



From Harvest to Home

Building Resilient Infrastructure for Storage of Food Grains

28th September, 2025

Key Takeaways

- India achieved record foodgrain production of **353.96 million tonnes in 2024-25 (As per third advance estimates)**.
- **Food Corporation of India (FCI) and State agencies hold 917.83 LMT Covered and CAP Storage Capacity** for central pool grains.
- **8,815 cold storages** with 40.21 million MT capacity preserve perishables nationwide.
- **Primary Agricultural Credit Societies (PACS) decentralised storage** is expanding, with **5,937 new PACS registered and 73,492 computerized** by June 2025.
- Government schemes like **Agriculture Infrastructure Fund (AIF), Agricultural Marketing Infrastructure (AMI), Pradhan Mantri Kisan SAMPADA Yojana (PMKSY), and World's Largest Grain Storage Plan** are strengthening storage, processing, and farmer income security.

Introduction

India's agricultural sector, one of the largest in the world, is the backbone of its economy, serving as a cornerstone for ensuring food security, employment generation, and economic growth. **Food grains**, forming the foundation of human diet, primarily include **cereals** such as **rice, wheat, millets** such as **maize, jowar, and bajra**, and **pulses** such as **arhar, moong, urad, chana, and masoor**. Rich in **carbohydrates, proteins, and essential nutrients**, these food grains are central to ensuring food security and nutrition in India.

According to the **Third Advance Estimates for 2024-25**, India has achieved record **foodgrain production of 353.96 million tonnes**, including **117.51 million tonnes of wheat** and **149.07 million tonnes of rice**.

We produce record harvests year after year. **Modern storage infrastructure ensures that our agricultural produce, i.e., food grains and perishables are preserved safely, minimizing post-harvest losses and stabilizing prices.** By reducing wastage and extending the shelf life of produce, storage plays a pivotal role in linking farms to markets and empowering farmers to realize better returns. At the same time, it strengthens the foundation of the food processing industry. For a growing nation like India, with rising demand for both raw and processed food, efficient storage is central to maintaining year-round availability of essential commodities. **It helps secure buffer stocks, supports the Public Distribution System (PDS), and ensures that every grain harvested contributes to national nutrition and economic growth.** In this way, robust storage infrastructure becomes a cornerstone of both agricultural prosperity and food security.



The Importance of Food Grain Storage

Effective storage infrastructure is vital for managing India's food supply chain, reducing wastage, and ensuring both farmer and consumer welfare.

Key Objectives of Storage:

- **Reducing Post-Harvest Losses:** Proper storage, including cold storage and modern warehouses, significantly reduces the wastage of agricultural produce.
- **Ensuring Food Security:** Maintaining a buffer stock of food grains is essential for national food security and for distribution under programmes like the National Food Security Act (NFSA).
- **Preventing Distress Sales:** Access to storage facilities allows farmers to hold their produce and sell it at an optimal time, avoiding distress sales and helping them realise better prices.
- **Price Stabilisation:** Maintaining strategic buffer stocks helps protect consumers from extreme price volatility in essential commodities.
- **Maintaining Quality:** Scientific storage ensures that food grains remain fit for human consumption by controlling factors like moisture and pests.

Food Grain Storage Systems in India

There are various methods of storing foodgrains, and some of the key ones include:

- **Centralized storage**, handled mainly by agencies like the **Food Corporation of India (FCI)**.
- **Cold storage**, which caters to perishable items such as fruits, vegetables, dairy products, and meat.
- **Decentralized storage**, carried out through rural godowns, Primary Agricultural Credit Societies (PACS), and on-farm storage by farmers.

