



भारतीय कृषि एवं खाद्य परिषद्  
INDIAN CHAMBER OF FOOD AND AGRICULTURE

# UNLOCKING HARYANA'S FARMING POTENTIAL

Understanding the Problems and Planning for a  
Better Agricultural Future



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**H**aryana, located in the northern region of India, is known as the "Bread Basket of India" due to its substantial contributions to the nation's food grain production. Established as a separate state in 1966, Haryana has since emerged as a leading agricultural powerhouse. Its geographical proximity to the National Capital Region provides advantageous access to major markets and infrastructure, further boosting its agricultural potential.

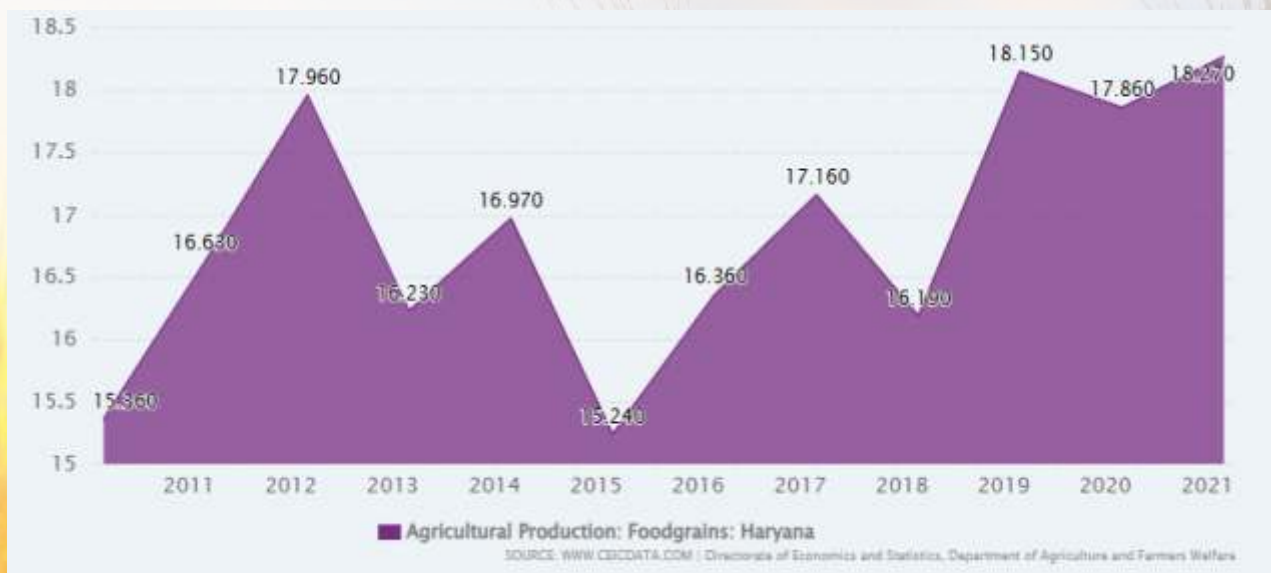
Agriculture in Haryana is characterized by a high cropping intensity, with rice-wheat, bajra-wheat, cotton-wheat, and sugarcane-wheat being some of the predominant cropping systems. The state's commitment to modern agricultural practices, including the adoption of new technologies and infrastructure development, has significantly increased agricultural productivity. Additionally, Haryana's success in dairy, poultry, fisheries, horticulture, and agro-forestry sectors has diversified its agricultural landscape. This progressive approach has made Haryana a key contributor to India's agricultural output and economic development.

## PERFORMANCE OF AGRICULTURE SECTOR IN HARYANA

The agricultural sector in Haryana has witnessed significant growth and transformation since India's independence, particularly with the implementation of various government policies and the Green Revolution. Over the years, the structure of Haryana's economy has shifted, resulting in a decreased contribution of the agriculture and allied sector to the state's GDP. However, it remains a crucial factor in the overall economic performance of the state.

