

Agriculture & Food Management

பலகுடை நீழலும் தங்குடைக்கீழ்க் காண்பர்
அலகுடை நீழ் லவர்

(Who have the shade of cornful crest
Under their umbra umbrella rest.)

—Thiruvalluvar

The resilience of India's agriculture sector can be seen from the fact that despite the COVID-19 pandemic, its performance in output was strong. About 54.6 per cent of the total workforce in the country is still engaged in agricultural and allied sector activities (Census 2011) which accounts for approximately 17.8 per cent of the country's Gross Value Added (GVA) for the year 2019-20 (at current prices). While the difficulties created by COVID induced lockdowns adversely affected the performance of the non-agricultural sectors, the agriculture sector came up with a robust growth rate of 3.4 per cent at constant prices during 2020-21 (first advance estimates). The sector has got renewed thrust due to various measures on credit, market reforms and food processing under the Atma Nirbhar Bharat announcements. Various interventions of the Government for the development of allied sectors including animal husbandry, dairying and fisheries exhibit its resolve towards tapping the potential of allied sectors to further enhance farm welfare. In addition to various measures aimed at increasing productivity and improving marketing of agricultural produce, the Government also carries out a large food management programme with a significant financial implication in terms of food subsidy. Under the Pradhan Mantri Garib Kalyan Anna Yojana, 80.96 crores beneficiaries were provided additional foodgrains, i.e. above the NFSA mandated requirements, of 5 kg per person per month free of cost till November, 2020. Over 200 LMT of foodgrains were provided amounting to a fiscal outgo of over ₹ 75000 Crores. Also, under Atma Nirbhar Bharat Package, 5 kg per person per month was distributed for four months (May to August) to benefit approximately 8 crores migrants who are not covered under NFSA or state ration card entailing subsidy of ₹ 3109 crores approximately.

INTRODUCTION

7.1 COVID-19 pandemic has influenced the lives of people across the globe and India is no exception to that. The farming activities also experienced the impact of this pandemic as the COVID induced lockdowns influenced the movement of farm inputs including farm machinery from one location to other. The national lockdown coincided with the commencement of the harvesting season for the Rabi crops creating further adversity for the sector. Migration of agricultural labourers to their native places during the lockdown created a shortage of farm

labourers. India's agricultural system demonstrated its resilience amid such adversities. The agriculture and allied sectors were the sole bright spot amid the slide in performance of other sectors, clocking a growth rate of 3.4 per cent at constant prices during 2020-21. Against all adversities due to COVID-19, continuous supply of agriculture commodities, especially staples like rice, wheat, pulses and vegetables, has been maintained thereby enabling food security. In order to further strengthen and support the agricultural sector, several initiatives have been taken by the Government of India under the Atma Nirbhar Bharat Abhiyan (Box 1).

Box 1: Major Announcements for Agriculture and Food Management under the Atma Nirbhar Bharat Abhiyan

Announcement	Objectives
₹ 1 lakh crores Agri Infrastructure Fund	Financing will be provided for funding agriculture infrastructure projects at farm-gate & at aggregation points and for financially viable post-harvest management infrastructure.
₹ 10,000 crores scheme for Formalisation of Micro Food Enterprises (MFE)	Aiding 2 lakh MFEs who need technical upgradation to attain FSSAI food standards, build brands and support marketing.
₹ 20,000 crores for fisherman through Pradhan Mantri Matsya Sampada Yojana (PMMSY)	It aims at integrated, sustainable and inclusive development of marine and inland fisheries by developing infrastructure such as fishing harbours, cold chain, markets, etc.
National Animal Disease Control Programme	It targets Foot and Mouth Disease (FMD) and Brucellosis by ensuring 100 per cent vaccination of cattle, buffalo, sheep, goat and pig population.
Animal Husbandry Infrastructure Development Fund - ₹ 15,000 crores	It is to support private investment in dairy processing, enable value addition and improved cattle feed infrastructure.
From 'TOP' to TOTAL	"Operation Greens" run by Ministry of Food Processing Industries (MOFPI) to be extended from tomatoes, onion and potatoes to ALL fruit and vegetables.
Reforms in Essential Commodities Act, Agriculture Marketing and Agriculture Produce Pricing and Quality Assurance	These legislative reforms seek to remove agricultural commodities such as cereals, pulses, oilseeds etc. from the list of essential commodities and aim to reform agricultural marketing.
PM Garib Kalyan Ann Yojana	The scheme aimed at ensuring food and nutritional security to around 80 crores ration card holders who were affected due to the COVID-19 induced national lockdown.
One Nation One Ration Card Scheme	This scheme will enable migrant workers and their family members to access PDS benefits from any fair price shop in the country.

OVERVIEW OF AGRICULTURE

Gross Value Added in Agriculture

7.2 As per the provisional estimates of national income released by CSO on 29th May, 2020, the share of agriculture and allied sectors in Gross Value Added (GVA) of the country at current prices is 17.8 per cent for the year 2019-20. GVA of agriculture and allied sectors and its share in total GVA of the country during the last six years at current prices is as given in Table 1.

Table 1: Share of Agriculture and Allied Sectors in Total GVA at current prices

Items	Year					
	2014-15	2015-16	2016-17*	2017-18#	2018-19@	2019-20**
Share of GVA of Agriculture & Allied Sector in GVA of Total Economy (per cent)	18.2	17.7	18.0	18.0	17.1	17.8
Share of Crops	11.2	10.6	10.6	10.4	9.4	NA
Share of Livestock	4.4	4.6	4.8	5.1	5.1	NA
Share of Forestry & logging	1.5	1.5	1.5	1.4	1.3	NA
Share of Fishing & aquaculture	1.0	1.1	1.1	1.2	1.2	NA

Source: Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW).

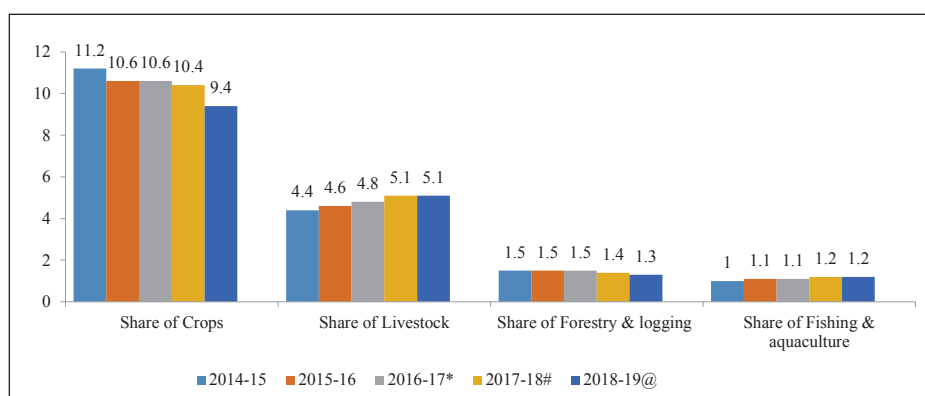
Note:**As per the Provisional Estimates of Annual National Income 2019-20 released by CSO on 29th May 2020.

@As per the First Revised Estimates of National Income, Consumption Expenditure, Saving and capital Formation for 2018-19 released on 31st January, 2020. # Second Revised Estimate. * Third Revised Estimate.

NA- Data not available.

7.3 The share of agriculture and allied sectors in GVA of the country has declined from 18.2 per cent in 2014-15 to 17.8 per cent in 2019-20 (Table 1), an inevitable outcome of a development process in which the relative performance of non-agricultural sectors becomes more dominant. Within the agriculture sector, the share of crops has fallen from 11.2 per cent in 2014-15 to 9.4 per cent in 2018-19. The decline in the share of crops has been made up by an increase in the share of livestock and fisheries sectors.

Figure 1: Share of Agriculture and Allied Sectors in Total GVA of the Country at Current Prices (in per cent)*



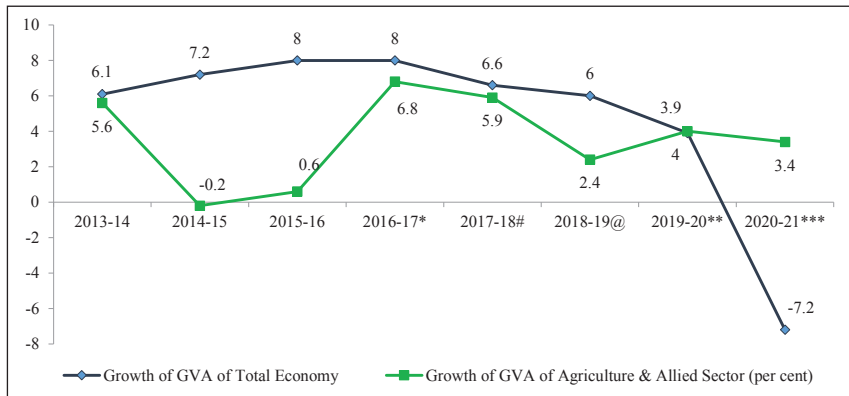
Source: Created from the data in Table 1.

*All the symbols attached with the years in the graph denote the same as indicated in Table 1.

Growth in Agriculture & Allied Sectors

7.4 The growth in GVA of agriculture and allied sectors has been fluctuating over time (Figure 2). However, during 2020-21, while the GVA for the entire economy contracted by 7.2 per cent, growth in GVA for agriculture maintained a positive growth of 3.4 per cent.

Figure 2: Growth of GVA of Economy and Agriculture & Allied Sectors at Constant (2011-12) Prices (In per cent)



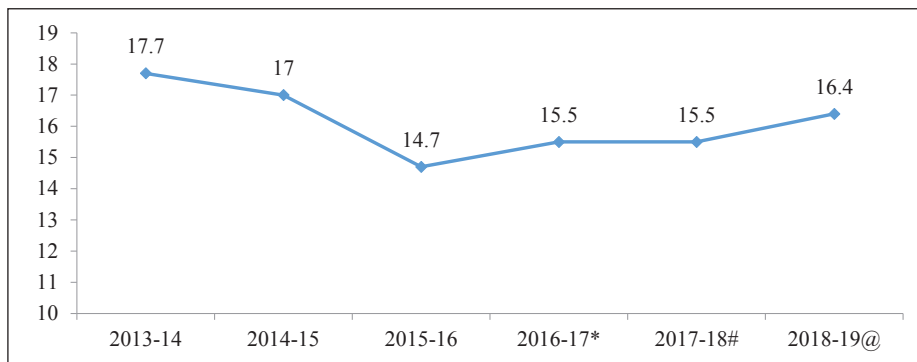
Source: Based on data received from DAC&FW.

Note: **As per the Provisional Estimates of Annual National Income 2019-20 released by CSO on 29th May 2020. @As per the First Revised Estimates of National Income, Consumption Expenditure, Saving and capital Formation for 2018-19 released on 31st January, 2020. # Second Revised Estimate. * Third Revised Estimate. *** First Advance Estimates of National Income released on 7th January, 2021.

Gross Capital Formation

7.5 Gross Capital Formation (GCF) in the agriculture and allied sector as a proportion to GVA has been showing a fluctuating trend from 17.7 per cent in 2013-14 to 16.4 per cent in 2018-19, with a dip to 14.7 per cent in 2015-16. The share of GCF of the agriculture & allied sector to GVA of agriculture & allied sector for the years 2013-14 to 2018-19 at 2011-12 basic prices is shown in Figure 3.

