

Nature and Extent of Agrarian Distress among the Cotton Growers of Vidarbha Region

Manohar B. Dhadwad¹ and D. U. M. Rao²

1. Ph. D. Scholar, 2. Senior Scientist Division of Agricultural Extension, IARI; New Delhi-12.

ABSTRACT

Cotton farmers were facing acute distress, the manifestations of which were seen in the form of psycho-social maladies in the country side. Agrarian distress among cotton growers is operationalized as the perceived degree of stress or discomfort among the farmers, caused due to unexpected events in farming as well as their social lives. The perceived level of distress was measured through a distress index. The study conducted in Vidarbha region among cotton growers has revealed that the distress level was relatively high among majority of farmers. Among the respondents, marginal and small farmers were experiencing high level of distress than those having medium and big land holdings.

Key words: Agrarian distress; Distress index; Cotton farming; Vidarbha region

Today the crisis among farming community is evident through burgeoning distress in many states of India including Punjab, the agriculturally most progressive state. Suicides are only one extreme symptom of the larger crisis looming over the agriculture sector in India in general and Vidarbha in particular. Distress in the farm sector is increasing at an alarming rate. A large number of farmers are facing severe drought conditions due to aberrant weather, acute shortage of fodder for their cattle, uncertain market prices, lack of institutional credit, exorbitantly higher rates of interest from local moneylenders, etc. these conditions have forced the farmers in distress especially in north Karnataka, Telangana, and Vidarbha regions of central India. Farmers in Maharashtra, Andhra Pradesh, Karnataka, Kerala, Orissa, Punjab, Rajasthan and other states are experiencing distress due to lack of adequate irrigation, mounting debt burden in the absence of institutional credit, lack of minimum support prices, lack of crop insurance scheme, high payment of rent for leased in land and some other adverse policy implementation and governance issues.

The manifestations are seen in the form of psycho-social maladies and even extreme step of suicides by the farmers in last seven to eight years. For the first time in the known history of India, farmers are taking recourse to suicide as a way out of agrarian distress (Rao *et al*, 2006). The rate of farmer's suicide is increasing day by day. For instance, even after the announcement of Rs.3, 750 Crore Relief Package for Vidarbha by Prime Minister of India; the suicide rate has not reduced.

Under such conditions one of the researchable issues among the others is: what is the nature and extent of distress among these farmers. This study was undertaken with the objective of understanding the nature and extent

of agrarian distress among the cotton growers of Vidarbha region.

METHODOLOGY

The study was conducted in the Vidarbha region of the Maharashtra state. Three districts viz. Yavatmal, Amravati, and Wardha were selected purposively based on the intensity of the farmers' suicides in recent past of this region. Nandgaon, Ner, and Selu sub-divisions were selected randomly from Amravati, Yavatmal, and Wardha districts respectively. Six villages, two from each block, were drawn by using simple random sampling technique. Thus Jalu and Mahuli Villages from Nandgaon Block; Vatfali and Loni villages from Ner Block; and Sindhi and Palasgaon villages from Selu Block were selected randomly. A comprehensive list of the cotton growers of each of the six selected villages was prepared indicating four strata i.e. marginal, small, medium and large farmers and 20 farmers from each village were selected as respondents. Thus, 30 farmers from each stratum and making total sample size 120 farmers were finally selected on the basis of stratified random sampling technique. The exploratory research design was adopted for the investigation.

In the present study, agrarian distress was operationalized as perceived degree of stress or discomfort among the farmers caused due to unexpected events in farming as well as in their social lives. To measure the perceived degree of distress or discomfort experienced by the farmers in response to the current agrarian crisis, a distress index was developed. In general, three important event-related factors i.e. helplessness, uncontrollability and unpredictability were assumed to be associated with the intensity of distress (Garnefski, 2005). Keeping this in

mind, a distress index consisting of 20 items covering the three aspects of distress was developed and used for the study. The extent of distress among cotton growers was measured on a five-point continuum of 1 (strongly disagree) to 5 (strongly agree).

RESULTS AND DISCUSSION

Here, the extent of distress among cotton growers was measured. In addition, the nature of distress was also measured. An attempt was made to see whether these farmers differed on the extent of distress by comparing the mean distress scores of farmers from different districts and by comparing the mean distress scores of farmers belonging to different land size categories.