The agriculture and allied sector in Haryana encompasses agriculture, forestry, logging, and fishing sub-sectors. Agriculture, which includes crop husbandry and dairy farming, dominates this sector, accounting for approximately 95% of its GDP contribution. Forestry and fishing sub-sectors make up around 4% and 1% of the GDP of agriculture and allied activities, respectively. While these sub-sectors play a role, their impact on the overall growth of the agricultural sector is relatively low.

Haryana's agricultural landscape is marked by about 71.72% of its cropped area dedicated to food grains, with the remaining 28.28% allocated to non-food grains. The state has emerged as a leading producer of white button mushrooms and ranks first in India for seasonal mushroom cultivation.



This growth in mushroom production can be attributed to the ample availability of wheat and paddy straw, easy access to quality spawn, and comprehensive training programs offered by universities and the government of Haryana.

In terms of agricultural output, Haryana consistently performs well compared to other Indian states. The state achieves above-average yields for key crops such as rice, wheat, maize, oilseeds, sugarcane, and cotton, surpassing both other large states and the national average. This productivity has contributed significantly to Haryana's status as a key agricultural contributor to India's food production.

## ❖ Area Under Principal Crops

The figure (Fig. 2) provide an overview of the area dedicated to principal crops in the state. In the 1966-67 period, the total gross area sown in the state stood at 45.99 lakh hectares. However, as of 2021-22, this figure had increased significantly to approximately 66.20 lakh hectares.

Wheat and Paddy crops played a substantial role in this expansion, contributing to 57.9% of the total gross area sown in 2021-22. Specifically, the area allocated to Wheat cultivation during this period was approximately 23.05 lakh hectares, while Paddy cultivation covered around 15.30 lakh hectares.

In contrast, the area under commercial crops, namely Sugarcane, Cotton, and Oilseeds, has exhibited varying trends over time.

In summary, there has been a notable increase in the overall agricultural land utilization in the state of Haryana over the years, with Wheat and Paddy crops making a significant contribution to this expansion. However, the cultivation of commercial crops has experienced fluctuations in terms of acreage.

