

**Discussion Paper on Urban Agriculture in The City of North Vancouver:** This discussion paper is a summary of excerpts from the Resource Center on Urban Agriculture and Food Security's (RUAF) [Cities Farming for the Future: Urban Agriculture for Green and Productive Cities](#), (chapters 1-4), published in the Philippines in 2006 by International Institute of Rural Reconstruction and ETC Urban Agriculture, The Netherlands, with the support of the [International Development Research Centre](#) (IDRC), a Canadian Crown corporation that works in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable, and more prosperous societies.

These excerpts speak to the following:

[TODAY](#) – what Urban Agriculture currently looks like, why it's important, City of Vancouver as a case study, and the way forward

[FUTURE](#) – multiples roles & functions of Urban Agriculture, land use, food security, economic development

[HOW](#) – integration of Urban Agriculture into city planning (official community plan), project development, policy and planning, stakeholder involvement, and the importance of pilot projects or actions in the short term, which then create a positive environment for more complex and long-term processes

#### **About the RUAF**

The RUAF Foundation is an international network of six regional resource centres and one global resource centre on Urban Agriculture and Food Security. In 1996 the international Support Group on Urban Agriculture (SGUA) took the initiative to set up a Resource Centre on Urban Agriculture and Food Security (RUAF), in response to the expressed need of organisations and local governments for effective mechanisms for the documentation and exchange of research data and practical experiences on urban agriculture. In the following years RUAF gradually evolved into an international network of regional resource centres providing training, technical support and policy advice to local and national governments, producer organizations, NGO's and other local stakeholders. In March 2005 the RUAF partners established the RUAF Foundation as their joint administrative body and liaison office. RUAF focuses its activities mainly in 20 cities, where RUAF closely cooperates with the local government, producer organisations, NGO's, universities, and private enterprises.

#### **RESOURCES & Further Reading:**

- [Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda: A Reader on Urban Agriculture](#) (2001), RUAF
- [Other RUAF Publications](#)
- [South False Creek Urban Agriculture Study](#), November 2002
- [Outgrowing The Earth: Food Security Challenge in an Age of Falling Water Tables and Rising Temperatures](#), by Lester Brown; available online, and downloadable, through the Earth Policy Institute. Lester Brown documents the ways that human demands are outstripping the earth's natural capacities, and how the resulting environmental damage is undermining food production. Brown investigates these issues and outlines the steps needed to secure future food supplies.
- [Why Your World is About to Get a Whole Lot Smaller](#), Jeff Rubin, former Chief Economist at CIBC World Markets for almost 20 years, on Oil and the End of Globalization. Rubin contends that when oil is cheap, the distance our food (or products) has to travel doesn't matter, but when the world economy rebounds, that high oil prices will again have sweeping, and long-term, ramifications. Distance will soon cost money, and so too will burning carbon. The good news is that this will bring 'long-lost' jobs back home, and local economies will be revitalized.
- [The Soul of a Citizen](#), Paul Rogat Loeb. Loeb describes how ordinary citizens can make their voices heard and their actions count; it explores what leads some people to get involved in larger community issues while others feel overwhelmed or uncertain; what it takes to maintain commitment for the long haul; and how community involvement and citizen activism can give back a sense of connection and purpose.

#### **TODAY**

Conventionally, city governments have looked upon agriculture as incompatible with urban development.

Urban agriculture has not been given any policy attention, other then restricting it as much as possible or permitting it only as a temporal use of the sites concerned until urban functions took over its use.

Growing urban poverty goes hand in hand with growing food insecurity, and malnutrition in the urban areas. The urban poor find it increasingly difficult to access food. Food composes a substantial part of urban household expenditures (60-80 percent for poor households) and the lack of cash income translates more directly into food shortages and malnutrition (Mougeot, 2005) in the city context. This indicates that cities are quickly becoming the principal territories for intervention and planning of strategies that aim to eradicate hunger and poverty and improve livelihoods, requiring innovative ways to stimulate local economic development in combination with enhancing food security and nutrition. Urban agriculture is one such strategy.

#### **Urban sprawl**

Rapid urbanisation leads to a continuous extension of the city into the rural suburbs, bringing large areas under the direct influence of the urban centres. Around cities there are dynamic and expanding zones of interaction between urban and rural areas. The traditional local agricultural and land distribution system is disrupted by urban newcomers seeking to buy land (for speculation, for mining of loam, sand and stones, for infrastructure development, for construction, for more urbanised types of agriculture) leading to an increase of land prices. In response, some traditional farmers are giving up farming, selling their land and switching to other income earning activities.

### City renewal

Cities are in a constant process of building and decay. Existing open spaces get built up, and the formal or informal temporary users of such areas are removed. Meanwhile, degenerated residential, office or industrial areas are demolished, creating new open spaces that may stay vacant for a long period of time until a new purpose, and the corresponding investments, are found. New roads and power lines continue to be constructed, creating new vacant open spaces as reservations for these structures. Often such newly created open spaces are gradually occupied by urban producers (informally or through temporary leases). Urban agriculture can therefore be characterised as a form of “shifting cultivation” – although it is a permanent element of the urban system, its locations within the city may vary over time.

### Other city dynamics

Other city dynamics that directly influence the development of urban agriculture, and how and where it is practised, are urban traffic, and industry (negatively influencing the quality of soils and irrigation water), new demands from urban citizens (need for recreational spaces, new products), changes in urban zoning and related norms and regulations, changes in the urban labour market, etc.

These city dynamics take place in a world which is opening up and becoming more global, but at the same time is seeking a more local focus, decentralisation, and maintenance of local socio-cultural identity (Baud, 2000). Both tendencies influence urban agriculture; globalisation leads to new products entering the market, more information available in general, and changing consumer preferences; thus leading to increased buying in supermarkets; the local focus trend leads to preferences for locally-grown fresh foods and direct producer consumer linkages.

### Localised food systems

Migration in Europe and North America saw its peak in the early part of the last century, leading to large cities where currently on average 75 percent of the total population seek to make a living. Many of these cities face problems of international migration or impoverishment due to industries being relocated to countries where labour is cheap. This opens new demands and changing roles for urban agriculture. In many of these cities a counter trend of localising a part of the agricultural, and food production is appearing after a decades-old path of industrialisation and globalisation.

This locally based food production or “civic agriculture” (Lyson, 2004) is characterised by its multi-functionality and community linkages. The food system operates within, and is influenced by the urban social, economic, and natural environment. The food system can be visualised at household, community and city level and relates production, processing and marketing of food produced in urban agriculture with food stemming from other channels (rural areas, imports), and their linkages and relative contributions to the health and nutrition of the population and their contributions to the local economy and environment. In this way strategies for the development of (certain types of) urban agriculture can be focused to the strengthening of the urban food systems, complementing other components of the urban food system.

