- Manual -

EATING CLOSER TO HOME: AN URBAN CONSUMER'S MANUAL



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Urban gardening activities can encourage lifelong learning among adults by fostering the acquisition of key competences that are fundamental for each individual in a knowledge-based society.

The following educational materials were designed within the context of the European project Hortis – Horticulture in towns for inclusion and socialization (526476-LLP-1-2012-1-IT-GRUNDTVIG-GMP), bringing together the urban gardening experiences from the partner cities, namely Bologna (Italy), Berlin (Germany), Budapest (Hungary) and Cartagena (Spain).

Each partner contributed with its own knowledge on a specific topic in form of an ebook, which successively evolved through an empirical approach of knowledge transfer and participatory review, toward a common and transversal vision of urban agriculture.

The outcome of this participatory process are five knowledgeable e-books covering different topics such as Sustainable Community Gardening in Cities (e-book 1), Sustainable Urban Garden Management (e-book 2), Urban Garden Cultivation Systems (e-book 3), Simplified Soilless Systems for Urban Vegetable Production (e-book 4) and Eating closer to home: An urban consumer's manual (e-book 5).

We hope these material will bring a new dimension to your work and inspire you in turning your life and city greener.

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1. INTRODUCTION

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With our entrenched culture of convenience and busy lives, why would we consider looking beyond the supermarket for food, modify our diets to focus on locally-produced foods, or even take it one step beyond to make the effort to produce our own food?

There are many reasons -- and as our cities become larger and more heavily populated, and economic disparities continue to grow more dramatic, the issue becomes more and more critical. What we eat and how we acquire it is an intrinsic part of a complex web of issues that includes ecology, social justice, public health and economic sustainability. Much of our food comes from far away, from industrial-scale producers we don't know, via processes we are not privy to and whose environmental and economic effects we don't understand. Furthermore, all over the world, there are major differences between how rich and poor people eat because poor quality food comes cheaper. The basic condition for people to make healthy food choices is that healthy food options must be available and accessible. Families living in low-income and minority neighborhoods often live in so-called food deserts, where they have less access to healthier food than those in higher-income areas.

More and more we hear about movements that seek to address these issues and more. Although many urban farming and other sustainable food initiatives are bottom-up and voluntarily or individually managed, they are highly worthy of municipal or state support because it is an efficient way to improve public health in so many ways. After all, many aspects of our physical environment that influence our health are created, managed, and maintained by local governments. For example, local policies and incentives can affect the presence and absence of parks, sidewalks, bike lanes, mixed use development, healthy food retailers, and farmers markets. Public schools also have a vital role in ensuring that children have access to healthy food and sufficient opportunities for physical activity during the school day. So, clearly, local governments and public school systems can make a real difference in creating healthy food and activity environments that benefit all people living in their communities. Aside from the health benefits, there are also economic benefits to local governments for creating walkable, safe, and food-secure environments. Home values are expected to rise faster in "smart communities" that are made pedestrian friendly by employing mixed use development, sidewalks, and traffic calming features. Similarly, research shows us increasingly that social cohesion and home values are higher and crime statistics are also frequently lower in areas that have community gardens or other such features that get people outside and interacting with each other.

What if you decide to make today the day that you change your relationship to food – what's the next step? Are you ready to take the time and effort to grow your own produce, or do you just want to know how to support your local producers and reduce your diet's carbon footprint? This manual is meant to serve as a simple, user-friendly toolkit to introduce you to some of the opportunities that are out there. So, let's get started.

2. ALTERNATIVE FOOD PRODUCTION OPTIONS

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There are many distinct ways for community groups or entrepreneurs to sustainably produce food in the city, and it's easy to get lost in the terminology. What follows is a more detailed description to help distinguish and define the different forms of urban food production. *Urban agriculture* is the general term used to define agricultural production (crops and livestock) in urban and peri-urban areas for food and other uses, the related transport, processing and marketing of the agricultural produce and non-agricultural services provided by the urban farmers. To elaborate even more, urban agriculture encompasses a large variety of farming systems that are distinguished from one another based on the following factors:

• <u>Type of economic activities</u>: Urban agriculture includes production activities as well as related processing and marketing activities, inputs production, services delivery. The interactions between these activities are also important (chains, clusters). In urban agriculture, production and marketing (and also processing) tend to be more interrelated in terms of time and space than for rural agriculture, thanks to greater geographic proximity and quicker resource flow. Economies of agglomeration seem to prevail over those of scale.

• <u>Type of location and tenancy</u>: Urban agriculture may take place in locations inside the cities (intra-urban) or in the peri-urban areas. Intra-urban agriculture takes place within the city boundary. Most cities and towns have vacant and under-utilised land areas that are or can be used for urban agriculture, including areas that are not suited for building (along streams, within utility rights of way, close to airports, areas prone to earthquakes or flooding, buffer zones between residential and industrial areas, etc.) and idle public or private lands (reserved for future uses, vacant due to speculation, lands waiting

construction) that have or can be given a productive use in urban agriculture (interim or permanent use).

