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Urban Agriculture

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What is Urban Agriculture?

Urban agriculture, urban farming, or **urban gardening** is the practice of cultivating, processing and distributing food in or around urban areas.

It can be defined shortly as the ***growing of plants*** and the ***raising of animals within and around cities***.

Urban agriculture can also involve animal husbandry, aquaculture, agroforestry, urban beekeeping, and horticulture. These activities occur in peri-urban areas as well, and peri-urban agriculture may have different characteristics.

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The most striking feature of urban agriculture, which distinguishes it from rural agriculture, is that it is ***integrated into the urban economic and ecological system***: urban agriculture is embedded in -and interacting with- the ***urban ecosystem***.

Urban agriculture is not a relict of the past that will fade away (urban agriculture increases when the city grows) nor brought to the city by rural immigrants that will lose their rural habits over time. It is an integral part of the urban system.

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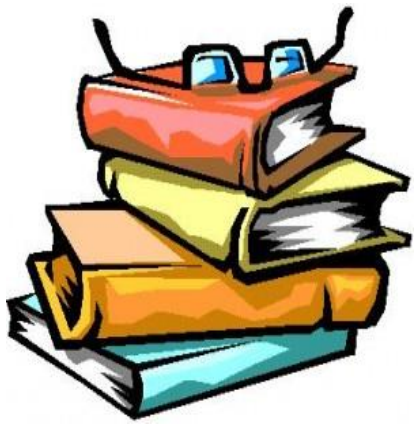
History of Urban Agriculture

The idea of supplemental food production beyond rural farming operations and distant imports is not new and has been used during war and depression times when food shortage issues arose.

- In semi-desert towns of **Persia**, oases were fed through aqueducts that carried mountain water to support intensive food production, nurtured by wastes from the communities.



- In **Machu Picchu**, water was conserved and reused as part of the stepped architecture of the city, and vegetable beds were designed to gather sun in order to prolong the growing season.

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- Allotment gardens came up in **Germany** in the early 19th century as a response to poverty and food insecurity.

- In 1893, citizens of a depression-struck **Detroit** were asked to use any vacant lots to grow vegetables. They were nicknamed Pingree's Potato Patches after the mayor, Hazen S. Pingree, who came up with the idea. He intended for these gardens to produce income, food supply, and even boost independence during times of hardship.

- Victory gardens sprouted during WWI and WWII and were fruit, vegetable, and herb gardens in **US**, **Canada**, and **UK**. This effort was undertaken by citizens to reduce pressure on food production that was to support the war effort.

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- **During the World War I**, President Woodrow Wilson called upon all American citizens to utilize any available open space for food growth *(as a way to pull them out of a potentially damaging situation).*

Because most of Europe was consumed with war, they were unable to produce sufficient food supplies to be shipped to the U.S., and a new plan was implemented with the intent to feed the U.S. and even supply a surplus to other countries in need. By the year 1919, over 5 million plots were growing food and over 500 million pounds of produce was harvested.

- A very similar practice came into use during the **Great Depression** (during the 1930s) that provided a purpose, a job, and food to those who would otherwise be without anything during such harsh times.

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- By the time of **World War II**, the War/Food Administration set up a ***National Victory Garden Program*** that set out to ***systematically establish functioning agriculture within cities***.

With this new plan in action, as many as 5.5 million Americans took part in the victory garden movement and over 9 million pounds of fruit and vegetables were grown a year, accounting for 44% of U.S.-grown produce throughout that time.

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The dimensions of Urban Agriculture

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Dimensions of Urban Agriculture

Types of Products grown

(different types of crops & animals and non-food products)

Types of economic activities

(related processing & marketing activities, etc.)

Types of location

(inside the cities {intra-urban} or in the peri-urban areas)

Product destination / degree of market orientation

Types of Actors involved

(part of the people involved)

Scales of production & Technology used

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Why Urban Agriculture ?

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The ***rapid urbanization*** that is taking place goes together with a ***rapid increase in urban poverty*** and ***urban food insecurity***.

By 2020 the developing countries of Africa, Asia, and Latin America will be home to some 75% of all urban dwellers, and to eight of the anticipated nine mega-cities with populations in excess of 20 million. It is expected that by 2020, 85% of the poor in Latin America, and about 40-45% of the poor in Africa and Asia will be concentrated in towns and cities.

Most cities in developing countries have great difficulties to cope with this development and are unable to create sufficient formal employment opportunities for the poor. They also have increasing problems with the disposal of urban wastes and waste water and maintaining air and river water quality.

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Urban agriculture provides a ***complementary strategy*** to ***reduce urban poverty*** and ***food insecurity*** and ***enhance urban environmental management***.

