

AGRICULTURE AND FOOD MANAGEMENT: FROM FOOD SECURITY TO NUTRITIONAL SECURITY

08 CHAPTER

The performance of the agriculture and allied sector has been buoyant over the past several years, much of which is on account of the measures taken by the government to augment crop and livestock productivity, ensure certainty of returns to the farmers through price support, promote crop diversification, improve market infrastructure through the impetus provided for the setting up of farmer-producer organisations and promotion of investment in infrastructure facilities through the Agriculture Infrastructure Fund. The chapter discusses these aspects while also focussing on other government interventions to enhance credit availability, facilitate mechanisation and boost horticulture and organic farming.

The chapter documents the performance of the animal husbandry, dairying and fisheries sectors, which are increasingly recognised as emerging sectors by way of performance relative to the crop sector and their importance in the food basket and the farmers' incomes.

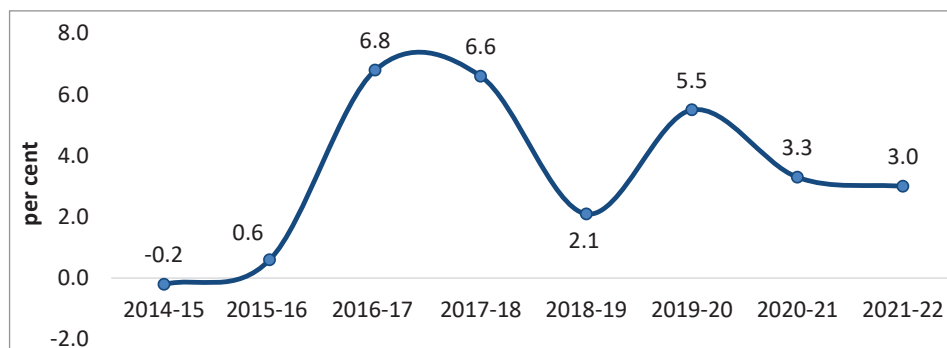
The legislation-backed nationwide food management programme, the National Food Security Act (NFSA), is discussed. To remove the financial burden of the poor, the Government has taken a decision to give free foodgrains to about 81.4 crore beneficiaries under the NFSA for one year from January 1, 2023

Introduction

8.1 With its solid forward linkages, the agriculture and allied activities sector significantly contributed to the country's overall growth and development by ensuring food security. The Indian agriculture sector has been growing at an average annual growth rate of 4.6 per cent during the last six years. It grew by 3.0 per cent in 2021-22 compared to 3.3 per cent in 2020-21. In recent years, India has also rapidly emerged as the net exporter of agricultural products. In 2020-21, exports of agriculture and allied products from India grew by 18 per cent over the previous year. During 2021-22, agricultural exports reached an all-time high of US\$ 50.2 billion. This period of buoyant performance could be ascribed to the measures taken by the Government to promote farmer-producer organisations, encourage crop diversification, and improve productivity in agriculture through support provided for mechanisation and the creation of the Agriculture Infrastructure Fund. Thus, enabling the country, in the spirit of Vasudhaiva

Kutumbakam, to provide necessary and essential support to other countries for the losses faced during Covid-19. Further, income support to farmers through the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and the promotion of allied activities has led to diversification in sources of farmers' income, improving their resilience to weather shocks.

Figure VIII.1: Despite Covid-19 shock agriculture and allied sector shows resilient growth

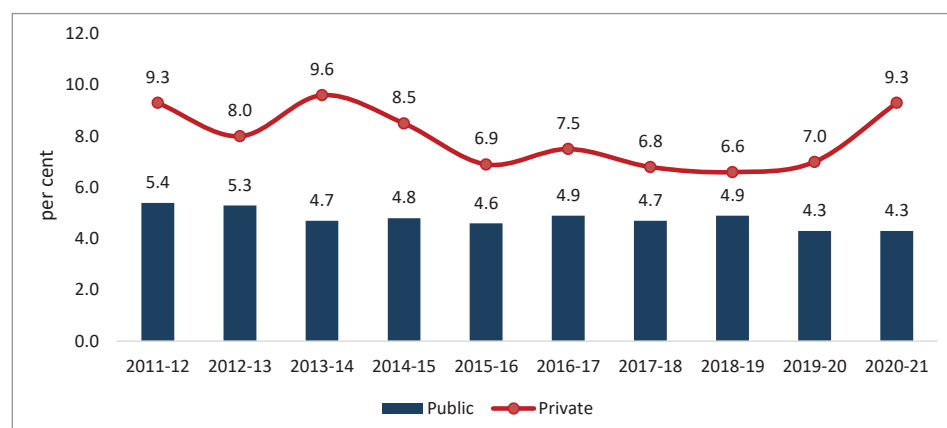


Source: MoSPI's Annual and Quarterly Estimates of GDP at constant prices, 2011-12 series.

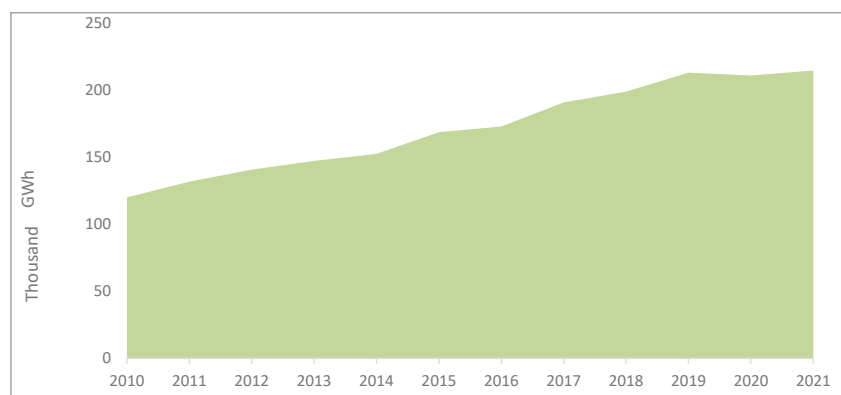
8.2 The interventions of the Government have been in line with the recommendations of the Committee on Doubling Farmers' Income, which had identified improvement in crop and livestock productivity, diversification towards higher value crops, better resource efficiency, enhanced cropping intensity, improvement in real prices received by farmers and shift from farm to non-farm occupations as being significant sources of growth. Several policy measures, such as the Minimum Support Price (MSP) to secure the price at one and half times the all-India weighted average cost of production, schemes and price measures to focus on high-value added crops such as oilseed, incentives for crop diversification through price policy measures, improvements in agricultural marketing and by enhancing resource use efficiency etc. have been adopted. While Indian agriculture has performed well, the sector needs re-orientation in the backdrop of certain challenges like adverse impacts of climate change, fragmented landholdings, sub-optimal farm mechanisation, low productivity, disguised unemployment, rising input costs, etc.

