Gujarat Journal of Extension Education Vol. 35 : Issue 1 : June 23 https://doi.org/10.56572/gjoee.2023.35.1.0007

ANTECENDENTS OF FARMERS WITH SPECIAL REFERENCE TO DROUGHT SITUATION

A. P. Ninama[1], J. K. Patel[2] And P. H. Vihariya[3]

1 Assistant Professor, Extension Education Institute, Anand Agricultural University, Anand, Gujarat- 388 110
2 Director, Extension Education Institute, Anand Agricultural University, Anand, Gujarat- 388 110
3 Senior Research Fellow, EEI, Anand Agricultural University, Anand, Gujarat- 388110
Email : arvindkumarp9964@gmail.com

ABSTRACT

The study was carried out in Ahmedabad and Botad district of Bhal region of Gujarat with 200 randomly selected farmers of 20 villages of five talukas. The Simple random sampling method and ex-post-facto research design was used for the present study. It was found that more than two third farmers of Bhal region had high to medium level of overall crisis management efficiency. The result also admitted that education, cosmopolitness, annual income, animal possessed, farm mass media exposure, extension participation, risk orientation, scientific orientation, deferred gratification, attitude towards mixed farming system, farming commitment and economic motivation had establish positive and highly significant relationship with their crisis management efficiency, whereas age and social participation had negative and significant relationship, while farming experience, cropping intensity, irrigation facility, landholding, credit orientation failed to show any significant influence on the crisis management efficiency of farmers of Bhal region. While in the case of constraints it can be stated that the there is no employment in the family except farming when there is more drought, crop insurance policies not feasible to farmers, economic hardship in case of drought due to limited source of income were the major constraints experienced by the farmers of Bhal region.

Keywords: *bhal, crisis management efficiency, drought, farmers*

INTRODUCTION

Drought is a unique natural hazard which through its multi-faceted characteristics causes damage to ecology, economy and society and hence drought management deserves dedicated policy with complex dynamics (Vinaya and Chauhan, 2018). Major parts of Gujarat suffer from recurrent droughts and farmers have several preventive and cultural methods in their arsenal that they can put together to build up a good crisis management and adaptation strategy to mitigate drought situation. The action of individual farmer is governed by personal, social, economical, communicational, situational and psychological factors involved in situation. A farmer shows different degree of perception towards various aspects of the farming because of the difference in their personal characteristics (Vinaya and Shivamurthy, 2021). Thus, it may be stated that the degree of perception of farmers of *Bhal* region towards farming differs with their personal, social, economical, communicational, situational and psychological characteristics. Hence, considering the importance of these characteristics and review of past research studies, an attempt has been made in this investigation to ascertain the relationship if any, between personal, socio-economic, communicational, situational and psychological characteristics farmers of *Bhal* region and their crisis management efficiency.

OBJECTIVES

(1) To study the crisis management efficiency to mitigate crisis related to drought situation

(2) To know the relationship between personal, socio, economic and psychological characteristics of farmers of *Bhal* region and their Crisis management efficiency

(3) To find out the constraints faced by farmers for managing crisis in drought situation

METHODOLOGY

Agro ecological situation containing Bhal region was selected for present study. Among them three talukas of Ahmedabad district and two talukas of Botad district was identify falling under the Bhal area. All the five talukas were carefully chosen, from each taluka, four villages were selected randomly. Thus, twenty villages were selected and from each village ten farmers were selected randomly. So, total 200 farmers selected as respondents for this investigation. The ex-post-facto research design was used for

the present study because the researcher has not any control over the independent variables of the selected farmers. Statistical methods of frequency, Karl Pearson's coefficient correlation (r) were used to calculate the relationship between characteristics of the farmers of Bhal region and their crisis management efficiency.

RESULT DISCUSSION

Overall crisis management efficiency of farmers of *bhal* region

Management efficiency is a level of performance that uses the optimum number of resources to create the greatest number of outputs. It is composite score index of all parameters of crisis management efficiency *viz.,* ability in planning, ability to coordinate activities, ability to organize activities, ability to make rational decision, ability to mobilize resources, problem solving ability, competence in evaluation of situation, opportunity recognition, knowledge about crisis management practices and timely adoption of crisis management practices for better output. The data regarding distribution of farmers of *Bhal* region according to their overall crisis management efficiency is presented in Table 2.

