



FOOD *for* THE CITIES

[...] urban poverty tends to be fuelled by people migrating towards the cities in an attempt to escape the deprivations associated with rural livelihoods. Partly due to the rural decline, the world is urbanizing at a fast pace and it will not be long before a greater part of developing country populations is living in large cities. Therefore, urban food security and its related problems should also be placed high on the agenda in the years to come.

Jacques Diouf,
FAO Director-General. *The State of Food Insecurity
in the World 2006*, FAO



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Challenges...

www.fao.org/fcit/index.asp

During the course of 2007, for the first time in history, half of the world's population will be living in cities. These will continue to be the main centres of growth, expecting to house almost 5 billion people in 2030. While megacities – with a population over 10 million – will likely continue to grow in size and numbers, most of the increase is expected to be absorbed by small – less than 500 000 – and intermediate – 1 to 5 million – cities.

Urban-rural linkages will therefore become increasingly important. Cities should be seen as engines of rural development, providing markets and infrastructure, as well as a range of support services essential for the increase of rural productivity.

Food security, with the influx of rural poor and rising unemployment, has become a major concern in most cities. Even so, the food dimension of poverty in urban areas is not given the appropriate attention in either poverty reduction strategies or international development fora. Furthermore, policies and resources dealing with poverty, exclusion and inequality in cities remain highly inadequate.

- Food security, nutrition and livelihoods
- Production systems – Urban and peri-urban agriculture
- Food marketing and distribution
- Food processing and street foods
- Environment
- Rural-urban linkages
- Policy, planning and institutions
- Cities in crises



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As a result, urban diets are affected and malnutrition has become a major concern.

Environmental issues – such as scarcity, degradation and contamination of land, water and forest resources – generated by poorly planned urbanization are coming to the forefront. The risk of disasters increases with significant numbers of predominantly poor populations exposed to floods and landslides.

Neither the Millennium Development Goals nor the World Food Summit's goals will be achieved if appropriate attention is not given to cities and rural-urban linkages.



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The task of feeding the world's cities adequately constitutes an increasingly pressing challenge, requiring the co-ordinated interaction of food producers, transporters, market operators and a myriad of retail sellers. [...] Not least, it involves a shared understanding among city officials and national and international development agencies of the common problems and the potential solutions faced when seeking to feed cities on a sustainable basis.

Jacques Diouf, FAO Director-General.
The State of Food and Agriculture 1998, FAO



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FAO's response and action...

Harmonious urban development will require an integrated approach, involving government institutions and local authorities, as well as development agencies and the civil society. FAO has a key role to play in the management of natural resources for food security and sustainable urban development, and, to this end, has established a multidisciplinary initiative. Since 2001, the Food for the Cities initiative has been contributing to increased dialogue and partnerships with institutions at international and national levels, and in particular with municipalities. Technical assistance and support in policy formulation and urban planning to institutions and groups is required, in order to ensure access of the urban population to safe food and healthy and secure environments.

Urban food security necessitates a reliable year-round supply. This food is produced both, in rural areas and in urban and peri-urban areas. The challenge of feeding cities consists in facilitating access to food by consumers and creating favourable conditions to ensure the investments needed to increase food production, processing and distribution capacities; and facilities and services under hygienic, healthy and environmentally sound conditions.

Food production, processing and distribution also contribute to the livelihoods of urban people and are important sources of income and employment. Support to small-scale food and agriculture activities should therefore be seen as a key component of urban poverty alleviation.

Environmental sustainability is a key issue in the frame of urban development. Therefore, appropriate techniques and practices should be promoted to ensure food



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safety and healthy environments, prevent soil erosion and floods, and protect and improve water and air quality.

FAO has been taking action through a variety of activities including the organization of national and inter-country workshops on urban food supply, urban and peri-urban agriculture, urban forestry and low-income producer organisations; production of written and audio-visual resource materials; and participation in international fora and networks. Furthermore, FAO provides technical assistance at regional, national, and local levels, through supporting or implementing National Programmes for Food Security, emergency relief operations, TeleFood projects and decentralized cooperation projects, many of which are relevant to urban development.



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**Food for the Cities
Multidisciplinary Area
FOOD AND AGRICULTURAL
ORGANIZATION
OF THE UNITED NATIONS**

Viale delle Terme di
Caracalla, 00153 Rome, Italy
www.fao.org/fcit/index.asp



FOOD *for* THE CITIES

Urban food security, nutrition and livelihoods

Challenges...

As people move to towns in search of better opportunities, accelerating urbanization brings new challenges. More people in urban areas mean that more food, more goods, more services and more employment opportunities must be provided.



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Food security and livelihoods. While there are certainly more foods available year round and more jobs and social services in urban areas, not everyone is able to benefit. A growing number of urban poor face a daily struggle to feed their families. Poverty and unemployment are

often associated with social exclusion. This means that many poor people have neither physical nor economic access to adequate and safe foods, nor to the facilities required to store and prepare them.

Food consumption and nutritional well-being. People who move to cities must adopt new methods of acquiring, preparing and eating food. Many city-dwellers have limited time for shopping and cooking and they rely increasingly on processed and convenience foods, including street foods. Poor shelter, lack of sanitation and hygiene and insufficient social services in slum areas further compound the problems of the poor. As a result, under-nutrition and micronutrient deficiencies, coupled with over-nutrition and rising problems of obesity and diet-related chronic diseases can be found in most cities. This situation is further exacerbated by low levels of physical activity.

FAO's response...

Achieving good nutrition in urban areas requires an integrated strategy:

- the amount and variety of safe and affordable foods required to meet nutritional needs must be available to everyone year round;
- people must have the means, knowledge, time and motivation to purchase, prepare and consume the food they need for a healthy and active life; and
- urban areas must be healthy and safe, provide basic services and ensure a favourable social environment.

Focussing on food security, nutrition and livelihoods in urban and peri-urban areas will help city-dwellers to attain a healthier life. It will also allow municipalities to broaden their strategy towards achieving the Millennium Development Goals.



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FAO/1621/L. Spaventa

FAO's action...

Surprisingly, the worrying situation which is emerging in many cities has not generated the sufficient attention to food security and nutrition. Action needs to be taken urgently. FAO has started to document the food and nutrition constraints of the urban poor to raise awareness of decision-makers and enable its Member Nations to develop appropriate strategies to protect and promote food security, nutrition and livelihoods in the urban environment.



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Examples of current and recent activities. They include case study reports on the double burden of malnutrition in developing countries; pilot testing of a participatory community process to assess food and nutrition needs in slum areas and present them to relevant stakeholders at municipal level (India); projects to assess the nutritional quality and safety of street foods (Burkina Faso, Guinea), and more specifically those sold to school children in urban areas (Tanzania and Uganda).

Recent publication. On the basis of its collaboration with FAO in the slum areas of Bhuj, India, the Disaster Mitigation Institute (DMI) published, in collaboration with FAO, an Experience Learning Booklet entitled Participatory Urban Food and Nutrition Security Assessment Process.

FAO and urban nutrition. Since the mid 1980s, FAO has been working on the following areas:

- the impact of urbanisation on food supply;
- the role and safety of street foods in the urban environment;
- the impact of urbanisation on food security and food consumption patterns;
- the assessment of dietary changes and nutritional status in urban areas;
- and most recently, strategies to meet urban food security and nutrition needs.

For further information:

FAO, Nutrition and Consumer Protection Division
nutrition@fao.org
www.fao.org/ag/agn/index_en.stm



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Urban and Peri-urban Agriculture/Horticulture

Challenges...