Typical intra-urban farming systems include community gardens, backyard gardens, nurseries producing tree seedlings, herbs and medicinal plants, production of mushrooms etc.. Part of intra-urban agriculture is at subsistence level or for relaxation mainly and another part is market oriented. Peri-urban agriculture takes place in the zone directly surrounding the built-up city. Peri-urban areas tend to undergo rapid and dramatic changes: land prices tend to go up, there is an influx of people both from rural and urban areas, density increases, multiple uses emerge and land improvement spreads. Such changes effect the agricultural production systems which tend to become smaller scale with more intensive production and a shift from staple crops towards more perishable crops (especially green vegetables). Peri-urban agriculture tends to be very intensive and commercially oriented, providing substantial numbers of jobs.

In general, urban agricultural activities may take place on the homestead (on-plot) or on land away from the residence (off-plot), on private land (owned, leased, informal use vacant land) or on public land (formal or informal use of idle public land in parks, along roads, streams and railways, land reserved for future use, etcetera) or semipublic land (schoolyards, grounds of hospitals).

• <u>Type of products</u>: Food production may include different types of crops (grains, root crops, vegetables, mushrooms, fruits) or animals (poultry, rabbits, goats, sheep, cattle, pigs, guinea pigs, fish, etc.) or combinations of these. Often the more perishable and relatively highvalued vegetables and animal products and by-products are favoured. Production units in urban agriculture in general tend to be more specialised than rural enterprises, and exchanges are taking place across production units.

• <u>Scale of production and technology used</u>: In the city, we may encounter individual or family farms, group or cooperative farms and enterprises, micro-, small and medium-sized enterprises, as well as large-scale undertakings. The technological level of the urban agriculture enterprises may be low, intermediate or high, with a strong tendency is towards more technically advanced and intensive farming systems.

• <u>Product destination / degree of market orientation</u>: Part of urban agricultural production is for self-consumption or exchange with relatives, neighbours and friends, with surpluses being traded. However, the importance of the market-oriented urban agriculture, both in volume and economic value, should not be underestimated. Products are sold at the farm gate, by cart in the same or other neighbourhoods, in local shops, on local markets or to intermediaries and supermarkets. Mainly fresh products are sold, but part of it is processed for personal use, cooked and sold on the streets, or processed and packaged for sale to one of the outlets mentioned above.

• **Demographics of people involved**: Part of the urban farmers are from the poorer strata of the population (pensioners, unemployed, female headed households) but one will also encounter mid-income level groups (e.g. lower government officials, school teachers, skilled labourers) that are involved in agriculture as a secondary activity as well as full time professional farmers and richer people that see urban agriculture as a good investment for their capital.

2.1 / COMMUNITY-SUPPORTED AGRICULTURE

ICSAs (community-supported agriculture programs), provide a direct link between local farmers and consumers by allowing members to purchase a share of a farmer's crop before it's produced each season. This allows the farmer to pay for seed, water, equipment, etc., up front, so s/he is less reliant on banks and loans. Each week, usually during June through October, the farmer delivers great tasting, healthful food to predetermined locations. In some instances, members pick up the share directly from the farm. CSA members share in the harvest; during good growing seasons, everyone benefits. When the season is less bountiful, members shoulder the risk. This type of arrangement helps people to connect back to the earth and the food they eat. CSA organizers often host farm days, inviting members to visit the farm and, in some cases, help in the fields. Many also offer recipes and suggestions on how to cook the unique variety of vegetables provided each week.

Characteristics of Community Supported Agriculture:

• CSA members purchase a share before the season starts and shoulder the risks along with the farmer;

• local farmers connect directly with consumers, which helps develop a regional food supply and strong local economy. CSAs cut out the middleman, which lowers costs for both farmers and consumers.

• CSA farmers typically use organic or biodynamic farming methods, minimizing adverse environmental impact and encouraging land stewardship;

• most CSA programs offer a variety of vegetables, fruits and herbs in season. Some provide a full array of farm products, including shares of eggs, meat, milk, baked goods;

• CSAs help maintain a sense of community. Some are dedicated to serving particular community needs, such as helping the homeless, disabled, or youth and low income groups.

2.2 / COMMUNAL ALLOTMENTS AND COMMUNITY GARDENS

A community food garden is a piece of land, usually rented from local government, collectively worked by a group of people who share the harvest. Community food gardens offer individuals a way of growing a portion of their own food in a collaborative environment, benefiting from the experience of other members. Community food gardens can provide greater food security along with a reduction in the food mile impact of participants' diets. Quite a few of these groups also observe environmentally friendly methods of food production – anything from using heritage or heirloom seeds or natural fertilizers, to full blown organic gardening.

Two main categories exist: community gardens and allotment gardens. There is a fairly subjective distinction between community gardens and allotment gardens. In general, allotments are small parcels of rented land, in rural and urban locations, used for growing fruits and vegetables for personal consumption. Community gardens are plots of land managed by volunteers for the purpose of open space, food production, a play area, art displays, or many other functions, and they are more likely to have common areas than are allotment gardens. Historically allotment gardens have been top-down initiatives managed by large companies or municipalities, whereas community gardens are bottom-up initiatives from community groups. Allotment gardens have much deeper historic roots from Europe, whereas community gardens originate from the 20th century in the U.S.

