



Impact Of Agriculture And Environment On Food And Nutrition Security

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1. Introduction

The National Food Security Act, 2013 is being implemented in all the States/UTs, on an all-India basis. Out of maximum coverage of 81.35 crore, around 80.04 crore persons are covered under NFSA at present for receiving highly subsidized foodgrains. Coverage under the Act is under two categories – households covered under Antyodaya Anna Yojana (AAY) and Priority households (PHH). The monthly entitlement of foodgrains is 5 kg per person for eligible households under ‘priority’ category and 35 kg per family for AAY households. Beneficiaries under the Act are entitled for subsidized foodgrains at `3/2/1 per kg for rice/wheat/coarse grains for an initial period of three years from the date of commencement of the Act (July 5, 2013). Thereafter, prices were to be fixed by the Central Government from time to time, but not exceeding MSP. Government decided from time to time to continue the above-mentioned subsidized prices under NFSA. Central Government has now decided to provide foodgrains free of cost to the 81.35 crore NFSA beneficiaries i.e. AAY Families and PHH persons for one year from 01.01.2023 to 31.12.2023. The decision is taken to strengthen the provisions of NFSA in terms of accessibility, affordability and availability of entitled foodgrains for the poor and ensure effective and uniform implementation of National Food Security Act 2013 (ONE NATION-ONE PRICE-ONE RATION). The additional cost of making foodgrains free of cost to the NFSA beneficiaries will be borne by Government of India. Notification to this effect was published in the Gazette of India on 30.12.2022.

In Chandigarh, Puducherry and some areas of Dadra & Nagar Haveli and Daman & Diu the Act is being implemented in the cash transfer mode, under which food subsidy is credited directly into the bank accounts of beneficiaries, who then have the choice to buy foodgrains from the open market. For the month of November, 2022, `17.64 crore was transferred as food subsidy for 9.65 lakh persons covered under the cash transfer of food subsidy scheme. During the Financial Year 2022-23, `4756.18 crore (as on 31.12.2022) has been released to State Governments as Central assistance to meet the expenditure incurred on intra- State movement & handling of foodgrains and fair price shop dealers’ margins. Such an arrangement has been made for the first time under

NFSA. Under erstwhile TPDS, State Governments were required to either meet this expenditure on their own or pass it on to beneficiaries (except AAY beneficiaries).

Major Reforms in Targeted Public Distribution System (TPDS)

As part of efforts made under TPDS reforms to modernize the functioning of TPDS and to bring transparency & efficiency in its operations, the Department, in association with all States/UTs had implemented a plan scheme on End-to-End Computerization of TPDS Operations up to 31.03.2020 and is also implementing a central sector scheme namely Integrated Management of PDS (IMPDS) in all States/UTs w.e.f. 2018 and valid up to 31.03.2023. As part of activities under the end-to-end computerization scheme, about 20 Crore ration cards covering around 80 Crore beneficiaries under the National Food Security Act, 2013 (NFSA) are completely digitized. The Supply Chain Management of foodgrains is computerized in 31 out of 33 States/UTs (except the UTs of Chandigarh and Puducherry which are under DBT cash transfers).

Digitized ration cards databases of States/ UTs are also being seeded with available Aadhaar numbers of beneficiaries, and so far, at the national level more than 99.6% ration cards (at least one member) and more than 95.3% beneficiaries (persons) have been Aadhaar seeded. This has enabled the States/UTs to identify and weed-out ineligible ration cards, duplicate/ bogus beneficiaries while continuously reducing the ghost lifting of highly subsidized foodgrains, thereby increasing the rightful targeting of beneficiaries and thus food subsidy. The Aadhaar seeding of beneficiaries with their Ration Cards is being done by the respective State/UT. Also, as integral part of the computerization scheme, States/UTs have installed electronic Point of Sale (ePoS) devices at all Fair Price Shops (FPSs) for transparent distribution of foodgrains through electronic transactions and also with biometric/ Aadhaar authentication of beneficiaries. The installation of ePoS devices has been achieved in about 99.8% i.e. 5.32 lakh of total 5.33 lakh FPSs in the country and these devices are being used for the distribution of foodgrains to NFSA beneficiaries digital transactions. On an average, more than 85% of monthly allocated foodgrains by the Government of India are being distributed through these ePoS devices, with biometric authentication of beneficiaries, on monthly basis. All ePoS transaction records are available on the respective ePoS portals of States/UTs. Distribution details of States/ UTs up to the districts level is also available on the Central Annavitran portal ([https:// annavitran.nic.in](https://annavitran.nic.in)).

