RESEARCH PAPER

Impact of minimum support price scheme for groundnut on farm incomes in North Karnataka

■ **K.N. ASHARANI, C. MURTHY** AND **M.S. KISHORE**

ABSTRACT

MSP is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices to protect the producer- farmers- against excessive fall in price during bumper production years. The effectiveness of price policy at the state level involves the availability of market infrastructure at the state level and the initiative taken by the State Governments to create an institutional structure for monitoring agricultural prices. The study was conducted during the year 2015-16 using the secondary data pertaining to the MSP for different crops and open market prices for groundnut in selected market of Gadag district. Compound growth rate were computed to comprehend the annual growth in MSP of agricultural commodities for the period from 2000-01 to 2015-16. It is revealed that the annual growth rate for MSP for all commodities was found to be positive. The growth rate of MSP for groundnut was 9.26 per cent. The increase in MSP was not equitable to all the crops. Both open market prices and MSP shown increasing trend but most of the years, open market prices for groundnut were higher than the MSP in all the selected market of Gadag and the percentage differences were not high. The influence of MSP on market price was not significant in groundnut. Hence, there is need to bring some improvement in the price policy to different crops in ensuring highest returns to the farmers to continue their production with the increase in cost of inputs especially the crop groundnut.

KEY WORDS : Minimum support prices, Groundnut, Gadag, Compound growth rate

Agriculture plays a significant role in the economic development of India. It is the backbone of rural India and it is the largest sector of the country's economic activity. It provides livelihood for 55 per cent of the total population and provides employment to 58.4 per cent of countries workforce.

MSP is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the commission for agricultural costs and prices (CACP). MSP is price fixed by Government of India to protect the farmers against, excessive fall in price during bumper production

━━ MEMBERS OF THE RESEARCH FORUM ━━

Correspondence to:
K.N. ASHARANI, Department of Agribusiness Management, College of Agriculture, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA
Email: asharanikn3@gmail.com

Authors' affiliations:
C. MURTHY AND **M.S. KISHORE,** Department of Agribusiness Management, College of Agriculture, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA
Email: cmurthy1966@gmail.com ; nabuta127@gmail.com

years. The minimum support price is a guarantee price for their produce from the Government. The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price.Minimum support price are fixed at incentive level, so as to induce the farmers to make capital investment for the improvement of their farm and to motivate them to adopt improved crop production technologies to step up their production and thereby their net income. In the absence of such a guaranteed price, there is a concern that farmers may shift to other crops causing shortage in these commodities.

METHODOLOGY

Keeping in view the objectives of the study a multistage random sampling procedure has been adopted for the selection of the Gadag district, regulated market and sample respondents. In Gadag district Lakshmeshwar groundnut market was selected. From this market 60

farmers (20 marginal, 20 small and 20 medium farmers) were selected. Since, they are the major crop procured under Minimum support price. Hence, the total sample size was 60. The secondary data pertaining to the growth, procurement, minimum support price and open market price were collected from the APMC from 2002-03 to 2015-16. For evaluating the specific objectives of the study, necessary primary data were obtained from the selected respondents, through personal interviews with the help of a pre-tested and structured schedule. The data collected pertained to the agricultural year 2015-16. The data collected from the respondents included production cost and returns, awareness among the farmers regarding procurement process and procurement practices. The method of personal interview was adopted to ensure that the data obtained from the respondents were relevant, comprehensive and reasonably correct and precise.

ANALYSIS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under the following heads :

