

EFFICIENCY OF PRICING AND TRANSPORTATION OF PUBLIC DISTRIBUTION SYSTEM IN INDIA

Dr. Anshu Singh,

B.B.A. University, Lucknow

INTRODUCTION

The emergence of agricultural Price Policy in India was in the backdrop of food scarcity and price fluctuations provoked by drought, floods and international prices for exports and imports. This policy in general was directed towards ensuring reasonable (affordable to consumers') food prices for consumers' by providing food grains through Public Distribution System (PDS) and inducing adoption of the new technology for increasing yield by providing a price support mechanism through Minimum Support Price (MSP) system.

MSP is viewed as a form of market intervention by the central government and as one of the supportive measures (safety nets) to the agricultural producers. This has also a strong linkage to factor market. In this situation, two important aspects deserve attention, viz.

- (i) Insulating the farm producers against the unwarranted fluctuations in prices, which may be provoked by among others, international price variations
- (ii) Creation of an incentive structure for the farm producers in order to direct the allocation of resources towards desired crops.
- (iii) Insulating consumers' against sharp price rise, which may have been created by monsoon failure or even by vested interest by creating artificial scarcity. The focus is to create value addition for the cultivators as well as the consumers'. Therefore, it is necessary to consider some policy alternatives and view effectiveness of MSP as an instrument in this background.

Procurement of food grains at MSP is carried out by Food Corporation of India (FCI). FCI operates however, in only selected states and selected districts which had surplus of food grains initially. In the current situation several other states which have had deficit have started getting surplus. Farmers in these states are deprived of the benefit of MSP. Market prices in some mandies fall below MSP. Thus, there is a need to extend effective procurement operations in other states to ensure MSP to farmers. This has also an advantage that transport cost of operating the PDS would be reduced. In the recent past, agricultural production pattern across states has seen a change; some of the earlier deficit states have started posting surplus of food grains. Besides, it was felt that by encouraging the states to take up procurement operations, the benefits of MSP can accrue to farmers throughout the country. Under the "extended procurement regime" simulated here the designated states could locally procure, store and distribute food grains as per allotments indicated by the central government under PDS.

The agricultural pricing policies and allied institutional mechanisms evolved in India in the context of shortages in the availability and excess demand for food grains during 1960s. A system of procurement and distribution of major food grains was introduced and statutory minimum prices were set, though not strictly enforced. India's agricultural price policy includes three main types of administered prices: support, procurement, and issue price. The support price is generally announced at sowing time, and the government agrees to buy all grain offered for sale at this price. These prices guarantee to the farmer that, in the event of excessive production leading to over supply in the market, prices of his produce will not fall below the

support price. Support prices generally affect farmers' decisions indirectly, regarding land allocation to crops. The areas to be sown, however, depend upon the actual prices farmers realized for the previous crop and their expectations for the coming season.

The quantity to be procured is determined by the government's needs for disbursements under the public distribution system. In recent years, however, the actual quantities procured have depended upon the grain offered for sale by farmers at prices fixed by the government. These prices are generally higher than the support prices but lower than the free market prices in normal years. In a good crop year, in surplus states, free market prices would have been lower but for government purchases; after the surplus is mopped up, market prices tend to run higher than procurement prices. The government recognizes the importance of assuring reasonable prices to farmers to motivate them to adopt improved technology and to promote

investment by them in farm enterprises for increasing agricultural production. The basic objective of agricultural pricing policy in India is to evolve a balanced and stable price structure to meet the overall needs of the economy while protecting, in particular, the interests of the producers' and the consumers". The policy is aimed towards facilitating the desirable path of attaining the objectives of growth and equity in the process of economic development.

Incentive prices in the form of minimum support prices are essential to "the success of agricultural production programs based on high-yielding-varieties technology. At the same time, undue reliance cannot be placed on environment of high prices alone as an incentive for increasing production of food grains. Effective implementation of price support policies requires adequate institutional arrangements for the purchase of quantities offered for sale at that price.

The Central Issue Prices of Rice since 1997

(Rate Rs/Qtl.)

