Chapter 3
CASE STUDIES

Introduction

In Chapter 2 the principles, process and methodology for multi-stakeholder policy formulation and action planning (MPAP) on urban agriculture were discussed. This chapter presents seven case studies that illustrate how the MPAP process has evolved in selected RUAF partner cities, the local stakeholders involved, challenges encountered and results obtained. These cases highlight how the general approach developed a specific form and dynamic under the influence of the local conditions and interactions between participating organizations in each city.

Starting in 2005, the RUAF Foundation has supported an MPAP process on urban agriculture in 20 cities in 17 countries (Fig. 3.1). In 18 of the 20 cities a multi-stakeholder forum (MSF) on urban agriculture has been established, involving 272 organizations (an average of 15 organizations per MSF) which clearly shows the interest of the various stakeholders in these cities to actively contribute to the development of safe and sustainable urban agriculture in their city. In all cities a City Strategic Agenda on urban agriculture has been published, and in most cases the Agenda has been formally approved by the City Council or a Council Commission and is being integrated within formal policies, bye-laws and regulations. Urban agriculture is now integrated within the City Master or Development plan in nine cities and
in six cities this process is ongoing. In 13 cities an (urban) agriculture department or unit is coordinating the implementation of the City Strategic Agenda while in five cities urban agriculture is coordinated by another department (e.g. Parks or Social Development).

The participatory evaluations held in the RUAF partner cities at the end of the CFF programme (December 2008) indicate that, as a consequence of the MPAP process and the development of a City Strategic Agenda on urban agriculture, the communication and cooperation between local authorities, civil society organizations and other local stakeholders in urban agriculture have improved, the participation of urban farmer groups in planning and decision-making processes has been strengthened and the services provided to urban producers have improved in most of the RUAF partner cities.

Gradual institutionalization of urban agriculture in Accra, Ghana

Theophilus Otchere-Larbi and Olufunke Cofie

‘There is need to support and regulate the practice of urban and peri-urban agriculture to make it more efficient and sustainable to contribute to urban food security and poverty reduction in our cities.’

(Hon. Clement Eledi, Deputy Minister of Food and Agriculture in Ghana, on the occasion of a National Policy Seminar at the M-Plaza Hotel, Accra, 2006).

Introduction

Accra is the capital city of Ghana and is the country’s most urbanized city. Most industry, manufacturing, commerce, business, cultural, educational, political and administrative functions are based in the conurbation Accra-Tema, attracting migrants from all over the country and from neighbouring countries. This has contributed a great deal to the urbanization of Accra.

The predominant primary economic activity, which is the smallest economic sector of Accra, is marine fishing and urban agriculture. Urban farming in Accra is typically carried out along water bodies and drains and on backyards, producing varieties of vegetables including okra, garden eggs, tomatoes, carrots, cucumber, cabbage, cauliflower and lettuce and small-livestock-keeping (like poultry, grass-cutter, small ruminants) and aquaculture.

The two major types of urban agriculture in Accra are backyard gardening, in and around homes, and open-space farming, which in Accra has been estimated to take place on about 700 ha (Obuobie et al., 2006); the majority under maize, some 50 ha under vegetables
(rain-fed) and 250 ha under mixed cereal-vegetable systems, of which some 100 ha are irrigated vegetable production in the dry season. It was estimated in the exploratory survey that was implemented by IWMI/RUAF (Cofie et al., 2005) that about 1,000 farmers were involved in rain-fed and irrigated urban agriculture on plot sizes that range between 0.01–0.02 ha per farmer, but which reach 20 ha in the peri-urban areas. There are different tenure arrangements for the use of the urban open spaces. In general, no farmer owns the land that is cultivated and very few of them pay a fee. Most of the cultivated open spaces belong to public or private institutions. The farmers use various sources of water. Most of the open-space farmers use water from drains, streams/rivers, and if available, from pipe-borne water and hand-dug wells.

In spite of its benefits, such as employment and access to food in Accra, urban and peri-urban agriculture is faced with challenges. The increasing land value in Accra results in a changing use of land from agriculture to more commercial and economic purposes. Next to limited access to land, urban producers are also faced with limited access to water resources, contamination of crops from poor quality water and improper use of pesticides, lack of an institutional framework and the lack of farmer organization to facilitate advocacy and lobbying. Urban and peri-urban agriculture and related issues in Accra fall under the jurisdiction of different levels and types of authorities. Smallholder agriculture development is highlighted in almost all major policies, programmes and projects such as the Food and Agriculture Sector Development Policy, the Ghana Poverty Reduction Strategy, and the Decentralization Policy, which provide opportunities for better integration of urban agriculture within the overall city’s development policies and programmes.

The MPAP process

RUAF started its activities on urban agriculture in Accra in 2000 with the IWMI office in Ghana as its main partner. In 2005, several key institutions were brought together to start a multi-stakeholder planning process on urban agriculture in a MPAP team. A first step was to create the needed local
ownership, commitment and inclusive consensus. Regular consultations were made with the local partners through office visits, telephone calls and meetings, which required continued engagement and follow-ups to explain and discuss the process and to arouse interest. The initial focus was on lead stakeholders, including the Accra Metropolitan Food and Agriculture Department, the Planning and Coordinating Unit of the Accra Metropolitan Assembly (AMA), the Accra Metropolitan Health Department, the Department of Geography and Resource Development of the University of Ghana and the Science and Technology Policy Research Institute (STEPRI). Other stakeholders were identified and engaged as the process gained momentum. A major challenge during this phase was finding ways and means to identify and involve representatives of vulnerable and marginalized groups who were typically not well organized in order to be truly ‘inclusive’. Beyond having a representative from one vegetable farmers’ group, and another livestock farmer, other groups’ representatives were not included in the initial steps of the process.

By the end of 2005 a ‘Multi-stakeholder Agreement’ was signed with a core team of nine stakeholder institutions. This agreement highlighted what the various partner institutions agreed to do together, what resources they wished to contribute and how urban agriculture could be brought into the development agenda. In order to assure that the representatives attended the meetings regularly, early notices were given and reminders sent to members a few days prior to the meeting. Meeting venues were also rotated among institutions to ensure active participation and interest.

The members of the core team conducted the situation analysis, which involved the gathering of key data, gaining an understanding of the policy and institutional context, and the identification

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**Box 3.1 Decentralization**

The Multi-stakeholder Policy formulation and Action Planning (MPAP) approach is well adapted to the decentralization and multi-stakeholder processes in local governance in Ghana. The decentralized planning in Ghana involves a change from the top-down approach of planning to a bottom-up approach under which the jurisdiction of local development planning is assigned to the Metropolitan Municipal and District Assemblies (MMDAs) and, requiring participatory approaches with the identification of the community’s problems, forming the basis of prioritization of development efforts. Political decentralization started in Ghana in 1988 when 110 MMDAs were established, which was further expanded to 138 in 1994 with the establishment of the sub-metropolitan district councils, urban, zonal and town councils and unit committees. The MMDAs have further been increased to 170 since 2008, including 6 Metropolitan, 40 Municipal and 125 District Assemblies. The major intention to decentralize has been to share power with the districts as a means to advance participatory democracy and collective decision-making, and the restructuring of power relations between the centre and the MMDAs, in addition to other societal stake-holding sectors. In line with this power sharing initiative, the National Development Planning Commission (NDPC) introduced a new decentralized planning system in 1994. The main objective was to establish efficient political, planning and administrative institutions at the MMDA level, which would enjoy popular support from local communities, and to facilitate the mobilization of support and resources for district development.
of problems and development potentials in urban agriculture and the interventions required. Lack of data and unreliability of data posed challenges in this phase of the process. These challenges, in certain cases, were solved through primary data collection. In other cases, projections and adjustments were made using available data. For example, recent satellite maps of Accra were not available and there was a lack of data on existing farmer groups. These situations meant that more time was required to undertake primary data collection and analysis. After data collection, a synthesis document, containing the key issues on urban agriculture, was used to inform a larger group of stakeholders and to advance the planning process with the stakeholders (Cofie et al., 2005).

A three-day multi-stakeholder forum for action planning was held in November 2005. Up to 55 participants were at the forum and included both technical staff and directors of public institutions, farmer group representatives, NGOs and political heads of the AMA and adjoining

**Box 3.2 The Accra Working Group on Urban and Peri-urban Agriculture (AWGUPA)**

Membership in 2009:
- Decentralized departments of the **Accra Metropolitan Assembly**: Department of Food and Agriculture, AMA Planning and Coordination Unit, Public Health Department, and Town and Country Planning Department, Parks and Gardens Department, Department of Cooperatives;
- **University of Ghana**: College of Agriculture and Consumer Sciences, Department of Geography and Resource Development;
- **Council for Scientific & Industrial Research**: Science and Technology Policy Research Institute (STetri); Water Research Institute (WRI);
- IWMI-Ghana;
- Environmental Protection Agency;
- Directorate of Agricultural Extension Services;
- Enterprise Works, Ghana (NGO);
- General Agriculture Workers Union;
- Dzorwulu Vegetable Production Society;
- La Livestock Farmers Association;
- Ecumenical Association for Sustainable Agriculture and Rural Development (NGO);
- Heifer International Ghana (NGO);
- ActionAid, Ghana (NGO).
districts. This large-scale consultation aimed to mobilize a wide range of stakeholders and deepen their knowledge and understanding of the importance of urban agriculture in urban economic development. In addition, the forum sought to agree on common problems and potentials for urban agriculture, and to subsequently identify priority issues for intervention and mechanisms for addressing them. The Forum was further used to draw legitimacy from the expressed collective will of the participating stakeholders and individuals to develop a City Strategic Agenda on urban agriculture in Accra.

At this forum the composition of the core MPAP team was expanded into a 15-member Working Group; the Accra Working Group on Urban and Peri-urban Agriculture (AWGUPA). Its mandate was to further elaborate a detailed Action Plan and to operationalize the agreements reached at the multi-stakeholder forum, and to develop the identified strategies further (AWGUPA, 2006). AWGUPA prioritized eight policy and technical issues for intervention in a short- to medium-term (3–5 years) vision on the desired development in Accra: the City Strategic Action plan on Urban and Peri-urban Agriculture.

The Ministry of Food and Agriculture (MoFA) chairs and facilitates the AWGUPA. The progress of institutionalization is monitored through outcome journals and capacity gaps are addressed in capacity building events. Other events of ‘reaching up’ (upscaling) and ‘reaching out’ (outscaling) included policy seminars and study visits. IWMI/ RUAF continued to support the process, as a member of AWGUPA and to further mainstream the process.

Following the first multi-stakeholder forum a policy seminar was held in December 2005 during which people in key policy making positions discussed and endorsed a Statement of Consensus. In support of this statement, the Deputy Minister of Food and Agriculture, pronounced the institution of an award for the ‘National Best Urban and Peri-urban Farmer’ during the annual National Farmers’ day celebration which started in full operation in 2006.

**City Strategic Agenda**

The City Strategic Agenda (CSA) on urban agriculture was developed by AWGUPA as mandated by the forum. The following main issues were identified to guide the work in Accra in the forthcoming years:

- policy and legislative support for urban agriculture;
- education and public awareness on urban agriculture and urban food safety;
- standards and quality assurance of products;
- the promotion of urban agriculture (micro-)enterprises;
- capacity building of farmers and farmer associations: the formalization of farmer associations;
- development of collaborative projects and programmes among key actors in Accra;
- improvement in post-harvest handling and in marketing;
- improved access to land (temporal arrangements).
Yearly work plans are being agreed upon to operationalize this agenda. The CSA is also used to source for funding or to integrate priority issues into specific institutional development agendas (Adzorkor Doku, 2008).