The demand for both types of garden and their availability have changed over time. Conditions of hunger and poverty were widespread in Germany and other European countries nearly 200 years ago when the first "gardens for the poor" emerged. Rapid industrialisation, accompanied by urbanisation and migration, forced large numbers of people into dismal living conditions. Urban allotment gardens were one official response.

Allotment gardens usually consist of a piece of land, with a little shed for storing gardening tools. Allotment gardens formed a buffer for food security, especially in times of crisis.

The allotment gardens are plots and used for horticulture and flower production for home consumption. They are typically clustered within a certain area of the city. Small allotments consist of few plots only while big allotments agglomerate of several hundreds of plots. Animal husbandry and housing are not allowed in the allotment gardens. In the cities we can find several allotments in different locations. In the past preferred sites were along railway lines, on marshy areas and other ground not used for housing. Each allotment is a self organised unit and members form an association. Each gardener has to be a member of the association, which in the frame of a leasing contract takes over the administration of the so called "garden-colony". If any problem arises this has to be solved within the single associations, according to democratic rules and rules of justice. The single units form a greater unit on the city scale - called the association of allotment gardeners. The administration on city level is organised within the municipality. Only if a problem cannot be solved within the associations it comes to a hearing on the city level. The members of the allotment association have defined duties and rights. For example the use of the plots is clearly defined to be two third at least for vegetables and one third for flowers and recreation.

Community gardens, too, are governed by rules and associations, though it is often less formal than that of allotment gardens, and community gardens also can include other functions as well such as common areas for gatherings or festivals. Community gardens also tend more frequently to be sited on land owned by individuals, companies or organizations rather than municipalities.

Generally, in both types, the association is financed through the contributions of each member who has to pay a small yearly rent for his or her plot and an additional obligatory fee to remain member of the association.

Advantages of both community gardens and allotments are:

• production of fresh food for household consumption, gaining gardening experience;

• possibilities for recreation within the city boundary (reduces costs for transport and fuel consumption);

• learning democratic rules in decision making and conflict management;

• promotion of participatory learning processes (learning from each other) which makes extension cheaper and more efficient;

• people are reachable because of the specific spatial structure of the allotments;

• possibilities for women to take their children to the allotment, children can learn gardening;

• promotion of organic farming and abolishment of pesticide use in public owned urban allotment gardens.

As creating a community garden is a substantial project requiring sustained effort over several years, it takes a strong commitment from



Figure 1. Raised allotments and shared garden beds.

at least three to five individuals to create and manage a successful garden. Just because you build it, doesn't mean they will come.

In fact, seldom is a garden that was designed and built by outsiders adopted and sustained by a community. The community must be engaged from the beginning. Many types of organizations sponsor community gardens. Any of the following groups may have land, resources, and interested employees or clients:

- churches;
- citizens'groups;
- colleges and universities;
- community and senior centers;
- community service/development organizations;
- cooperative Extension;
- poodbanks;
- health departments;
- high-density housing developments;
- housing and social service authorities;
- municipalities;
- neighborhood associations;
- parks and recreation;
- private businesses;
- railroad and transit lines;

- retirement communities;
- schools.

2.3 / LAND / GARDEN SHARE

Garden share schemes have been popular in America, the UK and other countries for some time now. A garden share scheme essentially pairs up gardeners who have nowhere to grow their own food with garden owners who have the space to grow but for whatever reason are not able to. These schemes have attracted garden owners for numerous reasons, among which are: they desire to learn from an experienced gardener; they no longer have the mobility to do their own gardening but would like to see their garden used by someone else; they do not have the time to grow food but would like to see someone else do so. Whether they own their home or rent, this scheme gives them a space to grow their own food.

As with most community focused initiatives there are as many ways to organise a garden share scheme as there are schemes. The basic principle of matching a compatible owner and gardener with each other is mediated in a variety of ways. In most cases, interested parties register themselves with the scheme. They would then individually meet with the co-ordinators. This gives the co-ordinators a chance to get to know each party a bit better and armed with this knowledge, they can then make the best pairing they can. Some groups also manage the agreement stage too. This agreement covers issues such as access to the garden, tools, storage, division of produce and all the other nitty-gritty involved in such arrangements.

2.4 / FOOD PRODUCER CO-OPS, COOPERATIVE GARDENS

In a cooperative garden, the entire space is managed as one large garden through the coordinated efforts of many community members. Produce from the garden is sometimes distributed equitably to all the member gardeners. Often these gardens are associated with communities of faith, civic groups, or service organizations that donate part or all of the produce to caritable organizations.

A co-op is a group of people or organizations that come together for each person's or group's mutual benefit. Co-ops are owned by members and are democratically structured, meaning each member has one vote. Co-ops share certain characteristics, including:

- they are democratic, volunteer associations;
- they are created to benefit everyone and are, in fact, businesses;
- the only owners are the members of the co-op;
- individuals who belong to the co-op have a say in its decision making processes;

• they do not exist to make a profit. Any extra money is shared among the members;

• while co-ops have different purchasing policies, most favor sustainable, local and organic products.