Various policy initiatives introduced and implemented to deal with these issues are discussed later in this chapter.

Figure VIII.2: Crowding in of Private investment in agriculture



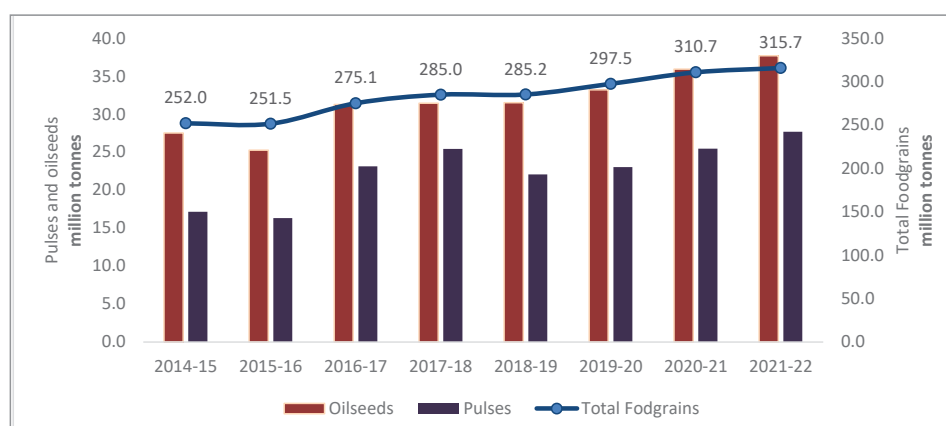
Source: Agricultural Statistics at a Glance 2021.

Figure VIII.3: India's Electricity Consumption in Agriculture (Annual)

Source: Ministry of Statistics and Programme Implementation

Record Production of Foodgrains

8.3 As per Fourth Advance Estimates for 2021-22, the production of food grains and oil seeds has been increasing Year-on-Year (YoY). Production of pulses has also been notably higher than the average of 23.8 million tonnes in the last five years. However, as indicated earlier changing climate has been impacting agriculture adversely. The year 2022 witnessed an early heat wave during the wheat-harvesting season, adversely affecting its production. The year experienced a decline in the sown area for paddy cultivation too in the Kharif season due to delayed monsoons and deficient rainfall. As per First Advance Estimates 2022-23 (kharif only) the paddy area was about 3.8 lakh hectares less than the sown area of 411.2 lakh hectare during 2021-22 (kharif season). Further, in the current rabi season the area under rabi paddy has expanded by 6.6 lakh hectares as compared to last year (Crop Weather Watch Group 12 January 2023). As per the First Advance Estimates for 2022-23 (Kharif only), total food grains production in the country is estimated at 149.9 million tonnes which is higher than the average Kharif food grain production of the previous five years (2016-17 to 2020-21). Despite a fall in the sown area of Kharif paddy, the total production of Kharif rice during 2022-23 is estimated at 104.9 million tonnes, which is higher than the previous five years (2016-17 to 2020-21) average Kharif rice production of 100.5 million tonnes.

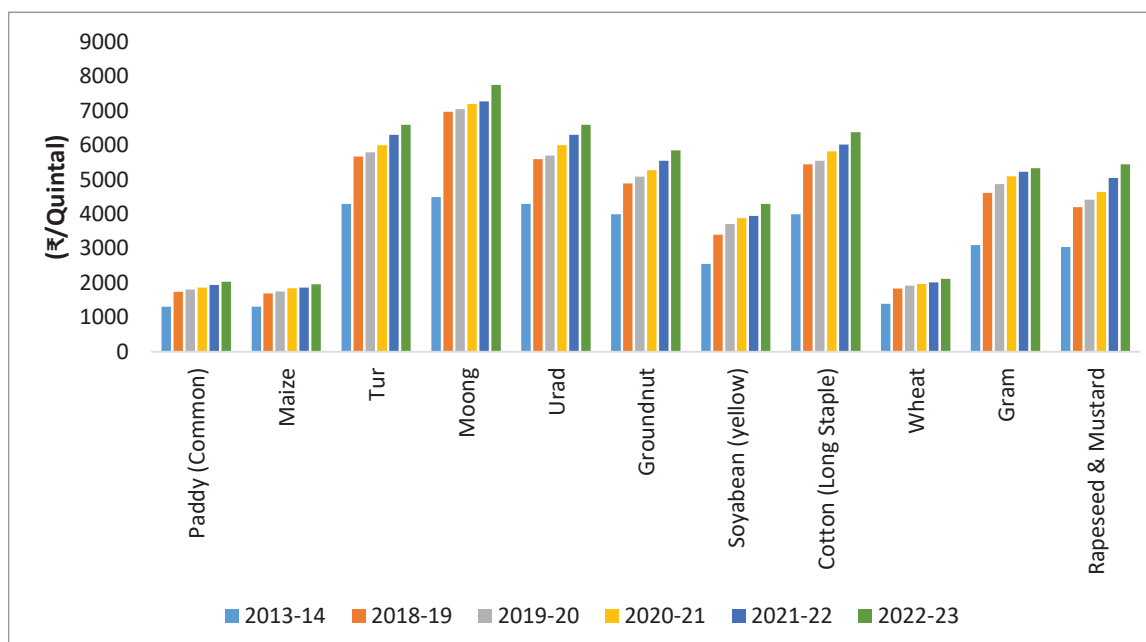
Figure VIII.4: Sustained increase in Foodgrains Production in India (Million Tonnes)

Source: 1st Advance Estimates (2022-23) of DA&FW released dated 21.09.2022.