Leveraging the strong foundations of end-to-end computerization, FPS automation and Aadhaar seeding/authentication, the Department is implementing ambitious One Nation One Ration Card (ONORC) plan for nation-wide portability of ration cards under NFSA. The national portability of ration cards under ONORC plan has been seamlessly enabled in all 36 States/UTs covering around 80 Crore beneficiaries (100% of total NFSA population of the country). Further, as an outcome of the use of technology in TPDS operations since 2013, i.e., digitization of ration cards/beneficiary databases, Aadhaar seeding, de-duplication process, identification of duplicates, ineligible records, deaths, permanent migration of beneficiaries, etc. all States/ UTs have been able to

weed-out a total of about 4.74 crore ration cards between 2013 to 2022 (till date), and are being able to achieve rightful targeting of beneficiaries against the quota thus released.

Ware housing Development and Regulatory Authority (WDRA) was set up by the Government of India on 26th October, 2010 to ensure implementation of the provisions of the warehousing (Development & Regulation) Act, 2007. The main objective of the Authority is to implement the Negotiable Warehouse Receipt (NWR) system in the country, which would enable farmers to store their produce for safe storage and preservation in warehouses near their farms and to seek loan from banks against the NWRs issued against deposit of their shocks. The main functions of the Authority are to make provisions for the development and regulation of warehouses which inter alia includes negotiability of warehouse receipts, registration of warehouses, promotion of scientific warehousing of goods, improving fiduciary trust of depositors and banks, enhancing liquidity in rural areas and promoting efficient supply chain.

Warehousing Development and Regulatory Authority (WDRA)

(as on 31.12.2022)

Sl. No.	Name of the activity	Achievements
1	No. of warehouses registered	1111
2	No. of electronic Negotiable Warehouse Receipts (eNWRs) issued	48004
3	Quantity of commodities deposited against eNWRs	4.92 Lakh MT
4	Value of commodities deposited against eNWRs	4275.56 (in crores)
5	Farmer Awareness and Warehouseman Capacity Building programme	
	i. No. of Farmers Awareness Programme organized	207
	ii. No. of Farmers/Traders/Millers participated	10490
	iii. No. of Capacity Building Programmes organised	9
	iv. No. of Warehousemen/Warehouse Managers trained	386
	v. No. of Assayer's Training Programme organised	3
	vi. No. of Assayers participated	116

2. PROCUREMENT OF FOODGRAINS

Procurement operations are seasonal Kharif Marketing Season (KMS) starts from 01st October and lasts upto next 30th September of a year. Paddy/Rice and Coarse grain like Jowar, Bajra, Ragi & Maize are procured during the KMS. The Rabi Marketing Season (RMS) starts from 1st April and lasts upto next 31st March of a year. Mostly, wheat and sometimes barley is procured during RMS.

Before the start of every marketing season, the Department convenes a meeting of State Food Secretaries to make advance arrangements for procurement of foodgrains/coarse grains. In this meeting, issues like procurement centres to be opened by the FCI/State Government Agencies (SGAs), arrangement of storage space, evacuation plan for foodgrains and arrangement of packaging material are discussed in detail. Based on the estimates given by the State Food Secretaries, the targets of total procurement for the Central Pool are worked out in the meeting.

3. MINIMUM SUPPORT PRICE

Foodgrains are procured at the Minimum Support Price (MSP) fixed by the Government of India. For KMS 2022-23, the MSP for Common and Grade 'A' paddy has been fixed at `2040/- and `2060/- per quintal, respectively, as compared to the MSP for Common and Grade 'A' paddy at `1940/- and `1960/- per quintal respectively, for KMS 2021-22. The MSP of wheat was fixed at `1975/-per quintal for the RMS 2021-22, and for RMS 2022-23, it has been fixed at `2015/- per quintal. The comparative MSP of wheat and paddy as announced by the Ministry of Agriculture for crop year 2018-19 to 2022-23 is given below:-

Commodity	(` per quintal)				
	2018-19	2019-20	2020-21	2021-22	2022-23
Paddy-Common	1750	1815	1868	1940	2040
Paddy-Grade 'A'	1770	1835	1888	1960	2060
Jowar-Hybrid	2430	2550	2620	2738	2970
Jowar-Maldandi	2450	2570	2640	2758	2990
Bajra	1950	2000	2150	2250	2350
Maize	1700	1760	1850	1870	1962
Ragi	2987	3150	3295	3377	3578
Wheat	1725	1840	1925	1975	2015
Barley	1440	1525	1525	1600	1635

4. PROCUREMENT OF COARSEGRAINS

Revised Guidelines for procurement, allocation, distribution and disposal of coarse grains: To obviate difficulties being faced by some States in procurement/ distribution of coarse grains and to increase procurement of coarse grain under Central Pool, the guidelines were revised. The revised guidelines were issued vide O.M. No. 7-15/2020. Py. III (372842) dated 07.12.2021/28.03.2022. The highlights of these guidelines are as follows:

- i. Distribution period of coarse grains has been increased to 6-10 months respectively from the earlier period of 3 months. This would increase procurement and consumption of these commodities as the State would have more time to distribute these commodities in Targeted Public Distribution System/ Other Welfare Scheme.
- ii. Provision of inter-state transportation of surplus coarse grains through FCI is incorporated to cater for advance demand placed by consuming state before the start of procurement.
- iii. New guidelines would increase procurement/consumption of coarse grains through Public Distribution System (PDS). As these crops are normally grown on marginal and unirrigated land,

therefore, enhanced cropping of these would encourage sustainable agriculture and crop diversification. With the increased procurement, number of farmers benefitting from the procurement of these crops, would also increase.

