



DAILY EDITORIAL ANALYSIS

TOPIC

**NEXT FARM REVOLUTION: FROM
FOOD SECURITY TO SUSTAINABLE
FARMERS' PROSPERITY**

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NEXT FARM REVOLUTION: FROM FOOD SECURITY TO SUSTAINABLE FARMERS' PROSPERITY

Context

- There is a need to assess India's agricultural progress, persistent challenges, and reforms needed to ensure sustainable growth and higher farmers' incomes.

About Indian Agriculture and Its Performance

- Agriculture remains the backbone of India's economy, providing livelihoods to approximately **46.1%** of the workforce, and is vital to India's **food security, rural employment and inclusive growth**.
- India has moved from food shortages to becoming a leading producer and exporter of several agricultural commodities.
- **Agricultural Growth:** Average annual agricultural GDP growth at around 4% during 2014-15 to 2025-26.
- It has supported food security, but faster and more inclusive growth remains necessary.
- **Irrigation:** Irrigation coverage has expanded, although agriculture remains vulnerable to monsoon variability and regional water scarcity.
- **Agricultural Trade:** Agricultural exports at approximately \$53 billion and imports at \$40 billion in 2025-26.
- These figures require confirmation from final official trade statistics.
- Edible oils and pulses remain important import categories.
- **Food Security:** India maintains substantial rice and wheat stocks and provides free foodgrains to eligible beneficiaries under the Pradhan **Mantri Garib Kalyan Anna Yojana (PMGKAY)**.

Major Achievements (2014-2026)

- **Foodgrain Security:** Irrigation development, procurement and public distribution have strengthened the availability of essential cereals.
- **Irrigation Development:** The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) promotes irrigation expansion and water-use efficiency through Har Khet Ko Pani and Per Drop More Crop.
- **Crop Insurance:** The Pradhan Mantri Fasal Bima Yojana (PMFBY) protects farmers against specified crop losses. Timely claim settlement and wider effective coverage remain important.
- **Renewable Energy:** PM-KUSUM promotes solar-powered agricultural pumps and decentralised solar power generation.
- **Agricultural Diversification:** Fisheries, dairy, poultry and horticulture offer opportunities to improve rural employment and farm incomes.

Major Challenges Facing Indian Agriculture

- **Imbalanced Cropping Patterns:** India faces a mismatch between production and demand. Rice and wheat surpluses coexist with import dependence on pulses and edible oils.
- Subsidies, assured procurement and established marketing arrangements favour certain crops.
- Excessive paddy cultivation in water-stressed regions contributes to **groundwater depletion** and environmental degradation.
- **Inadequate Growth in Farmers' Incomes:** Rising input costs, fragmented landholdings, price volatility and weak bargaining power constrain profitability.
- The objective of doubling farmers' real incomes remains unfulfilled.
- Agricultural GDP growth does not automatically translate into higher real incomes for every farming household.
- **Weak Agricultural Value Chains:** Fruits, vegetables, milk and fish are perishable commodities.
- Inadequate cold storage, processing and market connectivity reduce farmers' returns.

- Climate change, extreme weather and declining soil health further threaten agricultural productivity.

Case Study: Gujarat's Agricultural Transformation (2001-2014)

- Gujarat reportedly achieved **agricultural growth exceeding 9% annually**.
- **Key factors behind the transformation included:**
- **Water Management:** Check dams and improved access to Narmada waters expanded irrigation opportunities.
- **Reliable Electricity:** Separation of agricultural and domestic electricity feeders improved power supply management.
- **Rural Connectivity:** Better roads strengthened links between farms and markets.
- **Agricultural Extension:** Krishi Mahotsav connected farmers with government officials, agricultural experts and modern technologies.
- **Technology Adoption:** Bt cotton, approved for commercial cultivation in India in 2002, contributed to Gujarat's cotton-sector expansion.
- **Lessons For India:** Coordinated investment in irrigation, electricity, roads, technology and agricultural extension can accelerate growth.
- However, policies need to reflect regional conditions and ecological limits.

Way Forward: Building a Sustainable Agricultural Economy

- **Incentivise Crop Diversification:** Improve the relative profitability of pulses and oilseeds through suitable price support, procurement and targeted incentives.
- Consider redirecting inefficient input subsidies towards farmers who adopt less water-intensive crops.
- Pilot such incentives in water-stressed regions, including Haryana and Punjab, with measurable groundwater conservation targets.
- **Promote Agri-Photovoltaics:** Agri-photovoltaics, or agrivoltaics combines crop cultivation with solar power generation using suitably elevated and spaced solar panels.
- PM-KUSUM to support viable agrivoltaic projects through suitable subsidies and remunerative power-purchase arrangements.
- It can enable farmers to become both Annadatas and Urjadas.
- **Strengthen High-Value Agriculture:** Expand dairy, fisheries, poultry, horticulture and food processing.
- Improve cold chains, storage, farmer-producer organisations and access to export markets.
- Strengthen agricultural research, digital extension and institutional credit.
- **Promote Climate-Resilient Farming:** Expand micro-irrigation, rainwater harvesting and watershed development.
- Encourage soil conservation, climate-resilient crop varieties and efficient water use.
- Link agricultural incentives with measurable improvements in resource conservation.

Conclusion

- India needs to move beyond cereal self-sufficiency towards **higher farmers' incomes, nutritional security and ecological sustainability**.
- Crop diversification, stronger value chains and renewable energy can make agriculture more profitable and resilient, supporting the broader vision of Viksit Bharat 2047.

Daily Mains Practice Question

- [Q] Discuss the major challenges facing Indian agriculture and suggest measures to achieve higher farmers' incomes while ensuring environmental sustainability.

Source: IE