MSP to Ensure Returns Over the Cost of Production

8.4 The Union Budget for 2018-19 announced that farmers in India would be given an MSP of at least one and a half times the cost of production. Accordingly, the Government has been increasing the MSP for all 22 Kharif, Rabi and other commercial crops with a margin of at least 50 per cent over the all-India weighted average cost of production since the agricultural year 2018-19. Given nutritional requirements and changing dietary patterns and to achieve self-sufficiency in pulses and oilseeds production, the Government has fixed relatively higher MSP for pulses and oilseeds.

Figure VIII.5: Minimum Support Price for selected Kharif and Rabi Crops (₹/Quintal)



Source: Based on data of DAFW and CACP.

Enhanced Access to Agricultural Credit

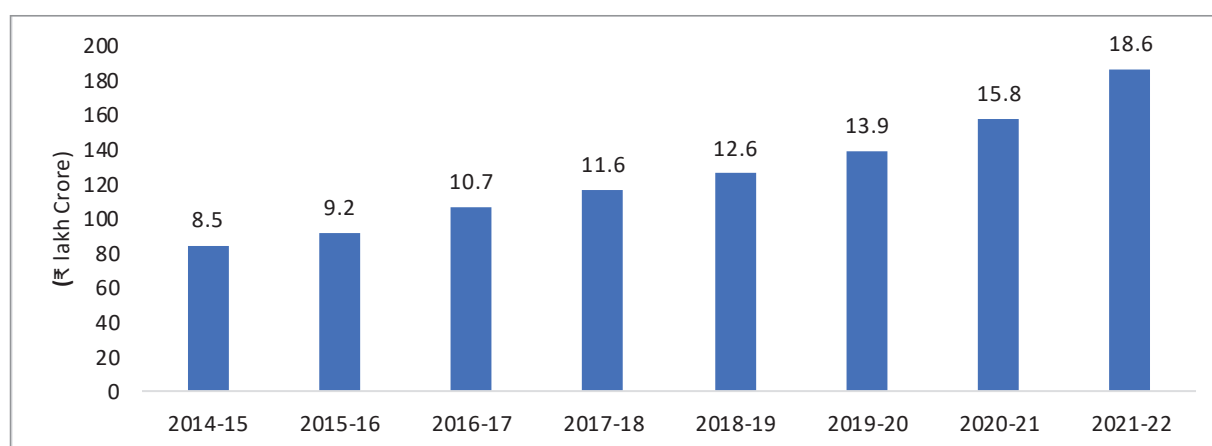
8.5 Ensuring hassle-free credit availability at a cheaper rate to farmers has been the top priority of the Government of India. Accordingly, the Kisan Credit Card Scheme (KCC) was introduced in 1998 for farmers to empower them to purchase agricultural products and services on credit at any time. As of 30 December, 2022, banks issued Kisan Credit Cards (KCC) to 3.89 crore eligible farmers with a KCC limit of ₹4,51,672 crore. With the Government of India extending the KCC facility to fisheries and animal husbandry farmers in 2018-19, the number of such cards in the fisheries and animal husbandry sector has also grown. As of 17 October 2022, 1.0 lakh KCCs have been sanctioned for the fisheries sector and 9.5 lakh (as of 4 November 2022) for the animal husbandry sector.

8.6 To ensure that the farmers pay a minimal interest rate to the banks, the Government of India has introduced the Interest Subvention Scheme (ISS), now renamed Modified Interest Subvention Scheme (MISS), to provide short-term credit to farmers at subsidised interest rates. Under this scheme, short-term agriculture loan up to ₹3 lakh is available at 7 per cent per annum to farmers engaged in Agriculture and other Allied activities, including Animal Husbandry,

Dairying, Poultry, Fisheries etc. An additional 3 per cent subvention (Prompt Repayment Incentive) is also given to the farmers for prompt and timely repayment of loans. Therefore, if a farmer repays his loan on time, he gets credit at 4 per cent per annum.

8.7 As a result of the initiatives taken and the measures to strengthen existing policies, there has been a consistent increase in the agriculture credit flow over the years, exceeding the target every year for the past several years. In 2021-22 also, it was about 13 per cent more than the target of ₹16.5 lakh crore. The target for the flow of credit to agriculture for 2022-23 has been fixed at ₹18.5 lakh crore.

Figure VIII.6: Continued Increase in Institutional Credit to Agriculture Sector (₹ lakh crore)



Source: Based on data from DAFW and Agricultural Statistics at a Glance 2021.

Farm mechanisation- Key to Improving Productivity

8.8 Farm mechanisation helps increase productivity through timely and efficient use of other inputs and natural resources while at the same time reducing the cost of cultivation and the drudgery associated with various farm operations. Under the Sub Mission on Agricultural Mechanisation (SMAM), State Governments are being assisted in training and demonstrating agricultural machinery and helping farmers procure various farm machinery and equipment besides setting up Custom Hiring Centres (CHC). As of December 2022, 21628 CHCs and 467 Hi-Tech hubs and 18306 farm machinery banks have been established. Increasing fragmentation of farm holdings (with the average size of household ownership holdings declining from 1.23 ha in 2005-06 to 1.10 ha in 2010-11 and further to 1.08 ha in 2015-16) requires machines that are viable and efficient for small farm holdings ¹.

Chemical-free India: Organic and Natural Farming

8.9 Organic and natural farming provides chemical fertiliser and pesticide-free food grains and other crops, improves soil health and reduces environmental pollution. India has 44.3 lakh organic farmers, the highest in the world, and about 59.1 lakh ha area was brought under organic farming by 2021-22. Sikkim voluntarily adopted going organic, and the process of getting the total cultivable land of 58,168 hectares under organic farming commenced at ground level in

¹Agriculture Statistics at a glance 2021

2010. It became the first State in the world to become fully organic, and other States, including Tripura and Uttarakhand, have set similar targets.

8. 10 The Government has been promoting organic farming by implementing two dedicated schemes, i.e., Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) since 2015 through cluster/ Farmer Producer Organisations (FPOs) formation. PKVY Scheme is being implemented in a cluster mode (with min. 20 ha size). Financial assistance of ₹50,000 per ha for three years is provided to the farmer, out of which ₹31,000 is given as incentives for organic inputs provided directly through Direct Benefit Transfer (DBT). Under PKVY as of 16 November 2022, 32,384 clusters totalling 6.4 lakh ha area and 16.1 lakh farmers have been covered. In addition, as part of the Namami Gange Programme, a 1.2 lakh ha area has been covered under organic farming. MOVCDNER is dedicated to promoting organic farming of niche crops of the North East Region through FPOs. Under the MOVCDNER, 177 FPOs/FPCs have been created, covering 1.5 lakh farmers and 1.7 lakh hectares.