Under the CSA, AWGUPA implemented a number of activities. A first major activity was under the (RUAF co-funded) project ‘Promoting Public Education and Policy Support for Urban and Peri-Urban Agriculture in Accra’, which aimed to improve public awareness and perception of urban agriculture and stimulate participatory city governance. Next to this project, farmers have been provided with extension information on good agricultural practices, on improved post-harvest handling strategies, on environmental sanitation and personal hygiene.

Based on a review of urban agriculture-related policies in other cities, a draft guideline for strengthening and supporting urban agriculture in Accra was produced. Finally, the AWGUPA facilitated stakeholder involvement in the review of the bye-laws related to urban agriculture which have been presented to the AMA for adoption.

**Results and outcomes**

The AWGUPA has been officially recognized by the Ministry of Food and Agriculture and the Accra Metropolitan Assembly.

Awareness on urban agriculture has been created in Accra Metropolitan Assembly. The Assembly adopted a motion to develop an institutional policy on urban agriculture for metropolitan Accra.

The Ministry of Food and Agriculture, stimulated by the experiences gained in the multiple stakeholder planning process in Accra, has integrated urban and peri-urban agriculture as a component in the Food and Agriculture Sub-sector Development Policy II (FASDEP), and is now expecting the city governments (metro, districts and municipalities) to develop specific...
programmes to support urban agriculture. Also, the Ministry of Food and Agriculture has approved and instituted an award system for the Best National Urban Farmer.

Some NGOs and worker unions (e.g. Enterprise Works, the Ghana Agricultural Workers Union) have also taken up urban agriculture as an issue in their extension and training programmes.

Some university departments (e.g. the Department of Geography and Resource Development and Department of Agricultural Economics of the University of Ghana) have included urban agriculture in their curricula as from 2007.

The Environmental Protection Agency now considers urban agriculture in its hitherto strict regulatory processes and supports the realization of the City Strategic Agenda on urban agriculture.

Lessons learned

The MPAP process is unique in each city context and involves a lot of learning while doing. It therefore requires adequate monitoring, documenting, reviewing, and disseminating experiences to a wide range of stakeholders. This is very demanding and requires expertise in facilitation. The selection and application of different tools and methods to promote this joint learning is crucial. Methods and tools used under the process in Accra included the Internet, a bibliographic database, flyers, newsletters, posters, workshop reports, project updates, packaging of information into CD-ROMs and videos. It was observed that not all stakeholders have adequate access to the Internet. This was partially circumvented through distribution of hard copies of information materials through postal and personal deliveries, as well as during meetings.

The full participation and cooperation of stakeholders is required (Accra, Ghana)

The MPAP requires time. The process depends on building consensus through broader consultations. Achieving the expected changes in municipal and institutional policies, in a short period of time, has appeared to be quite a challenge in Accra. The process is still ongoing and requires regular consultations (through office visits, telephone calls and reminders, for example) and combination of both formal and informal relations to obtain the full cooperation of stakeholders and to establish relations beyond technical issues, such as inviting stakeholders to a variety of events. These occasions were also used to show appreciation to stakeholders and to celebrate the successes of the project.
In addition, cultural standards in dealing with the elderly and hierarchies tend to hinder open and frank discussions. This requires active facilitation.

Beyond technical knowledge on the subject itself, the group members’ knowledge on working as a team, participatory processes and principles and conflict management, needed to be developed. Members of AWGUPA also required skills in management, leadership styles and project management, and in policy formulation, advocacy and lobbying for policy change, as well as on understanding the policy-influencing process itself (of which they were a part). In addition to the MPAP framework, further tailor-made training on these issues has been organized.

The process is dependent on both individual and institutional interests and commitment. It is difficult to differentiate the level of participation as arising from individual versus institutional interest and commitment. Motivation is key for the members who are overburdened with other institutional responsibilities. Some persons expect monetary benefits, especially when they are not yet convinced of the benefit of the process to their own work. Also, members are more committed if they are assessed on their performance in the MPAP as part of their institutional performance assessment criteria.

The implementation of the MPAP requires an anchor institution to spearhead the process, and a facilitator within that institution to get and keep things moving. In Accra, despite the inputs provided by a number of institutions, no institute took up this function until 2008 when IWMI handed the facilitative role to the AMA-MoFA. One reason is that members of AWGUPA were afraid that other institutional assignments would not allow them to fully participate in the process, since representation in AWGUPA was no official task for their own institution, and thus did not relieve them of other functions.

The MPAP approach can be used to affect a paradigm shift in the thinking and planning of agricultural development in the city. However, to ensure that the participatory decision-making process and policy formulation is widely understood, accepted and integrated, there is a need for steady and progressive institutional changes and adaptations, which modify attitudes, institutional structures and organizational behaviour.

References
Networking for policy change in Beijing, China

Cai Jianming

Introduction

Beijing lies in the northern tip of the North China Plain and has a moderate continental climate with average annual rainfall of about 500 mm. It covers an area of 16,808 km² and has a permanent population of 16.95 million in 2008 (Beijing Statistics Yearbook 2009). Metropolitan Beijing has experienced rapid economic growth during 2005–2008 averaging 15.05 per cent per annum (Beijing Statistical Yearbook 2006, 2009). The rapid urban growth (2.82 per cent annually during 2005–2008) has brought along some new challenges: a sharply increasing disparity between urban and rural incomes (now 3:1), a vast inflow of migrants (it is estimated that there are some 4 million migrants in addition to the registered population), rapid loss of farmland and a quick deterioration of the urban environment. Currently, Beijing faces a shortage of arable land and a shortage of water.

To help cope with these problems and to make the city more liveable and sustainable, the Beijing government – in cooperation with other stakeholders – is actively promoting the development of agriculture in the peri-urban zones of Beijing as part of the national ‘Reconstruction of the Countryside’ policy.

This takes place along two major lines: modernization of agriculture and the development of multi-functional agriculture. The modernization policy seeks to promote the intensification of agricultural production (using greenhouses, irrigation and improved technology) and diversification from grains to vegetables, herbs, animal products, flowers and horticulture.
Various types of capital-intensive agriculture are being stimulated.

The multi-functionality policy seeks to enhance the multiple roles of urban and peri-urban agriculture, by combining agricultural production with other functions of urban- and peri-urban agriculture such as social inclusion of migrant farmers by employment creation in peri-urban horticulture, ecological improvement through stimulation of agro-forestry (wind breaks, dust and CO₂ capture, land and water management), and local economic development by exploring agro-tourism and other services to urban citizens by the peri-urban villages.

A key element in the city’s efforts to develop peri-urban agriculture is the ‘2-2-1 Action Programme on Urban Agriculture’, a comprehensive programme that was initiated by the Beijing municipal government in April 2004 (http://www.agri.ac.cn/JingJiaoDT/Zonghe/200501/1552.html). Based on this programme, a number of specific policies were issued by the municipal and district governments of Beijing, including a zoning plan indicating the desired type(s) of agricultural activities in each of the peri-urban regions, regulations to protect ecologically sensitive areas, support to capital-intensive agriculture, provision of credit to farmers, encouragement of the development of cooperatives, and improved support to farmers (through, for example, extension, improved seeds, branding, marketing and certification).

Due to the implementation of these policies, Beijing has experienced a fast growth and rapid change in its urban agriculture development. Farmers’ income has more than doubled (2.67 times) in the last 10 years from 1998 to 2008 (Beijing Statistical Yearbook 2009). The RUAF supported Multi-stakeholder Action Planning and Policy influencing process played a big role in the above described process, which involves a wide spectrum of stakeholders. RUAF supported this process in four districts of Beijing, but with strong linkages with – and effects on – the metropolitan level.
**Box 3.3 Agro-tourism**

In the late 1990s, some local governments realized the potential of traditional harvest festivals, such as the Watermelon Festival in Daxing and Peach Festival in Pinggu, to attract many visitors and stimulate agro-tourism. After 2002, with strong support from governments, local farmers were supported more intensively to develop (profitable) recreational opportunities for urban citizens such as fishing, sightseeing, ‘pick your own fruits’, meal preparation and lodging facilities. By 2007, some 1,032 agro-tourism parks and 630 agro-tourism villages had been developed, of which 65 were high-level resorts. Altogether, these parks and resorts received over 26 million guests in 2007, and earned a total gross income of RMB 1.8 billion (investigation data by Beijing Agro-tourism Association in 2008). The prospects for further development of recreational agriculture in Beijing are promising since the income and leisure time of the urban population is growing alongside an interest in outdoor recreation and the environment.

**The MPAP process**

As indicated above, in the political context of China it is not straightforward to bring various stakeholders together in one platform and to jointly develop a City Strategic Agenda related to peri-urban agriculture, as was taking place in other cities.

After a stakeholder analysis, the Institute of Geographical Sciences & Natural Resources Research (IGSNRR), which is part of the Chinese Academy of Sciences, organized a working group on urban agriculture in 2005 that involved, next to IGSNRR, the following key institutes: Beijing Rural Economic Research Centre, which is a think tank to the municipal agricultural commission, Beijing Agriculture College, China Agriculture University, the Agricultural Promotion (extension) departments of Huairou and Chaoyang Districts, the Beijing Green Vegetable and Fruit Cooperative, and town officials from Chaoyang and Shunyi districts responsible for the improvement of livelihood of migrants farmers in the area.

The working group conducted a series of surveys and analysis to develop potential development strategies for urban agriculture in Beijing, and assisted different levels of government (municipal, district, and village level) in identifying important issues, formulating policy suggestions, assisting in zonification and the development of concrete projects with urban producers’ groups.

Due to the existing political context and the need to show the potentials of urban agriculture in practice in order to be able to convince high-level policy makers, the emphasis was put on practical pilots and ‘learning by doing’ in four districts of Beijing which were chosen for their differences in location and physio-geographic condition.

In Beizhai, which is part of the Huairou District of Beijing, farmer-based agro-ecotourism has been supported, with the aim to improve the public’s awareness and perception of urban agriculture and thereby further enhance its development. A comprehensive master plan...
for Beizhai village has been developed in a participatory manner, based on the MPAP process, which included various stakeholders, like local villagers, village committees, the township government, municipal authorities, academic institutions and tourism organizations.

In addition, attention has been given to the situation of migrant farmers in Beijing. Three villages located in the Chaoyang and Shunyi Districts of Beijing were selected as study sites. The main constraints facing migrant farmers were identified and policy proposals were developed.

Farmer-led cooperative development was addressed by RUAF in supporting the Huairou Green Vegetable and Fruit Cooperative. This cooperative started in 2004 and now consists of 1,108 household members distributed over nine townships. RUAF assisted the Cooperative to strengthen its internal structure, to diversify into mushroom production, introduce innovative water-saving techniques and to develop market chains for organic products.

In Shunyi, IGSNRR/China and a local NGO, Shunyi Sannong Association, established a platform for policy makers, farmers and researchers, which supports local farmers and informs researchers and policy makers and the wider public about current and future issues related to peri-urban agriculture.

In addition, the working group assisted in the development of a series of standard quality criteria for the classification of agro-tourism parks and villages and the creation of demonstration zones on urban agriculture next to the main highways of Beijing.

Next to the working group, a Beijing level informal network (the multi-stakeholder forum (MSF)) was also initiated, bringing together different actors involved in peri-urban agricultural development, such as farmers, entrepreneurs, farm-cooperatives, universities, research institutes and government departments. The MSF, other than in the other RUAF supported cities, rarely met in plenary and did not jointly develop a City Strategic Agenda on urban agriculture. Rather, the partners in the RUAF working group kept the participating institutions informed and visited them regularly. In this way the exchange between the stakeholders was realized and shared views were developed even though these were not formally expressed in larger meetings.