Table 1 : Compound annual growth rate of MSP for oilseeds								(Rs./q)
Year	Ground nut	Sun flower	Soybean black	Soybean yellow	Sesamum	Niger	Rape seed	Safflower
2000-01	1,220	1,170	775	865	1,300	1,025	1,200	1,200
2001-02	1,340	1,185	795	885	1,400	1,100	1,300	1,300
2002-03	1,355	1,195	795	885	1,450	1,120	1,330	1,300
2003-04	1,400	1,250	840	930	1,485	1,155	1,600	1,500
2004-05	1,500	1,340	900	1,000	1,500	1,180	1,700	1,550
2005-06	1,520	1,500	900	1,010	1,550	1,200	1,715	1,565
2006-07	1,520	1,500	900	1,020	1,560	1,220	1,715	1,565
2007-08	1,550	1,510	910	1,050	1,580	1,240	1,800	1,650
2008-09	2,100	2,215	1,350	1,390	2,750	2,450	1,830	1,650
2009-10	2,100	2,215	1,350	1,390	2,850	2,450	1,830	1,680
2010-11	2,300	2,350	1,400	1,440	2,900	2,450	1,850	1,800
2011-12	2,700	2,800	1,650	1,690	3,400	2,900	2,500	2,500
2012-13	3,700	3,700	2,200	2,240	4,200	3,500	3,000	2,800
2013-14	4,000	3,700	2,500	2,560	4,500	3,500	3,050	3,000
2014-15	4,000	3,750	2,500	2,560	4,600	3,600	3,100	3,050
2015-16	4,030	3,800	NA	2,600	4,700	3,650	3,350	3,300
CGR	9.26*	9.83*	9.49*	8.67*	10.48*	10.77*	6.80*	6.89*
R Square	0.85	0.89	0.82	0.85	0.89	0.89	0.87	0.84
Intercept	507.00	452.25	305.67	389.13	411.88	329.38	881.63	802.88
t value	9.01	10.90	7.74	8.92	10.59	10.59	9.63	8.73

NA – Not-available, * indicates significance of value at P=0.01

Growth of MSP for oilseeds :

The MSP for oilseeds from 2000-01 to 2015-16 compound growth rate, R^2 value, intercept and t value are represented in Table 1. In case of oil seeds, the highest growth was recorded by niger seed 10.77 per cent the R^2 value was 0.89 indicating 89 per cent of total variation in time is due to niger seeds and lowest in case of rapeseed with growth of 6.80 per cent and the R^2 value was 0.87 indicating 87 per cent of total variation in time is due to rapeseed and growth rates were found to be highly significant at one per cent level of all commodities.

Variation of market price from MSP in Lakshmeshwar market for groundnut :

The market price and the MSP rate for groundnut in Lakshmeshwar market for the corresponding period was collected from the year 2002-03 to 2015-16 are presented in the Table 2. In case of groundnut crop in Lakshmeshwar market, analysis revealed that MSP was higher than the average prices in 4 years *viz.,* 2005-06, 2008-09, 2013-14 and 2014-15. The maximum difference was found in the year 2013-14, when the MSP was higher than average prices by 17 per cent. The maximum negative difference was observed in the year 2007-08,

Table 2 : Variation of market price from MSP in Lakshmeshwer market for groundnut				(Rs./q)
Year	Average price	MSP	Difference	% change
2002-03	1,524.2	1,375	-149	-11
2003-04	1,666	1,400	-266	-19
2004-05	1,510	1,500	-10	-1
2005-06	1,457	1,520	63	4
2006-07	1,761	1,520	-241	-16
2007-08	2,055	1,550	-505	-33
2008-09	2,036	2,100	64	3
2009-10	2,203	2,100	-103	-5
2010-11	2,610	2,300	-310	-13
2011-12	3,347.5	2,700	-648	-24
2012-13	4,207	3,700	-507	-14
2013-14	3,337	4,000	663	17
2014-15	3,609	4,000	391	10
2015-16	4,391	4,030	-361	-9

Table 3 : Input utilization pattern in groundnut cultivation in Lakshmeshwer taluka				(per ha)
Year	Average price	MSP	Difference	% change
2002-03	1,524.2	1,375	-149	-11
2003-04	1,666	1,400	-266	-19
2004-05	1,510	1,500	-10	-1
2005-06	1,457	1,520	63	4
2006-07	1,761	1,520	-241	-16
2007-08	2,055	1,550	-505	-33
2008-09	2,036	2,100	64	3
2009-10	2,203	2,100	-103	-5
2010-11	2,610	2,300	-310	-13
2011-12	3,347.5	2,700	-648	-24
2012-13	4,207	3,700	-507	-14
2013-14	3,337	4,000	663	17
2014-15	3,609	4,000	391	10
2015-16	4,391	4,030	-361	-9

when the MSP was lower than average prices by -33 per cent. These results were in line with obtained by Khan (2014).