3. FOOD DISTRIBUTION OPTIONS

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Direct marketing links between producers and consumers can benefit both parties and reduce the ecological costs of distributing food. Food can be expensive in the shops, but it doesn't cost very much more to produce. Most of the price difference is generated in the distribution of the food. Direct food links can also enable a personal relationship between producers and consumers to develop. From ecological point of view the great benefit of direct links is the reduction in food miles, the distance that food travels between field and plate. Another advantage of direct food links is the reduction of waste.

There are many ways of linking up producers and consumers of food. Each individual system is designed to meet the specific needs of a particular group of consumers and/or a particular farm or market garden. This makes it hard to classify them, but there are some broad categories and these are given in that mind map:



Not all of them share all of the characteristics of a full-blown food links scheme. For example, food co-ops don't involve direct contact between producers and consumers and the food in farmer's markets is not necessarily cheaper than that in shops. But all represent a move towards closer links between the people who grow food and that people who eat it.

3.1 / FOOD CONSUMER CO-OPS AND FOOD HUBS

A food co-operative is an initiative taken by consumers. It's a voluntary organization which buys food wholesale and sells it to its members at cost price. A successful food co-op can give people a sense of achivement and may be the nucleus wich leads to other community action. In some cases they can link up with urban food growers who have a surplus.

Food consumer co-ops and food hubs collectively buy produce from producers and wholesalers to distribute among their members and/ or to sell on to other consumers. Local produce is accessed as much as possible, quality and price permitting. Some farmers supply direct to the co-ops.

The co-ops provide bags of fruit, vegetables or salad to customers at a fixed price. The supplier chooses the selection of fruit and vegetables according to what is in season and what offers best value for money that particular week.

The supplier delivers the produce, in bulk, to the co-op. Customers order and pay in advance so there is no wastage. The co-op makes no profit and all the money taken goes directly to the supplier. Cash for the following week' veg bag is paid on delivery. Some food hubs are set up as joint producer-consumer co-ops where both groups influence how the business is run. Some hubs are internet based, others use shops or market stalls.

They are particularly valuable in poor urban areas where there are few shops and many of them may not sell fresh unprocessed food. Co-ops also have their place in less deprived areas. They can provide the means for people on modest incomes to buy wholefoods and organic vegetables at lower price.

Every co-op is different and must be designed to address the real needs of the people in a particular area. It's usually a good idea to set up a formal co-operative stucture and register a co-op. This gives credibility to official bodies and demonstrates that the co-op is not someone's money making enterprise in disguise.

The basic requirements to get a co-op going are:

• a core group of volunteers or even a single person with the determination and commitment to make it happen;

• enough local people who are sufficiently interested to get the co-op point in the first place; once it's seen to offer benefits more people will join;

• premises from which to operate.

3.2 / FARM SHOP

A farm shop starts from the other end of the chain with the producers. The main emphasis is on making their livelihood more viable, though there is usually a cost advantage to the customers too.

A full-blown farm shop, open for normal shop hours with a person serving, is not often worthwhile.

An on-farm shop does not come out too well on the ecological balance either, because most consumers arrive by car, often for small purchases.

A roadside stall with an honor-system box can work for smaller producers in rural areas. If it's well placed people can stop by as part their normal daily round or walk from their homes.

A mobile shop or delivery service saves a lot of energy by replacing the many car trips people would make to get to the shops with one trip by a van.

This needs no planning permission and no investment in a shop building, which must be up to food hygiene standards. But it can be time-consuming for the producer.

3.3 / LOCAL DIRECTORIES AND EXCHANGES

Many rural and town consumers would like to buy local food, not just because of quality but also because they want to support the local economy, especially small farmers. In many places all that's needed is to let the public know what is available locally and direct sales to local customers can rise significantly. One way of doing this is to publish a local food directory, listing all producers in the area who sell their own food locally.

This can be done in hard copy, which of course comes with a cost, and for free on an online space such as Facebook, a blog or a wiki; in many cases both are recommended in order to be completely inclusive since many elderly or economically-disadvantaged people do not have internet access. Another alternative could be a more informal interface such as a large chalkboard or other surface in a public space, where people could freely exchange information.

3.4 / BOX SCHEMES

With the box scheme we move beyond the realm of simple marketing to one where there is a relationship between producer and consumer that involves a degree of commitment. The grower commits to providing a box of assorted vegetables every week to each customer and the customers in return commit themselves to accept a mix of whatever vegetables are in season.

The box scheme selling method can be successful primarily with organic vegetables. In most cases the staples are included every week, but the rest of the selection depends on what is ready to pick. When you get to the stage where people put in an order of exactly what they want next week, the box scheme begins to turn into a mobile farm shop.

Large-scale markets require large quantities, so growers who sell to supermarkets have to concentrate on a very few vegetables and perhaps only one variety of each. But families want a wide diversity of vegetables and they want to eat each vegetable over as long a season as possible. So a garden growing for a box scheme must grow a wide range of vegetables and a wide range of varieties of each vegetable, both early and late maturing.