### Integrating Urban Agriculture into policies and planning

Traditionally, urban agriculture has met resistance by urban authorities and planners, who saw UA as a relic of rural activities that would pass away with the growth of the city. Most urban policies give little attention to UA and tend to prohibit or severely restrict it.

Agriculture is usually not considered within urban land use and development plans. Also, agricultural research, extension and credit institutions with their focus on rural areas tend not to attend to urban farmers, while their urban counterparts generally do not consider agriculture as an urban enterprise.

### Increasing urban poverty and food insecurity

Many cities cannot cope with massive population growth. City authorities around the world face enormous challenges in creating sufficient employment, in providing basic services such as drinking water, sanitation, basic health services and education, in planning and maintaining of green spaces, in managing urban wastes and waste water and in decentralisation and creation of efficient local autonomy.

***There is a fast urbanisation process, and, within it, the “discovery” that both urban poverty and urban food insecurity are rapidly increasing.*** The quick urbanisation process has created vast problems for urban authorities. Most cities have not been able to create sufficient employment opportunities for its population leading to a rapid development in the so-called informal sector, including urban agriculture.

***There is a growing body of research data on urban agriculture and urban food security*** providing data on the presence and persistence of urban agriculture in cities, and its importance for urban food security and income generation for the urban poor. Since the early nineties, IDRC’s Cities Feeding People programme has encouraged action research on urban agriculture.

***There is growing attention to urban agriculture and urban food security by international organisations*** such as FAO, UNDP and UN-Habitat, and growing attention given to it at International Summits.

***There is a growing capacity at regional and local levels to support urban agriculture.*** The RUAF has established regional resource centres on urban agriculture and food security that have been very instrumental in pooling and disseminating the growing body of knowledge on urban agriculture and facilitating networking and capacity development at regional and city levels. As a result of such developments, as well as the pressure by local poverty groups, urban farmers and NGOs, many city authorities have acknowledged the potential of urban agriculture and are collaborating with other local stakeholders in efforts to maximise the benefits of urban agriculture.

### **Case Study: Urban Agriculture and Sustainability in Vancouver, Canada**

On July 8, 2003, the Vancouver City Council approved a motion supporting the development of a "just and sustainable food system" for the City of Vancouver. A just and sustainable food system is defined as one in which food production, processing, distribution, consumption and recycling are integrated to enhance the environmental, economic, social and nutritional health of a particular place. This commitment to food policy was made in response to more than a decade of community organising efforts. Community groups sought local government response to pressing issues including urban sprawl, threats to agricultural land, health and nutrition problems, and food access issues, particularly for marginalised populations. The Council motion also reflects a growing trend in Canadian and US cities in which food system issues are being recognised as an area in which local governments have an important role to play.

Since the July 2003 Council motion, the City's commitment to food policy has included an eight month public consultation process; approval of a Food Action Plan (see <http://www.city.vancouver.bc.ca/ctyclerk/ccclerk/20031209/rr1.htm>); hiring two food policy staff; facilitation of a number of food-related initiatives including community gardens, urban beekeeping, fruit trees, and edible landscaping; project collaborations with a range of partners; and the election of a 20-member multi-sectoral Vancouver Food Policy Council.

Urban agriculture is one component of Vancouver's broader food-related policies. These policies are being designed and implemented by the City of Vancouver in partnership with community organisations and a citizen advisory group. As one way to achieve a 'green and productive city,' Vancouver's food policy initiatives constitute an innovative municipal governance strategy that can contribute towards achieving the Millennium Development Goals (MDGs).

### **Community Gardens in Vancouver**

Twenty five percent of British Columbia's food is produced in areas reached within an hour of downtown Vancouver and another 25 percent within 2 hours of downtown. However, the region is also contending with urban sprawl, population pressures, farm consolidation and threats to agricultural land. At the same time, Vancouver has a thriving community of urban agriculture enthusiasts. For example, a recent Ipsos-Reid poll (2002) showed that 42 percent of people in Vancouver grow food that is vegetables, fruit, berries, nuts or herbs in their yard, balcony or community garden. Vancouver has approximately 900 community garden plots in 17 operating community gardens on Park property (11 gardens), Engineering property (5 gardens) and City Real Estate property (1 garden), with one additional new garden under development. Furthermore, the goal of creating more community gardens was identified as a priority in the City of Vancouver's Food Action Plan (2003), as well as investigating the possibility of providing spaces to grow food in private developments.

### **Urban Agriculture in Vancouver**

Although Vancouver is a city of soaring glass towers and modern urban amenities, it is also located within one of the most productive agricultural regions in Canada. Urban agriculture in Vancouver is used in strategies to address a range of urban challenges involving various stakeholders. Vancouver's Food Action Plan follows a 2-tiered strategy: (1) integration into a broader sustainable urban development agenda, and (2) promoting multi-actor involvement and collaboration.

### **Integration of Urban Agriculture into existing sustainability policies**

A sustainable food systems approach to food policy supports the social, environmental and economic goals embodied in the City's existing commitment to sustainability. Goals include the promotion of health, nutrition, ecological responsibility, social inclusion, and community capacity building. In this way, one of the key policy objectives for urban agriculture and other food policy initiatives in Vancouver is integration into broader sustainable development agendas. These agendas include child and youth programmes, environmental programmes, social sustainability programmes and urban development programmes. A specific illustration of the goal of integrating urban agriculture into existing sustainability policies can be found in Southeast False Creek (SEFC), a major City development. In 1991, the City Council directed that Southeast False Creek be developed as a residential community that incorporates principles of energy efficient design in its area plan and explores the possibility of using SEFC as a model "sustainable community." As a sustainable neighbourhood, SEFC provided an opportunity to integrate urban agriculture into the Official Development Plan (ODP) as it evolved.

As part of the planning and consultation process in Southeast False Creek, a citizen advisory group was set up to provide input on the Official Development Plan as it evolved. This group, known as the Southeast False Creek Stewardship Group, took a keen interest in promoting urban agriculture on the site. In at least two reports to the City Council, the Stewardship Group identified urban agriculture as a key development priority. The rationale was that urban agriculture would provide multiple benefits to future residents including environmental sustainability by reducing the distance food travels, providing ecological benefits of reducing the heat island effect, reducing cooling and heating needs, reducing storm water management costs, and possible reductions in emissions and transportation costs.

Urban agriculture was also argued to enhance social sustainability by providing less expensive and more nutritious food for the residents of Southeast False Creek, as well as providing social spaces for people to meet and interact with their neighbours. Together these benefits can increase social cohesiveness and networks, which are essential for a community that relies on the participation of its members in planning and ongoing governance.

