



## Agriculture: Issues & Challenges - Budget Response



### Issues and Challenges in Indian Agriculture

#### Agriculture Significance

Despite of Agriculture's share in India's economy has declined to below 15% due to the high growth rates in the industrial and services sectors, it remains vital to India's economic and social fabric.

Nearly three-quarters of India's families rely on rural incomes and about 70% of India's poor live in rural areas. Additionally, India's food security is heavily dependent on its agricultural output, including cereal crops, fruits, vegetables, and milk.

To meet the demands of a growing population with rising incomes, India requires a more productive, competitive, diversified, and sustainable agricultural sector.

#### Indian Agriculture - Global Status

India is a major agricultural powerhouse. It is the world's largest producer of milk, pulses, and spices and boasts the largest cattle herd (buffaloes) globally. India also leads in wheat, rice, and cotton production, and ranks second in rice, wheat, cotton, sugarcane, farmed fish, sheep and goat meat, fruit, vegetables, and tea production.



With 195 million hectares under cultivation, the country's agricultural land is split between 63% rainfed and 37% irrigated areas, with additional land covered by forests.

## Key Challenges in Indian Agriculture

- 1. Raising Agricultural Productivity:** Enhancing productivity per unit of land is crucial, given that almost all cultivable land is already farmed. Limited water resources, which face competition from industrial and urban needs, further complicate the situation. Measures to boost productivity include increasing crop yields, diversifying to higher-value crops, and developing value chains to lower marketing costs.
- 2. Reducing Rural Poverty:** Rural development must benefit the poor, landless, women, scheduled castes, and tribes. Regional disparities are significant, with most of India's poor located in rain-fed areas or the Eastern Indo-Gangetic plains. Although there has been some progress in reducing poverty, a more accelerated approach is needed. Poverty alleviation is a central focus for the Government and the World Bank.
- 3. Food Security and Agricultural Growth:** The Green Revolution of the 1970s boosted food-grain production and achieved self-sufficiency, but agricultural growth has slowed since the 1990s, averaging about 3.5% per year. Rice yields in India are significantly lower compared to China, Vietnam, and Indonesia. This stagnation poses a major concern for India's food security and overall agricultural growth.

## Policy and Institutional Regime

Current policies and institutional frameworks appear outdated and ineffective in addressing these challenges. Therefore, a robust reform of policies and public programs is essential to foster a more productive, competitive, and diversified agricultural sector.

## Budget 2024-25: Addressing Agricultural Challenges

### Transformative Vision

The Budget 2024-25 articulates a transformative vision for Indian agriculture, focusing on aligning the sector with broader economic progress. This vision includes addressing both food and nutritional security as rising incomes change consumption patterns.

The Budget emphasizes the need for technology-driven cultivation practices to improve farm productivity while addressing the environmental and economic limitations of input-intensive production.



## Strategic Focus

- 1. Agricultural Research and Development:** The Budget introduces path-breaking measures to transform agricultural research. India's institutional architecture for agricultural research, including the Indian Council of Agricultural Research (ICAR), agricultural universities, Krishi Vigyan Kendras (KVKs), and private sector initiatives, has been crucial in making India a net food surplus country. However, rising sectoral challenges necessitate a realignment and enhancement of research efforts.
- 2. Vegetable Production and Supply Chains:** The Budget highlights the need to address high vegetable prices and supply chain inefficiencies. With vegetables now comprising a larger share of consumption compared to cereals, efficient production and supply chains are critical. The Budget proposes structural engagements with farmer producer organizations (FPOs), cooperatives, and agri start-ups to improve supply chains, reduce post-harvest losses, and manage perishables effectively.
- 3. Indigenous Food Production:** Post-COVID supply chain disruptions underscore the importance of domestic food production for food security. The Budget includes missions for pulses, oilseeds, and shrimp production and export to enhance resilience and create growth opportunities.
- 4. Climate Change Adaptation:** With rising climate change risks, the Budget addresses both mitigation and adaptation strategies. The focus on natural farming aims to promote chemical-free practices, enhance soil fertility, reduce greenhouse gas emissions, and improve farmers' incomes. This initiative will support one crore farmers through certification and branding.
- 5. Digital Public Infrastructure (DPI):** The Budget proposes the implementation of DPI in agriculture, covering farmers and land records within three years. This initiative will provide farmers with better access to finance, government benefits, and business partners, facilitating the transition towards agri-business.

## New Programs and Initiatives in the Budget

### Agricultural Research Enhancement

- Strengthened Research Institutions:** Increased funding and support for ICAR, agricultural universities, and R&D initiatives in the private sector and agri start-ups to drive innovation and address sectoral challenges.



- **Focused Research on Productivity:** Specific programs aimed at improving crop yields, diversification, and value chain development.

## Vegetable Production and Supply Chains

- **Efficient Supply Chains:** Establishment of formal structures involving FPOs, cooperatives, and agri start-ups to streamline supply chains, reduce post-harvest losses, and ensure competitive pricing.
- **Support for Supply-Side Measures:** Addressing high vegetable prices through enhanced supply chain management and targeted interventions.

## Indigenous Food Production

- **Mission Programs:** Initiatives for pulses, oilseeds, and shrimp production and export to enhance domestic resilience and open new growth avenues.

## Climate Change Adaptation

- **Natural Farming:** Support for one crore farmers with certification and branding for chemical-free farming, promoting sustainable practices and reducing environmental impact.
- **Resource Recycling and Emission Reduction:** Emphasis on improving soil fertility and reducing greenhouse gas emissions through sustainable farming practices.

## Digital Public Infrastructure (DPI)

- **Digital Integration:** Comprehensive plan to digitize farmer and land records, enhancing access to finance and government services, and supporting agri-business ventures.