As can be seen from the data, the overall mean distress level score of the cotton growers was 65.48 out of the maximum possible score of 100, with a standard deviation of 8.56. This means that on an average, the respondents were in high level of distress. The distress level scores on distress index ranged from as low as 40 to as high as 96. This indicated wide variation of agrarian distress among the cotton cultivators. A brief look at the frequency distribution of cotton growers on the distress scores revealed that more than four-fifths (85.84 per cent) of them were having distress at high level whereas, 8.33 percent and 5.83 percent of the respondents were having distress at very high level and medium level respectively. The frequencies of respondents on distress scores appeared to be highly skewed towards the higher side of distress index. In all the three districts, the extent of distress among the farmer respondents was more or less in similar levels.

Extent of Agrarian Distress : To measure the extent of

distress among respondents a distress index was developed and used. All the statements were reflected the three dimensions of distress. The higher the score obtained by a respondent on this index, the higher will be his extent of distress. The frequencies of farmers on extent of distress were computed and the results are presented in Table 1.

Table 1. Distribution of Respondents on Extent of Distress (N=120)

Extent of Distress	Selected Districts			
	Amravati	Yavatmal	Wardha	Overall
Mean	65.68	65.53	65.25	65.48
Standard deviation	7.35	10.86	7.20	8.56
Range	47 - 78	40 - 96	46 - 78	40 - 96
Distress Categories				
Frequency and (%)* of respondents in each district				
Low (1-25)	0 (0.00)	0(0.00)	0(0.00)	0(0.00)
Medium (26-50)	1(2.50)	5(12.50)	1(2.50)	7(5.83)
High (51- 75)	37(92.50)	30(75.0)	36(90.0)	103(85.84)
Very High (76-100)	2(5.0)	5(12.50)	3(7.50)	10(8.33)
TOTAL	40(100)	40(100)	40(100)	120(100)

* Percentage is given in parenthesis.

Nature of Agrarian Distress : The components of distress, viz. helplessness, uncontrollability and unpredictability among the farmer respondents were analysed to understand the nature of distress. These three components reflect the feelings of helplessness expressed by the farmers in a critical situation, the feelings of inability to control the on-going situation, and feelings of inability to predict the future outcomes of a critical situation. Here the distress scores as reflected by the three components were analysed with a view to see which of the components is causing more distress among cotton farmers. The results are presented in Table 2.

Table 2. Distribution of the respondents on the basis of level of helplessness, uncertainty and unpredictability

Particulars	Frequency and (%)* of respondents in each component		
	Helplessness	Uncontrollability	Unpredictability
Mean distress score	25.79	22.27	17.42
Standard deviation	3.16	4.76	3.70
Low level (<Mean-1SD)	20 (16.67)	12 (10.0)	20 (16.67)
Medium level (Bet Mean ±1SD)	81 (67.50)	86 (71.67)	85 (70.83)
High level (>Mean+1SD)	19 (15.83)	22 (18.33)	15 (12.50)
Total	120 (100)	120 (100)	120 (100)

* Percentage is given in parenthesis.

It is evident from the results in table that the mean distress score of feeling of helplessness was 25.79 per cent, indicating thereby its prominent impact on the overall distress scores. The scores of distress on the components of uncontrollability and unpredictability were 22.27 per cent and 17.42 per cent respectively. In totality, majority of the respondents were in the medium level distress on all the three components: feelings of helplessness, uncontrollability and unpredictability. It is the feeling of helplessness that loomed large when the farmers faced

their daily hassles of cotton farming in adverse conditions of drought, pest incidence, high costs of cultivation and unremunerative prices, sickness of family members and increasing home expenses, etc.

Comparison of mean distress scores of the respondents of three districts : One-way ANOVA was employed to compare the means of distress scores of the respondents of three districts to test empirically whether there is any variance in distress level between farmers of these three districts. The results are presented in the Table 3.