The world urban population is expected to double in 30 years leading to a growing number of urban poor. The urban population expansion is more pronounced in developing countries as result of the immigration from rural areas, as people flock to the cities in search of food, employment and security. The trend is accelerating, and by the year 2030, it is expected that about 60% of the world's population will be living in cities. Such rapid urbanization and the harsh reality of urban poverty require *ad hoc* strategies to ensure adequate food supply and distribution systems to address escalating levels of urban food insecurity. Besides the growing demand for food, there is a rapid increase of poverty, unemployment, hunger and malnutrition in the urban and peri-urban environment around the world - issues that are of great concern to central and municipal authorities.

Within this reality, urban and peri-urban agriculture/horticulture (UPA/UPH) has become a key component of the survival strategies of poorer sections of the population while also providing a significant contribution to the urban fresh food supply chain. UPA/UPH is also a source of employment and income, and has the potential to improve the nutrition of disadvantaged urban residents. A key challenge is developing policy, strategies and technical support mechanisms *ad hoc* for the sustainable management of urban and peri-urban agricultural systems, addressing production issues and marketing needs within a broader framework of environmental planning and management, water supply and utilisation schemes, and food safety assurance.



Major environmental benefits and synergies can be achieved when agriculture and green zones are planned for as part of the urban landscape, including safe recycling of waste.



W.O. Baudoin

Urban and peri-urban horticulture contributes to food availability - particularly of fresh produce - in cities, and provides opportunities for employment and income.

FAO's response...

Since 1999, FAO has been formally mandated by its membership to deal with UPA as an integral part of agricultural production systems, and to specifically consider its contributing role in feeding the cities, creating employment and generating income for the urban poor. FAO is committed to assisting member nations to integrate UPA as a component within national food security programmes, and to supporting capacity building for their successful implementation. A multidisciplinary approach has been adopted within FAO to respond to the need for effective development and management of urban and peri-urban agriculture systems, with several departments and divisions involved in supporting programme and project activities. The Organization also engages with local authorities and policy makers to support the development of policy advice, strategies and technical guidelines within an integrated approach to the sustainable management of agriculture in urban and peri-urban zones.

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FAO's action...

UPA and the Special Programme for Food Security (SPFS): FAO is providing guidance and assistance to member countries, through the incorporation of urban and peri-urban horticulture into existing agricultural development and National Food Security Programmes (NFSP), as well as assuring technical support for on-going local project delivery in urban and peri-urban agriculture. The SPFS, in particular, is a multidisciplinary programme that combines expertise and experience from a wide range of fields to promote an integrated and participative approach to food security. Its design includes an element of urban and peri-urban agriculture, aimed at improving access to food and advancing the livelihoods of people living in and around cities.



W.O. Baudoin

Cheap and simple micro-garden technologies enable city dwellers without any land to grow healthy greens.

Support for Capacity Building: FAO is working with decision makers in member countries with the objective of strengthening national capacity for policy and strategy development related to urban and peri-urban agriculture. Regional workshops held in Asia and Southern Africa with strong support from Norway, Belgium and other donors have recently provided opportunities for sharing experiences among countries and cities of the South, and sharpened focus on the actual techniques and strategies for improving small-scale horticulture and its value chain in, and around, urban areas.

Strengthening National Pilot Interventions and Projects: FAO plays an active role by interacting with the donor community to mobilize funds and assist member countries to initiate or strengthen national initiatives on UPA/UPH through the implementation of short- and medium-term projects. Recently, opportunities for "decentralized cooperation" offered by some countries of the North have been captured, enabling a broad stream of benefits to flow from city-to-city programmes of assistance.



W.O. Baudoin

Partnership Activities and Linkages: The character of the "Food for the Cities" multidisciplinary area is mirrored in FAO's links and partnerships with other organizations that are actively working in the field of UPA. Furthermore, within the implementation of a related programme - the FAO/WHO **Global Fruit and Vegetables for Health Initiative** - UPH and horticulture supply chain improvement are being supported as key components. IDRC and RUAF are long-standing partner organizations, and a close partnership has recently been forged with CIRAD (French Agricultural Research Centre for International Development) and its programmes in the area of urban and peri-urban horticulture. FAO is also pursuing opportunities for joint cooperation with the "Urban Harvest" Initiative of the CG System, the International Society for Horticultural Science (ISHS) and the Global Horticulture Initiative (GHI) in order to address emerging researchable issues related to UPH.

Good agricultural practices are the foundation of capacity building efforts to ensure that UPH is environmentally sustainable and that the produce grown is of high quality and safe for consumption.



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<http://www.fao.org/fcit/index.asp>

For further information, contact:

FAO, Crop and Grassland Service

Viale delle Terme di Caracalla, 00153 Rome, Italy

E-mail: AGPC@fao.org

Web site: <http://www.fao.org/ag/AGP/AGPC/doc/crops/4c.html>

AskFAO: www.fao.org/askfao/home.do?lang=en



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Urban livestock, food security or environmental hazard?

Challenges...

Keeping livestock in urban or peri-urban environments is not new. Historically humans have always been closely associated with their livestock, often sharing the same dwelling. All species are involved: poultry, rabbits, guinea pigs, pigs, sheep, goats, cattle even buffalo. Having your market often literally on your doorstep ensures that the consumer has a fresh product. The producer in most cases also has better

access to goods and services: veterinary care, drugs, feeds etc. With increasing urbanisation and economic growth, the demand for animal food increases and large scale production operations emerge. Initially, given the perishable nature of animal products, inadequate conservation, transport without chilling or processing, production is located in and around towns and cities close to consumer demand. In countries with well developed infrastructure, high employment and high per capita income, livestock raising is no longer closely associated

with urban or peri-urban areas and driven more by access to feed and lower land and labour costs. In many developing countries the phenomenon of keeping animals in urban and peri-urban areas is increasing. Urban poverty, exacerbated by the "urban drift", means that every opportunity to produce food or generate income from what is essentially a free resource is exploited to the full. While keeping a few, confined small-stock to supplement the family diet and income offers little environmental risk, real risks occur in developing and emerging economies with growing conurbations that have not developed the sophisticated infrastructure necessary to disaggregate livestock production from the consumption centres. Large commercial, highly intensive, livestock production units rearing pigs, broilers, layers, milk (cattle and buffalo colonies) around conurbations in China, South-East Asia, the Indian sub-continent and South America are a major environmental and public health concern.

The challenge is to develop coping strategies that address the immediate environmental and public health issues associated with urban and peri-urban livestock keeping and thus buy time for longer term economic growth and infrastructure investment in roads, communications and energy. The implementation of such strategies should, however, not negate the benefits and low risks, for both owners and consumers, associated with small-scale household or commercial livestock production.



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Small ruminants raised in the cities is very common and generate important incomes for the urban poor

FAO / E. Guerne Bleich



Disease transmission risks exist and may be prevented. Following good practices, animals may play an important role as waste cleaners. Scavenging local poultry in Bogor, Indonesia

FAO / E. Guerne Bleich



Smaller scale enterprises and the use of small animals allows for better marketing opportunities. Small scale commercial poultry farmers in Bogor, Indonesia



FAO / E. Guerne Bleich

Poultry production around the cities improves household food security. Muscovy ducks is an important meat production practice in Angola

FAO's response and action...

