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URBAN AND PERI-URBAN FOOD AND NUTRITION ACTION PLAN

Elements for community action to
promote social cohesion and reduce
inequalities through
Local Production for Local
Consumption

Prepared by
WHO Regional Office for Europe Programme
for Nutrition and Food Security
ETC, The Netherlands
WHO Centre for Urban Health

EUROPEAN HEALTH21 TARGET 11

HEALTHIER LIVING

By the year 2015, people across society should have adopted healthier patterns of living

(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

ABSTRACT

The overall objective of the Urban and Peri-Urban Food and Nutrition Action Plan is to promote health and quality of life through an integrated, comprehensive food and nutrition policy, in local communities. The benefits of increasing the amount and distribution of locally grown food, especially vegetables and fruit include: environmental; social; and direct and indirect economic benefits in addition to health benefits. The Action Plan is written for everyone, from the local/municipal authorities through to the community itself, interested in achieving a sustainable development through food and nutrition policies. Policies which advocate sustainable food production, equitable distribution, wide access and increased consumption of vegetables and fruit is a concrete way of achieving Health for All in the 21st Century. Growing, buying, and eating more vegetables and fruits can reduce the risk of non-communicable diseases, such as cardiovascular diseases and certain types of cancer, and can simultaneously promote healthy environments and sustainable development.

A common problem throughout the Region is the poor availability and inequitable access to micronutrient rich vegetables and fruit, especially by vulnerable groups, resulting in micronutrient deficiency. Lack of availability and access creates barriers to increasing fruit and vegetable consumption. Actions, described in this Action Plan, to improve availability and access and reduce food poverty (food insecurity) will also: improve equity; promote local sustainability; empower vulnerable groups; reduce social and health problems and promote social justice while simultaneously preventing micronutrient deficiency and reducing the prevalence of cardiovascular disease and cancer.

This document, the Urban and Peri-Urban Food and Nutrition Action Plan, while presenting certain common cohesive elements, also presents options, space for creativity and adaptation to local circumstances.

Keywords

NUTRITION
FOOD PRODUCTION
AGRICULTURE
COMMUNITY HEALTH PLANNING
SOCIAL JUSTICE
NUTRITION POLICY
URBAN HEALTH
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1. Summary

The overall objective of the Urban Food and Nutrition Action Plan is to promote health and quality of life through an integrated, comprehensive food and nutrition policy, in local communities. The benefits of increasing the amount and distribution of locally grown food, especially vegetables and fruit include: environmental; social; and direct and indirect economic benefits in addition to health benefits. The Action Plan is written for everyone, from the local/municipal authorities through to the community itself, interested in achieving a sustainable development through food and nutrition policies.

To increase the **availability** of locally grown vegetables and fruit, local/municipal authorities can:

- make land available to increase production;
- recognize the *added value* of combining vacant spaces with growing food in or near cities;
- help to restore consumer confidence in locally produced food;
- promote local food production to help reduce poverty and inequalities;
- strengthen technical support structures and extension services;
- review legislation hampering development of urban and peri-urban horticulture;
- stimulate the availability of credit and bank loans to support new businesses.

To increase **access** to locally grown vegetables and fruit, especially by vulnerable groups:

- growers can forge closer links with consumers e.g. farmers' markets;
- local shops should not be closed with the development of superstores;
- retailers can improve access to affordable fresh vegetables and fruit sourced locally;
- improve logistics to increase access e.g. bus services and home deliveries for those unable to get to shops regularly;
- address food security in specific areas and in specific vulnerable groups.

To promote **consumption** of locally grown vegetables and fruit:

- encourage community participation with campaigns;
- involve schools and help children acquire skills and information on food systems;
- community initiatives by NGOs can reduce food insecurity in vulnerable groups e.g. elderly;
- involve health promotion units, health services and local/municipal authorities and institutions;
- mass catering institutions should be encouraged to source local produce and develop strategies for promoting its consumption;
- interact with media to market local vegetables and fruit;
- restore confidence in local foods, lost due to scares related to soil contamination and air pollution.

Policies which advocate sustainable food production, equitable distribution, wide access and increased consumption of vegetables and fruit is a concrete way of achieving Health for All in the 21st Century. Growing, buying, and eating more vegetables and fruits can reduce the risk of non-communicable diseases, such as cardiovascular diseases and certain types of cancer, and can simultaneously promote healthy environments and sustainable development.

WHO recommends consumption of *more than 5* portions of vegetables and fruits per day (>400g) not including potatoes. For this goal to be achieved communities themselves must identify their problems and the actions needed to solve them. Sustainable solutions are more likely to be achieved through a combination of wide community participation, broad involvement of all sectors and local government commitment. Municipalities have a key role to play in promoting public-civic-private partnerships to increase the production of, access to and consumption of locally grown vegetables and fruits.

In the process of improving the availability of, access to and consumption of vegetables and fruits local authorities and municipalities can create:

- Health benefits: improved physical and mental health and sense of wellbeing;
- Social benefits: leisure, community cohesion and social inclusion;
- Direct economic benefits: income generation, local employment, and development of small enterprises linked to producing, processing, marketing and retailing.
- Indirect economic benefits: education; recreation; use of under-used resources (rooftops, roadsides, water); economic diversity /stability; changes in economic value of land, and possible multiplier effects such as attracting new businesses like input services or restaurants, local shops and markets.
- Environmental benefits: waste management (avoid costs of waste disposal), improved water supply and conservation, air quality, incremental improvements to the carbon dioxide balance, biodiversity, and energy-savings through local production;

This document, the Urban and Peri-urban Food and Nutrition Action Plan, while presenting certain common cohesive elements, also presents options, space for creativity and adaptation to local circumstances. Clearly there are major differences within and between cities, regions and the 51 countries of the WHO European Region. However, there are important lessons that can be learned between cities and countries, both north-south and east-west. A common starting point is the need to assess the community environment in relation to improving production of, access to and consumption of vegetables and fruit. Once a situation analysis or “community mapping” has been carried out, a local action plan can be designed to meet the community’s needs.

One common problem is the poor availability and inequitable access to micronutrient rich vegetables and fruit, especially by vulnerable groups. Lack of availability and access creates barriers to increasing consumption. Actions taken to improve availability and access and reduce food poverty¹ (food insecurity) will also: improve equity; promote local sustainability; empower vulnerable groups; reduce social and health problems and promote social justice.

Action requires the participation of citizens, voluntary organizations, retailers, wholesalers, food producers and the local authorities and politicians. Local Agenda 21, Healthy Cities and Local Environmental Health Action Plans are being implemented in some parts of Europe. These initiatives provide an opportunity to address problems related to food insecurity while simultaneously helping to create sustainable communities.

¹ Definition of food poverty from Sustain, UK: food poverty means having inadequate access to a healthy diet. Food poverty may be due to a lack of financial resources, a lack of local provision, or a lack of transport to gain access to range of suitable foods. The elimination of food poverty, along with the creation of sustainable food supplies, are two main elements of a programme for food security.

2. The need for action in Europe

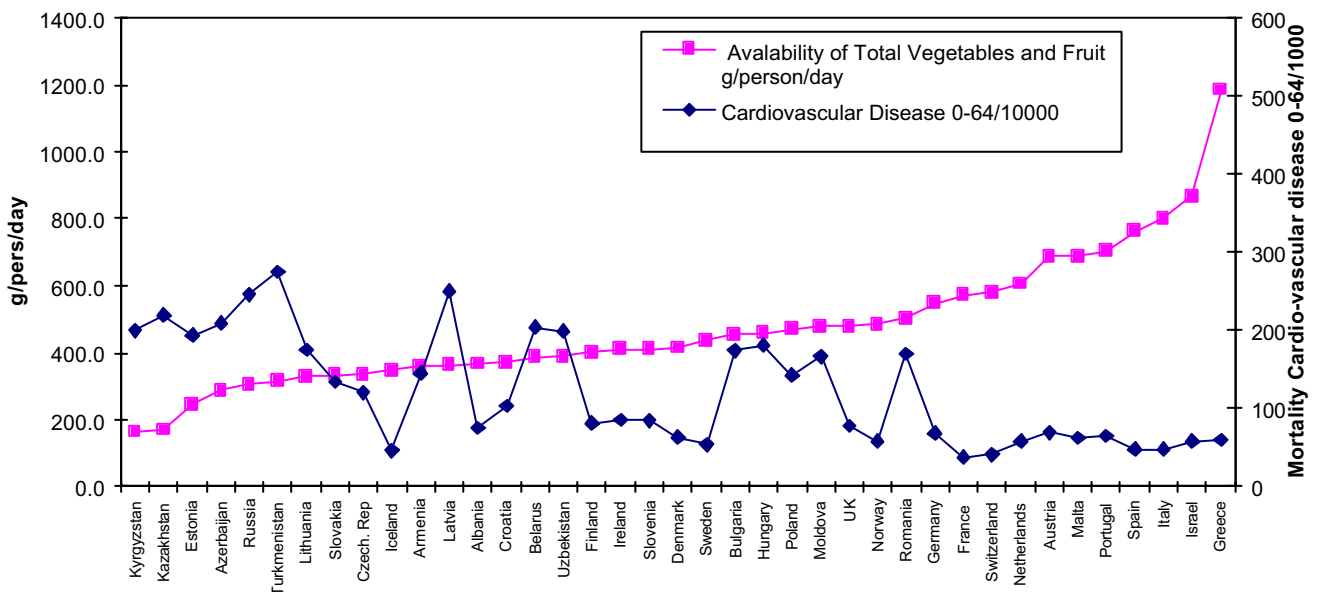
2.1 Eating patterns and urban health

A diet low in vegetables and fruits is associated with an increased risk of heart disease. Moreover estimates suggest that 30–40% of certain cancers are preventable by increasing daily intakes of vegetables, fruit and fibre (1). Low intake of vegetables and fruit is also associated with micronutrient deficiencies, hypertension, anaemia, premature delivery, low birth-weight, obesity, diabetes and cerebrovascular disease in addition to heart disease and cancer(2).

