

Demand for Grants 2025-26 Analysis

Agriculture and Farmers Welfare

The Ministry of Agriculture and Farmers' Welfare has two departments: (i) Department of Agriculture and Farmers' Welfare, which implements policies related to farmer welfare and manages agricultural inputs, and (ii) Department of Agricultural Research and Education, which coordinates and promotes agricultural research and education.

This note examines the proposed budget allocation to the Ministry of Agriculture and Farmers' Welfare and discusses some key issues in the agriculture sector.

Overview of Finances

Allocation in 2025-26

In 2025-26, Rs 1,37,757 crore has been allocated to the Ministry (2.7% of the union budget).^{1,2} The allocation towards the Ministry is estimated to decrease by 2.5% over the revised estimates of 2024-25. According to the revised estimates of 2024-25, the expenditure of the Ministry has increased by 6.8% over the budget estimate.

Table 1: Allocation towards the Ministry of Agriculture and Farmers' Welfare (in Rs crore)

	2023-24	2024-25	2025-26	% change RE 2024-25 to BE 2025-26
	Actuals	RE	BE	
Agriculture and Farmers' Welfare	1,08,356	1,31,195	1,27,290	-3.0%
Agricultural Research and Education	9,791	10,156	10,466	3.1%
Total	1,18,147	1,41,352	1,37,757	-2.5%

Note: BE- Budget Estimates; RE- Revised Estimates.

Sources: Expenditure Budget, Ministry of Agriculture and Farmers Welfare, Union Budget 2025-26; PRS.

Key Expenditure Heads

Out of the total allocation to the Ministry, 92% is estimated to be spent by the Department of Agriculture and Farmers' Welfare while the remaining is estimated to be spent by the Department of Agricultural Research and Education.

The Department of Agriculture and Farmers' Welfare spends 77% of its budget on three major schemes: (i) PM-Kisan Samman Nidhi (direct cash transfer of Rs 6,000 per year per farmer family), (ii) Modified Interest Subvention Scheme, and (iii) Crop Insurance Scheme (see Table 2).

Table 2: Allocation towards key schemes under the Ministry (in Rs crore)

Scheme	2023-24 Actuals	2024-25 RE	2025-26 BE	% change RE 2024- 25 to BE 2025-26
PM-KISAN	61,441	63,500	63,500	0%
MISS	14,252	22,600	22,600	0%
Crop Insurance Scheme	12,949	15,864	12,242	-23%
RKVY	5,693	6,000	8,500	42%
Krishionnati Yojana	5,736	7,106	8,000	13%
PM - AASHA	2,200	6,438	6,941	8%
Others	6,039	9,687	5,507	-43%
Total	1,08,356	1,31,195	1,27,290	

Note: MISS is Modified Interest Subvention Scheme, RKVY is Rashtriya Krishi Vikas Yojana, and PM AASHA is PM Annadata Aay Sanrakshan Abhiyan

Sources: Expenditure Budget, Ministry of Agriculture and Farmers Welfare, Union Budget 2025-26; PRS.

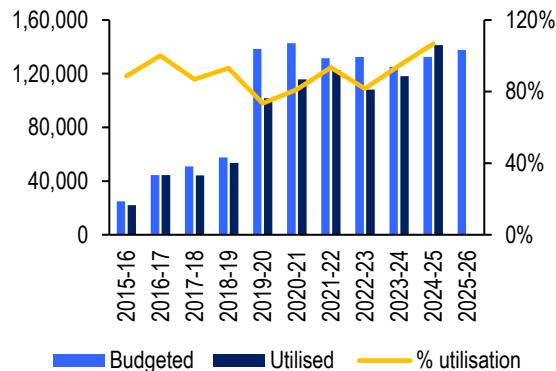
Key Announcements in Budget Speech 2025-26³

- **PM Dhan Dhaanya Krishi Yojana:** The scheme will be launched in partnership with states and estimates to cover 1.7 crore farmers. The scheme will target 100 districts with low productivity, moderate crop intensity, and below average credit access.
- **National Mission on High Yielding Seeds:** The mission will focus on: (i) ensuring commercial availability of more than 100 seed varieties, (ii) development and propagation of climate and pest resilient high yielding seeds, and (iii) strengthening research on high yielding seed varieties. Rs 100 crore has been allocated for 2025-26 under the mission.
- **Enhanced credit limit under Kisan Credit Card:** Loan limit under the Modified Interest Subvention Scheme will be increased from three lakh rupees to five lakh rupees.
- **Focus on Horticulture:** A comprehensive programme for the promotion of production, efficient supply, processing, and remunerative prices for fruits and vegetables will be launched. The programme has been allocated Rs 500 crore for 2025-26. It will target formation and participation of Farmer Producer Organisations and Cooperatives across states.
- **Self-sufficiency in pulses:** A new Mission for Aatmanirbharata in Pulses will be launched for a period of six years. The Mission will aim at achieving self-sufficiency in pulses production through procurement of Tur, Urad, and Masoor. An allocation of Rs 1,000 crore has been made for this scheme for 2025-26.
- A new urea plant will be established in Assam with an annual capacity of 12.7 lakh tonne.

Fund Utilisation

Since 2015-16, the Ministry has utilised 90% of its allocated budget on an average (see Figure 1). The allocation towards the Ministry since 2019-20 is higher than the previous years due to the introduction of PM-KISAN scheme. Utilisation in 2024-25 is higher than budgeted due to additional spending under the PM Fasal Bima Yojana and PM-KISAN.

Figure 1: Allocation and utilisation of funds (in Rs crore)



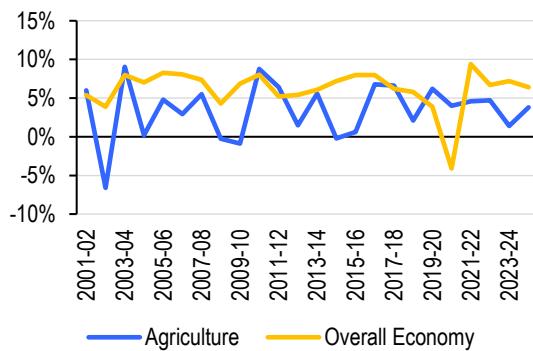
Note: Revised Estimates have been used as Actuals for 2024-25.
Sources: Budget Documents for various years; PRS.

Issues for Consideration

Growth in agriculture is volatile

In 2023-24, the agriculture sector employed 46% of the labour force at the all-India level while contributing 16% to the total value added.^{4,5} As the sector depends on climate conditions including annual monsoon rains, growth in the sector has been volatile since 2011-12. In 2024-25, agriculture sector is projected to witness a growth of 3.8%, which is higher than growth rate for the 2023-24 (1.4%).⁶

Figure 2: Growth in Agriculture and Allied Sector output vs overall economic growth (in %)



Note: First Advanced Estimates are used for 2024-25; Agriculture includes agriculture, forestry and fishing
Sources: Statistical Appendix, Economic Survey, MoSPI; PRS.

However, agriculture has consistently grown slower than overall economy. Since 2001-02, agricultural output has grown at an average annual rate of 3%, while rest of the economy has grown at

7% per annum.^{7,8} This resulted in agricultural output doubling over this period while the remaining part of the economy grew 4.6 times.

The agriculture and allied sector consists of 4 sub-sectors: (i) crops, (ii) livestock, (iii) forestry and logging, and (iv) fishing and aquaculture. Between 2011-12 and 2022-23, the allied sub-sectors grew at an annual average rate of 6.5%.⁹ In comparison, the crops sub-sector has only grown at an average rate of 2.1% in the same period.

