the US, is dependent on grants and donations. The small FTG staff must thus spend significant amounts of time and energy seeking funds to continue basic operations. A second challenge has been to broaden the ethnic diversity of Troy Gardens’ users. Apart from those participating in the youth programmes, the involvement of the surrounding Hispanic and African-American communities remains low, despite a number of outreach efforts. Finally, with the maturity of Troy Gardens as a coordinated series of community-based activities, the boundaries of its “community” are sometimes blurred. In most regards, Troy Gardens remains solidly-rooted
in Madison’s north side. Yet it is increasingly seen as a valuable amenity to the entire city of Madison. Given this perception, Troy Gardens’ leadership has discussed the possibility of applying its community-building expertise in other Madison neighbourhoods, particularly those with low-income residents.

Troy Gardens was born under special circumstances. But hard work among dedicated community members, combined with outside involvement by individuals respectful of keeping ownership within Madison’s north side community, has resulted in an exemplary model of CBUA – one that combines urban agriculture with other activities to form an integrated set of place-centred community-building practices.

Reference

Project ‘Patio Comunitario’: a community initiative to produce sustainable food

Justo Torres Lazo
Francisco Paz Barada

Background

The project “Patio Comunitario” addresses the issue of access to food, which is one of the most severe problems impacting the quality of life of the Cuban population. The elderly, women, housewives, and children are the groups most affected by this problem. This lack of access to sufficient food has its origin in the economic crisis known as ‘período especial’ (special period) in Cuba in the late eighties, early nineties. The U.S. blockade and the disintegration of the European Socialist Block (that always supported Cuba before) made the Cuban government redirect the country’s food production strategy towards organic production. It also provided greater entitlement of land to the people by forming new cooperative organisations known as ‘Unidades Básicas de Producción Cooperativa’ (basic units of cooperative production).

In Cuba’s urban areas, agricultural activity has increased through ‘organopónicos’, (intensive organic gardens), state agricultural enterprises and small plots cultivated by individuals or labour centres. This redirection of urban activities has resulted in the ability to maintain an acceptable level of food products in the lunchrooms of schools, kindergartens and labour centres and in farmers markets. However, in spite of these advances, it has not been possible to provide food at reasonable prices to the majority of Cuban families.

In Cuba, and particularly in the city of Havana, the resources designated for collection, transportation and disposal of urban waste have been significantly reduced during the crisis years. The situation has now become critical in terms of the risks to human health and the environment due to an increase of uncontrolled garbage dumps that have sprung up everywhere. The number of reported environment-related illnesses has increased. Respiratory diseases, allergies, intestinal diseases and recent epidemics of dengue are amongst these. Studies have revealed that about 60 percent of all household waste comprises of organic material (see chapter 8). Such a high volume of organic waste provides an excellent opportunity to produce organic fertiliser for plants (edible, condimental, medicinal and ornamental) and to provide food for small animals that are authorised to be raised in urban zones.

Canal District in the Cerro municipality

The ‘Consejo Popular’ (people’s council) of the Canal district in Havana is aware of these problems related to waste management. Being one of the oldest neighbourhoods in the city, it has a high density of people living in deteriorating urban infrastructure. Local health statistics indicate a high incidence of environment-related diseases including stress. Community alternatives to deal with this issue and to create a change in the district’s culture towards the environment and hygiene hardly exist.

The Canal district has many houses with ‘patios’ (courtyards) which could be used as spaces to raise animals, to grow fruit trees and gardens of medicinal plants, vegetables and spices.
Up to now, the patios have not been used in this way. This provides an opportunity to encourage people to use the patios for small scale organic gardens. People in this district have a high sense of ownership, which makes it easier to develop participatory projects that transform and benefit the neighbourhood.

The ‘Taller de Transformación Integral’ (Workshop on Integral Transformation – which is an institution of local government in Cuba dedicated to community work) of the Canal district has worked for years in collaboration with the population to support and create various social projects. They are aware of the necessity to take action on the issues mentioned above. And among the inhabitants there is enough knowledge and experience that could be used to jointly find local solutions to the problems.

The project ‘Patio Comunitario’, created in 1998, has been working for eight years on these topics and promoting urban agriculture within the community and has gained the people’s recognition as well as the support of social organisations and the local government.

