



What is urban agriculture, and why is it important?

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Urban agriculture is the harnessing of local land and biosystems to meet the food needs of urban communities.

Lessons from history

Urban agriculture is as old as agriculture itself. It was the ability to grow crops and domesticate animals that first allowed humans to leave a nomadic lifestyle and settle in villages. Where soils and climates were favourable, food surpluses were produced. This allowed the human population to grow and specialise, giving rise to cities and civilizations.

History links the rise and fall of many civilizations to their agricultural practices. In general, where agriculture enhanced the health of soil and water, communities prospered. Where agriculture exploited and degraded soils, communities were unable to secure the food needed for stability and survival, and whole civilizations collapsed.

The key feature of those societies that were able to sustain themselves over time was the efficient recycling of nutrients. Examples include traditional communities in Papua New Guinea, China and Europe. Brought to Australia by Chinese market gardeners, these practices were essential in saving early Australian settlements from the scurvy risked by the typical colonial diet of bully beef, tea and damper.

Industrial agriculture

After World War 2, agriculture moved away from small-scale local farming based on nutrient recycling. Munitions industries had excess chemical and plant, oil was abundant and machinery stood idle. Globally, there was a shift to extensive industrial farming based on high oil and fertilizer inputs, seeking to maximize yields and profits.

This so-called 'green revolution' enabled new areas to be farmed. There were major increases in food production, and the world population grew from 3 to 7 billion.

Most people now live in cities. It is estimated that a city of 10 million needs to import more than 6,000 tonnes of food daily. Under this system, even the affluent Western world is only 'nine meals away from anarchy'.

"The nation that destroys its soil destroys itself."
- Franklin D. Roosevelt, 1937

The present crisis

Industrial farming has reduced the direct cost of food for many affluent communities. But it imposes major ecological and social costs that up to now have been hidden or ignored.

These 'externalities' include:

- The subsidized input of vast quantities of oil: 10 units of fossil fuel are needed to produce 1 unit of equivalent food energy.
- The subsidized input of finite mineral nutrients from mining.
- The use of herbicides and pesticides with risks to the health of humans and other life forms.
- Widespread degradation of finite soil and water resources.
- The loss of farms and regional communities as farmers struggle to remain viable.
- Fundamental changes in the nutrition and health of the people who depend on industrially-produced food, and rising costs of diet-related disease.

Under this model, we are already consuming 150% of finite planetary resources. At the same time, world population is growing and industrial farming is under increased stress from climate change.

Why urban agriculture is important

Industrial farming is a recent phenomenon. For the preceding 10,000 years, it was urban agriculture that supplied our food needs.

Modern urban agriculture applies sustainable practices from the past in new and innovative ways to restore the natural nutrient cycles that underpin all life. It offers safe and practical ways to once again harness local land and biosystems to secure our food and distribute it equitably.

Under this model, the inputs to production are limitless and can feed us indefinitely: organic waste, degraded soils, water, carbon dioxide, sunshine, seeds, time and intelligence.

Designing urban agricultural systems

Urban agriculture encompasses:

- Food production – in home, school and community gardens, and by direct links to nearby rural communities.
- Direct distribution – through farmers' markets, food box schemes and local institutions.
- Food preservation where relevant – to enhance value and longevity, and create economic opportunities for individuals and communities
- Fair and affordable access to food – through community cafes, meals on wheels, street vendors and institutions.
- Efficient waste recycling facilities – for maximum safe harvesting and return of essential nutrients to degraded soils.
- Closer links between urban and nearby rural communities – to aid regeneration of soils and landscapes. We are all dependent on the ecosystem services these wider landscapes provide, including water, biodiversity and resilience.

Suggestions for further reading and viewing

Collapse, by Jared Diamond (Penguin Books, 2006)

Food Shock, by Dianne Loughnan (Exisle Publishing, 2012)

Think Global, Act Rural, documentary film directed by Coline Serreau (Hopscotch Entertainment, 2010)

"Nine meals away from anarchy", by Edward Platt. New Statesman, June 27 2011.

World Wildlife Fund – see their footprint calculator www.wwf.org.au

Australian City Farms and Community Gardens Network - www.communitygarden.org.au

Urban Farming Oz - www.urbanfarmingoz.com.au

Soils for Life - www.soilsforlife.org.au