8. 11 Promotion of natural farming began in 2019-20, when Bhartiya Prakratik Krishi Paddhati (BPKP), a sub-scheme of PKVY, was launched to assist farmers in adopting traditional indigenous practices for encouraging all forms of ecological farming, including Zero-Budget Natural Farming (ZBNF). The scheme focuses on capacity building, training, handholding, and on-field demonstration of natural farming through champion farmers. Under the BPKP, 4.09 lakh ha of land have been brought under Natural farming in 8 States (Andhra Pradesh, Chhattisgarh, Kerala, Himachal Pradesh, Jharkhand, Odisha, Madhya Pradesh and Tamil Nadu).

Other Important Initiatives in Agriculture

8.12 PM KISAN Scheme: It is a Central Sector Scheme to supplement the financial needs of land-holding farmers. The financial benefit of ₹6,000 per year is transferred into the bank accounts of farmer families through DBT. It is one of the largest DBT schemes in the world. About 11.3 crore farmers were covered under the Scheme in its April-July 2022-23 payment cycle. The Scheme, through a span of over 3 years, has successfully provided assistance of more than Rs. 2 lakh crore to crores of needy farmers. Many studies and findings indicate that the PM KISAN scheme has helped farmers towards productive investment in agricultural activities. This, through a multiplier effect, has contributed to the overall improvement of the farm sector. For instance, in an empirical² study with the Indian Council of Agriculture Research (ICAR), the International Food Policy Research Institute (IFPRI) found that the scheme has enabled addressing the liquidity constraints of farmers for buying agricultural inputs. Further, for the small and marginal farmers, it has helped them meet their requirement of funds for farm inputs and their daily consumption, education, health and other incidental expenses.

8. 13 Agriculture Infrastructure Fund (AIF): AIF is a financing facility operational from the year 2020-21 to 2032-33 for the creation of post-harvest management infrastructure and community farm assets, with benefits including 3 per cent interest subvention and credit guarantee support. Under this, a provision of ₹1 lakh crore for 2020-21 to 2025-26 has been made, and interest

²Varshney, Deepak; Joshi, Pramod Kumar; Roy, Devesh; and Kumar, Anjani. 2020. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and the adoption of modern agricultural technologies in Uttar Pradesh, India. IFPRI Discussion Paper 1907. Washington, DC: International Food Policy Research Institute (IFPRI)

subvention and credit guarantee assistance will be given until 2032-33. AIF scheme has the facility of convergence with any other scheme of the State or Central Government and can prove to be a milestone in investment in the agriculture sector.

Since its inception, an amount of ₹13,681 crore has been sanctioned for agriculture infrastructure in the country, covering more than 18,133 projects. These include 8,076 warehouses, 2,788 primary processing units, 1,860 custom hiring centres, 937 sorting & grading units, 696 cold store projects, 163 assaying units and around 3613 other kinds of post-harvest management projects and community farming assets.

8.14 Pradhan Mantri Fasal Bima Yojana (PMFBY): PMFBY is currently the largest crop insurance scheme in the world in terms of farmer enrolments, averaging 5.5 crore applications every year and the third largest in terms of the premium received. The scheme promises minimal financial burden on the farmer, with farmers paying only 1.5 per cent and 2 per cent of the total premium for the Rabi and Kharif seasons, respectively, with Centre and State Governments bearing most of the premium cost. During the last six years of its implementation, farmers paid a premium of ₹25,186 crore and received claims amounting to ₹1.2 lakh crore (as of 31 October 2022). The acceptability of the scheme amongst the farmer can be ascertained from the fact that the share of non-loanee, marginalised, and small farmers have increased by 282 per cent since the scheme's inception in 2016.

Box VIII.1: Pradhan Mantri Fasal Bima Yojana (PMFBY)

- PMFBY was launched in the 2016 Kharif season to provide comprehensive insurance coverage to farmers in case of crop failure, helping stabilise their incomes. The scheme is implemented through empanelled general insurance companies. It is modified/revamped on a timely basis considering the prevailing policy regime and requirement of policy intervention in crop insurance in the country. The Scheme covers all Food & Oilseeds crops and Annual Commercial/Horticultural Crops for which past yield data is available and for which the requisite number of Crop Cutting Experiments (CCEs) are being conducted under the General Crop Estimation Survey (GCES). The revamped Scheme w.e.f Kharif 2020 has many features, which include voluntary participation for all farmers, selection of Insurance Companies by the States for 3 years in a go, a two-step process of crop yield estimation, use of smart sampling technique through satellite data for crop cutting experiments, etc.
- The scheme is implemented on an 'Area Approach' basis. Admissible claims are worked out and paid directly to the insured farmer's account by the insurance companies on the yield data based on the requisite number of CCEs per unit area furnished to the concerned insurance. However, losses due to localised risks of hailstorms, landslides, inundation, etc., are calculated on an individual-insured farm basis. These claims are assessed by a joint committee comprising representatives of the State Government and concerned insurance companies.

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- To better resolve grievances within the scheme, National Crop Insurance Portal has been developed to handle all grievances from end to end. This portal is equipped with the necessary features, such as Complaint/Query capturing through multiple modes, farmer authentication & online ticket forwarding to the concerned company, online escalation as per escalation matrices, updating of resolution details, MIS & Dashboards for data analysis. It has API-based connectivity to the insurance companies and is well-designed, ensuring that every grievance is taken to a logical conclusion to the farmer's satisfaction. Along with this, the redressal of complaints within the prescribed time limits is monitored through the portal by the concerned State and Central Government officials. The Beta version of the portal was launched in Chhattisgarh on 21st July 2022.

- Further, a provision of Stratified Grievance Redressal Mechanism, viz. District Level Grievance Redressal Committee (DGRC), State Level Grievance Redressal Committee (SGRC) has been made in the Revised Operational Guidelines of the Scheme to resolve such complaints.