In this way the informal MSF network was very important in facilitating information exchange and dialogue between the various stakeholders and influencing policy development.
The RUAF working group, together with the MSF network partners, supported the enhancement and integration of urban agriculture (especially its multi-functional form) in the peri-urban planning of Beijing and in the national 5 year plan. The informal RUAF platform was able to make suggestions for policies and to persuade the Beijing government and several district governments, such as in Huairou, Chaoyang and Shunyi districts, to support peri-urban multi-functional agriculture and to adopt a number of basic principles for the development of peri-urban agriculture, as is reflected in the new policy of Beijing regarding the development of its peri-urban areas. These include the following directives:

- The development of urban agriculture in each district or county should comply with the requirements of the Beijing municipal master plan and related zonification (indicating the preferred types of agriculture according to the ecological characteristics of each region).
- Agricultural production is more closely linked to (regional, national and international) market demand and diversification and modernization of production systems.
- Resources, particularly land and water, are more efficiently used and better managed.
- Agricultural production is integrated with ecological and social services and multi-functional urban agriculture, particularly agro-tourism, is stimulated.
- A major role is given to farmer cooperatives in the development of peri-urban agriculture in Beijing.
- Cooperation (between departments; public-private; between different levels) is stimulated and diversity allowed at different levels (village, district and city).

**Results and outcomes**

Policy awareness on the importance of – and need for support to – peri-urban agriculture has been enhanced.

The ‘2-2-1’ programme that was established for promoting urban agricultural development in Beijing, and which was supported by IGSNRR/China in design and implementation, has been institutionalized as a regular department called the Beijing New Countryside Development Office.

The investment of the Beijing Government in peri-urban agriculture has substantially increased over the past four years (2.26 times from 2005 to 2008, Beijing Statistical Yearbook 2009). RUAF activities in Beijing have contributed to the introduction and further operationalization of the new national ‘New Countryside’ policy. Since the municipalities (either on provincial level or district level) are the main driving forces for planning and investment in the peri-urban areas, the RUAF focus on peri-urban producers fitted in well, and the application of the MPAP approach introduced a form of coordinated inter-institutional planning that is quite rare in China. RUAF introduced and further stimulated new development models, like small farmer – and community-based – agro-tourism (in contrast to the very large-scale enterprise-based agro-parks) and the stimulation of farmer-led cooperatives for intensive market-oriented
horticulture and/or agro-tourism (as an alternative to the former state-led cooperatives). RUAF activities have also stimulated the development of a new zoning plan for peri-urban Beijing, including various types of urban agriculture, and contributions to the further development of the ‘new countryside reconstruction’ policies of the Beijing Agricultural Bureau.

The Huairou Green Vegetable and Fruit Cooperative is now relatively successful in terms of its income (as compared to similar cooperatives). RUAF encouraged the cooperative to orient their production more to market demand and to diversify its activities. Huairou district government has been convinced that mushrooms can be a promising product in the Beijing market and in 2008 designated mushrooms as one of the future pillar agro-products for the district and has put a mushroom-growing stimulation policy in place.

RUAF activities also have led to more attention for the important role of migrants in food production for Beijing and the need for more social and technical support for the more than 300,000 migrants working as small-scale vegetable producers in the peri-urban areas (these migrants have no working and residence permit and thus lack access to health, education and technical support services).

A national network (the Chinese Urban Agriculture Association) was established in 2006 with the help of IGSNRR/RUAF and acts as the national platform for exchange of experiences among Chinese cities (currently over 20 large cities are participating), universities and national agencies (like the Ministry of Agriculture and Ministry of Sciences and Technologies) that are actively promoting urban and peri-urban agriculture. This network on peri-urban agriculture has been established in Beijing, enables frequent communications between urban agriculture practitioners, policy makers and researchers via personal contacts, periodic meetings and workshops. The network is expanding to other cities including Shanghai, Chengdu, Nanjing, Wuhan, Tianjin, Harbin, Zhengzhou, Lijiang and many more.
With support from the national network, a new Department of Recreational Agriculture under the Ministry of Agriculture was set up in 2007, which will be the main policy making and regulating unit regarding urban agricultural development in China, including funding support for many related projects.

Based on the experiences gained in the ‘2-2-1’ programme the Beijing Agricultural Bureau, supported by RUAF (through its regional partner IGSNRR) and the Beijing Agro-Tourism Association, drafted the Beijing Urban Agriculture Policy Guidelines, which were recently submitted for approval as a municipal bye-law (some of the contents can be reviewed from the website at http://news.sohu.com/20100127/n269858548.shtml). These guidelines contain the views of the Beijing municipal government on the comprehensive development of agriculture in the peri-urban areas of Beijing, addressing its multi-functional character.

As the 11th five-year plan is approaching its end, the RUAF-China network is now seeking to influence the 12th five-year plan (2011–2015). This five-year plan will see a much more integrated development of urban and rural areas, in which urban and peri-urban agriculture will be an important strategy.

**Lessons learned**

The MPAP proved to be a useful approach for the promotion of urban agriculture development, since it facilitates the expression of different viewpoints and opportunities by the different stakeholders and consensus building towards decision-making. Moreover, every stakeholder has the responsibility to make a contribution in this policy-influencing process by elaborating the same issues from their specific perspective, even if this collaboration may not lead to an official agreement. This process is very important in allowing experimentation in a strictly planned economy.

As a new approach in China, the MPAP basically remained informal and in most cases was restricted to a series of bilateral discussions between institutions involved in the MSF network, because this was the preferred style of operation and because it proved to be effective in reaching consensus. IGSNRR/RUAF subsequently disseminated these agreements to the larger group of stakeholders in the informal network. In this way, innovation and experimentation was made possible while staying aligned with official city planning and the city strategic vision of official city development policies.

The role of the working group was essential in bringing together active partners that adapt, facilitate and promote urban agriculture. In this sense, the cooperation between IGSNRR and the Beijing Rural Economic Research Centre as well as between universities such as China Agriculture University and Beijing Agriculture College was important for the success of RUAF-China. There is, however, a need for better process documentation and information exchange with similar processes.

The MPAP can be time-consuming and as the country is experiencing a fast growth and rapid transition, most local governments lack the patience to go through this process, and tend to
support arguments in favour of quick decisions. Changes can take place overnight, therefore practical decisions need to be made based on ‘learning by doing’ and the link to practical pilot projects is therefore paramount.

More research is needed on the impacts of urban agriculture and its development needs to be more closely monitored. This information is key for decision-making at higher levels.

The organization of urban producers (including migrants) in farmer-led agro-enterprises and cooperatives and their involvement in the MPAP process at local levels needs to be stimulated, so that these organizations can influence policy making. This voice has been relatively weak in the MPAP process in the country so far. Moreover, such organizations can play a key role in the development of sustainable multi-functional peri-urban agriculture in China.

**Selected publications**


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**Joint action planning on urban agriculture in Bulawayo, Zimbabwe**

Takawira Mubvami and Percy Toriro

‘Key stakeholders have met for the first time, who realized that urban agriculture plays a critical role in food security for the urban poor and in local economic development’ (J. J. Ndebele, Head of Town Planning and Local Development Control, Bulawayo City Council).
Introduction

Bulawayo is the second largest city in Zimbabwe with an estimated population of 2 million people. Located in the southwest of the country, Bulawayo is the hub of the Matabeleland region. The region receives relatively little rainfall. Once Zimbabwe’s industrial hub, the city has lost most of its major industries, through outright closure or relocation to the capital city, Harare. Bulawayo receives less than 800 mm of rainfall per year in the summer season (from November to March). Maintaining a sufficient water supply has always been a challenge. The city’s supply dams rarely fill up and water levels go down during the dry season, making them insufficient to meet demand.

Poverty levels in Bulawayo have increased as a result of the recent political and economic crisis, resulting in high unemployment (estimated at 80 per cent) and a high poverty level (around 60 per cent of the population is under the poverty line). Urban agriculture has become an important activity for many people in Bulawayo. Those engaged in urban agriculture seek to supplement their meagre incomes and/or to produce for their own consumption.

Since 1996 the city council has recognized the importance of urban farming and is seeking to increase the area under urban agriculture activities and the intensity of production per given area in a manner that will not harm the environment. Policy guidelines were adopted in 2000, which aim to identify suitable land and allocate it to disadvantaged households (i.e. women heading a household, elderly people without a pension and unemployed youth), to promote the productive use of (treated) wastewater and to support urban producers with proper extension services and financing. However, up to 2005, only a few activities had been implemented (other than allotting the Gum Plantation, see below). Various reasons were identified, including the lack of coordination, the fact that urban agriculture had no specific institutional home and the lack of involvement of the producers and civic society organizations in policy design and implementation. With the assistance of RUAF through its regional partner, MDP, this situation changed drastically from 2005 onwards.
The MPAP process

The MPAP process in Bulawayo is led by a core team consisting of some municipal departments (Health; Town Planning; Housing and Social Welfare), a number of NGOs (SNV; World Vision), the Environmental Management Agency (a government department), the national agricultural extension service (AGRITEX), the national Department of Physical Planning, the Zimbabwe Open University of Bulawayo, farmer representatives and Agribank. The core team, led by the Chief Town Planner of Bulawayo City Council, guided the implementation of the MPAP process, which started in April 2005 with a visit of the core team to urban agriculture sites in Bulawayo.

The first urban agriculture stakeholder forum in September 2005 was attended by over 50 representatives of various stakeholder groups, including local and central government officials, NGOs, farmers’ associations, researchers and members of the business community. The Forum agreed to guide the further development and implementation of a City Strategic Agenda on urban agriculture. It was also agreed that the forum would report to the Council committee on Town Lands and Planning, and that the forum would be chaired by a councillor from this committee.

The forum created a number of sub-committees to study the actual situation in the city regarding urban agriculture (where are the urban producers located? What are their main problems and constraints? What can be practically done to improve production?). Also, a review of the actual policy on urban agriculture was made and the reasons why it was not implemented were analysed.

Based on the situation analysis, the following priority issues were identified by the multi-stakeholder forum as the main areas for action in the City Strategic Agenda on urban agriculture:

• the identification of peri-urban land on the edge of the city for (permanent) use in urban agriculture. The land is to be demarcated into 200 m² plots for use by poor urban households;
• in relation to the above: the resuscitation of derelict boreholes in the city. Tens of boreholes were once drilled as part of a drought disaster management programme, but are now all out of order;
• the development of training materials and provision of technical assistance to the urban producers;
strengthening the organization of the producers and the management of the community garden at Gum Plantation and improvement of the infrastructure and production practices. The Gum Plantation is a municipal land area of around 450 ha that had been allotted in small plots to poor urban households in 1998, where the municipality started to provide treated wastewater for irrigation. However, the allotment was hardly organized, production methods rather rustic and one-sided and the provision of wastewater was erratic and inefficient;

- the revision of urban agriculture related bye-laws;
- provision of support to the small-scale urban producers to diversify their production and to market their produce;
- the identification of sources of funding for the implementation of the prioritized activities.

The multi-stakeholder forum created new working groups to work on each of the key issues identified related to urban agriculture development, and to make recommendations to the forum regarding actions to be included in the Bulawayo Strategic Agenda on urban agriculture.

The Bulawayo City Strategic Agenda on urban agriculture (CSAU) was accepted by the forum in 2007 (Bulawayo Core Team, 2007). The central aim of the CSAU is the development of urban agriculture that is vibrant, diversified and environmentally sustainable for subsistence and commercial purposes.

The City Strategic Agenda

The various organizations participating in the forum individually or in sub-groups developed specific projects and other actions to implement the City Strategic Agenda, including the following:

The municipal policy on urban agriculture in Bulawayo was revised and officially adopted by the Council in December 2007. Various stakeholders participated in the revision of the policy and its approval, which facilitated the involvement of these actors in the implementation of the policy.

- Municipal bye-laws related to urban agriculture have been revised and are awaiting final approval by the city council. The urban producers actively participate in the revision of the bye-laws, which enhances their acceptance by the direct stakeholders.
- The national agricultural extension organization AGRITEX, which until 2005 did not give much attention to urban agriculture, made extension staff available for training of urban producers in appropriate methods of mushroom production, horticulture and poultry keeping and continues to contribute to capacity development for urban producers. Training packages were developed in conjunction with the Khami School Leavers Training Centre in Bulawayo and the Open University of Zimbabwe differentiating between the resource-
poor urban producers (mainly operating small plots in home- and community gardens) and those who have more resources (e.g. owners of a well).