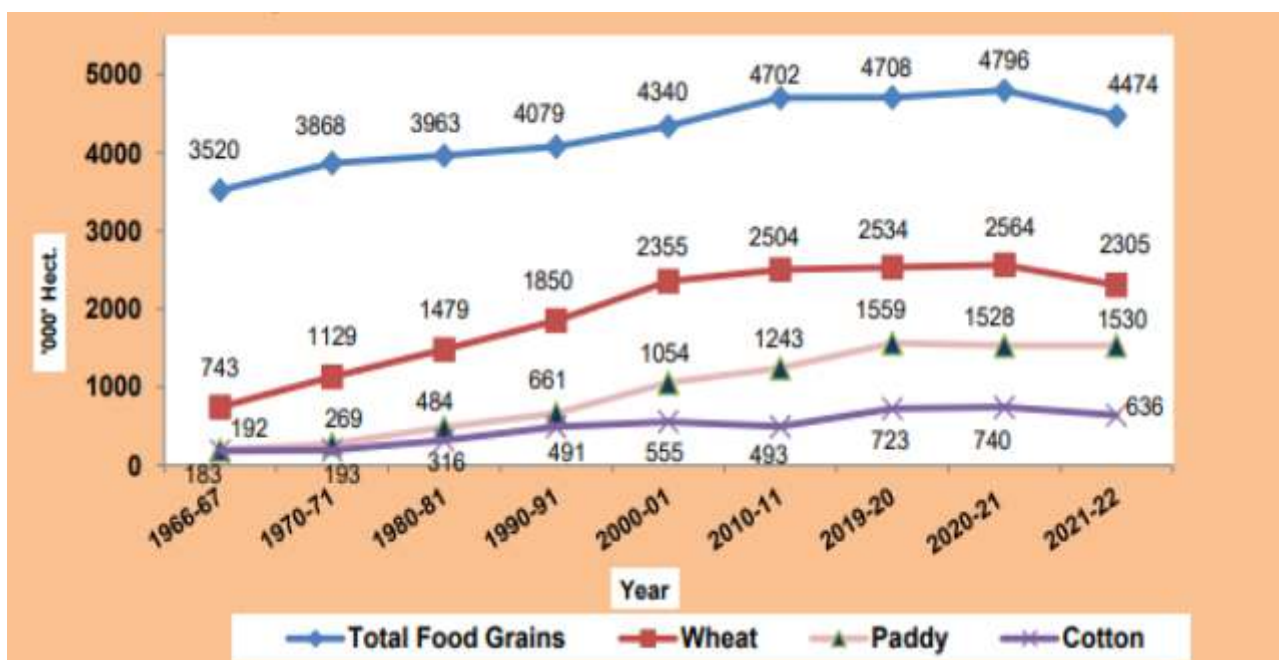


Fig. 2- Area under Principal Crops  
Source: Economic Survey of Haryana, 2022-23

## ❖ Production Of Principal Crops

The production statistics for principal crops in Haryana, as depicted in Figure 3, offer valuable insights. Notably, the state has achieved remarkable progress in food-grain production, with a substantial increase from 25.92 lakh tonnes in 1966-67 to an impressive 172.26 lakh tonnes during the year 2021-22. This represents more than a six-fold increase.

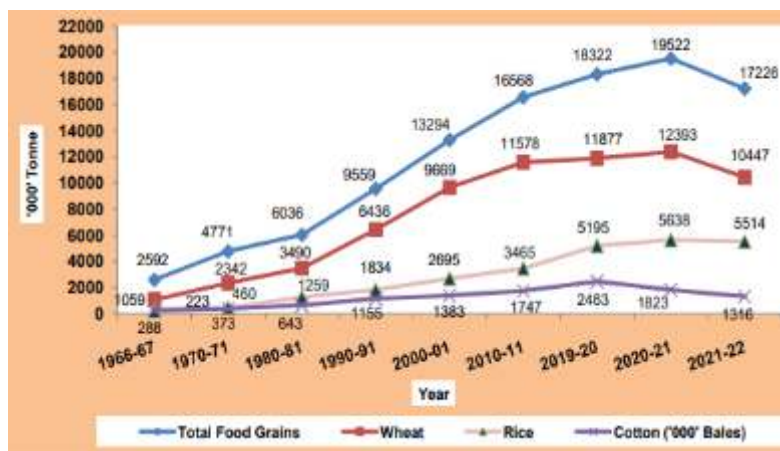


Fig. 3- Production of Principal Crops

Source: Economic Survey of Haryana, 2022-23

A significant part of this agricultural

production surge can be attributed to the cultivation of Wheat and Paddy crops. In 2021-22, Rice production reached 55.14 lakh tonnes, while Wheat production was an impressive 104.47 lakh tonnes. In addition, oilseeds and Sugarcane production in 2021-22 amounted to 17.20 lakh tonnes and 88.23 lakh tonnes, respectively. The Cotton production for the same year stood at 13.16 lakh bales. Haryana plays a pivotal role in contributing to the Central Pool of food grains, with more than 60% of Basmati Rice exports originating from the state.

These statistics underscore Haryana's significant contribution to the nation's food-grain production and its crucial role in the Basmati Rice export market.

## ❖ Production Of Principal Crops

In the agricultural year 2021-22, Haryana recorded an average yield of 4,533 kilograms per hectare for Wheat and 3,605 kilograms per hectare for Rice. Looking ahead to the year 2022-23, it is estimated that the average yield for Wheat will increase to 4,684 kilograms per hectare, while the average yield for Rice is projected to be 3,561 kilograms per hectare in the state.

(Kg./Hect.)

Year	Haryana		India	
	Wheat	Rice	Wheat	Rice
2000-01	4106	2557	2708	1901
2005-06	3844	3051	2619	2102
2010-11	4624	2788	2988	2339
2015-16	4406	3061	3034	2400
2016-17	4842	3214	3200	2494
2017-18	4847	3432	3368	2576
2018-19	4924	3118	3534	2638
2019-20	4687	3332	3440	2722
2020-21	4834	3691	3464*	2713*
2021-22	4533	3605	-	-

\*Provisional

Source:- Department of Agriculture and Farmers Welfare, Haryana.

