

GROUP DYNAMICS OF FARMER/COMMUNITY INTEREST GROUPS WORKING UNDER ATMA

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ABSTRACT

Agriculture is the largest unorganized sector in India. Still the farmers never have any vibrant model to organize themselves. In this situation farmers' organizations have its prime importance. The formation / promotion / mobilization of Farmer Interest Groups (FIGs) / Commodity Interest Groups (CIGs) is one of the main activities of Agriculture Technology Management Agency (ATMA) project. Study was conducted in the six district of South Gujarat, five FIGs / CIGs working under ATMA from each district were selected randomly from the list of FIGs/CIGs. Ten respondents (group members) from each group were selected randomly. Thus, total 300 respondents were interviewed for this study. In the present study, 'Group Dynamics' of the FIGs / CIGs members were quantified with the help of an index called 'Group Dynamics Index (GDI)'. The majority of the members of FIG/CIG are from middle to old age group, having middle school education, living in nuclear family, farming + animal husbandry as main occupation, land holding up to 1 ha., keeping small size of herd, medium level of farming experience, income between Rs. 50,000 to 1 lakh, participated in 2-3 organizations, received two trainings, medium extension contacts, mass media exposure, economic orientation, risk orientation and low market orientation. The members exhibited moderate to strong group dynamics pattern. Highly significant association of 8 identified independent variables found with group dynamics. Stepwise regression shows that 3 variables viz., Economic orientation, Extension contacts and Market orientation have positive maximum effect on Group Dynamics.

Key words: *farmer interest groups, commodity interest groups, agriculture technology management agency, group dynamics, association.*

INTRODUCTION

Agriculture is the largest unorganized sector in India. Still the farmers never have any vibrant model to organize themselves. In this situation farmers' organizations have its prime importance. Farmers organizations in India include farmers groups, Farmer Interest Groups (FIGs), Commodity Interest Groups (CIGs), farmers associations, federations, Self Help Groups (SHGs), farmer unions and agricultural cooperatives. The formation / promotion / mobilization of FIG/CIG is one of the main activities of ATMA project. FIGs/CIGs being promoted for all major commodities and ATMA monitor the functioning of FIGs/CIGs on a regular basis (Anonymous, 2018; Patel et al., 2018). The group provides a base for farmers' empowerment through group dynamics approach. Group dynamics of clubs could be one of the determinants for effectiveness of clubs (Sreevalsan *et al.*, 2012). Group dynamics is operationalized in this study as the interaction forces among group members in the group, how the group were formed, their structure, process, and how do they function and effect of individual members,

other groups and the organization. Keeping all this views in mind, the present research study was taken with the following objectives.

OBJECTIVES

- (1) To study the profile of the respondents
- (2) To analyse the group dynamics among the members of FIGs / CIGs
- (3) To find out the association among the group dynamics and independent variables
- (4) To identify the constraints in enhancement of the group dynamics

METHODOLOGY

First year study was conducted in two districts viz, Navsari and Valsad, Second year study was conducted in two districts viz, Surat and Tapi and Third year study was conducted in two districts viz, Dang and Bharuch. Five FIGs

/ CIGs working under ATMA from each district were selected randomly from the list of FIGs/CIGs. Ten respondents (group members) from each group were selected randomly. Thus, total 300 respondents were interviewed for this study. In the present study, 'Group Dynamics' of the FIGs / CIGs members were quantified with the help of an index called 'Group Dynamics Index (GDI)' developed by Poornima (2005), consisting of 10 dimensions such as Participation, Team work, Decision making procedures, Task functions, Group atmosphere, Group cohesiveness, Group leadership, Interpersonal trust, Task function and Achievements of FIG/CIG.

The data were collected by the personal interview method and were tabulated, analyzed with appropriate statistical tools and interpreted in the light of the objectives.

RESULTS AND DISCUSSION

Personal profile of the respondents

(1) Age

The pooled data presented in Table 1(1) shows that nearly equal (40.00 and 39.33 per cent) of the respondents were in old and middle age group, followed by 20.67 per cent of the respondents belongs to young age group.

(2) Education

The pooled data in table 1(2) shows that more than one third (35.33 per cent) of the respondents were educated up to middle school level, followed by 23.67, 19.00 and 12.00 per cent of the respondents were educated up to primary, high school and college level, respectively. 10.00 per cent respondents were illiterate.

(3) Family type

It was observed from the pooled data presented in Table 1(3) that majority (74.00 per cent) of the respondents belongs to nuclear family, while 26.00 per cent respondents belongs to joint family.

1.4 Family size

The pooled data in table 1(4) indicate that majority (59.00 per cent) of the respondents were having small size of family, followed by 36.67 and 04.33 per cent of the respondents were having medium and large family size, respectively.

(5) Occupation

The pooled data presented in Table 1(5) shows that more than half (57.67 per cent) of the respondents were

engaged in farming + animal husbandry as occupation, followed by 27.67, 08.33 and 05.33 per cent of the respondents were engaged in farming, service + farming and farming + business as occupation, respectively. Only 01.00 per cent of the respondent had animal husbandry alone as occupation.