	A.P.L.		B.P.L.	A.A.Y.
	Common	Grade - A	Common/Grade -A	Common/Grade -A
01.12.1997 - 28.01.1999	550	700	350	300
29.01.1999-24.07.2000	1136	1180	590	300
25.07.2000-11.07.2001	1087	1130	565	300
12.07.2001-31.03.2002	795	830	565	300
01.04.2002-30.06.2002	695	730	565	300
01.07.2002-till date	795	830	565	300
Mean	843	900	533	300
Standard Deviation	227	205	90	0
Skewness	0.284	0.715	-0.2379	S.E. 0.845

Source: FCI, Lucknow

The Central Issue Prices of Wheat Since 1997

(Rate Rs/Qtl.)

	A.P.L.	B.P.L.	A.A.Y.
01.12.1997 - 28.01.1999	450	250	0
29.01.1999-31.03.1999	650	250	0
01.04.1999-31.03.2000	682	250	0
01.04.2000-24.07.2000	900	450	0
25.07.2000-11.07.2001	830	415	200
12.07.2001-31.03.2002	610	415	200
01.04.2002-30.06.2002	510	415	200
01.07.2002-till date	610	415	200
Mean	655	358	200
Standard Deviation	150	90	0

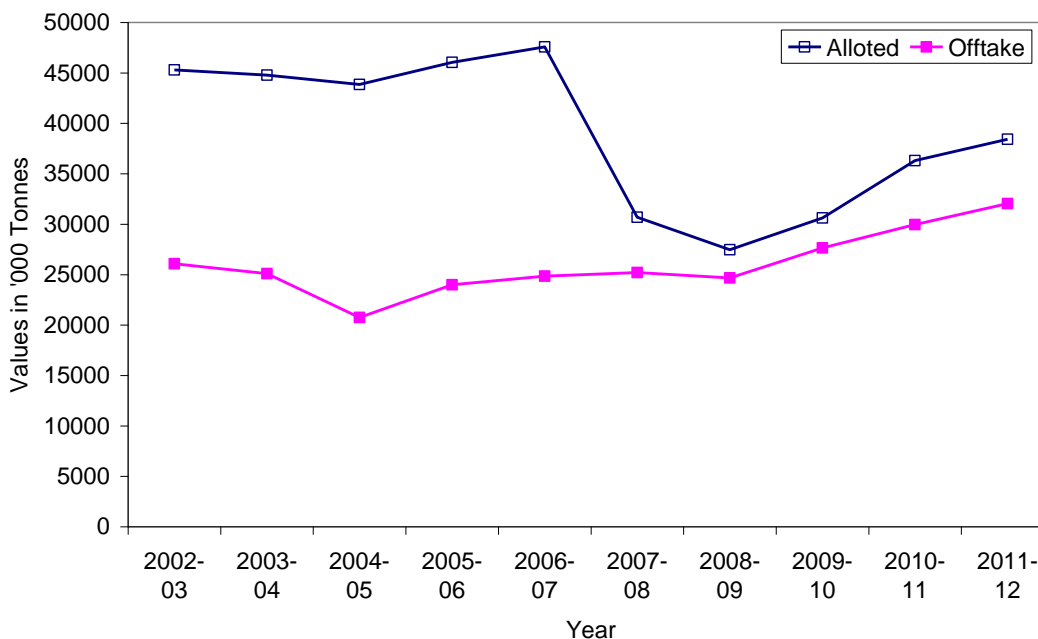
Source: FCI, Lucknow

The differences in above mentioned categories are as:

- Between A.P.L. & B.P.L. = 297.5, $p < 0.001$
- Between A.P.L. & A.A.Y. = 555.25, $p < 0.001$
- Between B.P.L. & . A.A.Y.= 257.50, $p < 0.001$

