

Impact of Neo-Liberalisation on Agricultural Marketing Sector in India

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Abstract

The paper analysed the impact of neo-liberalisation on Indian agricultural marketing sector using compound annual growth rate. The findings indicated that during neo-liberalisation period (after 1990-91), total as well as agricultural exports grew at higher rate in comparison to pre neo-liberalisation period (before 1990-91). While growth rate of total imports remained almost same, agricultural imports during neo-liberalisation period increased nearly at three and half times higher CAGR than that experienced during pre neo-liberalisation period. GCF by private sector in agricultural and allied sector increased remarkably in neo-liberalisation period, the growth rate of GCF by public sector in agricultural and allied sector declined marginally in comparison to the pre neo-liberalisation period. Despite increase in trade, the annual growth rate of farm business income for paddy and wheat was found to be considerably lower as compared to pre neo-liberalisation period. Additionally, during neo-liberalisation period, the rate of expansion of regulated markets declined significantly, moreover it was not uniform across major states. In order to develop agricultural sector, the study recommended raising public investment by increasing budget allocation for rural infrastructure based on state specific requirement, enhance export incentives including freight subsidies for key commodities, concessional export credits and tax benefits for agricultural exports, and establish effective marketing network through value based system supported by public investment in rural infrastructure including cold storage facilities, warehouses, grading and sorting units and primary processing centers.

Keywords: Exports and imports, Regulated markets, Gross capital formation, Market infrastructure

JEL Classification: F14, Q13, E22, H54

Introduction

The external debt crisis of 1991 put India on the default concerning its international payment obligations. The fiscal crises were imminent, and the balance of payment situation was increasing rampantly. Subsequently, India adopted neo-liberalisation, also referred to as market-friendly economic policies with the support of International Monetary Fund and World Bank (Siddiqui, 2010; Manning 2022). This newly adopted policy framework represented a deviation from previous approaches, thereby increasing dependence on market mechanisms for resource mobilization (Gautam, 2022). Additionally, the state's involvement in the economic development was substantially curtailed. Foreign Direct Investment (FDI) and foreign technology were accorded a principal role within the economy (Kurien, 1994; Siddiqui, 1990).

The neo-liberalisation policy suggested that individuals were optimally served through maximum market autonomy and minimum government interference. The government

role should be limited to the establishment and protection of marketing systems, while the other responsibilities should be effectively managed by private enterprises, who were incentivized by the profit motive to provide goods and services (Siddiqui, 2010). The neo-liberal agricultural policy advocated for progressive taxation, deregulation, free trade, privatization, and a contraction of government expenditures (Manning, 2022). The principal emphasis of the development strategy pertaining to the agricultural sector had been the attainment of food security through the augmentation of agricultural production. However, the strategy did not explicitly aim at enhancing farmers' income or welfare. The resultant effect was that farmers' income remained stagnant (Gautam, 2022). In recent years, there had been an increasing demand for the deregulation of agriculture in India. While several studies have examined specific aspects of neo-liberalisation reforms in agriculture, there is limited research on their overall impact of neo-liberalisation on agricultural marketing sector. Keeping in view the above research gap the paper is an attempt to review the impact of neo-liberalisation on trade scenario, public and private sector

investment, returns from crop sector, market infrastructure and dominance of private markets in India.

Data Sources and Methodology

To review the impact of neo-liberalisation, available data on the five important aspects i.e. trade scenario, public and private sector investment, returns from crop sector, market infrastructure and dominance of private markets has been scrutinized for two periods viz pre neo-liberalisation period (before 1990-91) and neo-liberalisation period (after 1990-91).

The statistical data on exports and imports and quantity of crops sold by agricultural household was compiled from Food and Agriculture Organisation of the United Nations (FAO STAT) and NSSO 77th and 70th round respectively. The data on value of crop output and cost of cultivation, gross capital formation in agricultural and allied sector and number of regulated markets was compiled from Directorate of Economics and Statistics and Directorate of Marketing and Inspection, GOI respectively.