Urban agriculture

- Enhances **urban food security** *(costs of supplying and distributing food to urban areas based on rural production and imports continue to increase)*
- Contributes to **local economic development** & to **poverty alleviation**
- Contributes to the **social inclusion of the urban poor and women in particular**
- Contributes to the **greening of the city** and the **productive reuse of urban wastes**

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❖ *Urban food security and nutrition*

Most important asset of Urban Agriculture

A response of the urban poor to inadequate, unreliable and irregular access to food, and the lack of purchasing power.

The World Bank (2000) estimates that approximately 50% of the poor live in urban areas (25% in 1988).

In urban settings, ***lack of income is translated more directly into lack of food*** than in a rural setting.

The ***costs of supplying and distributing food*** from rural areas to the urban areas or to import food for the cities ***are rising continuously***, and it is expected that urban food insecurity will increase.

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It may improve both food intake *(improved access to a cheap source of proteins)* and the quality of the food (poor urban families involved in farming eat more fresh vegetables than other families in the same income category).

Urban agriculture to a large extent ***complements rural agriculture*** and ***increases the efficiency of the national food system*** - it provides products that rural agriculture cannot supply easily *(e.g. perishable products, products that require rapid delivery upon harvest)*, that can substitute for food imports and can release rural lands for export production of commodities.

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Economic Impacts

Growing your own food saves household expenditures on food;
poor people in poor countries generally spend a substantial part of their income (50–70%) on food.

It also ***stimulates the development of related micro-enterprises***: the production of necessary agricultural inputs and the processing, packaging and marketing of outputs.

Social Impacts

Urban Agriculture Projects that ***involve disadvantaged groups*** (unemployed, disabled people, women, immigrants, refugees, elderly people) aim to ***integrate*** them more strongly into the urban network and to provide them with a decent livelihood.

Urban Agriculture activities provide ***physical and/or psychological relaxation***, ***recreational opportunities*** for the citizens *(recreational routes, food buying and meals on the farm, visiting facilities)* or/and ***educational opportunities*** *(bringing youth in contact with animals, teaching about environment, ecology, etc.).*

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❖ *Urban Ecology*

Urban Agriculture constitutes ***part of the urban ecological system*** and can play an important role in the urban environmental management system.

Urban agriculture can contribute in the ***reduction of wastes*** by ***turning them into a productive resource***.

In many cities, local or municipal initiatives exist to collect household waste and organic refuse from vegetable markets and agro-industries in order to produce compost or animal feed, but one can also find urban farmers who use fresh organic waste.

Compost allows an urban farmer to use less chemical fertilisers and by doing so preventing problems related to the contamination of groundwater. In addition, compost-making initiatives create employment and provide income for the urban poor.

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Wastewater can also be used by farmers for irrigating their farms when they lack access to other sources of water or because of its high price.

Urban Agriculture can ***turn derelict open spaces into green zones*** and maintaining buffer and reserve zones free of housing, with ***positive impacts on the micro-climate*** *(shade, temperature, sequestration of CO2).*

Neighbours will passively or actively enjoy the green area. Community self-esteem in the neighbourhood will be enhanced and other activities for improving the community's livelihood will be stimulated.

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Urban Agriculture contributes to ***disaster risk reduction*** and adaptation to climate change by ***reducing runoff***, ***keeping flood plains free from construction***, ***reducing urban temperatures***, ***capturing dust and CO2***.

Growing fresh food close to consumers ***reduces energy spent in transport***, ***cooling***, ***processing and packaging***.

Productive reuse of urban organic wastes and wastewater ***reduces methane emissions from landfills*** and ***energy use in fertilizer production***.

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Policy perspectives on urban agriculture

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Policy perspectives on urban agriculture associated with different types of urban agriculture *(intra- and peri-urban agriculture).*

❖ *Social perspective*

- subsistence oriented types of urban agriculture that form part of the livelihood strategies of urban low income households with a focus on producing food and medicinal plants for home consumption; (*home gardening, community gardening, institutional gardens at schools and hospitals, and open field farming at micro scale with low levels of investment)*

- little direct profitability but important social impacts such as enhanced food security, social inclusion, poverty alleviation, community development, HIV-AIDS mitigation etc.

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❖ *Economic perspective*

- Particularly related to market oriented types of urban agriculture

(small-scale family-based enterprises and sometimes larger scale entrepreneurial farms run by private investors or producer associations)

- Associated with small-scale and larger enterprises involved in delivery of inputs *(seed, compost, fodder, agro-chemicals)* and the processing and marketing of agricultural products;

- More pronounced economic impact;

- Higher profitability;

- higher external impact *(risk of water and soil contamination due to intensive use of agro chemicals, health risks from use of contaminated water for irrigation and risks of animal-human disease transfers)*.