- Being members of the forum and actively involved in the multi-stakeholder planning process, various NGOs became active in Bulawayo and have started urban agriculture projects (using their own resources). For example, World Vision has drilled about 22 boreholes in the low-income residential areas, around which new allotment gardens were organized for poor urban households and SNV has played a critical role in the strengthening of farmer organization and management in the Gum Plantation by organizing training for farmer leaders and assisting in the organization of the Gum Plantation Management Committee. The Institute of Water and Sanitation Development carried out research and provided training regarding the safe reuse of treated wastewater. MDP supported the participatory design and implementation of diversification and marketing projects (new horticulture crops, herbs, mushrooms, beekeeping, and poultry).

**Results and outcomes**

An Urban Agriculture Unit within the Town Planning Section of the Engineering Department was established, creating an institutional home for urban agriculture within the municipality. The two staff of the unit play an important facilitating role and enable effective coordination between the various municipal departments as well as between municipality and other organizations involved in urban agriculture in the city (e.g. NGOs, AGRITEX, urban producer groups).

The 2000 policy has been revised. The policy now distinguishes and encourages both ‘off-plot’ (in open fields) and ‘on-plot’ agriculture (around the house) and promotes safe use of wastewater, water-efficient use of wells and water harvesting for urban agriculture (both gardening and aquaculture). Also, new bye-laws on sustainable crop cultivation and livestock practices have been defined whereby earlier prohibitive measures, where possible, were replaced by measures that allow urban agriculture under the condition of sustainable resource use. For example, legislation used to prohibit planting within 30 m of a stream in order to protect watercourses from pollution by agrochemicals and prevent soil erosion. Now, cultivation of crops within 30 m of streams is allowed under the condition that ecological production practices and adequate soil and water management practices are applied. Also, the regulations regarding the keeping of small livestock within the city have been revised, removing unnecessary restrictions and adding supportive actions. Urban agriculture has also been integrated within the Bulawayo Master Plan 2006–2015, which marks its recognition as a permanent land use. The establishment of the multi-stakeholder forum and the joint formulation of the City Strategic Agenda on urban agriculture enabled the shift from a well intended, but not implemented, 2000 policy on urban agriculture, to a new situation in which both governmental and several non-governmental organizations became actively involved and used their own resources to put the policy into practice (whilst further improving it). Next to
the organizations already mentioned (like SNV, World Vision and AGRITEX) new organizations have now also been attracted (such as OXFAM-UK and Action Aid) due to the clear agenda and dynamism generated by the multi-stakeholder forum and the coordination it provides. Also, the municipality now included urban agriculture in its annual budget (which was not the case in earlier years, despite the adoption of the 2000 urban agriculture policy).

As a result, the projects that could be implemented have yielded important results. Access to land and water for food production by poor urban households has been further improved. In total 31 irrigated community gardens are functioning now in Bulawayo of which nine are directly supported by the Social Services Office of the Department of Housing and Community Services, totalling 25 ha, where over 5,000 households grow vegetables predominantly for domestic consumption and 22 are supported by World Vision (18 ha 1,500 households). These households gained access to municipal land, were given access to water (through the establishment of boreholes) and were provided with basic training in horticulture, water management, nutrition and organization of the garden.

The organization of the urban producers (1,100 households) at Gum Plantation has been strengthened and their level of participation in decision-making has improved. The farmers are now also represented in the forum.

Over 600 households at the Gum Plantation substantially improved their access to irrigation water tanks to improvement of the infrastructure related to the provision of treated wastewater and related training, enabling year-round production of vegetables and a substantial increase in production and food security.

They also diversified their production; 170 households have shifted to organic gardening methods and have started marketing organic vegetables, raising their income by about 50 per cent. Twenty farmers have started bee-keeping as a way of diversifying their activities. Another 20 farmers have initiated mushroom production, while again another 25 farmers
have initiated the production and marketing of herbs, raising their income by 50 per cent or more.

The experiences gained in Bulawayo have also attracted the attention of policy makers at a national level, leading to a request to MDP/RUAF to assist in the organization of a national policy seminar on urban agriculture on this issue. The Ministry of Agriculture has established a working committee, involving MDP/RUAF and members of the Harare forum on urban agriculture, to develop a national policy on urban agriculture. Further, AGRITEX (the national agricultural extension agency) has appointed a coordinator on urban agriculture and trained its staff in urban agriculture with the support of MDP/RUAF. Also, the Ministry of Local Governments is supportive.

A memorandum of understanding is to be signed by mid-2010 between Bulawayo City Council and Johannesburg Metropolitan Municipality to formally agree on a partnership on urban agriculture.

**Lessons learned**

The MPAP process is a tool that is convincing to policy makers. Multi-stakeholder processes were not entirely new to them, but the packaging (specifically for urban agriculture and with clear links to pertinent urban issues) and the process and methodologies used by RUAF have made it easy to convince the authorities and other stakeholders of the need to jointly define and implement a Strategic Agenda on Urban Agriculture.

What turned out to be of specific importance is that RUAF showed how urban agriculture could contribute to the policy priorities defined by the Council itself (food security, local economic development and reuse of wastewater). It also proved important to agree on a clear process for design, approval and implementation, with the multi-stakeholder forum reporting directly to a municipal planning committee, which in turn reports to the full municipal council.

Learning from the experiences gained in other cities is a very effective way to inform policy makers. The Urban Agriculture Policy and Legislation Seminar, held in November 2005, was successful because of the presentation of experiences from other cities in Zimbabwe and beyond (Cape Town, Lusaka, Maputo and others). Various participants highlighted that they had learned, and even those participants who were doing well admitted to having learned new issues from other cities’ or countries’ experiences.

The earlier 2000 policy had been largely crafted by only a small committee within the city council, which was one of the main reasons for the limited degree of implementation of the 2000 policy. Central to the MPAP process was the promotion of a wider dialogue on urban agriculture policy formulation and action planning. The broad-based participation of a wide array of urban agriculture stakeholders in the development of the Strategic City Agenda on Urban Agriculture, the revised policy and the new bye-laws on urban agriculture have been
crucial for the success of the new policy. Moreover, the participation of urban producers and civil society organizations as well of national departments, has laid the basis for an effective implementation of the policy through the design and implementation of urban agriculture projects and the mobilization of resources from/by various actors.

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From rehabilitation to development in Freetown, Sierra Leone

Olufunke Cofie, Marco Serena and Theophilus Otchere-Larbi

‘By 2011, urban and peri-urban agriculture in Freetown will be recognized as significantly contributing to the achievement of urban food security, reducing urban poverty, and its activities well integrated into the municipal planning process for a vibrant, clean, green and beautiful city’ (FUPAP, 2008).

Introduction
Sierra Leone experienced a civil conflict between 1991 and 2002, as a result of which many persons fled to the Greater Freetown Area (GFA). During and after this unfortunate period, urban agriculture became an important livelihood strategy. It is increasingly being recognized as a reliable coping mechanism for redressing food shortages and gaining income and employment.

The Greater Freetown Area covers about 8,100 ha, and it is estimated that up to one quarter of the country’s population, around 1 million people, reside in Freetown (Government of Sierra Leone, 2006). Sierra Leone is one of the poorest countries in the world. GFA’s population increased by 65 per cent between 1985 and 2004 with more women than men, particularly
in the active age group of 15 to 64 years (a similar gender pattern is observed in the labour force). Unemployment in GFA (about 52 per cent) is below the national average of 66 per cent, particularly among the youth. Net migration for GFA declined in 2004 (about 47 per cent) (Government of Sierra Leone, 2006).

Despite abundant natural resources and the favourable agricultural climate, the country’s economy went through a decline since the early 1980s, attributed to a variety of factors, foremost of which is the recently concluded decade-long civil war (1991–2002). More than 2 million people were displaced, and major activities, such as farming, mining, and forestry, were disrupted. Also, people flooded into Freetown. After the war, a significant number of persons displaced from the rural areas preferred to permanently stay in the city in the expectation of finding a job and better living conditions. The increased urban population created high demand for food and put pressure on urban facilities and services.

Many urban poor, including migrants and internally displaced persons, and many youngsters and women, developed a keen interest in urban agriculture as an option for ensuring a food supply. They took up the cultivation of leafy vegetables and, within and near Freetown, the processing and marketing thereof. This involved: packaging vegetables; preparing fast food; transport; and retailing. These factors contributed to a significant expansion of urban and peri-urban agriculture as an essential coping strategy for providing a vital supply of food to the expanding urban population.

Urban agriculture is widespread in Freetown; agricultural activities have been identified in all eight administrative zones. Most agricultural activities are observed in the Western Area and Eastern Area of the city. Agriculture is also widely practised in peri-urban areas, in combination with forestry.
activities on the verge of the peninsula forest and in larger plots towards the periphery of GFA.

The most commonly cultivated crops are exotic vegetables (cabbage, lettuce, carrots, spring onions, tomatoes, beans, etc.) and local vegetables (potato leaves, spinach, cassava leaves, etc.) and different sorts of fruits. These are consumed on a daily basis and as perishables, cannot withstand long-haul transportation. They are usually harvested and sold at the market on the same day. Poultry (mainly free range) and pigs are the main types of animals raised. Processing and marketing are marginal activities, but these are also growing and are stimulated under present agricultural policies. Most urban producers sell a large part of their produce in order to generate a basic income. Urban and peri-urban agriculture contributes substantially to the local economic development of Freetown and the country as a whole. In the situation analysis undertaken in 2007 (Cofie and Larbi, 2007), it was estimated that urban agriculture provides full or part-time employment to over 1,800 people in urban Freetown. Women constitute approximately 80 per cent of the urban producers and they also do most of the marketing. Men provide assistance mainly in the preparation of land, such as initial land clearing, building the irrigation channels in the swampland areas, and supplying the money needed to buy inputs. A significant proportion of male urban producers are also engaged in other activities, such as working in the civil service or the artisan sector. A portion of the income generated from these other livelihood activities is often re-invested in the agricultural activities.

Urban agriculture is situated in private (e.g. residential) and public or institutional lands, often with complex land tenure arrangements. Most institutional lands are leased, while private and public open space lands are seasonally rented. Land is a primary constraint, agricultural land use being in competition with housing, commercial and industrial land uses. Use of external inputs, like fertilizers, is generally low, and animal manure (from piggeries and poultry units) is mainly applied. Rainwater, streams, pipe-borne water, household wastewater and groundwater are common sources of water in crop and livestock activities. Apart from rainwater, most water sources are contaminated by human and animal excreta, as well as by domestic and industrial effluents. A number of institutions, such as the Ministry of Agriculture, Forestry and Food Security (MAFFS), the National Association of Farmers of Sierra Leone (NAFSL) and Freetown City Council (FCC) provide agricultural extension services (mainly on crops) to farmers. Almost all urban farmers belong to a farmers’ association or a community-based organization, except those individuals who farm the backyards of their homes.
Next to land, another major constraint is pests and diseases. Thieves are also a problem. Further, the high price of seeds, and the shortage of water and animal feed, are constraints to urban farming. These constraints are less important as we move from the centre to the periphery of GFA, while marketing becomes more of a constraint for farmers located further away from the centre. Urban farmers in Freetown are often in competition with importers of vegetables and animal products (Cornell University and NUC, 2006; Winnebah and Cofie, 2007) hence they require capacity strengthening in critical aspects of urban agricultural production and marketing.