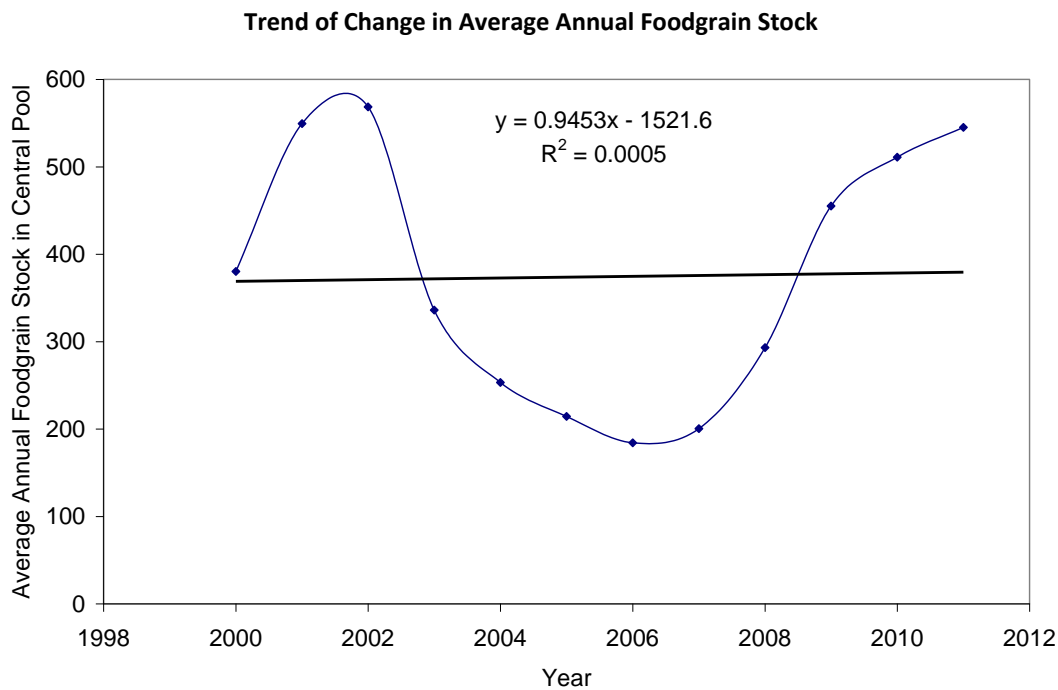
$P < 0.001$ denotes that difference is highly significant.

Rice Allocation and off take during last decade



The allotted quota of rice ranged from 27469.7 to 47583.43 thousand tonnes. However, the off take ranged from 20754.61 to 32053.5 thousand tonnes. On an average the allotted quota during the last one

decade was 39107.7 thousand tonnes while average off take was 26032.35 thousand tonnes. Thus % off take to the allotted quota ranged from 47.32% to 90.27%. Overall, the average % off take was 69.35%.



MINIMUM SUPPORT PRICE: AN OVERVIEW

Minimum Support Price and its Supply Response

Even prior to mid sixties, it was recognized that for the acceleration of agricultural growth, farmers need to be motivated to adopt better technology and to invest more in their farm enterprises. This evidently was difficult without assuring reasonable prices to the farmers. The Government constituted a committee to suggest price policy for food grains for the 1964-65 and to suggest the terms of references for an organization which would be set up to advice the government on price policy on a long term basis.¹ The recommendations of the committee led to the establishment of the Agricultural Price Commission in 1965 which was later renamed as Commission for Agricultural Costs and Prices (CACP) in March 1985. Simultaneously, the development strategy for agricultural sector was also remodeled. Remodeling of strategy included application of

modern inputs like high yielding varieties of seed (HYV), chemical fertilizers and mechanization of certain agricultural operations. Thus, main emphasis in this development was on finding methods of increasing land productivity through the use of modern input and improved methods of production in the potential regions of the country. This development strategy in turn required that price policy should encourage farmers to make greater investments in farm operations so as to enable them to shift on to higher production possibility curves. Thus the minimum support price was aimed to:

- (i) Assure remunerative and relatively stable price environment for the farmers by inducing them to increase production and thereby augment the availability of food grains.
- (ii) Improve economic access of food to people.
- (iii) Evolve a production pattern which is in line with overall needs of the economy.

This policy has proved to be helpful in several ways. From a situation of massive shortages, India has emerged as a grain surplus country with self reliance

¹ Biraj. Patnaik (2010)

hi food grains, and this inherent process of self sufficiency subsumed the in built proposition of attaining food security at the national level. A strong base has been created for grain production and for meeting grain demand in the medium term . The policy has had a favorable impact on farm income and has led to an economic transformation in the well-endowed, mainly irrigated regions. The other purpose of MSP was to maintain price stability in the food grain market.