Compound annual growth rate (CAGR) has been used to evaluate the impact in the following form:

$$Y_t = \alpha \beta^t$$

$$\ln Y_t = \ln \alpha + t \ln \beta$$

$$\ln Y_t = A^* + B^* t$$

Where,

$$Y_t = \text{Indicators}$$

$$A^* = \text{Intercept}$$

$$B^* = \text{Regression Co-efficient in logarithmic form}$$

$$t = \text{Time period} = 1, 2, 3, \dots, n$$

$$\text{CAGR} = [\text{Anti ln}(B^*) - 1] * 100$$

Results and Discussion

Trade scenario

India's export and import dynamics exhibited notable shift across the pre neo-liberalization and neo-liberalization period, the data on same has been given in Table 1. During 1970 to 1990 total exports of India increased with CAGR of 10.58 per cent from USD 2.02 billion to USD 18.22 billion. During this period, agricultural export which were recorded at USD 0.66 billion in 1970, increased with CAGR of 6.99 per cent to USD 3.26 billion in 1990. In neo-liberalized period (1991-2023), the total exports of country further increased to USD 432 billion with marginally higher CAGR (11.32%) in comparison to pre neo-liberalized period. While agricultural exports increased at much higher rate (CAGR 10.31%) during neo-liberalised period and were amounted to USD 53.60 billion in 2023, the share of agricultural exports relative to total exports experienced a steep decline from 33 per cent in 1970 to 18 per cent by 1990, further diminishing in the initial years following neo-liberalization, rebounding

to 14.80 per cent in 2020, and subsequently declined to 12.41 per cent by 2023. This may be attributed to greater increase in non-agricultural exports worldwide (Bhatia *et al.*, 2021; Kumar, 2021; Prasad, 2015).

Total imports of country increased from USD 2.12 billion in 1970 to USD 24.19 billion in 1990 and further to USD 672.67 billion in 2023. However, rate of growth of total imports of India remained almost same during pre neo-liberalization period (CAGR 12.69%) and neo-liberalization period (CAGR 12.61%). Contrarily, the trend for agricultural imports saw fluctuations, rising from USD 0.72 billion in 1970 to USD 1.36 billion in 1980 and then declined to USD 1.02 billion in 1990. The rate of growth in agricultural imports during pre neo-liberalization period remained quite low at CAGR 3.48 per cent. However, in the neo-liberalization era, agricultural imports of country increased almost at three and half times higher CAGR (12.09%) in comparison to pre neo-liberalization period. The share of agricultural imports to total imports plummeted sharply from 34.04 per cent in 1970 to 4.20 per cent in 1990, and subsequently stabilized around 5 per cent in the neo-liberalization period.

Public and private sector investment

The trend of public and private sector gross capital formation (GCF) in agricultural and allied sector and total economy is depicted in Table 2. During pre neo-liberalization era, GCF in agricultural and allied sector by public and private sector consistently increased from Rs.8345 crores and Rs.15444 crores in 1970-71 to Rs.18472 and Rs.43767 crores in 1990-91. This resulted in increasing total GCF in agricultural and allied sector from Rs.23789 crores to Rs.62239 crores during the above period. The share of public sector in total GCF in agricultural and allied sector initially rose from 35.08 per cent in 1970-71 to 48.39 per cent in 1980-81, but then declined to 29.68 per cent in 1990-91. While the share of private sector declined from 64.92 per cent in 1970-71 to 51.61 per cent in 1980-81, and subsequently increased to 70.32 per cent in 1990-91. A similarly trend was observed in GCF of economy. The public sector share increased from 39.95 per cent in 1970-71 to 43.57 per cent in 1980-81 and then slightly declined to 42.02 per cent in 1990-91. The private sector followed the opposite trend, with its share falling from 60.05 per cent in 1970-71 to 56.43 per cent in 1980-81, and then rising to 57.98 per cent in 1990-91.