8.15 Mission for Integrated Development of Horticulture (MIDH): Several expert groups have identified horticulture as a high-growth area and a source of buoyant income and improved resilience for farmers. The scheme to promote horticulture covering fruits, vegetables, root and tuber crops, spices, flowers, plantation crops etc., was introduced in 2014-15. The interventions include introducing improved varieties and quality seeds, incentives for plantation crops, cluster development, and post-harvest management. According to third advance estimates (2021-22), a record production of 342.3 million tonnes in an area of 28.0 million hectares was achieved. The government has identified 55 horticulture clusters, of which 12 have been selected for the Cluster Development Programme (CDP) pilot phase. This programme is designed to leverage the geographical specialisation of horticulture clusters and promote integrated and market-led development of pre-production, production and post-harvest activities, including the entire supply chain.

8.16 National Agriculture Market (e-NAM) Scheme: The Government of India launched the National Agriculture Market (e-NAM) Scheme in 2016 to create an online transparent, competitive bidding system to ensure farmers get remunerative prices for their produce. Under

the e-NAM Scheme, the Government provides free software and assistance of ₹75 lakh per APMC mandi for related hardware, including quality assaying equipment and the creation of infrastructure like cleaning, grading, sorting, packaging, compost unit, etc. As on 31 December 2022, more than 1.7 crore farmers and 2.3 lakh traders have been registered on e-NAM portal

8.17 Climate-Smart Farming Practices: This is slowly gaining acceptance with farmers using clean energy sources like solar for irrigation. The farmers have been incentivised to transfer electricity generated through solar to the local grid. Crop yield prediction models using artificial intelligence and drones for monitoring soil and crop health have been initiated. Smart farming also enables crop diversification, which will help farmers reduce their dependence on monsoons for water. There are over 1,000 agritech start-ups in India. These assist farmers in improving farming techniques ³.

Box VIII.2: International Year of the Millets: Our traditional Staple and a healthier alternative



Source: Ministry of Agriculture & Farmers Welfare

The United Nations General Assembly, in its 75th session during March 2021, declared 2023 the International Year of Millets (IYM). Millets are Smart Food with high nutritional value, are climate resilient, and align with several UN Sustainable Development Goals (SDGs). These are also important by virtue of their mammoth potential to generate livelihood, increase farmers' income and ensure food & nutritional security all over the world.

³www.investindia.gov.in/team-india-blogs/digitalization-agriculture-india

India produces more than 50.9 million tonnes (as per fourth advance estimate) of millet which accounts for 80 per cent of Asia's and 20 per cent of global production. The global average yield is 1229 kg/ha, whereas India has a higher average yield of 1239 kg/ha. In India, millets are primarily a Kharif crop mostly grown in rainfed conditions, requiring less water and agricultural inputs than other staple crops.

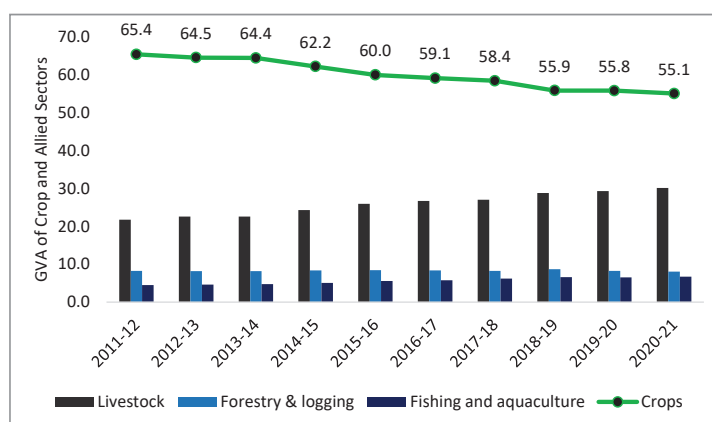
Given the nutritional value of the millets, the Government notified Millets as Nutri-cereals in April 2018. Under the National Food Security Mission (NFSM), millets have been introduced to provide nutritional support. A sub-mission on Nutri-cereals is being implemented since 2018-19 in 212 districts of 14 States.

India has more than 500 start-ups working in the millet value chains, while the Indian Institute of Millets Research has incubated 250 start-ups under Rashtriya Krishi Vikas Yojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation (RKVY-RAFTAAR).

Allied Sectors: Animal Husbandry, Dairying and Fisheries Catching Up in Recent Years

8.18 The allied sectors of Indian agriculture - livestock, forestry & logging and fishing & aquaculture are gradually becoming sectors of buoyant growth and a potential source of better farm incomes. The livestock sector grew at a CAGR of 7.9 per cent during 2014-15 to 2020-21 (at constant prices), and its contribution to total agriculture GVA (at constant prices) has increased from 24.3 per cent in 2014-15 to 30.1 per cent in 2020-21. Similarly, the annual average growth rate of the fisheries sector has been about 7 per cent since 2016-17 and has a share of about 6.7 per cent in total agriculture GVA. Higher growth in allied sectors compared to the crop sector has obvious implications in terms of the increasing importance of the former in total agricultural GVA. Recognising the growing importance of allied sectors, the Committee on Doubling Farmers' Income (DFI, 2018) considers dairying, livestock, poultry, fisheries and horticulture as high-growth engines and has recommended a focussed policy with a concomitant support system for the allied sector.

Figure VIII.7: Though the Crop sector is still the major contributor to agriculture GVA, the livestock sector is catching up (per cent)



Source: Based on data of MoSPI.

8.19 The dairy sector is the most critical component of the livestock sector, employing more than eight crore farmers directly, and is the most prominent agrarian product. Other livestock products, such as eggs and meat, are also growing in importance. While India ranks first in milk production in the world, it ranks third in egg production and eighth in meat production in the world.

8.20 Cognisant of the importance of allied sectors, the Government has made several critical interventions to enhance infrastructure and improve livestock productivity and disease control. As a part of the Aatmanirbhar Bharat (ANB) stimulus package, the Animal Husbandry Infrastructure Development Fund (AHIDF) worth ₹15,000 crore was launched in 2020. Under this scheme, the Central Government provides a 3 per cent interest subvention to the borrower and credit guarantees up to 25 per cent of total borrowing. As of 14 October 2022, 116 projects have been approved under the scheme involving project costs of ₹3,731.4 crore. National Livestock Mission (NLM) scheme has been restructured for 2021-22 to 2025-26. The scheme focuses on entrepreneurship development and breeds improvement in poultry, sheep, goat and piggery, including feed and fodder development. Also, the Livestock Health and Disease Control (LH&DC) Scheme is being implemented to supplement the State/UT governments' efforts towards preventing, controlling and containing animal diseases of economic and zoonotic importance by vaccination. National Animal Disease Control Programme (NADCP) is being implemented to control Foot & Mouth Disease and Brucellosis by completely vaccinating cattle, buffalo, sheep, goat and pig populations against Foot & Mouth Disease and bovine female calves of 4-8 months of age against brucellosis.