The implementation of Minimum Support Prices (MSP) in the high potential regions of the country has played an important role in meeting the ultimate goal of improving the agricultural production and the welfare of the agricultural community. The impact of MSP on agricultural growth by analyzing its relevance and effectiveness in certain' crops. This study indicates that wheat and rice got the best out of price policy through MSP but unintentionally this worked as an externality to discourage coarse cereal and pulses. Therefore, the policy is biased against certain crops which are grown in agriculturally backward regions and mostly by resource poor farmers. There are certain factors influencing the effectiveness of MSP e.g. the manner of implementation of the policy, undue dependence on the state for intervention lack of required information at appropriate time etc. It was also experienced that there are a number of institutions involved in procurement process and there is inadequate coordination between them.

The dynamic role of policy prescriptions for agriculture in a country like India has been widely acknowledged. During eighties the import of cereal had come down negligible level. The share of rice and wheat production had increased as much as 94 % while the share of coarse cereal had come down drastically i.e. from 43 % to 18 %. It is found that production of the cereals was more dispersed across the regions. The growth of production of rice was more dispersed as compared to that of wheat. The concentration of production in case of wheat was also limited to certain states like Punjab, Haryana and Uttar Pradesh.

CENTRAL ISSUE PRICE

As a contrast to MSP (which represents pre-determined procurement price), Central Issues Price (CIP) represents the price at which food grains are issued under for the TPDS and other welfare schemes.

Wheat and rice are issued from the Central Pool to State Govts./UTs at uniform Central Issue Price (CIP) for distribution under the TPDS. The CIPs of foodgrains issued under the TPDS are fixed below the economic cost. The Central Government bears a huge subsidy burden on this account, especially for making available foodgrains at highly subsidized rates under BPL and AAY category.

The issue prices of wheat and rice for APL and BPL families are as under

CIP of common rice families			(per quintal)
Rice	APL	BPL	With effect from
Common	700	350	29.01.99
Grade 'A'	905	350	29.01.99
Common	1135	590	01.04.2000
Grade 'A'	1180	590	01.04.2000
Common	1087	565	25.07.2000
Grade 'A'	1130	565	25.07.2000
Common	795	565	12.07.2001
Grade 'A'	830		12.07.2001
Common	695	565	01.04.2002

Grade 'A'	730		
Common	795	565	01.07.2002 till date
Grade 'A'	830		

Source – Department of Food & Public Distribution (Annual Report 2010-11)

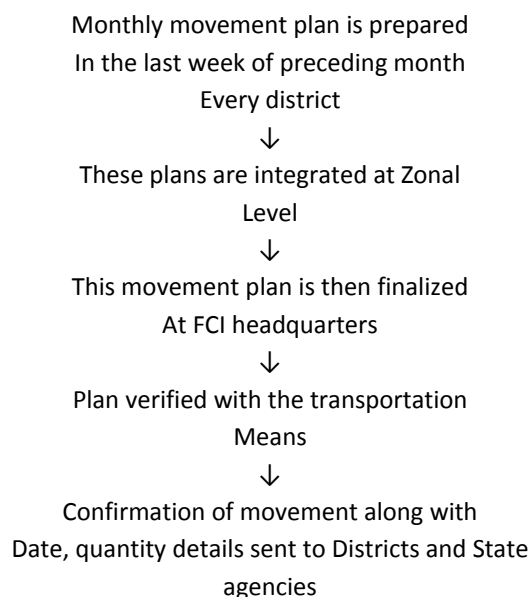
CIP_of wheat under TPDS (BPL & APL)		(per quintal)
BPL	APL	effect from
250	650	29.01.99
250	682	01.04.99
450	900	01.04.2000
415	830	25.07.2000
415	610	12.07.2001
415	510	01.04.2002
415	610	01.07.2002 till date

Source – Department of Food & Public Distribution (Annual Report 2010-11)

The Commission of Agricultural Cost and Prices (CACP) recommends the fixing of Minimum Support Prices (MSPs) of food grains based on a complex process of assessment by consulting the State Governments, the Ministry of Consumer Affairs, Food & Public Distribution and other stakeholders like FCI, Ministry of Commerce, Indian Council of Agricultural Research, National Agricultural Cooperative Marketing Federation of India (NAFED), Tribal Co-operative Marketing Development Federation of India and Agricultural and Processed Food Products Export Development Authority (APEDA). While determining MSP, CACP considers the overall needs of the economy as well as the interest of farmers and consumers and also other relevant factors such as cost of production, domestic and international market situation, increase in the prices of urea/fertilizers/ petrol/electricity, subsidies, stock position, changes in agricultural terms of trade, prices of competing crops etc. and price fixed in previous years. The prices recommended by CACP are considered by the Cabinet Committee for Economic Affairs (CCEA) for approval.

