

RESEARCH NOTE

Operation of market intervention scheme (MIS) in North Eastern Karnataka region - An economic analysis

RADHIKA, G. M. HIREMATH, SURESH S. PATIL, AMRUTHA T. JOSHI AND G. N. MARADDI

Department of Economics, College of Agriculture
University of Agricultural Sciences
Raichur - 584 104, Karnataka, India
E-mail: gradhika6007@gmail.com

(Received: August, 2016 ; Accepted: , 2017)

The MIS is an *ad-hoc* scheme implemented at the request of a State government/UTs which is ready to bear 50 per cent of the loss (25 per cent in case of North eastern States), if any, incurred on its implementation. Under the scheme, in accordance with MIS guidelines, a pre-determined quantity at a fixed Market Intervention Price (MIP) is procured by NAFED as the Central Agency and the agencies designated by the State government for a fixed period or till the prices are stabilized above the MIP whichever is earlier. The scheme is also known as "Revolving Fund and Floor Price Scheme for agricultural / horticultural commodities in Karnataka". The present study was undertaken to assess the benefits of MIS accrued to redgram and bengalgram growers in the North Eastern Karnataka which is known as pulse bowl of Karnataka. The study revealed that MIS price was found to be higher by 20.38 per cent over market price for redgram and 12.28 per cent for bengalgram. Thus, the operation of MIS during the period of fall in the market price below MSP level was justified

Key words: Bengalgram, Commodity, MIS, Redgram

Agricultural prices are prone to fluctuations and hence there is a need to protect the interests of the farmers against distress sale of agricultural commodities by assuring a floor price. The Agricultural Policy Resolution of the Government of Karnataka stressed to bring in "Price and Market Reforms" in the Agricultural Sector of the State. The scheme shall be applicable in the whole state of Karnataka and to notified Agricultural and Horticultural commodities grown in the State. So far ₹ 896.17 crores have been released to different purchase agencies for purchasing the commodities from farmers and 4,39,736 farmers are benefitted under this scheme (Kumar, 2015).

MIS is operated in coordination with the MSP. The products which are usually localised and whose contribution to the total agriculture is almost negligible come under MIS. The decision to launch MIS is taken by the central government for a particular period and for a fixed quantity at a predetermined price when prices fall to below economic level. The National Cooperative Marketing Federation (NAFED) is a centrally designated nodal agency for market intervention operation. Profit/losses incurred if any in these operations are shared on 50:50 basis both by the central and state government.

In Karnataka, market intervention scheme is called as 'Floor Price Scheme', through which a revolving fund of ₹ 100 crores has been mobilized by equal contributions from the state

government and market committees. Every year the central government shall be requested to contribute funds to the revolving fund under the MIS. Since, 1999-00 to 2014-15, MIS has covered 16 crops with due attention to the crops which are not covered under MSP, crops which are perishable in nature and crops for which market price was lower than MSP.

The scheme shall be applicable to entire state of Karnataka for agricultural and horticultural produce. Initially, the scheme was applicable to onion and potato grown in Karnataka and later extended by the government to cover other agricultural and horticultural commodities, which are not covered under MSP scheme of GoI. The floor price scheme shall be operated in coordination with the MSP scheme for such commodities are covered under MSP of GoI. Redgram and bengalgram are such of the commodities which have been affected by fall in the market prices below the MSP and hence the MIS was in operation for these crops in Karnataka. With this background, the present study was taken up to assess the benefits accrued to redgram and bengalgram farmers due to operation of MIS.

The present study was conducted in two districts of North Eastern Karnataka *i.e.*, Kalaburgi and Raichur districts, which come under North Eastern-Dry Zone and Northern Dry Zones of Karnataka respectively.

To fulfill the objective of the study, primary data were collected from the sample farmers through personal interview method using the pretested questionnaires. The information like selling of the produce under MIS, benefits accrued to farmers. The data collected were pertained to the year 2013-14 as the last procurement for redgram and bengalgram took place under MIS.