The Economic Survey (2023-24) also noted that several issues affect the growth in the agriculture sector. These include: (i) fragmented land holdings, (ii) low productivity of agriculture, (iii) insufficient access to quality inputs, (iv) inadequate access to marketing infrastructure, (v) dependency on rainfed agriculture and poor irrigation infrastructure, (vi) lack of farm mechanisation, and (vii) poor access to farm investment mechanism.¹⁰

Agricultural productivity has been low

The Economic Survey for the year 2015-16 identified low productivity as a key challenge with Indian agriculture, evident in modest yields (crop output per unit area of land cultivated).¹¹

According to the Food and Agriculture Organisation (FAO), India ranks among the top countries in terms of acreage under cultivation of cereals, rice, and pulses (see Table 15 in Annexure for state-wise comparison of yields).¹² However, average yields for major crops in India is still low (see Table 3).

Table 3: International productivity comparison of major crops in 2022-23 (in kg/hectare)

Crop	India	World's highest	World Average
Paddy	4,229	7,080	4,705
Wheat	3,537	8,590	-
Maize	3,387	10,880	5,718
Sugarcane	78,600	94,400	70,600

Sources: Commission for Agricultural Costs and Prices; PRS.

Some of the primary reasons for yield gaps include: (i) comparatively short growing season, (ii) varied agro-climatic conditions, (iii) weather extremities, and (iv) limited use of modern technologies.¹³

To improve the output yield, the Committee on Doubling Farmers' Income (2016, Chair: Dr Ashok Dalwai) had recommended measures. Some of the recommendations made by the Committee included: (i) improving resource use efficiency, (ii) aiming for higher farm incomes while achieving food and nutrition security, (iii) reducing cropped area under staple crops and diversifying into higher value commodities, and (iv) changing the crop geometry (arrangement of plants in a field).¹⁴

The Committee (2016) noted that there is immense yield potential in the country which needs to be assessed to minimise yield gaps.¹⁵

Low farm incomes

Low agricultural yields translate into low and insecure incomes for farmers and large tracts of agricultural land being locked into low-value agriculture.¹⁶ The average monthly income per agricultural household increased by 59% from Rs 6,426 in 2013-14 to Rs 10,218 in 2018-19.^{17,18}

In 2018-19, out of the total income of an agricultural household, 40% was income from wages, 37% was net receipts from crop production, and 15% was from farming of animals. This income also varied across states, with the highest in Meghalaya (Rs 29,348) and lowest in Jharkhand (Rs 4,895) (see Table 12 in Annexure).¹⁷

Table 4: Income sources varied for agricultural households across different landholding sizes (2018-19, income per household in Rs)

Land size (hectare)	Wages	Crop production	Farming of animals	Other sources
< 0.01 ha	6,435	1,160	2,084	1,026
0.01-0.40	4,491	977	1,162	892
0.40-1	3,906	2,683	1,335	646
2.01-2	3,647	5,269	1,845	687
2.01-4	3,548	9,435	2,551	904
4.01-10	4,273	19,645	3,451	923
10+	3,943	43,599	11,473	1,743
All sizes	4,063	3,798	1,582	775

Sources: Commission for Agricultural Costs and Prices; PRS.

The share of females employed in agriculture and allied activities has continued to rise since 2018-19. This has been attributed to: (i) return to subsistence activities in agriculture due to declining work opportunities after the COVID-19 pandemic, and (ii) a higher employment growth in labour-intensive allied subsectors in agriculture.^{19,20}

In 2023-24, 22% of the total males employed in agriculture were employed as unpaid helpers in household enterprises.⁴ Unpaid household workers assist in the operation of an economic activity in the household farm or non-farm activities.⁴ In comparison, 51% of the total women employed in agriculture were employed as unpaid helpers in household enterprises.⁴

Agricultural productivity and farmers' incomes are also affected by issues in agricultural inputs such as: (i) small landholdings, (ii) the quality of seeds, (iii) access to irrigation facilities, (iv) imbalanced use of fertilisers and pesticides. We look at issues with agricultural inputs below.

Fragmented Landholdings

In 2006, the National Commission on Farmers' (Chair: M.S. Swaminathan) noted that fragmented and scattered operational holdings are a major challenge to agricultural productivity. An operational holding is all land which is partly or wholly used for agricultural production and is operated as one unit by one person alone.²¹ Such

fragmented landholding patterns do not allow efficient utilisation of farm inputs.²² Smallholder farmers face multiple issues such as (i) lack of economies of scale in skills and technology, (ii) poor access to affordable finance, and (iii) poor access to logistics for trading, marketing and storage.²³ These challenges further affect the productivity per hectare for smallholder farmers.²³

Table 5: Number of operational holdings according to land size

Category	No of landholdings (in '000)		
	2005-06	2010-11	2015-16
Marginal (less than 1 hectare)	83,694	92,826	1,00,251
Small (1 to 2 hectare)	23,930	24,779	25,809
Semi-medium (2 to 4 hectare)	14,127	13,896	13,993
Medium (4 to 10 hectare)	6,375	5,875	5,561
Large (10 hectare and above)	1,096	973	838
All holdings	1,29,222	1,38,349	1,46,452

Sources: Agriculture Statistics at a Glance 2023, Ministry of Agriculture and Farmers' Welfare; PRS.

In 2015-16, 86% of the total operational holdings in the country were less than two hectare (small and marginal holdings).²⁴

Table 6: Area operated and average size of landholdings has declined between 2005 to 2016

	2005-06	2010-11	2015-16
Area (in thousand hectare)	1,58,323	1,59,592	1,57,817
Average size of holdings	1.23	1.15	1.08

Sources: Agriculture Statistics at a Glance 2023, Ministry of Agriculture and Farmers' Welfare; PRS.

While the number of operational holdings has increased between 2005-06 and 2015-16, the area cultivated and the average size of landholdings has declined. In this period, the average landholding size has declined from 1.23 hectare to 1.08 hectare (see Table 6).

The National Commission on Farmers (2006) also noted that the pressure on land due to growing population, along with the lack of alternative employment opportunities has led to increasing number of small and economically non-viable landholdings. The Committee on Doubling Farmers Income (DFI) noted that land fragmentation is also associated with the division of land and sharing the parcels among inheritors.

One of the solutions recommended by the DFI Committee has been to aggregate farmers and promote land pooling to target fragmentation of land holdings.^{25,26} Structures such as Farmer Producer Organisations (FPOs) and Self-Help Groups (SHGs) offer farmers the advantages of larger economies of scale throughout the agriculture value chain. Collectivisation leads to higher collective output, increased land

productivity, and higher bargaining power for each farmer-member.²⁶

The government launched the Formation and Promotion of 10,000 FPOs scheme in 2020 with a total outlay of Rs 6,865 crore.²⁷ The scheme aims to enhance agricultural productivity through efficient, cost-effective, and sustainable resource usage.²⁸ As of August 2024, 8,875 FPOs and 19.7 lakh shareholder farmers have been registered across the country.²⁹ In 2025-26, the government has allocated Rs 584 crore to the FPO scheme, which is similar to the revised estimate of 2024-25. Under the scheme, FPOs are provided financial assistance of up to Rs 18 lakh per FPO for a period of three years.²⁸

Access to quality seeds

According to the DFI Committee (2018), farmers predominantly (60-65%) use farm-saved or unlabelled seeds.³⁰ It also noted that the use of quality seeds has the potential to increase agricultural productivity by 15-20 %.