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❖ *Ecological perspective*

- Types of urban agriculture that have a multi- functional character: Besides provision of food and generating income they can play a role in environmental management for example, through nutrient recycling via decentralised composting and reuse of organic wastes and wastewater.

- Provision of other services demanded by urban citizens: urban greening, improvement of the urban climate, keeping buffer zones and flood plains free from construction, provision of opportunities for leisure and recreational activities, storm water storage and flood prevention, etcetera.

- Adopt agro-ecological production methods, link up with eco-sanitation and decentralised sustainable waste management systems, as well as becoming part of the planning and management of parks, nature reserves and recreational services.

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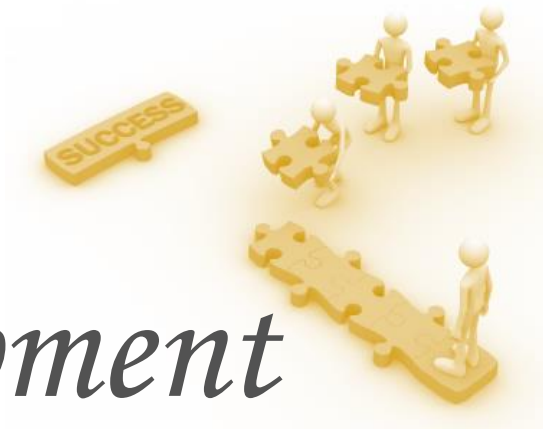

Policy Development & Action Planning

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Policy development *and* ***Action planning*** *on urban agriculture should* ***involve various sectors and disciplines****:*

- ✓ Agriculture
- ✓ Health
- ✓ Waste management
- ✓ Community development
- ✓ Parks and nature management

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In the planning process the following actors should be involved:

- Urban farmers
- Community-based Organisations
- NGOs

IMPORTANT ASPECT OF THE STRATEGIC URBAN PLANNING: the participation of the urban poor themselves in the analysis of the situation, in the definition of priorities and in action planning and implementation.

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Development of Safe & Sustainable Urban Agriculture

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❖ *Creation of an enabling policy environment*

☞ Review of existing policies and by-laws regarding urban agriculture.
(identify and remove unsubstantiated legal restrictions, integrate more adequate measures)

☞ Creation of an institutional home for urban agriculture.
(selecting a leading institute in this field / creating an urban agriculture office or department in this lead agency with proper staffing / establishing an interdepartmental committee on urban food production and consumption.

☞ Stimulating the dialogue and co-operation among the direct and indirect stakeholders in urban agriculture.
(setting up a multi-actor platform and working group on urban agriculture / joint analysis of the presence, role, problems and development perspectives of urban agriculture in the city)

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❖*Enhancing access to vacant land and security of land use*

Facilitation of the ***access of urban producers to available urban open spaces*** *in various ways:*

- ☞ *Integration of urban agriculture in urban land use planning and zonification;*
- ☞ *Making an inventory of the available vacant open land within the city;*
- ☞ *Temporal lease of vacant municipal land;*
- ☞ *Stimulating landowners to give vacant land in longer term leases for agriculture;*

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- *Taking measures to improve the suitability of available tracts of land;*
- *Providing assistance to reallocation of those urban producers that are poorly located;*
- *Including space for individual or community gardens in new public housing projects and slum upgrading schemes;*
- *Promotion of multifunctional land use;*

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❖ *Enhancing the productivity and economic viability of urban agriculture*

- ☞ *Provision of training and extension services to urban producers;*
- ☞ *Strengthening farmer organisations;*
- ☞ *Development of adequate technologies for urban agriculture;*
- ☞ *Enhancing access to water, inputs and basic infrastructure;*
- ☞ *Enhancing access of urban farmers to credit and finance;*
- ☞ *Facilitate (direct-)marketing;*
- ☞ *Supporting micro-enterprise development.*

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❖ *Measures to prevent/reduce health and environmental risks associated with urban agriculture*

- ☞ *Improved coordination between health, agriculture and environmental departments;*
- ☞ *Health considerations when zoning urban agriculture;*
- ☞ *Farmers education on the management of health and environmental risks;*
- ☞ *Training of food vendors and consumers;*
- ☞ *Prevention of industrial pollution of soils and water by industry.*

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Time to Think

&

Write Creatively

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Which is your Urban Agriculture Case

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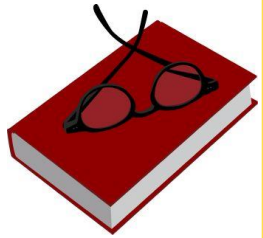

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Thank you for your attention