(6) Land holding

The pooled data presented in Table 1(6) shows that half (49.67 per cent) of the respondents possessed land up to 1.00 ha followed by 24.33, 17.00 and 09.00 per cent of the respondents possessed 1.01 – 2.00 ha, 2.01 - 4.00 ha and 4.01 – 10.00 ha of land, respectively.

(7) Herd size

The pooled data presented in table 1(7) indicate that majority (80.33 per cent) of the respondents were having small size of herd, followed by 14.33 and 05.33 per cent of the respondents were having medium and large herd size, respectively.

(8) Farming experience

It was observed from the pooled data presented in Table 1(8) that two fifth (40.33 per cent) of the respondents had medium level of farming experience, followed by 33.00 and 26.67 per cent respondents had high and low level of farming experience, respectively.

(9) Annual Income

It is apparent from the pooled data in Table 1(9) that more than one third (35.33 per cent) of the respondents had annual income between ₹ 50,000/- to 1,00,000/- followed by 28.67, 16.33, 10.00 and 09.67 per cent of the respondents had annual income between ₹ 1,00,001 to 2,00,000, up to ₹ 50,000, ₹ 2,00,001 to 3,00,000 and above ₹ 3,00,000, respectively.

(10) Social participation

The pooled data in Table 1(10) revealed that about half (48.33 per cent) of the respondents were participated in 2 to 3 social organizations followed by 26.33, 16.00 and 09.33 per cent of the respondents were participated in 1, more than 3 and holding position in social organizations.

(11) Training received

It was observed from the pooled data presented in Table 1(11) that more than one third (34.67 per cent) of the respondents were received two training followed by 30.33, 18.33 and 16.67 per cent were received one training, more than two training and no training, respectively.

Table 1: Distribution of respondents according to their personal characteristics

(Pooled n=300)

Sr. No.	Personal Characteristics	Frequency & Percentage			
		1 st Year	2 nd Year	3 rd Year	Pooled
1	Age group				
1	Young (up to 35 years)	10	36	16	62 (20.67)
2	Middle (36 to 50 years)	48	35	35	118 (39.33)
3	Old (50 years and above)	42	29	49	120 (40.00)
2	Level of Education				
1	Illiterate	13	11	06	30 (10.00)
2	Up to primary school level	12	23	36	71 (23.67)
3	Up to middle school level	45	39	22	106 (35.33)
4	Up to high school level	12	18	27	57 (19.00)
5	College and above	18	09	09	36 (12.00)
3	Family type				
1	Nuclear family	76	78	68	222 (74.00)
2	Join family	24	22	32	78 (26.00)
4	Family size				
1	Small size (1-5 members)	68	57	52	177 (59.00)
2	Medium size (6-10 members)	26	42	42	110 (36.67)
3	Large size (>10 members)	06	01	06	13 (04.33)
5	Occupation				
1	Animal Husbandry	01	02	00	3 (01.00)
2	Farming	34	18	31	83 (27.67)
3	Farming + Animal Husbandry	46	69	58	173 (57.67)
4	Farming + Business	11	02	03	16 (05.33)
5	Service + Farming	08	09	08	25 (08.33)
6	Land Holding				
1	0.00 – 1.00 ha	54	74	21	149 (49.67)
2	1.01 – 2.00 ha	24	18	31	73 (24.33)
3	2.01 – 4.00 ha	16	07	28	51 (17.00)
4	4.01 – 10.00 ha	06	01	20	27 (09.00)
7	Herd size				
1	Small size (1-4 animals)	89	82	70	241 (80.33)
2	Medium size (5-8 animals)	06	16	21	43 (14.33)
3	Large size (>8 animals)	05	02	09	16 (05.33)
8	Farming experience				
1	Low level (1-15 years)	11	47	22	80 (26.67)
2	Medium level (16-30 years)	48	32	41	121 (40.33)
3	High level (>30 years)	41	21	37	99 (33.00)
9	Annual Income				
1	Up to ₹ 50,000	11	22	16	49 (16.33)
2	₹ 50,001 to 1,00,000	32	35	39	106 (35.33)
3	₹ 1,00,001 to 2,00,000	27	28	31	86 (28.67)
4	₹ 2,00,001 to 3,00,000	14	05	11	30 (10.00)
5	Above ₹ 3,00,000/-	16	10	03	29 (09.67)

Sr. No.	Personal Characteristics	Frequency & Percentage			
		1 st Year	2 nd Year	3 rd Year	Pooled
10	Social Participation				
1	Participated in 1	30	03	46	79 (26.33)
2	Participated in 2-3	48	55	42	145 (48.33)
3	Participated in >3	15	22	11	48 (16.00)
4	Holding position	07	20	01	28 (09.33)
11	Training received				
1	No training	23	10	17	50 (16.67)
2	One training	40	22	29	91 (30.33)
3	Two training	28	47	29	104 (34.67)
4	More than 2 training	09	21	25	55 (18.33)
12	Extension contact				
1	Low extension contact	14	28	28	107 (35.67)
2	Medium extension contact	74	61	64	165 (55.00)
3	High extension contact	12	11	08	28 (09.33)
13	Mass media exposure				
1	Low exposure	36	33	28	97 (32.33)
2	Medium exposure	59	47	62	168 (56.00)
3	High exposure	05	20	10	35 (11.67)
14	Economic orientation				
1	Low economic orientation	11	42	54	107 (35.67)
2	Medium economic orientation	74	41	29	144 (48.00)
3	High economic orientation	15	17	17	49 (16.33)
15	Risk orientation				
1	Low risk orientation	23	33	29	78 (26.00)
2	Medium risk orientation	61	47	59	182 (60.67)
3	High risk orientation	16	20	12	40 (13.33)
16	Market orientation				
1	Low market orientation	11	47	54	132 (44.00)
2	Medium market orientation	64	32	22	98 (32.67)
3	High market orientation	25	21	24	70 (23.33)