## Long-Term Impact of Budget Measures

### Enhanced Productivity and Competitiveness

The focus on improving agricultural research and adopting tech-led cultivation practices is expected to boost productivity and competitiveness. Increased funding and innovative research will likely result in higher yields and better crop diversification, addressing current productivity challenges.

### Improved Rural Welfare

Efforts to reduce rural poverty through inclusive strategies and support for non-farm employment will help in improving the welfare of the rural poor. The initiatives targeting regional disparities and providing support to marginalized groups will contribute to more equitable rural development.



## Strengthened Food Security

By enhancing indigenous food production and improving supply chains, the Budget aims to bolster food security and stabilize domestic prices. The focus on pulses, oilseeds, and shrimp production will help in achieving self-sufficiency and reducing dependency on global markets.

## Sustainable Agriculture

The emphasis on natural farming and climate change adaptation will promote sustainable agricultural practices. By supporting chemical-free farming and resource recycling, the Budget aims to reduce environmental impact and enhance soil fertility, ensuring long-term agricultural sustainability.

## Digital Transformation

The implementation of DPI in agriculture is set to revolutionize the sector by providing farmers with better access to finance, government benefits, and business opportunities. This digital transformation will facilitate the growth of agri-business and improve overall sector efficiency.

## Overall Prospects

The Budget 2024-25 presents a comprehensive approach to addressing the multifaceted challenges in Indian agriculture. By focusing on productivity, rural welfare, food security, sustainability, and digital transformation, the Budget aims to lay a solid foundation for a more productive and resilient agricultural sector.

These measures are expected to have a positive long-term impact, contributing to the goal of a Viksit Bharat (Developed India) by 2047.

## Main Practice Questions

- 1. Evaluate the challenges facing Indian agriculture in the context of productivity, rural poverty, and food security. How can policy measures address these challenges to foster a more productive and sustainable agricultural sector?**
- 2. Discuss the role of the Budget 2024-25 in addressing the challenges in Indian agriculture. What are the key initiatives introduced in the Budget, and how are they expected to impact the sector in the long term?**

## Answers

### Question 1:

**Evaluate the challenges facing Indian agriculture in the context of productivity, rural poverty, and food security. How can policy measures address these challenges to foster a more productive and sustainable agricultural sector?**



## Answer:

**Introduction:** Indian agriculture faces several critical challenges that impact its productivity, rural poverty, and food security.

**Core:** Firstly, agricultural productivity per unit of land remains low due to limited scope for expansion and insufficient technological advancements. Most cultivable land is already in use, and water resources are constrained by competing demands from industrial and urban sectors. Enhancing productivity thus requires innovations in crop yields, diversification into high-value crops, and the development of efficient value chains to reduce marketing costs.

Secondly, rural poverty is a significant issue, with a large proportion of India's poor residing in rural areas. This poverty is exacerbated by regional disparities, with the Eastern Indo-Gangetic plains and rain-fed areas being particularly disadvantaged. Addressing rural poverty necessitates inclusive development strategies that benefit not just the farming community but also non-farm sectors, women, scheduled castes, and tribes.

Lastly, food security remains a concern, particularly in light of the slowdown in agricultural growth and productivity. The Green Revolution of the 1970s was instrumental in achieving food self-sufficiency, but subsequent stagnation in growth has raised alarms. Improving food security requires policies that enhance agricultural productivity and address supply chain inefficiencies.

**Conclusion:** Policy measures to tackle these challenges include investing in agricultural research to boost productivity, implementing inclusive rural development programs, and improving supply chain infrastructure to enhance food security. Initiatives such as increased funding for agricultural research, support for sustainable farming practices, and measures to stabilize food prices are crucial for fostering a more productive and sustainable agricultural sector.

---

## Question 2:

**Discuss the role of the Budget 2024-25 in addressing the challenges in Indian agriculture. What are the key initiatives introduced in the Budget, and how are they expected to impact the sector in the long term?**

## Answer:

**Introduction:** The Budget 2024-25 plays a pivotal role in addressing the multifaceted challenges facing Indian agriculture. The Budget's key initiatives are designed to enhance productivity, ensure food security, and promote sustainability, reflecting a comprehensive approach to sectoral reform.

**Core:** One significant initiative is the emphasis on transforming agricultural research. The Budget proposes increased funding and support for institutions like the Indian Council of Agricultural Research (ICAR) and agricultural universities. This will drive innovations and improvements in productivity, helping India overcome stagnation and boost yields.

Another crucial focus is on vegetable production and supply chains. The Budget addresses inefficiencies by promoting structural engagements with farmer producer organizations (FPOs),



# PL RAJ IAS & IPS ACADEMY

MAKING YOU SERVE THE NATION

cooperatives, and agri-start-ups. These measures aim to enhance supply chain efficiency, reduce post-harvest losses, and manage perishables effectively, which will help stabilize food prices and improve consumer access.

The Budget also introduces missions for pulses, oilseeds, and shrimp production to enhance domestic food security and create new growth opportunities. These initiatives are expected to reduce dependency on global markets and improve resilience against price volatility.

In terms of sustainability, the Budget supports natural farming practices, including certification and branding for chemical-free farming. This will promote environmentally friendly practices, improve soil fertility, and reduce greenhouse gas emissions, contributing to long-term agricultural sustainability.

Finally, the implementation of Digital Public Infrastructure (DPI) is set to revolutionize the sector by providing farmers with better access to finance, government benefits, and business opportunities. This digital transformation is expected to enhance overall sector efficiency and facilitate growth in agri-business.

**Conclusion:** In the long term, these initiatives are expected to improve agricultural productivity, reduce rural poverty, enhance food security, and promote sustainable practices, aligning with India's broader economic and developmental goals.