This makes for a very diverse garden. Some growers find it hard to grow a wide enough range on their own and they may co-operate with others to supply a single box scheme. Other growers may need to buy in produce to complete their range.

This can be necessary in the case of crop failure of some really popular vegetable or simply because their land is unsuitable for one crop or another.

Box schemes can be initiated by groups of consumers or by growers. The majority of box scheme growers are certified organic. A key part of the box scheme concept is that it should be local.

The ideal set-up is a farm or garden or a group of small gardens, feeding people in the immediate area. But much of the demand for vegetable boxes in cities is being met by indirect box schemes.

An indirect box scheme is a business that doesn't grow any food itself but buys organic produce from the growers and sells boxes to consumers.



Figure 2. A vegetable boxe.

3.5 / SUBSCRIPTION FARMING

Subscription farming involves a higher level of commitment on the part of the consumers than a direct box scheme. The food is distributed in the same way but the consumers pay for a whole season's produce at the beginning of the season.

People who can't raise all the money at once can usually pay in instalments but however they pay they buy a share in whatever the year will bring, not a fixed amount of food.

The cost of share is based on the cost of production. One great advantage of subscription farming is that the growers get most of their money at the beginning of the year, when they need it for seeds and other expenses.

3.6 / MARKET STALLS AND FARMERS' MARKET

Farmers' markets are stall markets where producers sell their own food direct to the public. Produce made by the stall-holder from bought-in ingredients, such as home-baked bread, is allowed, but in practice most of the sellers are farmers, gardeners, orchard growers and beekeepers.

The range of produce at local farmers' market can be very similar to that listed in the Local Directory. Although there are some farmers' markets that are not strictly local, in most cases stall-holders must live within a certain radius of the market.

The community building aspect of the farmers' market is even well appreciated. From the producers' point of view is more than just an opportunity to sell some of their product at a retail price, though this is valuable in itself. For many of them it's the only time they come face to face with their customers. They can get direct feedback on what they're selling, find out what people would like and explain how they grow the food.

Some markets have been set up by local councils. Others have actually been set up by supermarkets, sited in their own car parks.

To begin with, most farmers' markets are held monthly but many are aiming to become weekly when sufficient impetus has built up. Of much longer standing, for example, are the weekly markets run by the Women's Institute in many rural areas in the U.K. You don't have to be a woman to sell in a WI market but you do have to have grown or otherwise made all the produce yourself. A stall in a general market also has its advantages.

They reach a somewhat different clientele and there is no stipulation that everything offered for sale is produced by the seller. This can be an important advantage for fruit and vegetable growers who are not able to grow a complete range of produce throughout the year.

Farmers' markets, through their potential to sustain and support the local food system, can contribute to sustainability goals. This does not mean that local food systems are inherently more sustainable than industrial food systems, but that they are more apt to acknowledge the importance of relying on locally available resources and recognizing interdependencies between local producers and consumers. This can then lead to more sustainable practices.

Through reducing the distance that food is transported, farmers' markets decrease "food miles".

The distance food takes to travel is directly related to the amount of fossil fuels required to get it there.

Farmers' markets can encourage human wellbeing through various means. One way they can accomplish this is through educating consumers about health. The type of food that is offered at farmers' markets can also sustain human health. For instance, farmers' markets often feature organic foods. When local produce is purchased locally, it is likely to be consumed much sooner after harvest than non-local produce and, therefore, have higher nutritional value when consumed.

On a broader level, farmers' markets can support the health of communities through emphasizing a 'healthy-community' approach in their operations.

With this approach, decisions are made with the aim of improving the

wellbeing of the community as a whole.

There are various explanations for this renewed interest in farmers' markets.

These include:

- lower prices to consumers;
- higher profits for local growers and a desire to support them;
- consumer demands outside of the dominant retailing food environment;
- an exciting shopping experience for consumers;
- a means to help revitalize urban areas;
- an increased interest in food quality by consumers;
- a growing interest in fresh produce by consumers;
- demand for local products;
- the social atmosphere markets provide;
- the opportunity for urban and rural people to come together.
- Farmers' markets can range from relatively simple structures with a straightforward purpose, to far larger, complex organizations with a broad public mandate and range of customer, vendors and community stakeholders.

The main criteria for the selection of market location are:

- general access to the market for customers;
- public transit access for customers;
- pedestrian access for customers;
- bicycle access for customers;
- aesthetic beauty/ambience of site;
- customer parking;
- market located near traffic or "lines of flow";
- market located on well-known site;
- market visible to potential customers;
- bathrooms at market;
- wheelchair access for customers;
- adequate space at market;
- market located near large urban community;
- adequate parking for vendors.

There are many strategic issues to consider.

Local emphasis. Having local products at the market is important for many producers, specifically with respect to crafts, produce, and food demonstrations. This can be taken to an even smaller, more flexible scale, for example, with so-called pocket markets, which differ from a traditional farmers' market in that it can have fewer vendors and can be operated on a permanent basis (such as daily on weekdays) at a fixed location.

