



Kurukshetra

February Edition



Welcome to PadhAI

KURUKSHETRA MONTHLY COVERAGE

You are here because you understand a fundamental truth of UPSC preparation: ***it's not about reading everything – it's about reading what truly matters, in the right way, at the right time.***

Magazines like Kurukshetra offer deep insights into rural development, governance, social schemes, and grassroots policy implementation. Yet for many aspirants, the challenge lies in separating exam-relevant content from general narratives.

PadhAI's Kurukshetra coverage is designed to do exactly that - ***filter, structure, and align policy discussions with UPSC requirements.***

Why This Kurukshetra Coverage Matters

At PadhAI, we don't reproduce articles. We ***extract core themes***, map them with the syllabus, and connect them with ***Prelims and Mains PYQs***.

Every topic included here:

- carries relevance for ***GS Papers or Essay***,
- strengthens understanding of ***developmental and governance issues, and***
- builds ***analytical depth*** rather than surface-level knowledge.

Nothing is added for volume.

Everything is added for value.

Part of the PadhAI Preparation Ecosystem

This Kurukshetra coverage forms part of a larger, integrated learning system that includes:

- early and concise ***monthly magazines***,
- ***daily PIB summaries*** with exam-focused clarity,
- ***monthly compliance tracking***,
- complete ***Prelims & Mains PYQs with structured answers***,
- relevant ***news article summaries***, and
- ***personal tutor chat support*** for continuous guidance.

The aim is simple:

one trusted ecosystem instead of multiple scattered sources.

Our Guiding Philosophy

At PadhAI, everything is built around one belief:

- *Learn only what matters.*
- *Learn it the right way.*
- *Learn it at the right time.*

We don't believe in shortcuts.

We believe in clarity, consistency, and cumulative preparation.

A Final Note

UPSC preparation is demanding and often overwhelming.

PadhAI exists to ensure you prepare with ***direction, relevance, and confidence*** — never blindly, never alone.

If this **Kurukshetra** coverage helps you save time, connect policy with practice, and strengthen your answers, then it has served its purpose.

Welcome to PadhAI.

A community built to prepare — not to overwhelm.

Topic 1: Fruit-Based Farming Systems for Livelihood



Summary: Fruit-based farming has emerged as a vital model in India to enhance rural income, ensure nutritional security, and promote environmental sustainability. Contributing approximately 18% to the agricultural Gross Value Added (GVA), this sector offers a high-value alternative to traditional cereal crops.

Background: Agriculture employs nearly 50% of India's workforce. Fruit-based systems are increasingly necessary to diversify agricultural income and reduce farmer vulnerability to market fluctuations and climate shocks.

Key Points:

- **Global Leadership:** India is the top global producer of mangoes, bananas, citrus fruits, and grapes.
- **Production Growth:** Horticulture production reached 112.73 million tonnes in 2023-24, with a Vision 2047 target of 244 million tonnes.
- **Government Support:** The **National Horticulture Mission (NHM)** provides technical support, while the **Pradhan Mantri Kisan Sampada Yojana** focuses on post-harvest infrastructure.
- **Sustainability:** Practices such as mulching, drip irrigation, and carbon sequestration through orchards contribute to climate mitigation.

Prelims Facts (One Liners):

1. India's mango exports grew by 19% in 2023, reaching \$47.98 million.

2. Horticulture production has surpassed foodgrain production for five consecutive years.
3. The sector expanded its fruit export destinations to 41 different countries.
4. Vision 2047 aims for a fruit production target of 244 million tonnes.

MCQ Practice: Q. Which state is noted in the sources for its flourishing grape industry driven by cold storage and export-oriented production? A) Tamil Nadu B) Uttar Pradesh C) Maharashtra D) Bihar

Answer: C (Maharashtra's grape industry has flourished due to technological advancements in cold storage and export-oriented production).

Topic 2: Beekeeping and the Sweet Revolution



Summary: Beekeeping, or apiculture, is a low-cost, high-reward enterprise that aligns with UN Sustainable Development Goals to boost rural economies and environmental conservation. Through the **Sweet Revolution**, India aims to create 10 lakh jobs by 2030.

Background: Launched under Atmanirbhar Bharat in 2020, the **National Beekeeping & Honey Mission (NBHM)** was established to enhance employment and pollination services for rural and tribal communities.

Key Points:

- **Economic Standing:** India is the 8th largest honey producer globally, with an output of 1.33 lakh metric tonnes in 2022-23.

- **Employment:** The sector supports 15–20 lakh people, with over 3 lakh rural households directly engaged.
- **Pollination Services:** Beekeeping increases crop yields by 15–30%, creating demand for migratory beekeeping services.
- **Infrastructure:** NBHM focuses on distributing modern equipment and establishing honey testing labs and processing units.

Prelims Facts (One Liners):

1. Honey exports in 2022–23 were valued at ₹1,543 crore.
2. Over 30% of beekeepers in states like Kerala and Uttarakhand are women.
3. The Sundarbans in West Bengal are renowned for niche mangrove honey production.
4. Beekeeping is classified as an agro-based MSME for credit and subsidy access.

