

Agriculture In India

Mains: GSIII - Agriculture

Why in News?

The recent observations in agriculture highlights the need to raise farmers' incomes through agricultural reforms, crop diversification and agri-photovoltaics (agrivoltaics).

What Has Been the Performance of Indian Agriculture?

- **Agricultural Performance of India -**
 - Agricultural GDP grew at an average annual rate of around 4% between 2014-15 and 2025-26.
 - Irrigation coverage increased to nearly 60% of gross cropped area, strengthening food security.
 - India emerged as a major producer and exporter of rice and a net exporter of agricultural products.
 - In 2025-26, agricultural exports were approximately \$53 billion, while imports stood at around \$40 billion, mainly comprising edible oils and pulses.

What Are the Major Challenges Faced by Indian Agriculture?

- **Mismatch of Production and Demand** - India produces surplus rice and wheat but faces shortages of pulses and oilseeds.
 - Using nearly 7 million tonnes of rice for ethanol raises concerns about resource efficiency. Paddy cultivation in Punjab and Haryana accelerates groundwater depletion.
- **Unfulfilled Goal of Doubling Farmers' Incomes** - The objective of doubling farmers' real incomes remains unfulfilled.
 - Doubling farmers' incomes requires 10.4% annual agricultural GDP growth, as estimated by the **Ashok Dalwai Committee**.

How Can Crop Diversification Promote Agricultural Sustainability?

- **Shift towards pulses and oilseeds** - Encourage cultivation to reduce import dependence and improve nutritional security.
- **Reorient subsidies** - Provide incentives to pulses and oilseeds farmers comparable to those supporting paddy cultivation.
- **Reduce groundwater depletion** - Promote less water-intensive crops in regions facing declining water tables.
- **Rationalise public expenditure** - Savings from electricity, irrigation and fertiliser

subsidies can help finance incentives for crop diversification.

What are the Initiatives Taken To Help Farmers Doubling Their Incomes?

Scheme / initiative	How it helps increase farmers' income
1. PM-KISAN	Provides eligible landholding farmer families ₹6,000 annually through DBT to support farm and household expenditure.
2. PM Fasal Bima Yojana (PMFBY)	Protects eligible farmers against specified crop losses caused by natural calamities, pests and diseases.
3. Modified Interest Subvention Scheme (MISS)	Provides concessional short-term agricultural credit through the Kisan Credit Card (KCC) framework, reducing borrowing costs for eligible farmers.
4. Minimum Support Price (MSP)	The government announces MSPs for notified crops to support remunerative returns; actual benefits depend on procurement access and market conditions.
5. PM-AASHA	Supports remunerative prices for eligible notified crops through procurement and other approved price-support mechanisms.
6. PM Krishi Sinchayee Yojana (PMKSY)	Expands irrigation and promotes efficient water use, including micro-irrigation under Per Drop More Crop, helping improve productivity and conserve water.
7. Soil Health Card Scheme	Provides information on soil nutrients and fertiliser recommendations, supporting balanced fertiliser use and lower input costs.
8. Sub-Mission on Agricultural Mechanization (SMAM)	Promotes access to agricultural machinery and custom hiring centres, reducing labour costs and improving operational efficiency.
9. Formation and Promotion of 10,000 FPOs	Helps farmers aggregate produce, obtain inputs at better terms, improve bargaining power and access markets collectively.
10. Agriculture Infrastructure Fund (AIF)	Facilitates financing for eligible post-harvest infrastructure and community farming assets, such as warehouses and processing facilities.

- These schemes are part of the government's broader strategy to improve productivity, reduce costs, support prices and strengthen agricultural markets.
- **Schemes for Diversification and Additional Income**

Scheme / initiative	Income-enhancement role
11. PM-KUSUM	Supports solar pumps and solar power plants, enabling eligible farmers to reduce irrigation energy costs and earn by selling electricity.

12. Mission for Aatmanirbharta in Pulses	Promotes domestic pulses production, productivity and self-reliance, while supporting farmers through the mission's procurement and development framework.
13. PM Dhan-Dhaanya Krishi Yojana	Targets selected low-performing agricultural districts to improve productivity, irrigation, crop diversification, storage and access to agricultural credit.
14. Mission for Integrated Development of Horticulture (MIDH)	Promotes fruits, vegetables, spices, flowers and other horticultural crops, creating opportunities for higher-value agriculture.
15. National Beekeeping and Honey Mission (NBHM)	Promotes beekeeping, honey production, pollination and related rural enterprises as supplementary income sources.
16. National Livestock Mission (NLM)	Encourages entrepreneurship in poultry, sheep, goats, pigs and feed-related activities, diversifying rural livelihoods.
17. Pradhan Mantri Matsya Sampada Yojana (PMMSY)	Supports fisheries, aquaculture, infrastructure and value-chain development to raise the earnings of fishers and fish farmers.
18. Paramparagat Krishi Vikas Yojana (PKVY)	Supports organic farming clusters, certification and marketing, helping farmers access suitable premium markets.
19. Kisan Rail and agricultural logistics initiatives	Improve the movement of agricultural produce, particularly perishables, helping reduce post-harvest losses and expand market access.
20. Digital Agriculture Mission	Uses farmer registries, crop data, geospatial information and digital services to improve access to information, credit, buyers and agricultural services.

What are the Institutional and Implementation Challenges?

- **Unequal scheme access** - Tenant farmers, sharecroppers and farmers without updated land records may face difficulties accessing certain benefits.
- **Regional disparities** - Irrigation, procurement, infrastructure and institutional credit are unevenly distributed.
- **Limited extension services** - Inadequate agricultural advice restricts the adoption of improved practices.
- **Coordination gaps** - Better coordination among Central ministries, State governments, research institutions and local bodies is necessary.

What could be done?

- **Reorient agricultural incentives** - Gradually align subsidies, and public investment with nutritional security, water conservation and crop diversification.
- **Strengthen farmer collectives** - Expand Farmer Producer Organisations (FPOs),

cooperatives and collective marketing to improve bargaining power.

- **Promote technology adoption** – Improve access to precision farming, digital advisories, quality inputs and affordable mechanisation.
- **Expand institutional credit** – Improve access to affordable credit for tenant farmers, smallholders and agricultural enterprises.
- **Adopt region-specific strategies** – Tailor crop choices, irrigation investments and diversification measures to agro-climatic conditions.
- **Build sustainable income models** – Combine crop farming, allied activities, value addition and renewable energy wherever economically viable.

What lies ahead?

- India's next agricultural transformation must move beyond increasing foodgrain production towards higher farm incomes, resource efficiency and climate resilience.
- A combination of appropriate incentives, affordable finance can help turn the vision of 'Surya Khet Kranti' into a sustainable model of rural development.

Reference

[The Indian Express| The next farm revolution must aim at raising farmers' incomes](#)