Table: 1- Average Yield of Wheat and Rice in Haryana and at all India Level

## HORTICULTURE

Horticulture plays a pivotal role in ensuring nutrition security, and Haryana is rapidly emerging as a frontrunner in horticultural activities across India. The state boasts the cultivation of a diverse range of fruits, vegetables, spices, mushrooms, and flowers. Horticulture crops occupy a significant portion of the state's agricultural landscape, with approximately 80% dedicated to vegetables and the remaining portion to fruits and spices, among others.

The budget for Horticulture in the year 2022-23 stands at ₹82,441 lakh, reflecting a substantial increase from ₹46,950.75 lakh in the previous year (2021-22). This significant financial commitment underscores the government's dedication to promoting horticulture as a means of enhancing agricultural income.

Factors such as sustained economic growth, rising per capita income, and urbanization are reshaping consumption patterns, favoring high-value food commodities like fruits and vegetables. Recognizing this trend, crop diversification becomes imperative for Haryana's agriculture-based economy, particularly in elevating the income levels of small and marginal farmers.

Horticulture crops span an area of 4.13 lakh hectares, equivalent to 6.46% of the state's gross cropped area. During the agricultural year 2021-22, Haryana achieved a horticultural production of 67.07 lakh metric tonnes, emphasizing the growing significance of this sector.

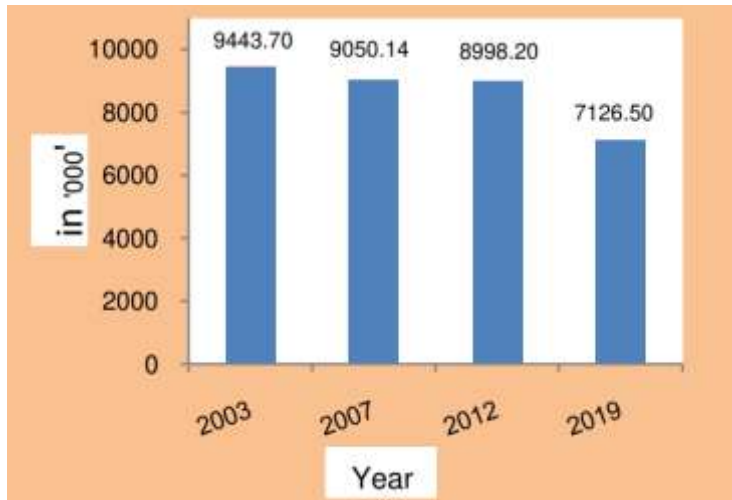
## ANIMAL HUSBANDRY AND DAIRYING

The Animal Husbandry and Dairying Department in Haryana plays a vital role in livestock welfare and dairy production. With a network of 2,857 veterinary institutions, the department offers free veterinary healthcare and animal breeding services, benefiting 71.26 lakh livestock in the state.

Haryana, despite having just 2.10% of India's bovine population, contributes significantly to the nation's milk production, providing 112.84 lakh tonnes of milk, which is over 5.37% of the total.

The state ranks third nationally in per capita daily milk availability, with 1,063 grams compared to the national average of 427 grams.

Efforts in artificial insemination have led to substantial livestock growth, with 11.49 lakh cows and 27.22 lakh buffaloes artificially inseminated in 2021-22. Similarly, deworming initiatives helped improve livestock production. In support of economically disadvantaged sections, the department provides 50 chicks of a low-input poultry breed for free, establishing hundreds of units.



**Fig. 4- Total Livestock Population as per Census**  
Source: Economic Survey of Haryana, 2022-23

The department encourages employment opportunities for Scheduled Caste youth by subsidizing the establishment of dairy units. The department also focuses on livestock identification, short-term training programs for aspiring farmers, and infrastructure development, including labs and mobile veterinary units.

Free prophylactic vaccination for various diseases benefits millions of livestock, while efforts to rehabilitate stray cattle reduce crop damage. Various schemes support animal welfare and entrepreneurship, including the Mukhyamantri Antyodaya Parivar Utthan Yojana.