MCQ Practice: Q. The "Sweet Revolution" in India is primarily associated with which of the following? A) Increased sugar beet production B) Enhancement of the honey and beekeeping sector C) Expansion of fruit juice processing units D) Subsidies for sugarcane farmers

Answer: B (The Sweet Revolution refers to government initiatives like the NBHM aimed at enhancing beekeeping and honey production).

Topic 3: Food Processing of Horticulture Crops



Summary: Food processing transforms raw horticultural produce into value-added products to extend shelf life and reduce post-harvest losses, which currently range from 6.7% to 15.8% in fruits. This sector is crucial for making India a global agri-processing hub.

Background: Despite being the second-largest global producer of fruits and vegetables, India processes less than 10% of its total agricultural output.

Key Points:

- **Economic Impact:** The food processing industry contributes 32% to India's food sector and is expected to reach \$1.27 trillion by 2027.
- **Schemes:** The **PMFME Scheme** (₹10,000 crore) aims to formalize micro-enterprises under "One District One Product".
- **Investment:** India allows 100% FDI under the automatic route for food processing.
- **Technology:** Innovations like High-Pressure Processing (HPP) and AI-based supply chain management are being adopted to improve quality.

Prelims Facts (One Liners):

1. India loses approximately ₹1.52 lakh crore annually due to post-harvest horticultural losses.
2. The PLI Scheme for food processing has an outlay of ₹10,900 crore.
3. Over 71% of processed food items are taxed at the 0–5% GST slab.
4. India currently has fewer than 11,000 cold storage units, while 35,000 are needed.

MCQ Practice: Q. Which technology mentioned in the sources can reduce energy consumption by 90% in potato processing? A) High-Pressure Processing (HPP) B) Cold Plasma Technology (CPT) C) Pulsed Electric Field (PEF) D) Blockchain Traceability

Answer: C (Pulsed Electric Field (PEF) reduces energy consumption by 90% in potato processing).

Topic 4: Nutritional and Health Security through Horticulture



Summary: Horticulture plays a vital role in addressing **hidden hunger** and micronutrient deficiencies in India. Fruits and vegetables are "protective foods" rich in vitamins, minerals, and antioxidants that reduce the risk of chronic diseases.

Background: India faces a high burden of malnutrition, with 75% of preschool children suffering from iron deficiency anemia and 57% of the population affected by Vitamin A deficiency.

Key Points:

- **Dietary Needs:** ICMR–NIN recommends a daily consumption of 400g of vegetables and 100g of fruits, though current levels remain low.
- **Nutraceuticals:** Horticultural crops contain phytochemicals and antioxidants like carotene and flavonoids.
- **Fiber and Protein:** Leafy vegetables provide dietary fiber, while peas and beans are essential protein sources in vegetarian diets.
- **Disease Prevention:** Whole fruit and vegetable consumption is more effective at reducing oxidative stress than isolated supplements.

Prelims Facts (One Liners):

1. One in three children in India is stunted, and 15% of the population is undernourished.
2. Total horticulture production reached 353.19 million tonnes in 2023–24.
3. Iodine deficiency remains endemic in 85% of Indian districts.
4. Micronutrient deficiencies contribute to 22% of India's overall disease burden.

MCQ Practice: Q. According to ICMR-NIN (2024) recommendations, what is the suggested daily intake of vegetables for an individual? A) 200 g B) 300 g C) 400 g D) 500 g

Answer: C (The dietary recommendation is 400 g of vegetables and 100 g of fruits daily).

Topic 5: Sustaining Rural Livelihoods



Summary: Horticulture serves as a critical component of the rural economy by providing income stability, mitigating urban migration, and offering diversification for small and marginal farmers.

Background: Since the 1991 reforms, the sector has expanded significantly, helping to mitigate economic deprivation in rural areas.

Key Points:

- **Export Value:** Horticulture exports surpassed ₹4 lakh crore in 2023.
- **Rural Tourism:** "Horti-tourism" in ecologically sensitive areas like the Himalayas creates new sustainable economic opportunities.
- **Infrastructure Gaps:** The sector is hindered by insufficient post-harvest infrastructure and limited access to high-quality seeds.
- **Policy Needs:** A national horticulture policy and Public-Private Partnerships (PPPs) are essential to create integrated supply chains.

Prelims Facts (One Liners):

1. India is the second-largest global producer of both fruits and vegetables.
2. Horticulture production has surpassed foodgrain production for the fifth consecutive year.
3. The Warehouse Infrastructure Fund under NABARD facilitates the development of cold storage.
4. Post-harvest losses in fruits can reach as high as 15.8%.

MCQ Practice: Q. Which of the following is identified as a primary challenge to maximizing profits for horticultural farmers? A) Lack of export potential B) Over-mechanization C) Inefficient supply chains and lack of cold storage D) Decreasing global demand for organic honey

Answer: C (Insufficient post-harvest infrastructure, such as cold storage and inefficient supply chains, leads to high losses and affects farmer profits).