

# Short Research Article

## MINIMUM SUPPORT PRICES (MSP) AND ITS INFLUENCE ON COTTON FARMING IN INDIA

### Abstract

In the present study, farmers' awareness regarding MSP and influence of MSP on production of cotton has been analysed. Data from National Sample Survey Office, 70<sup>th</sup> round and Ministry of Agriculture were used for the study. The results indicated that only 20.4 and 22.6 per cent of farmers in India are aware of MSP of cotton grown by them in kharif and post-kharif season, respectively. Therefore, there is need to increase the awareness among the cotton growing farmers in all cotton growing states to increase the bargaining power and to avoid distress sale of their produce. The data also revealed that there was higher growth in area and production and MSP of cotton in period II (2005-06 to 2015-16). The announced MSP of cotton in the year 2017-18 kharif was worse with regard to C<sub>2</sub> and C<sub>3</sub> cost, where the announced MSP is lesser than these costs. Thus, there is need to clarity of the cost concept considered for fixing of MSP. The major reason given by farmers for not selling the produce to procurement agency is that no procurement agency / local purchaser are available to procure and delay in payments. Thus, there is need to set up additional procurement centres in major growing areas with improved infrastructure and finance facilities.

Key words: MSP, Production, Cost, Procurement and Awareness

### Introduction

Cotton popularly known as "White Gold" is a major commercial crop and has a global significance which is grown for its lint and seed. India is the largest producer of cotton in the world accounting for about 27 per cent of the world cotton production. The major cotton growing states in India are Gujarat, Maharashtra, Andhra Pradesh, Telangana, Haryana, Karnataka, etc. It is important for the government to protect the interest of cotton growers and increase in the production by assuring better price of their produce. Assurance of a remunerative and stable price environment is considered important for increasing agricultural production [3]. Therefore, Minimum Support Price (MSP) is one of the components in Agricultural Price Policy in India to ensure agricultural producers against any sharp fall in prices. The major objective of MSP is to avoid farmer from distress sale of their produce.

In India, there have been many concerns of awareness and regarding effective operation of MSP. Few studies have pointed out that MSP has led to regional disparity in incomes and effective in states where procurement is carried [1 & 2]. In this study, MSP is treated as a safety net and an attempt has been made to analyse the awareness of MSP among cotton growers in India and major producing states. Also, we explore the major reasons of farmers for not selling produce to procurement agency. The study also tries to establish possible relationship of MSP with production and costs for understanding the performance of MSP in cotton.

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#### 44 **Material and Methods**

45 In this study, the data pertaining to farmers' awareness of MSP in cotton has been  
46 collected from 'Situational Assessment Survey of Farmers – 70<sup>th</sup> round' conducted by  
47 National Sample Survey Office [6]. The secondary data on production of cotton and  
48 Minimum Support Prices (MSP) has been collected for the period 1994-95 to 2015-16 from  
49 Ministry of Agriculture and Farmers' Welfare. The details regarding cost of production in  
50 cotton and procurement of cotton were collected from official secondary sources.

#### 51 Growth rate analysis

52 The compound growth rates in area, production, productivity, and cost of production  
53 and MSP of cotton in India were estimated by using the following exponential growth  
54 function of the form:

$$Y = ab^t u_t$$

56 Where, Y = Area, production, productivity and MSP of cotton

57 a = intercept

58 b = regression coefficient

59 t = time variable

60 The equation was estimated by transforming in to log form as follows;

$$\log y = \log a + t \log b + \log U_t$$

62 Then, the per cent compound growth rate (g) was calculated by using the relationship

$$r = \{ \text{antilog of } (\log b) - 1 \} \times 100$$

#### 64 **Results and Discussion**

65 The compound growth rates of area, production, productivity and MSP of cotton in  
66 India for the period 1994-95 to 2015-16 were computed. The whole period was divided into  
67 period I (1994-95 to 2004-05) and Period II (2005-06 to 2015-16). The table.1 revealed that,  
68 there was considerable change in area, production and productivity of cotton in India from  
69 1994-95 to 2015-16. In overall period, the area increased from 78.71 to 122.92 lakh hectares  
70 with 1.98 per cent growth and production increased from 118.88 to 300.05 lakh bales with  
71 6.87 per cent growth. The negative growth rates were found in area and production of cotton  
72 during period I. But, there was tremendous growth in period II with 4.16, 5.95 and 1.73 per  
73 cent growth in area, production and productivity of cotton, respectively. The reason for  
74 increase in production in period II can be attributed to increase in adoption of Bt varieties,  
75 improved technology and other factors. The above findings are in line with study of  
76 Ramachandra *et al.* [4]