Input utilization pattern in groundnut cultivation in Lakshmeshwar taluka :

The input utilization pattern in groundnut cultivation in Lakshmeshwar taluka has been discussed in Table 3. It has been observed that the seeds usage was maximum in case of medium farmers (90.50 kg /ha) followed by small (88.12 kg/ ha) and marginal farmer (87.87 kg/ha). FYM usage was highest in case of medium farmers (7.02 t/ha) followed by small farmers (6.75 t/ha) and marginal farmers (5.25 t/ha).

With respect to labour, it was observed that human

labour utilization was maximum in case of medium farmers (95.52 man days) followed by small farmers (92.87 man days) and marginal farmers (82.25 man days). It was observed that marginal farmers and small farmers (7.92 and 8.37 bullock pairs) were using bullock labour more than medium farmers (7.05 bullock pairs). However, when it came to machine labour, medium farmers (11.05 hours) were using more than small (9.8 hours) and marginal farmer (7.87 hours). When it came to fertilizer usage, medium farmers were again the maximum users. On an average medium farmers used 71.87 kg of urea, 125 kg of DAP, 512.5 kg of SSP and 12.5 kg of complex fertilizers compared to small farmers (34.37 kg of urea, 131.25 kg of DAP, 6.25 kg of MOP and 25 kg of complex fertilizers) and marginal farmers

Table 4 : Cost and returns structure in groundnut cultivation in Lakshmeshwer taluka						(Rs./ha)
Sr. No.	Particulars	Marginal farmers (n=20)		Small farmers (n=20)		Medium farmers (n=20)	
		Cost	Per cent	Cost	Per cent	Cost	Per cent
1.	**Variable cost (a) material cost**						
	Seed	5,272.5	10.26	5,287.5	9.17	5,430	9.24
	Seed treatment materials	106.25	0.21	138.75	0.24	153.75	0.26
	FYM (Rs. 500/t)	2,625	5.11	3,375	5.85	3,512.5	5.98
	Fertilizer	3,611.25	7.03	4,162.5	7.22	4,152.5	7.07
	Plant protection chemicals	75	0.15	90	0.16	160	0.27
2.	**Labour cost**						
	Human labour	16,450	32.00	18,575	32.22	19,105	32.53
	Bullock labour	5,547.5	10.79	5,862.5	10.17	4,935	8.4
	Machine labour	5,512.5	10.72	7,350	12.75	8,287.5	14.11
	Interest on working capital (7%)	2,744	5.34	3,139	5.44	3,201.5	5.45
	Total variable cost	41,944	81.60	47,980	83.23	48,937.5	83.32
3.	**Fixed cost**						
	Land revenue	50	0.10	50	0.09	50	0.09
	Depreciation	1,187.5	2.31	1,207.3	2.09	1,222.5	2.08
	Rental value on land	5,250	10.21	5,250	9.11	5,250	8.94
	Interest on fixed capital (12%)	778.5	1.51	781	1.35	782.75	1.33
	Total fixed cost	7,266	14.14	7,287.5	12.64	7,305	12.44
	Marketing cost	2,191.13	4.26	2,382.5	4.13	2,491.75	4.24
	Total cost	51,401.1	100	57,650	100	58,735	100
4.	**Returns**						
	Yield (q)	9.95		11.40		11.67	
	Returns (Rs.4600/q)	45,770		52,440		53,705	
	Returns (by product)	7,750		8,125		8,750	
	Gross returns (Rs.)	53,520		60,565		62,455	
	Net returns (Rs.)	2,118.88		2,915		3,720	
	B:C ratio	1.04		1.05		1.06	

(31.25 kg of urea, 118.75 kg of DAP, 6.25 kg of SSP and 18.75 kg of complex fertilizers), respectively. In case of plant protection chemicals, it was found that medium farmers used more pesticides (0.80 lit) compared to marginal farmers (0.37 lit) and small farmers (0.12 lit). It can be said that small and medium farmers are on par when it comes to input utilization. Comparatively, marginal farmers use less input. These results were in line with results obtained Naik *et al.* (2006).