WHO recommends the daily consumption of *more than 5* portions (>400grams) of vegetables and fruits per day (2). This does not include potatoes which should be eaten over and above this amount. The availability of vegetables and fruit varies considerably throughout the European region as shown in Figure1. Figure 1, in addition to presenting the national availability of vegetable and fruit, compares these data with statistics on pre-mature mortality from cardiovascular diseases from the WHO database. Russia has a very high premature mortality (life expectancy was only 58 years for men in 1997) from cardiovascular disease (250/10,000) which is inversely correlated with low availability of vegetables and fruit. In contrast Greece, where the greatest amount (1200g /day) of vegetables and fruit is available, has the lowest rate of premature mortality from cardiovascular disease (50/10,000).

However, the cause of pre-mortality from cardiovascular disease is more complex. Factors such as smoking, stress, excess alcohol consumption, in addition, to diet are all major risk factors. There may be many more unknown factors. It is not clear what the relative risk of each known risk factor is and the risks differ depending on the environment. Dietary risk factors include eating diets high in saturated fats and low in vegetables and fruit.

Figure 1: National availability of vegetables and fruits compared with premature mortality due to cardiovascular disease in 1993

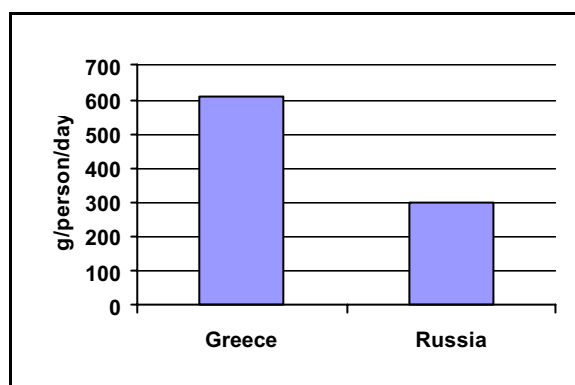


Source: WHO database, and FAO statistical database

Data from national household budget surveys show that twice the amount of vegetables and fruits (600 g) is available in Greece compared with only 300g in Russia (Figure 2). This low availability is bound to reduce the amount of vegetables and fruits eaten in Moscow and St. Petersburg, compared with Athens.

Vegetable and fruit consumption depends on a number of practical issues related to access. For example in Athens fresh vegetables and fruits are readily accessible at street markets where farmers, market gardeners and small-holders sell their produce in most neighbourhoods. This provides an example of how access can be improved and demonstrates how important it is to protect local shops and street markets. Unfortunately even in Greek cities, vegetable consumption is decreasing and skills are being lost and so efforts are needed to stop this trend.

Figure 2: Household Budget Survey (HBS) of the availability of vegetables and fruits in Greece compared with Russia



Source: DAFNE, COST 99, *Methodology for the exploitation of HBS Food Data and Results on Food Availability in 5 European Countries*, Ed: Trichopoulou, A. & Lagiou, P., DAFNE 1, Athens, 1997. and Russian Institute of Nutrition, Household Budget Surveys, 1991

Increased consumption of vegetables and fruits is protective against cardiovascular diseases and cancers (table 1). Vegetables and fruits contain anti-oxidants such as carotenoids, vitamin C, vitamin E and selenium. In addition they contain dietary fibre, dithiolones, isothiocyanates, indoles, polyphenols, protease inhibitors, plant sterols and limonene, among many other substances. Clearly vegetables and fruits contain many different substances, many of which have not yet been discovered let-alone understand how they exert their protective effects.

Table 1: Health Benefits associated with consuming Vegetables and fruits

Food	Phytonutrient	Potential Health Benefits Against
Tomatoes	Lycopene	Heart diseases and prostate cancer
Carrots	Beta carotene	Malignant changes in lungs
Broccoli, Cabbage, Brussels Sprouts	Isothiocyanates	Lung Cancer
Apples, Grapes, Onions, tea Strawberries & grapes	Quercetin Ellagic acid	Heart disease and cancerous changes to cells Pollution from tobacco smoke
Oranges & grapefruit	Terpenes	Ulcers & tooth decay

Source: *Recent advances in Phytochemistry: Functionality of Volume 31*; 1997 – T. Johns & J. Romeo, Plenum Press and *Antioxidants – the case for fruit and vegetables in the diet*; Rice Evans, C. & Miller, N. J.: British Food Journal, 97: 9: 1995, pp. 35 – 40

Studies show that nutrients and non-nutrients (table 1), if eaten as vitamin tablets or added to food, are less likely to be as protective as vegetables and fruit. Moreover, the closer vegetables and fruits are grown to the consumer the better. Local, fresh produce has a greater likelihood of having a higher content of antioxidants compared with produce that has been stored or transported for long periods during which both flavour and nutritional value can deteriorate (3). During storage the level of vitamin C falls. During transportation every time a container is jostled, oxygen can penetrate more quickly if the produce is damaged, and the ageing process speeds up. Vitamins A, B and E are also destroyed by rough handling, bright lights and/or exposure to air. If the growing of local produce is increased, then micronutrient rich vegetables and fruit can help reduce both food insecurity and micronutrient deficiency.

2.2 Availability of local produce

Food is produced locally for 3 main reasons: commercial; recreational; or subsistence. Historically the production of food within and close to cities was an integral part of survival. Food production systems near cities were vital and one of the key elements that made cities great. In 19th century Paris, a large proportion of the city's vegetables and salad crops were produced by recycling the city's waste and refuse (4). However, urban and peri-urban food production in Western Europe has largely disappeared, with the exception of recreational gardening.

In contrast, in Central and Eastern Europe and the former Soviet Republics, while large-scale, commercial, agricultural output from collective farms has decreased, subsistence food production has increased (Box 1). Subsistence farming is traditionally resorted to during times of social stress, economic hardship or war to ensure food security and survival and to supplement income. This phenomenon was observed in most countries during the second world war, when Britain was urged to 'Dig for Victory', and more recently in Sarajevo during the war in Bosnia (5).

Box 1: Facts on Urban Agriculture

- In 1993, it was estimated that approximately 15–20 % of the world's food was produced in urban areas. About 80% of some Russian cities are claimed to be involved in urban agriculture.
- In Russia town dwellers produce 88% of their potatoes. This important share is generated on plots of 0.2 to 0.5 hectares which together constitute only 4% of the total agricultural land in Russia.
- In Poland 500,000 tonnes of vegetables and fruits (1/6 of the national consumption) were produced on 8,000 council “employees” gardens in 1997.
- In cities of the former Soviet Republic of Georgia home produced food made up 28 % of the income.
- There are approximately 30 million home gardeners in Western Europe. The total economic value of urban vegetable and fruit production is estimated to be approximately 500 million USD per annum.
- In 1998 in Bulgaria 47% of the population was self-sufficient in fruit and vegetables and 90% of urban families prepared some kind of preserves for the winter
- The City Harvest project in London estimates that roughly 18% of the WHO recommended intake of vegetable and fruit could be produced in London
- In Romania the share of home produced food in total consumed by families rose from 25 to 37% between 1989 and 1994.

Sources:

de Zeeuw, H., *The Promotion of Urban Agriculture: What Cities can do*, Presentation to the International Healthy Cities Conference (Athens, 22 June 1998).

UNDP Project Description, *Household Agriculture Programme*, Sofia, 1998.

Economic Research Service (1997). Russian food consumption: emerging demand for quality, Newly Independent States and Baltic Update. Agriculture and Trade Report, Economic Research Service WRS-97-S1. 28 March.

World Health Organization Regional Office for Europe, *WHO Regional Nutrition Programme Advisory Group* : report on a WHO meeting, Copenhagen, Denmark 26 August 1998.

SUSTAIN, *City Harvest-The feasibility of growing more food in London*. London, SUSTAIN, 1999.

In contrast to subsistence farming, modern agriculture and the commercial food system is geared towards highly processed, all-year round, packaged food. Ease of transport, consistency and standardisation appear to take precedence over nutrition, animal welfare, resource efficiency, diversity, regional diversity and even taste. Food can travel thousands of miles before being consumed, a phenomenon sometimes referred to as “food miles” (Box 2). This results in excess use of fossil fuels; noise and air pollution; and contributes to unnecessary packaging; addition of artificial colours and preservatives (E numbers); and to declining freshness and wholesomeness, especially in vegetables and fruits, which are most susceptible to damage.

Box 2: Distribution of oranges and food miles incurred

Blackcurrants from Germany and oranges from Brazil

Over 90% of the 55 million metric tonnes of orange juice consumed worldwide goes on the account of the northern industrialized nations: USA, Europe and Japan. More than 80% of the orange juice consumed in Europe originates from Brazil. A study at the Wuppertal Institute in Germany showed that for each ton of Brazilian orange juice consumed, at least 25 tons of materials were used, including 22 tonnes of water and 0.1 tonne fuel. Altogether, annual west German orange juice consumption occupies approximately 150 000 hectares of land. The Wuppertal study found that locally produced blackcurrant juice contained as many vitamins as the imported orange juice but was far less resource intensive, since it is produced without much pesticides or irrigation water, and requires little transport.

Source: *Food Miles*, Safe Alliance, 1994

The level of urbanization in the EU is 80%, and 66% in countries of Central and Eastern Europe (CCEE). It is predicted that over 90% of Europeans will be living in cities by the year 2015. The huge number of urban citizens, combined with globalization, will exploit natural resources. To prevent ecological damage that results from urbanization, increased food trade and globalization, food policies which promote sustainable development are needed.

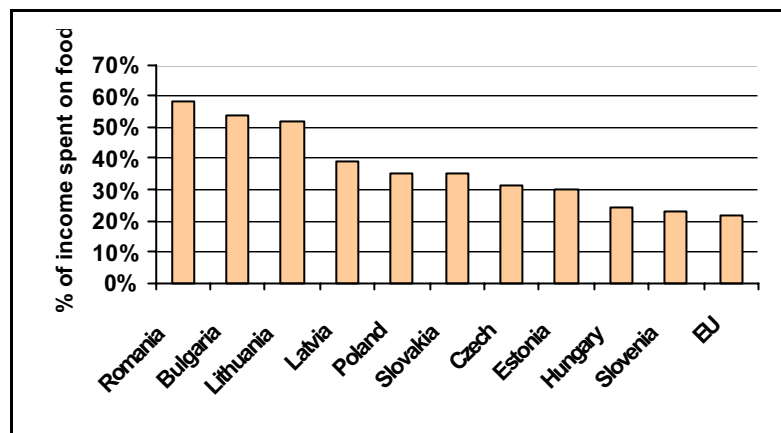
All cities can pursue a greater degree of food self-reliance. This demands that more food is produced locally. However, it is unrealistic to set goals of complete self-sufficiency. Cities will remain largely dependent on imported food from national and international supply: staple items such as coffee and tea will be imported from far away places and grain will be mass produced. However, in the European context, increased local production of vegetables and fruits are especially important for improving nutrition security and the health of urban populations. This has the added advantage of improving the sustainability of cities while stimulating local economic growth.