A second mechanism that enabled the integration of urban agriculture into SEFC was the participation of the food policy staff team in the finalisation of the Official Development Plan. By spring 2004, the SEFC Official Development Plan was being made ready for presentation to the City Council for approval. Because of pre-existing commitments to urban agriculture already embedded in the SEFC policy statement and the active lobbying by the SEFC Stewardship Group, the food policy staff team was able to work with the SEFC Planners and other City staff to more clearly articulate opportunities for urban agriculture, and express them more comprehensively and explicitly in the ODP itself.

### **Facilitation of collaboration and multi-actor partnerships**

A second key policy objective for urban agriculture and food policy in Vancouver is the promotion of partnerships and collaboration. There are two inter-connected dimensions of the City of Vancouver's recognition of the importance of partnerships and collaboration where urban agriculture is concerned. The first focuses on 'internal' partnerships, while the second emphasises partnerships and collaboration between local government and community agencies and organisations.

From the outset, the Food Action Plan acknowledged that some of the resources and policy tools necessary to address food system issues fall outside of the jurisdiction of Vancouver. As such, the development of partnerships with other agencies has been, and will continue to be instrumental to the process. Key partners include Vancouver Agreement, Vancouver School Board, Vancouver Park Board, Vancouver Coastal Health and community organisations among others. Also key to the success of urban agriculture and food policy are partnerships and collaborations among municipal departments within local government itself.

### **Vancouver Food Policy Council**

Vancouver's Food Policy Council (VFPC) is considered a new model of integrated local governance involving City staff and a citizen group. The VFPC was conceived as a multi-actor body whose mandate would be "to act as an advocacy, advisory and policy development body on food system issues within the City's jurisdiction" (Vancouver Food Policy Council Terms of Reference, 2004).

From May to July 2004, the Vancouver Food Policy Task Force produced and ratified a set of recommendations for the creation of the VFPC. Recommendations included VFPC member roles and responsibilities, principles and protocols: vision and mandate; structure and election process. The result was the election of a twenty-member multi-sectoral food policy council on July 14, 2004 as the last act of the Food Policy Task Force before it dissolved.

Vancouver's Food Action Plan was argued to reinforce the City's commitment to sustainability. This had the benefit of associating food policy with a set of already familiar policies and mandates. Urban agriculture and food policy benefited from internal education campaigns on sustainability that had already taken place in the organisation. Like sustainability more broadly, urban agriculture is a cross-cutting issue often involving a wide range of departments for effective implementation and monitoring.

The second dimension of the City of Vancouver's recognition of the importance of partnerships and collaboration has more far-reaching implications. This dimension involves the mechanisms designed to facilitate governmental/ non-governmental partnership approaches to food policy design and implementation. This objective is best embodied in the Vancouver Food Policy Council, seen as a new model for collaborative municipal governance.

The Vancouver Food Policy Council is comprised of individuals from all aspects of the local food system. Membership includes people with a variety of different backgrounds such as, nutritionists, food wholesalers and distributors, food retailers and grocers, managers of non-profit organisations and academics engaged in the food system. This multi-disciplinary group creates an innovative forum for discussion and action towards building a food system that is ecologically sustainable, economically viable and socially just. It also builds upon collaboration between citizens and government officials to work together on initiatives. The primary goal of a Food Policy Council is to examine the operation of a local food system and provide ideas and policy recommendations for how it can be improved.

Vancouver's Food Policy Council has been meeting since September 2004. In addition to education and awareness, fundraising strategies, the Vancouver Food Policy Council works on specific projects and goals in support of issues and action items identified in the Food Action Plan.

Currently, the VFPC has identified four priority work areas including:

- (a) Increasing access to groceries for residents of Vancouver;
- (b) Institutional food purchasing policy for public facilities;
- (c) Recovery, reuse, and recycling of Food; and
- (d) Food Charter for the City of Vancouver.

### **Results and Way Forward**

The two policy strategies have resulted in a number of behaviour changes of and benefits to Vancouver citizens. Benefits derived from these changes address Millennium Development Goals #1 (eradicate extreme poverty and hunger) and #7 (ensure environmental sustainability). At the same time, benefits also encompass a number of important dimensions of social sustainability including community development, social inclusion and civic engagement.

Three changes in particular are:

- Education and awareness
- Enhanced collaboration between city departments and other agencies
- Food systems approach to food issues

A number of key lessons from the project experience should be taken into account by other local governments. These include:

- Build on community knowledge and expertise
- Build and enhance partnerships
- Adopt a systems approach to food issues
- Food policy staff is critical

A key next step in Vancouver's case is to determine the role that urban agriculture may play in existing strategies leading to pilot programmes to address hunger, health, addiction and homelessness. At the same time, it should be recognised that

hunger exists to varying degrees in all Vancouver neighbourhoods. Accordingly, research should be based on a sustainable food system approach to alleviating hunger.

**NOTE: Community Gardens in North Vancouver** (source: Heather Johnstone, *Edible Gardens Project*)

In the City of North Vancouver there is currently one community garden: the Lower Lonsdale Community Garden. There are approximately 46 plots, with about 90 people on the waitlist. It's estimated that 5-6 plots become available each year, and are awarded by lottery. A number of people have been waiting since the garden opened 5 years ago.

A second community garden, the Queen Mary Community Garden will be opening sometime in the summer of 2009. Over 90 people submitted a request for a plot, with a lottery for the 58 plots having taken place May 29, 2009.

For both of these gardens, gardeners must be residents of the City of North Vancouver, and there is a limit of one plot per household. For most of the waitlisted individuals, it could be several years before they will have the chance to get a plot.

There are currently no community gardens in the District of North Vancouver, and two in West Vancouver; we do not have information available on those as they are managed by the municipality, and gardeners have been difficult to make contact with.

## FUTURE

Urban agriculture is generally characterised by closeness to markets, high competition for land, limited space, use of urban resources such as organic solid wastes and wastewater, low degree of farmer organisation, mainly perishable products, high degree of specialisation, to name a few. By supplying perishable products such as vegetables, fresh milk and poultry products, urban agriculture to a large extent complements rural agriculture and increases the efficiency of national food systems.

The most important distinguishing character of urban agriculture is not so much its location - or any other of aforementioned criteria - but the fact that it is an integral part of the urban economic, social and ecological system: urban agriculture uses urban resources (land, labour, urban organic wastes, water), produces for urban citizens, is strongly influenced by urban conditions (policies, competition for land, urban markets and prices) and impacts the urban system (effects on urban food security and poverty, ecological and health impacts).

Urban agriculture has multiple roles and functions and plays an important role in:

- enhancing urban food security, nutrition and health;
- creating urban job opportunities and generation of income especially for urban poverty groups and provision of a social safety net for these groups;
- contributing to increased recycling of nutrients (turning urban organic wastes into a resource);
- facilitating social inclusion of disadvantaged groups and community development; and,
- urban greening and maintenance of green open spaces.