8.21 In May 2020, as a part of the ANB package, the Government of India launched its flagship scheme Pradhan Mantri Matsya Sampada Yojana (PMMSY), with a total outlay of ₹20,050 crore. PMMSY marks the highest-ever investment in the fisheries sector in India, to be implemented over five years from FY21 to FY25 in all States/Union Territories to drive sustainable and responsible development of the fisheries sector while ensuring socio-economic development of the fishers, fish farmers and fish workers. Before this, attention had been paid to addressing infrastructure gaps in the fisheries sector. A dedicated Fisheries and Aquaculture Infrastructure Development Fund (FIDF) was established for five years, from 2018-19 to 2022-23, with an investment of ₹7,522 crore. Under the FIDF, as of 17 October 2022, proposals to the tune of ₹4,923.9 crore have been approved and have benefitted over 9.4 lakh persons, through direct and indirect employment, in fishing and allied activities.

Sahakar-Se-Samriddhi: From Cooperation to Prosperity

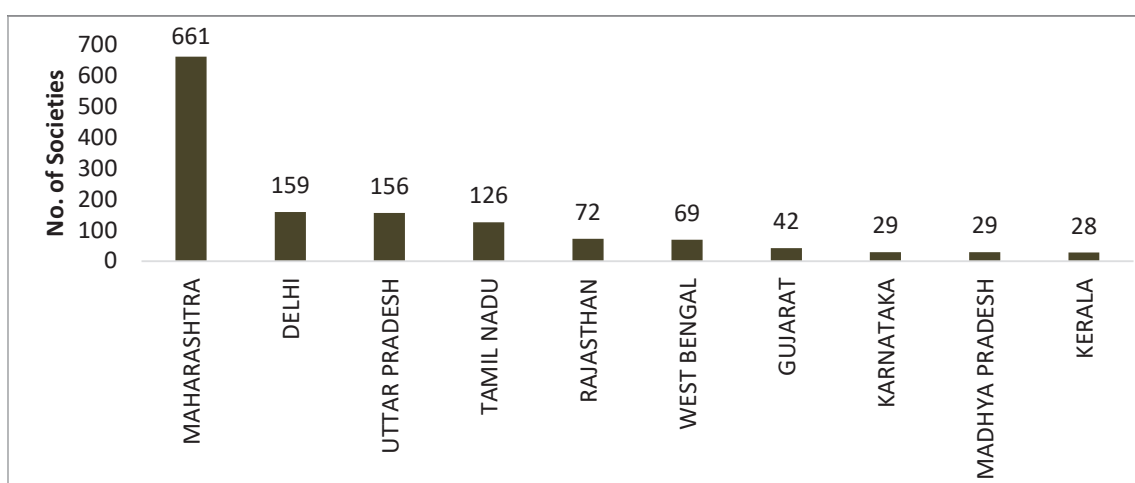
8.22 The cooperative societies, especially in the agriculture, dairy and fisheries sectors, provide the rural population with livelihood opportunities and a financial safety net with a community-based approach. Cooperatives hold the key to rural economic transformation. There are 8.5 lakh registered cooperatives in the country, having more than 29 crore members mainly from the marginalised and lower-income groups in the rural areas, and 98 per cent of villages are covered by Primary Agriculture Credit Societies (PACS).

8.23 To realise the vision of “Sahakar-see-Samriddhi”, a renewed impetus was given to the growth of the cooperative sector. Currently, around 19 per cent of agriculture finance is through

cooperative societies. A full-fledged Ministry of Cooperation was established in July 2021 to provide greater focus to the cooperative sector. In addition, the Government has taken various initiatives to promote and strengthen PACS, like the computerisation of 63,000 functional PACS and the preparation of by-laws for enabling PACS to expand their activities.

8.24 The Multi-State Cooperative Societies Act, 2002 (MSCS) was enacted after repealing the Multi-State Cooperative Act 1984, to facilitate the democratic functioning and autonomous working of Multi-State Cooperative Societies in line with the established Cooperative Principles. As of date, there are 1528 registered societies under the Multi-State Cooperative Societies Act 2002. The MSCSs include 66 Multi-State Cooperative Banks with deposits of approx. ₹2.6 lakh crore. Maharashtra leads 661 cooperatives, followed by Delhi and Uttar Pradesh.

Figure VIII.8: Top ten states with Multi-State Cooperative Societies as on 20 October 2022



Box VIII.3: New National Cooperation Policy

With the view to strengthening the cooperative movement in the country, deepening its reach to the grassroots, and promoting cooperative-based economic development, a New National Cooperation Policy is being formulated involving the relevant stakeholders such as experts of the cooperative sector, representatives from National/ State/ District/ Primary level cooperative societies, Secretaries (Cooperation) and Resident Commissioners from States/UTs, officers from Central Ministries/ Departments. The objective is to have a policy that unlocks the true potential of the Cooperation sector.

In addition, the Government has also decided to introduce the Multi-State Co-operative Societies (Amendment) Bill, 2022. The Bill seeks to amend the Multi-State Co-operative Societies Act, 2002, to bring it in line with Part IXB of the Constitution and to strengthen the cooperative movement in the country by bringing in provisions relating to electoral reforms, strengthening governance and transparency, reforming the composition, meetings and membership of board; enabling the raising of funds by co-operative sector, strengthening monitoring mechanism, enhancing 'Ease of doing business', etc. The bill was introduced in the Lok Sabha on 7 December 2022 in the winter session of Parliament.

Food Processing Sector-The Sunrise Sector

8.25 The food processing sector is of enormous significance for India's development because of the strong connections and interactions it promotes between industry and agriculture. During the last five years ending FY21, the food processing industries sector has been growing at an average annual growth rate of around 8.3 per cent. As per the latest Annual Survey of Industries (ASI) 2019-20, 12.2 per cent of persons in the registered manufacturing sector were employed in the food processing sector. The value of agri-food exports, including processed food exports, was about 10.9 per cent of India's total exports during 2021-22.