2.3 Access to healthy vegetables and fruit – reducing inequalities

Low intake of fruit and vegetables is attributed to inequitable access by the disadvantaged. Food poverty (inadequate access to a healthy diet) may be due to: a lack of financial resources; a lack of local provision; lack of transport; or lack of time. In addition other factors may specifically affect access to vegetables and fruits:

- people not having enough money;
- pricing policies may not facilitate sale of affordable vegetables and fruit;
- discount supermarkets stock mainly long shelf-life non-perishable goods;
- supermarkets that are built on the periphery of cities;
- local shops and street markets may be closing down;
- absence of street markets, food cooperatives and community schemes;
- immobility (no car, young children, physical handicap, inadequate public transport);
- transport restrictions in cities limit access to shops and markets;
- inability of the elderly to walk to or around supermarkets;
- relative bulkiness and weight of vegetables and fruits;
- some foods are not culturally acceptable, especially to ethnic minorities;

Poverty and insufficient money to buy healthy food is increasing in both western and eastern Europe. The percentage of income spent on food is much higher in CCEE than in the EU (Figure 3) and so food poverty could get worse if policies to prevent this are not put in place.

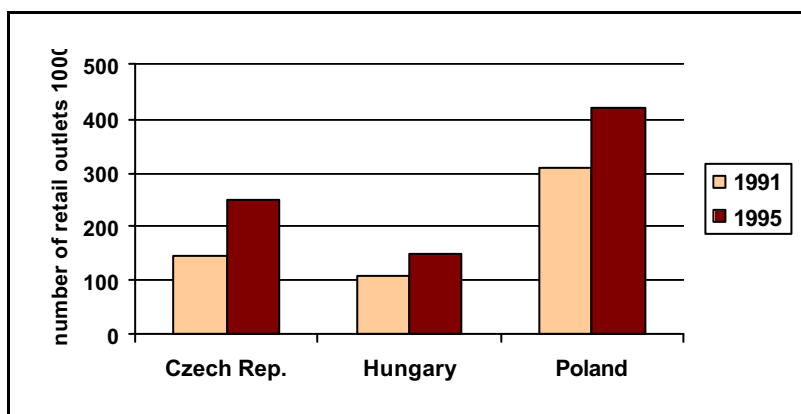
Figure 1: Percentage of income spent on food in Accession Countries compared with EU average

Source: OECD 1996 and Agriculture Situation and Prospects in CCEE- summary report 1999

Poverty is associated with an increased risk of obesity (6,7). The food choice of low income groups is limited by the need to find inexpensive sources of energy. Vegetables and fruit provide relatively little energy, and so vulnerable families may buy cheap calories from high-fat products (such as sausage-meats, pies and fats), or sugars and preserves in order to fulfil their first priority, their energy needs. These energy dense foods are generally not dense in micro-nutrients compared with vegetable and fruit. For this reason, poor people can suffer from both obesity and deficiency of micro-nutrients. Vulnerable groups, such as the elderly may be most affected.

By the year 2020, it is estimated that one fifth of the EU population will be over 65 and most will be living in cities. Older people have a high risk of cardiovascular diseases, diabetes, cancer, osteoporosis and arthritis. This risk is increased if their intake of vegetables and fruits is low. Moreover, immobility problems associated with ageing create problems of access if appropriate transport is not available. In addition, more supermarkets, the lack of local shops and the fact that even relatively small amounts of vegetables and fruit are heavy to carry create access problems for older people.

Analysts predict an expansion of supermarkets and hypermarkets (very large complexes which contain supermarkets and are usually situated in outer city areas surrounded by a large car park) in countries of Central and Eastern Europe at a pace not seen before in Europe (Figure 4).

Figure 4: Increase in number of supermarkets in 1995 compared with 1991 in central Europe

Source: Eurometer 1997

Hungary had more than 5000 super- and hyper-markets in 1997 and in Poland the number of hyper-markets increased from only 7 in 1995, to 70 in the year 2000. This expansion of super-and hyper-markets may result in inequitable access if, in addition, local shops and street markets disappear. Easy access to nearby shops and home delivery services at affordable prices are essential to ensure that the healthy food choices are both possible and achievable.

Increased local food production and distribution can enhance access for vulnerable groups. Cost of local foods may be lower because of savings made from less transport, less storage, less middlemen, less processing and packaging. Moreover, in low income groups, food comprises one of the largest components of household expenditure (Figure 3). Any savings on food expenditure translates into family income which is then available for non-food expenditures and improvements in living conditions. In addition to spending less on food, low income groups could perhaps be given the opportunity to grow their own vegetables and fruit. Some estimates suggest that in low income countries, 10 – 40% of the income of house-holds can come from them producing and processing their own food (8). Different policies and action plans are required to reduce food insecurity depending on the skills and abilities of the local communities.

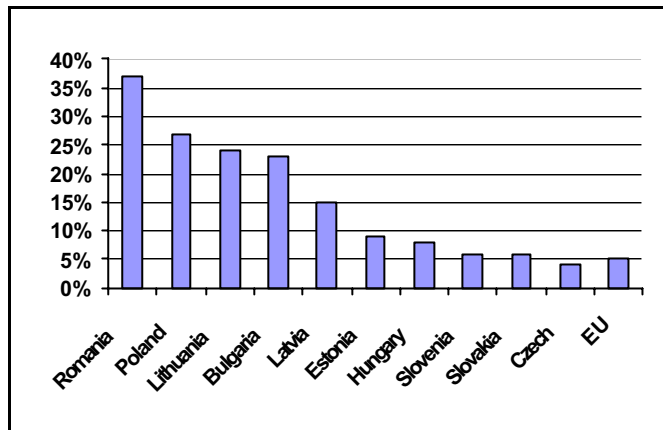
3. Preparing community food and nutrition action plans

3.1 An integrated approach: Food, health and an urban environment

The strategies needed to create desired changes in nutritional and environmental patterns are often complimentary and so if combined they provide cost-effective, sustainable developments for deprived areas. Local projects that seek to improve the availability of, access to and consumption of locally produced vegetables and fruits help to improve the interdependency and so the social cohesion between urban and rural dwellers.

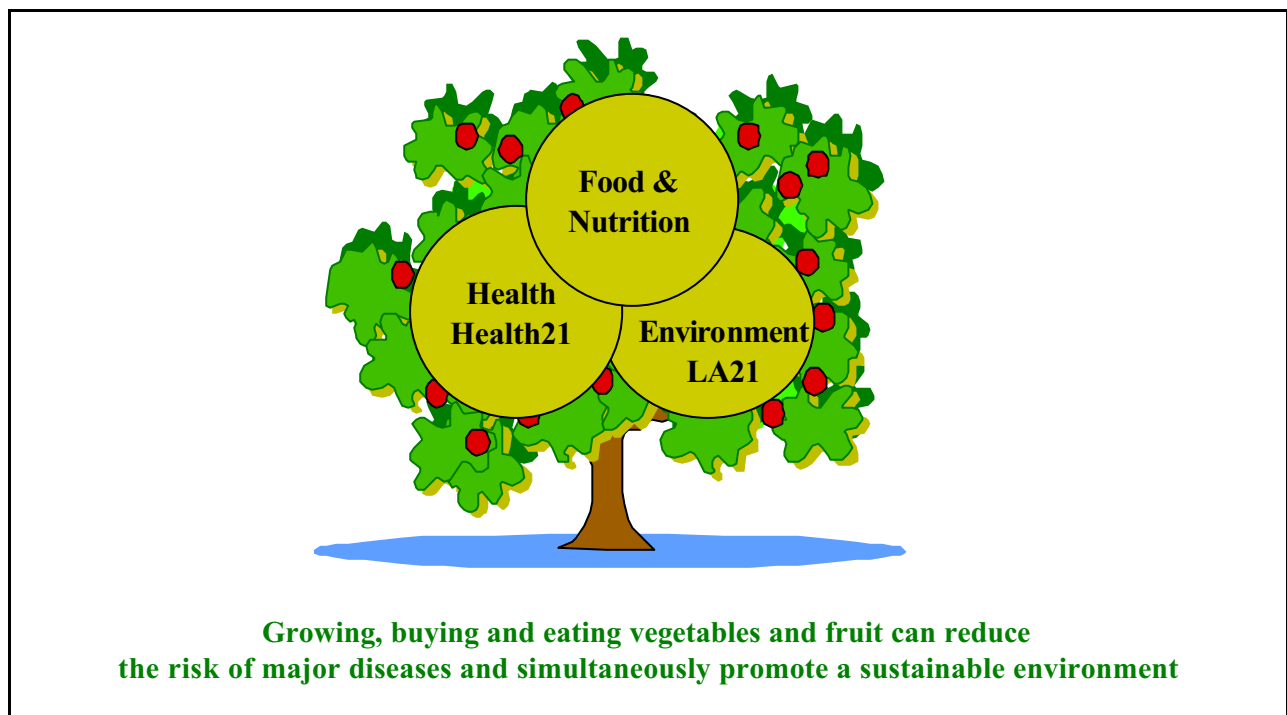
Cities produce enormous amounts of waste, and this waste is usually transported as far away and as cheaply as possibly from the city. Urban and peri-urban horticulture businesses have the potential to recycle organic waste, storm water and treated grey-water for use in food production. Urban organic waste (solid and water) is a valuable resource which can help to conserve the limited water supply. Moreover if fruit and vegetables are grown and processed locally the energy used in packaging and transporting food can be reduced.

The current trends in urbanization combined with the increasing globalization of food trade will have an enormous impact on the sustainability of the food system. Over the next 10 years, around 10% of the EU population, and nearer one quarter of the population in Central Europe will move from the rural areas into cities. In central Europe in 1999, the percentage of the population living in rural areas and employed in agriculture was much higher (22.5% on average) than in the EU (5.5%) (Figure 5) . So the impact of rapid urbanization is likely to be extremely traumatic for both the rural populations left behind and those moving to urban areas in search of employment. Urban planners will face challenges not see before. There will be a need for urban planners to design infrastructures to protect the vulnerable against food insecurity.