Figure 3: GCF of Agriculture & Allied Sector as percentage of GVA of Agriculture & Allied Sector (at 2011-12 basic prices)



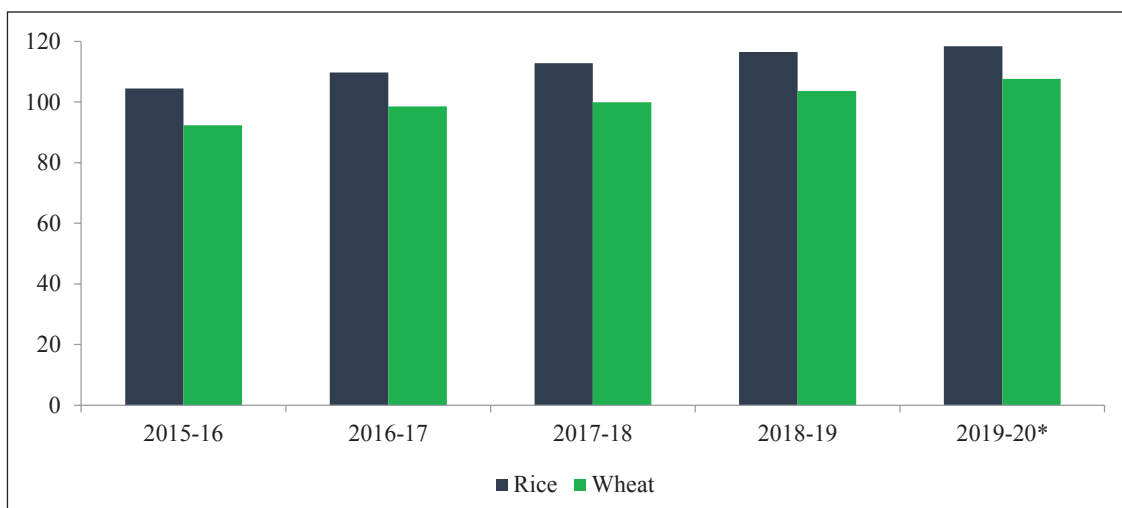
Source: Based on data received from DAC&FW.

@As per the First Revised Estimates of National Income, Consumption Expenditure, Saving and capital Formation for 2018-19 released on 31st January, 2020. # Second Revised Estimate. * Third Revised Estimate.

Production of Crops

7.6 In the year 2019-20 (as per fourth advance estimates), total food grain production in the country is estimated at record 296.65 million tonnes which is higher by 11.44 million tonnes than the production of food grain of 285.21 million tonnes achieved during 2018-19. Further, the production during 2019-20 is higher by 26.87 million tonnes than the previous five years' (2014-15 to 2018-19) average production of 269.78 million tonnes. A diagrammatic trend in output of major crops for the last five years are shown in Figure 4 and Figure 5.

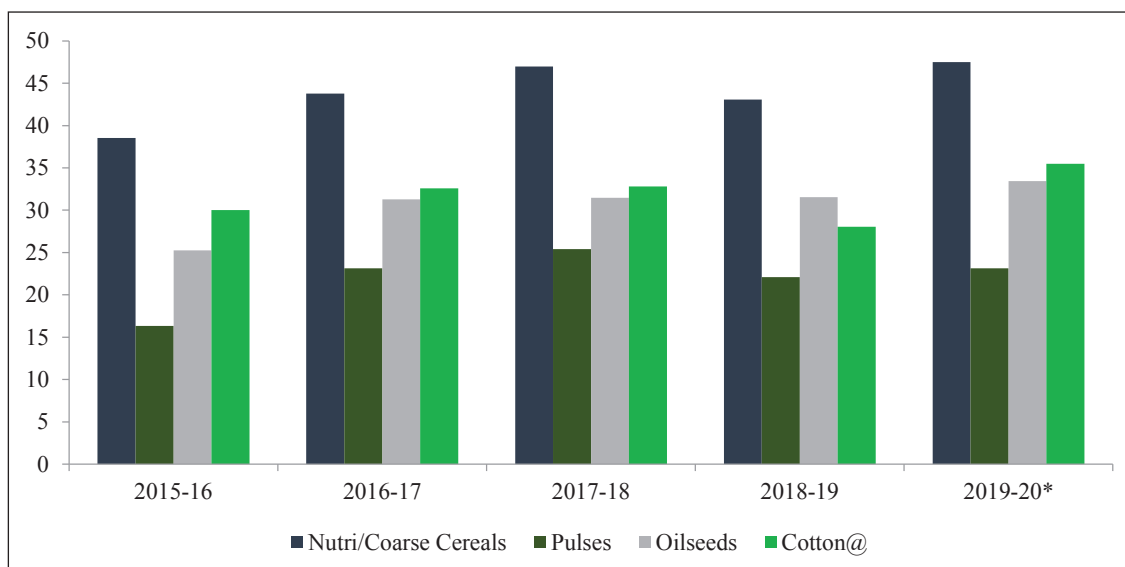
Figure 4: Trend in Production of Rice and Wheat Crops (Quantity in Million Tonnes)



Source: Created from the data of the 1st Adv. Estimate released dated 22.09.2020

*4th Advanced Estimates.

Figure 5: Trend in Production of Other Major Crops (Quantity in Million Tonnes)



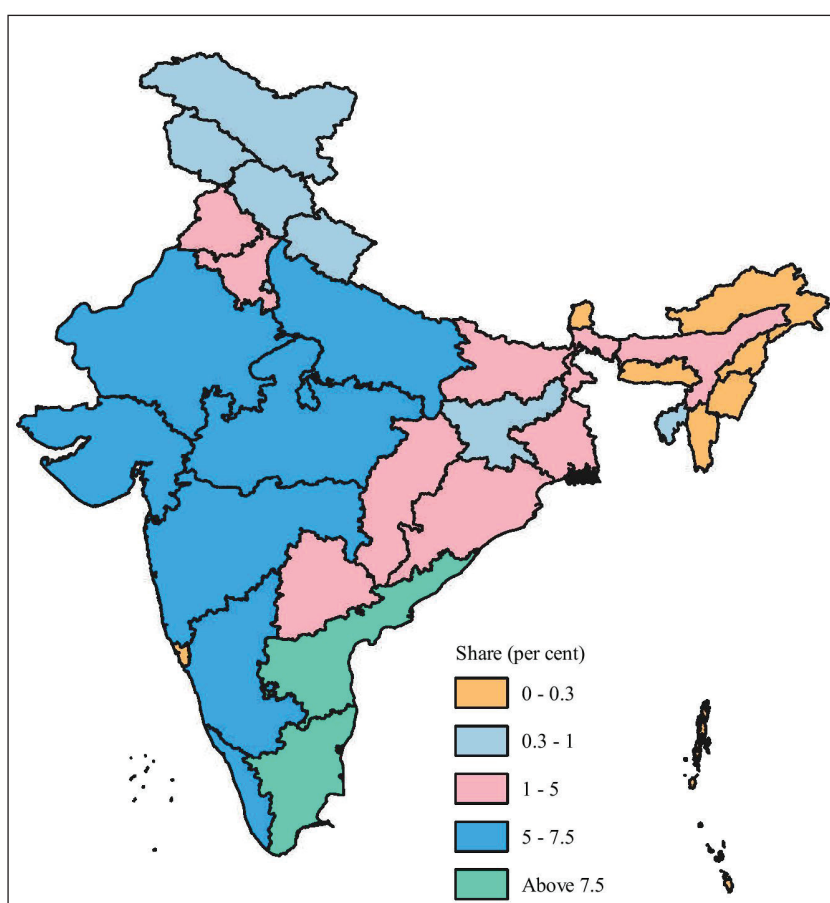
Source: Created from the data of the 1st Adv. Estimate released dated 22.09.2020

*4th Advanced Estimates. @ Production of cotton is in million bales.

Agricultural Credit

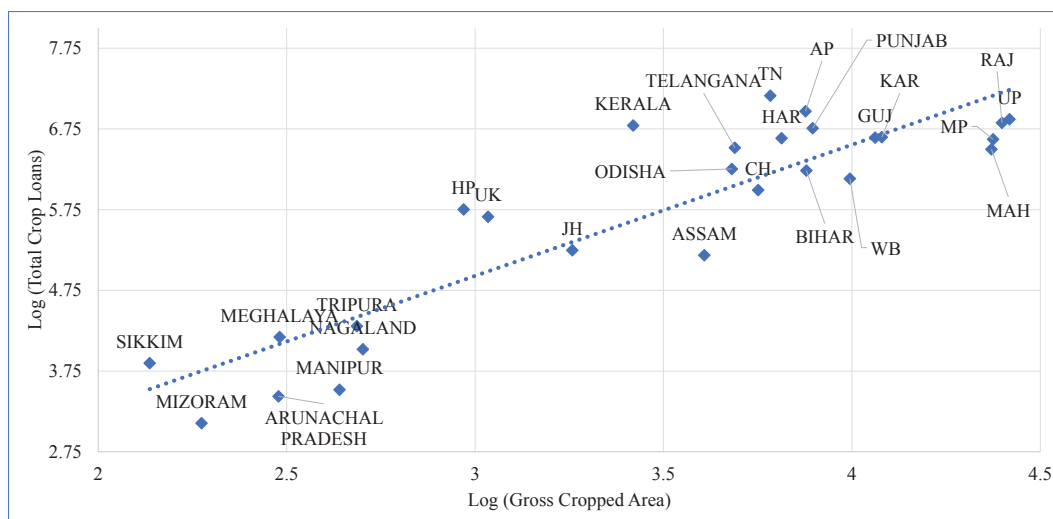
7.7 Given the large proportion of resource constrained small and marginal farmers in India, timely availability of adequate credit is fundamental for the success of farming activities. The agricultural credit flow target for the year 2019-20 was fixed at ₹ 13,50,000 crores and against this target the achievement was ₹ 13,92,469.81 crores. The agriculture credit flow target for 2020-21 was fixed at ₹ 15,00,000 crores and till 30th November, 2020 a sum of ₹ 9,73,517.80 crores was disbursed. The Agriculture Infrastructure Fund announced as a part of Atma Nirbhar Bharat Abhiyan will further boost credit flow to the agriculture sector (Box 2). The regional distribution of the agricultural credit has, however, been skewed in favour of the Southern Region. The share of north-eastern states has been very low (Map 1).

Map 1: Regional Distribution of Agricultural Credit in India in 2020-21.



Source: Based on data received from DAC&FW

7.8 During the year 2020-21, in the total disbursement as on 30th November, 2020, the share of southern region in agricultural credit was more than 40 per cent while it was less than 2 per cent for the north-eastern region (NER). This low coverage of the agricultural credit in NER is because the total cultivable area in North Eastern States is only about 2.74 per cent of the total GCA of the country. Moreover, community ownership of land is prevalent in most of the NE States. These two factors affected the intake of Kisan Credit Card (KCC) loans in NER as these loans are given against land documents. The credit disbursement in the agriculture sector is in fact positively related to gross cropped area as shown in Figure 6.

Figure 6: Credit Disbursement and Gross Cropped Area are Positively Related

Source: Based on data received from DAC&FW

Box 2: Agriculture Infrastructure Fund

Hon'ble Finance Minister on 15.05.2020 announced a ₹ 1 lakh crore Agriculture Infrastructure Fund for creation of farm-gate infrastructure for farmers. Accordingly, central sector scheme of financing facility under Agriculture Infrastructure Fund was formally launched by the Hon'ble Prime Minister of India on 09.08.2020.

This scheme is operational from the year 2020-21 to 2029-30. The scheme provides for medium to long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets. Under the scheme, ₹ 1 lakh crores will be provided by banks and financial institutions as loans to primary agricultural credit societies (PACS), marketing cooperative societies, farmer producers organizations (FPOs), self help group (SHG), farmers, joint liability groups (JLG), multipurpose cooperative societies, agri-entrepreneurs, startups and central/state agency or local body sponsored public private partnership project, etc.

All loans under this financing facility will have interest subvention of 3 per cent per annum up to a limit of ₹ 2 crores. This subvention will be available for a maximum period of 7 years. Further, credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to ₹ 2 crores.