- iv. Marginal and poor farmers who are also PDS beneficiaries will gain due to procurement and then distribution of millets free of cost. Region specific coarse grains can be distributed for local consumption saving transportation cost of wheat/rice.
- v. Coarse grains are highly nutritive, non-acid-forming, gluten-free and having dietary properties. Besides, to strengthen our fight against malnutrition in children and adolescents, consumption of coarse grains would help to foster immunity and health. 3.5 During KMS 2022-23, this Department has approved the procurement plan of various State Governments for procurement of coarse grains as per extant guidelines dated -07.12.2021/28.03.2022 details of which are as follows:

Procurement Plan of coarse grains received for KMS 2022-23

(as on 31.12.2022) (in MT)

S. No.	State	Commodity	Quantity (in MT)
1	Haryana	Bajra	1,60,000
		Maize	5,000
2	Karnataka	Jowar	2,00,000
		Ragi	5,00,000
3	Maharashtra	Jowar	16,063
		Bajra	2,279
		Maize	42,379
		Ragi	354
4	Madhya Pradesh	Jowar	40,000
		Bajra	1,40,000
5.	Uttar Pradesh	Maize	1,00,000
		Bajra	50,000
6	Gujarat	Maize	10,000
		Bajra	20,000
7.	Tamil Nadu	Ragi	17,000
8.	Uttarakhand	Ragi	9,600

Total

13,12,675

5. PROCUREMENT OF RICE

For having a comparative idea, the State-wise procurement of rice during the last 4 years and current year (marketing season wise) is given below:

State/Uts	2018-19	2019-20	2020-21	2021-22	2022-23
Andhra Pradesh	48.06	55.33	56.66	44.61	11.87
Telangana	51.9	74.54	95.25	73.94	37.4
Assam	1.02	2.11	1.42	3.79	0.23
Bihar	9.49	13.41	23.84	30.09	8.2
Chandigarh	0.13	0.15	0.19	0.18	0.13
Gujarat	0.09	0.14	0.74	0.82	1.07
Haryana	39.42	43.07	37.89	37.06	39.51
Jammu & Kashmir	0.09	0.1	0.26	0.27	0.22
Jharkhand	1.52	2.55	4.28	5.12	0.15
Karnataka	0.59	0.41	1.38	1.47	0
Kerala	4.65	4.83	5.2	5.09	1.24
Madhya Pradesh	13.95	17.4	24.97	30.7	22.78
Maharashtra	5.8	11.67	12.72	12.27	5.11
Odisha	44.48	47.98	52.58	48.31	12.76
Punjab	113.34	108.76	135.89	125.48	121.91
Tripura	0.07	0.14	0.16	0.39	0
Tamil Nadu	12.94	22.04	30.53	18.76	5.82
Uttar Pradesh	32.33	37.9	44.78	43.9	27.07
Uttarakhand	4.62	6.82	7.18	7.74	5.92
West Bengal	19.79	18.38	18.9	24.01	0.86
Others	0.2	0.29	0.01	0.27	0.08
All India Total	443.99	519.97	602.45	575.88	355.08

6. PROCUREMENT OF WHEAT

The State-wise procurement of wheat during the last 4 years and current year (marketing season wise) is given below: (in lakh MT)

State	2018-19	2019-20	2020-21	2021-22	2022-23
Haryana	87.84	93.2	74	84.93	41.86
Madhya Pradesh	73.13	67.25	129.42	128.16	46.03
Punjab	126.92	129.12	127.14	132.22	96.45
Rajasthan	15.32	14.11	22.25	23.4	0.1
Uttar Pradesh	52.94	37	35.77	56.41	3.36
Others	1.8	0.64	1.34	8.32	0.12
All India	357.95	341.32	389.92	433.44	187.92

7. Allocation of Foodgrains under TPDS

During the year 2022-23, Government of India has allocated 970.13 lakh MT of foodgrains to States/UTs/Welfare Institutions, etc. as per break up given below:

