It is realised that open green spaces in the city combine a substantial contribution to the daily supply of fresh perishable food with a healthy urban living environment that provides opportunities for citizens’ livelihoods, leisure and sports and a connection to the rural and natural.

Municipal authorities all over the world have come to understand the role urban and periurban farmers can play in maintaining green zones in the city, keeping areas that are less suitable for building free from construction, managing parks and periurban landscapes that hold important natural resources, etc. Likewise, innovative farmers in and around cities are increasingly aware of the needs of the urban population and have started to come up with creative responses to the city dwellers’ demands, by offering fresh food, employment, training, recreational services, educational (school milk/meals, environmental education) and health services (on-farm care and remedial activities for people with psychological or physical problems), or nursery facilities that grow ornamental plants and tree seedlings for urban home gardens, streets and parks.

In the past, the multiple functions of urban and periurban farming were undervalued as more and more emphasis was placed on “specialisation”. Farmers were encouraged to develop their farms into agro-industries, while parks were created with public money to take care of the need for fresh air and recreation. These functions were separated. But would it not be cheaper and more environmentally sound to combine such functions?

**URBAN PRESSURE**

All urban open space, be it agricultural, woodland, natural or recreational, is always under pressure from potential developers. The article on Lagos shows the negative impact of this on the food security of many low-income urban residents. There will always be people who consider this “empty” land as a waste of precious urban space and as an opportunity to make money by building apartments, office space or whatever else on it. It would help to successfully resist such pressure if this green open space could fulfil more than just one function and therefore have more
than just one category of serious protectors. Actually, the articles by Lang and Viljoen et al. both show that even considering the huge land prices, one could calculate the costs and benefits in such a way that agriculture becomes economically viable and could reduce public spending on transport.

Among the various types of green urban space, agricultural production areas tend to stand relatively weak. In most cases agriculture is no part of the urban development plan. Furthermore, in their survival strategy of efficient production, many urban and periurban farmers have not paid much attention to the appearance and accessibility of their land to urban residents. One can imagine that for parks, sports fields and cemeteries the situation is a bit better. Farmers may have put up little shacks for storing their tools or supplies, or for their animals, which are not nice for urban residents to look at. Or they may have put up barriers where these residents would like to stroll while enjoying the green space and fresh air. As is argued in the article by Van den Berg et al. on page 7, if they are to stand a chance against urban developers, urban and periurban farmers will have to at least get the urban residential neighbours on their side.

**TAKING CARE OF EXTERNALITIES OF URBAN FARMING**

The dilemma for urban farmers, of whether to focus on production or to take care of the side-effects of what they are doing, is well discussed in the article by Fleury et al. after this editorial: farmers should be aware of the “externalities” of their work and “internalise” these in the exploitation of their land. The positive externalities can provide them with additional income, while the negative ones involve costs (e.g. to remove an environmental nuisance). To them, the “multifunctionality” of agriculture involves “setting in motion positive externalities thanks to the enrichment of their significance”. In reality one often sees these positive externalities of urban agriculture being grabbed by non-farmers, especially by owners of houses facing farmland, while the farmers are blamed excessively for any negative externality of their work. Several examples (Dakar, Ottawa Mexico, and the Netherlands in this magazine) show that the parties concerned can work towards a fairer sharing of the many different costs and benefits of this “multifunctional” urban and periurban agriculture.

**FLOOD CONTROL**

Urban developers are always under temptation to build in the floodplains of local rivers. Sometimes they try and compensate this by efficient drainage systems, which incidentally just shift (“externalise”) the flooding problem to some downstream areas. But in most cases the cities themselves have to face the problem of lack of space for the temporary storage and seepage of rainwater. Urban parks and woods would do the job, but most trees don’t like floodplains while clever farmers know what to grow when to benefit rather than suffer from the seasonal flooding. This function is mentioned in the articles on Hanoi, and on Setif in Algeria where prevailing practices in some of the wadis (temporary river beds under arid climatic conditions) could easily develop into a sustainable system of market-gardening with natural meadows for animal husbandry.

**CULTURAL HERITAGE**

When cities grow they absorb villages, which have unique architectural features, including temples and mansions. There is a lot to gain, as the articles on Benin and Vietnam show, if some characteristic elements of these villages are preserved for future generations. History has proved that historic buildings tend to become very popular for the well-to-do to live or work in, but also that it is important to let them be seen by keeping some surrounding land open.

**MULTIPLE FUNCTIONS AND ALLIANCES**

Urban farmers depend on the institutional or private owners of the land: local (village or ward) governments, etc. Keeping some farmland open could fit very well in the strategy of maintaining property values next to these green spaces and of not having to maintain public parks themselves in areas that are relatively difficult to build on, including areas that are liable to seasonal flooding.