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77 **Table.1 Growth in Area, Production and Productivity of Cotton for period 1994-95 to 2015-16**

Years	Area (lakh ha)	Production (lakh bales) 1 Bale = 170 kg	Productivity (kg/ha)
1994-95	78.71	118.88	257
1995-96	90.35	128.61	242
1996-97	91.21	142.31	265
1997-98	88.68	108.51	208

1998-99	93.42	122.87	224
1999-00	87.10	115.30	225
2000-01	85.34	95.20	190
2001-02	91.32	99.97	186
2002-03	76.70	86.24	191
2003-04	75.98	137.29	307
2004-05	87.87	164.28	318
2005-06	86.77	184.99	362
2006-07	91.45	226.32	421
2007-08	94.14	258.84	467
2008-09	94.07	222.76	403
2009-10	101.32	240.22	403
2010-11	112.35	330.00	499
2011-12	121.78	352.00	491
2012-13	119.77	342.20	486
2013-14	119.60	359.02	510
2014-15	128.46	348.05	461
2015-16	122.92	300.05	415
CAGR (%)			
Period I: 1994-95 to 2004-05	-0.63	-0.04	0.59
Period II: 2005-06 to 2015-16	4.16	5.95	1.73
Overall: 1995-96 to 2015-16	1.98	6.87	4.79

78 Source: Ministry of Agriculture and Farmers' welfare of India [8]

79 The growth in MSP of cotton leads to increase in market price, if not produce is  
80 procured by government at the announced MSP. This protects interest among cotton growers  
81 and influences increase in area and production of cotton. The growth in MSP of medium and  
82 long staple cotton for period I were 5.68 and 4.94 per cent, respectively .In the period II, the  
83 MSP's of medium staple and long staple cotton seen growth of 9.37 and 8.66 per cent,  
84 respectively (Table.2). The highest growth in area, production and productivity of cotton  
85 were also found during period II. Therefore, we can say that MSP had impact on area and  
86 production of cotton. The change in MSP over the previous year was highest during the year  
87 2008-09 and 20012-13 with (38.89, 47.78) and (28.57, 18.18) per cent for medium and long  
88 staple cotton. The overall growth of MSP for the period 1994-95 to 2015-16 was 6.15 and  
89 5.92 per cent in medium and long staple cotton, respectively.

90 **Table.2 Growth in Minimum Support Prices (MSP) of Cotton for the period 1994-95 to 2015-16**

Years	Medium Staple		Long Staple	
	MSP (Rs/Q)	% Change	MSP (Rs/Q)	% Change
1994-95	1000	10.00	1200	14.29
1995-96	1150	15.00	1350	12.5
1996-97	1180	2.61	1380	2.22
1997-98	1330	12.71	1530	10.87
1998-99	1440	8.27	1650	7.84
1999-00	1575	9.38	1775	7.58

2000-01	1625	3.17	1825	2.82
2001-02	1675	3.08	1875	2.74
2002-03	1675	0	1875	0
2003-04	1725	2.99	1925	2.67
2004-05	1760	2.03	1960	1.82
2005-06	1760	0	1980	1.02
2006-07	1770	0.57	1990	0.51
2007-08	1800	1.69	2030	2.01
2008-09	2500	38.89	3000	47.78
2009-10	2500	0	3000	0
2010-11	2500	0	3000	0
2011-12	2800	12	3300	10
2012-13	3600	28.57	3900	18.18
2013-14	3700	2.78	4000	2.56
2014-15	3750	1.35	4050	1.25
2015-16	3800	1.33	4100	1.23
CAGR(%)				
Period I: 1994-95 to 2004-05	5.68		4.94	
Period II: 2005-06 to 2015-16	9.37		8.66	
Overall: 1994-95 to 2015-16	6.15		5.92	