ANNUAL ALLOCATION OF FOODGRAINS FOR 2022-23					
	Name of Scheme	Rice	Wheat	Nutri-cereals	Total
A	TPDS (NFSA ALLOCATION)				
	Antyoday Anna Yojana (AAY)	71.07	28.68	0	99.75
	Priority Household (PHH)	272.61	145.68	5.57	423.86
	TPDS (Tide Over)	20.94	5.46	0	26.4
	MDM	22.89	4.36	0	27.25
	WBNP	11.66	11.3	0	22.96
	Total	399.17	195.48	5.57	600.22
B	OTHER WELFARE SCHEMES				
	Hostels and Welfare institutions	3.07	0.43	0	3.5
	Schemes for adolescent Girls (SAG)	0.29	0.2	0	0.49
	Annapurna	0	0	0	0
	Total	3.36	0.63	0	3.99
C	ADDITIONAL ALLOCATION (Festival, calamity, addl.TPDS etc.)				
	Natural Calamity etc (MSP Rates)	0	0	0	0
	Festival/Additional Requirement etc (Economic Cost)	0.96	0.6	0	1.56
	PMGKAY allocation (from May-Nov.21)	283.97	76.84	0	365.92
	Covid Alloc. (Non NFSA, Eco)	4.15	1.38	0	5.53
	Total	289.08	76.84	0	365.92
	Grand Total A+B+C	691.61	272.95	5.57	970.13

8. One Nation One Ration Card:

With an objective to ensure food security of migratory beneficiaries, the Department is implementing national portability of ration cards under NFSA as part of an ambitious One Nation One Ration Card (ONORC) plan to ensure seamless access to PDS and delivery of food-security entitlements to all beneficiaries covered under the Act anywhere in the country in association with all State/UT Governments. This initiative is seamlessly enabled in all 36 States/ UTs covering about 80 Crore beneficiaries (100% of NFSA population). Further, due to its potential to serve the migrants, this initiative has also become a part of the Prime Minister's Technology Driven System Reforms under the Atma Nirbhar Bharat Abhiyan. The ONORC transactions' data of the States/UTs shows that during the COVID-19 period, i.e., from April 2020 to December 2022, a total of about 98.1 Crore portability transactions have been recorded under ONORC, distributing both NFSA and PMGKAY foodgrains equivalent to approx. `55,600 Crore in food subsidy

9. Conclusion

Financing for food security and nutrition refers to the public and private financial resources, both domestic and foreign, that are directed towards eradicating hunger, food insecurity and all forms of malnutrition. They are targeted to ensure the availability, access, utilization and stability of nutritious and safe foods, and practices that favour healthy diets, as well as health, education and social protection services that enable these, and include the financial resources that are directed towards strengthening the resilience of agrifood systems to the major drivers and underlying structural factors of hunger, food insecurity and malnutrition.

References:

1. Estimates for 2023 are not provided due to the lack of updated income distribution data, detailed food prices, and purchasing power parity (PPP) conversion factors at the country level.
2. If a similar imputation had been applied to last year's assessment, the total number of people unable to afford a healthy diet globally in 2021 would have been estimated at 3.29 billion, rather than 3.14 billion.
3. The target year to halt the rise of adult obesity is 2025. Methodology to calculate global aggregates and projecting to 2030 can be found in the Supplementary material to Chapter2
4. Data for low birthweight are from UNICEF & WHO. 2023. Low birthweight. In: UNICEF. [Cited 24 July 2024]. <https://data.unicef.org/topic/nutrition/low-birthweight>;
5. UNICEF & WHO. 2023. Joint low birthweight estimates. In: WHO. [Cited 24 July 2024]. <https://www.who.int/teams/nutrition-and-food-safety/monitoring-nutritional-status-and-food-safety-and-events/joint-low-birthweight-estimates>; data for exclusive breastfeeding are based on UNICEF. 2024. Infant and young child feeding.
6. In: UNICEF. [Cited 24 July 2024]. <https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding>; data for stunting, wasting and overweight are based on UNICEF, WHO & World Bank. 2023. Levels and trends in child malnutrition.
7. UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates – Key findings of the 2023 edition. New York, USA, UNICEF, Geneva, Switzerland, WHO and Washington, DC, World Bank. <https://data.unicef.org/resources/jme-report-2023>, <http://www.who.int/teams/nutrition-and-food-safety/monitoring-nutritional-status-and-food-safety-and-events/joint-child-malnutrition-estimates>, <https://datatopics.worldbank.org/childmalnutrition>; data for anaemia are based on WHO. 2021.
8. WHO global anaemia estimates, 2021 edition. In: WHO. [Cited 24 July 2024]. https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children; data for adult obesity are based on WHO. 2024.
9. Global Health Observatory (GHO) data repository: Prevalence of obesity among adults, BMI ≥ 30 , age-standardized. Estimates by country. [Accessed on 24 July 2024]. [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-30-\(age-standardizedestimate\)-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-30-(age-standardizedestimate)-(-)). Licence: CC-BY-4.0.