In conclusion, the Animal Husbandry and Dairying Department in Haryana plays a multifaceted role in promoting livestock welfare and dairy excellence while supporting livelihoods and economic growth in the state.

## GOVERNMENT INITIATIVES AND SCHEMES FOR AGRICULTURAL DEVELOPMENT

### 1. Mera Pani Meri Virasat (MPMV)

**Objective:** To diversify water-intensive Paddy crop into less water-consuming crops.

**Implementation:** Launched during Kharif 2020 and strengthened in Kharif 2021, this initiative offers a financial incentive of ₹7,000 per acre to farmers who replace Paddy with alternative crops, including Maize, Cotton, Bajra, Pulses, Vegetables, Fruits, Kharif Oilseeds, Kharif Onion, Kharif Pulses, and even fallow land.

**Achievements:** Approximately 25,600 and 20,752 hectares were diversified from Paddy in 2020 and 2021, respectively, with the government providing ₹45 crore and ₹31 crore in incentives during these years. In Kharif 2022, AgroForestry (Poplar and Eucalyptus) was included in the scheme, targeting 40,000 hectares.

### 2. Scheme for Promotion of Pulses and Oilseeds Crops

**Objective:** To promote Pulses (Moong, Arhar, and Urad) and Oilseeds (Castor, Groundnut, and Til) in place of Bajra.

**Implementation:** Farmers receive ₹4,000 per acre as an incentive for planting pulses and oilseeds after verification.

**Achievements:** In Kharif 2021, 21,951 farmers registered, and ₹13.82 crore was distributed as incentives. In Kharif 2022, 6,346 acres were verified under this scheme, with an incentive of ₹4,000 per acre.

### 3. Pradhan Mantri Fasal Bima Yojana (PMFBY)

**Objective:** To provide crop insurance to farmers against various risks.

**Implementation:** Premiums range from 1.50% for Rabi to 5% for Cotton crops. Risks covered include Inundation, Hailstorm, Flood, drought, and more.

### 4. Soil Health Management

**Objective:** To promote soil test-based nutrient management.

**Implementation:** Soil Health Cards (SHCs) are issued to farmers every two years. Pilot projects collect soil samples, and around 29.10 lakh soil samples have been collected so far.

## **5. Rashtriya Krishi Vikas Yojana (RKVY)**

Objective: To make farming a remunerative economic activity and promote agri-business entrepreneurship.

Implementation: ₹200 crore allocated for RKVY General and ₹30 crore for RKVY SCSP in 2022-23.

## **6. National Food Security Mission (NFSM) Scheme**

Objective: To increase wheat and pulses production in identified districts.

Implementation: Seven districts are covered under NFSM-Wheat, and all districts are covered under NFSM-Pulses. Additional schemes like NFSM-NUTRI Cereals and OS & OP have been added.

## **7. Reclamation of Waterlogged & Saline Soils**

Objective: To reclaim waterlogged and saline land.

Implementation: Farmers express interest in reclaiming land, and reclamation is done through Sub-Surface & Vertical Drainage technology.

## **8. Scheme of PM-KISAN**

Objective: To provide financial assistance of ₹6,000 per year to farmers.

Implementation: ₹2,000 per installment is given to eligible farmers.

## **9. Meri Fasal Mera Byora (MFMB)**

Objective: To facilitate the sale of crops on MSP and access government schemes.

Implementation: Farmers register to sell their crops on MSP and avail other benefits.

## **10. Crop Residue Management (CRM)**

Objective: To provide subsidy for crop residue management machines and raise awareness.

Implementation: Machines are subsidized at 50% for individuals and 80% for Custom Hiring Centres.

## **11. Direct Seeded Rice (DSR)**

Objective: To promote water and soil resource conservation through DSR.

Implementation: ₹4,000 per acre is provided as an incentive to farmers who adopt DSR.

## **12. Natural Farming**

Objective: To promote chemical-free agriculture and double farmers' income.