91 Source: Ministry of Agriculture and Farmers' welfare of India [7]

92 The determinants of MSP are demand and supply, cost of production, domestic price,  
93 international price, inter-crop price parity and likely implications of MSP on that product.  
94 But, cost of production is an important factor in fixing the MSP. Hence, relationship between  
95 MSP and cost of production in cotton has been analysed for the period 2007-08 to 2015-16.  
96 Table.3 revealed that growth in cost of production of cotton for the period is 8.95 per cent,  
97 whereas growth in MSP of long staple and medium staple has found 7.88 and 9.33 per cent,  
98 respectively. The cost of production and MSP had increased at almost the same rate. Thus,  
99 we can conclude that growth in MSP of cotton has been influenced by cost of production.

100 **Table.3 Relationship between Cost of Production and Minimum Support Price (MSP) in Cotton**

Years	Cost of Production –C2 (Rs/Q)	Long staple MSP (Rs/Q)	Medium staple MSP (Rs/Q)
2007-08	2110	2030	1800
2008-09	2088	3000	2500
2009-10	2111	3000	2500
2010-11	2129	3000	2500
2011-12	2528	3300	2800
2012-13	2772	3900	3600
2013-14	3533	4000	3700
2014-15	3480	4050	3750
2015-16	3767	4100	3800
CAGR (%) 2007-08 to 2015-16	8.95	7.88	9.33

101 Source: Ministry of Agriculture and Farmers' welfare of India [7 & 9]

102 Table.4 accompanied with details of all-India weighted average A2, A2+FL, C2 and C3  
 103 production costs for cotton, as projected by the CACP and announced MSP of cotton for the  
 104 year 2017-18 kharif season. A2 costs basically cover all paid out expenses, both in cash and  
 105 kind incurred by the farmers. A2+FL cost covers actual paid out expenses plus an imputed  
 106 value of family labour. C2 costs are comprehensive, accounting for A2+FL cost plus the  
 107 rentals and interest foregone on owned land and fixed capital assets respectively. Lastly, C3  
 108 covers C2 cost plus 10 per cent of C2 as managerial cost. The announced MSP of cotton is  
 109 found 50 per cent more than A2 cost and 20 per cent more than A2+FL cost of production.  
 110 It's worse with regard to C2 and C3 cost, where the announced MSP is lesser than these  
 111 costs. Thus, there is need to clarity of the cost concept considered for fixing of MSP.

112 **Table.4 Comparison of different cost concepts and MSP in Cotton for 2017-18**

Particulars	A2	A2+FL	C2	C3
Projected Cost (Rs/Q)	2622	3276	4376	4814
MSP (Rs/Q) – Long staple	4320			
MSP>Cost (%)	64.76	31.87	-1.28	-10.26
MSP (Rs/Q) – Medium staple	4020			
MSP>Cost (%)	53.32	22.71	-8.14	-16.49

113 The major procurement agency of cotton in India is Cotton Corporation of India  
 114 (CCI). As and when cotton prices touch the level of MSP, CCI resorts to immediate market  
 115 intervention and involves in purchase at MSP. In the year 2014-15 and 2015-16, the cotton  
 116 procured in India is 8695.8 and 844.5 thousand bales, respectively. The major procuring  
 117 activity of cotton was found in states of Telangana + Andhra Pradesh, Maharashtra and  
 118 Gujarat (Table.5). In the absence of MSP operations, CCI undertakes viable commercial  
 119 operations at its own risk, for supply of cotton to mills in the domestic market. The purchases  
 120 of cotton under commercial operations are also made through auctions conducted by the  
 121 APMCs in the notified market yards.