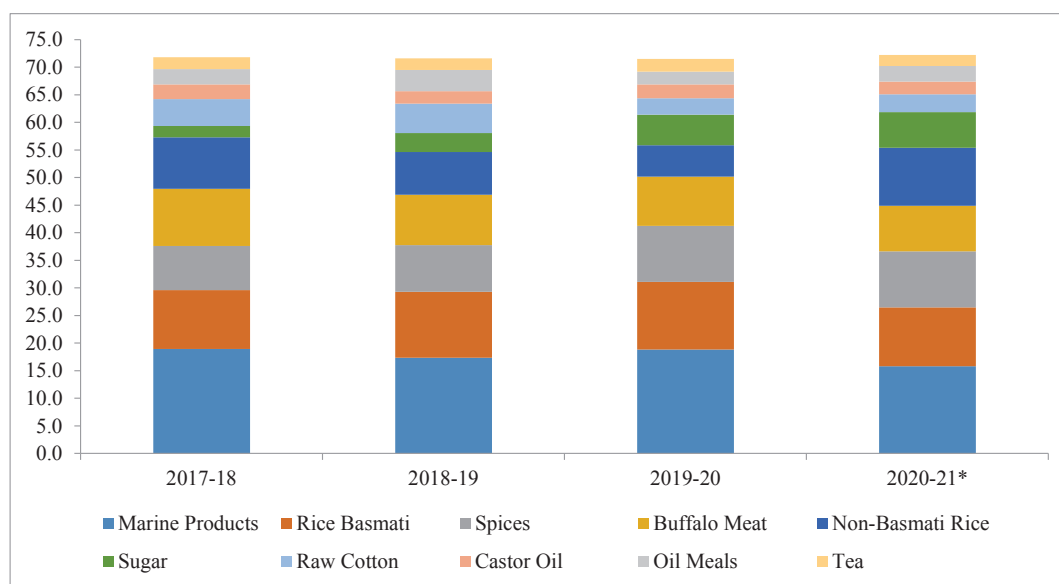
Memorandum of Understandings (MoUs) with all 12 public sector banks and 11 private sector banks have been signed by DAC&FW. A portal for the scheme has been created. As on 15.01.2021, ₹ 2991 crores has been 'in principle' sanctioned under the scheme to 3055 PACS by NABARD. PACS have submitted 3774 applications for loan amount of ₹ 2741 crores. 1695 applications have been received through the portal from entities other than PACS of which 964 applications seeking loan of ₹ 934 crores have been prima facie found eligible and sent to respective banks. Out of 964 applications, 230 have been sanctioned a loan amount of ₹ 235 crores by banks.

International Trade in Agricultural Commodities

7.9 In 2019-20, India's agricultural and allied exports amounted to approximately ₹ 252 thousand crores. The major export destinations were USA, Saudi Arabia, Iran, Nepal and Bangladesh. The top agriculture and related products exported from India were marine products, basmati rice, buffalo meat, spices, non-basmati rice, cotton raw, oil meals, sugar, castor oil and tea. While India occupies a leading position in global trade of aforementioned agri-products, its total agri-export basket accounts for a little over 2.5 per cent of world agri-trade.

7.10 Since economic reforms began in 1991, India has remained a net exporter of agri-products, with agri-exports touching ₹ 2.52 lakh crores and imports at ₹1.47 lakh crores in FY 2019-20. An analysis of last six years of the share of top ten agricultural commodities in total value of agricultural export shows that there have been significant changes in the composition of agri-exports (Figure 7). The share of marine products in total agricultural export value has remained the largest over the period. Its share in total agricultural export value increased from 14.5 per cent in 2015-16 to close to 19 per cent in 2019-20. The share of basmati rice in total agricultural export value has also shown an increasing trend during the period. Other commodities that have witnessed an increasing trend during the period are non-basmati rice, spices and sugar. The shares of the commodities such as buffalo meat and raw cotton in total agricultural export value have, however, declined during the period. The shares of the commodities such as castor oil and tea have remained more or less stable over this period.

Figure 7: Trend in the Share of Agricultural Commodities in Total Value of Agri-export (per cent)



Source: Based on data received from DAC&FW.

* Upto November, 2020.

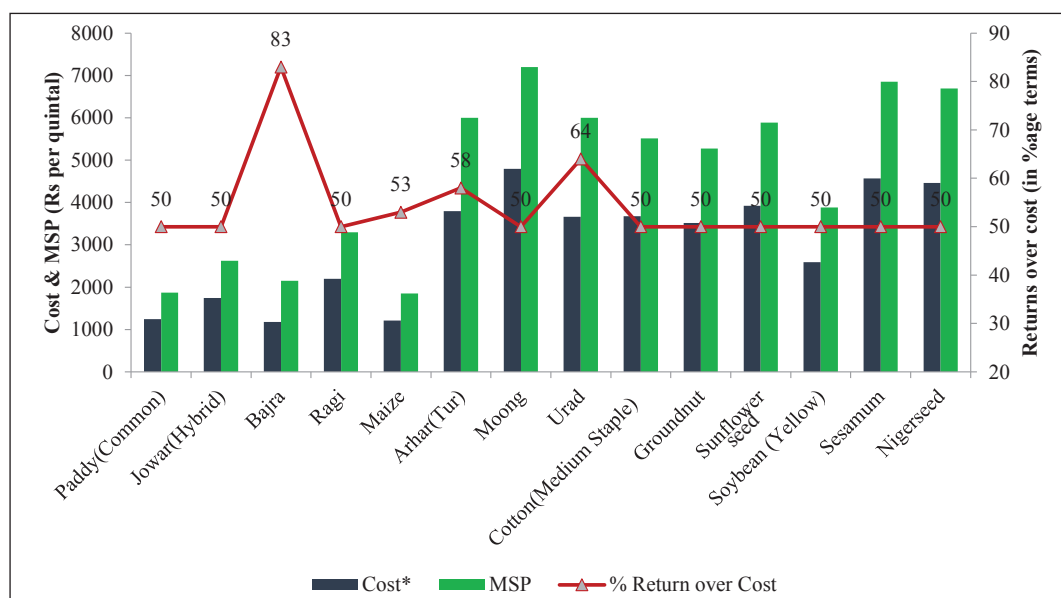
Minimum Support Price (MSP)

7.11 The Union Budget for 2018-19 had announced that MSPs would be kept at the level of 1.5 times of the cost of production. On the basis of the above-mentioned principle, Government recently increased the MSPs for all mandated kharif and rabi crops for 2020-21 season.

MSP of Kharif Crops

7.12 On 1st June, 2020, the Government had announced the increase in MSP for kharif crops for marketing season 2020-21. The highest increase in MSP announced is for nigerseed (₹ 755 per quintal) followed by sesamum (₹ 370 per quintal), urad (₹ 300 per quintal) and cotton (long staple) (₹ 275 per quintal). The expected returns to the farmers over their cost of production are estimated to be highest in the case of bajra (83 per cent) followed by urad (64 per cent), tur (58 per cent) and maize (53 per cent). For the rest of the crops, return to farmers over their cost of production is estimated to be at least 50 per cent (Figure 8).

Figure 8: Cost, MSP & Returns of Kharif Crops of year 2020-21

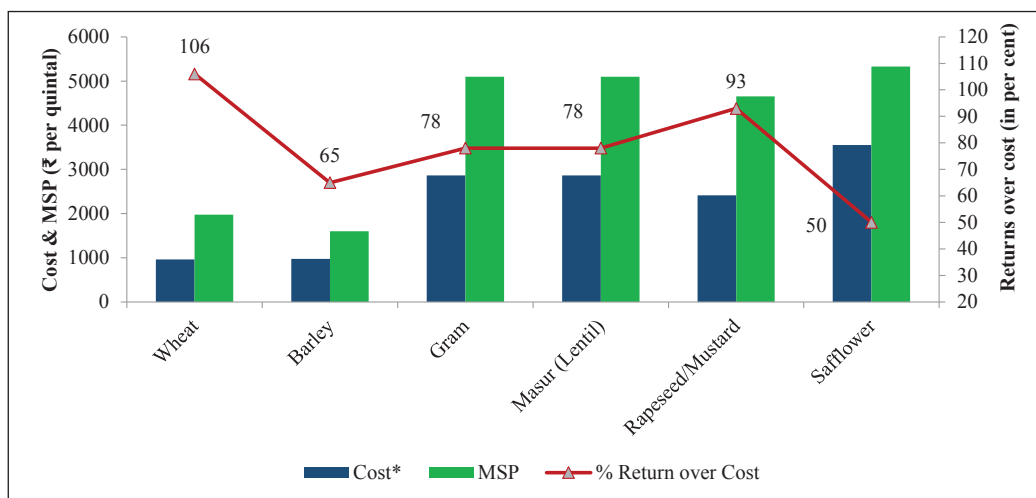


Source: DAC&FW

* Includes all paid out costs such as those incurred on account of hired human labour, bullock labour/machine labour, rent paid for leased in land, expenses incurred on use of material inputs like seeds, fertilizers, manures, irrigation charges, depreciation on implements and farm buildings, interest on working capital, diesel/electricity for operation of pump sets etc, miscellaneous expenses & imputed value of family labour.

MSP of Rabi Crops

7.13 On 21st September, 2020 the Government had announced the MSPs for all mandated rabi crops for marketing season 2021-22. The highest increase in MSP has been announced for lentil (₹ 300 per quintal) followed by gram and rapeseed & mustard (₹ 225 per quintal each) and safflower (₹ 112 per quintal). For barley and wheat, an increase of ₹ 75 per quintal and ₹ 50 per quintal respectively has been announced. The expected returns to the farmers over their cost of production are estimated to be highest in case of Wheat (106 per cent) followed by rapeseed & mustard (93 per cent), gram and lentil (78 per cent). For barley, return to farmers over their cost of production is estimated at 65 per cent and for safflower, it is 50 per cent (Figure 9). The differential in remuneration is aimed at encouraging crop diversification.

Figure 9: Cost, MSP & Returns of Rabi Crops of year 2020-21

Source: DAC&FW

* Includes all paid out costs such as those incurred on account of hired human labour, bullock labour/machine labour, rent paid for leased in land, expenses incurred on use of material inputs like seeds, fertilizers, manures, irrigation charges, depreciation on implements and farm buildings, interest on working capital, diesel/electricity for operation of pump sets etc, miscellaneous expenses & imputed value of family labour.

Crop Insurance

7.14 Pradhan Mantri Fasal Bima Yojana (PMFBY) is a milestone initiative to provide a comprehensive risk solution at the lowest uniform premium across the country for farmers. As an end to end risk mitigation mechanism for farmers, the scheme extends coverage for the entire cropping cycle from pre-sowing to post-harvest including coverage for losses arising out of prevented sowing and mid-season adversities. Individual farm level losses arising out of localized calamities and post-harvest losses are also covered due to perils such as inundation, cloudburst and natural fire. The average sum insured per hectare has increased from ₹ 15,100 during the pre-PMFBY Schemes to ₹ 40,700 under PMFBY. The scheme completed five successful years of implementation on 13th January, 2021

7.15 As an endeavour to constantly improve, the scheme was made voluntary for all farmers, post its revamp in February 2020. Further the States have also been provided flexibility to rationalize the sum insured so that adequate benefits can be availed by farmers. The Scheme covers over 5.5 crore farmer applications year on year. As on 12th January, 2021, claims worth ₹ 90,000 crores have already been paid out under the Scheme. Aadhar seeding has helped in speedy claim settlement directly into the farmer accounts. Even during COVID lock down period nearly 70 lakh farmers benefitted and claims worth ₹ 8741.30 crores were transferred to the beneficiaries.

PM-KISAN

7.16 The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Scheme was launched in 2019 to provide income support to all landholder farmer families across the country with cultivable land, subject to certain exclusions. Under the Scheme, an amount of ₹ 6000 per year is released in

three instalments of ₹ 2000 each directly into the bank accounts of the beneficiaries. Ever since this scheme started, as on 25.12.2020, more than ₹ 1.10 lakh crore have reached the account of farmers. An amount of ₹ 18000 crore have been deposited directly in the bank account of 9 crore farmer families of the country in December, 2020 in the 7th instalment of financial benefit under the scheme.