FAO assists in developing strategies to address the issues facing urban and peri-urban livestock keeping. Capacity building is provided through advice on good husbandry practices, animal health, small-scale processing, food safety, veterinary public health and policy support. On the practical side, the Special



FAO / E. Guerne Bleich

Producers can generate income by taking advantage of the high food demand and proximity of the city to market their products. SPFS's goat and poultry rising in Tsevié, Togo

Programme for Food Security (SPFS) operates in many developing countries to improve food security at both national and household levels and is involved in peri-urban as well as rural areas. The Animal Production and Health Division also hosts a dedicated programme dealing with livestock and environmental issues, the Livestock, Environment and Development Initiative (LEAD), that focuses on pollution issues associated with intensive, peri-urban livestock production. <http://www.virtualcentre.org>

Special Programme for Food Security. Livestock keeping is a major activity of the SPFS. For example, in Chad, the high demand for poultry meat and eggs in the urban centres provided an important marketing opportunity which was not satisfied by domestic production. Local farmers lacked the resources to obtain a regular supply of improved birds or quality feeds and it was difficult to obtain reliable access to veterinary services, drugs and vaccines. Using modern constraints analysis and a consultative process combined with training in improved technologies, the SPFS promoted affordable and practical interventions for successful peri-urban poultry keeping that provided real benefits to producers and consumers.

Animal waste management. Some of the largest concentrations of intensive livestock production in peri-urban areas are to be found in East Asia. Pollution from inappropriate manure disposal is a major environmental concern. LEAD, with funding from the Global Environment Facility (GEF), implemented a project for China, Thailand and Vietnam entitled Livestock Waste Management in East Asia. The project addressed major environmental threats by developing policies that balance the location of livestock production operations with the appropriate land resources, and encourage the beneficial use of manure and other nutrients by crop farmers. At the national level, this project stresses the need to plan in advance for the location of future livestock development, so as to create the conditions for better recycling of nutrients.



FAO / E. Guerne Bleich

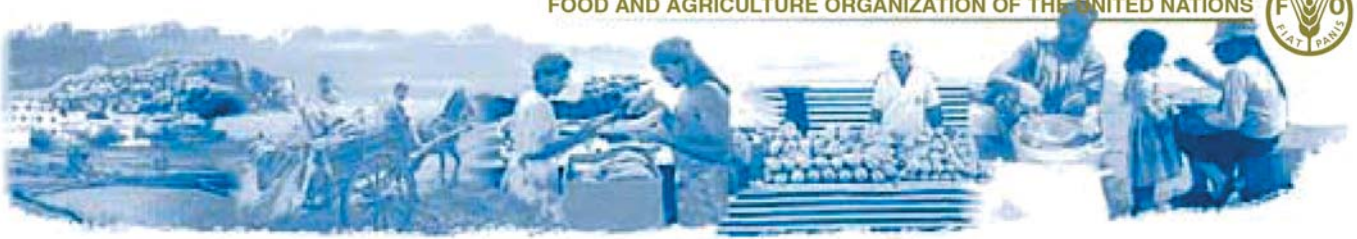
Animals provide cash and fresh produce in the inner city with little or no packing and processing. Cultural practices are a challenge for good hygienic practices. Poultry marketing in Bogor, Indonesia



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For further information, contact:

FAO, Animal Production and Health Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
AGA-Registry@fao.org
www.fao.org/ag/againfo/home/en/home.html



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Forest and trees, improving livelihood through healthy green cities



Tehran Parks and Green Space Organization

Tree and forest products, such as wood, firewood, fodder, medicine and food, generate income, employment and improve livelihoods. Tehran outskirts, Iran

Challenges...

The urban demographic situation across the world puts the environmental sustainability of the cities and the wellbeing of the inhabitants at stake. The intensification and extension of cities without taking into account the land-use capacity and the local need for woody building material and fuelwood, has contributed to a drastic depletion of tree and



F. Salbitano

Tree cover has a positive impact on community well-being and recreational activities

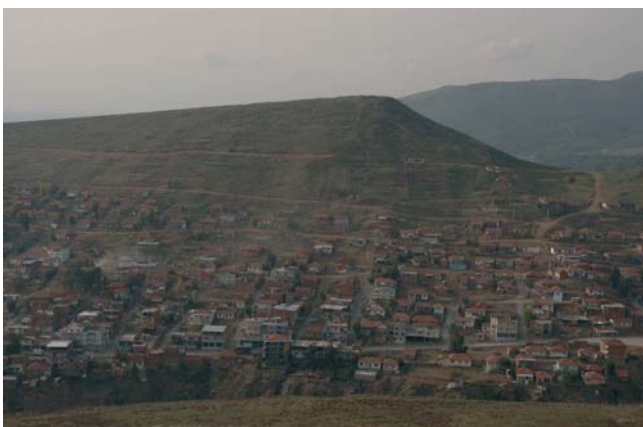
forest cover in and around cities. This is a common situation in developing countries and countries with economies in transition. Cities consequently suffer from floods, dust encroachment, water shortage, soil erosion and landslides associated to significant costs in terms of lost infrastructure and human death. Other natural disasters, conflicts and wars exacerbate the situation.

The major challenge is to give trees and forests their essential place in urban development. A green sustainable city is a mosaic of hedgerows, windbreaks, home gardens, orchards, recreation parks and tree-lined streets distributed over private, communal and public lands. Trees and forests are appreciated at the same time by various categories of urban dwellers. They are productive agroforestry systems, recreational green spaces, beautification elements, and contribute directly to the

livelihood of the poor, as well as to the wellbeing of the society as a whole. But land insecurity, the poverty of the population and institutional weaknesses remain major constraints to the conservation and restoration of tree systems in a harmonious way and a long-term perspective.

FAO's response...

By gathering world expertise, knowledge and best practices, FAO helps promote urban and periurban forestry with special attention to poverty alleviation, food security and environmental sustainability. FAO assists countries in developing national and local strategies, legal and institutional framework and programmes that ensure harmony between sectors, disciplines and institutions. Dialogue is central for designing and agreeing on fair and equitable options also based on local knowledge. Some major forum where FAO is an active actor and could raise urban forestry in the international agenda, are the UN Convention to Combat Desertification (UNCCD), the Mountain Forum, the UN Framework Convention on Climate Change (UNFCCC) and UN-Habitat and its World Urban Forum. In line with the Millennium Development Goals, attention is given to poverty alleviation, livelihood improvement of poor dwellers and environmental sustainability. FAO promotes the optimization of trees and forests for a healthy green city designed and managed in response to its specific socioeconomic identity, and its landscape and ecosystemic context.



E. Umit

Lack of trees results in economic losses. Trees save energy for cooling and heating as they reduce high temperatures and protect from cold winds. Urbanization around Izmir, Turkey

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FAO/G. Bizzarri



The depletion of trees and forests in and around cities may produce infrastructure losses and human deaths

FAO's actions...

FAO's support to the development of urban forestry includes:

- developing policies and strategies for urban and peri-urban forestry with the participation of urban dwellers, institutions and authorities involved at national and decentralized levels, e.g. municipal, government and NGOs;
- building synergy and collaboration in actions related to urban agriculture, mountain and watershed management, integrated landscape management, urban development; and promoting cooperation among practitioners from various disciplines and sectors;
- implementing good practices in the domains of resource management, e.g. use of waste water, arboriculture and agroforestry, and integrated urban planning, e.g. resources assessment, economic valuation, participatory approaches and watershed management;
- encouraging worldwide dialogue, where governments, local authorities, communities, smallholders, NGOs, municipalities, universities and private enterprises can exchange on needs, opportunities and collaboration.