122 **Table.5 State-wise Procurement of Cotton under MSP by Cotton Corporation of India (CCI)**

(In 000' Bales)

Years	Andhra Pradesh	Gujarat	Haryana	Madhya Pradesh	Maharashtra	Punjab	Telangana	Others	India
2005-06	350.1 (27.95)	293.2 (23.41)	4.4 (0.35)	118.3 (9.45)	295.2 (23.57)	52.4 (4.18)	-	138.9 (11.09)	1252.5 (100.00)
2006-07	527.6 (44.77)	-	-	89.8 (7.62)	539.8 (45.80)	-	-	21.3 (1.81)	1178.5 (100.00)
2007-08	218.7 (97.94)	-	-	-	-	-	-	4.6 (2.06)	223.3 (100.00)
2008-09	3275.8 (36.66)	1236.1 (13.83)	255.3 (2.86)	736.5 (8.24)	1997.1 (22.35)	255.3 (2.86)	-	1178.7 (13.19)	8934.8 (100.00)
2009-10	445.6 (76.75)	0.2 (0.03)	21.8 (3.75)	-	0.5 (0.09)	21.8 (3.75)	-	90.7 (15.62)	580.6 (100.00)
2010-11	-	-	-	-	-	-	-	0.2 (100.00)	0.2 (100.00)
2011-12	7.6 (98.70)	-	-	-	-	-	-	0.1 (1.30)	7.7 (100.00)
2012-13	2174.9 (95.11)	-	-	3.6 (0.16)	41.6 (1.82)	-	-	66.6 (2.91)	2286.7 (100.00)
2013-14	40.8 (100.00)	-	-	-	-	-	-	-	40.8 (100.00)

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2014-15	1755.6 (20.19)	666.5 (7.66)	79.9 (0.92)	281.9 (3.24)	1763.1 (20.28)	79.9 (0.92)	3690.9 (42.44)	378 (4.35)	8695.8 (100.00)
2015-16	40.0 (4.74)	51.5 (6.10)	-	29.0 (3.43)	116.8 (13.83)	-	595.2 (70.48)	12 (1.42)	844.5 (100.00)

124 (Figures in parenthesis are percentages)

125 \*Up to 2013-14, procurement in Andhra Pradesh includes Telangana region

126 Source: Cotton Corporation of India [10]

127 Table.6 represents the percentage of farmers who were aware of MSP and involved in  
 128 sale of cotton grown by them to the procurement agency. The awareness stood at 20.4 per  
 129 cent and 22.6 per cent for kharif and post-kharif, respectively. So we can say that less than 25  
 130 per cent farmers aware of MSP of cotton grown in India. Out of the farmers' who are aware  
 131 of MSP of cotton, only 34.32 per cent and 37.17 per cent of farmers sold produce to  
 132 procuring agency in kharif and post-kharif, respectively. State-wise figures on farmers'  
 133 knowledge reveals that 74.5 per cent farmers in Punjab and 36.2 per cent of farmers in  
 134 Haryana were aware of MSP of cotton (Figure.1). The high awareness of Punjab and Haryana  
 135 farmers is because, the procuring activity of food grains in these states are high and  
 136 simultaneously, they knew of MSP of cotton. Knowledge of MSP of cotton in major  
 137 procuring states Telangana + Andhra Pradesh, Maharashtra and Gujarat were found just in  
 138 between 12-27 per cent. Thus, there is need to increase the awareness among the cotton  
 139 growing farmers in all cotton growing states to increase the bargaining power in selling the  
 140 produce and to avoid the distress sale. Similar kind of results was obtained by Aditya *et al.*  
 141 [1]

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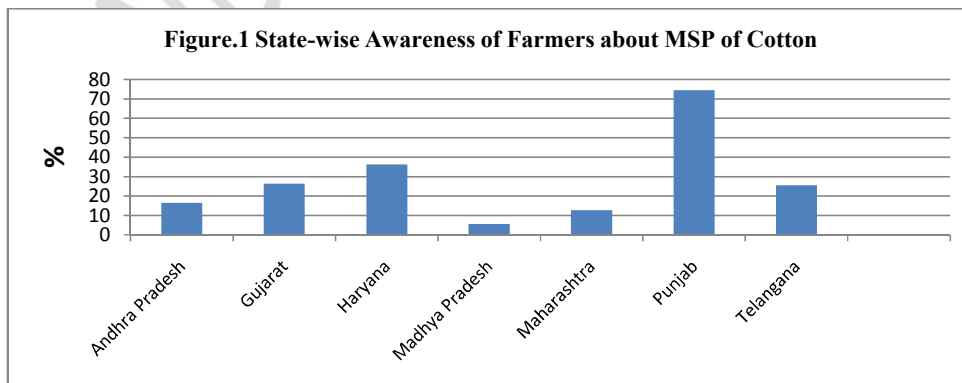
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142 **Table.6 Farmers' knowledge of Minimum Support Prices in Cotton in India**