ALLIED SECTORS: ANIMAL HUSBANDRY, DAIRYING & FISHERIES

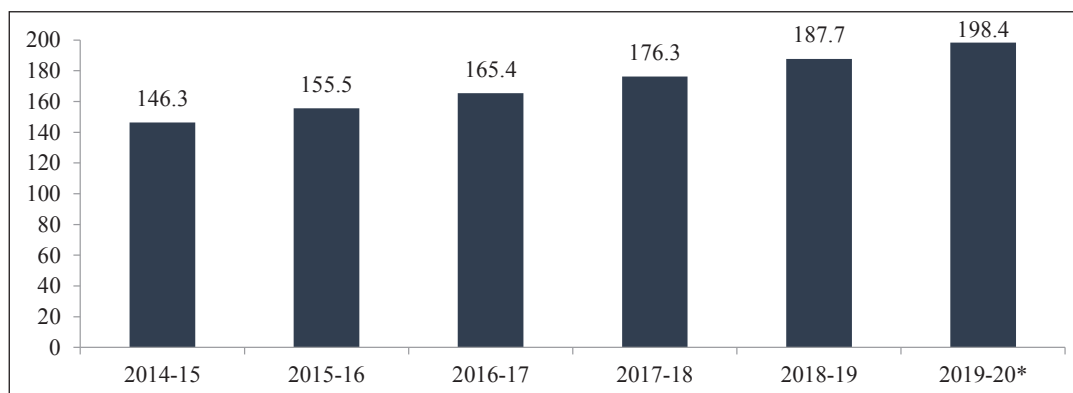
7.17 Livestock sector is an important sub-sector of agriculture in the Indian economy. It grew at CAGR of 8.24 per cent during 2014-15 to 2018-19. As per the estimates of National Accounts Statistics (NAS) 2020, the contribution of livestock in total agriculture and allied sector GVA (at constant prices) has increased from 24.32 per cent (2014-15) to 28.63 per cent (2018-19). Livestock sector contributed 4.2 per cent of total GVA in 2018-19.

Milk

7.18 India continues to be the largest producer of milk in the world. Several measures have been initiated by the Government to increase the productivity of livestock, which has resulted in increasing the milk production significantly. Milk production in the country has increased from 146.3 million tonnes in 2014-15 to 198.4 million tonnes in 2019-20* (Figure 10). Annual Growth Rate of milk production was 6.27 per cent during 2014-15, thereafter, there was a steady increase. In 2019-20*, milk production increased by 5.68 per cent as compared to the previous year. The per capita availability of milk was 407 grams per day in (2019-20*). Inter-state variability in milk production and per capita availability of milk during the year 2019-20 is shown in Figures 10 and 11.

7.19 As per a study on the demand for milk conducted by the National Dairy Development Board (NDDB), the estimated demand for 2030 at an All India level is 266.5 million metric tonnes for milk and milk products. The rural sector has an estimated share of 57 per cent in the total consumption. The per capita consumption in the urban areas (592 ml) remains higher than the rural areas (404 ml) even in the 2030 projections.

Figure 10: Trend of Milk Production in India (Million Tonnes)

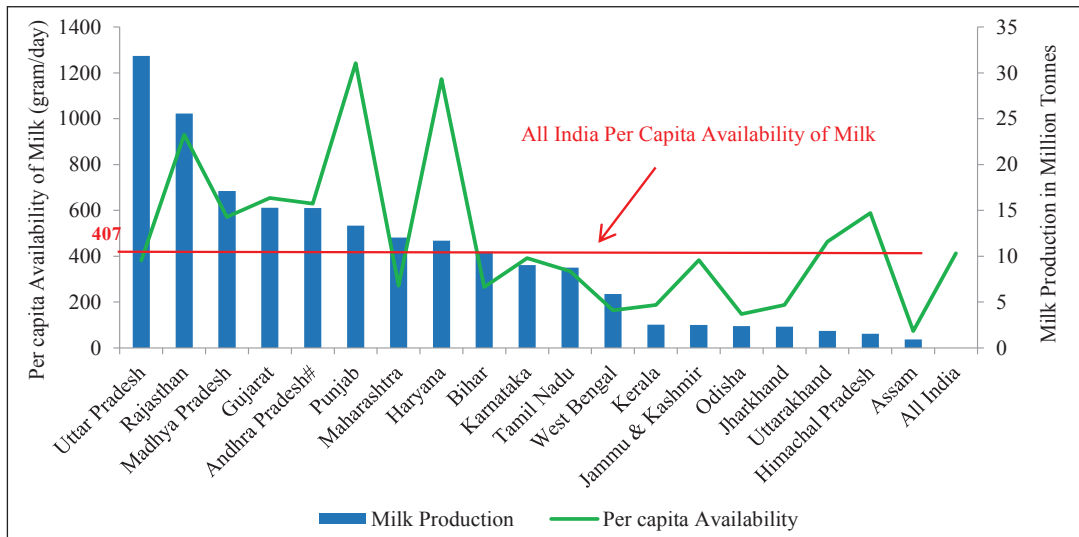


Source: Based on data taken from the National Dairy Development Board and DAHD.

* Data is provisional.

*Data is provisional.

Figure 11: Inter-State Variability in Milk Production & Per Capita Availability of Milk during the Year 2019-20*

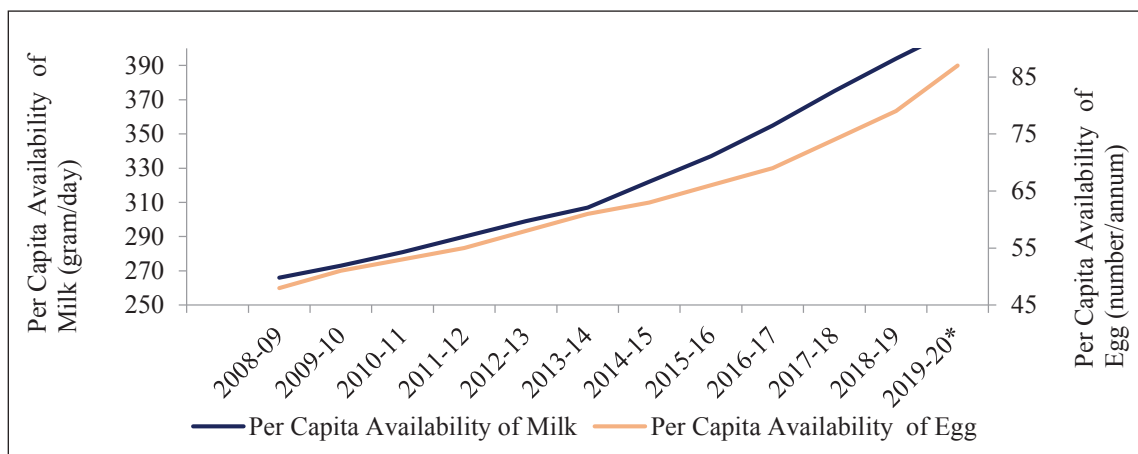


Source: Based on Data received from DAHD and NDDB Website.
 # Includes also the figure of Telangana for per capita availability of milk.

Livestock Population and Production

7.20 According to FAOSTAT production data (2019), India ranks 3rd in egg production in the world. The egg production in the country has increased from 78.48 billion in 2014-15 to 114.38 billion in 2019-20*. Annual growth rate of egg production was 4.99 per cent during 2014-15, thereafter, there has been a significant improvement in the egg production with 10.19 per cent growth registered in 2019-20* over the previous year. The per capita availability of egg was 86 eggs per annum in 2019-20*. Poultry production in India has taken a quantum leap in the last four decades, emerging from use of unscientific farming practices to commercial production systems with state-of-the-art technological interventions. Figure 12 shows the trend of the per capita availability of milk and eggs.

Figure 12: Per Capita Availability of Milk and Eggs



Source: Based on data from DAHD

*Data is provisional.

7.21 According to FAOSTAT production data (2019), India ranks 5th in meat production in the world. Meat production in the country has increased from 6.7 million tonnes in 2014-15 to 8.6 million tonnes in 2019-20*. The annual growth rate of meat production was 5.98 per cent in 2019-20*.

RECENT INITIATIVES IN THE LIVESTOCK SECTOR

7.22 COVID-19 lockdown caused a drop in the market demand due to closure of the outlets selling livestock products. With closure of sweet shops and tea stalls, a large number of private dairies were impacted and they stopped milk procurement from the farmers. This resulted in the farmers diverting their milk to the cooperatives. As a result, milk procurement in the cooperative sector increased because, as per their mandate, they could not reject milk supplied by the farmers. The cooperatives are faced with liquidity problems due to higher conversion into milk powder and white butter caused by higher milk procurement.

7.23 Steps were taken to keep a close surveillance on the milk situation and facilitate resolution of the issues relating to the forward and backward linkages for smooth supply of milk and milk products during lockdown. As one-time support, a sub-scheme for providing interest subvention on working capital loans was designed for the financial year 2020-21 under the ongoing scheme State Dairy Cooperative & Farmers Producers Organization (SDCFPO) to provide interest subvention of 2 per cent per annum, with an additional incentive of 2 per cent interest subvention for prompt and timely repayment to the financially stressed milk unions. Consequent upon budget announcement on inclusion of livestock sector in Kisan Credit Card in February 2020, 1.5 crores dairy farmers of milk cooperatives and milk producer companies' were targeted to provide Kisan Credit Cards (KCC) as part of Prime Minister's Atma Nirbhar Bharat Package.

Animal Husbandry Infrastructure Development Fund (AHIDF)

7.24 As a part of the Atma Nirbhar Bharat Abhiyan stimulus package, a ₹ 15000 crores Animal Husbandry Infrastructure Development Fund (AHIDF) has been set up. The AHIDF will incentivize investments by individual entrepreneurs, private companies including MSME, farmers producers organizations (FPOs) and Section 8 companies to establish (i) dairy processing and value addition infrastructure (ii) meat processing and value addition infrastructure, and (iii) animal feed plant.

7.25 The Government of India will provide 3 per cent interest subvention to eligible beneficiaries. There will be a 2 year moratorium period for the principal loan amount and 6 years repayment period thereafter. The interest subvention would be released to banks every year by the Government based on entitlement claimed. The Government of India would also set up a Credit Guarantee fund of ₹ 750 crores to be managed by NABARD. Credit guarantee would be provided to those sanctioned projects which are covered under MSME defined ceilings. Guarantee coverage would be upto 25 per cent of the credit facility of borrowers. To ease out the application process, an online portal 'ahidf.udyamimitra.in' has been developed by SIDBI through which applicants can apply online to avail loans under this scheme.

*Data is provisional.

National Animal Disease Control Programme (NADCP)

7.26 The Government has approved an ambitious scheme “National Animal Disease Control Programme (NADCP) for control of Foot & Mouth Disease (FMD) and Brucellosis” for vaccinating all cattle, buffalo, sheep, goat and pig population against FMD and all bovine female calves of 4-8 months of age against brucellosis. The programme has a total outlay of ₹13,343 crores for five years (2019-20 to 2023-24).

FISHERIES

7.27 India is the second largest fish producing country in the world and accounts for 7.58 per cent of the global production. The fish production in India has reached an all-time high of 14.16 million metric tons during 2019-20. The fisheries sector contributes 1.24 per cent to the GVA and 7.28 per cent to the agricultural GVA. The export of marine products stood at 12.9 lakh metric tons with a value of ₹ 46,662 crores during 2019-20. The livelihood opportunities provided by this sector have been instrumental in sustaining incomes of over 28 million people in India, especially the marginalized and vulnerable communities, and has promoted meaningful socio-economic development.

7.28 The Government of India has taken several initiatives to harness the untapped potential of the sector. The centrally sponsored scheme – Blue Revolution (CSS-BR) which was launched in 2015-16 for a 5 year period with a central financial outlay of ₹ 3000 crores to catalyze the “Integrated, Responsible and Holistic Development and Management of the Fisheries Sector”, ended in March 2020. The Government of India in October 2018 approved the establishment of a dedicated Fisheries and Aquaculture Infrastructure Development Fund (FIDF) at ₹ 7522 crores. By the end of November, 2020, under FIDF, project proposals with total outlay of more than ₹3467 crores have been approved for 13 States/UTs. As of mid January 2021, a total of 44,673 Kisan Credit Cards (KCCs) have been issued to fishers and fish farmers and an additional 4.04 lakh applications from fishers and fish farmers are with the banks at various stages of issuance.