Figure 5: Percentage of population employed in agriculture in 10 Central European countries compared with EU

Source: Agriculture Situation and Prospects in CCEE- summary report 1999.

A more integrated approach to developing food and environmental plans will help reduce the stress from rapid urbanisation and increased global food trade (Figure 6). Planners should capitalize on the communities' skills and city authorities should ensure that the appropriate legal, financial, technical and support structures are in place.

Figure 6: An integrated approach to health, food and urban environment

Good examples already exist such as initiatives that involve growing food in and around cities. In Sweden new buildings are planned with composting facilities and municipally owned city farms, which use this compost, contribute not only to reducing the environmental impact of waste but also contribute to social cohesion and local economic growth (Box 3).

Box 3: Aspö city farm, Skövde, Sweden

The municipal housing authority of the Swedish town of Skövde has set up a city farm adjacent to three residential areas. The city farm has cows, pigs, chickens, and small fields of grains and other crops. Day nursery and school classes frequently visit the farm, and anyone who is interested may join in the work. Children can help look after the animals. The services of a farmer are hired for the management of the farm, and a recreational teacher is hired to lead study tours and other activities. The farm makes a small profit.

Source: *European Sustainable Cities*, Report by the Expert group on the Urban Environment, 1996.

Integrated food, health and environmental policies can:

- create opportunities for local employment;
- stimulate local economic growth;
- enhance social cohesion;
- improve the aesthetics of the city environment;
- increase opportunity for a more active lifestyle;
- improve mental and psychological health;
- recycle treated water and organic waste for food production;
- provide a closer link between consumers and producers;
- enable environmental improvements;

all these advantages lead to more sustainable food, health, and environmental systems.

Municipal authorities in many cities concerned with community development are beginning to link existing projects or networks, e.g. Local Agenda 21 projects (Box 4), NGO poverty alleviation projects, urban renewal, community development and Healthy Cities networks. Where these networks do not exist, alternatives could be created.

Box 4: Local Government Management Board, Great Britain

The Sustainable Development Unit at the Local Government Management Board provides UK local authorities with guidance on sustainable development. It is responsible for managing the national Local Agenda 21 (LA21) initiative and the local authority Eco-Management and Audit Scheme (EMAS) on behalf of UK local government. The work on Local Agenda 21 and EMAS encourage local government in the UK to act more sustainably, but have different emphases. Local Agenda 21 is more about partnership working with local communities, and EMAS more about internal management within the local authority. More information from on the website <http://www.lgmb.gov.uk>

3.2 Identification of the local stakeholders

The successful development and implementation of local food and nutrition action plans requires the participation of various stakeholders: local/municipal authorities, food producers, consumer groups, neighbourhood and environmental groups, schools, community health centres, retailers, markets, banks and food control/safety authorities (Box 5). Everyone has a role to play.

Box 5: Identifying local stakeholders

Who might be affected positively or negatively by the concerns to be addressed?
 Who are the “voiceless” for whom special efforts may have to be made?
 Who are the representatives of those likely to be affected?
 Who is responsible for what is intended?
 Who is likely to mobilize for or against what is intended?
 Who can make what is intended more effective through their participation or less effective by their non participation or outright opposition?
 Who can contribute financial and technical resources?
 Whose behaviour has to change for the effort to succeed?

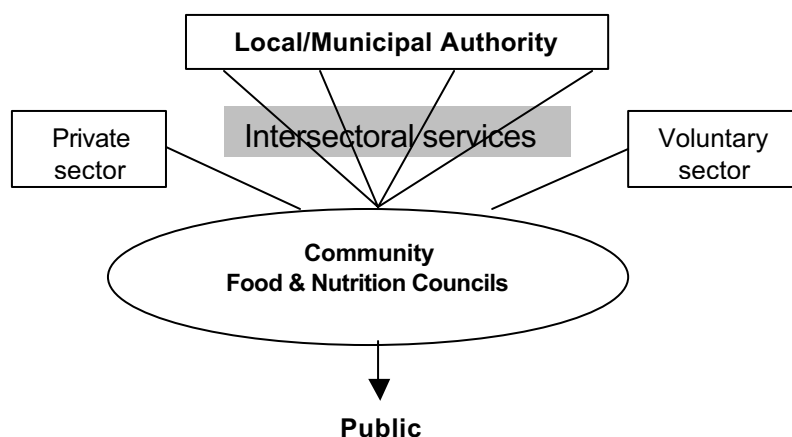
Source: World Bank, Sourcebook on Participation, 1997.

Working towards a sustainable future should not be left entirely to the policy makers and technical experts. Community involvement, both to find sustainable solutions and to facilitate action, is essential. Although ensuring broad community involvement can be daunting, because it is both time and resource consuming, it is vital to achieving equitable and sustainable solutions. Finding sustainable solutions requires not only public debate, but effective interaction between policy makers, technical and educational institutions, commercial interests, community groups and citizens.

3.3 Community Food and Nutrition Councils

Food and Nutrition councils with representation from: local/municipal authorities; local food producers; retailers; public interest groups working with the environment, food poverty or community development; and interested citizens are vital. They not only help to develop and monitor implementation of plans but they also provide a platform for information exchange and community dialogue (Figure 7). Community Food and Nutrition Councils also provide a framework for: identifying objectives and action; monitoring community-based projects and coordinating research. In addition, a broad intersectoral coalition can provide useful information on sustainable agriculture, urban planning, community development, waste management, food safety, nutrition and health policies. (See WHO Regional Office for Europe document ‘Urban Food and Nutrition Security – participatory approaches for community nutrition’ for more information.)

Figure 7: Intersectorality of Community Food and Nutrition Councils



One of the goals of a council is to advise and actively support community-based local food production and distribution systems with the aim of promoting economic growth while improving physical, mental

and environmental health (Box 6). This can be achieved by promoting networks linked to Agenda 21, Local Environmental Health Action Plans, healthy cities networks and urban renewal projects, etc.

Box 6: Toronto Food Policy Council

The mission of the Toronto Food Policy Council is to work to develop a just and environmentally sustainable food system for all those living in Toronto.

Operational Goals:

- To reduce hunger and the need for a charitable food distribution system.
- To increase access to sufficient, nutritious, affordable, safe and personally acceptable foods.
- To promote equitable food production and distribution systems which are nutritionally and environmentally sound.

Achieving these goals means that food policies must be developed to ensure that food is available, accessible, affordable, acceptable, and sustainably produced. The Toronto Food Policy Council will:

- Work with community groups on local food access issues, sharing information, helping with fundraising, and project development, co-ordinating, consulting, and identifying areas for research based on current issues at the community level;
- Review policies and practices of government, private sector and other public agencies and advise the Board of Health and City Council on social, economic and health policy issues with regard to production, processing, availability, cost, and waste in the food system, within and beyond the municipality's boundaries;
- Work with other organizations to provide useful educational materials which illustrate the relationships between existing policy and actions of individuals, government and industry as they affect the food system;
- Take leadership in doing policy research on the food system, examining health indicators and actions being taken in other communities in North America and worldwide which might be applicable to Toronto;
- Gather and coordinate information from existing organizations working on food-related issues and communicate this information to the public through the media as well as to appropriate decision makers.

For more information: Toronto Food Policy Council, 277 Victoria Street, Suite 203, Toronto, Ontario M5B 1W1 Canada tel: (416) 392-1107 Fax: 392-1357
 E-mail: lmarks@city.toronto.on.ca
 Website: http://www.city.toronto.on.ca/health/ffpc_index.htm

3.4 Analysis of the local/municipal situation: the problems and the assets

A common starting point is the need to assess the community environment in relation to improving production of, access to and consumption of healthy food, especially vegetables and fruit. Once a situation analysis or “community mapping” has been carried out a local action plan, designed to meet the community’s needs, can be developed (9).

Often identified is the problem of poor availability, and inequitable access to healthy food, such as vegetables and fruit, by vulnerable groups. Both poor availability and poor access create barriers to increasing consumption of vegetables and fruit. Therefore the best way to increase vegetable and fruit intake is not only by using health education but to assess what structural changes are needed to support policy implementation. All actions should: improve equity; promote local sustainability; empower vulnerable groups; reduce social and health problems and poverty.

In the preparation of the action plan, data are needed to clarify what problems are created by the existing food systems and to find the potential for change.

Box 7: The planning process

Stage One: Getting started: building partnerships.

1. Define the scope and purpose of planning exercises, goals and objectives (review or develop new plans).
2. Understand food and nutrition issues and raise awareness.
3. Get local council approval, form a stakeholder group and a working group.
4. Build appropriate partnerships with key actors.
5. Establish means for community participation.

Stage Two: Knowing your community: situation analysis.

1. Define the scope and the issues to be analysed.
2. Define food, health and environmental priorities.
3. Carry out environmental and health impact assessments.
4. Set priorities based on situation analysis.

Stage Three: Looking forward: a common vision.

1. Develop a common community vision based on current strengths and weaknesses, opportunities and trends.
2. Identify key principles and values for a healthy and sustainable community.
3. Involve the community in the process.

Stage Four: Getting organised: action planning.

1. Define the action planning process and the framework of the action plan.
2. Establish strategic goals.
3. Set targets.
4. Select specific implementation strategies and programs.

Stage Five: Taking action: implementation and monitoring.

1. Create effective structures and planning links.
2. Establish internal auditing and monitoring procedures.

Stage Six: Getting feedback: evaluation.

1. Select useful indicators for measuring progress.
2. Measure and report on performance and progress.
3. Get feedback from the community.

Source: Adapted from WHO-Healthy City Project, "Towards a new planning process - a guide to the re-orientation of urban spatial planning towards Local Agenda 21". 1998.

3.5 Multi-stakeholders workshops: Policy formulation and action

On the basis of situation analysis, multi-stakeholder workshops can be organized to exchange views and initiate interactive processes of policy formulation and project planning. The purpose of multi-stakeholder workshops is to provide a common vision, and a platform for consensus building among participants from diverse backgrounds and often conflicting interests (9).

These planning processes should result in:

- policies and action plans that facilitate both the production of vegetable and fruit and 'environmentally friendly' distribution systems that are integrated into authorities' development plans;

- the formulation, with local producers, consumers and other stakeholders, of concrete projects that will be implemented; including what specific actions can be taken by the various stakeholders.