**Main Activities of ‘Patio Comunitario’**

**Household food production**

The project ‘Patio Comunitario’ promotes urban agriculture using permaculture designs in small spaces within houses (courtyards, balconies, flat roofs, gardens, lots, etc.) with the aim of producing vegetables, fruits, spices, medicinal and ornamental plants, and raising rabbits, chicken and guinea pigs. This activity contributes to improving family incomes in two ways: the participants don’t have to buy those products which they produce and at the same time earn an extra income by selling the excess harvest to neighbours (mostly fruits). There are currently 20 family gardens in the district involved in the activities of this project. The project also aims to recover plant varieties that were traditionally used in Cuban kitchens, but have become scarce or are in danger of extinction. Chayote, Ñame, and Caimito (Cuban vegetables) are a few examples.

**Recycling domestic waste**

Another activity of this project is the recycling and reuse of a significant volume of the solid organic waste generated in households. This includes kitchen food waste used in vermiculture systems, for compost making and feeding small animals, and other waste such as boxes, bags, old tyres, car batteries, wash basins, containers etc. which are filled with soil and used as planting receptacles. Reusing waste in this manner diminishes environmental pollution and mitigates health risks caused by open waste dumps on the streets.

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**Box 6.6 Permaculture**

Permaculture was developed in the seventies by the Australians Bill Mollison and David Holmgreen as an answer to soil, water and air pollution from agricultural and industrial systems. It is an approach and a design method that contributes to sustainable human development. Its philosophy and approach to the earth incorporates and connects microclimates, annual and perennial plants, animals, soils, water and human necessities in productive communities. Permaculture concepts have been developed based on the following ethics and principles.

**Ethics:**
Take care of the earth; take care of people; use the excesses of time, money and energy for the first two.

**Principles:**
Create systems that are: environmentally healthy, economically viable; able to satisfy our necessities; not abusive to people, the earth, other resources and do not contaminate the environment; and that are sustainable in the long-term.

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Environmental education and community training

The neighbourhood environmental education and training component is accomplished by hosting workshops, courses and conferences on a variety of environmental topics. These training courses are held periodically in the demonstration courtyard at the project’s headquarters. The project pays special attention to environmental education of young people, who as future citizens would have the responsibility to continue and improve the work accomplished today. At the headquarters of Patio Comunitario, two environmental interest circles (groups) are being hosted. These circles use methods of non-formal education and are attended by 20 of the district’s primary school students.

Once a week (on Wednesday) the children learn the importance of living in harmony with the elements of nature. They are confronted with the benefits of the trees, medicinal plants, and different forms of reuse and recycling in the community, while getting to know healthy lifestyle habits and how to contribute to keep the environment of their district and of Havana Bay clean. They receive this knowledge from volunteer instructors who are members of the project management group. The learning process is supported by the pedagogical techniques of ‘Educación Popular’ (Popular Education), through which the children come to understand the relationship between human beings, nature and society by the collective construction of knowledge and through their everyday experiences. Next to didactic games, drawings, songs and theatrical representations, they take on homework tasks of practical activities at home, in their block or at school, based on what they learn during each meeting. The children participate in preparing and planning these activities.

To support neighbourhood-level environmental education and training, the project has recently set up a Centre of Environmental Community Information. The information centre has a library with resources on the environment and healthy living. Workshops and conferences for plant and animal producers, housewives and children of the community are also being held at the centre.

Healthy Food Fairs

A healthy food fair takes place on every last Saturday of the month at the headquarters of Patio Comunitario and is the activity that generates the highest level of community participation. The fairs are organised by the neighbours with the support of community organisations and the Taller de Transformación Integral of the Canal district. The neighbours cook vegetable dishes and present them to the audience. The winners are selected by a community jury and receive a popularity prize. Specialists give lectures about healthy nutrition and lifestyles. The fair also places emphasis on the community’s artistic talents. A children’s procession, a painting exhibition and troubadours are among the activities organised that feature in the fairs for the enjoyment of the community.