8.26 With the growing importance of processed food items in the consumer basket, new horizons are now open for both the agriculture and the industry sector pushing diversification and commercialisation in farming, improvement in the efficiency of resource use, enhancement in the income of farmers, expansion in the avenues to export agro foods and generation of employment opportunities. Optimum development of the food processing sector will contribute significantly to tackling several developmental concerns such as disguised rural unemployment in agriculture, rural poverty, food security, food inflation, improved nutrition, prevention of wastage of food etc.

8.27 To facilitate the unfettered growth of the food processing sector, there is a continuous need for extensive investment in cold chain infrastructure and address logistical challenges. The NITI Aayog Strategy for New India identifies the lack of adequate and efficient cold chain infrastructure as a critical supply-side bottleneck that leads to massive post-harvest losses (mostly of perishables) estimated at ₹92,561 crore annually⁴. The uneven geographic distribution of cold storage infrastructure also contributes to regional-level disparities. Given that countries worldwide have stringent guidelines for importing food and agricultural products, the probability of exports from India getting rejected increases with the lack of adequate cold chain infrastructure. Further, logistical barriers relating to connectivity also pose supply-side challenges. For instance, Indian national highways, while accounting for 2 per cent of the total road network, carry 40 per cent of all cargo – exemplifying the burden on the existing road networks and potential for congestion, which is detrimental to food (and particularly perishables) transport.

8.28 Recognising the abundant potential of the sector, the Government has been at the forefront with various interventions aimed at the development of food processing in the country. The Ministry of Food Processing Industries, through the component schemes of Pradhan Mantri Kisan SAMPADA Yojana (PMKSY), provide financial assistance for the overall growth and development of the food processing sector. Under PMKSY, 677 projects have been completed till 31 December 2022. The Ministry also launched in 2020 the Prime Minister's Formalisation of Micro Food Processing Enterprises (PMFME) Scheme as part of the ANB Abhiyan to enhance the competitiveness of individual micro-enterprises in the unorganised segment and promote the formalisation of this sector by providing financial, technical and business support for upgradation/setting up of 2 lakh micro units in the country. As of 31 December 2022, 15,095 loans of ₹1402.6 crore were sanctioned. The scheme adopts the One District One Product

⁴Niti Aayog, New Strategy for India @75, Dec 2018, chapter 7, page 36.

(ODOP) approach to reap the benefit of scale in procuring inputs, using shared services and marketing products. So far, 713 Districts with 137 unique products were approved under the ODOP in 35 States/ UTs.

8.29 The Production Linked Incentive Scheme for Food Processing Industry (PLISFPI), launched in March 2022, has the specific mandate to incentivise investments to create global food champions. Sectors with high growth potential, like marine products, processed fruits & vegetables, and 'Ready to Eat/ Ready to Cook' products, are covered for support. In phase -I, 149 applications have been selected for assistance under the PLISFPI. Subsequently, a PLI Scheme for millet-based products was also introduced with an outlay of ₹800 crore. In phase-II, 33 applications (both organic and millet products) have been selected.

8.30 To focus on transporting perishable food products, including horticulture, fishery, livestock and processed products, from the Hilly Areas, North-Eastern States and Tribal Areas, Krishi UDAN 2.0 version was launched in October 2021 as a six-month pilot project. The Airports Authority of India (AAI) provides a full waiver of Landing, Parking, Terminal Navigational Landing Charges (TNLC) and Route Navigation Facility Charges (RNFC) for Indian freighters and P2C (Passenger-to-Cargo) aircraft. The scheme covers around 25 airports focusing on North Eastern, Hilly and Tribal regions and 28 airports in other regions/areas. Thus, the scheme assists farmers in transporting agricultural products and improves value realisation.

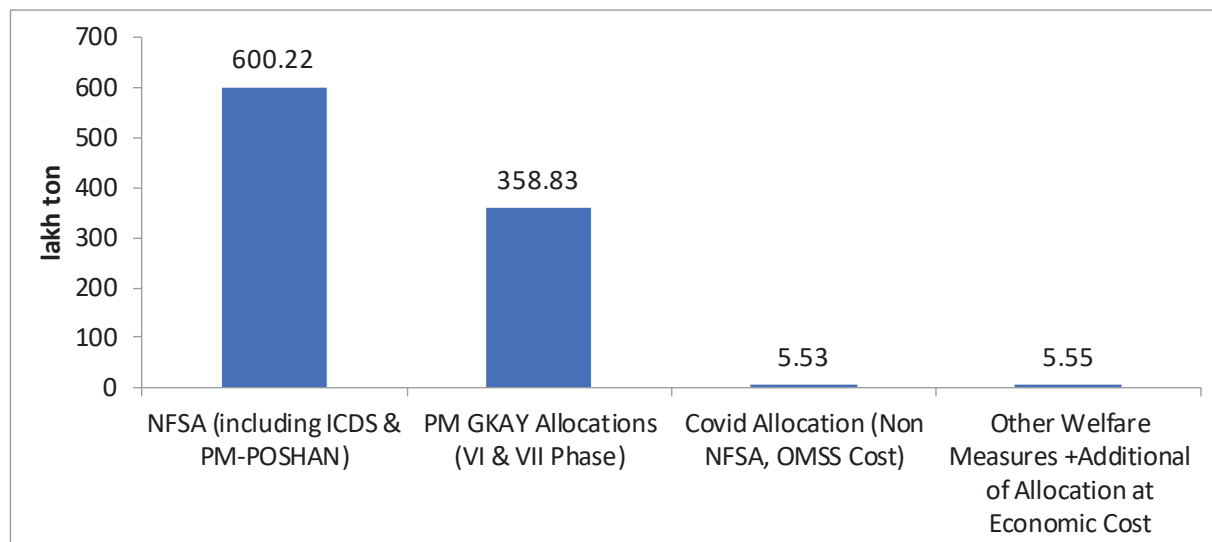
Food Security- Social & Legal Commitment to the People of the Nation