Cost and returns structure in groundnut cultivation in Lakshmeshwer taluka

The profitability aspects of groundnut cultivation in Lakshmeshwer taluka during 2015-16 have been analyzed by computing per hectare cost and returns. The analysis was carried out for different farm sizes *i.e.* marginal, small and medium farmers and results are presented in Table 4. It could be observed from the table that per hectare cost of cultivation was more in medium farmers (Rs.58,735) compared to that in small farmers (Rs. 57,650) and marginal farmers (Rs. 51,401.1). The share of variable cost in total cost was highest in case of all farmers accounting for 81.60 per cent (Rs.41,944) in marginal farmers 83.23 per cent (Rs.47,980) in small

farmers and 83.32 per cent (Rs.48,937.5) in medium farmers. Among the variable costs share of human labour was highest followed by cost of fertilizers.

The share of fixed cost in marginal farmers was 14.14 per cent (Rs.7, 266), in small farmers was 12.64 per cent (Rs.7, 287.5) and in medium farmers was 12.44 per cent (Rs.7, 305). The average yields of groundnut in different farm sizes are presented. In marginal farmers yield was (9.95 q /ha) in small farm and medium farmers the yield was (11.4 q/ha) and (11.67 q/ha), respectively. The gross returns were Rs.53, 520 in marginal farmers, small farmers of Rs. 60,565 and Rs. 62,455 in medium farmers. The gross returns were higher in medium farmers than compared to the small and marginal farmers. The B: C ratio was 1.04 in marginal farmers, 1.05 in small farmers and 1.06 in medium farmers. These results were in line with results obtained Naik *et al.* (2006).

Awareness of farmers about MSP scheme in Gadag district :

To study the awareness of farmers about MSP scheme in Gadag district farmers were interviewed and are presented in the Table 5. About 30.00 per cent of

Sr. No.	Particulars	Percentage of farmers		
		Marginal farmers (n=40)	Small farmers (n=40)	Medium farmers (n=40)
1.	Awareness about MSP	30.00	32.50	35.00
2.	Sources of information			
	Raitha Samparka Kendra	10.00	10.00	12.50
	APMC	15.00	17.50	20.00
	Agricultural department	7.50	7.50	7.50
	Marketing federation	0.00	5.00	5.00
	KFCS	2.50	2.50	2.50
	SWC	2.50	5.00	7.50
	News paper/TV/radio	17.50	22.50	25.00
	Neighbours/ friends	12.50	17.50	20.00
3.	Aware that MSP is announced before sowing season	0.00	5.00	5.00
4.	Aware that MSP is announced separately for *Kharif* and *Rabi* season	10.00	10.00	12.50
5.	Aware that MSP is announced totally for 26 commodities	12.50	15.00	12.50
6.	Aware that MSP is announced by government	20.00	22.50	27.50
7.	Aware that groundnut are procured by government agencies at MSP if market price falls	5.00	10.00	12.50
8.	Aware that farmers can sell only FAQ quality produce at procurement centre	22.50	25.00	30.00
9.	Aware that quantity restriction is imposed for sale while procuring	20.00	22.50	25.00

Table 5 : Awareness of farmers about MSP scheme in Gadag district

marginal farmers, 32.50 per cent of small farmers and 35.00 per cent of medium farmers were having awareness about MSP, among these farmers most of them got information from newspaper/TV/radio (17.50 % of marginal farmers, 22.50% of small farmers and 25.00% of medium farmers) and neighbours/friends (12.50% of marginal farmers 17.50% of small farmers and 20.00% of medium farmers). This may be because of easy contact with neighbours/friends and accessibility of newspapers/TV/radio to the farmers. Also APMC's were important source of information to the farmers 15.00 per cent of marginal farmers, 17.50 per cent of small farmers and 20.00 per cent of medium farmers, since farmers sell their commodities in the APMC's. All the farmers whoever aware of MSP scheme were also aware that MSP is announced by government about 20.00 per cent of marginal farmers, 22.50 per cent of small farmers and 27.50 per cent of medium farmers were aware that they sell only FAQ quality produce at

procurement centre and 22.50 per cent of marginal farmers, 25.00 per cent of small farmers and 30.00 per cent of medium farmers, aware that quantity restriction is impose for sale while procuring the commodities under MSP. These results were in line with Damodaran and Hegde (2010).