During neo-liberalisation period, GCF by public sector in agricultural and allied sector increased with CAGR of 4.37 per cent which turns out to be marginally lower in comparison to pre neo-liberalisation period. The share of public sector in total GCF of agricultural and allied sector declined considerably and was observed to be 14.17 per cent during 2022-23. However, the GCF in agricultural and allied sector by private exhibited significant expansion with two times higher CAGR of 7.59 per cent as compared to the pre neo-liberalisation period. During this period, the share of

Table 1: Contribution of agricultural export and imports to the total export and import in India, 1970-2023
(USD Billion)

Year	Total exports	Agricultural exports	Share (%age)*	Total imports	Agricultural import	Share (%age)*
1970	2.02	0.66	32.64	2.12	0.72	34.04
1980	8.38	2.58	30.75	14.09	1.36	9.66
1990	18.22	3.26	17.92	24.19	1.02	4.20
2000	45.30	5.28	11.66	51.37	2.83	5.51
2010	226.35	20.66	9.13	350.23	10.44	2.98
2020	276.30	40.90	14.80	372.85	21.63	5.80
2021	395.41	52.18	13.20	572.52	31.00	5.41
2022	453.40	57.04	12.58	720.44	37.80	5.25
2023	432.00	53.60	12.41	672.67	33.34	4.96
CAGR Pre neo-liberalisation period	10.58 ***	6.99 ***		12.69 ***	3.48 ***	
CAGR neo-liberalisation period	11.32 ***	10.31 ***		12.61 ***	12.09 ***	

*Contribution of agricultural exports to total exports for each respective year

Note: *** indicates significant at one per cent level

private sector in total GCF of agricultural and allied sector continued to follow an upward trend and reached 85.83 per cent in 2022-23.

The share of GCF in agricultural and allied sector in GCF of total economy by public sector declined hugely during pre neo-liberalisation period from 11.92 per cent in 1970-71 to 6.83 per cent in 1990-91. This was mainly because of large proportion of the resource flows to the agricultural sector going in to current expenditure on subsidies for fertilizers, irrigation, electricity, credit and other agricultural inputs rather than investment (Singh, 2014; Bathla, 2014). It followed the declining trend (though at relatively low rate) during initial two decades of neo-liberalisation period and then increased to 5.96 per cent in 2020-21 before declining marginally and was observed to be 5.52 per cent of total GCF in 2022-23. The similar trend was observed in case of private sector. The share of GCF in agricultural and allied sector in GCF of total economy by private sector declined during pre neo-liberalisation period from 14.68 per cent in 1970-71 to 11.73 per cent in 1990-91. It followed the same declining trend during initial two decades of neo-liberalisation period and then increased to 10.94 per cent in 2020-21 but declined marginally thereafter and was observed to be 9.37 per cent of total GCF in 2022-23.

Returns from crop sector

Farmers are primarily concerned with their profits or farm business income. Table 3 shows that during the pre neo-liberalisation period, the farm business income from major crops of country viz. paddy and wheat exhibited a

positive growth trend. In period 1980-81 to 1990-91, the farm business income from paddy and wheat increased with CAGR of 3.22 per cent and 3.65 per cent respectively. The farm business income from paddy and wheat increased from Rs. 11507 and Rs. 11574 per ha in 1980-81 to Rs. 16362 and Rs. 19131 per ha in 1990-91 respectively. However, during neo-liberalisation period, annual growth rates of farm business income from paddy and wheat at 0.88 per cent and 0.68 per cent respectively, were found to be considerably lower as compared to pre neo-liberalisation period. The farm business income for paddy declined during the initial decade of neo-liberalisation period and the trend got reversed and increased to Rs 21459 per ha in 2010-11, but then started declining and was observed to be Rs19195 per ha in 2021-22. Similarly, the farm business income of wheat continued to increase during initial two decades of neo-liberalisation till 2010-11, then got reversed and declined to Rs 21999 per ha in 2020-21. Further, the decline in profitability of crop sector in neo-liberalization period may be attributed to relatively slow growth in value of output as well as to higher rate of growth of cost of cultivation during this period in comparison to that experienced in the pre neo-liberalization period. The findings were in consonance with the study of Kalamkar and Narayanamoorthy, 2003; Tripathi, 2012; Narayanamoorthy 2017; Chand et al., 2015)

Market infrastructure

The expansion of regulated agricultural markets in India and major agricultural states varied considerably between pre neo-liberalization and neo-liberalization periods (Table 4).