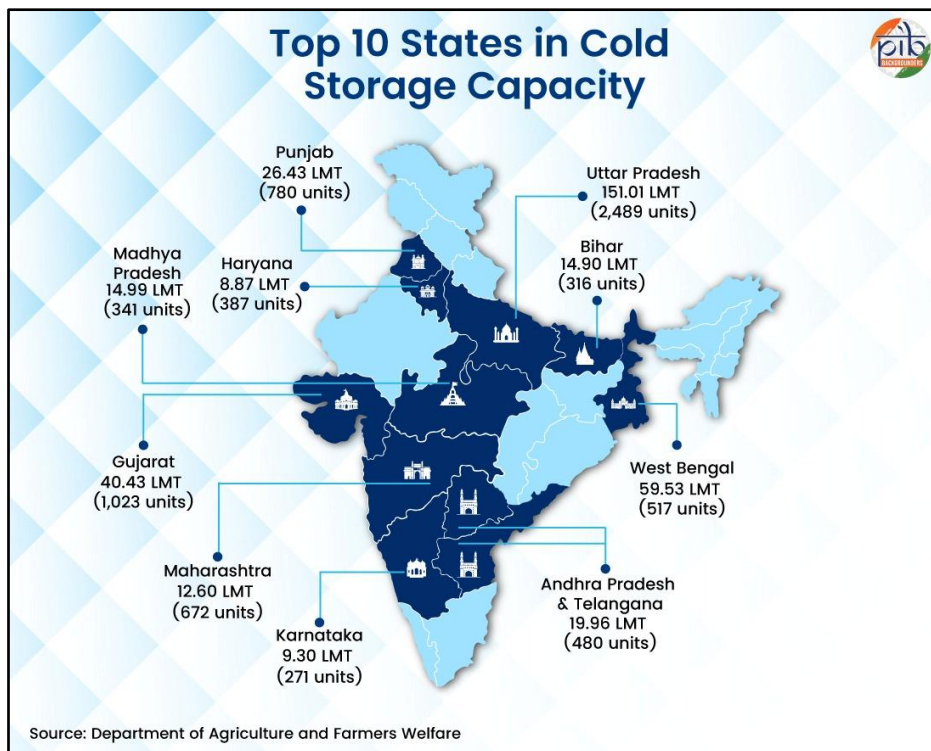
A. Centralized Storage of Food Grains

Food Corporation of India (FCI) is the primary agency responsible for **centralized storage** of food grains in India. Under the centralized procurement system, the procurement of food grains in Central Pool is undertaken either by FCI directly or by State Govt. Agencies (SGA). Quantity procured by SGAs is handed over to FCI for storage and the cost of the food grains procured by State agencies is reimbursed by FCI. The FCI manages this stock, storing it and subsequently issuing it for distribution through the Public Distribution System (PDS) or moving surplus stocks to other states as needed.

FCI procures wheat, rice, and other grains at **Minimum Support Price (MSP)** to safeguard farmers' incomes and maintain adequate buffer stocks. These stocks are stored in scientifically managed warehouses and modern steel silos, ensuring quality and safety. FCI's reserves form the backbone of the **Public Distribution System (PDS)**, helping to stabilize prices and guarantee nationwide food security throughout the year.

As of **July 1, 2025**, the **Total Covered and CAP Storage Capacity** available with FCI and State agencies for the storage of Central Pool foodgrains stood at **917.83 Lakh Metric Tonnes (LMT)**.

Covered storage capacity refers to the total quantity of foodgrains that can be stored in **fully roofed and walled structures, such as godowns, warehouses, or silos**. Foodgrains in '**Cover and Plinth**' (**CAP**) storage are stored on **elevated plinths** and **wooden crates** are used as dunnage material.



C. Decentralised Storage and the Role of PACS

Introduced in 1997-98, this scheme allows state governments to directly procure, store, and distribute food grains themselves under the National Food Security Act (NFSA) and other welfare schemes. This encourages local procurement, saves on transit costs, and helps in distributing grains suited to local tastes. The central government funds the entire expenditure incurred by the states on these operations.

Decentralised Storage is carried out primarily through **Primary Agricultural Credit Societies (PACS)**. PACS are the grass root level arms of the short-term co-operative credit structure. PACS deals directly with the rural (agricultural) borrowers, give those loans and collect repayments of loans given and also undertake distribution and marketing functions.

