



## Agriculture Development in India

**For Prelims:** [Agriculture](#), [Union Budget 2025-26](#), [High-Yielding Seeds](#), [Monocultures](#), [Crop Diversity](#), [FPOs](#), [Gene Bank](#), [Cotton](#), [EEZ](#), [High Seas](#), [Andaman & Nicobar](#), [Lakshadweep Islands](#), [Fish Production](#), [Irrigation](#), [Pulse Production](#), [Grameen Credit Score](#), [SHG](#), [Interest Subvention Scheme](#), [Bt Cotton](#), [GIS](#), [Remote Sensing](#).

**For Mains:** Initiatives announced in the Union Budget 2025-26, Concerns related to high-yielding seeds.

[Source: PIB](#)

### Why in News?

Emphasizing '[Agriculture](#) as the first engine' for India's development journey, the [Union Budget 2025-26](#) announced a **slew of measures** to spur **agricultural growth and productivity**.

- The **Economic Survey 2024-25** found that the agriculture sector has shown **robust growth**, averaging **5% annually** from **2016-17 to 2022-23**.
- However, the announced **National Mission on [High-Yielding Seeds](#)** raised concerns over **monocultures** and loss of **crop diversity**.

### What Agricultural Initiatives were Announced in the Union Budget 2025-26?

- **National Mission on High Yielding Seeds:** It aims to improve **agricultural productivity** by developing **high-yielding seeds** that are more **resilient to pests and climate stress**.
  - **Focus Areas:**
    - Developing **new seed varieties** with better productivity and resistance.
    - Creating seeds **resilient to pests and climate stress**.
    - Ensuring easy **access** to high-yielding seeds for **farmers**.
  - **Seed Varieties:** It targets to increase the availability of over **100 new seed varieties**, including **23 cereals, 11 pulses, 7 oilseeds, among others**.
- **Makhana Board in Bihar:** A **Makhana Board** will be established to boost **production, processing, and marketing**, and support farmers through **FPOs** and government schemes.
- **Food Processing:** The union government will establish a **National Institute of Food Technology, Entrepreneurship and Management** in Bihar to promote **food processing** activities in Eastern India.
- **Gene Bank:** The second **Gene bank** (1st in 1996) with **10 lakh germplasm lines** would be set up for future **food and nutritional security**.
  - A **gene bank** is a facility where **genetic material** from plants, animals, or microorganisms is **stored and preserved** for future use.
- **Mission for Cotton Productivity:** It is a **5-year mission** for improvements in productivity and sustainability of cotton farming, and promotes **extra-long staple cotton varieties**.
  - It aligns with the **5F principle** of the Ministry of Textiles i.e., **Farm to Fibre, Fibre to Factory, Factory to Fashion, Fashion to Foreign**.
- **Sustainable Fisheries:** The government will create a **sustainable fisheries framework** for

the [EEZ and High Seas](#), focusing on [Andaman & Nicobar](#) and [Lakshadweep Islands](#).

- India ranks **2nd-largest** globally in [fish production](#) and [aquaculture](#).
- **Prime Minister Dhan-Dhaanya Krishi Yojana:** It aims to enhance agricultural productivity in **100 low-productivity districts**, focusing on [crop diversification](#), **sustainable practices**, **improved storage**, [irrigation](#), and **credit availability**, benefiting 1.7 crore farmers.
- **Mission for Self-reliance in Pulses:** A 6-year mission will be launched to achieve self-sufficiency in [pulse production](#), focusing on crops like **Tur, Urad, and Masur**.
- **Rural Prosperity and Resilience Programme:** It is a multi-sectoral initiative to address **under-employment** in agriculture through **skilling, investment, technology, and rural empowerment**.
  - It prioritizes **rural women, young farmers, and small farmers**, aiming for job creation, financial independence for women, and agricultural modernization.
- **Grameen Credit Score:** Public Sector Banks will develop the '[Grameen Credit Score](#)' framework to serve the credit needs of [SHG members](#) and people in rural areas.
- **Kisan Credit Cards (KCC):** Loan limit under the **Modified [Interest Subvention Scheme](#)** increased from **Rs 3 lakh to Rs 5 lakh** for KCC holders supporting around **7.7 crore farmers, fishermen, and dairy farmers**.