Table 2: Share of public and private gross capital formation in agricultural and allied sector and total GCF in India, 1970-71 to 2022-23 (at 2011-12 prices) (Crores)

Year	GCF in Agricultural and allied sector			GCF of Economy			Share of agricultural and allied sector GCF in GCF of total economy		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
1970-71	8345.32 (35.08)	15443.65 (64.92)	23788.97	70000.00 (39.95)	105203.84 (60.05)	175203.84	11.92	14.68	13.58
1980-81	21865.87 (48.39)	23322.06 (51.61)	45187.93	139909.23 (43.57)	181179.34 (56.43)	321088.57	15.63	12.87	14.07
1990-91	18472.15 (29.68)	43766.99 (70.32)	62239.14	270356.35 (42.02)	373088.60 (57.98)	643444.95	6.83	11.73	9.67
2000-01	17218.73 (17.49)	81203.51 (82.51)	98422.25	304606.90 (29.32)	734256.00 (70.68)	1038862.90	5.65	11.06	9.47
2010-11	34301.13 (16.20)	177467.15 (83.80)	211768.29	704357.78 (24.32)	2171858.87 (75.51)	2876216.65	4.87	8.17	7.36
2020-21	49567.52 (15.00)	280886.12 (85.00)	330453.02	831596.14 (24.46)	2568190.42 (75.54)	3399786.56	5.96	10.94	9.72
2021-22	47108.19 (12.85)	319490.74 (87.15)	366598.92	922286.31 (21.45)	3377465.03 (78.55)	4299751.34	5.11	9.46	8.53
2022-23	57620.06 (14.17)	349147.63 (85.83)	406767.69	1043978.83 (21.88)	3727106.96 (78.12)	4771085.79	5.52	9.37	8.53
CAGR - Pre neo-liberalisation period	4.49 ***	3.88 ***	4.14 ***	7.06 ***	6.99 ***	7.01 ***			
CAGR - neo-liberalisation period	4.37 ***	7.59 ***	6.88 ***	5.33 ***	7.75 ***	7.05 ***			

Note: Figures in the parenthesis indicates share of public and private sector in gross capital formation
*** indicates significance at 1 per cent

Table 3: Cost and returns from paddy and wheat in India, 1980-81 to 2021-22 (at 2011-12 prices)

Year	Paddy			Wheat		
	Value of output	A2 cost	Farm business income	Value of output	A2 cost	Farm business income
1980-81	25822.59	14315.66	11506.93	28653.73	17080.23	11573.50
1990-91	31502.27	15140.50	16361.77	34927.08	15796.08	19131.00
2000-01	33061.43	17804.47	15256.96	36061.42	14929.11	21132.31
2010-11	44026.69	22567.26	21459.43	43753.08	15958.60	27794.47
2020-21	47118.63	28373.20	18745.43	45508.19	21520.09	23988.10
2021-22	49591.16	30395.95	19195.21	45770.41	23771.95	21998.46
CAGR -Pre neo-liberalisation period	2.53 ***	1.9 NS	3.22 **	1.9 **	0.22 NS	3.65 **
CAGR -neo-liberalisation period	1.80***	2.66***	0.88***	0.89***	1.16***	0.68***

***, ** indicates significance at 1 per cent and 5 per cent; NS indicate non-significant

During the pre-neo-liberalization period, there was persistent increase in regulated markets across major agricultural states, indicative of robust governmental initiatives aimed at strengthen rural marketing infrastructure. Among study states, Uttar Pradesh and Tamil Nadu recorded the highest per annum increase in number of regulated markets at 10.60 per cent and 9.92 per cent. States such as Bihar, Andhra Pradesh, Punjab, Rajasthan, and Haryana also demonstrated robust expansion, while Karnataka and West Bengal showed marginal increase. At national level, the number of regulated markets increased at a rate of 3.61 per cent per annum from 1280 in 1970-71 to 2203 in 1990-91.