PACS play a crucial role in this system. By creating **village-level storage capacities ranging from 500 MT to 2000 MT**, PACS allow farmers to store grains close to home, minimizing losses and helping them secure better prices. Functioning as both **procurement centres and Fair Price Shops (FPS)**, PACS reduce transportation costs by eliminating the need to move grains from distant warehouses to FPS, ensuring greater efficiency and saving.

To further improve PACS functioning, the government has approved a project to **computerize operational PACS** with a financial outlay of **Rs. 2,516 crores**, enhancing **transparency, record-keeping, and efficiency**. As of June 30, 2025, **73,492 PACS** have been computerized. A total of **5,937 new PACS** have been registered across the country, further expanding their reach and capacity to support farmers at the village level.

Schemes for Strengthening Storage of Foodgrains

A. Agriculture Infrastructure Fund (AIF)

AIF was launched in 2020 to strengthen agricultural infrastructure across India. It is a **medium-long term debt financing facility** through interest subvention and credit guarantee support on loans for investment in viable projects for **post-harvest management infrastructure** and viable **farming assets**. The scheme focuses on the creation of farm-gate storage and logistics facilities to help farmers store their produce effectively and sell it at better prices by minimizing post-harvest losses and reducing dependence on intermediaries. **Infrastructure** such as warehouses, cold

storage, sorting and grading units, and ripening chambers enhances farmers' ability to **access wider markets** and **improve value realization**, thereby **boosting their income**.

As on September 2025, **Rs. 73,155 crores** have been **sanctioned** for **1.27 lakh projects** under AIF, including thousands of warehouses and cold stores. Project cost of these sanctioned projects is **Rs. 1.17 lakh crore**.

B. Agricultural Marketing Infrastructure (AMI)

AMI scheme is a key component of the Integrated Scheme for Agricultural Marketing (ISAM). The objective of this scheme is to **strengthen agricultural marketing infrastructure** across rural India by providing financial assistance for the construction and renovation of godowns and warehouses.

AMI: State-wise Progress of Storage Infrastructure (As on 30.06.2025)				
	State	No. of Projects Sanctioned	Capacity Sanctioned (MT)	Subsidy Released (Rs. in lakh)
1	Madhya Pradesh	29,161,316	8,496	1,74,538.11
2	Maharashtra	9,570,046	4,499	35,400.19
3	Haryana	7,995,121	2,386	45,127.85
4	Punjab	7,144,351	1,839	25,354.88
5	Telangana	6,325,582	1,403	32,042.46
6	Gujarat	6,251,786	12,478	35,640.41
7	Andhra Pradesh	6,151,150	1,551	31,936.74
8	Uttar Pradesh	6,110,222	1,311	20,417.06
9	Karnataka	4,523,571	5,113	21,887.47
10	Rajasthan	3,952,114	1,931	15,142.22

Source: Department of Food and Public Distribution

As of June 30, 2025, a total of **49,796 storage infrastructure projects** has been **sanctioned** across **27 states** in India. These projects collectively contribute to a **storage capacity** of **982.94 lakh MT** and to support these initiatives, a total **subsidy** of **Rs 4,829.37 crore** has been disbursed.

D. Pradhan Mantri Kisan SAMPADA Yojana (PMKSY)

It is a comprehensive scheme designed to **build modern infrastructure** for the **food processing sector**, creating a smooth and efficient supply chain from the farm gate to retail. It helps farmers get better prices for their produce, reduces wastage, and supports the goal of doubling farmers' income especially in rural areas, increases food processing levels, and boosts exports of processed food products. Its component scheme, the **Integrated Cold Chain and Value Addition Infrastructure**, supports the creation of cold chains to reduce post-harvest losses of horticultural and non-horticultural produce.

Since its launch, a total of **1,601 projects** has been approved under various components of the **Pradhan Mantri Kisan Sampada Yojana (PMKSY)** as of **June 2025**. Of these, **1,133 projects** are **now operational or completed**, creating a **processing and preservation capacity** of **255.66 lakh metric tonnes (MT) per year**.