Availability of certified seeds is another important factor in ensuring optimum production for crops.¹² This is because the growth and health of a crop depends on timely availability of seeds in sufficient quantity.¹² In 2022-23, against the total requirement of 464 lakh quintals, total availability of seeds was 514 lakh quintals.⁹ However, the Commission for Agricultural Costs and Prices (CACP) noted that there is a critical need to prioritise development and distribution of high-quality seeds.¹²

Access to quality seeds is measured by the Seed replacement rate (SRR). It is a measure of the total cropped area which is covered with certified seeds.³¹ A better SRR reflects better certified seed utilisation and is directly related to improved agricultural productivity.¹² See Table 7 for trends in SRR for some major crops. Niti Aayog (2018) had noted that the SRR in India remains low due to a demand-supply mismatch and low production.³²

Table 7: SRR for different crops (in %) vs SRR projections by the Committee on Doubling Farmers' Income

Crop	2011-12	2022-23	Projected SRR by 2022
Paddy	38%	39%	40%
Wheat	33%	42%	41%
Maize	54%	62%	100%
Groundnut	25%	29%	33%
Soybean	36%	42%	40%

Sources: Report on Doubling Farmers' Income; ICAR; Commission for Agricultural Costs and Prices; PRS.

The seed delivery system in India consists of both formal and informal systems such as community level exchange mechanism, farmer managed seed systems, state government agencies, government-assisted and other cooperatives, and private

players.³³ In 2022-23, out of the total availability of seeds, 26% was supplied by the public sector (state and central distribution), as compared to the 74% distribution through private distributors (380 lakh quintals).²⁴

Heavy dependence on rain-fed agriculture

In India, about half of the agricultural area under crops is completely dependent on rainfall.⁹ In 2022-23, 56% of the net sown area was irrigated at least once a year.³⁴ According to the Ministry of Agriculture and Farmers Welfare, rice and wheat alone account for 55% of the irrigated area under all crops (see Table 8).³⁴ In 2022-23, 63% of the net irrigated area was irrigated through wells (tube-wells and other wells), followed by 23% through canals.³⁴

Table 8: Crops under irrigation (2022-23, in thousand hectare)

Crops	Area under irrigation	% share of total irrigated area
Paddy	34,140	28%
Wheat	33,434	27%
Fruits and vegetables	9,369	8%
Rapeseed and mustard	7,884	6%
Sugarcane	6,716	5%
Cotton	4,926	4%
Others	22,491	18%
Total irrigated area under all crops	1,22,294	-

Sources: Land Use Statistics at a Glance: 2022-23, Ministry of Agriculture and Farmers' Welfare; PRS.

To improve water-use efficiency in agriculture and promote micro-irrigation techniques, the government launched the Per Crop More Drop scheme under the PM Krishi Sinchayee Yojana in 2015-16. Between 2015-25, the scheme has covered an area of 94 lakh hectare under micro irrigation systems.³⁵ Between 2019-20 and 2023-24, the scheme has benefited 48 lakh farmers.³⁶

Poor irrigation efficiency for majority sources of irrigation

69% of the total paddy and 96% of total wheat in the country is cultivated using irrigation techniques.³⁴ However, the irrigation efficiency for the majority of major sources of irrigation remains very poor.³⁷ Irrigation efficiency is defined as the gross water use per hectare of gross irrigated area.³⁷ The DFI Committee had estimated that the excessive use of water per hectare of crops has led to poor irrigation efficiency of 35%-45% for most surface irrigation systems.³⁷ Irrigation efficiency for groundwater stood at 65%.³⁷ Most of the land under irrigation is irrigated using flood irrigation, reducing water efficiency.³⁸

Input subsidies and assured procurement have led to skewed cropping patterns in favour of water-intensive crops

In 2022-23, 42% of the total cropped area was cultivated with water intensive crops such as paddy, wheat, and sugarcane.³⁴ The Economic Survey (2018-19) noted that incentive structures like MSP and input subsidies for electricity, water, and fertilisers have played a major role in misalignment of cropping patterns.³⁹ These incentives have also led to overuse of ground water for water intensive crops. In major rice, wheat, and sugarcane producing states (Maharashtra, Telangana, Punjab, and Haryana), NABARD has classified the water resource availability condition as stressed and highly stressed (see Table 13 in Annexure).⁴⁰

Under the Pradhan Mantri Kisan Urja Suraksha Evan Utthaan Mahabhiyan Yojana (PM-KUSUM), the central government offers subsidy of upto 30% or 50% of the total cost for installation of solar agricultural pumps. As of March 2021, five states are offering free electricity to farmers with other states offering electricity to farmers at subsidised rates.⁴¹ These states include Andhra Pradesh, Karnataka, Punjab, Tamil Nadu, and Telangana.⁴¹

In 2018, NABARD had noted that in certain states such as Andhra Pradesh, Punjab, Haryana and Tamil Nadu, access to highly subsidised or free canal water has led to over-irrigation of crops.⁴⁰ This has led to wasteful use of water and energy needs in certain regions along with deprivation of the same in certain other regions.⁴⁰

The government launched the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) in 2015-16 with an aim to: (i) increase area under irrigation, (ii) improve on-farm efficiency of water use, (iii) enhance adoption of precision irrigation, (iv) enhance recharge of aquifers, and (v) promote sustainable water conservation practices.⁴²

Until 2021-22, the scheme was being run in convergence with the Ministry of Jal Shakti and included the following components: (i) Accelerated Irrigation Benefit Programme, (ii) Har Khet ko Pani, (iii) Per drop more crop, and (iv) Watershed.⁴² Since 2022-23, only the Per Drop More Crop component is being implemented under the Rashtriya Krishi Vikas Yojana (RKVY).⁴³ As of December 2023, 11.5 thousand hectare of irrigation potential has been created in the country between 2016-23.⁴⁴ In addition, a total of about 50 thousand crore have been released by the government.⁴⁵ In 2025-26, under the Ministry of Agriculture, Rs 8,500 crore have been allocated to the Rashtriya Krishi Vikas Yojana, 42% higher than the revised estimates.

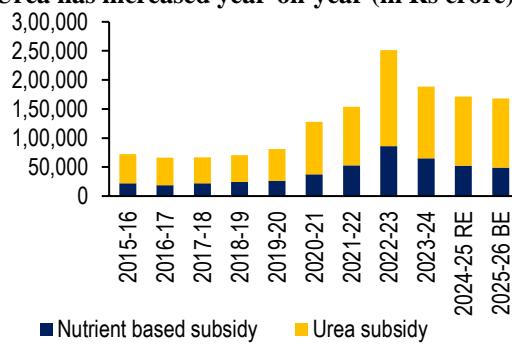
Overuse of chemical fertilisers and pesticides

The month-wise requirement of fertilisers is assessed before the commencement of each cropping season by the Ministry of Agriculture and Farmers Welfare.⁴⁶ The Department of Fertilisers under the Ministry of Chemicals and Fertilisers is responsible to ensure adequate and timely availability of fertilisers in the country.⁴⁷ The Ministry ensures this by planning production, imports, and distribution of fertilisers at affordable prices to farmers.

The government offers subsidy on fertiliser production to manufacturers. The subsidy ranges from 30-70% of the cost of the fertiliser and is given to companies. This subsidy is passed on to farmers at a subsidised Maximum Retail Price (MRP).⁴⁸

In 2025-26, the Ministry of Chemicals and Fertilisers has allocated Rs 1,67,887 crore for: (i) urea subsidy and (ii) phosphatic and potassic (P&K) subsidy (NBS subsidy). This is 2% lower than the revised estimates of 2024-25.

Figure 3: Fertiliser subsidy offered on P&K and Urea has increased year-on-year (in Rs crore)



Sources: Statement 17, Union Budget of various years; PRS.