### Urban Food Security & Nutrition

In addition to enhanced food security, and nutrition of the urban producers themselves (Nugent and Bourgue 2000), urban agriculture produces large amounts of food for other categories of the population. It was estimated that 200 million urban residents produce food for the urban market providing 15 to 20 percent of the world's food (Margaret Armar-Klemesu, 2000).

### Local economic development

Urban agriculture is an important source of income for a substantial number of urban households. In addition to income from sales of surpluses, farming households save on household expenditure by growing their own food. Since poor people generally spend a substantial part of their income (60 – 80 percent, Mougeot, 2005) on food, the savings can be substantial. Urban agriculture also stimulates the development of microenterprises for the production of necessary agricultural inputs (e.g., fodder, compost, and earthworms), the processing, packaging and marketing of products and the rendering of other services (e.g., animal health services, bookkeeping, transportation).

### Social inclusion and gender

Urban agriculture may function as an important strategy for poverty alleviation and social integration of disadvantaged groups (such as immigrants, HIV-AIDS affected households, disabled people, female-headed households with children, elderly people without pension, youngsters without a job) by integrating them more strongly into the urban network, providing them with a decent livelihood and preventing social problems (Gonzalez Novo and Murphy, 2000). Urban and peri-urban farms may also take on an important role in providing recreational and educational functions to urban citizens or play a role in landscape and biodiversity management.

### Urban environmental management

The disposal of waste has become a serious problem in many cities. Urban agriculture can contribute to solving this problem by turning urban wastes into a productive resource through compost production, vermiculture, and irrigation with wastewater. Urban agriculture and forestry can also have a positive impact upon the greening of the city, the improvement of the urban micro-climate (wind breaks, dust reduction, shade) and the maintenance of biodiversity, as well as the reduction of the ecological foot print of the city by producing fresh foods close to the consumers and thereby reducing energy use for transport, packaging, cooling, etc. Research in the Netherlands has shown that greenery around homes has a positive effect on people's health.

### Cities Farming for the Future

When accepted and facilitated, urban agriculture will be sustainable, maintaining its dynamism and flexibility, adapting to changing urban conditions and demands, intensifying its productivity and diversifying its functions for the city, whilst reducing associated health and environmental risks and by doing so gaining more social and political acceptability. In certain parts of a city, the existing forms of urban agriculture may fade away or change its form and functions drastically, while new forms of urban agriculture may develop in other parts of that same city.

On the longer term, urban agriculture will be sustainable especially if its potential for multifunctional land use is recognised and fully developed. The sustainability of urban agriculture is strongly related to its contributions to the development of a sustainable city: an inclusive, food-secure, productive and environmentally-healthy city.

#### **Residential neighbours and other interest groups**

Urban agriculture may play an important social role in providing opportunities for education, training, recreation and leisure. Actions to promote the social aspects of urban agriculture should be discussed with the targeted groups (i.e. children and schools, urban citizens, community and health care organisations) and their associations. Among citizens, it would be important to involve individuals or groups, whose dwellings or activities are located near sites of urban agriculture, and who are or might be affected positively (improved greening and contact with nature) or negatively (pollution, noise) by current and future UA activities.

#### **NGOs, community-based organisations and universities**

Urban producers may lack expertise regarding specific aspects of urban agriculture (i.e. specific production or processing techniques). Universities, research centres or NGOs (non-governmental organizations) could provide support for the development of appropriate technologies for food production and processing and provide methodological support in diagnosis, monitoring, and training. NGOs or community-based organisations could also play a crucial role in linking urban producers with governmental authorities or research institutes. Finally, these organizations could often help finance and implement projects that are defined as a result of multi-stakeholder processes.

#### **Private sector and support organisations**

The private sector and support organisations can play a role in facilitating access to inputs and services (e.g. marketing.). In El Rímac (Lima-Perú) for example, the municipality signed a cooperation agreement with a private corporation, Purina Center Rimac Corn (producer of poultry food), whereby the company took responsibility to provide training and technical assistance in poultry-raising to interested farmers free of charge (Cabannes, et al., 2003). The role of micro-finance institutions or credit-cooperatives should be considered regarding different forms of financing for UA.

### **HOW?**

Urban agriculture contributes to a wide variety of urban issues and is increasingly being accepted and used as a tool in sustainable city development. Currently the challenge is its integration into city planning and facilitation of its multiple benefits for urban inhabitants.

Growing urban poverty, hunger and lack of formal employment, as well as the special opportunities that a city provides for farmers (including the growing urban demand for food, herbs and plants, proximity to markets and availability of cheap resources such as urban organic wastes and wastewater) have stimulated the development of a diversity of agricultural production systems in and around cities, often specialised in perishable products, such as green leafy vegetables, milk, eggs and meat, taking advantage of vacant open spaces in and around cities.

Many attempts to classify urban agriculture are related to the analysis of production and (household) income level.

There are three major types of urban agriculture: subsistence urban farmers; family-type (semi-) commercial farmers; and agricultural entrepreneurs. And even though all these types of urban farming systems may have an important but different role in a given city at a certain time in development, support is specifically necessary for the first two types.

The growing attention of local and national policy makers and practitioners is also reflected in the growing demand (e.g., to the RUAF partners) for inspiring examples of successful policies and programmes on urban agriculture as well as for training and (co-) funding of research and action programmes.

#### **Strategies for the development of safe and sustainable urban agriculture**

Urban policy makers and support institutions can substantially contribute to the development of safe and sustainable urban agriculture by:

- Creating a conducive policy environment and formal acceptance of urban agriculture as an urban land use;
- Enhancing access to vacant open urban spaces and the security of agricultural land use;
- Enhancing the productivity and economic viability of urban agriculture by improving access of urban farmers to training, technical advice, and credit ;
- Supporting the establishment and strengthening of urban farmer organisations;
- Taking measures that prevent/reduce health and environmental risks associated with urban agriculture (farmer training on health risks and related management practices, zonification, quality control of irrigation water and products).

#### **Creation of an enabling policy environment**

Formal acceptance of urban agriculture as an urban land use and integration into urban development and land use plans is a crucial step towards effective regulation and facilitation of the development of urban agriculture. Existing policies and by-laws regarding urban agriculture will have to be reviewed in order to identify and remove unsubstantiated legal restrictions and to integrate more adequate measures to effectively stimulate and regulate the development of sustainable urban agriculture.

A second important step is the creation of an institutional home for urban agriculture.

Conventionally, sector policies have been defined under the assumption that agriculture refers to the rural sphere and will be attended to by institutions other than the urban ones, whilst most agricultural organisations do not operate in the urban sphere (Tacoli, 2001). As a consequence, urban agriculture is receiving little policy and planning attention and development support.