Navigation of health regulations. The current lack of education and level of awareness on behalf of both producers and consumers regarding health regulations at farmers' markets leads to unnecessary barriers and fears as well as decreased availability of certain products and lowered sales.

Organic or non-organic. Organics is a prevalent theme throughout the interviews and comments regarding organics span a variety of issues such as:

- growing demand by customer for organics;
- the desire by producers to incorporate organic practices into their operations;
- the difficulty of implementing organic certification;
- pricing for organics;
- difficulties in understanding organic terminology;
- competition of organic with non-organic products.



Figure 3. A farmers' market.

4. LOCAL FOOD

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/ An alternative to the industrial food system is the "local" food movement.

Local food as a catchphrase actually is more than the mere idea that the name implies – that of food grown, caught or processed in its regional area.

According to community nutritionist Gail Feenstra, local food systems "are rooted in particular places, aim to be economically viable for farmers and consumers, use ecologically sound production and distribution practices, and enhance social equity and democracy for all members of the community."

This system incorporates food production, processing, distribution and consumption with the aim of increasing the environmental, nutritional, economic, and social wellbeing of a specific locale.

4.1 / DEFINITION OF LOCAL FOOD

Unlike organic food, there is no legal or universally accepted definition of local food. In part, it is a geographical concept related to the distance between food producers and consumers.

In addition to geographic proximity of producer and consumer, however, local food can also be defined in terms of social and supply chain characteristics. In this section, we first describe local foods as a geographic concept.

Then, we examine other features that have been used to define "local" foods.

Finally, we briefly describe a typology of local food markets, which adds a more tangible perspective to the local foods concept.

4.1.1 / LOCAL BASED ON DISTANCE TRAVELLED

Food miles are the distance food travels from where it is grown to where it is ultimately purchased or consumed. Food miles—and the resulting pollution—increase substantially when we consider produce and goods imported from halfway around the world.

Though "local" has a geographic connotation, there is no consensus on the distance or number of miles/kilometers between production and consumption. The U.S. Department of Agriculture reports that, depending on the definition, distances can vary widely, from 25 miles up to 350 miles from where the "local" food is produced. The single statutory definition for "locally or regionally produced agricultural food product" in the United States applies to products transported less than 400 miles or within the state in which they are produced. In Canada, fresh fruits and vegetables cannot be labeled as "local" unless produced within about 31 miles (50 kilometers) of where they are sold. Most state definitions view "local" to mean grown with in state borders; however, in some cases "local" may be defined as food grown within a certain geographic region that might cross state lines. Definitions based on geographic distance vary depending on the state or region and on whether the food is fresh or processed, among other factors. Most consumers, when they purchase local foods, have been shown to generally believe that their local purchases are sourced within a much smaller distance from where it is producedgenerally under 100 miles—even though this may not actually be the case. Generally, consumers believe that locally-marketed foods are produced on nearby small farms.

4.1.2 / LOCAL BASED ON MARKETING OUTLET

Another measure of "local" is based on the types of marketing channels used by farmers to distribute food from the farm to the consumer. Data are based on surveyed farm information of sales by selected marketing channels, including direct-to-consumer outlets and intermediated outlets. Direct-to-consumer marketing outlets include roadside stands, on-farm stores, farmers' markets, and CSAs. Intermediated outlets include grocers and restaurants, and regional distributors.

By value, the leading products that are directly marketed to consumers are nursery and greenhouse products; fruits and vegetables, and livestock and dairy products.

4.1.3 / LOCAL BASED ON PERCEIVED ATTRIBUTES

Myriad other factors influence consumer interest in local food systems. These are mostly based on consumer perceptions of certain desired social or supply-chain characteristics in producing "local" foods, such as production by a small family farm, an urban farm or garden, or a farm using sustainable agriculture practices.

Among the reasons cited for the increasing popularity of local foods are perceived higher product quality and freshness of local food; a desire to provide social and political support for local farmers and the local economy; farmland preservation; concerns about environmental impacts and energy use and the perception that local foods are more environmentally friendly (limited use of chemicals, energy-based fertilizers, and pesticides); perceived better food safety given shorter supply chains; sense of social justice (perceived fairer labor prices and fair price for farmers); knowing the source of the product; a commitment to establishing closer connections between consumers and agricultural producers; and, generally, a response to concerns about industrialized commercial agriculture.

Important features include knowledge that production and distribution occur within a specific region, and that consumers are informed about the local nature of products, in some cases through personal communication with the farmers. Regardless of the distance the food travels from the production area to the consumer, many of these factors inherently influence consumer demand for products marketed and perceived to be "local." A desire to support farms using sustainable agriculture practices is often claimed as a motivation driving demand for local foods. However, just as there exists no definitive definition of "local" foods, much debate exists about what constitutes "sustainable agriculture."

Other challenges facing producers include access to processing and packaging services; delivery procedures; consistency (volume and quality); uncertainties related to regulations that may affect local food production, such as food safety requirements; and need for traceback of foods to their origin.