Implementation: Launched in 2022, this scheme aims to reduce cultivation costs and make farming sustainable.

## **13. Promotion of Cotton Cultivation**

Objective: To increase cotton area, production, and productivity.

Implementation: The scheme covers all cotton-growing districts with an approved budget of ₹5,000 lakh in 2022-23.

## **14. Technology Mission on Sugarcane (TMS)**

Objective: To increase sugarcane productivity and income of sugarcane growers.

Implementation: Focus on improving technology, mechanization, and subsidies to sugar mills for timely payments to farmers.

## **EMPOWERING FARMERS THROUGH FPOS IN HARYANA: A PATH TO PROSPERITY**

Haryana Chief Minister Manohar Lal Khattar has championed a transformative initiative aimed at enhancing the economic well-being of farmers in the state. Through continuous efforts, the government is working diligently to strengthen the economic condition of farmers, encouraging their participation in trade and markets to boost income levels. The cornerstone of this initiative is the collaboration between Agriculture Sector Investors and Farmer Producer Organizations (FPOs). As of now, Haryana boasts 599 active Farmer Producer Organizations, collectively linking over 77,985 farmers. These FPOs have emerged as powerful vehicles for collective action, serving as platforms for farmers to pool their resources and expertise.

In a significant milestone, a Memorandum of Understanding (MoU) signing ceremony was held between Agriculture Sector Investors and FPOs. Under this program, 29 MoUs were established, ushering in direct benefits through FPOs. These MoUs signify a golden opportunity for farmers to improve their livelihoods and enhance agricultural productivity.

Through market linkages with modern retailers and processing industries, FPOs have experienced a significant increase in their income. These linkages allow farmers to bypass traditional mandis and sell their products directly to companies, ensuring better prices and profitability.

Haryana's commitment to strengthening FPOs and empowering farmers is evident through its multifaceted initiatives. By fostering collective action, addressing value chain gaps, and promoting direct market linkages, the state is poised to significantly improve the livelihoods of its farming community. Through education, employment generation, and visionary leadership, Haryana is paving the way for a brighter future for its farmers.



## CHALLENGES IN HARYANA'S AGRICULTURE SECTOR

Haryana, a pioneer in the green revolution, has achieved significant advancements in food production. Initially, the primary objectives of agriculture in the state were to increase food production and improve the livelihoods of farmers. However, modern agriculture in Haryana has become a dynamic, technology-driven industry, bringing both success and challenges for the next generation.

### Natural Resource Management

- ❖ **Soil Resources** : Haryana faces issues related to soil degradation under various production systems. These problems include soil compaction, salinity, sodicity, waterlogging, and pesticide residue. Additionally, there are concerns about nutrient deficiencies, low organic carbon content, and declining overall soil productivity. The conversion of agricultural land for non-agricultural purposes is also becoming a significant concern.
- ❖ **Water Resources** : Agriculture traditionally consumes a substantial portion, approximately 80%, of the state's water resources. However, only about 60% of Haryana has access to good-quality water for assured irrigation. With increasing demands for freshwater in domestic and industrial sectors, the availability of irrigation water is expected to decrease further. The presence of brackish groundwater, accounting for about 65% of the total supply, and the contamination of canal systems by untreated industrial effluents and sewage water further stress freshwater supplies.
- ❖ **Climate Change** : Agriculture and animal systems in Haryana are increasingly affected by climate change, compounding existing challenges. Unpredictable climate patterns are exerting more stress on crops, leading to increased resource consumption and a higher risk of insect resistance and recurring issues.

### Crop Improvement

- ❖ **Stagnant Productivity**: While the adoption of High-Yielding Varieties (HYV) and hybrid crops, along with advancements in production and protection technologies, has yielded significant results, some crop yields are plateauing or declining.
- ❖ **Pest Management** : Emerging problems like yellow rust in wheat have become major concerns for farmers in Haryana. Additionally, managing weeds in crops, especially under Direct Seeding of Rice (DSR) and Conservation Agriculture (CA) technologies, has become a significant challenge.
- ❖ **Low Productivity in Horticulture** : Horticulture crops in Haryana often exhibit lower per-unit production compared to other states, posing a challenge to meet the rising demand driven by urbanization, changing dietary preferences, and the emphasis on nutritional security, value addition, and exports.