Contrarily, neo-liberalization period witnessed an uneven and slow growth in expansion of regulated markets. With exception of Gujarat and Karnataka, in all other study states, during this period, rate of increase in regulated markets decreased considerably than that experienced in the pre neo-liberalization period. In comparison to pre neo-liberalization period, number of regulated markets in Karnataka and Gujarat increased at relatively higher rate (2.16% and 1.94% per annum). Though slow in comparison to pre-liberalization period, growth of regulated markets during neo-liberalization period remained noticeable in state of Andhra Pradesh (3.79%), while in Maharashtra it was found to be almost same (1.26%) as of pre neo-liberalization period. The most concerning trends emerged in states such as Bihar and West Bengal, which experienced a decline in number of regulated markets at rate of -3.85 per cent per annum and -2.18 per cent per annum. This is due to the changes in their agricultural marketing policies. Bihar repealed the APMC act in 2006, while West Bengal introduced the Vision Agricultural Marketing System, assigning one market to each district, thus reducing the number of regulated markets in both of

these states. At national level, the total number of regulated markets during neo-liberalization period increased from 2198 in 1991-92 to 2591 by 2021-22, but the rate of change (0.89% per annum) was significantly lower than achieved during pre neo-liberalisation period.

Private markets

As recorded by the latest agricultural situation assessment survey of NSSO, overtime for most of the crops, proportionate quantity sold in private markets is increasing, while quantity sold in APMC is declining (Table 5). The rising dominance of private markets and declining reliance on APMCs weakens farmers' welfare by reducing price transparency, weakening collective bargaining and increasing their vulnerability to market exploitation. Among cereals, in 2012-13, the proportion of quantity of crop output sold in private markets varied from 29 per cent to 76 per cent, which in 2018-19 increased significantly and ranged from 61.8 per cent to 92.7 per cent respectively. Pulses particularly arhar and gram, underwent significant market shift between 2012-13 and 2018-19. During 2012-13 (Jan-June) APMC markets accounted for 49 per cent and 64 per cent of the total sales of these crops respectively. However in 2018-19, quantity of arhar and gram sold in APMC markets declined by 30.3 per cent and 48.9 per cent respectively. Marketing pattern of oilseeds including groundnut, soyabean and rapeseed also underwent significant shifts between 2012-13 and 2018-19. In 2012-13, the quantity of these crops sold in APMC markets varied from 30 per cent to 63 per cent, which in 2018-19 declined significantly and ranged from just 13.2 per cent to 21.6 per cent. Over the same period, quantity of groundnut, soyabean and rapeseed sold by agricultural households in private markets increased by 10.7 per cent,

Table 4: Dynamics of regulated market availability in major agricultural states of India, 1970-71 to 2021-22

States	1970-71	1990-91	2021-22	Change (% per annum)	
				Pre neo-liberalisation period (1990-91 over 1970-71)	Neo-liberalisation period (2021-22 over 1991-92)
Andhra Pradesh	116	232	408	5.00	3.79
Bihar	60	122	28	5.17	-3.85
Gujarat	116	148	212	1.38	2.16
Haryana	72	97	115	1.74	0.93
Karnataka	98	116	161	0.92	1.94
Madhya Pradesh	217	279	328	1.43	0.88
Maharashtra	199	250	307	1.28	1.26
Punjab	88	143	152	3.12	0.31
Rajasthan	90	139	144	2.72	0.17
Tamil Nadu	97	270	284	8.92	0.26
Uttar Pradesh	84	262	275	10.60	0.23
West Bengal	32#	39	22	0.02	-2.18
Total	1280	2203	2591	3.61	0.89

Year 1975-76

Note: Andhra Pradesh includes Telangana; Bihar includes Jharkhand; Madhya Pradesh includes Chhattisgarh; Uttar Pradesh includes Uttarakhand

27.1 per cent and 43 per cent, respectively. Additionally the proportionate quantity of groundnut sold to processors increased from zero to 11.8 per cent, indicating greater integration into value chain during the later period. For cotton, during Kharif 2018-19 (July to December, 2018) quantity sold in private markets increased by 21 per cent in comparison to that was sold in kharif 2012-13. Over the same time span, a sharp decline of 16.3 per cent was seen in the quantity of cotton sold in APMC. Proportionate sales of sugarcane which holds statutory status through Fair & Remunerative Price (FRP) policy showed decreased sales in cooperative sector indicating increased role of private sugar mills in sugarcane marketing. Similarly, for potato the proportionate share of quantity sold by agricultural households increased in private markets and declined in APMC markets. The sale to processors, cooperatives/government agencies demonstrated modest increase particularly oilseeds and commercial crops, consequently reflecting market diversification and liberalisation (Reddy, 2016; Gopikuttan and Naik, 2020)