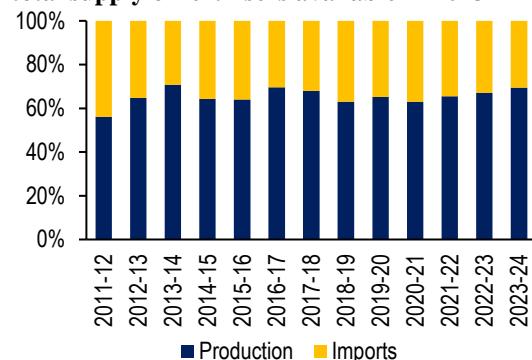
Total fertiliser subsidy is estimated to constitute 3.3% of the total budget of the Union government in 2025-26. The fertiliser subsidy provided for urea and P&K has increased at an annual average rate of 13% over the last 10 years (see Figure 3). The subsidy bill increased significantly in 2022-23 due to high input costs, geopolitical tensions, global supply chain disruptions, and export restrictions in China.⁴⁹

Under the Nutrient Based Subsidy (NBS) scheme for P&K fertilisers, MRP is fixed by fertiliser companies at a reasonable level monitored by the government.⁵⁰ In April 2024, the Cabinet had approved a one-time special package on Di-Ammonium Phosphate (DAP) fertiliser (a grade of P&K fertiliser) beyond the NBS scheme.⁵⁰ This was extended in January 2025 until further orders to contain the surging prices of DAP.⁵¹ The Ministry has estimated that the budgetary requirement for this subsidy would be up to Rs 3,850 crore.⁵¹

Dependence on imports

In 2023-24, fertiliser companies imported 96 lakh tonne of fertilisers, making up 31% of the total fertilisers availability in the country.⁵² The Standing Committee on Chemicals and Fertilisers (2023) noted that Urea is the major fertiliser consumed in the country and about 20% of the domestic requirement is imported.⁴⁸ In addition, for DAP, 50-60% of the domestic requirement is imported.⁴⁸ In case of the potassic fertiliser (MOP), the country is completely dependent on imports for 100% of the requirement.⁴⁸

Figure 4: Imports constituted about 31% of the total supply of fertilisers available in 2023-24



Sources: Agriculture Statistics at a Glance 2023, Ministry of Agriculture and Farmers' Welfare; PRS.

The Standing Committee on Chemicals and Fertilisers (2023) had noted that the domestic production capacity of fertilisers is not adequate to meet the requirement.⁵² It suggested that the government should take long term measures to augment its fertiliser production capacity.⁵²

The government notified the New Investment Policy (NIP) in 2013 to reduce import dependence and boost indigenous urea production.⁴⁸ As of December 2024, six new urea units have been set up under NIP by private and joint venture companies.⁵³ The new units have increased the total indigenous urea production capacity from 208 lakh metric tonne per annum (LMTPA) in 2014-15 to 284 LMTPA till 2023-24.⁵³

Currently, fertiliser subsidies are provided to fertiliser companies based on parameters like cost of production, technology, and inputs used by manufacturers.⁴⁸ The Standing Committee on Chemicals and Fertilisers (2023) noted that many manufacturing plants operate with old technology and this subsidy acts as a disincentive preventing plants from shifting to modern technology.⁴⁸

It highlighted that this led to the government bearing the high cost of inefficiencies in terms of higher subsidies awarded.⁵² To reduce the high costs associated with production inefficiency, the Committee recommended direct transfers of subsidies to farmers.⁵²

In 2015, the government had notified the New Urea Policy (NUP) with an aim to: (i) maximise indigenous urea production, (ii) promote energy efficient urea production, and (iii) reduce subsidy burden on government.⁴⁸ The NUP has added 20-25 LMT additional production capacity.⁵³

Imbalanced application of fertilisers

The ideal ratio for application of NPK fertilisers at the national level is considered to be 4:2:1.⁴⁶ However, the current NPK ratio in the country is highly skewed towards a higher value of nitrogen in the soil. In 2019-20 the NPK consumption ratio was 7:2.8:1.¹⁰⁴⁶ The Standing Committee on Chemicals and Fertilisers (2024) noted that the prices of P&K fertilisers are market determined, whereas urea prices are controlled by the government.⁴⁶ Over the years, this has led to overconsumption of urea across states (see Table 9).

Table 9: Imbalance in fertiliser use ratio for certain states (2019-20, actual vs normative)

States		N	P	K
Gujarat	Norm	2.7	1	1
	Actual	11.4	3.4	1
Haryana	Norm	4	1.7	1
	Actual	28.2	8	1
Jharkhand	Norm	2	1.2	1
	Actual	26.4	9	1
Madhya Pradesh	Norm	2.4	2.6	1
	Actual	14.4	7.7	1
Punjab	Norm	4	1.6	1
	Actual	34.9	8.4	1
Rajasthan	Norm	10.3	5.7	1
	Actual	58	22.8	1
Uttar Pradesh	Norm	3	1.3	1
	Actual	18.2	6	1

Sources: A new paradigm for Indian agriculture, Niti Aayog, 2022; PRS.

Excessive use of urea or nitrogenous fertilisers has deteriorated soil health and quality.⁴⁶ Fertiliser use imbalance also differs across states, with certain states like Haryana, Jharkhand, Punjab, Rajasthan, and Uttar Pradesh having a severe imbalance (for details, refer to Table 16 in Annexure).⁵⁴

In June 2023, the government introduced the PM Programme for Restoration, Awareness Generation, Nourishment, and Amelioration of Mother Earth (PM-PRANAM).⁵⁵ The scheme aims to promote balanced use of chemical fertilisers by offering states grants from the unused fertiliser subsidy funds.⁵⁵ In 2014-15, the government had also launched a programme of soil sampling, testing, and provision of Soil Health Cards (SHCs) to farmers in the country.⁵⁶ These SHCs provide farmers with the information on nutrient status of their farms and the recommended dosage of nutrients to improve soil quality.⁵⁶ As of December, 2023, a total of 23.6 crore SHCs have been issued and distributed to farmers.⁵⁷

Investment and Credit Access

Fixed capital investment in the agriculture sector, is a major driver of agricultural productivity and growth.³⁷ In 2022-23, out of the total investment in agriculture and allied sectors, 86% (Rs 6,26,720 crore) was by the private sector, while the rest was by the public sector.²⁴

The Economic Survey for the year 2023-24, noted that there is a need to boost investment in agriculture despite an increasing trend in capital investment.¹⁰ Output growth in the agriculture and allied sector has not been commensurate with the growth in fixed capital investment in the sector.²⁴

The Agriculture Infrastructure Fund (AIF) was set up in 2020.⁵⁸ It has been set up with the objective of financing infrastructure projects at the farmgate and aggregation points such as Farmer Producer Organisations and Agriculture Cooperative Societies.⁵⁹ Under the fund, a provision of financing facility worth Rs 1,00,000 crore has been made (see Table 14 in Annexure for state-wise tentative allocation under the fund). These loans are to be disbursed through lending institutions with an interest rate cap of 9%.⁶⁰ As of July 2024, loans worth Rs 46,080 crore have been disbursed (see Table 10).⁶⁰ In 2024, the Standing Committee on Agriculture recommended that the government should infuse more funds in the AIF to fill gaps in public funding.⁶¹

Table 10: Loans sanctioned under the Agriculture Infrastructure Fund (as of July 2024)

Year	No of loans sanctioned	Loan amount sanctioned (in Rs crore)
2020-21	5,682	3,838
2021-22	5,785	5,749
2022-23	15,973	13,031
2023-24	33,915	17,399
2024-25*	10,867	6,063
Total	72,222	46,080

Note: *As of July 26, 2024

Sources: Starred Question No. 101, Lok Sabha, Ministry of Agriculture and Farmers Welfare, July 30, 2024; PRS.