7.29 Realizing the potential, scope and importance of the fisheries sector, new flagship scheme Pradhan Mantri Matsya Sampada Yojana (PMMSY) was launched in May, 2020 as a part of Atma Nirbhar Bharat Package by Government of India with an estimated investment of ₹ 20,050 crores comprising of central share of ₹ 9407 crores, state share of ₹ 4880 crores and beneficiaries contribution of ₹ 5763 crores for a period of five years from FY 2020-21 to FY 2024-25. PMMSY aims to enhance fish production to 220 lakh metric tons by 2024-25 at an average annual growth rate of about 9 per cent. The ambitious scheme will result in doubling export earnings to ₹ 1,00,000 crores and generate direct and indirect employment opportunities of about 55 lakhs in the fisheries sector over a period of the next five years. PMMSY further intends to increase aquaculture productivity to 5 tonnes per hectare (up from national average of 3 tonnes per hectare), enhance domestic fish consumption and attract investments in fisheries sector from other sources. Insurance coverage for fishing vessels is being introduced for the first time under PMMSY. By mid January 2021, proposals with an outlay of ₹ 6,567.20 crores were received from various States/UTs against which project proposals with total outlay of ₹ 2309.08 crores have already been approved.

AGRICULTURAL RESEARCH AND EDUCATION

7.30 Indian Council of Agricultural Research (ICAR), is a premier research organization for coordinating, guiding and managing agriculture research and education including in horticulture, fisheries and animal sciences in the entire country. A total of 172 new varieties/hybrids of field crops and 75 horticultural crops were notified/released till October, 2020 during the current year. Since, May 2014, National Agricultural Research System (NARS) under the leadership of ICAR has released and notified 1406 varieties of different field crops. As on 27.11.2020, the Council had also developed 17 biofortified varieties of field and horticulture crops to ensure nutritional security through the natural food system in the year 2020-21, taking the tally of biofortified varieties to 71.

7.31 The Council has produced 115707 quintals of breeder seed of 1330 varieties of 51 field crops. These were distributed to various public and private seed production agencies for multiplication of foundation and certified seeds. In case of vegetatively propagated field crops, fruits, vegetables and plantation crops, 169 lakh planting materials and 8.0 lakh tissue culture plantlets were also produced for farmers.

Natural Resource Management and Integrated Farming

7.32 The Council has developed 60 location specific, cost effective, eco-friendly, socially acceptable multi-enterprise Integrated Farming System (IFS) models in farmers' participatory mode to reduce risk in farming, enhance farm productivity/profitability and secure livelihoods of resource poor small and marginal farmers. Bio-intensive cropping systems having higher productivity potential for different agro-climatic zones have been included in the crop production guide /package of practices of respective states.

7.33 The Council has developed an agri-voltaic system to generate electricity in interspace area of crops and to harvest rainwater from top surface of photovoltaic (PV)-module has been designed. It is a step towards achieving the ambitious target of 100,000 MW of solar PV based power generation capacity in the country and doubling the farmers' income.

Demonstration and Upscaling of Climate Resilient Technologies

7.34 Climate resilient technologies are being demonstrated in 446 villages and up-scaled in about 300 cluster villages in the country. In 2020-21 (till 27.11.2020), 16355 demonstrations under Natural Resource Management (NRM) module covered 12453.93 ha area; 25325 demonstrations under crop productions technologies covered 9061.34 ha area and 48846 farm animals were covered under livestock and fisheries module for vaccination, demonstration on feed supplementation, etc. Krishi Vigyan Kendras (KVKs) organized 1644 training programmes on climate resilient agriculture involving 42655 farmers. A total of 4367 extension activities were organized to create awareness on successful climate resilient practices and technologies benefiting 80684 farmers.

7.35 In addition, 651 contingency plans have been prepared for use by the state agriculture departments in the event of weather aberrations and extreme climatic events.

Mechanization and Crop Residue Management

7.36 To increase availability of equipments/machines to the small and marginal farmers on hire basis, 9970, 2866 and 4170 custom hiring centres have so far been initiated in Punjab, Haryana and UP respectively. Several measures have been taken to manage crop residue which include i) distribution of 1,52,579 machines to the farmers in these states during the last two years and the current year, ii) awareness creation about in-situ crop residue management by conducting 1,817 awareness programmes, 28,247 demonstrations, 696 training programs and 130 kisan melas during last two years and current year, iii) Replacement of long duration variety with short duration paddy. With the result area under long duration variety reduced from 8.30 lakhs hectare in 2019-20 to 4.82 lakh hectare area in 2020-21, and iv) crop diversification leading to reduction in area under paddy. As a result, the crop burning events in these states reduced from 127774 in 2016 to 61332 in 2019.

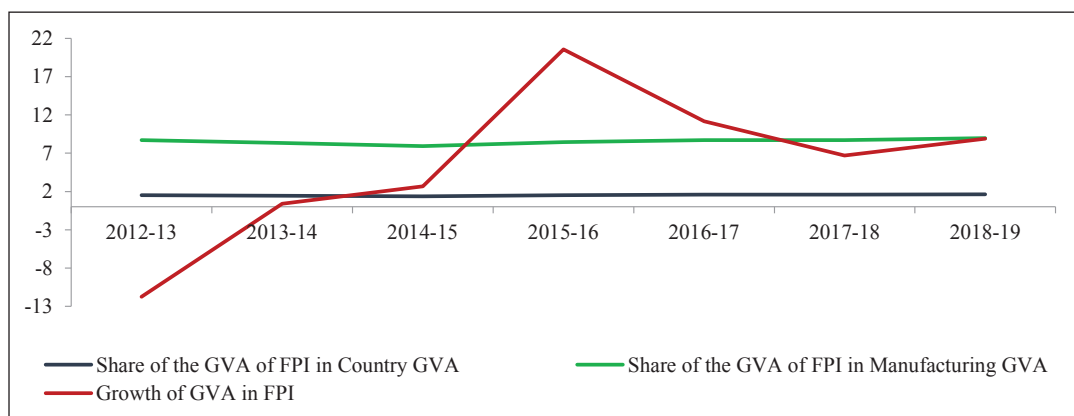
Reaching to the Farmers and Youth with Improved Technologies

7.37 The linking of 3.37 lakh common service centers with 721 KVKs has tremendously enhanced outreach of the KVKs and provided demand driven services and information to farmers. The improved technologies reached farmers' fields through 34432 on-farm trials and 2.44 lakh frontline demonstrations by KVKs. The production of 2.01 lakh quintals quality seeds of field crops, 348.01 lakh planting materials of horticultural crops and 409.06 lakh livestock strains and fish fingerlings were made available to farmers at a nominal cost.

FOOD PROCESSING SECTOR

7.38 During the last 5 years ending 2018-19, food processing industries (FPI) has been growing at an average annual growth rate of around 9.99 per cent as compared to around 3.12 per cent in agriculture and 8.25 per cent in manufacturing at 2011-12 prices. Food processing sector has also emerged as an important segment of the Indian economy in terms of its contribution to GDP, employment and investment. The sector constitutes as much as 8.98 per cent of Gross Value Added (GVA) in manufacturing in 2018-19 at 2011-12 prices. Figure 13 presents a comparative performance of food processing sector.

Figure 13: Growth of GVA in Different Sectors



Source: Ministry of Food Processing Industries (MoFPI)

New Initiatives in Food Processing Sector

Formalization of Micro Food Processing Enterprises

7.39 Under the Atma Nirbhar Bharat Abhiyan, Ministry of Food Processing Industries (MoFPI) has launched a new Centrally Sponsored Scheme, Prime Minister-Formalisation of Micro Food Processing Enterprises (PM-FME) with a total outlay of ₹ 10,000 crores over the period 2020-2025. The scheme is expected to benefit 2 lakh micro food processing units through credit linked subsidy. The Scheme adopts One District One Product (ODOP) approach to reap benefit of scale in terms of procurement of inputs, availing common services and marketing of products. The States need to identify one food product per district keeping in view the existing clusters and availability of raw material. Support for common infrastructure and branding & marketing would be for that product. The Scheme also places focus on waste to wealth products, minor forest products and Aspirational Districts¹.

7.40 Existing individual micro food processing units desirous of upgradation of their unit can avail credit-linked capital subsidy @35 per cent of the eligible project cost with a maximum ceiling of ₹ 10 lakh per unit. Seed capital @ ₹ 40,000 per SHG member would be provided for working capital and purchase of small tools. FPOs/ SHGs/ producer cooperatives would be provided credit linked grant of 35 per cent of the eligible project cost for capital investment along the value chain. Support would be provided through credit linked grant @ 35 per cent of the eligible project cost for development of common infrastructure including common processing facility, lab, warehouse, cold storage, packaging and incubation center through FPOs/SHGs/ cooperatives or state owned agencies or private enterprise for use by micro units in the cluster. Support for marketing and branding would be provided to micro units and groups with 50 per cent grant at the state or regional level which could benefit large number of micro units in the clusters. 35 States/UTs recommended ODOPs for 137 unique products in 703 districts. ODOPs of 650 districts in 34 States/UTs have already been approved.

Operation Greens

7.41 MoFPI is implementing a central sector scheme “Operation Greens – A scheme for integrated development of Tomato, Onion and Potato (TOP) value chain” to provide support to farmers when prices of agri produce is low. This scheme is not meant for intervention in the market during price rise. Under the short term- price stabilization measures of the scheme, there is a provision for 50 per cent subsidy on cost of transportation and storage for evacuation of surplus production from producing area to the consumption center during the glut situation. By November, 2020, 5 approved projects (2 for tomato in AP & Gujarat, 2 for onion in Gujarat & Maharashtra and 1 for Potato in Gujarat) are under implementation for long-term integrated value chain creation.

7.42 Under Atma Nirbhar Bharat Abhiyan, this scheme has been extended from tomato, onion and potato (TOP) crops to the other notified horticulture crops (Total) for a period of six months. Transport subsidy has been allowed on any fruit & vegetable through any rail service provided by Indian Railways.

¹NITI Aayog has identified 112 most backward districts of the country as Aspirational Districts.

Production-Linked Incentive (PLI) Scheme

7.43 Government gave its approval in November 2020 to introduce the Production-Linked Incentive (PLI) Scheme in 10 key sectors, including food processing sector, for enhancing India's manufacturing capabilities and improving exports. The approved financial outlay for the PLI scheme in food processing is ₹ 10,900 crores. The food segments identified includes ready to eat/ready to cook, marine products, processed fruits & vegetables, mozzarella cheese, and innovative/organic products of SMEs. The scheme would also support the branding and marketing abroad.

Pradhan Mantri Kisan SAMPADA Yojana (PMKSY)

7.44 Under the umbrella scheme Pradhan Mantri Kisan SAMPADA Yojana, the Ministry is implementing various component schemes which, inter-alia, includes (i) Mega Food Parks, (ii) Integrated Cold Chain and Value Addition Infrastructure, (iii) Infrastructure for Agro-processing Clusters, (iv) Creation of Backward and Forward Linkages (v) Creation/ Expansion of Food Processing & Preservation Capacities, and (vi) Operation Greens. The status of the sanctioned projects and completed /operational projects as on 31.12.2020 may be seen in Table 2.