## Makhana

- Known as **fox nut**, Makhana is the **dried seed of the prickly water lily (*Euryale ferox*)**.
- **Bihar** contributes to **90%** of India's **makhana production**. It is recognized as a **nutrient-dense, low-fat healthy snack**.
- In 2022, '**Mithila Makhana**' received a [GI tag](#).
- The global makhana market was valued at **USD 43.56 million** in 2023.

## High-Yielding Seeds

- **About:** High-yielding seeds are designed to **increase crop output per unit of land** using selective breeding, genetic modification, or advanced techniques.
- **Benefits:** They produce **more output** with **faster growth**, better **disease resistance**, and **require fewer resources**.
- **Examples:** Hybrid Rice (**PRH 10 and Pusa Basmati 1121**), Hybrid Wheat (**HD 3086 and PBW 725**), [Bt Cotton](#), etc.
- **Concerns:** It risks promoting **monocultures**, **reducing biodiversity**, threatening indigenous seeds, and increasing **dependence on corporate seed companies**.

## What are Agriculture Related Findings of Economic Survey 2024-25?

- **Agricultural Growth:** Agriculture sector grew at **5% annually (2016-23)**, with [GVA](#) share rising from 24.38% (2014-15) to **30.23% (2022-23)**.
  - **Agricultural income** has grown at **5.23% annually** over the past decade.
- **Sectoral Performance:** The **fisheries** sector had the highest growth rate (**13.67%**), followed by [livestock](#) (**12.99%**) between 2013-14 and 2022-23, while [oilseeds](#) grew slowly at **1.9%**.
- **Irrigation:** Irrigation coverage increased from **49.3% (2015-16) to 55% (2020-21)** of **Gross Cropped Area (GCA)**, while irrigation intensity rose from **144.2% to 154.5%**.
  - **Punjab (98%), Haryana (94%), Uttar Pradesh (84%),** and **Telangana (86%)** have high irrigation coverage, while **Jharkhand and Assam have below 20%**.
  - GCA is the **total land cultivated** in an agricultural year, including **multiple cropping cycles on the same land**.

## Way Forward

- **Promote Biodiversity:** Safeguard **traditional seed varieties** alongside high-yielding seeds by encouraging a **mix of both**, helping to preserve biodiversity while enhancing agricultural

productivity.

- **Ecological Sustainability:** Prevent monoculture farming by **promoting crop rotation and polyculture** (**different crops** in the **same space** at the **same time**), and incentivize **diverse cropping systems** to maintain soil health and reduce pest risks.
- **Research and Development:** Develop drought, flood, and pest-resistant crops through both traditional and modern methods.
- **Leverage Technology:** Use technology to monitor high-yielding seeds and sustainable practices by utilizing GIS and remote sensing for crop health, **pest outbreaks**, and **early warnings**.

**Drishti Mains Question:**

How can the Union Budget 2025-26 initiatives support the long-term sustainability of Indian agriculture?

**UPSC Civil Services Examination, Previous Year Question (PYQ)**

**Prelims**

**Q. In the context of India's preparation for Climate -Smart Agriculture, consider the following statements:**

1. The 'Climate-Smart Village' approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CCAFS), an international research programme.
2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR's research centres.

**Which of the statements given above are correct?**

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

**Ans: (d)**

**Q. With reference to the 'Global Alliance for ClimateSmart Agriculture (GACSA)', which of the following statements is/are correct? (2018)**

1. GACSA is an outcome of the Climate Summit held in Paris in 2015.
2. Membership of GACSA does not create any binding obligations.
3. India was instrumental in the creation of GACSA.

**Select the correct answer using the code given below:**

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

**Ans: (b)**

## **Mains**

**Q.** How far is the Integrated Farming System (IFS) helpful in sustaining agricultural production? (2019)

PDF Refernece URL: <https://www.drishtiias.com/printpdf/agriculture-development-in-india>