Municipal authorities can play a key role in filling this gap, for instance by selecting a leading institute in the field of urban agriculture with an urban agriculture office or department, and by establishing an interdepartmental committee on urban food

production and consumption.

Also important is stimulating the dialogue and co-operation among the direct and indirect stakeholders in urban agriculture. This can be done by setting up a multi-actor platform and working group on urban agriculture that organises the joint analysis of the presence, role, problems and development perspectives of urban agriculture in the city and coordinates the process of interactive formulation of policies and the planning and implementation of action programmes by the various actors.

#### **Enhancing access to vacant land**

Land is a very important resource for urban agriculture, and its availability, accessibility and suitability are of particular concern to urban farmers. Contrary to the common belief even in highly urbanised areas surprisingly high amounts of vacant land can be found that could be used for agriculture on a temporary or permanent basis. City governments may facilitate access of urban farmers to available urban open spaces in various ways.

#### **Facilitating access to land for urban agriculture**

- a) Making an inventory of the available vacant open land in the city (through participatory methods and GIS) and analysing its suitability for use in agriculture.
- b) Creating a Municipal Agricultural Land Bank which brings those in need of agricultural land in contact with landowners in need of temporary or permanent users.
- c) Stimulating owners of open vacant land (including institutional owners) to give this land on medium-term lease to organised farmer groups, by providing a tax reduction to land owners that do so (as in Rosario, Argentina) or by levying municipal taxes on land laying idle.
- d) Formulating a City Ordinance that regulates the (temporary) use of vacant land in the city.
- e) Providing of vacant municipal land to organised groups of urban farmers.
- f) Taking measures to improve the suitability of available tracts of land (e.g., by removing debris or providing access to irrigation water).
- g) Demarcating zones for urban agriculture as a form of permanent land use and integrating these into city land use planning. Such zones normally are more sustainable if located in areas that are not well suited for construction or where construction is not desirable, as on flood plains, under power lines, in parks or in nature conservation areas. Effective guidelines are developed with active farmer participation regarding the management practices to be adopted by urban agriculture in the various locations.
- h) Providing assistance to reallocate urban farmers, especially urban farmers who are poorly located and therefore may have serious health and/or environmental risks due to these locations.
- i) Including space for individual or community gardens in new public housing projects and slum upgrading schemes.

Other important areas of intervention to enhance the productivity and economic viability of urban agriculture include:

- Enhancing access to inputs (e.g., urban organic wastes and irrigation water) and facilitating decentralised production of such resources (e.g., establishment of low-cost facilities for sorting of organic wastes and production of compost, animal feed or biogas; implementation of pilot projects with decentralised collection and treatment of household wastewater with a view on its re-use in local agricultural production); technical and financial support (e.g., tax reductions) for enterprises producing ecologically-friendly inputs such as natural fertilisers, bio-pesticides, soil amendments, open pollinated seeds, etc.
- Enhancing the access of urban farmers to credit facilities.
- Facilitating (direct-) marketing by urban farmers: access to existing city markets, creation of farmers' markets, linking farmer and consumer organisations, use of urban farmers in supplying food for school feeding, HIV-AIDS and other food distribution programmes, and support to the creation of local infrastructure for small-scale food preservation and storage facilities (i.e., canning, bottling, pickling, drying, smoking).

#### **Sustaining Urban Agriculture Requires the Involvement of Multiple Stakeholders**

Urban agriculture relates to a variety of urban issues, like urban poverty, land use planning, waste management, food security, economic development, public health, and community development. Many stakeholders can be identified who play a role and who (should) have a say in planning and development of urban agriculture and related activities, like input provision, vegetable production, aquaculture, livestock production, processing, and marketing. To increase the contribution of urban agriculture to sustainable urban development requires involvement in planning and policy making of these different stakeholders. Multi-stakeholder processes dealing with urban agriculture are of recent nature. The lessons learned in the International Network of Resource Centres on Urban Agriculture and Food security (RUAF) are described.

Recognising and legalising UA as a legitimate urban land use is a crucial first step. Technical assistance and training to urban producers is essential to promote more sustainable production, processing and marketing techniques. Potential health risks, for example related to the use of agrochemicals, non-treated organic waste and wastewater, and lack of hygiene in food processing and marketing activities, need to be managed and regulated. Providing urban farmers with more secure access to land, and water sources, as well as to services and capital are also important in this respect (Dubbeling and Santandreu, 2003).

A sustainable approach to UA focuses on maximising its potential social, environmental and economic contributions - contributions that include the promotion of health and nutrition, ecological responsibility, social inclusion and community capacity building. In this way, one of the key policy objectives for urban agriculture is its integration into broader urban development agendas, for example related to children's and youth programmes, environmental programmes, social welfare programmes and housing and urban development programmes, as illustrated by the case of Vancouver. Benefits include capitalising on existing momentum, infrastructure and expertise; promoting collaboration between municipal departments; and enabling interconnected social, economic and ecological benefits for citizens (Mendes, 2005).

Dynamic planning must provide for UA land uses to evolve as the city expands and transforms itself. Space-limited and capital intensive forms of UA (fruit trees, medicinal and ornamental plants, silk worms, mushrooms, catfish, small stall-fed livestock) can thrive in a city's core, while more land-intensive and waste-generating forms of UA could relocate to outer-lying and less populated locations (Mougeot, 2005). In order to match the demands of urban growth with activities of high economic and social value, urban agriculture should be included as a multifunctional component in municipal land use planning, zoning, master plans



and neighbourhood development plans (Cabannes, 2003).

### **Involving multiple stakeholders in project development, policy and planning**

The number and composition of stakeholders directly or indirectly involved in UA differ from city to city, but include:

- different levels of government (national, provincial and local governments),
- relevant municipal departments and professionals (e.g. Parks and Gardens, Health Department and inspectors, Public Works, Urban Planning Department, Water boards, Departments for community development etc.),
- local leaders and village councils,
- the private sector,
- academic organisations or research institutes, non-governmental organisations, social movements, grassroots and religious organisations, and
- producers and their organisations, who are directly involved in agricultural production and related processing and marketing activities (farmers; local producers of inputs such as grass, compost, equipment; transporters; processors; vendors on streets and local markets).

### **Identifying stakeholders**

Effort has to be taken in identifying the different stakeholders involved ('key questions to identify stakeholders' is described below) and motivating them to participate in project development, policy and planning. Such a multi-stakeholder approach has in principle - and compared to other approaches - the following benefits:

- it allows for better quality decision finding and making (through better understanding of priority issues and needs of different stakeholders involved),
- it improves the likelihood of implementation (through enhanced ownership, improved mechanisms and processes for coordination, and more effective use of available human, technical and financial resources), and
- it gives to the process (and its results) a higher credibility, as well as wider outreach (Hemmati, 2002).