Conclusions and Policy Implications

The results indicated that although neo-liberalisation substantially transformed India's agricultural sector by increasing trade, stimulating private investment, and widening marketing channels, these also contributed towards de-prioritisation of agriculture in national economic framework. Despite notable expansion of both overall and agricultural trade, the relative higher increase in growth rate

of total imports and agricultural imports in comparison to total exports and agricultural exports indicated the growing dependence on international markets to fulfill domestic demand, particularly for agricultural goods. Therefore, the government need to provide targeted exports incentives such as freight subsidies for key commodities, concessional export credits and tax benefits for agricultural exporters. The strengthening of export infrastructure including cold storage and grading facilities along with promoting value addition and improving access to global market information can increase the competitiveness of Indian agricultural commodities. Neo-liberalisation shifted towards the market driven development model that supported industrial and services sectors over agriculture. Consequently, the agricultural sector became dependent on private capital, which lacked commitment to long-term sustainability and equitable practices. Consequently, it is essential for policymakers to prioritize the enhancement of public investment by increasing budget allocation for rural infrastructure based on state specific requirement. Timely utilization of funds need to be ensured for meaningful outcomes.

As neo-liberalisation depicted a decline in the growth rate of farm business income, it is suggested that government should adopt a proactive role in strengthening and regulating existing agricultural markets to ensure transparency, accountability and fair pricing. A holistic value based system should be supported through public investment in rural infrastructure, including cold storage facilities, warehouses,

Table 5: Percentage distribution of quantity of crops sold by agricultural households in India, 2012-13 to 2018-19

Crops	July 2012 - December 2012					July 2018 - December 2018					Change				
	Private Markets	APMC Market	Coop-erative & Govt. Agency	Proces-sors	Others	Private Markets	APMC Market	Coop-erative & Govt. Agency	Proces-sors	Others	Private Markets	APMC Market	Coop-erative & Govt. Agency	Proces-sors	Others
Paddy	41	29	17	2	11	63.4	8.4	21.8	2.7	3.7	22.4	-20.6	4.8	0.7	-7.3
Jowar	76	16	1	0	7	80.7	7.1	5	3.9	3.2	4.7	-8.9	4	3.9	-3.8
Bajra	43	49	1	0	8	82.4	10.1	3.8	1.8	1.9	39.4	-38.9	2.8	1.8	-6.1
Maize	46	39	2	0	13	83.3	6.7	3	3.2	3.7	37.3	-32.3	1	3.2	-9.3
Arhar (Tur)	31	61	1	0	7	68	22.1	2.1	6.8	0.9	37	-38.9	1.1	6.8	-6.1
Groundnut	44	30	3	0	23	54.7	18.6	0.8	11.8	14.2	10.7	-11.4	-2.2	11.8	-8.8
Soyabean	36	59	1	0	4	63.1	21.6	7.7	7	0.6	27.1	-37.4	6.7	7	-3.4
Cotton	48	26	8	2	15	69	9.7	2.7	9.9	8.8	21	-16.3	-5.3	7.9	-6.2
Sugarcane	18	4	50	24	4	12.6	2.7	32.1	33.8	18.8	-5.4	-1.3	-17.9	9.8	14.8
Potato	39	56	0	0	5	89.7	3	0.6	6	0.7	50.7	-53	0.6	6	-4.3
	January 2013-June 2013														
Paddy	64	17	6	1	12	61.8	2.7	22	8	5.4	-2.2	-14.3	16	7	-6.6
Jowar	51	43	0	0	6	92.7	2.7	1.1	0.6	2.9	41.7	-40.3	1.1	0.6	-3.1
Maize	63	16	15	0	5	89.8	2.7	2.2	1.6	3.8	26.8	-13.3	-12.8	1.6	-1.2
Wheat	29	44	19	0	7	66.1	12.7	16.8	1.6	2.7	37.1	-31.3	-2.2	1.6	-4.3
Arhar (Tur)	44	49	1	0	6	78	18.7	1.3	0.9	1.2	34	-30.3	0.3	0.9	-4.8
	January 2019-June 2019														
Gram	30	64	1	0	5	70.1	15.1	7	5.1	2.7	40.1	-48.9	6	5.1	-2.3
Rapeseed/ Mustard	32	63	1	0	4	75	13.2	6.4	1.4	4	43	-49.8	5.4	1.4	0
Cotton	51	16	1	2	30	53.6	19.7	15.4	5.2	6.1	2.6	3.7	14.4	3.2	-23.9
Sugarcane	16	2	57	23	2	15.8	3.4	32.6	27	21.2	-0.2	1.4	-24.4	4	19.2
Potato	73	21	0	0	5	81.8	7.5	0.7	4.2	5.7	8.8	-13.5	0.7	4.2	0.7