Production and marketing constraints faced by farmers in Gadag district :

The results of Garret's Ranking analysis of problems associated with production and marketing farmers are presented in Table 6 and 7. Among different factors considered, dependence on monsoon was the major problem expressed by the Gadag district farmers with a mean score of 81.20. The second most important constraint was the lack of labour followed by incidence of pests and diseases, lack of irrigation facilities, lack of knowledge of proper production. These results are in conformity with the findings of Reddy and Reddy (2005).

Table 6 : Production constraints faced by farmers in Gadag district			Garrett's ranking
Sr. No.	Constraints	Mean score	Rank
1.	Dependence on monsoon	81.2	I
2.	Lack of labour	65.9	II
3.	Incidence of pests and diseases	61.51	III
4.	Lack of irrigation facilities	60.75	IV
5.	Lack of knowledge of proper pop	59.99	V
6.	High wage rates	52.26	VI
7.	lack of quality seeds	47.11	VII
8.	High cost of inputs	43.02	VIII
9.	small land holding	34.38	IX
10.	Non-availability of timely credit	28.17	X
11.	Agricultural credit problem	12.87	XI

Table 7 : Marketing constraints faced by farmers in Gadag district			Garrett's ranking
Sr. No.	Constraints	Mean score	Rank
1.	Fluctuation in market prices	73.03	I
2.	Malpractices in weighing	65.31	II
3.	High cost of transportation	56.31	III
4.	Lack of market facilities	50.01	IV
5.	High storage cost	48.46	V
6.	lack of storage facilities	46.90	VI
7.	Lack of knowledge about prevailing market price	46.36	VII
8.	Delay in cash payments from the traders	42.83	VIII
9.	Lack of grading knowledge and information	38.41	IX
10.	Inadequate processing machines	31.20	X

The marketing problem faced by the groundnut farmers. The problem of fluctuation in market prices was the major problem expressed by the respondents relating to marketing of groundnut. According to Garrett's ranking this problem has got first rank followed by malpractices in weighing of marketing in groundnut (II), high cost of transportation (III), lack of storage facilities (IV), lack of marketing facilities (V), high storage cost (VI), lack of knowledge about prevailing market price information (VII), delay in cash payments from the traders (VIII), lack of grading standard (IX), inadequate processing machines.

Conclusion :

The annual growth rate for MSP for all oilseeds was found to be positive. The growth rate of MSP for groundnut was 9.26 per cent. The increase in MSP was not equitable to all the crops. Both open market prices and MSP shown increasing trend but most of the years, open market prices for groundnut were higher than the MSP in all the selected markets of Gadag the percentage differences were not high. The influence of MSP on market price was not significant in groundnut. Even though during some years MSP was higher than the open market prices most of the farmers sell their commodities to the traders, it may because of the reasons such as understandings between traders and farmers, inability of farmers to store produce until the procurement under MSP starts, early payment by traders etc. Hence, there is need to bring some improvement in the price policy to different crops in ensuring highest returns to the farmers to continue their production with the increase in cost of inputs especially the crop like groundnut.

REFERENCES

Damodaran, T. and Hegde, D. M. (2010). *Trade policy changes in edible oils*. Directorate of Oilseeds Res., Hyderabad, 268-269pp.

Khan (2014). Agriculture-International scenario, major crop cultivation in India. *Agriculture Year Book, IOPEPC*: 72.

Mohd,Asmatoddin, Satpute, T.G. and Maske, V.S. (2009). Arrival and price behaviour of important oilseeds crops in Parbhani district, *Internat. J. Agric. Sci*., **5** (2) : 349-350.

Naik, D., Singh, D.N. and Mohanty, B.C. (2006). Cost and returns of groundnut crop in Hinjilicut block of Orissa. *Indian J. Agril. Mktg.*, **20** (3) : 54-56.

Reddy, S.Y. and Reddy, G. P. (2005). Production and marketing constraints of sunflower cultivation in Andhra Pradesh. *Indian J. Agril. Mktg.*, **19** (3) : 20-27.

9th Year
★ ★ ★ ★ ★ of Excellence ★ ★ ★ ★ ★