On the other hand, multi-stakeholder processes may lead to undue increase of some stakeholders' influence, (especially when there is a lack of transparency throughout the process), require specific financial and skilled human resources, as well time to allow for changes in cultures towards public participation in decision-making.

Few city authorities and other local stakeholders have experience with these so-called participatory and multi-stakeholder processes, and therefore require well-designed methods and tools, technical assistance and staff training. Spaces for participation should be created and formalised. Special consideration needs to be given to the non-organised and often excluded segments of the population (women, immigrants and youth, for example). Stakeholders involved need training in how to work together with people they have never worked with before. Innovative means to involve urban producers in identifying, developing and monitoring urban agriculture projects and policies is needed. This also means that urban producers should learn to negotiate with different levels of government and other external agencies to achieve their goals.

Funds would be needed to jointly implement defined action and policies. Yet, questions remain on how to effectively use multi-stakeholder processes to influence policymaking and planning.

### **Key questions to identify stakeholders**

- Who might be affected (positively or negatively) by the concern to be addressed?
- Who are the "voiceless" for whom special efforts may have to be made?
- Who represents those likely to be affected?
- Who is responsible for, can control or influence what is intended?
- Who is likely to mobilise for or against what is intended?
- Who can make what is intended more effective through their participation or less effective by their non-participation or outright opposition?
- Who can contribute relevant knowledge, expertise or financial and technical resources?
- Whose behaviour has to change for the effort to succeed?

The type of stakeholders involved in UA and their level of participation in the process will vary depending on local circumstances.

It is important to identify the current mandate and roles of the different stakeholders in relation to UA development and the relevant information they have on UA and related projects and policies, and get their views on the potentials and risks of UA, and their contributions (human and/or financial) to the MSP. The inventory and analysis will enable the development of a strategy that motivates and facilitates the participation of various stakeholders and identifies their potential roles in the different phases of the process (diagnosis, planning, implementation and monitoring). Some of these roles are identified below (de Zeeuw, et al., 2001):

**Local, provincial and national governments** play a key role, ensuring the availability and secure tenure of land and water, access to public services, approval of regulations and standards. These different levels of government are already engaged in many areas of service provision and regulation, such as urban planning, water treatment, waste collection, management of green spaces, which have direct interactions with urban agriculture. Activities started up without the involvement of those who influence decision-making (mayor, council members, heads of departments, policy advisers) may achieve little in the long term. Therefore, it is essential to involve government representatives in the discussions throughout the planning process, in order to acknowledge their opinion and suggestions, overcome possible resistance and gain support for policy review and formulation.

**Interaction between different levels of government**, as well as between governments and other decision-making bodies should be specifically looked into as the Delft, Vancouver and Rosario case studies illustrate. From the outset, Vancouver's Food Action Plan for example acknowledged that some of the resources and policy tools necessary to address food system issues fell outside of the jurisdiction of Vancouver City Council. As such, the development of partnerships with other agencies has been and



will continue to be instrumental to the process. Key partners include Vancouver Agreement, Vancouver School Board, Vancouver Park Board and Vancouver Coastal Health and community organisations (Mendes, 2005).

Also, UA does not always share the same boundaries as local authority areas. Therefore, it is worth considering at the very onset of the process whether cooperation with neighbouring local authorities is sensible and beneficial. Although resources can be shared and actions made more effective, varying political interests between municipalities could well complicate the process.

### **Commercial and subsistence farmers and gardeners and their organisations**

One should bear in mind that urban producers do not form a homogeneous group. Livestock farmers have different interests from horticulture or aquaculture farmers. Commercial farmers differ in their interests to subsistence or hobby farmers. Promotion of different UA production systems therefore requires different policies and interventions. Taking into account the expertise, local knowledge and views of different producers and producer groups is important in this regard. As direct stakeholders, urban farmers should also play a key role in project management and coordination, and in the evaluation and control of the activities carried out.

### **Micro-enterprises involved in urban agriculture**

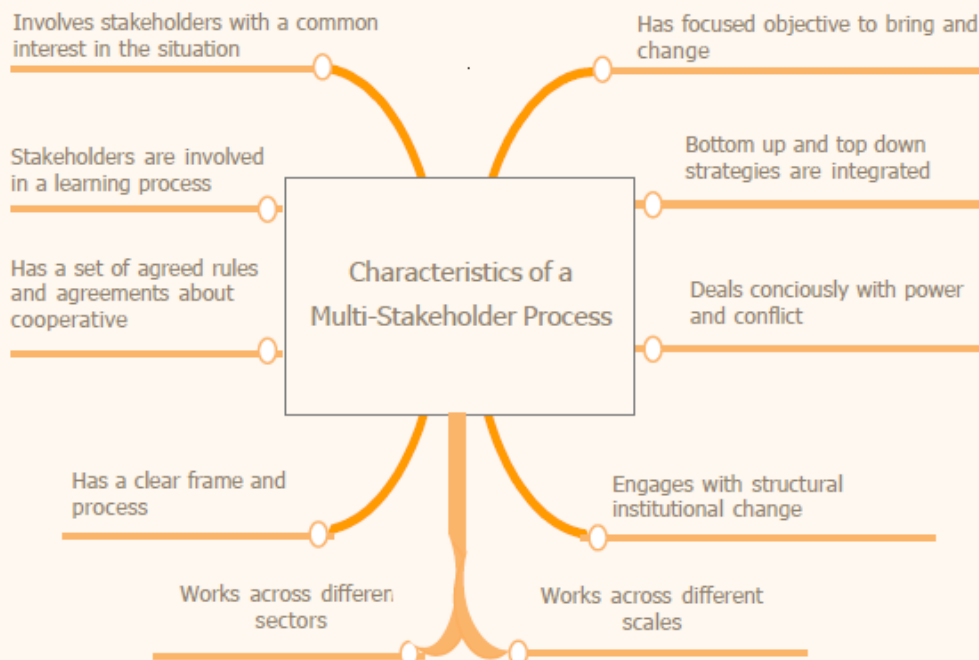
Alongside urban and peri-urban farmers and gardeners, specialised micro-enterprises are also involved in the production of agricultural inputs (e.g., compost), the processing of agricultural produce (e.g., Making cheese, jams and marmalades, dried fruits and flowers) and marketing (e.g., street vending of fresh products or processed food, small shops and local markets, food box schemes, etc.). An important aspect in the development of UA programmes is strengthening of linkages between the different parts of the production chain (input supply, production, processing and marketing).