The purposive random sampling technique was adopted for selection of the sample farmers. Redgram and bengalgram were selected for the study as these crops were covered under MSP and also MIS. After selecting the crops, two districts were chosen based on the highest area under these crops in NEK region. One procurement center was selected for each crop and from each centre 30 beneficiary farmers were selected. Further, an equal number of non-beneficiaries were selected for both redgram (Kalaburgi procurement centre) and bengalgram (Raichur procurement centre), in order to have comparative picture of beneficiary and non beneficiary of MIS for both the crops. Thus, the total sample size constituted for the study was 120. The technique of tabular presentation was employed for comparing the benefits realized by MIS beneficiaries and non MIS beneficiaries. The data were compared and contrasted with the help of averages and percentages.

Socio economic features of sample farmers

The understanding of socio-economic features of sample farmers is important as they have strong influence on the adoption of modern technologies of production and marketing of any crop. Hence, the first section of results and discussion

is devoted towards assessment of socio-economic features of redgram and bengalgram growers and the results are presented in Table 1 and 2. It is observed from the Table 1, that majority of the farmers were in the age group of 36-50, in both the category of redgram farmers. Among beneficiaries the highest percentage of farmers were in the age group of 36-50 (46.70%) followed by the age group of more than 50 (36.70%), 25-35 (10%) and very low percentage of farmers were under the age group of less than 25 (6.60%). Similar pattern was observed among non beneficiary farmers. The average age of the beneficiaries was found to be little higher (46.80 years) when compared to non-beneficiaries (42.60 years).

With respect to education level, it was observed that 26.60 per cent of the redgram beneficiaries were illiterate which is lesser as compared to non-beneficiaries (36.70%). Almost, in both the category nearly 50 per cent of farmers have completed primary and high school education. The proportion of farmers who completed PUC and degree worked out to be higher among beneficiaries (40.00%) when compared to non-beneficiaries (33.30%).

It is observed from the table that the average size of the family was 5.76 for beneficiaries and 6.63 for non-beneficiaries of redgram growers. As far as landholding size is concerned redgram beneficiaries had an average landholding size of 11.63 acres and non-beneficiaries had 10.89 acres. Similarly the beneficiaries had higher proportion of irrigated area when compared to non-beneficiaries.

In case of bengalgram growing farmers (Table 2), majority of the farmers were in the age group of 36-50 in both beneficiary as well as in non-beneficiary farmers. Among beneficiaries,

Table 1. Socioeconomic characteristics of the redgram growers in the study area

Particulars	Beneficiaries (n=30)		Non beneficiaries (n=30)	
	No.	Percentage	No.	Percentage
I. Age (Years)				
< 25	2	6.6	2	6.66
25-35	3	10.0	4	13.34
36-50	14	46.7	18	60.00
> 50	11	36.7	6	20.00
Average age	46.8	-	42.60	-
II. Educational level				
Illiterate	8	26.60	11	36.70
Primary and high school	10	33.40	09	30.00
PUC	05	16.70	06	20.00
Degree	07	23.30	04	13.30
III. Average size of the family				
Men	1.90		2.40	
Women	2.30		2.50	
Children	1.56		1.73	
Total	5.76		6.63	
IV. Average landholding size (acre)				
Rainfed / Dryland	6.54		7.01	
Irrigated	5.09		3.88	
Total	11.63		10.89	

Table 2. Socioeconomic characteristics of the bengalgram growers in the study area

Particulars	Beneficiaries (n=30)		Non beneficiaries (n=30)	
	No.	Percentage	No.	Percentage
I. Age (Years)				
< 25	03	10.00	03	10.00
25-35	05	16.66	04	13.34
36-50	15	50.00	18	60.00
> 50	07	23.34	05	16.66
Average age	39.4	-	42.50	-
II. Educational level				
Illiterate	06	20.00	10	33.30
Primary and high school	16	53.30	15	50.00
PUC	03	10.00	03	10.00
Degree	05	16.70	02	06.70
III. Average size of the family				
Men	2.12		2.07	
Women	1.73		2.03	
Children	2.26		2.36	
Total	6.10		6.46	
IV. Average landholding size (acre)				
Rainfed / Dryland	6.87		7.22	
Irrigated	4.39		3.00	
Total	11.26		10.22	