4. Barriers to action

4.1 Barriers to increasing the availability of locally grown food

Conflict with existing policies

Urban planners may not perceive the benefits of horticulture and so it may be seen as a conflicting activity where only the perceived threats to health are considered. Fear of food contamination and disease has over time become institutionalised into law. In many cities urban agriculture still has an "illegal" status and local officials often levy taxes. Such biases, sustained by the limited exposure of policymakers and planners to scientific information on urban horticulture and ecological developments, have led to unnecessary and damaging legal restrictions. Often these restrictions are among the most important constraints to the development of urban agriculture.

Food-borne risks

In Europe policy discussions of the health effects of agriculture and food have been dominated by food safety issues, although the burden of nutrition related disease is quantitatively more important. Food production and its retail are increasingly perceived as presenting risks to society in Europe. Consumers are more and more concerned, no longer trust nor have confidence in the food supply. Food policies are needed to reduce the spread of food-borne diseases. The main health risks associated with urban and peri-urban vegetable and fruit production and processing are:

- contamination of crops with pathogenic organisms (e.g. bacteria, protozoa, viruses or helminths), due to irrigation by water from polluted streams, or inadequately treated waste water or organic solid wastes;
- human diseases transferred from disease vectors attracted by agricultural activity;
- human diseases associated with unsanitary post harvest processing, marketing, retailing and home preparation;
- contamination of crops and/or drinking water by residues of agrochemicals;
- contamination of crops by uptake of heavy metals from contaminated soils, air or water; and
- occupational health risks for workers in the food-production and food-processing industries.

Food borne disease is a major concern in Europe. Consumers are increasingly concerned about microbiological safety (*Campylobacter*, *Salmonella*, *E. Coli*, and *Listeria*), chemical safety (pesticide residues, nitrates and heavy metal contamination) and genetically modified food, novel foods and new processing techniques. Consumer confidence has suffered due to reports about antibiotic resistance, mad cow disease (BSE), dioxin scares and food and mouth disease in animals.

Many of the food-borne diseases listed are associated with mass produced food. Some of the risks could be more easily controlled and potentially reduced if more food is produced nearer the consumer. Food-borne diseases could be eliminated or mitigated more easily if managed properly. One example from WHO includes introducing the concept of healthy farmers' market places. In some countries in Central and Eastern Europe the sale of local food contributes substantially to the availability of vegetables and fruits and provides a viable means of earning extra income and so local markets have to be preserved at all costs.

Lack of information

Although home gardening is known to city planners, the important role that horticulture businesses can play in improving both the economy and environment may go unrecognized. Their potential is lost and growing food in cities is often seen as a left-over from rural traditions and as a marginal activity with little economic importance.

No legal protection

Urban food production can take place in backyards, on grounds of schools, hospitals, prisons or on lands owned or leased in the peri-urban area. Food may be produced largely for commercial purposes or for recreational purpose in Western Europe whereas in Central and Eastern Europe and the Newly Independent States, subsistence and food security may be the driving force. The use of the land may not be permanent or secure and the user's rights may be minimal. Urban growers may be evicted because of other developments and they may not receive any assistance to re-locate. This will increase the inequalities and poverty of those dependant on horticulture for a source of income or subsistence and will reduce the quality of life, well-being and social cohesion of those dependant on gardens and parks for recreational activities.

Lack of infra-structure

Access of urban and peri-urban growers to resources, like urban organic waste and waste water, is usually restricted due to government regulations and economic policies that are biased towards large scale waste management. Recycling of urban waste is often limited by price structures that favour large-scale landfill operations. Unless instruments (taxation, subsidies, etc.) are put in force by central/local government it is difficult for municipalities to afford ecological waste management systems. The correct use of organic solid wastes, storm water and waste water for growing food requires technical assistance from professionals to continually monitor safety.

Lack of research

Research activities to develop new technologies appropriate for confined spaces, based on ecological farming principles and the re-use of urban resources are rare. Due to this lack of scientific evidence, urban and peri-urban growers seldom receive extension services like training, technical assistance, bank credit and access to supportive infrastructures.

4.2 Barriers to increasing equitable access

In many cases the philosophy of quantity over equitable distribution prevails and this may present barriers to promoting sustainable local distribution. Some sectors, within the food industry, are built on profit from "value-added" processing, packaging and distribution. These sectors may concentrate on finding new cost-efficient markets, without examining the potential negative impact on the environment, the community and social inequalities.

Just as the emphasis of food production varies between Central and Eastern European (CCEE) and Western Europe (subsistence versus commercial or recreational) so the food consumption patterns and consumers vary. Urban dwellers in Western Europe are predominantly purchasers of "value-added" processed foods and are removed from any connection with food production. In contrast in Central and Eastern Europe and the Newly Independent States roughly 66% of urban families produce food (Box 1). This self-reliance and subsistence farming is likely to change to Western patterns of development (expansion of supermarkets, standardization of products, etc.). This means that people in CCEE are likely to become more dependent on the market-driven food distribution systems. For poor people this poses a problem when they are unable to buy their way into this system, due to lack of money and resources.

Urban planners, facing exponential increases in numbers living in cities have therefore to consider alternative food distribution systems and not assume that the market-driven systems will cover all the needs, especially the needs of the resource poor and other vulnerable groups.

4.3 Barriers to increasing the consumption of vegetables and fruit

As discussed in section two, most people in Europe, and especially the poor and disadvantaged are not eating sufficient fruit and vegetables. Why exactly this is the case has still to be examined. However the different situation, in the Mediterranean countries compared with those in the North, demonstrates that access and availability are key factors to increasing consumption. Many barriers may need to be overcome:

- some communities may have lost confidence in local foods due to scares related to soil contamination and air pollution; and
- taste – children especially may dislike the taste of vegetables;
- most research efforts have focused on extending the shelf-life of non-perishable ‘value added’ foods instead of perishable food;
- many consumers now prefer food that is processed, pre-packaged and sold in supermarkets;
- city planners perceive food growing and distribution projects as unimportant and not progressive;
- the community's perception of what is culturally acceptable;
- eventually people, especially vulnerable groups, lose cooking skills and simply do not enjoy eating vegetables or fruit;
- cost – fresh vegetables and fruit may be too expensive;
- vegetables and fruit may not be available or accessible;
- more time at work and less at home creates the need for time-saving convenience foods and child-care facilities.

The negative effects of typically high saturated fat convenience foods are no longer counter-balanced by high levels of physical activity, leading to an increased prevalence of obesity.

In adolescence, the health impact of nutrition is pronounced. During their periods of rapid growth, adolescents have increased energy needs. Many of them, especially those in low-income groups, choose relatively cheap sources of energy, such as large amounts of fat and sugar, potentially leading to micronutrient deficiency, obesity and dental caries. Increasingly, there is evidence that poor nutrition due to income inequalities results in health disparities. The European Network of Health Promoting Schools, in collaboration with the Regional Office and the EU Commission, has produced a training manual for teachers. In addition, an extensive survey, carried out regularly in almost 30 countries, includes results on adolescents' eating habits and their attitudes towards their body image.

Fortunately there are many examples illustrating that barriers can be overcome and action can be successful. These will be discussed in section 5.

5. Opportunities for local action

5.1 Increase the availability of locally grown food Local/Municipal authorities can promote local food growing

Authorities can promote growing food in cities in order to improve people's nutrition, improve the urban environment, create employment and generate income. Because of lack of money, urban citizens for example in CCEE² and NIS³ have created initiatives to produce healthy local food (Box 8). Many cities in CCEE and NIS may hold the key to a modern sustainable solution. Indeed there are both east-west and west-east lessons to be learned within the WHO European Region. The west can learn from the innovative initiatives in CCEE and the east can learn by not making the same mistakes made in the west.

Box 8: Growing vegetables on rooftops: St. Petersburg, Russia

The Russian people have experienced shortages of basic foodstuffs over the past decade. Rooftop gardening is considered a novel idea for producing vegetables for urban people who have no access to land outside the city.



The potential of rooftop gardening is huge. In just one district in St. Petersburg, it is possible to grow 2000 tonnes of vegetables. Currently, there are about 15 rooftop gardens in St. Petersburg.

Shallow bed methods were developed with technical assistance from ECHO (Educational Concerns for Hunger) with the soil mix being critical for growing plants. Vegetables from rooftop gardens were tested independantly for heavy metals and proved to have lower levels of contaminants then the vegetables sold in the market.

Local/Municipal authorities can make land available for growing food

Cities can reserve sites for urban agriculture and allotments. In addition, plans can include: re-allocation rights for urban growers in case of a change in land use; new schemes should allocate space for home and community gardens (Box 9), orchards, allotments and commercial initiatives. Local authority land that is under-utilized or vacant, can be leased to growers, and unauthorized land use can be legalized by issuing temporary permits. This would provide incentives for cleaning up vacant spaces which often are aesthetically undesirable. Incentives could be given to schools, hospitals, military centres and other landowners to promote food production on their grounds. Local/municipal schemes could play a role in providing credit to small enterprises (composting, processing and vending of locally-grown food). Credit could be provided on condition that ecological modes of production are used along with adherence to food safety regulations.

² CCEE - Countries in Central and Eastern Europe.

³ NIS - Newly Independent States.

Box 9: City Planning and Allotment Gardens: Stockholm, Sweden

In 1975, the Stockholm City Estate Office adopted guidelines for allotment areas:

- leisure gardens will be included in urban plans;
- all new residential areas plans will include space for gardening;
- allotment environment will be improved by planing bushes and trees, such areas will also get improved street furniture (entrances, signs, notice boards);
- gardens will be made more accessible to the general public;
- design will be more viable and pleasant, less rectangular;
- gardeners needs for information and education will be met.

In 1993 there were over 8,000 allotments provided by the local authorities in greater Stockholm, and there were still over 7,000 names on the waiting list.

Source: Timothy Greenhow, Urban Agriculture: Can Planners Make a Difference, Cities Feeding People, CFP Report Series Report 12, www.idrc.ca/cfp/rep12_e.html, September 1998.