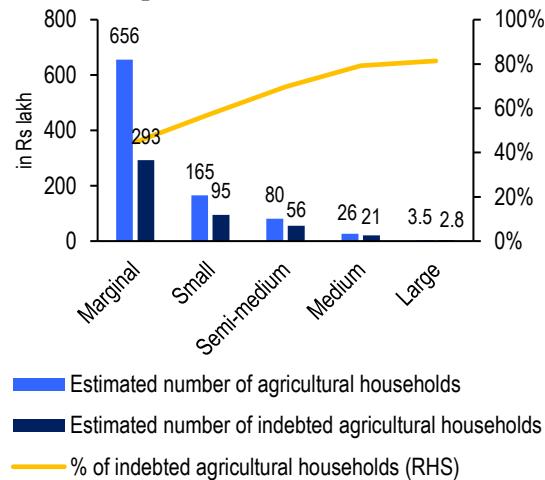
Under the fund, 72,222 projects have been allocated funds including primary processing units, warehouses, sorting and grading units, and cold store projects.⁶⁰

Access to Affordable Credit

Access to affordable credit is important for enhancing agricultural productivity by making available the right inputs to farmers.³⁷ Access to institutional credit to farmers has improved in the last ten years growing at an annual average rate of 14%.²⁴ In 2023-24, institutional loans worth Rs 24.8 lakh crore were extended to the agriculture sector. However, indebtedness continues to be high among marginal and small farmers (see Figure

5).²⁴ About 63% of the total indebted households have landholdings smaller than one hectare.²⁴

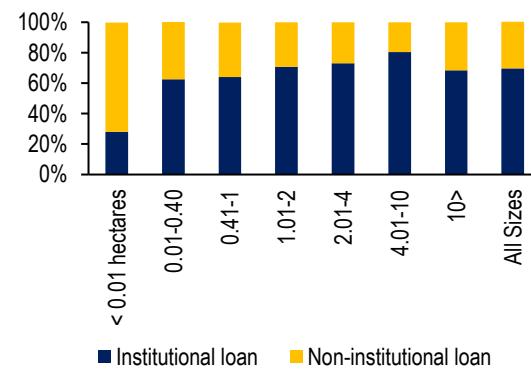
Figure 5: Indebtedness of agricultural households among different categories based on the land size possessed



Sources: Agricultural Statistics at a Glance 2023, Ministry of Agriculture and Farmers' Welfare; PRS

Access to institutional agricultural credit has improved in India. According to the Situation Assessment Survey of Agricultural Households the share of agricultural credit from non-institutional sources has reduced from 40% in 2013 to 31% in 2019.^{62,63} However, the prevalence of agricultural credit from non-institutional sources remains high among marginal farmers (see Figure 6).

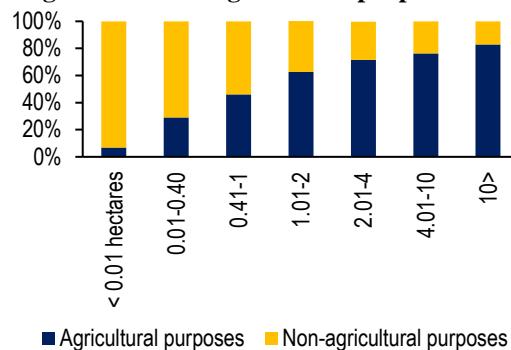
Figure 6: The share of institutional agricultural credit is higher among households with larger farm sizes



Sources: Situation Assessment of Agricultural Households and Land and Holdings of Household in Rural India, 2019; PRS.

About 43% of agricultural credit is also being used for non-agricultural purposes such as housing, education and medical, consumption expenditure, and marriages and ceremonies.⁶² In addition, there is high variation in the use of the agricultural credit across houses with different classes of landholders.⁶² For instance, 73% of the agricultural credit is used by marginal farmers for non-agricultural purposes, while this is 24% for medium-sized landholders.⁶²

Figure 7: A large share of agricultural credit is being used for non-agricultural purposes

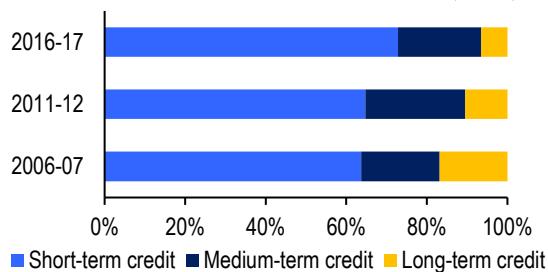


Sources: Situation Assessment of Agricultural Households and Land and Holdings of Household in Rural India, 2019; PRS.

The Kisan Credit Card facility was introduced in 1998 with the objective to make adequate credit readily available to farmers.⁶⁴ Under the scheme, credit is offered to farmers for: (i) short-term credit requirement for cultivation of crops, (ii) post-harvest expenses, (iii) agricultural produce marketing loans, (iv) consumption requirements for household, (v) working capital, and (vi) long-term investment credit requirement.⁶⁴ In 2019, the scheme was also extended to farmers engaged in animal husbandry and fisheries.⁶⁵ As of December, 2023, 7.3 crore accounts were operating with outstanding credit worth Rs 8.9 lakh crore.⁶⁶

The government also launched the Interest Subvention scheme in 2006-07, to offer short term loans up to three lakhs rupees at an annual interest rate of 7% through KCC to farmers.⁶⁷ An additional 3% interest subvention is also offered for timely repayment.⁶⁷ The scheme was modified in 2022 to offer 1.5% interest subvention to lending institutions between 2022-25.⁶⁸ In 2025-26, the Modified Interest Subvention Scheme received an allocation of Rs 22,600 crore, which is the same as the revised estimates of 2024-25.

Figure 8: Agricultural credit taken from institutional sources for different terms (in %)



Sources: Agricultural Statistics at a Glance 2023 and 2016 Ministry of Agriculture and Farmers' Welfare; Input Survey 2006-07, Agriculture Census; PRS.

A Working Group was set up by the Reserve Bank of India in 2019, to review the state of agricultural credit in the country.⁶⁹ It noted that the interest subvention scheme was introduced with the aim of boosting crop-related investment credit in the sector.⁶⁹ However, the share of short-term credit

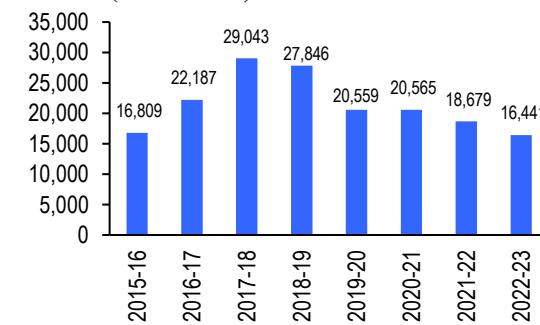
provided under the scheme at sub-vented interest rates has increased.⁶⁹ Between 2006-07 and 2016-17, the share of short-term loans in total institutional credit has increased from 64% to 73%. (see Figure 8).⁷⁰

Insurance Coverage

The Ministry incurs the second largest expenditure on Pradhan Mantri Fasal Bima Yojana (PMFBY) and the Restructured Weather Based Crop Insurance Scheme (RWBCIS). Crop insurance offers farmers security against crop losses cause due to natural disasters, extreme weather events, and other non-preventable risks.¹² The government launched the PMFBY in 2016 with the objective to provide affordable crop insurance to farmers. This scheme offers comprehensive risk coverage from pre-sowing to post-harvest stage.¹² It covers all farmers including sharecroppers and tenant farmers growing notified food crops, oilseeds, and horticulture crops.⁷¹ Farmers pay a premium of 2% of the sum insured for Kharif crops, 1.5% for Rabi crops, and 5% for horticulture produce.⁷¹ The expenditure for the remaining premium is shared by the states and the centre equally.⁷¹

As of January 2025, total area of 4,803 lakh hectare has been insured under the scheme with the sum insured being Rs 19.5 lakh crore.⁷² About 68 crore farmer applications have been insured under the scheme so far.⁷² In 2025-26, the government has allocated Rs 12,242 crore for the crop insurance scheme. This is 23% lower than the revised estimate for 2024-25 and the lowest allocation since 2018-19. In addition, the amount of insurance claims paid to farmers have also been declining (see Figure 9).