TRANSPORTATION

Transportation



Coordinating and monitoring the movement of food grains from surplus regions to deficient areas taking into account the storage capacity, procurement, stocks, allocations and off take of food grains is one of the important functions of the Department of Food and Public Distribution. Food Corporation of India undertakes the activities connected with the

movement of food grains for the Public Distribution System and other welfare Schemes. Movement Division in the Department of Food and Public Distribution closely monitors the movement and regularly co-ordinates with the FCI and the Railways. Optimum evacuation of food grains from the procuring regions and induction and stocking of food

grains in the North-Eastern States, Jammu & Kashmir and other deficient areas, identified from time to time, is specially monitored. Regular review meetings are held with FCI and Railway authorities to ensure that adequate number of Railway rakes is supplied for movement of food grains.

Movement of Food Grains in Last Ten Years in India

(Fig in lakh tonnes)

Period	All States			Interstate Total				Intra	G. Total 10=8+9
	Inter	Intra	Total	Rail	Road	Riverine	Total		
1	2	3	4	5	6	7	8	9	10
2000-01	107.77	5.3	113.49	136.49	3.51	0	140	21.61	161.61
2001-02	138.2	7.23	145.43	168.26	9.34	0	177.6	26.91	204.51
2002-03	183.83	9.6	193.43	202.69	15.41	0	218.1	30.67	248.77
2003-04	252.9	4.2	257.1	252	22.5	0	274.66	22.54	297.2
2004-05	284.44	3.41	287.84	294.62	25.41	0	320.03	18.71	338.74
2005-06	246.86	2.6	249.46	265.93	22.15	0	288.08	27.5	315.58
2006-07	175.02	1.58	176.6	203.25	18.45	0	221.7	19.6	241.3
2007-08	178.09	1.94	180.03	203.98	17.81	0	221.79	20.76	242.55
2008-09	167.37	2.14	169.51	204.6	20.57	0	225.17	25.25	250.42
2009-10	188.54	0.81	189.35	249.18	26.65	0	275.83	27.86	303.69
2010-11	221.23	3.32	224.55	279.42	25.64	0	305.29	29.65	334.94
Mean	195	4	199	224	19	0	243	25	267
Standard Deviation	52	3	51	49	7	0	55	4	56

Source: FCI, Lucknow

Model : Transportation

Compound Annual Growth Rate of Transportation Per Capita

reg lpct year

Source	SS	df	MS	Number of obs =	11
-----+-----				F(1, 9) =	1.99
Model	.071223236	1	.071223236	Prob > F =	0.1924
Residual	.322868983	9	.035874331	R-squared =	0.1807
-----+-----				Adj R-squared =	0.0897
Total	.394092219	10	.039409222	Root MSE =	.18941

lpct | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-----+-----

year | .0254457 .0180591 1.41 0.019 -.0154068 .0662982
 _cons | -54.76893 36.2085 -1.51 0.016 -136.6782 27.14038

$$\begin{aligned} \text{CAGR} &= \{ \text{Antilog } \beta_2 - 1 \} * 100 \\ &= \{ 1.025772 - 1 \} * 100 \\ &= \{ 0.025772 \} * 100 \\ &= 2.57\% \end{aligned}$$

Compound Annual growth rate of Transportation Per Capita of Food Grains and Non- Food Grains in the year 2001-2011 is 2.57% which shows the Moderate efficiency of Transportation system of PDS.

CONCLUSION

Compound Annual growth rate of Transportation Per Capita of Food Grains and Non- Food Grains in the year 2001-2011 is 2.57% which shows the low efficiency of Transportation system of PDS. Which shows the low efficiency of Transportation system of PDS. Transportation activity should be increased so that the essential items can be reached properly for distribution purpose so that efficiency of PDS can be increased.

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