These fairs in the Canal district of Cerro demonstrate that it is possible to create community-initiated recreational activities which at the same time provide information on a healthy lifestyle. This initiative has allowed ‘Patio Comunitario’ to promote environmental lifestyle to parts of the population which don’t have formal ways of receiving this environmental education, such as housewives and retired people. About 270 people have participated in this activity in the neighbourhood.
These activities have a significant environmental and social impact. They contribute to improving the quality of life in the community as well as to strengthening the cooperation among all the social actors. These are the first important steps toward making implementation of the Local Agenda 21 in the district a reality. The achievements of this project will be used as good practice examples in the country to realise the dream of constructing sustainable communities that live in harmony with their natural surroundings.
Resources

Farming Inside Cities: Entrepreneurial Urban Agriculture in the United States.
This working paper explores the feasibility of for-market city farming as a means of using vacant parcels in the centre of US cities, particularly those suffering the effects of deindustrialisation. Boston, Philadelphia and Chicago are used as case studies. The authors try to balance the opportunities of urban agriculture, particularly as a tool for community and economic development, with a series of constraints that must be addressed for these opportunities to be realised.

Entrepreneurial Community Gardens: Growing food, skills, jobs and communities.
Feenstra, Gail, Sharyl McGrew and David Campbell. 1999. DANR Publication No. 21578. Davis, CA: University of California Agriculture and Natural Resources
This study focuses on 27 projects in the US that started off as traditional community gardens and added on entrepreneurial components with the intention of increasing their community value. The projects are compared on a number of aspects: site characteristics, production and marketing models, participants and employment generated, levels of economic self-sufficiency, and other individual and community benefits.

CitiesPeoplePlanet
Herbert Girardet. 2004, Wiley-Academy
This book is of interest to any practitioner or policy maker involved in urban agriculture. In chapter 12, “Relearning Urban Agriculture”, the author discusses the beginnings of urban agriculture, how it has developed through history and from developing countries to the USA.

Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities
This book takes an architectural perspective on urban agriculture. It proposes a design for a new kind of sustainable urban landscape. The innovative concepts put forward in this book have substantial potential to enhance the future quality of life within our cities. The book is well illustrated with lots of photos, diagrams, maps and tables.

Agriculture in the City, 2001 Maria Caridad Cruz & R. Sanchez Medina, IDRC
In the 1990s Cuba instituted a food programme that included urban agriculture and farming in the city. Free markets were reinstated, production coops were linked with markets, land was redistributed and areas under export crops were converted to domestic food crops. This book describes Cuba’s urban agriculture programme and could be of particular interest to municipal, local and community authorities.

Gardens of Hope, Urban Micro-farming and HIV/Aids
De Zeeuw H. ETC Urban Agriculture, Abalimi and CTA.
ETC-Urban Agriculture in cooperation with Abalimi Bezekhaya (Cape Town) and the financial support of CTA (the Netherlands) organised a study visit cum workshop in South Africa (Johannesburg and Cape Town) on “Micro-farming and HIV-Aids” in August 2005. Twenty persons/organisations from Southern and Eastern Africa participated in the study visit/workshop and shared their experiences. The proceedings of this event are available at www.ruaf.org, and also published on this DVD.

www.foodsecurity.org/list.html
The COMFOOD listserver is a primary link between individuals and organisations addressing community food security in the US, Canada and globally. The listserver hosts discussions on current food security issues and announcements of relevant projects, conferences, articles, etc.

www.city.toronto.on.ca/health/tfpc_index.htm
A completely refurbished website with links to, among others, the Toronto New Food Charter and the “Growing Season” report by the Food and Hunger Action Committee of the City of Toronto.

www.eco-farm.org
The Ecological Farming Association, formerly the Committee for Sustainable Agriculture, is a non-profit educational organisation that promotes ecologically sound agriculture.

www.cbnrm.net
The Community-Based Natural Resource Management Network’s web site provides a powerful set of broad, robust and useful networking tools aimed at linking stakeholders.

www.worldhungeryear.org/fslc
This online Food Security Learning Centre is created to provide site visitors “with an in-depth look at common hunger and poverty issues facing many U.S. communities.” It contains subject categories on Family Farms and Nutrition, and subcategories such as Community Supported Agriculture, Community Gardens, Food Policy Councils, Farmers’ Markets, Farm to Cafeteria, and more.