Figure 9: Insurance claims paid under the PM Fasal Bima Yojana have been declining since 2017-18 (in Rs crore)



Sources: PM Fasal Bima Yojana Dashboard; PRS.

The Standing Committee on Agriculture (2021) noted that delay in settlement of claims is a key issue.⁷³ This is mainly on account of delay in payment of state share of subsidy to insurance companies, delay in processing of claims by insurance companies, and yield related disputes.⁷³ The Committee (2021) recommended implementing a timeline for settlement of claims by insurance companies.⁷³

The Committee (2021) also noted the lack of awareness about the PMFBY among farmers. The scheme was made voluntary in 2020 for farmers.⁷³ According to NABARD, 10% of the agricultural households had crop insurance while 2% had livestock insurance.⁷⁴ They also noted that in 2019, 39% of farmers did not avail crop insurance due to lack of awareness while 23% said they did not need crop insurance.⁷⁵

Post-harvest infrastructure

Significant post-harvest losses

Many agricultural and allied products are seasonal and perishable in nature, which need processing in short periods of time.⁷⁶ A study by NABARD noted that the quantity of agriculture produce lost in 2020-21 was 69 million metric tonnes (5.5% of the total, see Table 11).⁷⁷ These losses amounted to Rs 1.5 lakh crore with the most losses in the perishable commodities.⁷⁷ The Standing Committee on Agriculture (2024) observed that favourable policies and infrastructure development for processing and storage are needed to reduce post-harvest losses.⁷⁸

Table 11: Post-harvest losses in 2020-21

Category	Quantity Lost (in million tonne)	Monetary loss (in Rs crore)
Livestock produce	3	29,871
Fruits	7.3	29,545
Vegetables	12	27,459
Cereals	12.5	26,001
Plantation crops	30.6	16,413
Oilseeds	2.1	10,925
Pulses	1.4	9,289
Total	68.9	1,49,503

Sources: Study to determine post-harvest losses in agri produces in India - 2022, NABCONS, MoFPI; PRS.

One of the key reasons for losses in the perishables is inadequate and inefficient storage infrastructure between the farm gate and the consumers.⁷⁹ The food processing sector consists of many tiny, micro, and small units that are not able to expand and invest in supporting infrastructure.⁷⁹

Such gaps in infrastructure affect primary processing, storage, and distribution.⁸⁰ Investments are required in grading and packing centres, controlled atmosphere storage facilities (dry and cold storage), reefer vans, and cold storage facilities at ports/airports/railway stations.⁷⁹ The DFI Committee (2017) emphasised upon the integration of logistics and food processing units to build more effective market linkages.⁸¹

To address the issues in the food processing sector, the Ministry of Food Processing Industries has been implementing the PM Kisan Sampada Yojana. The scheme targets building of storage and transportation infrastructure, agro-processing

clusters, and food processing and preservation capacities. Dr. Saumitra Chaudhari Committee (2012) had estimated the cold storage requirement in the country to be 61 million tonne.⁸² As of December 2023, cold storage capacity in the country is estimated to be 39.4 million tonne.⁸³ Similarly, against an estimated requirement of 70,000 pack houses (processing facility for fresh produce), total number of pack-houses in 2021 stood at 484.^{84,85}

As of 2022, cold storage capacity of 0.8 million tonne was added under the scheme on Integrated Cold Chain and Value Addition Infrastructure. This scheme was launched in 2008 and has been subsumed under PM Kisan Sampada Yojana since 2017.⁷⁶ Under the erstwhile Mega Food Parks scheme, dry warehouse capacity of 1.16 lakh tonne has been approved under various Mega Food Parks.⁸⁶ This scheme has also been subsumed under PMKSY since 2017. In 2025-26, Rs 903 crore has been allocated to the scheme, 43% higher than the revised estimates for the previous year (Rs 630 crore).

Post-production market linkages

The Committee on Doubling Farmers Income (2017) identified two key linkages that need to be strengthened between farmers and the market. These are: (i) development of physical infrastructure for post-production stage, and (ii) information flow from markets to farmers.⁸¹

Wholesale agricultural marketing in India is undertaken by a network of regulated wholesale markets.⁸¹ These markets are set up under the provision of respective State Agricultural Produce Market Committee (APMC) Act.⁸¹ As of March 2023, there were 7,085 APMC regulated mandis in the country.⁸⁷ One regulated market serves an average of 406 square km (for state-wise distribution see Table 17 in Annexure).⁸⁷

APMCs across states regulate trade by: (i) providing licenses to traders or commission agents, (ii) levying market fees/cess on sale of agriculture produce in the APMC market, and (iii) providing the necessary infrastructure.⁸⁸

Limited coverage of APMC markets

The National Commission on Farmers (2006) had recommended that there should be a market within a range of 5 km of farms, a distance negotiable by walk or cart in an hour.⁸⁹ In 2019, the Standing Committee on Agriculture noted that to meet this norm, 41,000 markets will be needed in the country.⁸⁸ In addition, the Committee (2019) had also highlighted that only 15% APMC markets had cold storage facility and only 49% markets had weighing facility.⁸⁸

According to the APMC regulations, a farmer is unable to freely transact an exchange with a buyer

from outside the control area of APMC.⁹⁰ This has led to the creation of monopolistic markets at APMC mandis.⁹⁰ Small and marginal farmers with uneconomical produce sizes face difficulties in accessing wholesale markets.⁹⁰ In such cases, farmers have to sell their produce to local aggregators, depriving them of optimal price realisation.⁹⁰ NABARD noted that in order to provide remunerative prices to farmers, there is need to control intermediation.⁸⁹ This could be done by providing alternate marketing channels such as contract farming, direct marketing, and aggregation through collectives.⁸⁹

Electronic National Agricultural Market (e-NAM)

The government launched the e-NAM scheme in 2016 to promote efficiency in agricultural marketing and improve price discovery.¹⁶ The scheme aims to integrate markets at the state and national level through a common online market platform.⁹¹ Under the scheme, the government offers free software and assistance of up to Rs 75 lakh per APMC market. As of August 2024, 1.7 crore farmers and 2.6 lakh traders were registered on the e-NAM portal.^{92,16}

As of March 2023, a total of 1,361 mandis were also integrated with the e-NAM platform.⁹¹ According to the Economic Survey (2023-24), farmers surveyed reported receiving higher prices for their produce after implementation of the scheme.¹⁶ About 54% also preferred transacting through e-NAM portal over traditional market due to transparent procedures and other benefits.¹⁶ The Standing Committee on Agriculture (2019) recommended that the government expand the coverage of the e-NAM scheme in states where APMC markets are non-existent.⁸⁸ The Committee also recommended that the government undertake training programmes to enhance digital literacy among farmers and improve their participation in the scheme.⁸⁸

Remunerative pricing for agricultural produce

The government offers agriculture price support to farmers through various measures and policies. This is done to assure farmers of remunerative prices while allowing the government to also ensure a stable supply of staples.¹⁶

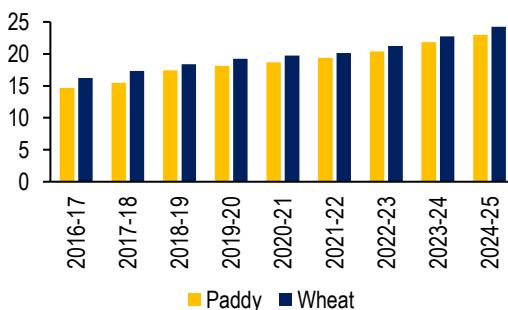
Minimum Support Price (MSP)

The government fixes the MSP for 22 mandated agricultural crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).¹⁵ These crops include (i) 14 kharif crops such as paddy, jowar, bajra, urad, (ii) 6 rabi crops such as wheat, barley, gram and mustard, and (iii) 2 commercial crops including sugarcane and cotton.⁹³ The

government is mandated to procure these crops through central procurement agencies.⁹³ However, most procurement is done for paddy and wheat. In 2023-24, 43% of the paddy production and 25% of the wheat production was procured by the government.⁹

While recommending the MSP for crops every season, CACP considers factors such as: (i) cost of production, (ii) overall demand and supply, (iii) domestic and international prices, (iv) inter-crop price parity, and (v) terms of trade between agriculture and non-agriculture sector.