Many city planners recognize the added value of combining vacant spaces with food growing activities

As already listed in the summary the benefits of increasing local food growing are impressive:

- Health benefits: improved physical and mental health and sense of wellbeing;
- Social benefits: leisure, community cohesion and social inclusion;
- Direct economic benefits: income generation, local employment, development of small enterprises and production of vegetables for local consumption.
- Indirect economic benefits: education, recreation, waste-management (avoid costs of waste disposal), use of under-used resources (rooftops, roadsides, water bodies), economic diversity /stability, changes in economic value of land, and possible multiplier effects such as attracting new businesses like input services or restaurants, local shops and markets.
- Environmental benefits: improved water supply and conservation, air quality, incremental improvements to the carbon dioxide balance, bio-diversity, and energy-savings through local production;

Increasing the level of food production, offer cities an opportunity to turn organic waste (Box 10) and treated “grey” water (waste water other than sewage). Organic waste may be highly polluting when deposited in landfills, but not if the landfill is operated well. If composted, organic waste provides valuable nutrients and can be used as a fertilizer if the waste is not contaminated with elevated levels of heavy metals, chlorinated compounds or pathogenic bacteria. Properly treated “grey” water can be used to water plants instead of valuable drinking water (10).

Box 10: Re-cycled organic waste, Västeras Sweden

An example is an apartment block with 69 flats in the town of Västeras. Waste separation begins in the kitchens, which have been designed to make room for several waste containers. All biological waste is composted in thermally insulated composters. There is a composting room alongside every entrance hall to the block. In the courtyard there is a compost corner, where composted material ages before being used in the block's garden allotments. As a result of composting and waste separation the local sanitation department only collects 40% as much waste from this particular block, as it does from other comparable blocks.

Source: *European Sustainable Cities*, Report by the Expert group on the Urban Environment 1996

City authorities can play a role in restoring confidence in locally produced food

City authorities can provide the technical assistance necessary for soil and water testing, contamination risk assessments and rehabilitation of polluted soils can be carried out and “minimum risk production practices” applied and communicated to the public (Box 11). Poor assessment and risk management strategies can result in significant risks not being identified and so not being properly managed. On the other hand risks can be over-estimated leading to unnecessary precautions and scarce resources used to manage an insignificant risk. Existing and future environmental and food safety regulations should be carefully evaluated before being enforced. Regulations may place unnecessary restrictions and create mistrust in local food by consumers because of fear of contamination.

Box 11: Contaminated soil in gardens: Copenhagen Denmark

Many of the allotment gardens in Copenhagen are located on former landfills and industrial sites. In response to potential risk of contamination Copenhagen's Environmental Protection Agency has extensively mapped the relative levels of contamination, provided testing of soils and tested allotment owners blood for trace heavy metals. In 1997 The pamphlet “Contaminated soil in gardens: how to avoid the harmful effects” was published to provide allotment owners with guidelines for food growing and recreational activities on their potentially contaminated grounds. An english translation of this pamphlet has been adapted by WHO and is available from:

Source: WHO Regional Office for Europe, Programme for Nutrition and Food Security, Scherfigsvej 8, DK-2100

Overly strict enforcement of food safety legislation, in pursuit of providing safer foods and protecting the consumer, can have detrimental effects on local food production and distribution initiatives. Careful analysis of the degree of risk involved and identification of recommended practices can ensure safe food and reduce the greatest risks. Effective systems for quality control of urban produce can be established and solutions for existing problems can be found.

Many people in central Europe choose their national products, perhaps because local products are cheaper than western brands, or because they are more convenient or taste better. Close to 40% of consumers in Poland and Bulgaria place their trust in domestic produce whereas there still appears to be a lack of confidence among consumers in Czech Republic, Slovakia and Hungary. More work needs to be done to restore consumer confidence in locally grown foods.

5.2 Increase access and reduce inequities for vulnerable groups

Local/Municipal authorities can help to reduce food poverty

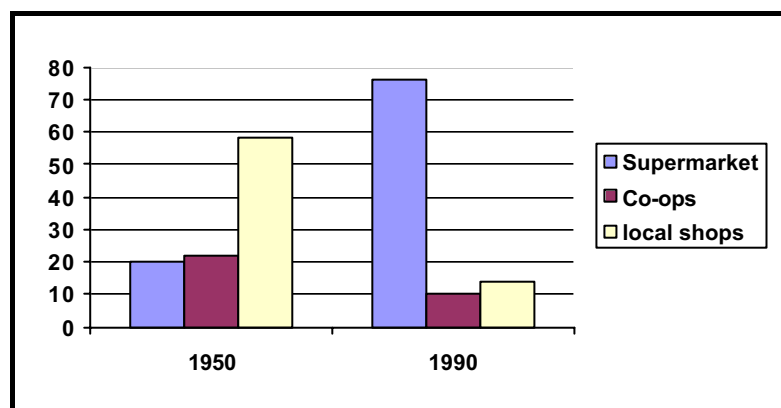
Although the issues that affect food poverty will vary from community to community, the authorities can play an important role in providing solutions. For example, authorities can:

- promote initiatives that improve access to affordable vegetables and fruits;
- plan shop developments that reduce the need to travel;
- support better public transport;
- reduce cost of vegetables and fruits
- regulate the growth of out-of-town supermarkets;

Local/Municipal authorities can encourage the development of local shops and other innovative initiatives

Local shops in many cities have closed or have limited their product range to non-perishable, long shelf life items. In the UK, between 1976–1987, the number of local food shops was reduced dramatically and over 44000 closed (Figure 8).

Figure 8: The relative grocery share of the market in UK for 1950 and 1990. (Number in 1,000's.)



Source: *Off our Trolleys?* IPPR, 1995

Community Supported Agriculture (CSA), Local Exchange Trading Schemes, Food Cooperatives and Drop-Box schemes are all alternative approaches now being tried in Western Europe in an attempt to reverse the adverse trends of the seventies and eighties. Schemes (Box 12) which bring local producers in closer contact with their consumers should be supported with financial, technical and legal incentives.

Box 12: Good Community Business

De Kring: Community Supported Agriculture (CSA) in the Netherlands.



A small horticultural farm was established in 1989 at the city boundaries of Wageningen. Vegetables, fruit and flowers are grown according to bio-dynamic principles. Decisions on crop are made jointly by the farmer and the consumers. All crops are cultivated in different circles of 25 m diameter, each circle divided in about 15 parts.

Inhabitants of Wageningen are invited to buy a share of the production for around 300 US\$ per year. each will obtain the right to harvest part of the "circle", in which a variety of crops is grown. The farmer takes care of crop cultivation up to harvest. The consumers decide on when and

what to harvest, although the farmer announces the harvest periods for each crop in a monthly bulletin. Consumers reported enjoying the taste of organically grown food, harvested without having the "burden of sowing and weeding" and bringing their children to learn about crops and cultivation.

Communities can work in partnership with local growers

Growers, small-holders and horticultural businesses are increasingly establishing successful links with city communities. Local producers have the opportunity to promote and respond to community needs and can play a unique educational and recreational role in the community. School visits, Bed and Breakfast, occupational holidays, teaching horticulture skills and providing evening classes can also add diversification to rural economies.

Local/Municipal Authorities can help to increase the number of growers markets

Another trend in Europe is the growth in farm shops where farmers sell mainly their own produce directly to consumers. For some farmers in Denmark, this is their main source of income and farmers' organizations are conducting courses on the management of farm shops. Similarly in Finland, where farmers markets have always been supported (Box 13), farmers are now being educated in small-scale food production systems and new methods for distribution and promotion are being investigated.

Box 13: Farmers' market: Kuopio, Finland



Local markets in Finland are a common sight. These markets sale predominantly local produce, including wild mushrooms and berries when seasonally available. During the winter months, much of the food is imported, but labels usually indicate the place of origin. Land and technical assistance are provided by the municipality.

(For more information on “Healthy Market Places” contact WHO)

Partnerships with retailers can improve access to locally produced vegetables and fruit

The supermarket revolution has brought many advantages but also some unexpected challenges. However lessons learned from the west show that city authorities can influence supermarkets’ policies. For instance in USA, local authorities have been successful in encouraging supermarkets to enter the poorer areas of large cities and the concept of neighbourhood supermarkets which sell local produce is being promoted. Good cooperation between supermarkets and the health and voluntary sectors, both in the USA and Europe, is leading to increased sales of vegetables and fruits.

Many services provided by supermarkets can greatly improve their customers’ access to vegetables and fruits:

- increased variety of fresh vegetables and fruits on sale;
- wheelchairs and walking assistance;
- availability of small reasonably priced packs;
- unpackaged affordable vegetables and fruits sold singly for small households;
- free bus service to and from the supermarkets;
- loyalty cards or stamps that offer discounts on vegetables and fruits; and
- home delivery service.

Food retailers, especially supermarket chains, are a dominant force in shaping the preferences and demand for goods. Large retail distribution chains often build very big central terminals where produce from all over the world is deposited. From here trucks deliver to the shops that are members of the distribution chain. One consequence of this is that shops are not encouraged to stock locally-grown produce. Attempts to reverse this trend is being tested in some cities. For example supermarkets in Mikkeli, Finland, sell locally grown and processed foods which are promoted by special shelf signs advertising “provincial products”.

Considering the exponential growth of supermarkets in Central and Eastern Europe combined with their high profile style promotions, they are likely to have a major impact on consumption patterns. City and local authorities should attempt to work with these chains to develop new health promotion strategies. Good examples of promotional campaigns addressing healthy choices and the benefits vegetables and fruits already exist (Box 14).

Box 14: Super-project

Studies carried out in Liverpool and Valencia found that certain supermarkets offered more healthy choices, provided more information on nutrition and stocked a greater variety of vegetables and fruit.



These findings in Liverpool and Valencia stimulated the idea of a European project, (the SUPER-project which included Horsens, Amadora, Eindhoven and Rennes) to exchange ideas and share information around the area of shopping and food choice. The Project studied if the availability of healthy foods, incentives to promote dietary change and access to sound nutritional advice lead to measurable change. The central place for the intervention was the supermarket.

5.3 Increase consumption of healthy foods through community action

Citizens identify the most appropriate actions to improve their local situation

Working towards a sustainable future is not only a question of intersectoral cooperation, governmental policy or involvement of experts. Community involvement is essential in order to find the answers and facilitate action. Public debate is important in identifying what limitations and viable solutions exist when addressing the community's food needs (Box 15).