## **Multi-stakeholder Processes on UA: What and How?**

Multi-Stakeholder Processes (MSPs) are:

- processes that aim to involve stakeholders in improving situations that effect them
- forms of social interaction that enable different individuals and groups, who are effected by an issue, to enter into dialogue, negotiation, learning, decision making and collective action
- about getting government staff, policy makers, community representatives, scientists, business people and NGO representatives to think and work together (see also <http://portals.wdi.wur.nl/msp/>).

Figure 2.1 Characteristics of a MSP



Further detail & information: [GO TO Chapter 2, Page 6](#)

## **MSPs in UA should integrate elements of:**

**Enhancing public awareness and motivating the different stakeholders to actively participate in action planning and policy design.** A prerequisite for any policy related to urban agriculture is the recognition of the value, the benefits and the resulting needs of urban agriculture by political leaders and heads of administration. Therefore it is necessary to raise their awareness on the issue, and to provide them with adequate information. It is also useful to demonstrate the positive aspects of urban agriculture with some local examples. Publicising the issue through opinion-makers and leaders such as the media is another strategy. Urban producers themselves should also be mobilised to participate, to enhance political pressure and to be involved in strategy and action planning.

**Capacity building** among local actors for developing participatory processes of diagnosis, problem identification, implementation of solutions according to previously established priorities, conflict mediation and negotiation, policy design and joint implementation of actions, systematisation, monitoring, and control of municipal policy changes.

**Building trust and cooperation** among the main actors (building commitment). Permanent and transparent information flows among the different stakeholders is crucial in this respect, as is communication on agreements made, implementation of these and results. Commitments among different actors can be formalised by means of an inter-actor agreement or any other formal arrangement for promoting transparency and institutionalisation of the process. To develop the AGRUPAR Program (Agricultura Urbana Participativa) in Quito (Ecuador), the local government, several NGOs, UMP-LAC/UN-HABITAT, and community representatives signed an Inter-Actor Agreement for carrying out a participatory diagnosis and for developing an action plan on UA.

**Policy making as well as joint action planning and implementation.** Efforts to establish policies before initiating action planning/implementation often result in policies that do not work due to lack of political will, lack of resources or severe distortions during translation into actions later on in the process. On the other hand, actions that are not translated into adequate guiding/facilitating policies tend to stay rather localised with few or less sustained impacts on the livelihoods of larger segments of the population. Policies should relate to current UA activities and farming systems as well as new activities identified in a multi-stakeholder planning process. Review and adaptation of existing legal frameworks (regulations on health, land use, housing). A review and analysis of the policy and legislative framework in Zimbabwe (Makonese and Mushamba, 2005) for example identified that there is no written government policy statement specifically addressing UA in Zimbabwe. A legislative framework for UA does exist but scattered in national legislation and municipal by-laws. The study thus recommends that the Government of Zimbabwe promulgates a clear statement and law on UA so that actors in the field can be guided accordingly and programmes can be implemented in the framework of the policy.

### **Diagnosis, assessment and stakeholder inventory**

Diagnosis and assessment often take the form of situational analysis, diagnosis or baseline studies and are concerned with describing, understanding and analysing:

- a. the local socio-economic, institutional and legal context in which UA takes place (characteristics of the city, legal and planning framework related to UA, stakeholders involved)
- b. the presence and location of urban agriculture in and around the city
- c. the variation in UA farming types (horticulture, forestry, livestock or mixed systems) and activities (recycling, production, processing, marketing), and their functions or impacts
- d. an inventory of (probable) key issues to be addressed including the specific problems encountered, development potentials of UA in relation to poverty alleviation, environmental management or social integration, and changes that might affect urban agriculture in the future – for example in relation to land use pressure, transport network development, and guiding the formulation of potential interventions for action.

Early implementation of initial actions (such as pilot projects, new techniques) at local level and good communication of successes. Actions that produce tangible results help to reinforce the commitment and participation of those involved and inform public policymaking. It is useful to develop, from the outset of the process, pilot projects or actions that produce outputs or have an impact in the short term, which create a positive environment for more complex and long-term processes.

Resource mobilisation through incorporation of priority actions into the operational plans and budgets of the various participating organisations and institutions. For example, the inclusion of UA in the municipal budget was an essential component in the promotion of urban agricultural activities in Rosario (Argentina), where the City Council guarantees resources for promotion, training, and marketing activities (Cabannes, et al., 2003).

Creation of joint monitoring and evaluation mechanisms to provide a flow of systematic feedback to all stakeholders involved. It is important to monitor results and impacts of the MSP not only as a mechanism to evaluate the effectiveness of the strategies applied (and adapt it accordingly if needed), but also to be able to communicate successful efforts to a wider public and thereby create opportunities for further change. *Source: Dubbeling M. and H. de Zeeuw, RUAF's approach to multi-stakeholder processes for action planning and policy design (MPAP) on urban agriculture: concepts and process. Session Handout RUAF Start-up workshop April 2005. Leusden, The Netherlands.*

### **Identification and mapping of urban agriculture and vacant land areas**

Identification, mapping and analysis of (potentially) productive land areas in the context of UA and farming systems will provide important data such as areas of land already under cultivation, the area of vacant land that potentially can be used for UA, and the importance of specific types of UA systems. It will also lay a basis for further definition of ways and means to include UA into municipal physical planning policies and practices that increase the access of the urban poor to available and suitable space for food production.

In order for vacant areas to become urban productive spaces, reliable and up-to-date information is necessary on aspects such as ownership, soil quality, contamination and characteristics, accessibility and land use regulations. Such information facilitates decision-making on the type of land best suited for the purpose, and how and for how long it can be designated to urban agriculture.

Based on the diagnosis, assessment and stakeholder inventory, a study report or 'policy narrative' could be elaborated. This document can serve as a good instrument to brief the larger group of stakeholders and to advance the planning process with them. The policy narrative can include:

1. Presentation of the key data regarding urban agriculture in the city (presence, types and locations),
2. Important constraints encountered by urban farmers and other actors,
3. Expected potentials of urban agriculture for various policy goals,
4. The expected negative consequences of non-intervention/continuation of the present policies, and
5. Draft proposals/ outline for set up of an urban agriculture programme in the city.

Consultation and creation of a broader institutional framework and commitment This phase aims at wider sharing of the findings of the diagnosis and assessment, strengthening and broadening involvement of the different stakeholders, formalising and approving new commitments to the process (e.g., by signing a new inter-actor agreement defining more specific tasks, responsibilities of different stakeholders and funding mechanisms) and setting up a structure(s) or platform(s) that will guide and coordinate future action planning, implementation, resource mobilisation and institutionalisation.

This step could be developed through:

- 1) **Meetings/workshops or focused consultations** with the direct and indirect stakeholders to:
  - a. Discuss in-depth the most important problems/issues identified and to explore alternative solutions and intervention strategies
  - b. Discuss their possible roles and identify available human and financial resources to support development of an UA programme and check/strengthen their initial commitments.
  - c. Discuss the organisational set up of the intended UA programme.