4.2 / SUSTAINABLE CONSUMPTION

Sustainable consumption is all about consuming products and food grown or manufactured nearby, so that we can all reduce the environmental impact of transport and reduce the problems of single-crop farming in Third World countries. These initiatives are known by many names: km 0, 100-mile diet (or 100-km diet), Local Food, low CO2 diet, just to set a few well-known examples, but there are many more.

4.2.1 / ZERO-KILOMETER CUISINE

"Zero-kilometer" restaurants are considered up-market fine dining destinations and the concept is catching up fast across Europe. Originally started in Italy about five years ago, the movement began as a very informal and a social cause in small towns and villages. As a result of typical Italian branding and promotion, what was considered rural and poor has now been duly promoted and turned into the luxury brand of a full blown "high-fashion and exotic dining experience". Strictly speaking, the very concept we now know as zero-kilometer is actually age-old, when there were no facilities for storage and transport of perishable food items. In recent times, technology has made things easy and possible for the perishables to move from one end of the globe to another; and enable storage and shelf-life for months, before they finally get consumed. Therefore the concept is kind of nostalgic, a way of coming full circle in terms of food and dining preferences.

As the name suggest, zero kilometer restaurants basically offer local foodstuffs on their menu – something that is produced, baked, cured, farmed and cultivated in and around a designated radius. This product range includes primary food ingredients such as milk, fruits, grains, vegetables, cheese, honey, oil, cured meat, etc.

In the Veneto region of Italy, this concept was officially started off by the Italian Agricultural Union called Coldiretti sometime in 2007. This was an initiative to sensitize consumers to buy local products directly from the farmer's market and also promote restaurants that served local products. Anywhere within a radius of 50 to 300 Km is given a zero-kilometer status, depending upon the local regulations of the State. Basically the concept is what's known as farm-to-table" - and it comes with direct incentives to both – the farmer and the consumer. The huge costs towards distribution, transport and storage thus saved are passed on to the consumer and in the process of selling directly to the consumer, farmers are also able to enjoy better returns on their produce. Stores dedicating about 30% of their shelf space to zero kilometer products are also entitled for incentives such as discounts on property, rentals, parking etc.

Given the kind of diversity and variation that we enjoy in terms of food, eating habits and farm produce by region, we could as well promote a similar concept. The following key benefits to such an initiative are:

• farmers will get the platform to showcase and sell their products directly to the consumer at market prices;

• cash and carry model enables cash payments directly in the hands of the farmers;

• the long and never-ending distribution chain in "Farm to Table" shrinks drastically thereby removing all agents and middlemen;

• consumer would get better value for money as they would buy directly from the farmers;

• costs saved on transport, storage, distribution are shared between

the farmer and consumer;

• direct market access provides key information to the farmers, in terms of consumer preferences, pricing, food habits, buying patterns, demand / supply etc;

• consumers get fresh seasonal farm products at reasonable prices, which are currently being sold at a very high premium as organic products;

• farmers will be motivated to rotate crops by the season to match market trends, requirements and consumer preferences. Advantages of crop rotation are well documented by agricultural scientists;

• once farmers get used to the concept and start reaping the benefits of the model, they would be further motivated to move up the value chain and open up restaurants of their own.

4.2.2 / SLOW FOOD

Slow Food is a non-profit association founded in 1986 by Carlo Petrini, a sociologist and gourmet, aimed at bringing back a way of life and food without the hurries of the modern-day world and with respect for sustainability. The movement now has 100,000 members in 1500 chapters worldwide.

According to Petrini, sustainable agriculture is crucial for safeguarding the environment, as it minimizes impact on the environment by reducing pollution, leads to more nutritious foods, protects ingredients in danger of extinction and fosters fair prices that strengthen the local economy. It's all about engaging in a closer relationship with food, the environment, culture and biodiversity. Both zero kilometer and slow food promote the consumption of locally produced ingredients, thus supporting local farmers and encouraging them to tend their own land, as well as small scale processing industries, especially those that respect seasonal products.

So what does the slow food seal of approval involve? 40% of the ingredients must be sourced within less than 100 km, or 60% have to be from as nearby as possible; those that aren't must be from

organic production. In short, the food has to be: good (tasty), clean (free of contaminants) and fair. Putting it all into practice can be often complicated, though, due the location of the restaurant or other limitations. To be awarded the slow food seal, the restaurant must have a minimum of five dishes on the menu that comply with the philosophy explained before.

4.2.3 / FORGOTTEN FOODS PROGRAMME

The Forgotten Foods programme travels the country collecting small-scale quality produce threatened by industrial agriculture, environmental degradation and homogenization. These products are often at risk of extinction – so the movement seeks to raise awareness so that they may be rediscovered and returned to the market. The programme is part of Slow Food's global Ark of Taste with an expansive catalogue comprising 1,070 products from over 70 countries. With the continued work of researchers and the small producers that make these products available, the global Ark of Taste aims to preserve biodiversity around the world, embracing both the scientific and promotional aspects surrounding this issue.