**The MPAP process**

In 2006, RUAF partner IWMI launched the ‘Freetown Urban and Peri-Urban Agriculture Project’ (FUPAP) in Freetown, Sierra Leone, with the goal to support city authorities in recognizing the benefits of urban agriculture, while addressing its challenges in order to contribute to urban poverty reduction, food security and improved urban environmental management. The multi-faceted nature of urban and peri-urban agriculture in Freetown, and the many ongoing activities which are not interlinked, called for a multi-stakeholder intervention.

The MPAP approach brought together major stakeholders in urban agriculture for joint situation analysis, decision-making, planning and implementation of related projects in Freetown. The FUPAP core team was constituted in 2006. MAFFS chaired FUPAP, and additional facilitation was provided by Njala University. Other institutions that participated in the FUPAP multi-stakeholder team were: FCC, NAFSL, the Department for Environmental Health, the Commission for Environment and Forestry, Western Area (Rural) Council, Waterloo, LEXES, Care, World Vision and Ministry of Lands and Country Planning. Although initially part of the MPAP training, most NGOs did not participate actively in the MPAP process because they were more active in the rural provinces. Several of them joined FUPAP again later on when government and international donor attention for the process and urban agriculture grew.

The FUPAP team jointly implemented the situation analysis. The report (FUPAP, 2007b) on the situation analysis presented the presence and location of different types of urban and peri-urban agriculture in Freetown, profiled all institutional stakeholders and analysed the existing policies affecting urban agriculture. The main constraints identified in the situation analysis were: access to land and security on tenure, access to clean water for irrigation, inadequate and untimely supply of farm inputs, and limited agricultural extension services.
City Strategic Agenda

The multi-stakeholder forum on urban agriculture was established in 2006. During its first meeting the Forum discussed the findings of the situation analysis and discussed the desired development of urban agriculture in Freetown and agreed on a number of key issues for intervention.

During 2008 the FUPAP core team further developed these issues, which resulted in the Freetown City Strategic Agenda (CSA) on Urban and Peri-urban Agriculture (FUPAP, 2008). The CSA analyses the various key policy issues for the development of sustainable urban agriculture and outlines the main strategies concerning each key issue. It also includes the main actors involved and responsible for each action and the actual or potential sources of funding.

As part of the design process, the FUPAP partners successfully implemented a pilot project on ‘value addition to urban and peri-urban products towards increased marketability’. Two communities in Congo Water and in Potor Levuma participated in this project and received basic farm inputs, such as tools, fertilizers and seeds, capacity building on integrated pest management (IPM), postharvest techniques, safe handling of vegetables, and processing. Further, irrigation facilities were improved or installed, such as wells and treadle pumps.

The City Strategic Agenda for Freetown defines policy issues and strategies for seven specific areas:

- provision of adequate and reliable quality farmland for urban agriculture;
- promotion and public awareness on the contribution of urban agriculture to food security and sound environmental management;
- capacity building of farmers and farmers’ associations (both human and materials);
- availability of year-round good quality irrigation water;
- value addition to products towards improving marketability;
- creation and regulation of guidelines and policies conducive for efficient, sustainable urban and peri-urban agriculture;
- strengthening extension services and M&E as a tool for efficient urban agriculture production.

The CSA was agreed by the MSF at a meeting in November 2008, and formally endorsed by the Deputy Mayor of Freetown in April 2009.
The multi-stakeholder forum, created during the FUPAP implementation, was institutionalized in 2009 as the Freetown Urban and Peri-urban Agriculture Platform (FUPAP). The new FUPAP is chaired on a rotational basis by MAFFS, FCC and the new member, the Western Area Rural District Council (WARDC). FCC and WARDC are the two local authorities in GFA. The three rotating chairs are also members of the FUPAP Steering committee, which took over the role of the FUPAP core team. Other members of this steering group are NAFSL, The Department of Agricultural Research, Ministry of Health and Sanitation, Ministry of Lands and Country Planning, Njala University, Youth organizations, like SLYO, and the NGOs COOPI, Concern, Friends of the Earth and Heifer. The FUPAP meetings are organized every three months. A work plan has been agreed by FUPAP for the years 2009–2010. An inventory on access to land, both for GFA and Western Area is ongoing.

**Results and outcomes**

One of the principal outputs of the process was the agreed Five Year (2009–2013) Freetown City Strategic Agenda on urban agriculture. Several of the activities included in the CSA are actually under implementation with active support from national government and international donors. FUPAP had the merit of putting urban food production and marketing in and around Freetown, and its multiple impacts, on the agenda of local and national authorities and of international support organizations operating in Sierra Leone.

The multi-stakeholder forum on urban agriculture, in which the major institutions and NGOs participate, has played, and continues to play, an important role in the discussion of issues related to urban agriculture and the coordination of planning and implementation of actions to promote the development of safe and sustainable urban agriculture.

Partially as a consequence of this, the European Union decided to provide funding to address food security in and around Freetown and to implement important activities included in the City Strategic Agenda. A consortium made up of Italian NGO COOPI, ETC/RUAF, Sierra Leone National Association of Farmers and Sierra Leone Youth Empowerment Organization will, in coordination with other FUPAP members, implement the 4-year project (2009–2012) co-funded by the EU. The project aims to stimulate innovation in urban agriculture in GFA through support to urban subsistence farmers, emerging commercial producers and to youth interested in agricultural production, processing and marketing. A second grant was awarded by the European Commission to the Irish NGO Concern Worldwide and to the German NGO Welthunger Hilfe for similar activities that will be implemented in close cooperation with the project mentioned above and with the FUPAP.

Attention to youth involvement is very important in the development process of Sierra Leone, and urban agriculture has been recognized as a key way to provide employment for youth. Various stakeholders, coordinated under FUPAP, have started to work with groups of vulnerable youth on commercial agricultural activities in the city, including value chain analysis.
and business development, group strengthening and participatory life skills training ranging from communication, leadership and decision-making to conflict management and literacy and numeracy.

As a consequence of these developments, the reconstituted FUPAP has expanded to include several other actors, mainly international and national NGOs, youth serving agencies and youth umbrellas and organizations operating in Freetown and in Western Area.

In the new ‘National Sustainable Agriculture Development Plan’ and the ‘Sierra Leone Chapter of the Comprehensive African Agriculture Development Plan’ that was signed in September 2009, sustainable urban agriculture processing and marketing are seen as key activities in Freetown and GFA.

In addition, there is interest from MAFFS and FAO to include urban agriculture as part of their strategy and to expand activities to secondary cities in Sierra Leone. This has resulted in the inclusion of urban agriculture and the MPAP approach in the national curriculum on Farmer Field Schools, which will be used to train MAFFS extension workers across the country, starting in 2010.

The EU-supported preparation of a new Freetown Master Development Plan paves the way for negotiating solutions to long-standing constraints to urban farmers, such as enhanced access to land and more security of land use, prevention of land, water and soil pollution by other urban uses and enabling the use of urban organic wastes as fertilizer in agriculture.

The mapping of vacant urban spaces suitable for urban agriculture that was undertaken by FUPAP in Freetown as part of the situation analysis (Forkuor et al., 2007) is currently expanded to the Western Area and linked to the current GIS land mapping undertaken by the Ministry of Land, which provides an opportunity to address the issue of integration of urban agriculture in the urban land zoning and the legal protection of urban agriculture sites. The FUPAP will assist in the further development of the Master plan in terms of seeking suitable areas and types of urban agriculture.

Njala University, a major agricultural training institution, and member of FUPAP, has incorporated urban and peri-urban agriculture into its curriculum. At Fourah Bay College, a research programme on urban agriculture is ongoing and the researchers have agreed to collaborate with Njala University and the relevant line ministries to promote the development of urban agriculture in Freetown.
Urban agriculture is now also seen as being fully part of the national development strategy and this opens several opportunities for urban farmers – especially for small-scale enterprises run by unemployed youth and poor women engaged in value addition and marketing of agricultural produce – including financing, technical support, research and extension services, and assistance for business planning and development.

**Lessons learned**

Urban agriculture in Greater Freetown has been recognized as a main source of livelihood for disadvantaged communities, and an appropriate strategy in augmenting food production not only during crisis periods, but also in the subsequent rehabilitation and local economic development. It significantly contributes to food security and employment creation, particularly for youth, which is crucial for Sierra Leone in the current development process.

Further development of urban agriculture is now on the political agenda and is seen as pivotal in the achievement of food security and income generation by the urban poor and as an important way to build resilience of the city and its inhabitants to future shocks (like the current food and economic crises).

The multi-stakeholder process for action planning and policy development for urban agriculture has managed to include the major stakeholders. The joint situation analysis, dialogue and decision-making has greatly contributed to the clarification of the actual and potential role of urban agriculture, joint identification of key issues and coordinated planning and implementation of policies and programmes. A challenge during the initial stages of the MPAP process is to enhance the commitment of the members and to actively involve all stakeholders in the planning and implementation of the City Strategic Agenda, which requires time and regular consultations with stakeholder representatives through both formal and informal relations. The implementation of the MPAP process requires an anchor institution to spearhead the process, which in Freetown was MAFFS. Also, a committed facilitator is important; in the case of FUPAP, this role was shared initially by representatives from MAFFS and Njala University and subsequently taken on by MAFFS.

In addition, it is important to ensure funding for the activities that are agreed by the partners in the CSA. It is crucial to start implementing small activities at an early stage, mobilizing
the resources from the participating actors. At a later stage, the interest and contributions by international donors (especially the EU and FAO) allowed the implementation of larger projects. But without the initial efforts by the FUPAP members based on their own resources and the efforts to integrate urban agriculture into policies at city and national level, such international funding probably would not have materialized.

As each city is unique, the development and institutionalization of urban agriculture requires that a link be made to pertinent urban policy issues. In the case of GFA, rehabilitation, food security and youth employment were and are important entry points.

References


Building synergies to promote urban agriculture in Gampaha, Sri Lanka

Priyanie Amerasinghe

Introduction

The City of Gampaha is a rapidly growing city in the Western Province of Sri Lanka. It is located in Gampaha District, the second most populous district in the country, home to 12 per cent of the total population of Sri Lanka. A decade ago, the landscape of Gampaha was dominated by agriculture. With good soil conditions and a surplus of water the agricultural
economy has been booming. Today much of the
city area is being taken over by buildings. Rapid
urbanization has posed a number of problems,
including congestion, increased waste and
environmental pollution, reduced drainage and
increase in food prices.

Gampaha City reported a total population
of over 300,000 inhabitants in 2001 (DCS,
2001), a number that has since increased. An
additional 100,000 people travel daily to the
city for schooling and work. Gampaha is one
of the districts with the lowest poverty indica-
tors (8.7 per cent) (DCS, 2008). However, its
reduction over time is low (only 2 per cent
since 2002) and is believed to be associated
with rapid industrial development in the dis-
trict, and rising urban poverty (Sunday Times,
2008; DCS, 2008).

Agriculture in Gampaha benefits from a tropical climate with an average annual temperature
of 28°C and an annual rainfall of 2,400 mm. Paddy cultivation has always taken a promi-
nent place in and around the city, although many fields have been abandoned, due to high
input costs and lack of labour. In order to safeguard the country’s food security, however,
the national government has prohibited the sale of agricul-
tural land for construction and has ordered, by presidential
directive, the revitalization of agricultural lands back into
paddy cultivation or their conversion into production of vege-
tables, fruits and commercial crops like manioc (Ministry of
Agricultural Development and Agrarian Services, 2007). As
part of the national ‘grow more food campaign’ (Api Wavamu
Rata Nagamu) incentives are being given to farmers to take
these paddy lands into cultivation again.

Since the year 2000, the Western Province Department of
Agriculture has been promoting and establishing home-gar-
dens and Family Business Gardens in Gampaha (Ranasinghe,
2009) to meet the nutritional needs of the population, to
generate income for underserved communities and to con-
tribute to the greening of the city. With the city’s increased
waste generation at 55 tonnes per day, the city has launched
a successful recycling programme and generates compost
to be used in floriculture and home gardens. Awareness and educational programmes in schools on home gardening and food security are being implemented with a view to ensuring a clean, green and food secure city for the future. School gardens are also being promoted, and serve as models to encourage students to participate in agricultural activities from a young age. It is estimated that at least 1,100 families living within the city limits are involved in home gardening, while an additional 25–30 are estimated to practise more commercial (small-scale) forms of agriculture (Personal communication, Department of Agriculture, 2009).