The workshop/meetings will eventually result in initial commitments of the institutions and organisations to cooperate in the preparation and implementation such a programme.

- 2) The constitution of a **multi-stakeholder structure/platform or forum** to give continuity to and promote the empowerment of all the stakeholders in the MSP. The objectives and tasks of such multi-stakeholder forums could include:
  - a. Bridging the communication gap between direct stakeholders and the institutional actors in urban agriculture and functioning as a more permanent platform for information exchange and dialogue,
    - Coordinating the planning, implementation and monitoring of a concerted city agenda on UA, including activities related to policy analysis, lobbying and formulation
    - Stimulating the institutionalisation of such activities.

The forum should preferably operate with a formal status and institutional commitment.

The importance of local ownership and member contributions to the functioning of the multi-stakeholder forum and implementation of activities should be stressed. In addition external resources may be mobilised by involving donor agencies in the forum.

One of the first activities of the forum can be to agree on a City Strategic Agenda on UA (identifying policy objectives and including agreements on the key issues in UA that the city wants to work on). The strategic agenda includes preliminary strategies and an assessment of their likely impacts on living conditions and urban development, together with an examination of institutional and managerial implications. In most cases the strategies proposed are not alternatives, but a variety of overlapping and complementary strategy components.

These strategy components, with the associated implementation instruments, will form the basis for elaboration of detailed action plans at a later stage.

### **Strategy and action planning and implementation**

On the basis of the diagnosis and assessment and further consultations, strategies and actions will be defined as part of **an action plan** that identifies and operationalises solutions (action/activities) to meet local needs and identified key issues.

Strategies and actions forming part of an action plan can include:

- pilot or **demonstration projects**,
- **capacity building** activities,
- further **research** or studies,
- **review and adaptation of municipal policies**, legal and normative tools,
- development of **new structures of financial management and allocation of resources** (setting up of rotating credit funds, channelling public subsidies), and
- setting up of new **institutional structures** that promote and guarantee community participation.

For example, action plans developed by various cities have included the following:

- Promoting safe re-use of urban organic wastes and wastewater in agriculture by establishing quality criteria for compost and wastewater used for irrigation, establishment of low cost facilities for sorting of organic wastes and production of compost, animal feed or biogas, implementation of pilot projects with decentralised collection and treatment of household wastewater for re-use in local agricultural production, farmer education regarding the health risks associated with re-use of urban wastes and ways to mitigate those risks (proper crop choice, selection of irrigation methods - Accra-Ghana, Hyderabad-India,

Dakar-Senegal);

- Enhancing support to processes of technological innovation in urban agriculture by improving the coordination between research institutes, agricultural extension agencies, NGOs and groups of urban farmers, improving the access of urban farmers and micro-entrepreneurs to credit programmes, and strengthening organisations of urban producers (Rosario-Argentina; Beijing-China; Gabarone-Botswana);

Promoting ecological farming practices through farmer training and local experimentation with ecological farming methods, providing licences and incentives (eg. tax reduction) to micro-enterprises that produce and supply ecologically friendly inputs (compost, bio-pesticides, quality seeds - Havana- Cuba),

- Facilitating local marketing of fresh urban-produced food by authorising local farmer markets, food box schemes and other forms of direct selling of fresh agricultural produce to local consumers and creation of the minimum infrastructure required for local farmers markets, and enhancing urban producers' access to market information (Governador Valadares-Brasil; Rosario-Argentina, Hanoi-Vietnam).

Actions can be prioritised for short-, medium- or long-term implementation, based on the expected impacts and the potential for scaling up, the problems that could arise if no action is taken, the number of expected beneficiaries, and the viability of implementation (social and political viability, availability of resources).

The implementation of the short-term actions is important to motivate and ensure continued interest of the involved stakeholders (by looking for short-term and concrete results). It also provides the space for learning by doing, and thereby provides valuable information for policy formulation and design of longer term projects. Therefore, it is useful to develop, right from the start of the process, pilot projects or actions that produce outputs or have an impact in the short term, which then create a positive environment for more complex and long-term processes.

It is important that the action plan is officially endorsed by local government. Funding for implementing these actions can be sought through local or (inter)national resources.

#### **Follow up and consolidation**

Alongside implementation, policy analysis, lobbying and formulation should ensure the sustainability and consolidation of the UA programme beyond the period of a given political administration and facilitate a change in the programme's scale: from working with a small group of stakeholders and beneficiaries to working with larger groups; from working in one or a few neighbourhoods to working in many; from working in one city or municipality to working in several cities.

As stated earlier, efforts to establish policies before initiating action planning/implementation often end up with policies that do not work due to lack of political will or lack of resources. On the other hand, actions that are not translated into adequate guiding/facilitating policies tend to stay rather localised with few or less sustained impacts on the livelihoods of larger segments of the population.

Review and adaptation of existing municipal by-laws, norms and regulations help to remove unnecessary restrictions on UA and to develop specific regulations and norms for legal use of various types of urban land for UA. Institutionalisation of UA into national and municipal policies and programmes is central, and can take shape through:

- Inclusion of UA in national, city or neighbourhood strategic and development plans (the normative or planning framework). The inclusion of UA into strategic development plans would give UA a much more permanent and firmer basis (see also box 2.6 on Governador Valadares). It would also create support for integration of UA into other sectoral policies on poverty alleviation and social inclusion, health and nutrition, environmental and waste management and economic development. (see case of Vancouver).
- Integrating UA in (sub) municipal land use plans. Land use plans should exist not only at the overall municipal level, but also at lower levels as in neighbourhood improvement plans, subdivision plans, district development and urban renewal plans. They should include elements of micro-planning to delineate spaces that could potentially be used for UA with clear rules concerning use, density, etc, taking into account mixed use of plots (eg., residential and agricultural). Also multi-functional land use (combinations with recreation, water management, landscape management, maintenance of buffer zones) could be promoted (see further also Chapter 3 of this book).
- Review of current municipal policies and elaboration of a facilitating (and regulating) legal framework related to UA. By-laws, ordinances and regulations for UA could enable access to land through granting of temporary user rights, defining land taxation and tax exemptions, promoting safe use of wastewater for agricultural purposes and ecological farming and facilitating access to credit and marketing.
- Creation of an appropriate institutional framework. The roles and functions of urban agriculture within local policies are manifold. In order to develop UA's full potential to contribute to sustainable urban development, it is important that this potential is also recognised by the urban administration. This recognition should not only be reflected in the relevant political programmes and plans, but should also result in the creation of a municipal UA department or programme that incorporates institutional and municipal budgets.