The Ark of Taste is the result of an idea conceived by Slow Food. Today, thanks to support from representatives of the world of culture, scientific research, the food and wine industry, journalism and politics, this idea has turned into a project aimed at safeguarding and promoting small-scale fine food purveyors who are threatened by extinction. The project embraces both the scientific and the promotional sides of the issue. The Ark of Taste was born in 1996 on the occasion of the first Salone del Gusto in Turin, Italy. In 1999, the Italian Scientific Ark Committee was formed to identify product categories and selection criteria.

The work done by the Italian Ark was followed by the creation of new commissions in many other countries that got to work cataloguing products. The first to begin were the Americans and Germans, followed by the Swiss, Dutch and French. The Ark of Taste is an

online catalogue that is growing day by day, gathering updates from people who see the flavors of their childhood disappear, taking with them a piece of the culture and history of which they are a part. Criteria for inclusion:

• nominations for inclusion on the Ark must be food products and may include: domestic species (plant varieties, ecotypes, indigenous animal breeds and populations), wild species (only if tied to methods of harvesting, processing and traditional uses) and processed products;

• products must be of distinctive quality in terms of taste. 'Taste quality', in this context, is defined in the context of local traditions and uses;

• products must be linked to a specific area, to the memory and identity of a group and to local traditions;

- products must be produced in limited quantities;
- products must be at risk of extinction.

5. FOOD SECURITY

/ "Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." (1996 World Food Summit)

Current international understanding of the issue says that for a household or community to be food secure, their food supplies must be available, accessible and stable; additionally, the community must have the capacity to effectively utilize those supplies.

Food insecurity is a complex issue that stems from a wide range of social, environmental, and economic factors. Poverty, governmental policies, business practices, and weather events can all cause or contribute to food insecurity at multiple scales, from the household to national or even continental levels.

The contribution of urban agriculture to enhancing urban food security and healthy nutrition especially of the poorer sections of the urban population is probably one of its more important assets. Food production in the city is in many cases a response of the urban poor to inadequate, unreliable and irregular access to food, and the lack of purchasing power. Most cities in developing countries are not able to generate sufficient (formal or informal) income opportunities for its rapidly growing population.

The costs of supplying and distributing food from rural areas to the urban areas or to import food for the cities are rising continuously. In most developing countries the availability of cold storage facilities is still very limited which restricts the types of products that can be delivered by the agricultural areas to the cities and creates relative advantages for urban agriculture. In Europe, USA/Canada and Australia an increasing number of households is taking up gardening or seek to buy food directly from farmers in their own region as a result of concerns about the quality of industrially produced food or social and ecological concerns (healthy food, "buy local and organic" etc.).

6. CONSUMER BUYING GROUPS

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/ More and more communities are working together and pooling their buying power to purchase affordable quality food in bulk direct from producers and suppliers. Cooperation is all about two or more people working together to do something they couldn't do on their own. With food buying groups, or coops, this means joining forces with others, by volunteering time and pooling resources to get access to local food direct from farmers and wholesalers, This means getting quality food at an affordable price whilst having control over where it comes from. They can also help to support healthier diets, as the main aim of many food co-ops, particularly those targeting disadvantaged groups, is to help their customers eat more healthily by providing access to affordable fresh fruit and vegetables. Buying groups also support food producers for whom a real challenge is to find alternative and viable marketing approaches that can shift larger produce volumes on a regular basis. Elsewhere in the world, 'Buying groups' are proving an increasingly popular way of buying food as consumers pool their resources to buy collectively in bulk direct from producers and suppliers.

A consumer group or cooperative is simply a group of consumers who band together to buy produce and bulk foods at wholesale prices. They are able to get wholesale price because of the volume of goods purchased. That is, consumer groups and cooperatives have buying power that is passed on to individual members of the group.

There are three basic ways consumer groups and cooperatives operate. The first is where the group becomes a member of a cooperative warehouse and then purchases produce and products. The second way is for the group to work in conjunction with a retail distributor in the first instance to make bulk orders from a distributor. Once this relationship is set up, the group then buys directly from the distributor. The third way consumer groups and cooperatives operate is for the group to liaise directly with producers and processors to buy produce and products at wholesale prices.

Although the benefits of consumer groups and cooperatives are obvious, there are some disadvantages as well. The management and running of the group or cooperative requires a high degree of management, there are often legal matters to be considered, the group may need formal organization with rules and regulations, and there may be staff/personnel issues to consider.

7. RECOMMENDED READINGS AND RESOURCES

There are myriad resources to help you find ways to make your diet local, sustainable and healthier for yourself and the planet – whether you want to learn to grow your own, connect with local producers or just be a smarter consumer, here are some helpful publications and websites to get you started.

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Limited, Hampsire. p. 469.

- Wolf, M.M., A. Spittler, and J. Ahern (2005): "A Profile of Farmers' Market Consumers and the Perceived Advantages of Produce Sold at Farmers' Markets," Journal of Food Distribution Research, Vol. 36, pp. 192-201.

- www.communitygarden.org
- www.slowfood.com
- www.squarefoodgardening.org