Urban agriculture is mentioned in three national (agricultural) policy documents, related to the establishment of city home gardens and supporting women in cities to develop capacity for such activities. In this context, several promotional activities, including awareness and training programmes, have been developed by the Department of Agriculture under different funding schemes. However, this has never been done in a comprehensive way, and many issues unique to urban agriculture have never been addressed, including the need for limited-space growing techniques, recycling of household waste and water, and disease and pest problems.

The MPAP process

In 2007, key institutions and stakeholders from the city and provincial governments and from civil society started the process of further analysis of the forms of, and actors involved in, urban agriculture in the city, with the support of IWMI/RUAF. Their overall vision was to ‘create a cleaner, greener and more food secure city by promoting and strengthening urban agriculture’.
Stakeholder inventory and awareness. Given the unique requirements of city farming, the need for a multi-stakeholder approach was endorsed by the stakeholders involved (in 2007, when Gampaha city was selected as a pilot city). This was aimed especially towards strengthening multi-sectoral cohesion, avoiding duplication of activities and competition for resources, and building on the diverse capabilities of the different organizations involved. The MPAP process was introduced at a time when each of the sectors were separately discussing issues such as food security and waste management, with the health department observing nutritional disorders and disease aspects, the educational sector thinking of how to engage youth in agriculture, the water department looking at conservation and recycling, the municipality aiming to reduce waste collection by promoting recycling of household waste and the Department of Agriculture promoting home gardens. The MPAP was the first attempt to take joint action on urban agriculture activities.

A policy awareness and partners’ orientation workshop was organized in May 2007, where eight organizations agreed to collaborate on the situation analysis and suggest further action planning for urban agriculture. The representative members, forming the Nagarika Haritha Balakaya or ‘Urban Green Force’, were nominated by their respective heads of department, namely the provincial departments of Agriculture, Animal Husbandry, Health Services and Education, the central government managed department of Agrarian Development and Botanical Gardens, the Municipal Council and the city Sanasa Bank.

Identifying constraints and opportunities to urban agriculture development. The situation analysis, comprising land use mapping, participatory farming system analysis and critical policy review, was implemented in six of Gampaha’s 33 GN (Grama Niladhari) divisions (the smallest administrative unit), namely Medagama I, II, III, IV and Bendiyamulla North and East. The analysis highlighted several constraints to further development of urban agriculture, including: inadequate capacity and knowledge...
on appropriate urban agriculture production systems and technologies (like low-space/no-space technologies for production on very small areas of land and new production systems like floriculture and mushroom cultivation, including pests and diseases management):

- lack of good seeds and seedlings for all types of crops;
- lack of capital to start-up agricultural activities: such as cultivation material and inputs;
- low entrepreneurial skills among farmers;
- lack of proper drainage and irrigation for paddy cultivation, as Gampaha is prone to flooding;
- limited knowledge and lack of interest in recycling household waste; and
- limited knowledge on daily nutritional requirements and low cost home-grown products.

Opportunities included the availability of (abandoned areas of) land, the presence and commitment of municipal and provincial government services to support urban agriculture and the presence of a national policy framework promoting such development.

The results of this situation analysis were presented and shared with a broader audience in the form of a policy briefing document in December 2007. This laid the basis for further action planning in 2008.

Building the institutional framework. The Urban Green Force met once every month, and was chaired by the Mayor of Gampaha. This direct involvement of the Mayor and various municipal departments proved to be very beneficial, as municipal facilities and services could now be better coordinated and directly made available through the forum for the benefit of Gampaha’s citizens. As a result of stakeholder analysis and awareness raising, new stakeholders became involved in the process, including NGOs, schools and private enterprises. A larger multi-stakeholder forum was set up that currently meets every three months.

In addition, a high level steering committee has been formed with the heads of the core forum member institutions, in order to assure commitment, liaise between the project activities of the different institutions, and discuss the future development and uptake of urban agriculture programmes in their respective institutions.

A City Strategic Agenda. One of the first activities of the Urban Green Force comprised the elaboration of a City Strategic Agenda on urban agriculture (City of Gampaha, 2007). Four major objectives were identified to which the Strategic Agenda should respond:

1. promote and support a culture of sustainable urban agriculture in Gampaha municipality;
2. revitalize the (abandoned) paddy farming systems and develop strategies to improve productivity with innovative farming practices that harmonize with nature and improve access to paddy lands for those who are keen on farming;
3. reduce environmental pollution and health concerns by proper management of city infrastructure for drainage; and
4. strengthen marketing of urban agriculture production – both within the city as well as outside the city.

For each of these objectives, different interventions and activities were outlined, responsibilities were clarified, and local as well as external funding sources were indicated. The agenda was formally accepted by the MSF steering committee in April 2009.

**Project and policy formulation and implementation**

The MSF members have actively supported project and policy formulation and implementation of the following activities mentioned in the City Strategic Agenda.

Training. The Department of Agriculture (Extension) Gampaha has trained over 30 community leaders, drawn from each of the six Divisions, in crop management and household organic waste recycling. These leaders together with agriculture extension officers supported community groups in policy implementation. The extension officers visited the participating households and farming sites regularly.

Establishment of home gardens. The multi-stakeholder forum developed the project ‘Greening of Gampaha City through Urban Agriculture’. Home gardens were established in 500 households (75 low-income and 425 low- to middle-income households) in the six administrative divisions. All households (in total 2,000 persons) received training on home gardening including land preparation, use of low-space requirement technologies, planting and pest management. Extension support was provided by the Department for Agriculture Extension.

Composting at household level. In an attempt to manage the vast amounts of waste being generated in the city, the Central Environmental Authority, the Western province waste management authority, and the municipality, launched a programme Kunu Kasalata milak or ‘Money for your waste’. The programme included segregation of waste at household level, waste collection, home composting of biodegradable waste and biogas production. Over 4,000 composting bins were distributed to city homes and around 60 per cent of recipients are making compost at home now, which has...
resulted in the reduction of waste collection by nearly 10 tonnes per day.

Support services. The Department of Agriculture supported the above mentioned projects. For instance, a sales outlet for input materials was established in six of the divisions and six demonstration plots were established on municipal council sites, at the Sanasa society, at a hospital and at three schools (to showcase organic production and waste recycling methods, and advertise the above mentioned projects).

Value-chain development. Starting in 2009, the programme has expanded its focus from home gardening to other more commercial forms of urban agriculture. Market analysis has indicated the potential for commercial chilli growing. As from 2009 some 100 families have started to produce high quality green chilli (Capsicum annuum) variety MI2 and Veraniya, applying eco-friendly agricultural practices, to supply to the Gampaha vegetable market as well as to the export market. Seeds and technical advice are provided by the Department for Agriculture Extension in Gampaha. The Gampaha City Bank (Sanasa City Bank and People’s Bank) provides financial advice and will grant loans to farmers. Farmers will in future be trained in technical and marketing aspects as well as supported to strengthen their recently formed business association.

Upscaling project activities to other administrative divisions and cities. The Western Province is currently funding similar home gardening and composting programmes in the 27 remaining administrative units in Gampaha city. It is expected that in total, an additional 1,600 households will benefit from this city-wide programme. Additionally, the programme will be expanded to other cities, including districts of Colombo and Kalutara.

Results and outcomes

The urban agriculture programme has contributed positively to household food security, savings and nutrition. Findings for the initial projects in the six divisions show a high percentage of women (63 per cent) engaged in kitchen garden activities. An increase in vegetable consumption has also been observed, which is linked to the increase in the number of types of vegetables grown in the gardens (from 6 to 11 types). In addition, average household savings of 15 per cent (by growing food for home consumption) have been observed, and 8 per
cent of the participating households registered increases in their cash income of 1–5 per cent, through the sale of crops.

The project has also sparked off healthy social trends such as the exchange of surplus produce with neighbours and improved social interaction, all of which had been rare occurrences in the past.

Moreover, the programme has contributed to the city’s waste management. Daily, 10 tonnes of waste is now being recycled in the form of compost, thereby reducing costs for waste collection for the municipality. This compost is made available to farming households through sales outlets set up in 6 of the 33 divisions. Savings are now used by the municipality for funding welfare activities, such as housing loans and educational loans. In this sense, the MPAP has enforced/improved the ongoing initiative of the different departments, by facilitating joint analysis, planning and liaising activities.

Continuation of planning and activities in Gampaha is guaranteed by the formalization of the forum and the City Strategic Agenda and the formation of the high-level steering committee. Efforts taken by the Western Province Department of Agriculture to upscale activities within Gampaha and to other cities form a good example.

The process and experiences in Gampaha have directly contributed to the promotion of urban agriculture at provincial and at national level, and has provided examples of initiatives that can be developed to increase domestic food production as promoted by the national government in its ‘National Campaign to Motivate Domestic Food Production 2007–2010’ (see Box 3.4).

Gampaha’s experiences and results are mentioned in a cabinet paper. Both the Chief Secretary of the Western Provincial Council as well as the Presidential Task Force for Domestic Food Production, have given special recognition to the RUAF-supported Gampaha programme for its achievements and its operationalization of the national strategy on food production (personal letter to IWMI/RUAF by the Chief Secretary of the Western Provincial Council, dated April 16, 2009) and have praised the programme for providing evidence of impacts and outcomes. This recognition has been a boost to the Gampaha stakeholders, and further strengthens them in their commitment to continue better serving their city communities.
Lessons learned

The key to the success of the programme has been in building the right synergies in the administrative set-up. The Provincial administration has been instrumental in facilitating the interaction between the stakeholders, and for effective action planning of activities, without which this programme would not have been successful. Establishing good working relationships with the municipal council and departments of agriculture and agrarian services were key to the outcomes observed. Further, the leadership role and participation of the Mayor, of the municipal council, and the positive support from other departments has allowed for swift decision-making, for optimizing the use of municipal resources and services and for enhancing the confidence of the community in programme formulation and implementation. It also facilitated linking of urban agriculture activities to other municipal programmes like the city’s solid waste management programme and household composting scheme, allowing for increasing the efficiency and effectiveness of programme implementation and for cost-savings. Compost produced in the solid waste management programme could now be directly applied in the urban agriculture programme and by recycling waste at home the waste collection costs were brought down significantly. However, in order not to be dependent on municipal support, the challenge remains to strengthen civil society participation in the multi-stakeholder forum, including participation of the urban producers themselves – as is illustrated by the experience in Lima (see the following Case Study in this chapter).

Box 3.4 Sri Lanka’s National Food Security Policy

The President of Sri Lanka, Hon Mr Mahinda Rajapaksa, has launched the National Campaign to Motivate Domestic Food Production calling for the cultivation of every inch of suitable land. It is his conviction that sustainable development of the country can only be ensured through the enhancement of local food production, including urban and peri-urban agriculture. He stresses the need for reversing the trend of abandoning farmland, for modernization of agricultural practices – through applying agro-ecological production principles and through collaboration between all government sectors, civil society organizations and communities in enhancing both rural and urban food production.

Some of the strategies that are promoted include:

- the establishment of rural and urban home gardens, school gardens, home gardens and model farms on office premises and on premises of private institutions;
- increasing the use of fallow lands for food production and enhancing the productivity thereof;
- the production and utilization of organic manure;
- the promotion and dissemination of environmentally friendly agro-technologies;
- enhancing the marketing of agricultural products;
- improving input-supply, post-harvesting, farmer organization, awareness-raising and publication.