Box 15: Community Mapping Tools: England

SUSTAIN, working with the New Economics Foundation and Oxfam (United Kingdom) are piloting a new approach to understanding food poverty and the dynamics of local food economics in the United Kingdom. The project undertakes pilot studies using participatory techniques such as "community mapping" to help people to understand their local food economy. Leicester City Council, Coventry City Council and Brighton and Hove Council are partners in the pilot studies.

For more information contact SUSTAIN – the alliance for better food and farming, <http://www.sustainweb.org>.

The role of citizens is important, as ultimately it is the citizens of the community who:

- support local shops and markets;
- lobby for better public transport;
- start food cooperatives
- object to proposals for too many out-of-town shopping developments at the expense of neighbourhood shops;
- market economics (supply and demand) is built on the theory that supply is determined by demand – therefore citizens must demand!

Schools can combine growing, food preparation and eating as cross-curricular themes

As fast food, convenience foods and the availability of pre-cooked foods proliferate, there is alarming evidence that the skills, knowledge and culture surrounding food is being lost. A United Kingdom survey in 1993 (Mori survey undertaken for the *Get Cooking* project) showed 93% of children age 7–15 years knew how to use a computer but only 38% could cook a jacket potato. The elimination of compulsory basic food skills (growing, preparing and eating) from national curriculum of schools will accelerate the loss of these skills. Some schools are taking active steps to prevent the loss of these vital life skills, such as schools that are part of the Health Promoting schools network (Box 16).

Box 16: Parents getting involved at a Health Promoting School in Poland



The pupils wished to improve the toilet facilities in the school and so in order to raise the necessary funds, with the help of their parents, they cultivated an orchard and sold the apples to the local community.

Results from focus group interviews with children in Denmark showed that parents could not cook and so they could not teach their children cooking skills. Therefore it is essential that food skills are taught in schools. These also provide an interesting, practical supplement to subjects as diverse as mathematics and history, or contribute to cross-curricular themes by combining the natural sciences and environmental studies (Box 17). Food growing and preparation can be part of recreational activities after school hours or combined with evening classes for adults in the local community.

Box 17: School Gardens, Arkhangelsk, Russia



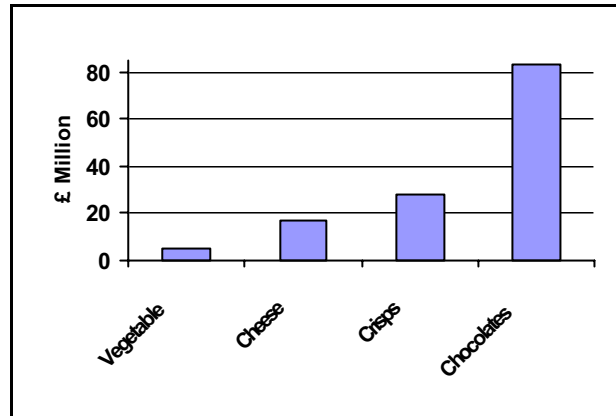
Children learn how to grow food in Arkhangelsk, Russia. In many eastern Europe countries, children are still taught how to cultivate, harvest and preserve foods as part of the standard school curriculum. This should be protected, supported and promoted, and western schools could learn from this good example.

Schools in Nordic countries and the United Kingdom are experimenting with providing a vegetable or a piece of fruit every day to pupils to try to increase consumption and give children the opportunity to experience and enjoy eating fresh produce. In North Karelia, Finland, schools have special days when all pupils collect berries or mushrooms for the school kitchen to use during winter.

Children have a role as opinion leaders

The role of children as opinion leaders, in influencing what their families buy, should not be underestimated. Unfortunately much of the marketing aimed at young people is for candy, snack items, convenience and fast foods and very little is spent on promoting consumption of vegetables and fruits (Figure 9). Other international comparative surveys support this analysis (11). Major attempts should be launched to increase the promotion of vegetables and fruits, and attractive campaigns and slogans should be developed based on the concept of “local production for local consumption”.

Figure 9: The relative expenditure of advertising foods in Scotland 1991.



Source: Scottish diet report 1993.

The community plays a vital role in developing the skills of its citizens

Communities can establish partnerships and work towards developing the skills necessary for healthy eating, especially through community education initiatives such as:

- How to cook, training schemes
- “Healthy eating on a low budget” courses
- Market gardening, management and marketing courses

Mass catering establishments (health services, local/municipal institutions) should consider procuring local produce to promote consumption

The role of health services and other governmental authorities in protecting, supporting and promoting healthy diets is vital. This is especially relevant where they provide a large number of meals supplied through public catering institutions (local authorities, civil service and school cafeterias, hospitals, meals-on-wheels, military establishments, prisons etc). It is important that the food served reflects the food goals of the community and that education in, and the promotion of healthy eating choices are reinforced. Good examples exist, especially in the Nordic countries such as Sweden, Denmark and Finland. In Finland, vegetables are included in the cost of meals provided by local authorities. Mass catering is an excellent means of influencing food intake since on average each Finn eats about 125 meals per year outside the home. The intake of vegetables and fruit in Finland has more than doubled over the last ten years.

Local health promotion services play a major role by promoting consumption of vegetables and fruits and encouraging community participation

Health educators and promoters play an essential role by encouraging the development of food policies. In Denmark, steps were taken to encourage day-care institutions, kindergartens, schools and after-school programmes to develop nutrition policies. Similarly in the United Kingdom, there is a network

called School Nutrition Action Groups (12), coordinated by the Health Education Trust. This brings together parents, teachers, pupils and caterers to develop appropriate school food policies. Food behaviour is not changed by health education alone and health promotion services help to promote active involvement in food growing, preparation and distribution by consumers to facilitate change and improve eating habits.

Other health benefits such as more active living result from food-related health promotion projects. Regular exercise can reduce the incidence of strokes, cardiovascular disease, high blood pressure and obesity. Physical activity has become a form of leisure for many, but people need money to join a fitness centre or sports club. In contrast, involvement in local food growing projects can provide an affordable means of physical activity especially for older persons and those not so interested in sport activities.

Urban dwellers, especially those from socially disadvantaged groups are more likely to suffer from mental health problems. Anxiety and depression account for the largest proportion of mental illness. Involvement in local food growing (horticultural therapy) and distribution can provide a means of therapy for mental health problems by increasing levels of physical activity, reducing social isolation and improving self-esteem and confidence (Box 18).

Box 18: Horticultural therapy: St. Petersburg, Russia.



Pictured are raised-bed gardens for horticultural therapy. These beds were built at St. Petersburg's Prostheses Centre during the summer of 1996. The purpose of the project is provide rehabilitation and job placement, using horticultural therapy methods to teach new skills to people who possess a limited ability to work.

NGOs promote sustainable community development projects to support vulnerable groups

Initiatives linked to food, the vulnerable and community development allows optimum use of resources and creates “added value” from finding similar solutions to different problems. Various databases exist which give examples of innovative initiatives, e.g. SUSTAIN and the Health Education Authority in the United Kingdom developed a database which provides information on a whole range of projects and organizations that deal with issues of food and low income across the United Kingdom.

6. Role of the WHO Regional Office for Europe

6.1 Objective and goals

The overall objective of the Urban and Peri-urban Food and Action Plan is to promote health and quality of life through an integrated approach to food and nutrition, environment, and health, especially in local communities.

The main goal of the Action plan is to support the development and implementation of local food and nutrition policies, strategies and programmes. This support is provided through the following:

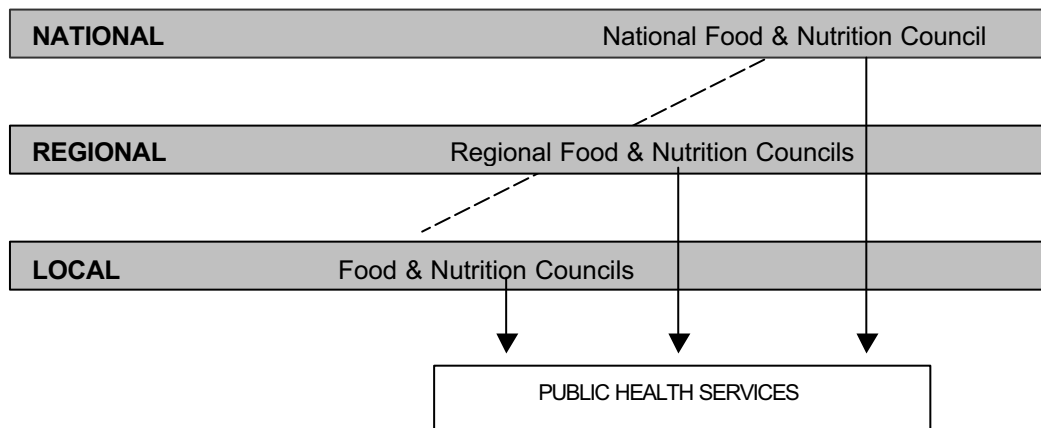
- advocating the benefits of local food and nutrition policies
- encouraging and strengthening political commitment to local initiatives that integrate food and nutrition, environment and public health
- fostering the dissemination of knowledge of policies on food and nutrition
- disseminating guidelines for policy development (see WHO Regional Office for Europe document “Urban Food and Nutrition Security – participatory approaches for community nutrition”)
- sharing current knowledge, case studies and practical experience
- identifying strategies, both negative and positive factors, in developing integrated local policies and programmes on food nutrition
- encouraging, strengthening and developing a partnership approach and enhancing intersectoral actions
- stimulating actions to initiate programmes on food and nutrition in various settings
- using international cooperation to support the development of local policies, strategies and programmes on food and nutrition.

WHO will encourage the development of food and nutrition action plans and the sharing of information between communities across the WHO European Region. WHO will help to mobilize international partners through international co-operation and collaboration

WHO will support local action plans through its networks, including the Healthy Cities project Regions for Health, CINDI, the Health Promoting Schools project and Environmental Health Action Plans.

Through The First Food and Nutrition Action Plan for the European Region of WHO 2000-2005 WHO will promote the implementation of national, regional and local action plans.

WHO will advise on the development of local action plans, taking into account national and regional perspectives. One of the key challenges will be to link local, regional and national initiatives demonstrating the concept “Food Links Local and National Action” (Figure 10):

Figure 10: Food Links Local and National Action – the decentralized role of Food and Nutrition Councils

One of the primary goals of a food and nutrition council is to advise and actively support community-based local food production and distribution systems. The purpose is to promote economic growth in addition to improving physical, mental and environmental health. A major aim of the local councils should be the conversion of national level programmes and targets into specific policies and guidelines based on local conditions. Such Councils can help to impart a horizontal dimension to numerous vertically structured sectors within the community.