Examples of FAO's activities:

- policy briefs development to provide guidelines for municipal and national policy-making on urban and periurban forestry;
- strategies for urban forestry and priority action plans development, such as those for Bamako (Mali) and Bangui (Central African Republic);
- information, need analysis and awareness raising, e.g. case studies on the status of urban forestry in Amman, Abu Dhabi, Astana, Cairo, Dakar, Izmir, Kabul, Niamey, Quito, Teheran and Yerevan;
- regional studies on the role of the forestry sector in urbanization, such as the regional Forestry Outlook for West and Central Asia (FOWECA);
- thematic studies on the analysis of the social and environmental impact of the wood-energy demand and supply on urban development, for example, in East Africa and South-East Asia.

Tehran Parks and Green Space Organization



Urban trees mitigate air pollution and help to preserve human health

Tehran Parks and Green Space Organization



The integration of trees and forests in and around urban areas is an indispensable element of sustainability for the whole society



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For further information, contact:

FAO, Forest Conservation Service
Viale delle Terme di Caracalla, 00153 Rome, Italy
urban-forestry@fao.org
www.fao.org/forestry/site/tof/en/



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Water use and reuse for urban agriculture

Intensive pumping causes the depletion of high quality groundwater in Yemen

FAO/12170J, Van Acker



Challenges...

Water use has been growing at more than twice the rate of the population increase during the last century. In rapid growing urban centres, water has become a fragile and scarce resource in a competing environment. In marginal zones of mega-cities, often characterized

“informal” activity practiced by individuals and farmers’ associations.

Localized sources of water, which include groundwater, streams, urban drains, piped water and (un)treated wastewater, in urban centres of low to medium-income nations are likely to be severely contaminated due to the concentration of habitation with rudimentary sanitation arrangements and unregulated municipal and industrial effluents. Management of water resources has become an urgent issue as urban and peri-urban farmers often apply water from municipal sewage, mostly in its untreated form, to irrigate and for plant nutrients, thereby increasing the risk for illnesses to both the farmers and the consumers. Furthermore, the destruction of shallow riverine and coastal aquifers, through over-pumping and pollution, has greatly added to the water crisis in many cities.

Imbalances between availability and demand, degradation of groundwater and surface water quality, inter-sectoral competition, inter-regional and international conflicts, all bring water issues to the forefront.

FAO’s response...

FAO assists by providing a coherent and comprehensive set of information, policy advice and technical support to countries and stakeholders that allows them to better address integrated water issues at local, national and river basin levels.

The water-food-sanitation Millennium Development Goals (MDGs) targets will not be met without better governance and innovative approaches whereby urban governments, water and sanitation agencies, as well as other sectoral institutions need to coordinate and extend provision of water supply in an integrated manner. Taking an integrated, multiple or productive uses approach to water development and management is an opportunity to advance progress toward the MDGs. Local authorities contribute to the MDGs, and a multidisciplinary approach is needed to consider the social, economic, cultural, legal and institutional constraints oriented to local communities, urban centres, rural areas, user groups, and administrative, public and private organisations.

Promotion of best practices for sustainable water use in developing countries

FAO/8457/F, Maittoli



Pollution from ore processing into karstic base flows in Hunan Province, China

J. Burke, M. Moench



FAO/IS. Koo-Oshima

Optimising space use. An eco-sanitation vegetable garden in Addis Ababa, Ethiopia

FAO's action...

FAO's water-related projects and programmes in support of urban and peri-urban agriculture (UPA) address a number of challenges in ensuring that water for irrigation is adequate vis-à-vis sanitation, nutrition, water and food quality and safety, equitable access to water, reconciling urban and rural priorities, and sustainable wastewater management for a clean and safe environment.

FAO's support of water in urban and peri-urban agriculture includes:

- water saving technologies, including pressurized irrigation systems, e.g. drip irrigation, sprinklers;
- water development and management for **appropriate cropping systems and urban landscaping**, including advances in in-field application and drainage, the use of **wastewater** for irrigation, **conjunctive use**, **aquifer-storage-recovery**;

- **water quality monitoring** systems;
- guidelines to assist safe reuse of **treated wastewater** and **greywater**, waste recycling such as **eco-sanitation**;



FAO/19432/R. Faidutti

Water-saving technologies contributing to reduce pressure on limited water resources in Eritrea

- **economic appraisal** of the opportunity costs of the water resource base where competition between agricultural production and water supply and sanitation exists — in both rural and rural/urban settings - and economic instruments in **water resource allocation** for agriculture;
- assessment of **source vulnerabilities** in rural/urban settings where resource degradation has become apparent;
- risk assessment to **public health** posed by agricultural production, environmental control of vectors, and the use of effluent water in horticultural production in UPA settings;
- **structured negotiation** facilitation between disparate user groups in urban and rural settings (the constituents of the relevant basin or aquifer);
- development of **participatory planning** procedures for coastal zones, aquifers, administrations and economic sectors and basin governance (the policy/legislation/institutional reform continuum);
- partnership building with NGOs and through the **UN-Water** mechanism in efforts to achieve water and sanitation goals and targets set at the 2002 World Summit on Sustainable Development and the **MDGs**.

Hydroponics, as a soil-less technology, is adaptable to urban farmers to increase yield year-round



FAO/J.Izquierdo

Treated sewage water used to irrigate new tree plantations in Egypt

FAO/22114/R. Messori



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For further information, contact:
FAO, Water Resources, Development and Management Service
 Viale delle Terme di Caracalla, 00153 Rome, Italy
www.fao.org/ag/agl/contact.stm (e-mail)
www.fao.org/landandwater/aglw



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Urban food market infrastructure and services

Transport costs often represent the bulk of marketing costs. Food transporters need roads, parking, loading, unloading, resting facilities, vehicle and cargo security



Wholesale activities are often dispersed over the urban area, limiting the potential benefits to be derived from organized wholesale markets

FAO / O. Argenti

Challenges...

To achieve cost-effective food marketing, minimize post-harvest losses, reduce health risks and ensure an adequate stability of basic food supply to cities, efficient market infrastructure such as assembly, wholesale and retail markets, storage facilities, as well as basic handling and transport facilities

and services, are essential. Market infrastructure, facilities and services, equipped with new technology, such as refrigerated transportation and storage and information systems that track inventories, should be planned at the regional, metropolitan and urban levels. As traditional systems are important sources of employment and revenue collection, authorities have often been reluctant to promote their modernization. However, improvements are now being considered as increasing awareness of food safety issues, in unimproved traditional marketing systems, is now becoming evident and therefore the conflict between traditional and modern arrangements needs to be addressed.

An important aspect for policy consideration is the role played by the informal sector in making food available to low income urban areas and in generating income for poor families.

This requires a positive attitude by the authorities and special programmes to facilitate safe, informal food trading activities.

FAO / O. Argenti



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Waste from markets and slaughterhouses threatens health and contaminates food, soil, water and air

FAO's response...

Market infrastructures, facilities and services are essential elements of the food supply and distribution system (FSDS). These must be properly planned, maintained, managed and developed to accommodate the rapidly increasing food quantities coming to cities. There is growing awareness of the need for city and local authorities to be directly concerned with feeding their cities, and take on a proactive and coordinating role in the development of sustainable market infrastructure and marketing services.

FAO's Food Supply and Distribution to Cities initiative, a component of FAO's Special Programme for Food Security, promotes an interdisciplinary, multisectoral and participatory approach to finding sustainable solutions in planning and implementing decisions to improve FSDS to cities, with direct involvement from the private sector.