E. Capital Investment Subsidy Scheme for Cold Storages and Horticulture Products

This scheme aims to promote scientific storage infrastructure and reduce post-harvest losses of perishable produce. Under the scheme, a **credit-linked back-ended subsidy** is provided at the rate of **35% of the project cost in general areas** and **50% in North-Eastern, hilly, and scheduled areas** for construction, expansion, or modernization of cold storages and Controlled Atmosphere (CA) storages with capacities between 5,000 MT and 20,000 MT. This initiative helps farmers and entrepreneurs improve storage, enhance shelf life, secure better prices, and strengthen the horticulture value chain.

F. World Largest Grain Storage Plan in Cooperative Sector Schemes for Augmentation of Storage Capacity

The government, in **May 2023**, approved the **World's Largest Grain Storage Plan in Cooperative Sector**, aligned with the vision of **"Atmanirbhar Bharat"**. The scheme involves the **creation of agri infrastructure** at PACS level, including godowns, custom hiring center, processing units, and fair price shops through convergence of various existing schemes of the government, such as, Agriculture Infrastructure Fund (AIF), Agricultural Marketing Infrastructure Scheme (AMI), Sub Mission on Agricultural Mechanization (SMAM) Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme (PMFME), etc. The key objectives and outcomes of this integration include:

- Promoting decentralized storage and reducing reliance on centralized procurement.
- Ensuring year-round utilization of PACS godowns through assured hiring.
- Improving the financial viability of PACS and enabling them to evolve as self-sustaining rural institutions.
- Strengthening last-mile delivery of foodgrains and reducing post-harvest losses.

Under the **Pilot Project** of this Plan, as on Aug 2025, construction of **godowns** has been **completed** in **11 Primary Agricultural Credit Societies (PACS)** across **11 states**. Additionally, more than **500 PACS** have been identified for **new godown construction**. This expansion aims to increase operational capacity and income of PACS, transforming them into multi-service centres.

G. Schemes for Augmentation of Storage Capacity

Construction of Steel Silos for Modernized Storage: The initiative aims to ensure scientific storage, reduce post-harvest losses, and strengthen food security by promoting the use of steel silos with bulk handling. This highly automated and modern method stores grains in bulk under a monitored atmosphere, using mechanized systems for loading and unloading. Such controlled conditions not only improve the preservation of food grains but also significantly extend their shelf life, making storage more efficient and reliable. **Construction of Silos in Public-Private Partnership Mode:** As of **June 30, 2025**, silos at **48 locations with a capacity of 27.75 LMT** have been completed and put to use. Silos at **87 locations with a capacity of 36.875 LMT** are under construction. While tenders for **25.125 LMT** silos at **54 locations** are under process.

Asset Monetization: Under the initiative, new godowns will be constructed on vacant land owned by the FCI to create additional storage capacity and make productive use of underutilized assets. **177 locations** have been identified as of July 2025, upon which **17.47 LMT** can be constructed.

Central Sector Scheme "Storage & Godowns" (Focus on NE): The Government implements this scheme to augment storage capacity in the North Eastern States, and also in Himachal Pradesh, Jharkhand, and Kerala. Being implemented till 2025, with a financial outlay of **Rs. 379.50 crore** was earmarked for the North Eastern States and **Rs. 104.58 crore** for other states. **As of now, Rs. 379.50 crore has been released under the North East Region and Rs. 104.58 crore** under the **Other than North East Regions**.

Private Entrepreneurs Guarantee (PEG) scheme: Introduced in **2008**, the scheme was designed to overcome storage constraints and ensure the safe stocking of foodgrains. Implemented in the PPP mode, the scheme provides a

government guarantee for hiring storage capacity for a specified period, thereby encouraging private investment in scientific warehousing and strengthening the nation's food security infrastructure.

Conclusion

Agriculture remains the lifeline of India, feeding millions while sustaining livelihoods and driving economic growth. While record foodgrain production reflects India's agricultural strength, efficient storage and distribution ensure that every grain reaches the consumer. The production and storage of food grains are crucial for national food security. With a growing population and changing climate, maintaining sufficient stocks, improving storage infrastructure, and reducing post-harvest losses are essential to ensure year-round availability and price stability. Thus, food grains are more than just crops - they are the backbone of agricultural growth, rural income, and global food systems.

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