



## Sustainable Cities through Urban Agriculture

*This editorial is based on [“The Farm in The City”](#) which was published in Indian Express on 04/06/2022. It talks about the significance of Urban and Peri-Urban Agriculture (UPA) and measures that can be taken to promote it.*

**For Prelims:** Urban And Peri-Urban Agriculture (UPA), Urban Heat Island Effect, Vertical Farming Techniques, Aquaculture, Agroforestry, FAO, National Action Plan on Climate Change, Green India Mission

**For Mains:** Urban Land-Use Planning (ULP) and UPA, Significance of UPA, Challenges to adoption of UPA, Sustainable Urbanisation and Urban Agriculture

Premature and scorching summers are making life miserable for many across India, especially in the cities and the soaring temperatures are adversely affecting health, causing a dip in agricultural production, and drying up rivers.

The repercussions of climate change are being felt more strongly than ever, especially in climate-vulnerable zones. Cities in India are also feeling the heat due to a combination of factors, including the [urban heat island effect](#), but largely on account of [ill-conceived urbanisation](#).

Given the current context and future exigencies, it is an opportune moment to critically engage with [Urban Land-Use Planning \(ULP\)](#), especially Urban And Peri-Urban Agriculture (UPA), as one of the essential elements of [Sustainable Urbanisation](#).

## Urban and Peri-Urban Agriculture (UPA)

### What do we Understand by UPA?

- Urban agriculture is the practice of **cultivating, processing and distributing food in or around urban areas**. This can address major dimensions of food security.
  - The activities in urban agriculture include **growing plants and rearing livestock**, including [aquaculture](#) and apiculture, harvesting, processing and distributing food and non-food products from aromatic and medicinal herbs.
- **Peri-urban** agriculture occurs in **surrounding the boundaries of cities throughout** the world.
- It includes products from crop and livestock agriculture, fisheries and forestry and non-wood forest products, as well as ecological services provided by agriculture, fisheries and forestry.
- Often **multiple farming and gardening systems exist** in and near a single city.

### How Active has India been About Adopting UPA?

- With rapid urbanisation, industrialisation and capital investment on urban lands, green zones are being converted to developable areas in cities. Agriculture, mostly associated with rural practice, hardly finds a mention in urban planning reforms.
  - Although **India’s Urban and Regional Development Plans Formulations and**

**Implementation (URDPFI)** guidelines mention agriculture while preparing city plans, there is **little offered for inclusion of agriculture in city plans.**

- **Green India Mission** is one of the eight missions under the [National Action Plan on Climate Change](#) aiming to increase the forest and tree cover, restore degraded lands and promote [agro-forestry](#) in cities.

## Why is UPA Significant?

- The [Food and Agriculture Organisation \(FAO\)](#) recognises UPA as a significant contributor to
  - **food security**
  - **livelihood generation** - especially for women
  - **poverty alleviation**
  - strengthening **cities' resilience** to climate change.
- Urban areas already house at least 55% of the world's population and consume 80% of the food produced globally, thus underlining UPA as **key to achieving sustainable food systems.**
  - There is a growing recognition among citizens and governments alike that **urban farming and gardening can be an important "shock absorber"** and must be the centrepiece in our reimagination of a more resilient urban food system.
- Already suffering from high population density, unaffordable housing, pollution, water scarcity at some places and flooding at others, urban poverty etc; the cities are a far cry from the **"centres of sustainable living with opportunities for all"**.
  - Adhering to the critical need for a paradigm shift in urban planning, UPA stands well as one of the **essential elements of sustainable urbanisation.**

## What Challenges have been Associated with UPA?

In an urban setting, there are a certain constraints and issues which need to be addressed in order to make UPA successful -

- **Lack of access to water** and other productive resources - **competition for land** and issues related to tenure rights.
- There are **food safety concerns** regarding the **use of waste water and organic material** and the **risk of the spread of diseases** and contamination.
- City planners would also require technical guidance for the integration of agricultural activities into urban development and training needs to be provided on urban sustainable production systems.

## What can be Done to Promote Urban and Peri-urban Agriculture?

- **Adhering to Environmental Norms:** Urban Land-Use Planning (ULP) must **prioritise estimation of waste management capacity**, build infrastructure for it and **regulate industrial installations** to this capacity.
  - Adequate political will for financial inputs and enforcement of regulations will be essential for often fund-starved urban administrations and for curbing violations of environmental norms.
  - Urgent attention to **UPA and its incorporation into ULP** with enabling support will also go a long way in **achieving urban food security** and even a **circular bioeconomy.**
- **Inclusive Development and Upskilling:** Advocating urban gardening among those who can afford it, without integrating vulnerable groups in the plan for a resilient and transformative food system will have limited impact.
  - Most importantly, this urban planning shall **include skill development programmes for the lower-income groups** to offer them **livelihood opportunities in gardening, food processing, and retail** and marketing.
  - The hope is to build a **sustainable local food production-distribution system** while strengthening the capacity of the urban poor.
- **Initiatives at Local Level:** Professionals such as urban planners and landscape architects need to **effectively utilise available public spaces** and offer citizens an opportunity to enjoy nature's bounty. This will generate income for local bodies and also **attract urban agri-tourism.**
  - To begin with, public institutions and work spaces, especially those with residential

services, could be **encouraged to create green corners in their premises by growing vegetation** that are regularly consumed by the residents.

- The community of small producers can also **exchange ecological knowledge and barter produce** making such initiatives successful; to city-raised children such spaces **provide avenues for eco-cultural learning.**

▪ **Governance of Peri-Urban Areas:** The recommendations for more effective governance of peri-urban regions include:

- **planning** for peri-urban areas;
- providing a **rational regional land use pattern;**
- formulating an **effective regulatory regime;**
- constitution of **Metropolitan Planning Committees (MPCs);**
- provision of **affordable housing, basic services, regional transport corridors and facilities; and,**
- developing a **cluster of rural settlements/growth centres including census towns.**

### ***Drishti Mains Question***

**“The current exigencies provide an opportune moment to include Urban And Peri-Urban Agriculture (UPA) as one of the essential elements of Sustainable Urbanisation.” Discuss.**

## **UPSC Civil Services Examination, Previous Year Questions (PYQs)**

**Q. With reference to the role of UN-Habitat in the United Nations programme working towards a better urban future, which of the statements is/are correct? (2017)**

1. UN-Habitat has been mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities to provide adequate shelter for all.
2. Its partners are either governments or local urban authorities only.
3. UN-Habitat contributes to the overall objective of the United Nations system to reduce poverty and to promote access to safe drinking water and basic sanitation.

Select the correct answer using the code given below:

- (a) 1, 2 and 3
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1 only

**Ans: (b)**

**Q. Which of the following best describes/describe the aim of ‘Green India Mission’ of the Government of India? (2016)**

1. Incorporating environmental benefits and costs into the Union and State Budgets thereby implementing the ‘green accounting’.
2. Launching the second green revolution to enhance agricultural output so as to ensure food security to one and all in the future.
3. Restoring and enhancing forest cover and responding to climate change by a combination of adaptation and mitigation measures.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only

(c) 3 only

(d) 1, 2 and 3

**Ans: (c)**

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