FAO / O. Argenti



Congested urban markets cannot accommodate increasing quantities of food. The lack of space and adequate facilities in the markets increases food losses and marketing costs



FAO / O. Argenti

Non motorized transport helps keep food prices low, provides employment for young and poor people and does not pollute but contributes to traffic congestion in and around markets

FAO's action...

Food Supply and Distribution to Cities. This initiative includes components particularly aimed at policy makers, local authorities, technical staff and researchers:

- technical documentation as well as information and training products, distributed with the Food for the Cities collection;
- sensitisation seminars and workshops at regional, sub regional and national level;
- training services on demand;
- technical assistance for the preparation of specific case studies;
- technical support in the formulation and implementation of local policies, strategies and action plans.

Key thematic areas of study and intervention:

- modern distribution systems and facilities;
- integrated development of intra-urban food transport;
- hygiene and food handling, processing, storing transporting and marketing;
- services to urban market users;
- policies and strategies to make FSDSs more efficient and dynamic;
- role of public and private institutions, including promotion of market traders, shopkeepers, consumer associations and organizations.

Information and training products. FAO has produced a number of briefing guides to help policy makers and planners understand the benefits of improving FSDS to Cities. In particular, a number of planning guides related to planning, establishment and management of market infrastructure, are available for downloading from the FAO website. <http://www.fao.org/ag/ags/subjects/en/agmarket/agmarket.html>

Institutional strengthening. Various seminars and workshops, held in Africa, Asia, Latin America, and the Near and Middle-East, strengthened the capacity of local authorities and institutions responsible for devising FSDS policies, strategies and action plans. Examples are:

- FAO regional seminar Feeding Latin American Cities, La Havana, Cuba, 2003;
- FAO-WHO-ONUDI national workshop Food safety in Algeria, Algiers, Algeria, 2003;
- FAO-CIHEAM-ONUDI national workshop Food Supply and Distribution to Algiers, Algiers, Algeria, 2003;
- FAO-CIHEAM sub regional workshop Feeding North African Cities, Meknès, Morocco, 2003;
- FAO-WB-Municipal Authority of Addis Ababa sub-regional workshop Feeding Cities in the Horn of Africa, Addis Ababa, Ethiopia, 2002 (in collaboration with FAO-TCIR World Bank Horn of Africa Food Security Initiative);
- FAO project Urban Food security in the city of Greater Amman, 2001 (TCP/JOR/8923);
- FAO-AFMA-CITYNET regional seminar Feeding Asian Cities, Bangkok, Thailand, 2000;
- special event at the UN General Assembly on Food for the Cities with the occasion of the Habitat+5 meeting, New York, June 2001.

The design, location and management of wholesale and retail markets are important determinants of investment profitability and the cost of access to food by low-income households



FAO / O. Argenti



FAO / O. Argenti

Spontaneous markets cause hygiene, security and traffic problems but provide food where it is needed and create employment



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www.fao.org/fcit/index.asp

For further information, contact:

FAO, Agricultural Support Systems Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
ags-registry@fao.org
www.fao.org/ag/ags/subjects/en/agmarket/agmarket.html



FOOD *for* THE CITIES

Urban food marketing

Challenges...

As cities grow in population and area they require more extensive infrastructure and enhanced rural-urban linkages and marketing arrangements to bring increasing quantities of food to consumers. In reaching urban consumers, food passes through a variety of marketing and organizational systems and in many developing countries, several factors generate additional costs and raise consumer prices.

Such factors include: market failures; poorly developed urban food systems; the absence of market transparency; a lack of scale economies along the distribution system; high transport costs and high physical losses at all levels of distribution. Food security concerns are especially important in cities in developing countries where urban poverty rates often exceed 50 percent. The cost at which poor urban households

access adequate food is determined not only by private sector activities and investments but also by the way the public sector – central and local governments – intervenes in the food marketing system and addresses constraints limiting the efficiency of activities.

Impact of urbanization on food security. Expanding urbanization leads to increased competition for land on the urban perimeter. This, combined with rapid urban population growth, has led to food supplies having to move over greater distances. Furthermore, increased food supplies have led to greater traffic congestion and pollution, and to stress being placed on the unimproved and overloaded food distribution systems and market infrastructure.

New, improved and expanded marketing facilities are also required due to changing food consumption habits, an increased demand for convenience and processed foods and the greater concern for food quality and public health. For low-income families, decentralised food marketing facilities providing easy access to food supplies are essential, as the further the distance from markets, the higher the time and transport costs.



FAO / O. Argenti

Lack of space and simple facilities in urban markets amplify health and environmental risks

FAO / O. Argenti



Informal food marketing is a source of employment and income for the poor, particularly woman and youth



FAO / O. Argenti

Markets need to be planned because they require space, parking, infrastructure and services, such as water, toilets and waste collection



FAO / O. Argenti

Good market management, maintenance and upgrading are as important as raising revenues

FAO's response and action...

In expanding urban areas, marketing facilities and other post-harvest infrastructure are usually limited and congested. Urbanization is largely unplanned and local authorities generally do not have clear policies on developing facilities to meet their future needs.



FAO / O. Argenti

Low-income urban areas need simple retail markets. These have to be planned and provided with protection from the sun, wind, dust and rain

Marketing interventions. The objective of marketing interventions is to bring an improvement in the marketing of food products and promote strategies that will improve urban food security. An efficient marketing system is a precondition for agricultural diversification and improved nutrition. This enables better prices to be obtained by producers (leading to higher incomes) and improves the availability of competitively priced produce to consumers.

Institutional strengthening. FAO has been working over the past twenty years to draw the attention of policy makers, at central and local levels, to both the need and complexity of improving food marketing systems and infrastructure. FAO advisory bulletins on improving food marketing systems and linkages, and on planning, establishing and managing market infrastructure are available.

FAO encourages central and local authorities to:

- involve all concerned parties in identifying marketing problems and challenges and include stakeholders in policy formulation and implementation;
- plan the improvement of the food marketing chain, particularly by improving rural-urban linkages and incorporating marketing infrastructure decisions in urban planning;
- improve the quality and safety of food by improving post harvest handling and marketing facilities.

Key thematic areas of study and intervention:

- enhancing rural-urban linkages through systems integration and improved marketing infrastructure;
- assembly, wholesale and retail market planning, design and management;
- marketing extension training to apprise producers of changing market needs and opportunities;
- marketing information provision to enhance marketing and price transparency.



FAO / O. Argenti

Small enterprises should be encouraged to adopt hygiene and health standards in food processing



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www.fao.org/fcit/index.asp

For further information, contact:

FAO, Agricultural Support Systems Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
ags-registry@fao.org
www.fao.org/ag/ags/subjects/en/agmarket/agmarket.html



FOOD *for* THE CITIES

Fresh foods

Proper packing of fresh produce maintains quality throughout the chain from grower to urban consumer. Packages must protect produce from mechanical damage and adverse environmental conditions



FAO/S. Gallat

Challenges...

Growth of urban populations, changing consumer perceptions about food safety and quality, together with increases in urban income and purchasing power, have led to a shift away from consumption of staple carbohydrates and highly processed foods, towards a demand for higher value, fresh

the rural-urban supply chain. Owing to their high perishability, fresh foods must be handled with utmost care if their quality is to be maintained from producer to consumer. This poses a challenge to existing supply chains, where quality of produce reaching urban markets is generally inconsistent and frequently poses safety hazards due to use of polluted water, inappropriate storage conditions including lack of temperature control, and poor handling and transportation practices. Upgrading the quality of fresh produce requires improved infrastructure, including access to potable water, refrigeration facilities, new conservation technologies, appropriate packaging for storage and distribution, facilities for cleaning and waste disposal, and critically, efficient transportation.