WHO will update its information on local policy initiatives and hopes to develop a series of monographs on case studies from around Europe. These monographs will demonstrate integrated food and nutrition policies in action.

7. National and international partners

(See Appendix: II for details)

Although the food and nutrition action plan is community-based, cooperation with the international, national and local organizations is needed to learn which types of projects are successful. EU commission programmes dealing Urban Environment and Sustainable Cities Network create opportunities for partnerships and funding. Partnerships with the EU could provide an important platform for influencing international and EU Members State's national policies. The European Commission Expert Group on the Urban Environment has published the book, *European Sustainable Cities*, detailing policy options for sustainable urban development.

Many UN organizations offer expertise and project documentation in their respective fields. The United Nations Development Programme (UNDP) in cooperation with the Urban Agriculture Network (TUAN) has published a book in a series, *Urban agriculture: food, jobs and sustainable cities* (4).

The United Nations Commission on Human Settlements (UNCHS) has shown its commitment through Habitat II and established the Best Practice Initiative, which is a database of human settlements success stories. FAO provides a wealth of information on small scale farming, street foods and sustainable agriculture on their website.

Throughout the Region, there is an extensive array of international and national nongovernmental organizations with experience and competence in the issues described. These organizations and networks, have a specific role in informing and mobilizing civil society. In addition they have a clear mandate to report on existing government policy and to lobby for policy change and implementation.

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Appendix 1: Glossary of terms

Access

Means or right of reaching, using or obtaining the foods necessary for an affordable, healthy diet.

Availability

Pertaining to the production, physical presence, or supply of food items on the market.

Food poverty

Food poverty means having inadequate access to a healthy diet. Food poverty may be due to a lack of financial resources, a lack of local provision, or a lack of transport to gain access to range of suitable foods. The elimination of food poverty, along with the creation of sustainable food supplies, are two main elements of a programme for food security

Food quality

Food that is in acceptance with the consumer (and regulatory standards guidelines) requirements in terms of its sensory, hygienic (food safety), functional and nutritional characteristics, and is produced or raised in environmentally, ethically and culturally acceptable fashion

Food security

Means that all people at all times have physical and economic access to enough food for an active, healthy life. This concept encompasses the following principles:

that production and distribution of food are sustainable production and consumption of food are grounded in and governed by social values that are just, equitable as well as morally and ethically sound that the ability to acquire food is assured that the food is nutritionally adequate, and personally and culturally acceptable that the food is obtained (and consumed) in a matter that upholds basic human dignity.

Working definition of food security, World Food Day Association of Canada, 1995

Locally produced foods

Foods that are produced in close proximity to point of sale or consumption. It is a relative term, the closer the production is to consumption, the more local the food, perceived from a freshness and environmental point of view.

Sustainable development

Sustainable development is development, which meets the needs of the present, without compromising the needs of future generations, or alternatively “positive socioeconomic change which does not undermine the ecological and social systems upon which communities and societies are dependant” (*Our cities, our future*).

Vulnerable groups

Refers to the increased risk of individuals, households, social groups or whole communities to undergo adverse impact on mental or physical health, i.e. economically impoverished, socially dependant or socially excluded. Vulnerability and capacity are the two opposite faces of the same spectrum.

Appendix 2: A limited selection of potential resources

Intergovernmental agencies (IGOs)

EU Sustainable Cities and Towns Campaign

In 1993, as a means to self-help, the Commission, together with the Expert Group on the Urban Environment, a group established by the Council in 1991 following publication of the Commission's Green Paper on the urban environment, launched the Sustainable Cities Project. The main aims of the project are to:

- promote new ideas on sustainability in European urban settings;
- foster a wide exchange of experience;
- disseminate good practices on sustainability at the urban level;
- formulate recommendations for the EU institutions, national, regional and local authorities
- to assist with the European Community's 5th Environmental Action Programme.

The European Sustainable Cities
& Towns Campaign,
Campaign Office
Rue de Trèves/Trierstraat 49-51
Box 3, B - 1040 Brussels.
website: www.sustainable-cities.org

UNDP

In 1996, TUAN and UNDP published a comprehensive book on "Urban agriculture: food, jobs and sustainable cities". The book is based on exploratory trips made to more than 20 countries commissioned by the Urban Agriculture Initiative of the UNDP. The book encompasses a theoretical background on the potential and constraints of urban agriculture and presents experiences of urban farming in countries across Asia, Africa and Latin America.

UNDP
One UN Plaza
New York, 10017, USA.
Website: www.undp.org

UNCHS Best Practices database

The Best Practices Initiative, part of the United Nations Programme on Human Settlements, contains a selection of human settlements success stories. In partnership with the Together Foundation, UNCHS developed a database with a search engine that enables users to address the database quickly and efficiently. The database contains information about the case study, key contact persons and institutions directly involved in implementation.

For more information contact:
The Best Practices and Local Leadership Programme
UNCHS (Habitat)
P.O. Box 30030, Nairobi, Kenya
e-mail: bestpractices@unchs.org

International Non-Governmental Organizations (NGOs)

ETC (Ecology, Technology and Culture) Netherlands, Urban Agriculture Programme

In 1997, ETC Netherlands took the initiative to set up the European Support Group on Urban Agriculture (ESGUA) to facilitate information exchange/networking on and development of urban agriculture in Europe. The ESGUA aims to:

- stimulate the "dialogue" on urban agriculture between city councils, citizens, farmers and other stakeholders on both local, regional, and European level;
- discuss present and future research and policy development with regard to sustainable urban agriculture and development; and
- provide information and support to individual persons or organizations in the development of urban agriculture and integration of urban agriculture in urban policies and planning.

ETC Netherlands publishes a quarterly e-mail Bulletin on Urban Agriculture in Europe and is also published on the Internet (for the time being on the homepage of City Farmer)

For more information contact:
ETCKastanjelaan 5
3833 AN Leusden
Netherlands
e-mail: office@etcnl.nl

TUAN – The Urban Agriculture Network

NGO based in Washington promoting urban agriculture in low-income countries and increased interaction and co-operation among agencies working in urban farming at local, national and international level. TUAN offers the following services:

- Q&A
- Library (Worlds Largest on Urban Agriculture)
- Workshops (Policy, management, how to)
- Technical Assistance and evaluation
- Emergency Agriculture in post disaster situations
- Policy advice to national and international organization

TUAN
1711 Lamont St. NW
Washington, D.C. 20010-260 USA
Email: 72144.3446@compuserve.com

IDRC's “Cities Feeding People” programme

The International Development Research Centre supports applied multidisciplinary research on food security and urban policy issues in the South. Within the “Cities Feeding People” programme, IDRC executes various projects related to urban food production and waste management. The programme will undertake the following: strengthen household food security; strengthen employment and income generation; support waste and open-space management; support community self-management, particularly for the urban poor; and promotion of receptive policy and regulatory frameworks for land tenure, zoning and use planning.

For more information contact:
Cities Feeding People
The International Development Research Centre (IDRC)
PO Box 8500, Ottawa
Ontario, Canada
Internet-site: www.idrc.ca/cfp

International Food Policy Research Institute (IFPRI) - Multi-Country Research Program on Urban Challenges to Food and Nutrition Security,

IFPRI has launched this initiative led by Marie Ruel and James Garrett in Guatemala City, Accra, Dhaka, Maputo and Cairo.

For more information contact:
Information Program
International Food Policy Research Institute
1200 Seventeenth Street, NW
Washington D.C. 20036
USA
e-mail: IFPRI@CGNET.COM
Website: <http://www.cgiar.org/ifpri>

City Farmer

City Farmer, a non-profit society that started in 1978, promotes urban agriculture and collects valuable information on Internet, which is difficult to find elsewhere. The homepage is regularly updated and contains general information on urban agriculture, articles, conference announcements, resources and provides links to other relevant Internet sites.

Address:

Mike Levenston

City Farmer

Canada's Office of Urban Agriculture

#801-318 Homer Str.

Vancouver, B.C. V6B 2V3

e-mail: cityfarm@unixg.ubc.ca

Internet: <http://www.cityfarmer.org>

Local Sustainability – the European Good Practice Information Service

A guide to sustainable good practice is developed and operated by the Consortium and has been developed with the financial support of the European Commission, for environment, nuclear safety and civil protection.

Website: <http://cities21.com/europractice/>

Global Forum on Sustainable Food and Nutritional Security

Southern NGO dealing with urban food security.

Address:

Ágora-Associação para Prjetos de Combate à Fome

SGAN 905 Conjunto “B”, Parte “A”

CEP 70.790-050 – Brasilia . DF Brasil

e-mail: agora@brnet.com.br

National Non-Governmental Organizations

SUSTAIN

SUSTAIN low income database contains over a hundred examples of local projects integrating food, health and environmental issues. SUSTAIN is currently piloting a project in communities in the UK using participatory methods to provide understanding of the local food economy.

SUSTAIN,

94 White Lion Street,

London, N1 9PF

e-mail sustain@compuserve.com

Soil Association

The Soil Association has worked for more than 50 years in supporting sustainable agriculture. The Soil Association emphasizes a holistic approach to developing sustainable food economies and works in close cooperation with other organizations working in related areas. Members receive the award winning *Living Earth* magazine, with the Latest in local food links, organic food news, sustainable agriculture and forestry.

Soil Association

Bristol House

40–56 Victoria Street

Bristol

BS1 6BY

Local Food Links

Tel 0117 929 2425

email lfl@soilassociation.org

The Food Commission

The Food Commission is a national non-profit organization campaigning for the right to safe, wholesome food. The Food Commission publishes The Food Magazine which members receive quarterly.

The Food Commission Ltd
94 White Lion Street
London N1 9PF
e-mail: foodcomm@compuserve.com

Municipal authorities

Food and Nutrition in Local Government

This Australian Web site presents the findings of research undertaken during 1995 and 1996 into local government and the food and nutrition system. Contains the Policy Statement of Penrith City Council and South Sidney Council for food and nutrition systems.

Website: www.uow.edu.au/health/phn/LGfood/LGfood.html