Table 2: Sanctioned Projects and Completed /Operational Projects under PMKSY

Sl. No.	Name of the Scheme	Number of sanctioned Projects	Number of completed/ operational projects
1	Mega Food Park	37	21
2	Cold Chain	327	210
3	Agro-processing Clusters	55	0
4	Unit Scheme	287	44
5	Backward & Forward Linkages	62	21
6	Operation Greens	5	0
	Total	773	296

Source: MoFPI

FOOD MANAGEMENT

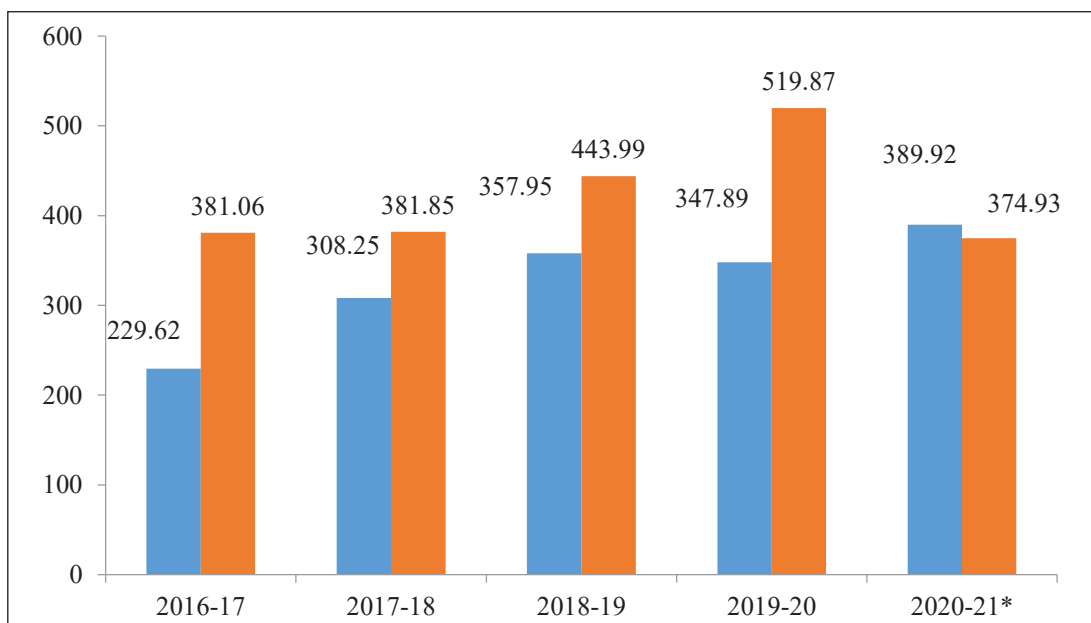
7.45 For prudent management of foodgrain stock and to ensure adequate availability of wheat and rice in central pool with a view to augment the domestic availability of wheat and rice and ensure food security, the Central Government has undertaken the following measures:

- I. MSP of wheat and paddy has been increased to protect the interest of farmers.
- II. State Governments, particularly those undertaking Decentralized Procurement (DCP), are encouraged to maximize procurement of wheat and rice by state agencies.
- III. Strategic reserves of 5 million tons of food grains over the existing buffer norms have been maintained to be used in extreme situations.
- IV. Sale of wheat and rice is undertaken through Open Market Sale Scheme (OMSS) (Domestic) to check inflationary trend of food in market.

Procurement of Foodgrains

7.46 During the Kharif Marketing Season (KMS) 2019-20, 519.97 lakh metric tons (LMT) of Rice was procured against an estimated target of 529.05 LMT. In the ensuing KMS 2020-21, a total of 374.93 LMT of rice has been procured as on 15.01.2021. During Rabi Marketing Season (RMS) 2020-21, 389.92 LMT wheat was procured against 347.89 LMT procured during RMS 2019-20. During the Kharif Marketing Season 2020-21, a total of 4.78 LMT of coarse grains have been procured as on 18.01.2021. Figure 14 and 15 show a trend of procurements of foodgrains over a period of last five years

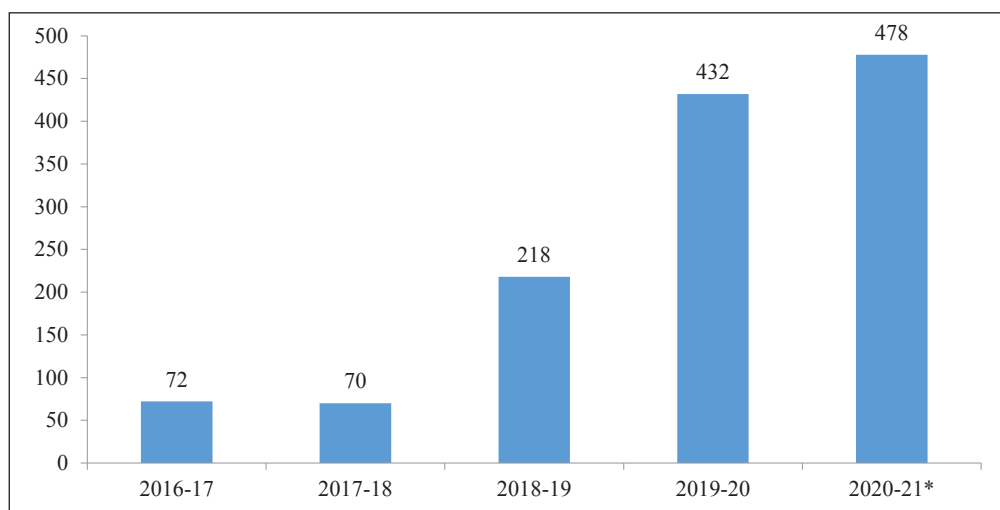
Figure 14: Procurements of Rice and Wheat over the Last Five Years (Lakh Tons)



Source: Based on Data from the Website of Food Corporation of India & DFPD.

* As on 15.01.2021 for rice.

Figure 15: Procurements of Coarse Grains over the Last Five Years (Thousand Tons)



Source: Based on Data from the Website of Food Corporation of India & DFPD.

* As on 18.01.2021.

Allocation of Foodgrains

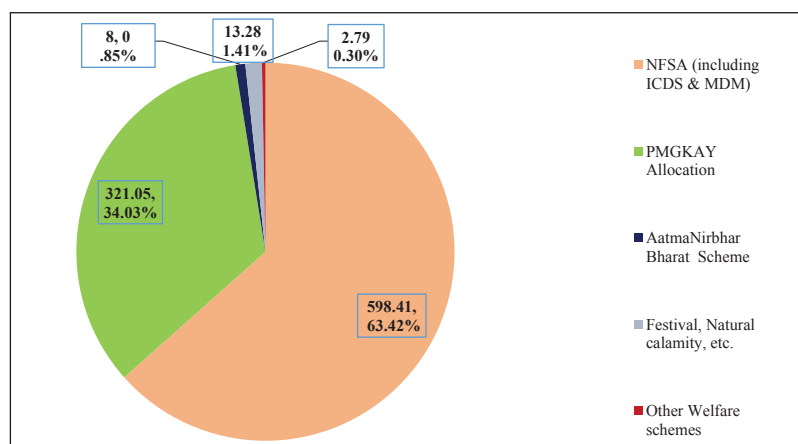
7.47 During the Financial Year 2020-21, allocation of foodgrains has been done through two channels- under the National Food Security Act (NFSA) and the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY) scheme. At present NFSA is being implemented in all the 36 States/UTs and they are receiving monthly allocation of foodgrains under NFSA. During the Financial Year 2020-21 (upto 18.01.2021), ₹ 3679.82 crores was released to State Governments as central assistance to meet the expenditure incurred on intra-State movement of foodgrains and fair price shop dealers' margins.

7.48 In pursuance of the pro-poor announcement made under Pradhan Mantri Garib Kalyan Package, Government of India launched the Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY) scheme for additional allocation of foodgrains from the Central Pool at the rate of 5 kg per person per month free of cost for all the beneficiaries covered under Targeted Public Distribution System (TPDS) (AAY & PHH) including those covered under Direct Benefit Transfer (DBT) for a period of 3 months i.e April-June, 2020. Accordingly, about 121 LMT of foodgrain was allotted to approximately 80.96 crores beneficiaries entailing subsidy outgo of nearly ₹ 46061 crores. The PMGKAY scheme was extended for a further period of 5 months i.e. July – November, 2020. Accordingly, about 201 LMT of foodgrains have been allocated for free of cost distribution to beneficiaries entailing subsidy outgo of nearly ₹ 76062.11 Crores.

7.49 Further under Atma Nirbhar Bharat Package, Government of India made allocation of free foodgrain (wheat and rice) at the rate of 5 kg per person per month for two months (May and June, 2020) to benefit approximately 8 crores migrants/stranded migrants who are not covered under NFSA or state ration card entailing subsidy of ₹ 3109 crores approximately. The period of distribution to migrants for already lifted foodgrains (upto 25.06.2020) was extended till 31st August, 2020. Under ANBP, on an average about 2.74 crore persons per month for the month of May and June, 2020 were covered. Thus, a total of 5.48 crore person were given around 2 LMT of rice and 0.74 LMT of wheat with total expenditure of approx Rs. 989.30 crore.

7.50 During the year 2020-21, Government of India has so far (by the end of December, 2020) allocated 943.53 lakh tons of foodgrains to States/UTs under NFSA and Other Welfare Schemes etc. as per break up given in Figure 16.

Figure 16: Break up of Allocation under Various Schemes (share in per cent and quantity in lakh tons)



Source: Based on data received from Department of Food & Public Distribution (DFPD)

Fortification of Rice and Its Distribution

7.51 To address the issue of anaemia and micro-nutrient deficiency and to promote nutrition security in the country, a centrally sponsored pilot scheme on “Fortification of Rice & its Distribution under Public Distribution System” was approved for a period of 3 years beginning in 2019-20 with total budget outlay of ₹ 174.64 crores. The pilot scheme is being funded by Government of India in the ratio of 90:10 in respect of North Eastern, Hilly and Island States and 75:25 ratio in the rest of the States.

7.52 The pilot scheme will focus on 15 Districts, preferably one district per state during the initial phase of implementation. Following State Governments, namely, Andhra Pradesh, Karnataka, Kerala, Maharashtra, Odisha, Assam, Gujarat, Uttar Pradesh, Tamil Nadu, Telangana, Punjab, Chhattisgarh, Jharkhand, Uttarakhand & Madhya Pradesh have consented and identified their respective districts for implementation of the pilot scheme. Uttar Pradesh, Chattisgarh, Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu have already started distribution of fortified rice under the scheme in their selected districts.

One Nation One Ration Card

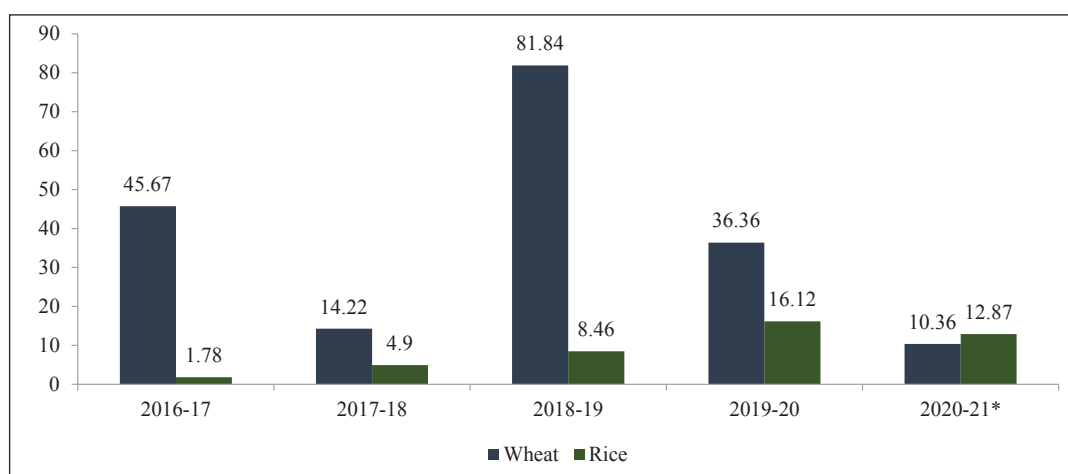
7.53 The Department of Food & Public Distribution in collaboration with all States/UTs is implementing a central sector scheme namely “Integrated Management of Public Distribution System (IM-PDS)” the validity of which is extended up to 31.03.2022. The main objective of the scheme is to introduce nation-wide portability of ration card under National Food Security Act (NFSA) through ‘One Nation One Ration Card’ System. This system will enable the ration card holders to lift their entitled foodgrains from any fair price shop (FPS) of their choice anywhere in the country by using their same/existing ration card. At present, the facility is seamlessly enabled in 32 States/UTs covering nearly 69 crores beneficiaries (86 per cent of the total NFSA population) in the country. Under this system, equivalent food subsidy through DBT (Cash Transfer) is provided to portability beneficiaries in Chandigarh and Puducherry instead of subsidised foodgrains.