For the time being the policy document provides general guidelines and statements on each of these issues.
Sponsorship from higher-level government, such as the Chief Secretary of Province and Western Provincial Department for Agriculture has allowed for quick upscaling of initial project activities at both the local as well as provincial level. The Department of Agriculture has played a crucial role in facilitating and guiding uptake at national level policy formulation and implementation.

In order to contribute to both the country’s as well as the city’s policy goals of enhancing local and domestic food production the development of different types of urban agriculture remains crucial. Where home, school and institutional gardens will contribute to enhancing food security and nutrition at household level, the development of more commercial urban agriculture will contribute to income and job creation as well as food security at city and national level thus reducing dependence on food imports and making concrete steps towards enhancing the country’s food sovereignty.

References
Enhancing urban producers’ participation in policy making in Lima, Peru

Gunther Merzthal and Noemi Soto

‘Urban agriculture is a permanent and legitimate activity in our district and a strategy for poverty alleviation and local economic development’ (Municipal Council, Villa Maria del Triunfo).

Introduction

Agriculture is practised widely in the low-income districts of Lima, the capital of Peru. This sector of the economy was little known or understood until a couple of years ago, despite the significant contributions that urban and peri-urban agriculture make to household income and food security. Urban agriculture was not given attention in municipal policy making and planning and the voices of local producers were not being heard.

The municipality of Villa Maria del Triunfo is located at the southern outskirts of Lima and has a population of almost 360,000. Over 57 per cent of the residents live in poverty and 15 per cent of the population suffers from malnutrition, with children mainly affected. In response, the municipality started an urban agriculture programme in 1999 to improve urban food security. The authorities of Villa Maria del Triunfo incorporated urban agriculture within the city’s Integrated Development Plan (2001–2010) and created a Municipal Urban Agriculture and Environmental Protection Programme (PAU). However, this urban agriculture programme did not provide adequate guidelines for implementation since it was not based on a solid analysis of the state of agriculture in the city. Also, urban producers did not participate sufficiently in the process, which meant that their needs and priorities were not taken into account. Further, limited human and financial resources were available from the municipality for programme implementation.
To fill these gaps, the Municipality of Villa Maria del Triunfo conducted a multi-stakeholder policy formulation and action planning process from 2005 to 2007, with the support of IPES/RUAF. Action-oriented research was implemented to:

i) analyse the contribution of urban agriculture to household livelihoods and the urban environment in the district; ii) develop a better understanding among decision-makers and other actors of the significance of local food production and its potential impacts; iii) revise the municipality’s urban agriculture policy; and iv) formulate a Strategic Action Plan for Urban Agriculture (Merzthal et al., 2006).

Villa Maria has poor soil quality and an annual rainfall of only 25 mm per year. Despite these difficult growing conditions, over 500 family and community gardens have been established and are supported by the urban agriculture programme. In addition, many landless families living in the city’s poor hillside settlements keep small animals for occasional sales or home consumption. The production of vegetables, birds, guinea pigs, rabbits and pigs also provides a source of food and income, which is vital to these low-income families.

**Multi-stakeholder policy formulation and action planning**

The Multi-stakeholder Policy formulation and Action Planning (MPAP) process in Villa Maria consisted of four stages:

1. Strengthening local capacity

   Decision-makers, municipal and NGO staff, and university representatives participated in awareness raising activities, policy seminars and exchange visits to other cities with experience in urban agriculture. This helped them to gain a better understanding of urban agriculture and its effect on food security, incomes and a greener urban environment and reinforced their commitment to the multi-stakeholder planning process. In addition, staff were trained in the MPAP methodology and process.
2. Situation analysis
A participatory analysis of urban agriculture was implemented as a basis for further action planning.

Local stakeholders were identified and mobilized. The legal and normative frameworks impacting urban agriculture were studied. The existing urban farming systems and their (potential) impacts were analysed. Available open spaces were also identified and mapped. Results of the diagnosis were published in 2006 in the form of a short policy brief called ‘Villa Maria: farming for life’ (IPES and Municipality of Villa Maria del Triunfo, 2006) which outlined the principle obstacles and opportunities for the further development of urban agriculture in the district.

3. Action Planning
By the end of 2006, a multi-stakeholder forum on urban agriculture (MSF) had been formed, in which 20 institutions, including the local government, development NGOs, community-based organizations, private sector organizations, international agencies and urban producer groups participated. Key issues for the development of urban agriculture were identified and working groups formed to develop a five year Strategic Action Plan and a set of policy guidelines on urban agriculture (Urban Harvest, 2007).

The plan was formally approved by all stakeholders and implementation started at the end of 2007.

Box 3.5 Strategic plan on urban agriculture (2007-2011)
The Villa Maria Strategic Plan on Urban Agriculture views urban agriculture as an important factor in the creation of a healthy, productive and food secure city and identifies six key areas for the development of urban agriculture:

1. Strengthening the awareness of the urban population on the benefits of urban agriculture;
2. Development of technical and organizational capacities of urban producers;
3. Improving access to and the rational use of water for urban agriculture;
4. Improving local production systems and the marketing of food products;
5. Strengthening the institutional and normative framework for development of urban agriculture in the district;
6. Facilitating access to information on and financing for urban agriculture.

4. Implementation
A pilot project was implemented directly following the formulation of the Strategic Plan, in order to keep the farmers and other forum members motivated, and to further build effective partnerships. The pilot project consisted of setting up a demonstration and learning centre, involving 12 producer families directly (through improved production and commercialization of their produce) and a larger number of households indirectly (through participation in the training and demonstration activities). The centre, which covers an area of 4000 m², includes a composting area, a nursery and a research and training area where improved dry-land horticulture production methods are demonstrated. Over 15 types of aromatic and medicinal plants and vegetables are currently being produced and the Centre is frequently visited by other urban producers from the city. In addition to this RUAF-funded project, several other activities were implemented under the strategic plan and are outlined below.

**Operationalizing the strategic plan into projects and policies**

With some financial support from IPES/RUAF, the multi-stakeholder forum was able to mobilize almost US$200,000 from local sources during 2007 and 2008 to implement several of the other priority actions mentioned in the strategic plan, including:

1. Strengthening and formalizing an urban agriculture producers’ network
The organization of urban producers and the strengthening of their capacities is an important prerequisite to their effective participation in the multi-stakeholder forum and decision-making processes. That is why the urban producers in Villa Maria were assisted to organize themselves at the neighbourhood and district level and received training in organic crop production methods, nutritional awareness, personal relations, organizational management and policy lobbying methods. Practical information materials were produced in collaboration with the National Agricultural University La Molina. The producers’ organization, which obtained legal status in 2008, played a critical role in lobbying for continued political support for urban agriculture, after the elections (Mayor and municipal council) in 2006.
2. Marketing of urban agriculture produce
A market study was conducted to identify (actual and potential) local marketing venues (such as farmers’ markets, direct sales to consumers visiting the gardens and to the city’s communal food-kitchens), unmet demand for specific products and their profit potential. The market study was used by IPES and the technical municipal staff to develop a production schedule and marketing plan for the various community gardens, taking into account the small size of production units (100 m²). Also, a logo for the organic vegetables was developed with the farmers that is linked to social certification and regular quality control, which has raised consumer awareness and trust in these products. The production and marketing of the vegetables generates an additional monthly income of around US$30/family.

3. Setting up of five community garden units
In collaboration with Red de Energía del Peru (an electric utility company), which also provided financial support, the UN Food and Agriculture Organization, and the Municipality five community gardens have been established on vacant land located under electric power lines involving 45 families (225 people). Gardens are fenced, a small covered area for training, meetings and sales has been constructed and water-tanks have been positioned (water is provided at reduced tariffs by the Municipality). Terraces have also been built, where needed. Lessons learned during the pilot project described above were applied.

4. Support to peri-urban producers in improving their value chains
Next to the more social forms of urban agriculture as promoted through the community gardens, another pilot project was implemented with peri-urban producers in Villa Maria to analyse and develop more commercial forms of urban agriculture. With support from IDRC Canada, a peri-urban producers’ organization (with 59 members) has been supported to improve the production and marketing of Aloe vera. The technical and organizational capacity of the producers was strengthened in Urban Producer Field Schools. In addition, the project supported the organization to secure access to land.

5. The organization and institutionalization of an ‘urban agriculture week’
In August 2007, the first annual urban agriculture week was organized to enhance public support for urban agriculture. Each year, during one week, urban gardens can be visited, short workshops are organized, videos are shown, and a variety of local products are sold.

6. The elaboration of a municipal ordinance on urban agriculture
IPES/RUAF assisted the municipality and the multi-stakeholder forum to draft a municipal ordinance on urban agriculture. The ordinance recognizes urban agriculture as a permanent and legitimate activity in the district, allocates financial and human resources to a municipal sub-department for urban agriculture; provides for the inclusion of urban agriculture into land use plans; and specifies that technical assistance be provided to producers (see Box 3.6).
7. Formulation of legal instruments to secure access to land for community gardens
The municipality has legalized access by urban producer groups to public (municipal) land for the development of community gardens. This has been carried out under a municipal authorization for land use based on the Municipal Urban Agriculture Ordinance mentioned above.

Results and outcomes
There is currently a wide consensus among urban producers, decision-makers and other stakeholders that ‘urban agriculture land use’ is legitimate, sustainable and should be actively supported and maintained. Formerly vacant land areas located under high-voltage power lines or on steep slopes have been transformed into productive green spaces, contributing not only to greater food security and increased income, but also to a more liveable urban environment.

The municipal ordinance has given legitimacy to urban agriculture and facilitated integration within the cities’ Economic Development and Land Use Plans. The urban agriculture programme is now a permanent structure under the Department for Local Economic Development with three permanent staff and an annual budget of US$55,000.

The multi-stakeholder process facilitated the production of a five year Strategic Plan that responds to the real needs of the population. Some 570 poor farming families and over 20 local organizations have participated actively in the process of designing, planning and implementing strategic activities on urban agriculture. There is now an active and formally
recognized urban farmers’ network in Villa Maria which is able to lobby and advocate for support and funding, for example, through the local Participatory Budgeting process.

The multi-stakeholder forum continues to operate with a secretariat rotating among its members. It thus assures continuous dialogue among involved stakeholders and oversees the implementation and monitoring of the Strategic Plan for Urban Agriculture. The forum is fundamental to the mobilization of resources for the plan’s implementation. It also regularly updates the Strategic Plan to ensure its relevance to the viability of urban agriculture in a dynamic social, economic and political environment.

The experiences gained in Villa Maria del Triunfo are shared with other districts of Lima. IPES/RUAF is currently conducting an MPAP process in Villa El Salvador, building on the lessons learned in neighbouring Villa Maria del Triunfo as well as in a similar process supported by CIP-Urban Harvest in Lurigancho Chosica, another district of Lima. These experiences also have lead to the development of proposals for a comprehensive urban agriculture programme for metropolitan Lima.

**Lessons learned**

Continued awareness raising and information dissemination amongst decision-makers and other stakeholders concerning the potential of urban agriculture to alleviate hunger and poverty is key to promoting and institutionalizing urban agriculture friendly policies. Strategies could include the organization of policy seminars, exchange visits, fairs and field days, such as those organized during the urban agriculture week.

In order to enhance the development of concrete activities, it is essential to provide an institutional home for urban agriculture and to incorporate urban agriculture in the existing legal and normative frameworks and the development and land use plans of the city. Specific policies (municipal ordinances, laws, regulations) for urban agriculture should also be developed that facilitate and regulate its practice.

Lastly, consolidated and strong producers’ organizations are better equipped to speak clearly and in unison with local authorities and to overcome inevitable changes in the level of political support for urban agriculture. The organization and empowerment of urban farmers in Villa Maria proved vital to sustain the multi-stakeholder planning process when political
changes took place after municipal elections. It is necessary to strengthen the organizational, managerial, technical and networking capacities of urban producers.