Figure 10: MSP for paddy and wheat (in Rs per kg)



Sources: Commission for Agricultural Costs and Prices, PRS.

The MSP set by the government for the crop year 2024-25 for paddy is Rs 23 per kg and Rs 24.25 per kg for wheat (see Figure 10). In 2006, the National Commission for Farmers had recommended setting the MSP for crops at least 50% higher than the weighted average of the production cost. Adapting this recommendation, the government in the Union Budget of 2018-19 had announced that the MSP for crops will be fixed at 1.5 times the production cost.

In 2018, Niti Aayog had noted that MSP has not been inclusive in terms of geographies and commodities.⁹⁴ The report highlighted that in many states, the procurement by the central agencies is limited and non-existent.⁹⁴

The DFI Committee (2016) had noted that states with higher production of paddy and wheat do not diversify due to assured prices for these crops.⁷⁹ These states continue to practice paddy-wheat rotation, which is detrimental to environment.⁷⁹ According to a survey conducted by Niti Aayog (2023), commodities receiving higher government support such as rice, wheat cotton and sugarcane were witnessing lower output growth as compared to commodities with relatively lower direct government support.⁹⁵

The Standing Committee on Agriculture (2024) noted that it is essential to implement a legally-binding MSP to safeguard farmers' livelihoods.⁶¹ However, the Doubling Farmers Income Committee had noted that making MSP a legal guarantee for all 22 crops may lead to higher retail inflation.⁷⁹ The DFI Committee noted that if more crops are sold at

the MSP, consumers may have to pay more for these crops leading to higher retail inflation.

Price support and market interventions

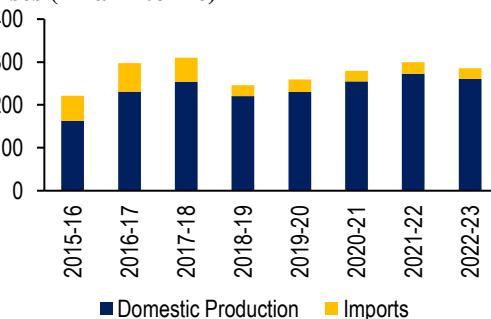
Under the Price Support Scheme (PSS), the government intervenes by procuring whenever the market prices of MSP notified crops fall below MSP.²⁵ The procurement is made through central agencies such as NAFED, SFAC, and FCI.²⁵ The procurement under this scheme is limited to 25% of the state production estimates.²⁵ According to the DFI committee, the operations under the scheme have been limited to pulses, oilseeds and cotton.²⁵

The Market Intervention Scheme (MIS) applies for horticulture crops that are not covered under MSP.²⁵ Under MIS, intervention is made when the prevailing market prices fall by more than 10% as compared to previous year.²⁵ The cost of procurement under MIS is shared by the central and state government.²⁵ The Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA) was introduced in 2018 and aims to ensure remunerative prices to farmers for production of oilseeds, pulses, and copra.⁹⁶ In September 2024, the Cabinet converged PSS and MIS under PM-AASHA.⁹⁶ In addition to these components, the scheme also consists of a Price Deficiency Payment Scheme (PDPS).⁹⁶

Under the PDPS component, the government pays the price difference between the notified MSP of oilseeds and the selling price in a notified market.⁹⁶ States have the option to implement either of the PSS or PDPS.⁹⁶ In 2025-26, Rs 6,941 crore have been allocated to the PM-AASHA scheme. Since 2018-19, the scheme has benefitted 99.3 lakh farmer through procurement of 195 lakh metric tonne of pulses, oilseeds, and copra.⁹⁶ These have been purchased at an MSP value of Rs 1.07 lakh crore.⁹⁶

In her 2025-26 Budget Speech, the Finance Minister announced a new Mission for procurement of pulses with a special focus on tur, urad, and masoor. The scheme has been allocated Rs 1,000 crore for the year 2025-26. In 2021-22, out of the total consumption need of pulses, about 9% was imported.^{97,9} The new Mission aims to achieve self-sufficiency in pulses production through: (i) development and commercial availability of improved seeds, (ii) enhancing protein content, (iii) increasing productivity, (iv) improving post-harvest infrastructure, and (v) ensuring remunerative prices for farmers. In 2023-24, only 12% of the total pulses production was procured by the government.⁹

Figure 11: Domestic production and imports of pulses (in lakh tonne)



Sources: Agricultural Statistics at a Glance 2023 and 2016 Ministry of Agriculture and Farmers' Welfare; PRS.

The Economic Survey (2024-25) noted that food inflation is primarily driven by vegetables and pulses.⁹⁸ The contribution of Pulses and Vegetables to overall food inflation was 32.3% in 2024-25 (April-December).⁹⁸ A report by RBI (2024) noted the need of scaling-up and operationalising procurement of pulses to ensure stability in prices.

Farm Laws, 2020

Parliament in September 2020 had passed three laws to: (i) allow free inter-state trade of farmers' produce beyond the physical premises of APMC markets, (ii) allow and define a framework for contract farming, and (iii) impose stock limits on agriculture produce only in case of a spike in commodity prices.^{99,100,101} All three laws were repealed through the Farm Laws Repeal Bill, 2021 following protests by farmers and a stay on the laws ordered by the Supreme Court.¹⁰²

Income support to farmers through direct benefit transfers

The government launched the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme in 2019.¹⁰³ The scheme aims to provide income support of Rs 6,000 per year to all cultivable landholding farmer families. The transfer is made in three equal instalments directly into the Aadhaar seeded bank accounts of eligible farmers. As of August 2024, Rs 3.24 lakh crore have been transferred to about 12.85 crore beneficiaries.¹⁰⁴ The Standing Committee on Agriculture and Farmers Welfare (2020) noted that presently only landholding farmer families are covered under the scheme.¹⁰⁵ It suggested that the benefits of the scheme should also be extended to landless and tenant farmers.¹⁰⁵ The Committee also noted some other issues in the implementation of the scheme such as: (i) unavailability of land records in some states, (ii) non-transference of land to heirs in case of death, (iii) slow Aadhaar verification in case of mismatch between names, (iv) incorrect bank details, and (v) poor internet connectivity.¹⁰⁵

Annexure

Table 12: Average monthly income of agricultural households (2018-19, in Rs crore)