Open Market Sale Scheme (Domestic)

7.54 In addition to maintaining buffer stocks and for making a provision for meeting the requirement of the National Food Security Act (NFSA) and Other Welfare Schemes (OWS), the Food Corporation of India (FCI) on the instructions from the Government sells excess stocks out of Central Pool through Open Market Sale Scheme (Domestic) [OMSS (D)] in the open market from time to time at predetermined prices. A target of 150 lakh MT of wheat has been set for sale by FCI including retail sale, out of the Central Pool in the open market under OMSS (D) during 2020-21. For rice, this target is 50 lakh MT during 2020-21. The quantities of wheat and rice sold under the OMSS (D) during the last 4 years and FY 2020-21 are as presented in Figure 17.

7.55 A special dispensation was introduced, w.e.f. 8th April, 2020, for supply of foodgrains to all the charitable/ non-governmental organizations etc. engaged in providing relief or in running community kitchens for migrant labourers and vulnerable groups during the lock down. Under this scheme, wheat at the uniform rate of ₹ 21 per kilogram and rice at the uniform rate of ₹ 22 per kilogram are issued to charitable institutions/NGOs. There is no upper limit for allocation of foodgrains to each such organization from any FCI depot. This special dispensation was initially upto June, 2020 which has been extended at the same rate and terms and conditions for the rest of the year 2020-21. Under the scheme, till 12.01.2021, a total quantity of 1246 MT of wheat and 10418 MT of rice has been lifted by 229 and 1126 Charitable/NGOs respectively.

Figure 17: Quantities of Wheat and Rice Sold under the OMSS (D) (Quantity. in lakh MT)

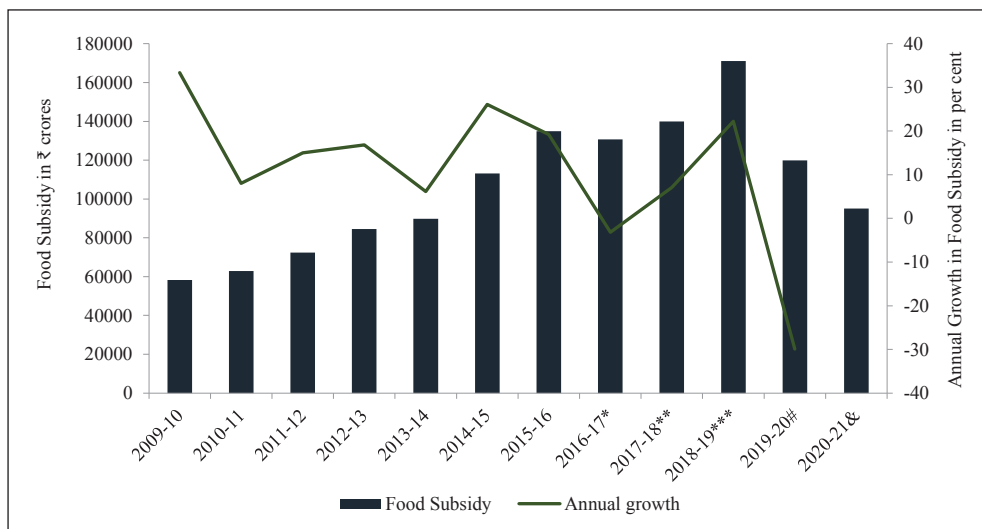


Source: Based on data received from DFPD

* Upto 2nd tender January, 2021.

Food Subsidy

7.53 The difference between the per quintal economic cost and the per quintal Central Issue Price (CIP) gives the quantum of per quintal food subsidy. In order to ensure food security to the vulnerable sections, the Government has continued with the subsidized pricing under NFSA. The CIP of wheat and rice for NFSA beneficiaries has not been revised since the introduction of the Act in 2013 from ₹ 200 per quintal in case of wheat and ₹ 300 per quintal in case of rice. On the other hand, the economic cost of wheat for FCI operations has increased from ₹ 1908.32 per quintal in 2013-14 to ₹ 2683.84 per quintal in 2020-21. Similarly, the economic cost of rice has increased from ₹ 2615.51 per quintal in 2013-14 to ₹ 3723.76 per quintal in 2020-21. Further, the NFSA provides a wider coverage than the erstwhile TPDS. These all taken together has resulted in the rise in food subsidy (Figure 18).

Figure 18: Trend in Food Subsidy Released by the Government of India since 2009-10

Source: Based on data received from DFPD

Notes: The total release in FY 2020-21 has included ₹ 8347.86 crores released under Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) scheme.

*Includes National Small Savings Fund (NSSF) loan of ₹ 25000 crores to FCI. ** Includes NSSF loan of ₹ 40000 crores to FCI. ***Includes NSSF loan of ₹ 70000 crores to FCI. & As on 30.11.2020. # ₹ 11436 crores has been reimbursed to DCP State from unutilized NSSF Loan sanctioned to FCI as per instruction of Minister of Finance in March, 2020 in FY 2019-20. Out of ₹ 11436 crores, ₹ 10000 crores has been recouped to FCI from budgetary allocation for DCP head in FY 2020-21.

Storage

7.57 The total storage capacity available with FCI and state agencies for storage of foodgrains as on 31.12.2020 was 819.19 LMT, comprising covered godowns of 669.10 LMT and Covered and Plinth (CAP) facilities of 150.09 LMT. Out of the total available storage capacity of 819.19 LMT, FCI has a capacity of 407.76 LMT while state agencies have a capacity of 411.43 LMT. The stock of rice and wheat in the Central Pool as on 01.01.2021 was 529.59 LMT.

7.58 Construction of godowns has been undertaken in PPP mode in 24 states under Private Entrepreneurs Guarantee (PEG) Scheme through the private sector as well as the Central Warehousing Corporation (CWC) and the State Warehousing Corporation (SWC). As on 30.11.2020, a capacity of 144.06 LMT has been created under this scheme. Apart from this, godowns are also being constructed through a central sector scheme by FCI in the North Eastern States, Kerala, Jharkhand and Himachal Pradesh. The Government of India has also approved action plan with construction of steel silos in the country for a capacity of 100 LMT in public private partnership (PPP) mode with a view to modernize storage infrastructure and improve shelf life of stored foodgrains. Against this, as on 31.12.2020, a total capacity of 8.25 LMT of silos was completed.

Central Warehousing Corporation

7.59 CWC is operating 423 warehouses throughout the country with a total operational storage capacity of around 117 lakh MT. The overall capacity utilization during December, 2020 is expected to be 86 per cent. The average occupancy percentage during nine months (April to December) of FY 2020-21 was 89 per cent as compared to 86 per cent during the corresponding period of FY 2019-20. CWC has constructed 10000 MT capacity warehouse at Bhadohi (Uttar Pradesh) under PEG in the current year.

Ethanol

7.60 The Government has set 10 per cent blending target for mixing ethanol with petrol by 2022 & 20 per cent blending target by 2030. With a view to achieve these blending targets, Government is encouraging sugar mills and molasses based standalone distilleries through various financial assistance to enhance their ethanol distillation capacity. The ethanol supply under Ethanol Blended Petrol (EBP) Programme, which was only about 38 crore litre in 2013-14, has increased to about 189 crores litre during Ethanol Supply Year (ESY) 2018-19 and it was 173 crores litre in ESY 2019-20. In the ESY 2020-21, about 325 crores litre ethanol is targeted to be produced to achieve 8.5 per cent blending and in ESY 2021-22, it is targeted to achieve 10 per cent blending by producing more than 400 crores litre of ethanol. Government has also allowed conversion of surplus stock of rice with FCI and Maize to ethanol so that these targets of blending can be achieved smoothly.

RECENT AGRICULTURAL REFORMS: A REMEDY, NOT A MALADY

7.61 The President gave his assent on September 27, 2020 to three reforms related to agriculture sector—Farmers’ Produce Trade and Commerce (Promotion and Facilitation) Act, Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, and the Essential Commodities (Amendment) Act. Major provisions of the Reforms are presented below.

The Farmers’ Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

7.62 It seeks to create an ecosystem where the farmers and traders enjoy the freedom of choice relating to sale and purchase of farmers’ produce. The reform grants freedom to farmers and buyers to transact in agricultural commodities even outside notified APMC mandis ensuring competitive alternative trading channels to promote efficient, transparent and barrier-free inter-state and intra-state trade.

The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020

7.63 It seeks to provide for a national framework on contract farming that protects and empowers farmers in their engagement with agri-business firms, processors, wholesalers, exporters or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price in a fair and transparent manner.

The Essential Commodities (Amendment) Act, 2020

7.64 It seeks to remove commodities like cereals, pulses, oilseeds, edible oils, onion and potatoes from the list of essential commodities. The reform ends the era of frequent imposition of stock-holding limits except under extraordinary circumstances.

Benefits of the Farm Reforms

7.65 The farmers in India have suffered from various restrictions in marketing their produce. There were restrictions for farmers in selling agri-produce outside the notified APMC market yards. The farmers were also restricted to sell the produce only to registered licensees of the state governments. Further, barriers existed in free flow of agriculture produce between various States owing to the prevalence of various APMC legislations enacted by the state governments.

7.66 APMC regulations have indeed resulted in a number of inefficiencies and consequent loss to the farmers. The presence of multiple intermediaries between the farmers and the final consumers has led to low realization by farmers. Further, a large range of taxes and cesses levied by APMCs cuts into farmers' price realization while only a small proportion is ploughed back into the development of mandi infrastructure. Poor infrastructure at the mandis compounds the problem of price realization for the farmers. Issues related to manual weighing, single window systems and lack of modern grading and sorting processes create long delays and measurement errors that tend to be biased against the seller. Long queues of farmers waiting, most often, in the hot sun to sell their produce with limited ability to take their produce elsewhere even if the price is higher in an other mandi is a characteristic feature of APMC mandis. The delays result in large post-harvest losses to the tune of 4-6 per cent in cereals and pulses, 7-12 per cent in vegetables and 6-18 per cent in fruits. Total post-harvest losses were estimated at ₹ 44,000 crores at 2009 wholesale prices².

7.67 Recognizing the above limitations of existing market regulations, various committees had recommended several reforms in the marketing of agricultural commodities. Some illustration of reports recommending agricultural market reforms is given in Box 3.

7.68 The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, 2020 will empower farmers in their engagement with processors, wholesalers, aggregators, large retailers, exporters and will provide a level playing field. It will transfer the risk of market unpredictability from the farmer to the sponsor and also enable the farmer to access modern technology and better inputs. Farmers have been provided adequate protection as sale, lease or mortgage of farmers' land is totally prohibited and farmers' land is also protected against any recovery. The farmers will have full power in the contract to fix a sale price of their choice for the produce. They will receive payment within a maximum of 3 days. As part of this law, 10000 Farmer Producer Organizations are being formed throughout the country. These FPOs will bring together small farmers and work to ensure remunerative pricing for farm

²Final Report of the Committee of State Ministers in Charge of Agricultural Marketing Reforms, Ministry of Agriculture, Government of India, 2013.

produce. After signing the contract, farmer will not have to seek out traders as the purchasing consumer will need to take the produce directly from the farm.

7.69 The Essential Commodities (Amendment) Act 2020 removes commodities like cereals, pulses, oilseeds, edible oils, onion and potatoes from the list of essential commodities. This aims to remove fears in private investors from excessive regulatory interference in their business operations. The freedom to produce, hold, move, distribute and supply will lead to harnessing of economies of scale and will attract private sector/foreign direct investment into the agriculture sector. The legislation will help drive up investment in cold storages and modernization of food supply chain.

7.70 The three agricultural reform legislations are designed and intended primarily for the benefit of small and marginal farmers which constitute around 85 per cent of the total number of farmers and are the biggest sufferer of the regressive APMC regulated market regime. The newly introduced farm laws herald a new era of market freedom which can go a long way in the improvement of farmer welfare in India.