Particulars		Kharif	Post-kharif
Sample size		2114	425
Aware	Number	431	96
	Percentage	20.4	22.6
Sold to Procurement agency (Out of aware)	Number	148	36
	Percentage	34.32	37.17
Not aware	Number	1683	329
	Percentage	79.6	77.4

143



145 Out of proportion of farmers who were aware of MSP of cotton, 65.68 and 62.83 per  
 146 cent of farmers in kharif and post-kharif, respectively have not sold the produce to  
 147 procurement agency (Table.7). The function of MSP is to set the floor price, and if farmers  
 148 have received a better price than MSP, then it is considered as fine reason. Only 24.63 and  
 149 33.80 per cent of farmers reported that they had received a better price in the market. The  
 150 major reason given by farmers for not selling the produce to procurement agency is that no  
 151 procurement agency / local purchaser are available (38.80 and 31.69 per cent) to procure the  
 152 produce at MSP. Thus, there is need to set up additional procurement centres in major  
 153 growing areas with improved infrastructure facilities. Then, 32.84 and 33.10 per cent of  
 154 farmers in kharif and post-kharif, respectively reported that they have not sold to procurement  
 155 agency because of other reasons. The other reason may include a delay in payments of money  
 156 by procurement agency. The payment on same day for the procured produce encourages the  
 157 farmers to improve their production and create more marketable surplus. However, the MSP  
 158 announcement alone does not guarantee that market prices would not fall below it. An  
 159 effective procurement mechanism is needed to help ensure that prices would not fall below  
 160 the floor set by the government [5].

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161 **Table.7 Reasons quoted by farmers for not selling to procurement agency**

Particulars	Kharif	Post-kharif
Percentage of farmers not selling to procurement agencies	65.68	62.83
Reason		
Procurement agency not available	25.37	17.61
No local Purchaser	13.43	14.08
Poor quality of crop	2.98	1.41
Crop pre-pledged	0.75	0
Received better prices	24.63	33.80
Others	32.84	33.10
Total	100.00	100.00

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162

163 **Conclusion**

164 The highest growth in area, production and productivity of cotton was found in  
 165 period II (2005-06 to 2015-16) with 4.16, 5.95 and 1.73 per cent, respectively. Also, MSP's  
 166 of medium staple and long staple cotton seen highest growth in period II with 9.37 and 8.66  
 167 per cent, respectively. Hence, we can say that MSP had influenced the production of cotton in  
 168 India. Cost of production is said to be the major determinant of MSP. Both cost of production  
 169 and MSP of cotton had increased at almost at the same rate over the period. The announced  
 170 MSP of cotton in the year 2017-18 kharif is found 50 per cent more than A2 cost and 20 per  
 171 cent more than A2+FL cost of production. It was worse with regard to C2 and C3 cost, where  
 172 the announced MSP is lesser than these costs. Thus, there is need to clarity of the cost  
 173 concept considered for fixing of MSP. The major procuring activity of cotton was found in  
 174 states of Telangana + Andhra Pradesh, Maharashtra and Gujarat.

175 In India, less than 25 per cent farmers are aware of MSP of cotton grown in India.  
176 Out of the farmers' who are aware of MSP of cotton, only 34.32 per cent and 37.17 per cent  
177 of farmers sold produce to procuring agency in kharif and post-kharif, respectively.  
178 Knowledge of MSP of cotton in high procuring states was found just in between 12-27 per  
179 cent. Therefore, there is need to increase the awareness among the cotton growing farmers in  
180 all cotton growing states to increase the bargaining power in selling the produce and to avoid  
181 the distress sale. The major reason given by farmers for not selling the produce to  
182 procurement agency is that no procurement agency / local purchaser are available to procure  
183 and delay in payments. Thus, there is need to set up additional procurement centres in major  
184 growing areas with improved infrastructure facilities. Also, payment to the beneficiaries is  
185 tried to be made on same day.

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