8.31 Food security is not only a question of the ability to produce food but also of the ability to access food. The Government is currently running the most extensive legislation-based food security programme in the world, covering about 80 crore of India's population under the National Food Security Act (NFSA), 2013. The food management programme in India comprises procurement of food grains from farmers at remunerative prices, distribution of food grains to consumers, particularly the vulnerable sections of society, at affordable prices and maintenance of food buffer stock for food security and price stability. Till December 2022, the NFSA provided, for coverage of up to 75 per cent of the rural and up to 50 per cent of the urban population highly subsidised food grains at ₹1/2/3 per kg for coarse grains/ wheat/rice, respectively, at the rate of 35 kg per family per month to households covered under Antyodaya Anna Yojana (AAY) and at the rate of 5 kg per person per month to priority households. In a recent decision, the government has decided to provide free foodgrains to about 81.35 crore beneficiaries under the NFSA for one year from January 1, 2023. To remove the financial burden of the poor, the government will spend more than ₹2 lakh crore in this period on food subsidies under NFSA and other welfare schemes. Under this, the Government will provide 5 kg of foodgrains per person to Priority Households (PHH) beneficiaries and 35 kg per household to Antyodaya Anna Yojana (AAY) beneficiaries (poorest of the poor) free of cost for the next year.

8.32 Procurement from farmers for this programme is at MSP. During Kharif Marketing Season (KMS) 2021-22, 581.7 lakh metric tons (LMT) of Rice was procured against an estimated target of 532.7 LMT. In the current year, KMS 2022-23, a total of 355 LMT of rice has been procured up to 31 December 2022. Also, during Rabi Marketing Season (RMS) 2022-23, 187.9 LMT

wheat was procured against 433.4 LMT procured during RMS 2021-22. The procurement was lower as the market price of wheat was higher than its MSP during its procurement season. During 2022-23, the Government of India allocated 970.1 lakh tons of foodgrains to States/UTs under NFSA and Other Welfare Schemes, etc.

Figure VIII.9: Allocation of Foodgrains under NFSA and Other Welfare Schemes in 2022-23 and as of 1 January 2023 (LMT)



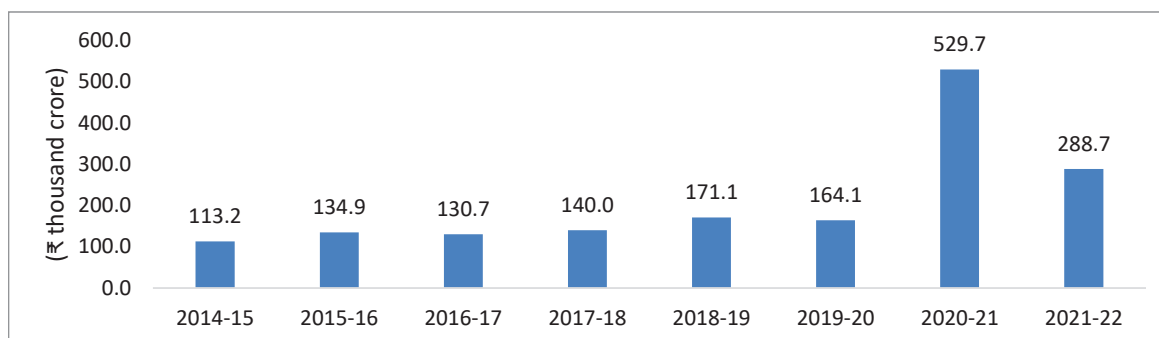
Source: Department of Food and Public Distribution.

8.33 To ease the hardships faced by the poor due to economic disruption caused by Covid-19, the Government initially launched Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) for the period from April to June 2020. However, keeping in view the need for continuous support to the poor and the needy, the scheme has been extended and implemented in various phases (Phase VII is the latest covering October-December, 2022). Under the scheme, 5 kg of additional food grains per person per month has been/is being provided free of cost to NFSA beneficiaries in all the phases. Under the PM-GKAY scheme (covering all phases), the Government has allocated about 1,118 LMT foodgrains to the States/UTs.

8.34 To further ease the process of access to food, the Government launched a citizen-centric and technology-driven scheme in 2019 called the One Nation One Ration Card (ONORC) scheme. The ONORC system enables intra-State and inter-State portability of ration cards. It helps the migrant beneficiaries access their food security entitlements from any fair price shop (FPS) of their choice by using the same ration card after biometric/Aadhaar authentication on electronic Point of Sale (e-PoS) devices at the FPS. Presently, the national/inter-State portability is enabled in all 36 States/UT, covering 100 per cent of the total NFSA population.

8.35 The food subsidy bill was higher during 2020-21 and 2021-22 in comparison to other years as a result of the free food distribution programme of the government under the PMGKAY. This dedicated support was provided to ensure that the farmers and vulnerable households remained protected from the Covid-19 led shocks.

Figure VIII.10: Total Food Subsidy released by the Government of India since 2014-15.
(In ₹ thousand crore)



Source: Based on data received from DFPD

Note: i. Aforesaid subsidy figure includes repayment of NSSF loan of ₹40,000 crores in FY2017-18, ₹70,000 crores in FY2018-19 and ₹44,164.02 crores in FY2019-20.

ii. Out of total funds released to FCI in FY2020-21, ₹46,278.9 crores were utilised to repay the entire NSSF loan and as on 31.03.2021 NSSF loan is NIL.

Conclusion

8.36 The performance of the agriculture sector remains critical to growth and employment in the country. Investment in the sector must be encouraged through an affordable, timely and inclusive approach to credit delivery. Intervention by the Government through PM Kisan to provide income support, strengthening of institutional finance and insurance through the PMFBY and the push given to Kisan Credit Cards as also access to machines and tools that improve productivity have been significant. A focus on the horticulture sector and the thrust towards allied activities have diversified farmers' income making them more resilient to weather shocks. All these initiatives have led to sustainable and inclusive development of the sector.

8.37 A greater focus on the development of the food processing sector can reduce wastage/loss and increase the length of storage, ensuring better prices for the farmers. The initiatives like e-NAM and the Promotion of FPOs formation have been introduced to strengthen the agricultural market. With the interventions including PMKSY, PMFME, PLI, etc., attempts have been made to boost the food processing industries to harness its linkages with the agriculture sector. A well-developed food processing sector with improved infrastructure like cold storage and better logistics helps reduce wastage, improve value addition, ensure better farmers' returns, promote employment, and increase export earnings.