Box 3: Some illustrations of Reports recommending Agricultural Market Reforms and the Amendments to the Essential Commodities Act

1. Expert Committee on Strengthening and Development of Agricultural Marketing – Chairman: Shri Shankerlal Guru (June 2001)

The Committee underlined the need for a thorough overhaul of existing policies, regulations and legal provisions which inhibit a free marketing system. It stated that direct marketing is one of the alternative marketing structure that needs to be promoted and that the role of the private sector may be encouraged outside the purview of the APMCs. Need for development of infrastructure for quality assurance, standardization of grading and quality control was highlighted. It recommended that the Essential Commodities Act be repealed to allow a free play of market forces.

2. Report on the Taskforce on Employment Opportunities – Chairman: Shri Montek Singh Ahluwalia (July 2001)

The task force recommended that benefit of decontrol must be extended to agriculture and that the Essential Commodities Act should be repealed. It was stated that restrictions on marketing of agricultural produce through APMC should be removed as they act as an impediment to development of a national market.

3. Inter-Ministerial Task Force on Marketing Reforms- Chairman: Shri R.C.A Jain (July 2001)

The task force recommended that the APMC Acts should be amended by the state governments to enable the private sector to develop alternate marketing infrastructure and support services. It recommended that the Essential Commodities Act may be amended to remove restrictions on storage of agricultural produce so that substantial warehousing capacity can be created in the private sector.

4. Model Act on Agricultural Marketing - (September 2003)

Under the Model Act, legal persons, growers and local authorities were permitted to apply for the establishment of new markets for agricultural produce in any area, as against the existing provisions

that allow markets to be setup at the initiative of State Governments alone. Consequently, in a market area, more than one market could be established by private persons, farmers and consumers. There was to be no compulsion on the growers to sell their produce through existing markets administered by the APMC.

5. Serving Farmers and Saving Farming - First Report – National Commission on Farmers - Chairman: Dr M.S. Swaminathan (2004)

The report stressed the need for focus on post-harvest management. The report mentions that planning for infrastructure for post-harvest management should be done for each production zone adopting the well-known concept of “Packing House” successfully adopted by the Grape Growers’ Association, NDDB, etc. The report went on to say that this would need an immediate amendment to the APMC Act by each State to decentralise the system and permit marketing by other players for achieving the ultimate goal of ensuring better returns to the growers and reasonably good quality products to the consumers.

6. Serving Farmers and Saving Farming – From Crisis to Confidence - Second Report – National Commission on Farmers - Chairman: Dr M.S. Swaminathan (2005)

The report states that the role of the APMCs and the state agricultural boards needs to change from regulation to development and promotion of markets for the local products and better marketing practices.

7. Serving Farmers and Saving Farming 2006: Year of Agricultural Renewal - Third Report - National Commission on Farmers - Chairman: Dr M.S. Swaminathan (2005)

The Government needs to abolish market fee on primary agricultural commodities altogether and charges for various services like loading, unloading, weighing in the APMC yard and levy one consolidated service charge for use of market infrastructures. It went on to say that allowing private players including cooperatives to establish private mandis will be a major step in providing an alternative to the farmers and lead to higher returns. The Essential Commodities Act may be put under suspended animation and revived by Government notification only when an emergency situation develops. The report also suggests that the Essential Commodities Act may be scrapped after observing the impact of placing the legislation under suspended animation for a few years.

8. Serving Farmers and Saving Farming Jai Kisan: A Draft National Policy For Farmers - Fourth Report - National Commission On Farmers - Chairman: Dr M.S. Swaminathan (2006)

The State APMC Acts need to be amended to allow the private sector or cooperatives to establish markets, develop marketing infrastructure and support services, collect charges, allow marketing without the necessity of going through APMC/ licensed traders etc. Further the report underlines the need for review of the Essential Commodities Act.

9. Serving Farmers and Saving Farming – The Fifth Report Volume I and II - National Commission On Farmers - Chairman: Dr M.S. Swaminathan (2006)

This report like the ones preceding it, underscores the need for reforms in the agricultural sector especially in the context of APMCs and Essential Commodities Act.

10. Draft State Agricultural Marketing (Development and Regulations) Rules, 2007

The Draft Model APMC Rules, 2007 provide details on, inter-alia, how the market committees would function.

11. Final Report of Committee of State Ministers, in-charge of Agriculture Marketing to Promote Reforms

The State Ministers had recommended the amendment of APMC Act and the substitution of the system of licensing of traders/commission agents with a progressive system of registration with open and transparent criteria. The need to allow private sector to own, operate and manage markets was also underscored.

12. Budget 2017-2018

It was stated that market reforms will be undertaken and the states would be urged to denotify perishables from APMC to give opportunity to farmers to sell their produce outside the APMC and get better prices

13. Standing Committee on Agriculture, Ministry of Agriculture and Farmers Welfare (Department of Agricultural, Cooperation and Farmers Welfare) : Agriculture Marketing and Role of Weekly Gramin Haats(2018-19)

The Committee observed that APMC market across the country are not working in the interest of farmers due to various reasons such as limited numbers of traders in APMC markets thereby reducing competition, cartelization of traders, undue deduction in the name of market fee and commission charges, etc. The Committee was of the view that there is need to create alternative platform for marketing of agriculture produce near the production centre so that farmers can get remunerative prices for their produce. These marketing platforms may also provide them agriculture extension services to the farmers which will further help them to lower the input cost for farming.

14. Several Economic Surveys have expressed concern at functioning of the APMCs and the fact that they sponsor monopolies. Specifically, Economic Surveys for the years 2011-12, 2012-13, 2013-14, 2014-15, 2016-17, 2019-20 focused on the reforms required in this context. The suggestions on marketing of agricultural produce include the need to provide a choice to the farmers to sell their products directly to a processing factory or the private sector, development of agriculture marketing infrastructure, amendment of the State APMC Acts and the Essential Commodities Act to ensure barrier-free storage and movement of agricultural commodities.

15. Parliament enacts three laws that usher in agricultural reforms

The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020

The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020

The Essential Commodities(Amendment) Act, 2020

WAY FORWARD

7.71 The objective of inclusive development in India cannot be realized without the development of rural sector which crucially depends on agriculture. Agriculture and allied activities engage almost half of India's workforce and contributes close to 18 per cent of the gross value added of

the country. Progress in agriculture (including forestry and fisheries) has a bearing on the fate of the largest low-income group in India.

7.72 There is a need for a paradigm shift in how we view agriculture from a rural livelihood sector to a modern business enterprise. In this context, both production and post production in agriculture needs urgent reforms to enable sustainable and consistent growth. Increase in area under irrigation, adoption of hybrid and improved seeds, increasing variety replacement ratio and augmentation in seed testing facilities will help address low productivity concerns. Adequate storage and remunerative markets for agricultural products should be the main focus of post-production management. It is also important to integrate agriculture with nutritional outcomes by means of food fortification of staples.

7.73 On the post-production front, measures like village level procurement centres, linkages between production and processing, development of rural markets, option of selling outside the APMC markets – warehouse upgradations and strengthening of railways freight operations, dedicated freight corridors among others are needed and are being taken up. These measures will not only reduce post-harvest losses but will also help realize the objective of doubling farmers’ income.

7.74 All business enterprises need to optimise on inputs - both knowledge and materials. Therefore, it is also essential to impart farmers with basic education and training to transform his / her role from that of a producer to an entrepreneur. The option of setting up of rural agricultural schools for hands-on training may be explored in this regard. Allied sectors including animal husbandry, dairying and fisheries have gradually become a significant source of farm income and employment. Measures need to be taken to increase the productivity of the allied sectors along with sufficient provision for marketing of their products. Another area of emphasis is the need to strengthen agriculture extension services which are extremely important as they provide technical information to the farmer about improved agricultural practices, guidance on the use of these inputs and other services in support of their production.

7.75 The food subsidy bill is becoming unmanageably large. While it is difficult to reduce the economic cost of food management in view of rising commitment towards food security, there is a need to consider the revision of CIP to reduce the bulging food subsidy bill.

CHAPTER AT A GLANCE

- India’s agricultural sector has shown its resilience amid the adversities of COVID induced lockdowns. The Agriculture and allied activities were the sole bright spot amid the slide in GDP performance of other sectors, clocking a growth rate of 3.4 per cent at constant prices during 2020-21 (1st Advance Estimates).
- As per the provisional estimates of national income released by CSO on 29th May, 2020, the share of agriculture and allied sectors in Gross Value Added (GVA) of the country at current prices is 17.8 per cent for the year 2019-20.

- Gross Capital Formation (GCF) in agriculture and allied sectors relative to GVA in this sector has been showing a fluctuating trend from 17.7 per cent in 2013-14 to 16.4 per cent in 2018-19, with a dip to 14.7 per cent in 2015-16.
- In the Agriculture year 2019-20 (as per Fourth Advance Estimates), total food grain production in the country is estimated at record 296.65 million tonnes which is higher by 11.44 million tonnes than the production of food grain of 285.21 million tonnes achieved during 2018-19.
- The agricultural credit flow target for the year 2019-20 was fixed at ₹ 13,50,000 crores and against this target the achievement was ₹ 13,92,469.81 crores. The agriculture credit flow target for 2020-21 has been fixed at ₹ 15,00,000 crores and till 30th November, 2020 against this target a sum of ₹ 9,73,517.80 crores has been disbursed.
- Consequent upon budget announcement on inclusion of livestock sector in Kisan Credit Card in February 2020, 1.5 crores dairy farmers of milk cooperatives and milk producer companies' were targeted to provide Kisan Credit Cards (KCC) as part of Prime Minister's Atma Nirbhar Bharat Package.
- As of mid January 2021, a total of 44,673 Kisan Credit Cards (KCCs) have been issued to fishers and fish farmers and an additional 4.04 lakh applications from fishers and fish farmers are with the banks at various stages of issuance.
- The PMFBY covers over 5.5 crore farmer applications year on year. As on 12th January, 2021, claims worth ₹ 90,000 crores have already been paid out under the Scheme. Aadhar seeding has helped in speedy claim settlement directly into the farmer accounts. Even during COVID lock down period nearly 70 lakh farmers benefitted and claims worth ₹ 8741.30 crores were transferred to the beneficiaries.
- An amount of ₹ 18000 crore have been deposited directly in the bank account of 9 crore farmer families of the country in December, 2020 in the 7th installment of financial benefit under the PM-KISAN scheme.
- The livestock sector grew at CAGR of 8.24 per cent during 2014-15 to 2018-19. As per the estimates of National Accounts Statistics (NAS) 2020 for sector wise Gross Value Added of agriculture and allied sector, the contribution of livestock in total agriculture and allied sector GVA (at Constant Prices) has increased from 24.32 per cent (2014-15) to 28.63 per cent (2018-19). The contribution of the livestock sector was 4.19 per cent of total GVA in 2018-19.
- Fish production in India reached an all-time high of 14.16 million metric tons in 2019-20. Further, the Gross Value Added (GVA) by the fisheries sector to the national economy stood at ₹ 2,12,915 crores constituting 1.24 per cent of the total national GVA and 7.28 per cent of the agricultural GVA.

- During the last 5 years ending 2018-19, Food Processing Industries (FPI) sector has been growing at an average annual growth rate of around 9.99 per cent as compared to around 3.12 per cent in agriculture and 8.25 per cent in manufacturing at 2011-12 prices.
- Under the Pradhan Mantri Garib Kalyan Anna Yojana, 80.96 crores beneficiaries were provided additional foodgrains, i.e. above the NFSA mandated requirements, of 5 kg per person per month free of cost till November, 2020. Over 200 LMT of foodgrains were provided amounting to a fiscal outgo of over ₹ 75000 Crores. Also, under Atma Nirbhar Bharat Package, 5 kg per person per month was distributed for four months (May to August) to benefit approximately 8 crores migrants who are not covered under NFSA or state ration card entailing subsidy of ₹ 3109 crores approximately.