Table 1: Farmers of *Bhal* region according to their overall crisis management efficiency

(n = 200)

Sr. No.	Categories with score	Frequency	Per cent
1	Very low (0.00 to 20.00 per cent)	00	00.00
2	Low (20.01 to 40.00 per cent)	59	29.50
3	Medium (40.01 to 60.00 per cent)	59	29.50
4	High (60.01 to 80.00 per cent)	77	38.50
5	Very high (80.01 to 100.00)	05	02.50

The results unfolded that less than two-fifth (38.50 per cent) farmers of *Bhal* region had high level of overall crisis management efficiency, followed by 29.50 per cent each of them had medium and low level of overall crisis management efficiency. While only 02.50 per cent of them had very high level of overall crisis management efficiency and no *Bhal* farmer had very low level of crisis management efficiency.

The result admitted that more than two third (68.00 per cent) farmers of *Bhal* region had high to medium level of overall crisis management efficiency. The probable cause behind these results might be the attributed to high to medium level of majority indicators like ability in planning, ability to coordinate activities, ability to organize activities, ability to make rational decisions, timely adoption of crisis management practices, about crisis management practices, ability to mobilize resources and opportunity recognition ability, Whereas majority of the farmers of *Bhal* region had medium to high level of problem-solving ability and competence in evaluation of situation.

Relationship between personal, socio, economic and psychological characteristics of farmers of *bhal* region and their crisis management efficiency

A statistical method of Karl Pearson's coefficient correlation (r) was used to calculate relationship between the characteristics of farmers of *Bhal* region and their crisis management efficiency**.** The result obtained is dispensed in Table 2.

Table 2: Relationship between selected characteristics of farmers of *Bhal* region and their crisis management efficiency

(n = 200)

Sr. No.	Characteristics	Correlation coefficient
X_1	Age	-0.262**
X_2	Education	0.311**
X_3	Farming experience	-0.129 NS
X_4	Cosmopolitness	0.372**
X_5	Social participation	-0.193*
X_6	Annual Income	0.168*
X_7	Animal possessed	0.266**
X_8	Cropping intensity	0.113 NS
X_9	Irrigation facility	-0.120 NS
X_{10}	Land holding	-0.086 NS
X_{11}	Farm mass media exposure	0.232**
X_{12}	Extension participation	0.283**
X_{13}	Risk orientation	0.781**
X_{14}	Scientific orientation	0.740**
X_{15}	Credit orientation	-0.080 NS
X_{16}	Deferred gratification	0.794**
X_{17}	Attitude towards mixed farming system	0.841**
X_{18}	Farming commitment	0.834**
X_{19}	Economic motivation	0.605**

* Significant at 0.05 per cent level of probability

** Significant at 0.01 per cent level of probability

It can be depicted from the findings of Table 2 that education, cosmopolitness, annual income, animal possessed, farm mass media exposure, extension participation, risk orientation, scientific orientation, deferred gratification, attitude towards mixed farming system, farming commitment and economic motivation had establish positive and highly significant relationship with the crisis management efficiency of farmers of *Bhal* region, whereas age and social participation had negative and significant relationship with the crisis management efficiency of farmers of *Bhal* region. While farming experience, cropping intensity, irrigation facility, land holding, credit orientation failed to show any significant influence on the crisis management efficiency of farmers of Bhal region.

Constraints faced by farmers of *bhal* region for managing crisis

Constraints never end but they can be minimized. Constraints in this study were operationalized as the item of difficulties faced by the farmers of *Bhal* region in proper execution of farming in relation to drought situation.

Table 3: Farmers of *Bhal* region according to constraints faced by them in managing crisis

(n = 200)

Sr. No.	Constraints	Number of respondents		
		Frequency	Per cent	Rank
1	Economic hardship in case of drought due to limited source of income	77	38.50	III
2	There is no employment in the family except farming there is more drought	91	45.50	I
3	Non availability of loan for purchase of agricultural input and fodder	63	31.50	VI
4	Shortage of labours due to migration	43	21.50	VII
5	Less interest shown by youth of family in farming	39	19.50	VIII
6	Green fodder production and mixed farming not possible due to limited irrigation facilities	65	32.50	V
7	Lengthy procedure and formalities for getting loan	68	34.00	IV
8	Poor knowledge about livestock and crop insurance	36	18.00	IX
9	Crop insurance policies not feasible to farmers	79	39.50	II