## CHALLENGES IN HARYANA'S AGRICULTURE SECTOR



In conclusion, the past decade has witnessed notable improvements in the growth rate of principal crops in Haryana compared to previous decades. Wheat, rice, and total food grain production have displayed an upward trajectory, reflecting enhanced agricultural practices and land utilization. However, there remains volatility in the production of oilseeds and sugarcane, along with fluctuating trends in the area and yield of these crops.

Agriculture plays a pivotal role in driving economic growth, and its sustained improvement is imperative for balanced economic development. Haryana's progress in agriculture has been underpinned by technological advancements and scientific interventions, particularly after the green revolution. Crop diversification, wheat production, and quality seed utilization have bolstered the agriculture sector. The continued expansion of agriculture not only caters to the financial requirements of other industries, transportation, and international trade but also underscores the need for balanced development across sectors.

### KEY POLICY IMPLICATIONS

- ❖ **Enhancing Agricultural Inputs:** Promoting the increased use of agricultural inputs, technological advancements, and technical efficiency are vital drivers of agricultural expansion. The structural transformation of agricultural and rural economies should be prioritized.
- ❖ **Intensive Land Use:** Given limited opportunities for expanding the net sown area, intensifying land use through infrastructure development, especially in irrigation, can boost cropped area and agricultural productivity.

- ❖ **Agricultural Growth and Economic Development:** The pace of economic growth is closely linked to the progress of agriculture. Consequently, policies should focus on fostering agricultural development, which, in turn, contributes to a conducive environment for overall economic growth.
- ❖ **Crop Selection and Water Efficiency:** Prioritizing crops suitable for various agro-climatic zones, with lower water requirements, is essential. This aids in efficient resource utilization and sustainability.
- ❖ **Sustainable Practices:** Encouraging the use of alternative fertilizers such as green manure, farmyard manure, and biofertilizers can reduce reliance on chemical fertilizers, promoting sustainable agriculture.
- ❖ **Improved Irrigation and Land Productivity:** Implementing better irrigation strategies, erosion control programs, and adopting modern crop varieties and fertilizers can significantly enhance land productivity.
- ❖ **Sector-Specific Research:** Analyzing sector growth is pivotal for assessing the overall state economy's performance. This necessitates broader research on various crops and commodities, behavioral analysis, and up-to-date data sources.
- ❖ **Timely Data and Adaptability:** In today's rapidly evolving economy, the timeliness of data and the ability to adapt to new trends are critical for informed decision-making and policy formulation.



## ABOUT ICFA

The Indian Chamber of Food and Agriculture is the apex body in India, working on business, policy, and development agendas and serving as a global platform for trade facilitation, partnerships, technology, and agribusiness services. A proactive approach helps ICFA discern critical challenges emerging in Indian agriculture and create opportunities for development, value addition, and international trade to accelerate growth in the food and agriculture sectors globally. ICFA, with more than 25 industry Working Groups and sector-specific Business Councils, represents the interests of key stakeholders at the national level and, through its international platforms and partnerships, facilitates India's global engagement in the food and agriculture sectors.

For enhanced sustainability, food safety, and quality standards, ICFA has taken up the Agriculture Stewardship Program by launching the Healthy Food Initiative program and the Good Agriculture Practices (GAP) project. In a short period of more than seven years, the Chamber has signed MoUs with the ICAR, APEDA, NRDC, RAKEZ Group, ASYAD Group, University of California, University of Maryland, Michigan State University, Iowa State University, Western Australia University, German Agribusiness Alliance, Borlaug Institute for South Asia, African Asian Rural Development Organization, NASSCOM, Sociedad Rural Argentina (SRA), FAMATO, CCI Pau Béarn, IFPRI, etc. Through international partnerships, ICFA envisions mobilizing technologies and investments that will catalyze agribusiness and agri-startups.

## ICFA PARTNERS



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