Appropriate technologies and good practices prevent deterioration and maintain the quality of fresh foods such as these apples in a supermarket in Zambia

and minimally preserved foods (especially fruit and vegetables) which are perceived to be nutritionally superior. This provides opportunities for improving supply chains for fresh produce, ensuring higher quality and safety for consumers, and better returns for producers. Fresh foods consumed by urban consumers come mostly from rural areas, and as cities expand, so does the length of



FAO/D. Njile

FAO's response...

For fresh foods, FAO applies quality management systems such as Good Agricultural Practice (GAP), Good Hygiene Practice (GHP), Good Manufacturing Practice (GMP) and Hazard Analysis Critical Control Point (HACCP), thereby assuring that quality is maintained at each step of the supply chain. The Organization also works on enhancing value of produce through the application of cost-efficient and environmentally-sound technologies, particularly those which contribute to reducing losses, increase efficiency of the post-production system, and provide the quality and convenience demanded by consumers. At the institutional level, FAO engages with local authorities, regulatory bodies and policy makers to facilitate the provision of services and infrastructure required to maintain quality and safety of food throughout the food chain.

Packaging of fresh fruits and vegetables is an important step in the grower to urban consumer chain



FAO/S. Gallat



FAO/D. Njie

Fresh produce on a supermarket shelf in Lusaka, Zambia. Supermarkets are emerging as major food retail outlets in urban areas of developing countries. As farmers strive to meet the stringent quality requirements of these outlets, the quality and safety of food sold locally improves

FAO's action...

Post-harvest operations. In its liquid form water is used for washing, hydro-cooling and flume transportation of fresh fruits, vegetables, roots and tubers, while in the form of ice it is used for cooling to inhibit deterioration of fresh fruits and vegetables. In developing countries various challenges are faced in sourcing water of high quality to carry out these operations and there is usually a high risk of contamination of fresh produce by micro-organisms and pollutants contained in the water. FAO is currently working through its normative programme to prepare a practical manual that will provide specific guidelines on standards for potable water and best practices to be applied in the above-mentioned operations.



FAO/D. Njie

With higher disposable income, urban consumers have better access to convenient, easy-to-prepare meals

Technologies and good practices.

In field projects FAO is developing and disseminating technologies and good practices that are aimed at preventing the loss of millions of tonnes of fresh fruits, vegetables, roots and tubers in developing countries due to inadequate handling and storage, pest damage, and transport and marketing problems.

FAO created the Information Network for Post-harvest Operations (INPhO) with the support and collaboration of Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) and the Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), to improve access to technical data and foster exchange of information among different actors, thereby fostering activities that are aimed at preventing these losses. www.fao.org/inpho

Packaging. Fresh foods supplied to urban areas must be packaged appropriately in order to maintain quality, shelf-life and safety. In addition, the packaging used should offer the convenience valued by urban consumers. In its normative programme, FAO is carrying out studies aimed at increasing the availability and affordability of packaging materials, and identifying low-cost, small-scale options for packaging systems which are appropriate for developing countries in Africa, Asia and Latin America.

Traceability systems. Fresh foods consumed in urban areas in developing countries are increasingly procured in supermarkets that exert great influence over their suppliers in terms of traceability. FAO has ongoing activities aimed at developing traceability systems for the small-scale fresh fruit sector in Kenya and South Africa.



FAO/D. Njie

The quality, safety and convenience offered by fresh, packaged foods appeal to consumers living a fast-paced urban life



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www.fao.org/fcit/index.asp

For further information, contact:

FAO, Rural Infrastructure and Agro-Industries Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
AGS-Registry@fao.org
www.fao.org/ag/ags/home/en/agst.html



FOOD *for* THE CITIES

Ensuring quality and safety of street foods



FAO / O. Argenti

Drinks and beverages are an important part of street foods. Tea vending in Addis Ababa, Ethiopia

Challenges...

Street foods have an important socio-economic role... Street foods are ready-to-eat foods and beverages prepared and/or sold by vendors or hawkers especially in the streets and other similar places. They represent a significant part of urban food consumption for millions of low-and-middle-income consumers, in urban areas on a daily basis. Street foods may be the least expensive and most accessible means of obtaining a nutritionally balanced meal outside the home for many low income people, provided that the consumer is informed and able to

choose the proper combination of foods.

In developing countries, street food preparation and selling provides a regular source of income for millions of men and women with limited education or skills, especially because the activity requires low initial investment. This activity also supports local agricultural producers and food processors and contributes to local and national economic growth.

...but they raise some serious concerns... Today, local authorities, international organisations and consumer associations are increasingly aware of the socioeconomic

importance of street foods but also of their associated risks. The major concern is related to food safety, but other concerns are also reported, such as sanitation problems (waste accumulation in the streets and the congestion of waste water drains), traffic congestion in the city also for pedestrians (occupation of sidewalks by street vendors and traffic accidents), illegal occupation of public or private space, and social problems (child labour, unfair competition to formal trade, etc.).



FAO / O. Argenti

Vendors can impede traffic and pedestrian access to sidewalks, such as this food cart in Bangkok, Thailand

...among which food safety. The risk of serious food poisoning outbreaks linked to street foods remains a threat in many parts of the world, with microbiological contamination being one of the most significant problems. Food-borne pathogens are recognized as a major health hazard associated with street foods, the risk being dependent primarily on the type of food, and the method of preparation and conservation. A lack of knowledge among street food vendors about the causes of food-borne disease is a major risk factor. Poor hygiene, inadequate access to potable water supply and garbage disposal, and unsanitary environmental conditions (such as proximity to sewers and garbage dumps) further exacerbate the public health risks associated with street foods. Improper use of additives (often unauthorised colouring agents), mycotoxins, heavy metals and other contaminants (such as pesticide residues) are additional hazards in street foods. Although many consumers attach importance to hygiene in selecting a street food vendor, consumers are often unaware of the health hazards associated with street vended foods.



FAO / K. Arfi

An un-hygienic environment for food production raises an additional challenge to the vendors. Small restaurants in a market lane in Cotonou, Benin

FOOD *for* THE CITIES

Trained vendors display their selling authorization and wear clean working clothes, including a hair scarf, in the food fair in Lima, Peru



FAO / O. Argenti

FAO's response...

FAO has a comprehensive programme to assist national and municipal authorities in ensuring the quality and safety of street food. As with all food preparation activities, the basic food hygiene rules must be applied. As most street food vendors are untrained in food hygiene or sanitation, and have to work under very poor and unsanitary conditions, FAO has been dedicating great attention to sensitization and training of the different actors of this complex system.



FAO / O. Argenti

Ready-to-eat street foods are commonly sold in African markets, such as in Conakry, Guinea

Attention is being given to realistically adapting the guidelines of Codex Alimentarius regarding the General Principles of Food Hygiene and the Hazard Analysis and Critical Control Point (HACCP) system to the street food context. The Codex Regional Coordinating Committees have elaborated respective codes of hygienic practices for street vended foods which take into account the local conditions and the special nature of street foods.

FAO has developed guidelines for nutrition education and, most recently, a detailed curriculum for nutrition education in schools. Effective nutrition education programmes for school children and other key community groups are essential means of equipping street food customers with the knowledge necessary for making healthy food choices.

FAO's action...