The farmers of *Bhal* region were requested to express the constraints faced by them. The results regarding the same are summarized in Table 3. A critical look at the data given in table bring into focus that among the various constraints faced by the farmers of *Bhal* region, there is no employment in the family except farming when there is more drought (45.50 per cent) ranked first, followed by crop insurance policies not feasible to farmers (39.50 per cent), economic hardship in case of drought due to limited source of income (38.50 per cent), lengthy procedure and formalities in getting loan (34.00 per cent),green fodder production and mixed farming not possible due to limited irrigation facilities (32.50 per cent), non-availability of loan for purchase of agricultural input and fodder (31.50 per cent), shortage of labours due to migration (21.50 per cent) and less interest shown by youth of family in farming (19.50 per cent), Poor knowledge about livestock and crop insurance (18.00 per cent) which ranked 2nd, 3rd, 4th, 5th, 6th, 7th, 8th and 9th respectively.

CONCLUSION

It can be concluded from the findings that more than two third farmers of *Bhal* region had high to medium level of overall crisis management efficiency. The result also admitted that education, cosmopolitness, annual income, animal possessed, farm mass media exposure, extension participation, risk orientation, scientific orientation, deferred gratification, attitude towards mixed farming system, farming commitment and economic motivation had establish positively influenced on the crisis management efficiency of farmers of *Bhal* region, whereas age and social participation had negative influence on the crisis management efficiency of farmers of *Bhal* region. While irrespective of farming experience, cropping intensity, irrigation facility, land holding and credit orientation were alive and did not play any significant role in determining crisis management efficiency of farmers of *Bhal* region. While in the case of constraints it can be stated that the there is no employment in the family except farming when there is more drought, crop insurance policies not feasible to farmers, economic hardship in case of drought due to limited source of income were the major constraints experienced by the farmers of *Bhal* region.

CONFLICT OF INTEREST

This is to declare that there is “No conflict of interest” among researcher.

REFERENCES

Birajdar, V. M. (2012). A study on management efficiency of cut flower growers. (Doctoral thesis, UAS,

Dharwad).

Chaudhary, M.V. & Khodifad, P.B. (2017). Management efficiency of banana growers and its determinants in Navsari district of South Gujarat. *Guj. J. of Ext. Edu.,* special issue on National seminar: 91-93.

Darandale,A. A. and Bhatt,P. M. (2008).Relationship between characteristics of cotton growers and their management efficiency. *Guj. J. of Ext. Edu.,* 15-19:90-91.

Devi, L. G., Khandekar, P. & Chandrappa, T. (2014). A study on Management Efficiency of Dairy Entrepreneurs, *Indian Res. J. Ext. Edu.,*14(1): 1-3.

Jaiswal, P. K. (2011). Management efficiency of horticultural nursery growers in middle Gujarat (Master's thesis, AAU, Anand).

Malik, C. P. (1994). A study of Crisis management and adaptation patterns by the tribal farmers to drought situation in Panchmahal district of Gujarat State. (Doctoral thesis, GAU, S.K. Nagar).

Mande, J. V. (2015). Management efficiency of grape growers. (Doctoral thesis, MPKV, Rahuri).

Patel, H.B., Bhatt, P.M. & Soni, N.V. (2011). Management efficiency and economic performance of marginal, small and medium banana growers. *Guj. J. of Ext. Edu.,* 22:110-112.

Patel, S. R. (2006). A study on managerial efficiency of aonla growers of Anand and Kheda district of Gujarat State (Doctoral thesis, AAU, Anand).

Ramegowda, B. L. (1991). Crisis management by Farmers-An Analysis (Doctoral thesis, UAS, Dharward).

Sonewane, A.D. (2010). Management ability of banana growers regarding drip system in Anand Vadodara districts of Gujarat state (Master's thesis, AAU, Anand).

Thorat, G. N., Vahora, S. G., & Trivedi, M. M., (2016) Management efficiency of poultry owners. *Guj. J. of Ext. Edu.,* 27 (1). 384-387.

Vinaya Kumar H. M., and Shivamurthy, M. (2021). Factor influencing fishery-based farmers' perception and their response to climate-induced crisis management. Environ. Dev. Sustain., 23, 11766–11791. Springer, https://doi.org/10.1007/s10668-020-01141-x

Vinaya Kumar, H. M. and Chauhan N. B. (2018). Farming Crisis and way forward. 'ISEE National seminar'-2018, 5-7 December 2018, Kolkata.

Received : January 2023 : Accepted : March 2023