50 per cent of famers were in the age group of 36-50 followed by the age group of more than 50 (23.34%), 25-35 (16.66%) and very low percentage of farmers were under the age group of less than 25 (10%). The same pattern was observed among beneficiary farmers also. The average age was observed to be little lower (39.40 years) for beneficiaries when compared to non-beneficiaries (42.50 years).

With regard to educational level, it was observed that 20 per cent of the beneficiary farmers were illiterate which is lesser when compared to non beneficiary farmers (33.10%). Almost 50 per cent of farmers in both beneficiaries as well as in non beneficiary category have an educational level of primary and high school. Same proportion of 10 per cent farmers have an educational level up to PUC in case of beneficiaries and non-beneficiaries. 16.70 per cent of beneficiary farmers and 6.70 per cent of non-beneficiaries have an education of degree.

It is clear from the table that average size of the family was 6.10 for beneficiaries and 6.46 for non-beneficiaries of bengalgram growers. As far as landholding size, bengalgram beneficiaries had an average landholding of 11.26 acres and non-beneficiaries had 10.22 acres. Similarly, the beneficiaries had higher proportion of irrigated area when compared to non-beneficiaries.

MIS has its impact on marketing practices followed by farmers in cultivation of bengalgram and redgram especially with respect to place of sale, selling agency, quantity of sale at a time, time of sale and receipt of sale proceeds. The benefits realized under the scheme in redgram and bengalgram crops are presented in Table 3 and 4, respectively. Table 3 presents the benefit realized by redgram and bengalgram farmers, under

Operation of market intervention scheme

MIS for the year 2013-14. The table revealed that cost of production of redgram at farmers' level worked out to be ₹3070/q. The farmers had realized output of 4.85 quintals/acre by incurring ₹ 14,890/acre for redgram cultivation. The redgram price under MIS was 5000/q and for bengalgram it was ₹ 3310/q in 2013-14. Whereas for redgram MSP was ₹ 4300/q and ₹ 3100/q for bengalgram. The annual average market price for redgram was 4153.33 and ₹ 2948/q for bengalgram. The MIS price was found to be higher by 20.38 per cent over ₹ market price for redgram and 12.28 per cent for bengalgram.

The results of Table 3 revealed that price under MIS for both redgram and bengalgram for the year 2013-14 was more than the MSP and open market price and it also covered the cost of production leaving some reasonable margin to the producer. It could be seen from table that the farmers who sold their produce under MIS realized higher benefits than selling it in open market. Because the procurement price (₹ 5000 /q for redgram, ₹ 3310/q for bengalgram) offered was more under MIS than open market (₹ 4153.33/qtl for redgram and ₹ 2948.10/Qtl for bengalgram) and minimum support price (₹ 4300 per quintal for redgram and ₹ 3100 per quintal for bengalgram). Thus the operation of MIS during the period of fall in the market price below MSP level was justified. A similar kind of observation was also made by Deepa (2005) that

Table 3. Benefit to redgram and bengalgram farmers under MIS procurement in 2013-14

Particulars	Redgram	Bengalgram
Average production (q/Acre)	4.85	3.98
Cost of production (₹/q)	3070	2193
Average open market price (₹/q)	4153	2948
MSP (₹/q)	4300	3100
MIS (₹/q)	700	210
Total sale price under MIS (₹/q)	5,000	3310
Difference between sale price under MIS and market price	846	361
Per cent increase in MIS price over market price (%)	20.38	12.28