Several projects have been implemented by FAO in collaboration with national and municipal authorities with a view to:

- improve conditions under which street foods are prepared and sold;
- strengthen food quality control capabilities of the local authorities to improve overall quality of both the raw material and processed foods;
- undertake further research on the street food sector: socio-economic impact, legislative framework, hygienic and nutritional improvement;
- improve vendors' knowledge about sanitation and food hygiene and nutritional value of foods through education and training;
- share experiences and promote networking among local and national authorities at the regional level to spread good practices and promote a common strategy;
- raise awareness among consumers about nutrition and hygiene aspects of street foods.

Specific training material is available, as well as a variety of recommended designs for selling and transport equipment, to minimize the risk of contamination of street foods. This has been built over 20 years of experience in Latin America (Bolivia, Brazil, Colombia, Ecuador, Guatemala, Mexico and Peru), Asia (India, Nepal, Philippines, Thailand), and most recently in Africa (Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, Democratic Republic of Congo, Ghana, Guinea, Guinea Bissau, Nigeria, Senegal, South Africa, Tanzania and Uganda) and the Near East (Egypt, Morocco, Sudan).



FAO / O. Argenti

Ready to eat food can be properly stored above ground level and protected against flies and dust. Small restaurant in the Sunday Market in Islamabad, Pakistan



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For further information, contact:
FAO, Food Quality and Standards Service
Viale delle Terme di Caracalla, 00153 Rome, Italy
food-quality@fao.org
www.fao.org/ag/agn/food/food_en.stm



FOOD *for* THE CITIES

Processed foods



Fruit jam, nectar and syrup processed by a small producer in Bamako, Mali. FAO disseminates technologies and good practices to maintain the quality and safety of highly perishable foods

Challenges...

Urban lifestyles, increasing distances between home and workplace, working women, and changes in family cohesion are all factors increasing the demand for shelf-stable, convenience (time-saving) and value-added foods. This has stimulated the rapid growth of food processing industries in urban areas, and created opportunities for

income generation, employment and economic growth.

Urban food industries benefit from easier access to consumer markets, lower transport and distribution costs, and proximity to diverse services including information technology and waste treatment facilities. However they also face considerable challenges in achieving required standards of quality and safety, and in operating in an efficient and sustainable manner. Competition for resources (land, water, labour and energy) often results in insufficient quantities and quality of water, unreliable electricity supply for powering processing equipment, unsanitary premises lacking appropriate facilities for disposing process waste, difficulty in accessing processing inputs including raw materials, packaging and equipment, and lack of trained staff.



FAO/D. Njile

Pre-cooked fonio is in high demand in urban areas of West Africa. Processing operations were designed to yield a product with qualities desired by consumers



FAO/D. Njile

Washing fonio grain at a medium-scale operation in Bamako, Mali. Food processing to meet urban needs offers income generating opportunities, especially for women

FAO's response...

FAO has expertise in providing technical support and policy advice that can be applied in overcoming the above-mentioned challenges. The Organization's work is geared toward upgrading food processing and preservation technologies, improving food quality and safety, adding value to raw agricultural materials (cereals, fruits and vegetables, oilseeds, roots and tubers), and developing innovative processed foods to supply urban markets. To meet the needs of urban consumers, efficient value chains are developed by facilitating linkages between various stakeholders involved. Thus, farmers are linked to intermediaries and traders, who in turn are linked to food processing industries, who ultimately supply retailers, wholesalers and other distributors. Improvement of the efficiency of the value chain fosters a more equitable, transparent and sustainable distribution of benefits amongst the various stakeholders. The Organization prepares technical bulletins and training guides, implements training courses and workshops for the various stakeholders, and works with local authorities, regulatory bodies and policy makers to facilitate provision of services and infrastructure required to maintain quality and safety of food throughout the value chain.

FAO's action...

Processing technologies and good manufacturing practices. FAO is developing Good Manufacturing Practices (GMP) for value-added processing of cereals, roots, tubers, fruits and vegetables in developing countries. With the support and collaboration of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) and the Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), the Organization created the Information Network for Post-harvest Operations (INPhO) to improve access to technical data and foster exchange of information among different actors involved in post-harvest processing. www.fao.org/inpho



FAO/R. Rolle

Coconut water processing in the Caribbean. Appropriate technologies and good practices prevent contamination, ensure a safe and wholesome product and minimise negative impact on both environment and health



FAO/R. Rolle



FAO/D. Njile

Hot pepper sauce processing in Trinidad and Tobago. Good Manufacturing Practices increase efficiency, reduce waste and obtain high-quality finished products



FAO/D. Njile

Technical support. Over the years, FAO provided technical support to improve **oil seeds** processing in Ghana, Kenya, Uganda and Zambia where large quantities of palm and other vegetable oils are consumed in urban areas.

The Organization's regional office in Accra provided technical assistance to the government of Ghana for the creation of a **tomato processing** promotion centre. Through training in processing techniques, GMP, quality assurance, and business management, the centre supports transformation of tomatoes into paste and other value added products.

In West Africa **pre-cooked fonio** is becoming more and more popular in urban areas because it is easy to prepare, a convenience highly valued by consumers in cities. FAO collaborated with other partners to develop machines for post-harvest processing of fonio in Mali, Guinea and Burkina Faso.

In the Caribbean, FAO is currently developing best practices and appropriate technologies for cottage-scale processing of **hot pepper sauce**. Hot pepper sauce is a major spice in Caribbean countries and is produced in facilities located in or near urban areas. FAO has also developed technologies for processing **coconut water**, a beverage that is popular and widely consumed in urban areas of the Caribbean.



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For further information, contact:

FAO, Rural Infrastructure and Agro-Industries Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
AGS-Registry@fao.org
www.fao.org/ag/ags/home/en/agst.html



FOOD *for* THE CITIES

Land tenure and food production



FAO/G. Bizzarri

Challenges...

Cities grow. Demand for food increases, but areas suitable for agriculture diminish. New urban populations seek access to cultivable land. Land values rise as demand for non-agricultural use grows. The environment is extremely competitive and players in urban and

peri-urban food production may not have a loud voice. They compete with a wide variety of interests on access to land for agricultural use and their cultivations are seldom protected by secure tenure arrangements. Land tenure

issues are potentially a major constraint for urban and peri-urban food production. Populations of cities tend to rapidly increase during emergencies and conflicts. Food security problems escalate and the need for temporary, flexible, land use rights to enable agricultural use is a part of any solution. The already challenging tenure

structures typical of conflict situations are further complicated by the high level of demand for land, by lack of clarity on ownership and access rights and by absentee landholders. Monitoring of land use is extremely difficult and the situation almost inevitably leads to violations of rights, whatever the intentions of the parties. In emergency situations there is often a need to introduce temporary tenure arrangements, which allow the temporary utilisation of vacant land for food production and livelihood maintenance, as well as for the temporary settlement of the displaced population.

FAO/G. Bizzarri



FAO/4829/A. Proto

FAO's response...

As a starting point for long term improvement, land tenure arrangements for urban food production can be addressed in a land policy that recognises and provides for urban agriculture. Although it is always a balance, productive land needs to be

protected through zoning and regulations. NGOs may play a vital negotiating role in such a process. Temporary arrangements need to be well documented and if possible documented by permits. They should respect prior land uses and tenures, which requires that existing land tenure and use,

land records and physical structures are protected and conserved. This may be necessary, for example, for the eventual administration of restitution of land or compensation. In some cases it may be necessary to resort to retrospective tools (like spatial imagery) for restructuring the land tenure structures.