So it could be in the interest of such urban land owners to let farmers take care of such land and to just help them a bit in providing an “amenity” function for the urban residents. Or a joint venture can be created between local governments and agricultural producers to develop agro-recreational parks. That there is scope for such alliances is shown in the articles on Dakar by Fleury et al., on Hanoi and Nanjing and on Beijing. The Urban Agriculture Network – Northern Ghana (URBANET-N/G) grew from a advocacy institute to a formal coalition of farmer associations, NGOs and government agencies including research and training institutions, in Tamala, Ghana. The article by Floquet on Benin shows that farmers, including those with livestock, can be entrusted with the maintenance of urban green spaces along roads and on the grounds of royal palaces and that a lot of money can be saved in the process. But they also warn that the forces to turn urban grassland or vegetable fields into buildings or tarmac remain strong.

Apart from these local land managers (and the metropolitan urban planners in the background) there are above all consumers to seek alliances with. Urban agricultural produce can have a bad reputation as it may well be affected by urban pollution: heavy metal deposition...
along the roads, in urban waste used for soil improvement and untreated effluents from urban industries and households in local streams which are used for irrigation. This is why local consumers like to know where their daily fresh vegetables come from. Short lines between urban farmers and urban consumers are not only a mechanism for quality control and the safe use of agricultural inputs but also for solidarity and mutual understanding. This is of concern in the experience in Bucharest as well, where in the development process a shift in attention from food security to food safety sees an increase in demand for organic products. The safe absorption of urban (organic) waste is another important function of agriculture in or near the cities. Also this function cannot be performed satisfactorily by the farmers themselves. They need the support of urban waste collectors and processors. Ali et al. write that the city of Hanoi produces far less organic waste than its horticultural producers could use. But only a very small part of this urban waste reaches the farmers, and often without a safety guarantee. Actually, when one looks carefully into this urban organic waste cycle it becomes clear that small-scale animal husbandry is widespread within Hanoi and responsible for an important part of the organic waste. Such waste is taken directly to fishponds, which can be considered as a successful example of “urban aquaculture” by combining protein production with waste recycling and maintaining urban open spaces (see also UAM no.14).

SOCIAL ACTION FOR A PRODUCTIVE URBAN LANDSCAPE

The article by Smith et al. shows that in Durban the function of putting municipal fallow land into some productive use can be combined very well with community development by encouraging community groups to apply for government-supported improved horticultural projects. This resembles the successful allotment gardening projects in many European countries during the 1920s and 30s. At that time they were developed at the urban fringes; most of them are still there, but they are now valuable green spaces located well within the city limits. To some extent this can just be a way of growing part of the household food requirements, but it could also develop into professional market gardening or into mainly or purely an urban leisure activity (see the article by Pouw and Wilbers on the Netherlands). What works for public land can also be applied to private vacant land, which is shown in the article by Holmer and Drescher on Cagayan de Oro, in the Philippines. A survey two years after the inception of allotments proved that these gardens are very successful in terms of food security and diet improvement for the urban poor, but also in strengthening community values and even urban waste recycling. The social action element can be very promising as several articles show. It gives low-income urban residents a chance to legalise and develop some agricultural practices they have been involved in for a long time. Or it enables them to participate in demonstration gardens. According to Casale the demonstration gardens set up in neighbourhoods in Buenos Aires “are becoming symbols of vitality and growth in neighbourhoods traditionally known for chronic crime and poverty”.

“Community Supported Agriculture” is yet another way of combining food security and/or income opportunities for all kinds of urban residents. The article on Hawaii gives a very interesting example of one such farm established for the benefit of “high-risk urban youth”, who spend 10 months on the farm learning leadership skills and the mechanics of running a business. Focusing primarily on London (and the UK in general), Viljoen and Bohn make the point that by combining urban development planning with proper designing of a “productive green grid” tens of thousands of people could be fed from local agricultural produce and have a nice landscape at the same time. The articles on Colombo (Sri Lanka) and Rosario (Argentina) describe experiences on participative urban design. In Colombo this goes under the very illustrative title of “Urban Agriculture as a Method of Urban Upgrading”. The people of Colombo use whatever space available for agricultural production. This background was used to incorporate urban agriculture in a big slum improvement project in the city. Residents were assisted in continuing and developing with the city according to their wishes of stakeholders who represent these diverse other functions. Therefore, the sustainability of urban agriculture is related to this multifunctionality. This means that urban agriculture should adapt and develop with the city according to wishes of stakeholders who represent these diverse other functions. Therefore, new forms of governance, institutions, and policies are needed, to be constructed by seeking synergies and involving multiple stakeholders in these processes.