State	Income from wages	Income from leasing out of land	Net receipt from crop production	Net receipt from farming of animals	Net receipt from non-farm business	Average monthly income
Andhra Pradesh	4,849	189	2,734	2,046	662	10,480
Arunachal Pradesh	2,976	-	5,818	4,690	5,741	19,225
Assam	5,581	36	3,262	1,120	676	10,675
Bihar	2,503	82	2,739	1,739	479	7,542
Chhattisgarh	4,444	51	4,336	524	321	9,677
Gujarat	4,415	53	4,318	3,477	369	12,631
Haryana	7,861	621	9,092	4,020	1,249	22,841
Himachal Pradesh	6,393	71	2,552	1,811	1,326	12,153
Jammu & Kashmir	12,171	292	1,980	2,276	2,200	18,918
Jharkhand	2,783	24	1,102	827	158	4,895
Karnataka	4,576	104	6,835	1,663	264	13,441
Kerala	10,201	150	3,638	1,050	2,876	17,915
Madhya Pradesh	2,488	54	4,309	1,295	193	8,339
Maharashtra	4,324	34	4,747	1,540	847	11,492
Manipur	4,147	25	3,221	2,625	1,209	11,227
Meghalaya	6,936	106	21,060	842	404	29,348
Mizoram	6,545	52	8,694	1,750	923	17,964
Nagaland	3,970	2	2,010	3,801	93	9,877
Odisha	2,649	29	1,569	416	449	5,112
Punjab	5,981	2,652	12,597	4,457	1,014	26,701
Rajasthan	5,356	77	3,731	2,356	1,000	12,520
Sikkim	6,469	3	4,065	1,376	534	12,447
Tamil Nadu	6,497	72	2,641	2,000	715	11,924
Telangana	2,961	67	4,937	689	748	9,403
Tripura	4,974	24	2,912	960	1,048	9,918
Uttarakhand	3,728	191	5,277	3,292	1,064	13,552
Uttar Pradesh	2,900	119	3,290	1,365	387	8,061
West Bengal	3,721	94	1,547	465	935	6,762
All India	4,063	134	3,798	1,582	641	10,218

Sources: Situation Assessment of Agricultural Households and Land and Holdings of Households in Rural India, 2019, MoSPI; PRS.

Table 13: State-wise share of agriculture in groundwater extraction and level of groundwater extraction (2020, in %)

State	Area under irrigation	Agri share in annual water extraction	Stage of groundwater extraction
Andhra Pradesh	50%	87%	33%
Bihar	74%	79%	51%
Chhattisgarh	36%	85%	46%
Goa	23%	25%	24%
Gujarat	51%	95%	53%
Haryana	91%	90%	135%
Jharkhand	14%	57%	29%
Karnataka	35%	90%	65%
Kerala	20%	44%	52%
Madhya Pradesh	49%	91%	57%
Maharashtra	24%	92%	55%
Odisha	29%	80%	44%
Punjab	99%	97%	164%
Rajasthan	44%	86%	150%
Tamil Nadu	56%	92%	83%
Telangana	54%	89%	53%
Uttar Pradesh	81%	90%	69%
Uttarakhand	52%	72%	47%
West Bengal	66%	92%	45%
India	52%	89%	62%

Note: Stage of groundwater extraction is Annual Extractable Groundwater Extraction for all irrigation sources over Annual Extractable Ground Water Resources

Sources: A New Paradigm for Agriculture, 2020, Niti Aayog; PRS.

Table 14: Financing Facility available to states under the Agriculture Infrastructure Fund and the amount disbursed (up to March 2023, in Rs crore)

State	Financing Facility Available	Amount Disbursed
Andhra Pradesh	6,540	452
Arunachal Pradesh	290	2
Assam	2,050	136
Bihar	3,980	133
Chhattisgarh	1,990	332
Gujarat	7,282	729
Haryana	3,900	575
Himachal Pradesh	925	43
Jammu and Kashmir and Ladakh	900	14
Jharkhand	1,445	33
Karnataka	4,525	747
Kerala	2,520	159
Madhya Pradesh	7,440	3,208
Maharashtra	8,460	1,233
Manipur	200	0.3
Meghalaya	190	6
Mizoram	196	-
Nagaland	230	2
Odisha	2,500	202
Punjab	4,713	484
Rajasthan	9,015	820
Tamil Nadu	5,990	347
Telangana	3,075	688
Tripura	360	-
Uttar Pradesh	12,831	819
Uttarakhand	785	58
West Bengal	7,260	494
Goa	110	1
Total	1,00,000	11,723

Sources: Unstarred Question No. 3237, Lok Sabha, Ministry of Agriculture and Farmers Welfare, March 21, 2023; National Agriculture Infra Financing Facility Dashboard; PRS.

Table 15: Productivity of paddy and wheat across different states (in kg per hectare)

State	Paddy	Wheat
Andhra Pradesh	3,730	NA
Arunachal Pradesh	1,854	1,977
Assam	2,426	1,322
Bihar	2,453	2,958
Chhattisgarh	2,602	1,427
Gujarat	2,530	3,248
Haryana	3,362	4,704
Himachal Pradesh	1,942	1,853
Jammu & Kashmir	2,202	2,062
Jharkhand	1,747	2,146
Karnataka	3,223	1,373
Kerala	3,108	NA
Madhya Pradesh	2,057	3,179
Maharashtra	2,269	1,948
Manipur	1,874	2,481
Meghalaya	2,591	1,790
Mizoram	1,151	NA
Nagaland	1,751	1,838
Odisha	2,030	1,548
Punjab	4,193	4,748
Rajasthan	2,464	3,807
Sikkim	1,241	1,155
Tamil Nadu	3,500	NA
Telangana	3,406	2,073
Tripura	3,263	2,048
Uttarakhand	2,548	2,916
Uttar Pradesh	2,737	3,531
West Bengal	3,057	3,088
All India	2,838	3,521

Sources: Agricultural Statistics at a Glance 2023 and 2016 Ministry of Agriculture and Farmers' Welfare; PRS.

Table 16: Actual vs Normative Fertiliser Use Balance in states in 2019-20

State	N		P		K	
	Norm	Actual	Norm	Actual	Norm	Actual
Andhra Pradesh	2.4	4.6	1.4	2.3	1	1
Bihar	2.8	0	1.5	2.6	1	1
Chhattisgarh	2.4	7.3	1.4	3.6	1	1
Goa	1.6	2	1.1	1	1	1
Gujarat	2.7	11.4	1	3.4	1	1
Haryana	4	28.2	1.7	8	1	1
Himachal Pradesh	2.5	3.8	1.3	1	1	1
Jammu and Kashmir	3.3	4.6	2	1.5	1	1
Jharkhand	2	26.4	1.2	9	1	1
Karnataka	1.6	3.6	1	2	1	1
Kerala	0.7	1.3	0.5	0.5	1	1
Madhya Pradesh	2.4	14.4	2.6	1.9	1	1
Maharashtra	2.7	3.2	1.8	7.7	1	1
Odisha	1.8	4.6	1	2	1	1
Punjab	4	34.9	1.6	8.4	1	1
Rajasthan	10.3	58	5.7	22.8	1	1
Tamil Nadu	2.3	3.4	0.9	1.4	1	1
Uttar Pradesh	3	18.2	1.3	6	1	1
Uttarakhand	1.6	13.8	1.1	3.4	1	1
West Bengal	3.2	2.3	1.5	1.3	1	1

Sources: Niti Aayog 2022; PRS.

Table 17: State-wise number of APMC regulated markets and average area served by one market (as on March 31, 2023)

State	Total no of regulated markets	Average area served by each regulated market (in square km)
Andhra Pradesh	318	512
Arunachal Pradesh	19	4,408
Assam	226	347
Chandigarh	1	114
Chhattisgarh	187	723
Goa	8	463
Gujarat	405	484
Haryana	285	155
Himachal Pradesh	63	884
Jharkhand	201	397
Karnataka	564	340
Madhya Pradesh	557	554
Maharashtra	929	331
Meghalaya	2	11,215
Nagaland	19	873
New Delhi	15	99
Odisha	535	291
Puducherry	8	70
Punjab	436	116
Rajasthan	484	707
Tamil Nadu	288	452
Telangana	282	397
Tripura	21	499
Uttar Pradesh	633	384
Uttarakhand	62	863
West Bengal	537	165
Total	7,085	406

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