FAO has strong global experience in land tenure analysis, policy formulation and design of strategies to improve access to land and other natural resources and to increase tenure security for environmentally sound and sustainable development.

Land tenure arrangements

Urban agriculture is often carried out under tenure arrangements based on customary or informal tenures. Typically, these are mutual benefiting short term agreements, but just as often access is simply gained by squatting, without any form of agreement, on temporarily available idle land. The complexity and flexibility of tenure arrangements in dynamic, developing country situations, where security of tenure is often sought both via a web of social relations and via statutory systems, leads to significant land tenure challenges. Land use restrictions are the last in the line of worries of the poor. Such customary or informal tenure arrangements are typically flexible, enabling land users to react to changing conditions. They are not normally recognised formally in statutes and thus can usually be disregarded when the built area expands. The low formal recognition of land rights in urban cultivation results in low

security of tenure, thus diminishing food security, livelihood possibilities and social stability. Changing this situation through statutory recognition and recording of informal and multiple tenure systems is challenging because exact clarification of such rights often runs counter to their nature. In addition, the rules, procedures and fees of registration may be too costly for the more vulnerable parts of the population.

A measure of security of tenure can be provided, however, by recognising temporary rights per cultivation season and/or by recognising and administering in an equitable way rights of access to idle cultivable land, provided that the primary landholder's interest is not harmed. Such an approach could embody a mechanism to compensate the cultivator for inputs should the landholder exercise the right to the reversion and interrupt a cultivation season.



FAO/G. Bizzarri

Zoning and demarcation

In a more structured environment progress can be made by using the planning tools and processes in force in the jurisdiction. Areas for agricultural use on the urban fringe could be zoned, or specified forms of urban agriculture accepted as a legitimate form of urban land use. Furthermore, innovative techniques such as rooftop gardening could be legalised and regulated. Mechanisms for enabling more innovative approaches to making urban land available for agricultural production could include imaginative approaches to land banking, creation of incentives through taxation and associated relief, and the establishment of garden plots/allotments for food growing. Some public areas could also be used for "landscape friendly" food production.



Mr. Tohonen



FAO/G. Bizzarri



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www.fao.org/fcit/index.asp

For further information, contact:
FAO, Land Tenure Service
Viale delle Terme di Caracalla, 00153 Rome, Italy
landtenure@fao.org
www.fao.org/sd/index_en.htm



FOOD *for* THE CITIES

Emergencies and crisis in urban areas

Selling vegetables in the local markets provides vulnerable people with a source of household income in Liberia

FAO photo



FAO photo

Internally Displaced Peoples in Burundi learn how to manage limited resources

Challenges...

The human population is growing at an exponential rate in some African urban centres due to a large number of refugees and Internally Displaced Peoples (IDPs), fleeing violent conflict, poverty, drought and hunger. The rural population, drifting away from the land in search of safety and food security, increasingly challenges the capacity of cities' infrastructure

and economy to feed the fast growing population. Significantly, although most of these newly settled people are very young, they still mostly rely on agriculture to earn a living when settled in urban and peri-urban areas. The challenges to support the growing population are numerous and include providing a sufficient and balanced food diet, basic social services, a source of income, land and energy. In many cases these challenges are further exacerbated by discrimination, disease, and lack of structural support.

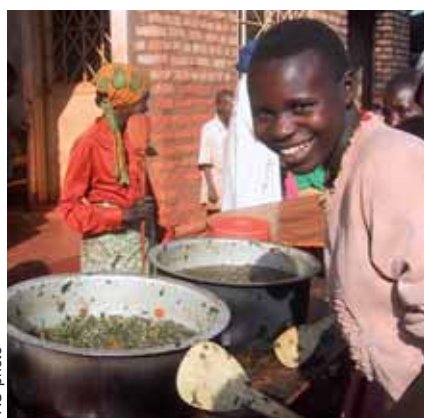
FAO's response...

Increasing demographic pressure in urban areas in crisis, where the strain on the land is already intense, requires rapid, appropriate and effective responses. One way FAO responds is by supporting peri-urban farming, which can provide food security for families and can be a source of income. Market gardening is advantageous as it has a small surface requirement and short vegetative cycles for quick outputs. The vegetables produced have necessary nutrients and can complement other food items obtained at local markets or supplement emergency food aid. Capacity building is given a central focus - with the aim of strengthening the impact and making the beneficial results last. Given the numerous female IDPs and the major role played by women in providing households' basic needs in crisis situations, FAO also makes strong support available to women headed households and to widows undertaking agricultural activities. Young people and orphans are also specifically targeted beneficiaries in the urban areas. The aim of peri-urban gardening projects is to induce food crop production, increase available household food supply and reduce malnutrition which particularly affects children. Peri-urban gardening also aims at helping vulnerable populations secure a reasonable income level in order for them to meet their daily needs.



FAO photo

Peri-urban gardening generates income opportunities and the social integration of Internally Displaced Peoples in Bujumbura, Burundi



FAO photo

In Burundi, FAO also conducts training workshops on simple food processing techniques for market gardening products, which preserve the nutritional quality of the food

FAO's action...

Burundi

The populations of Burundi's urban centres are growing quickly as the economy slowly recovers from the disastrous effects of twelve years of war. Cities must find ways to provide basic necessities to IDPs, repatriates and rural families, who migrate to escape poverty and violence. Discrimination against women, ethnic minorities, and people living with HIV/AIDS makes poverty and malnutrition even more difficult to combat. In the capital, Bujumbura, vulnerable people and groups, the bulk of them being women headed households and youngsters, resettled under precarious conditions and often had to set

up associations in order to rent a plot of land or obtain the right to use it. FAO chooses to support these associations with the aim of improving household economies, particularly of the most vulnerable people. Gardening in small plots available in urban areas provides vulnerable people with a critical source of nutrition and incomes as vegetables are both eaten and sold on local markets. In Burundi, FAO alone has been supporting about 5 percent of the active households involved in home gardening activities. Small animal husbandry in towns, notably the distribution of ducks, also

helps fight malnutrition and improves livelihoods. Because of the federative effect of associations, these projects take on significant social dimensions in the post-crisis context of Burundi. While creating new income generating opportunities, like hand tools production and maintenance, they play an integrating function in peace consolidation to people on the brink of becoming marginalized.

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Liberia

In Liberia the civil war forced thousands of farmers to migrate to Monrovia in search of safety and food. Displaced people settled with relatives or in camps in the peri-urban communities, straining the available food supply and social services in these areas. Overpopulation and unemployment means many families can not adequately feed themselves and children are malnourished. FAO provided support to implement an emergency agriculture relief assistance project that targeted 2 500 war-affected farm families and aimed to significantly reduce malnutrition among children and help displaced families achieve a reasonable income. By using vacant city lots to cultivate to food crops, rice production and the sale of seed rice became a major source of income. Additionally, the production of fresh vegetables, and their supply to the local markets contributed to Monrovia's food supply. The effect of these activities was an increase in vegetable production, better nutrition, and a significant drop of malnutrition cases in IDP camps.

Fresh vegetables harvested and consumed have contributed to the nutrition of beneficiary farm families in Liberia



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Livelihoods of vulnerable rural people settled in cities in Burundi is based on agriculture, which also provides local markets with basic food products



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www.fao.org/fcit/index.asp
 For further information, contact:
FAO, Emergency Operations and Rehabilitation Division
Viale delle Terme di Caracalla, 00153 Rome, Italy
relief-operations@fao.org
www.fao.org/reliefoperations/index_en.asp