Source: NSSO 77th and 70th round

grading and sorting units, and primary processing centers. Such interventions will help farmers in mitigating post-harvest losses and benefit from value addition. Additionally, the government should facilitate the provision of market intelligence through mobile-based services and local language bulletins. This will enable farmers to make well informed decisions regarding crop selection, harvesting, and marketing strategies. Collectively, these initiatives will enhance farmers' access to markets, ensure equitable pricing structures, and foster higher and more stable farm income.

References

- Bathla S 2014. Public and private capital formation and agricultural growth in India: State level analysis of inter-linkages during pre-and post-reform periods. *Agricultural Economics Research Review* **27**: 19-36. DOI: 10.5958/j.0974-0279.27.1.002
- Bhatia J K, Mehta V P, Bhardwaj N and Nimbrayan P K 2021. Export-import performance of major agricultural commodities in India. *Economic Affairs* **66**:117-26. DOI: 10.46852/0424-2513.1.2021.15
- Chand R, Saxena R and Rana S 2015. Estimates and analysis of farm income in India, 1983–84 to 2011–12. *Economic and Political Weekly* **50**:139-45.
- De Roy S 2017. Economic reforms and agricultural growth in India. *Economic and Political Weekly* **52**: 67-72.
- Gautam R 2022. Government versus farmers': A conflict over the neo liberal agricultural reforms in India: A review. *Available at SSRN 4887869*.
- Gopikuttan G S and Naik G 2020. Deregulation of agricultural markets in India. Working paper. Indian Institute of Management, Bangalore: pp.1-18.
- Kalamkar S S and Narayanamoorthy, A 2003. Impact of liberalisation on domestic agricultural prices and farm income: An analysis across states and crops. *Indian Journal of Agricultural Economics* **58**: 353-64. DOI: 10.22004/ag.econ.297959
- Kumar V 2021. Trends and performance of India's agricultural trade in the midst of COVID-19 Pandemic. *Indian Journal of Agricultural Economics* **76**: 352-70. DOI: <https://doi.org/10.22004/ag.econ.345176>
- Kurien C T 1994. *Global Capitalism and Indian Economy*. Orient Blackswan Pvt. Ltd., Hyderabad.
- Manning, L 2022. Neoliberalism: what it is, with examples and pros and cons. Investopedia, online at: <https://www.investopedia.com/terms/n/neoliberalism>.
- Narayanamoorthy A 2017. Farm income in India: Myths and realities. *Indian Journal of Agricultural Economics* **72**: 49-75. DOI: <https://doi.org/10.22004/ag.econ.302245>
- NSSO 2013 and 2019. *Situation assessment survey of agricultural assessment, 70th and 77th round* retrieved from https://mospi.gov.in/sites/default/files/national_data_bank/ndb-rpts-70.
- Prasad R 2015. The impact of globalization on India's export and import of agricultural commodities. *Economic and Social Development* **154**: 68-98.
- Reddy AA 2016. Status of market reforms in India. *Indian Farm* **66**: 33-37. DOI:<https://dx.doi.org/10.2139/ssrn.3037093>
- Siddiqui K 2010. Globalisation and neo-liberal economic reforms in India: A Critical Review. In: *Globalization in India: new frontiers and emerging challenges*. Prentice Hall India, New Delhi, pp. 219-43.
- Singh P 2014. Declining public investment in Indian agriculture after economic reforms: An interstate analysis. *Journal of Management and Public Policy* **6**: 21-33.
- Tripathi A K 2012. Agricultural price policy, output, and farm profitability-Examining linkages during post-reform period in India. *Asian Journal of Agriculture and Development* **10**: 91-111. DOI: 10.22004/ag.econ.199109

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