Table 3. Analysis of variance among the distress levels of farmers from three districts

Groups (Districts)	Respondents	Total obtained score	Average	Variance
Amravati	40	2627	65.67	54.01
Yavatmal	40	2621	65.53	117.89
Wardha	40	2610	65.25	51.83

ANOVA

Source of Variation	SS	df	MS	F	F crit*	F crit**
Between Groups	3.72	2	1.86	0.025	3.073	4.79
Within Groups	8726.25	117	74.58			
Total	8729.97	119				

*0.05 level of significance, **0.01 level of Significance
CV= 13.189

Among the farmers of three districts, farmers from Amravati district were having more distress level on an average followed by those from Yavatmal and Wardha districts which was 65.67 per cent, 65.53 per cent and 65.25 per cent, respectively. *F* value was calculated (0.025) and compared with table value of *F* for (3, 117) degrees of freedom at 5 per cent level of significance (3.07) and at 1 per cent level of significance (4.79). As the calculated *F* value was less than table *F* value there was no significant difference between these three districts regarding the level of distress. The coefficient of variation (CV) of the mean distress scores of these three districts was 13.189 per cent. As the coefficient of variation (CV) was lower than 20 per cent, it indicates the better precision of the measurement of the mean distress scores. This indicates that there is no statistically significant difference in distress levels of the respondents of these three districts. All the respondents of the three districts were having more or less equal intensity of perceived levels of distress. Thus it can be concluded that as far as perceived level of distress is concerned, all the respondents of all districts were at par.

Comparison of Mean Distress Scores of the Respondents of Different Land Holdings: One-way ANOVA was employed to compare the means of distress scores of the respondents of four different sizes of land holding, and it was tested statistically whether there is any difference in distress levels due to the landholding size. The results are presented in the Table 4.

It is evident from the above table that the respondents having marginal land holdings were having more distress level (67.50 per cent) on an average followed by farmers with small, medium and large size land holdings which was 66.93 percent, 65.73 per cent and 61.77 per cent, respectively. *F* value was calculated (2.86) and compared with table value of *F* for (3, 116) degrees of freedom at 5

per cent level of significance (2.68) and at 1 level of significance (3.95). As the calculated *F* value was more than table *F* value at 5 per cent level of significance there is significant difference between the land holding size and the level of distress. The critical difference (CD) at 5 per cent level of significance was 0.7821 and it was observed that the differences between mean distress scores of marginal and small farmers was not significant, but the difference between mean distress scores of small and medium as well as between medium and large farmers was found significant at 5 per cent level of significance.

Table 4. Analysis of variance among the distress levels of farmers with different sizes of land holdings

Groups	Respondents	Total obtained score	Average	Variance
Marginal	30	2025	67.50	64.81
Small	30	2008	66.93	65.79
Medium	30	1972	65.73	67.99
Large	30	1853	61.77	81.70

ANOVA

Source of Variation	SS	df	MS	Cal. F	F crit*	F crit**
Between Groups	601.37	3	200.45	2.86***	2.68	3.95
Within Groups	8128.6	116	70.07			
Total	8729.97	119				

*0.05 level of significance, **0.01 level of Significance
*** Significant at 0.05 level of significance.

CD = 0.7821 at 5 per cent level of significance

This indicates that the respondents having marginal and small land holdings were experiencing higher levels of distress than the respondents having medium and big land holdings. It indicates that the marginal and small farmers were more victims of agrarian distress than others. This may be due to the poor resources, yield uncertainty, low income and low accessibility to the credit facilities, low economic viability and lack of opportunities for risk diversion among the group of these small and marginal farmers.

CONCLUSION

It can be concluded that the distress levels among cotton growers were high among majority of them. Though there were no significant differences among farmers hailing from three different districts, there were marked differences among marginal, small, medium and large farmer categories. The most distressed among them were marginal and small farmers. Among the components of distress, the sense of helplessness was found higher among these cotton farmers, as they felt really helpless about shortage of credit, non-remunerative prices, frequent crop failures, lack of support from community (neighbours, relatives, and friends), and lack of crop insurance, etc.

REFERENCES

1. Garnefski, Nadia, Ban, Netty and Kraaij Vivian (2005) Psychological distress and cognitive emotion regulation strategies among farmers who fell victim to the foot and mouth crisis *Personality and Individual Differences* **38**: (2005): 1317-1327. available on <http://www.sciencedirect.com>
2. Rao, Ramanuja; Rao, Narasimha, and R. Venkateshwarlu (2007) Farmers Suicides-A Sociological Perspective; *Kurukshetra*, **55** (8); 36-39.