Table 4. Net price differentials for redgram sales under MIS and open market

Particulars	(n=60)	
	Open Market(₹/q)	Procurement Centre(₹/q)
Transportation cost	36.99	73.31
Weighing, loading and unloading charges, cleaning, dehusking charges	6.78	0.00
Expenditure obtaining on land records	0	0.26
Deductions	83.06	25.00
Commission	08.41	0.00
Personnel expenditure	10.25	48.95
Total marketing cost	145	147
Sale price	4153	5000
Net price	4007	4852
Net price differentials in MIS sales vis-a-vis open market	844.64	
Percent change in MIS sales over open market	21.07	

Table 5. Net price differentials from bengalgram sales under MIS and open market

Particulars	(n=60)	
	Open Market(₹/q)	Procurement Centre(₹/q)
Transportation cost	19.66	39.52
Weighing, loading and unloading charges, cleaning, dehusking charges	04.37	0
Expenditure obtaining on land records	0.00	0.19
Deductions	58.96	16.55
Commission	08.05	0.00
Personnel expenditure	07.89	43.84
Total marketing cost	98.93	100.10
Sale price	2948	3310
Net price	2849	3209
Net price differentials in MIS sales vis-a-vis open market	360	
Percent change in MIS sales over open market	12.66	

benefits accrued to the farmers by selling their produce at procurement centres was found to be higher than that of the market price for major crops of Karnataka. The findings of the study were supported by Kalamkar (2014), who observed that price declared by the government under MIS for gram and garlic was much higher than the cost of production and helped the farmers in getting better returns.

It was clear from the results presented in Table 4 that the net price received for redgram under MIS was ₹ 4852.48 per quintal and ₹ 4007.84 per quintal in open market. It shows that there is a net price differential of ₹ 844.64 in MIS sales over open market for redgram crop.

Similarly for bengalgram crop, the net price received under MIS was ₹ 3209.90 per quintal and ₹ 2849.17 per quintal in case of open market (Table 5) resulting a net price differential of ₹ 360.73 per quintal. The above findings have indicated that both redgram and bengalgram growers benefited by selling their produce through procurement centres. The percentage in MIS sales over open market for redgram and bengalgram worked out to be 21.07 per cent and 12.66 per cent respectively. Thus the hypothesis made for the study that the farmers realized greater benefits from MIS is accepted.

A study conducted by Mahajanshetty *et.al.* (2007) reported that the net price received by farmers per quintal of onion was ₹305.50 and 213.50 in MIS procurement centres and regulated market respectively. The net price received by farmers per quintal of maize was ₹ 502 and ₹ 418 in MIS procurement centre and regulated market respectively. It has resulted a net price differentials in MIS sales vis-a-vis regulated market was ₹ 92 per quintal is case of onion and ₹ 84 per quintal for maize crop.

The farmers have realized a higher price for both redgram and bengalgram by selling under MIS for both redgram and for bengalgram crop. The MIS prices were higher than MSP and open market prices for both the crops. In all, the farmers benefited by selling the produce under MIS over selling at MSP and open market prices.

References

- Deepa, S. A., 2005, Performance and impact of MIS for agricultural commodities in Karnataka. *ABM (Agri.) Thesis*, Univ.Agric.Sci. Dharwad (India).
- Kalamkar, S. S., Ojha, M. R. and Parihar, T. B., 2014, Evaluation of price support and market intervention scheme in Rajasthan. *Ind. J. Agric. Marketing.*, 28(2):85-94.
- Kumar, A. D., 2015, Floor price scheme for agricultural commodities in Karnataka. *Glob. J. Res. Anal.*, 4 (10) : 91-93.
- Mahajanashetty, S. B., Vijayakumar, H. S., Rajkumar, K., Deepa, S. A. and Yogisha, G., 2007, Market intervention scheme in Karnataka: An analysis of its coverage, price incentives and problems. In: *International Conference on 21st century challenges to sustainable agri. food system : Biotechnology, Environment, Nutrition, Trade and policy*. Ed. Changappa, G. N., Nagaraj, Ramesh Chanwar, I. K., International publishing house pvt. Ltd., New Delhi, pp. 656-663.