References

The integration of food production in Sana’a urban planning, Yemen

Salwa Tohme Tawk, Ziad Moussa and Layal Dandache

‘If you plant, you will never be poor nor miserable, you retain your dignity’ (Ali ben Abi Zayed, a philosopher from the 18th century).

Introduction
Sana’a, the capital of the Republic of Yemen, is situated on a plateau 2,000 m above sea level, and has an estimated population of 1.7 million (based on figures from the 2004 census), which is projected to double by the year 2010. Agriculture forms an important part of the Yemen economy despite the lack of arable land (3 per cent of total land area), scarcity of water, periodic droughts and difficult terrain. Employment in the agricultural sector accounts for more than 64 per cent of the workforce.
Traditionally, Yemen has been famous for its coffee but currently the main cash crop is qat, a mild stimulant chewed by most Yemenis on a daily basis, but which is not exported in significant amounts since it is highly perishable. Qat plays a major role in the Yemeni economy; it accounts for around 6 per cent of GDP, 10 per cent of consumption, one-third of agricultural GDP, and provides employment for one in seven working Yemenis. As the predominant cash crop, the income it generates plays a vital role in urban and rural economies. But it also depletes scarce water resources and has replaced essential food crops and agriculture exports. Some 72 per cent of Yemeni males reported that they chew qat, compared to 33 per cent of females. Further, because qat has become so important in Yemeni life, some of the poorest people will willingly forgo food in favour of buying qat. In addition, commercial farming of fruits and vegetables provides a level of production to nearly satisfy domestic demand.

The geographical area of the Municipality of Sana’a has dramatically expanded in recent decades to accommodate the population increase. However, a large number of citizens (9,770 as estimated in 2007) still work on 9,300 ha of agricultural land in the city. The same 2007 census showed that more than 37,500 tons of vegetables (leek, coriander, radish, onions and tomatoes), forage (alfalfa, maize, and barley), fruits (grapes, berries, nuts, peaches and apricots), qat and other seasonal grain crops were produced on 7,700 ha. The historic city still contains 21 ha of orchards and vegetable farms (like the Almqashim or the mosque gardens), (Barcelo, 2004) which supply the population with part of its local food needs. The livestock population in the city comprises around 4,500 head of cows and 110,000 head of sheep and goats besides camels, donkeys, poultry and bees. In addition, there are large areas within military camps that are cultivated by the armed forces to contribute to their fresh food supply, which are not included in the census.

Sixty one per cent of agricultural activity is concentrated in the directorate of Beni-Harith, while the remaining 39 per cent is distributed among ten other directorates in different neighbourhoods and peripheries of the city. The size of land holdings range between 0.25 and 7 ha;
85 per cent of which are private properties, while the rest is owned either by the public or Waqf (religious community). The main source of irrigation is groundwater, which is used mainly for horticulture and qat production. The production of cereals and forage is rain-fed. Another water source specific for Sana’a is greywater from the mosques to irrigate the maqashim or mosque gardens. More than 100 community gardens exist within the fortified wall of old Sana’a (which is now classified as a UNESCO World Heritage site).

Agriculture constitutes an essential part of urban livelihoods, supplying food for consumption and income, and involving the whole family. Women, who account for 27 per cent of the urban agricultural permanent workers, usually keep the animals and participate in planting, harvesting and post-harvesting activities as well as marketing via direct sale in the field or in nearby public markets. Sana’a is the cradle of one of the most ancient urban agriculture systems in the world so the overall policy environment is quite supportive to urban agriculture activities. The ancestral city centre of Sana’a, including the Maqashem has been declared a UNESCO world heritage site and the conservation plans of the city include the rehabilitation and conservation of these gardens. The expansion of the city, which has intensified significantly over the last two decades, has led to human settlement and agricultural activities in flood prone areas (seasonal torrential flooding also known as ‘Sayl’) and has led to the first attempts by the Municipality of Sana’a to regulate urban agriculture in the city.

**Multi-stakeholder policy formulation and action planning**

Supported by RUAF/ESDU, and in cooperation with Sana’a municipality represented by the Public Department of Gardens and the Bureau of Agriculture, the non-governmental organization YASAD (Yemeni Association for Sustainable Agriculture and Development) initiated the MPAP in 2007. A core team of seven persons was formed to implement and coordinate the process and a multi-stakeholder forum on urban agriculture was established including representatives from non-governmental organizations, research institutes, producer organizations and various municipal and ministerial departments (agriculture council, public gardens, public works) and the Sana’a Watershed Management Project, funded by the World Bank, the National Council for Urban Planning, individual urban farmers, the Association for the Conservation of Gardens in Old Sana’a, the Agricultural University of Sana’a and the Agriculture Cooperatives Union.
Further, a policy narrative was developed, based on the situation analysis (YASAD, 2007), and served as a basis for the development of the Sana’a City Strategic Agenda on urban agriculture. During the writing of the policy narrative, in early 2008, Yemen was very badly hit by the world food crisis and urban agriculture became an important issue. YASAD managed to extend the process across the 10 districts of Sana’a and the Ministry of Agriculture also became particularly interested in the MPAP and linked it to the ‘Green Belt Initiative’, which aims to increase the planted surfaces in Greater Sana’a and in peri-urban areas by 20 per cent (Albalagh newspaper, 2008). This increased the possibility of acquiring additional funding.

The results of the situation analysis and policy narrative were presented at an initial meeting of the multi-stakeholder forum (MSF) which took place in September 2008. During this meeting the value of urban agriculture was recognized as an important entry point for poverty alleviation and achieving food security in Yemen in general and in Sana’a in particular; and significant attention was received from the press (Al Thawra et al., 2008). The MSF formulated a vision statement for the development of urban agriculture indicating its historical role and importance in Sana’a and focusing on food security and water optimization. The MSF was well attended with representatives from almost all relevant line ministries and different services of the Sana’a municipality, the Sana’a Farmers’ Unions and researchers from the University of Sana’a. Civil society organizations were underrepresented, however, and there was a lack of gender balance (although this needs to be understood within the Yemeni context).

The first meeting of the MSF marked the start of the preparation of the Sana’a City Strategic Agenda on urban agriculture. This development was guided by three working groups on: media, technical aspects and legal aspects. These working groups elaborated on: water availability and more efficient use of irrigation water; agriculture extension and development services; empowering women in agriculture production and in relevant institutions; the reformulation of laws and regulations in order to preserve agricultural activities and enhance access to land and, more specifically, access to land for grazing. The results were shared with a broader group of stakeholders during consultative meetings and were presented and discussed in a second MSF meeting in December 2008, leading to the adoption of the Sana’a City Strategic Agenda on urban agriculture.
The City Strategic Agenda

The Sana’a City Strategic Agenda on urban agriculture (CSA) links the work of the MSF to existing or planned initiatives targeting poverty reduction (through the Social Fund for Development and European Union funded projects), as well as the ‘Green Belt Initiative’ championed by the Ministry of Agriculture (YASAD, 2008). The CSA was agreed by the multi-stakeholder forum in Sana’a in March 2009, and includes the following strategic lines:

- increase water availability and more efficient use for agricultural purposes (including water harvesting and improving the quality of recycled grey and wastewater);
- improve the agriculture extension and development services with regard to agriculture inputs, veterinary advice, efficient forage production;
- empowering the role of women in different agricultural activities (generating income, alleviating poverty and access to food);
- (re)formulating laws and regulations, so that agricultural activities can be preserved and access to land is enhanced specially for grazing pastures (YASAD, 2008).

Results

Urban agriculture has strongly returned to the development map of Sana’a. Previously, the main focus of the municipality was to preserve the ancestral community gardens of Sana’a purely for conservation purposes (through the UNESCO World Heritage Classification). With support from RUAF, urban agriculture in Sana’a has been linked to other important city issues like food security and poverty alleviation.

Urban agriculture has repeatedly been featured in radio shows and in the press. This has helped to promote urban agriculture in the city and with key persons in the public and private sector, who have become familiar with and aware of urban agriculture.

All related municipal departments and Committees of the Municipality of Sana’a (Agriculture, Public Gardens, Public Works) actively participate in the MSF and contribute to the situation analysis and the development of the CSA. Cooperation has been enhanced, both between these institutions and with other stakeholders.
Also, urban farmers have been encouraged to organize themselves. They now participate in an increasing number and are more active in the MSF. Furthermore, their lobbying capacities have been supported, which is essential for participatory and inclusive decision-making processes.

Laws and regulations related to urban agriculture have been analysed and suggestions for change have been made in coordination with the municipal and legislative institutions concerned. This will support the revision of the Master Plan of Sana’a in 2010. A major recommendation by the MSF to this revision is the preservation of the remaining agricultural land and the need for spatial urban development towards the arid plateaus surrounding the city, rather than on prime agricultural lands as has been the case so far.

Moreover, the Municipality of Sana’a has provided a public space, which will be used as a demonstration plot for teachers and school children to learn how to implement small school gardens at their premises, while also encouraging parents to grow crops at home.

The ‘Green Belt Initiative’ in Sana’a has been revived under the MSF. This initiative seeks to increase the planted areas of Sana’a by 20 per cent (and involves various line ministries as well as community-based organizations). This initiative is now also a national example for other cities such as Aden, Taez or Hadramout. IFAD and UNESCWA (the UN Economic and Social Commission for Western Asia) support this initiative. Integration of urban agriculture in the greenbelt will also help to improve access to land (urban agriculture is currently practised mainly on lands owned by religious institutions or large landlords).

The MSF is serving now as a key interlocutor for major donors, such as the World Bank. Based on the CSA, a proposal has been developed to support and develop urban agriculture in Sana’a, and the Bank has earmarked US$1 million for this purpose. In addition, the Bank is planning to replicate these experiences in two other cities in Yemen, and has invited RUAF to assist in the development of a regional programme on urban agriculture in the Middle East (that will include Yemen, Egypt, Jordan and Syria). This will be the first substantial urban agriculture programme to be financed by the World Bank. Also, the Social Fund for Development of Yemen awarded the MSF a grant in 2009 to equip a meeting room with furniture, a portable computer and audio-visual equipment. Currently, both parties are looking at the possibilities for financing CSA activities related to female empowerment and food.
security. In addition, contacts have been established with other donors for potential support in the execution of the CSA in 2010.

Lessons learned

The MSF on urban agriculture is a continuous platform for action planning, facilitating the input of financial and human resources and the involvement and interaction of local stakeholders. The Sana’a platform has also supported the inclusion of urban agriculture in the policy agenda of the local government leading to further institutionalization. Also, the MSF has managed to engage most of the national key players, including a large number of policy makers.

The challenge is to maintain a balance between policy makers and other stakeholders. The organization of urban farmers is important. The lobbying capacities of this group must be increased in order to create an active, participatory and inclusive decision-making process.

The lack of gender balance in Sana’a remains a concern. In the Yemeni cultural setting, women are rarely allowed outside the house without the presence of a male chaperon (Muharram) and the mixing of males and females in public meetings is not a common practice. The involvement of a female social researcher of YASAD has facilitated gender mainstreaming, since she was able to encourage participation while maintaining and respecting tradition and culture. The situation analysis that was carried out included a study on gender in urban agriculture in Sana’a. Participatory Rapid Appraisal (PRA) methods were applied, which allowed generated attention for the mainstreaming of gender issues in the Sana’a City Strategic Agenda on urban agriculture (Al Jundi, 2008). It further made the women who participated more aware of the potential role they can play in their communities. It is recommended that gender mainstreaming should be given special attention in all activities that will be organized as a follow up to the CSA. Since women are responsible for the bulk of food production, enhancing their decision-making power in household expenditures will improve the food security and increase the diversity of diet within the poorest category of the population.

There is growing support from key policy makers for the integration of urban agriculture in the Green Belt and old Sana’a, but the sustainability of urban agriculture will depend on political and financial support from additional initiatives. The RUAF initiative combined with the hard work of local stakeholders can form the foundation upon which to further build urban agriculture activities.

References