(12) Extension contact

The pooled data presented in Table 1(12) revealed that more than half (55.00 per cent) of the respondents were found to have medium level of extension contact while, 35.67 and 09.33 per cent of the respondents had low and high level of extension contact, respectively.

(13) Mass media exposure

It is apparent from the pooled data in Table 1(13) that more than half (56.00 per cent) of the respondents were found to have medium exposure to mass media while, 32.33

and 11.67 per cent of the respondents had low and high level of exposure to mass media, respectively.

(14) Economic orientation

It was observed from the pooled data presented in Table 1(14) that nearly half (48.00 per cent) of the respondents were found to have medium level of economic orientation while, 35.67 and 16.33 per cent of the respondents had low and high level of economic orientation, respectively.

(15) Risk orientation

The pooled data presented in Table 1(15) revealed

that three fifth (60.67 per cent) of the respondents were found to have medium level of risk orientation while, 26.00 and 13.33 per cent of the respondents had low and high level of risk orientation, respectively.

(16) Market orientation

It is apparent from the pooled data in Table 1(16) that more than two fifth (44.00 per cent) of the respondents were found to have low market orientation while, 32.67 and 23.33 per cent of the respondents had medium and high level of market orientation, respectively.

Table 2: Group dynamics among the members of FIGs/CIGs

(Pooled n=300)

Sr. No.	Indicators of group dynamics	Group Dynamics Index			
		1 st Year	2 nd Year	3 rd Year	Pooled
1	Participation	0.69	0.72	0.71	0.71
2	Team work	0.70	0.72	0.71	0.71
3	Group atmosphere	0.72	0.73	0.71	0.72
4	Decision making	0.71	0.71	0.68	0.70
5	Group cohesiveness	0.70	0.72	0.70	0.71
6	Group leadership	0.70	0.75	0.72	0.72
7	Interpersonal trust	0.73	0.73	0.72	0.73
8	Task function	0.58	0.57	0.56	0.57
9	Group achievement	0.55	0.67	0.65	0.63
10	Member achievement	0.55	0.66	0.64	0.62
	Overall mean index	0.66	0.70	0.68	0.68

The first year data presented in the table 2 shows that the interpersonal trust, group atmosphere and decision making index contributes highly (0.73, 0.72 and 0.71) towards the group dynamics of members. It could be further inferred that members of FIG/CIG exhibited more team work, group cohesiveness and group leadership (all three 0.70). Task function, group level achievement and members level achievement were found to be low than the overall mean index.

The second year data presented in the table 2 shows that the group leadership, group atmosphere and interpersonal trust index contributes highly (0.75, 0.73 and 0.73) towards the group dynamics of members. It could be further inferred that members of FIG/CIG exhibited more participation, team work, group cohesiveness and decision making. Task function, group level achievement and members' level achievement were found to be low than the overall mean index.

The third year data presented in the table 2 shows that the group leadership and interpersonal trust index contributes highly (0.72 each) towards the group dynamics of members. It could be further inferred that members of FIG/CIG exhibited more participation, team work, group atmosphere, group cohesiveness and decision making. Task function, group level achievement and members' level achievement were found to

Group dynamics among the members of FIGs / CIGs

Group dynamics was operationalised as an extent to which the perceived selected components/indicators exists at a given point of time. Attempts have been made to measure the existing group dynamics among members of FIGs/CIGs by taking the components of group dynamics into consideration. Component wise indexes worked out from the obtained scores have been presented in Table 2.

be low than the overall mean index.

The pooled data presented in the table 2 shows that the interpersonal trust, group leadership and group atmosphere index contributes highly (0.73, 0.72 and 0.72) towards the group dynamics of members. It could be further inferred that members of FIG/CIG exhibited more participation, team work, group cohesiveness and decision making. Task function, member level achievement and group level achievement were found to be low than the overall mean index, it was observed during the study that, this might be due to the FIG/CIG conducted meetings, demonstrations, farm school, exposure visits and training programs but joint ventures by the groups were very rare. This finding has been supported by the finding of Darsana and Ravichandran (2014) and Ghetiya *et al.* (2019).

Association between the group dynamics and independent variables

Group dynamics of FIG/CIG is not a unit act but a complex process involving sequence of action and activities. The action of individual group member is governed by socio, personal, and psychological characteristics involved in a particular situation. Association between the group dynamics and independent variables have been presented in Table 3.

Table 3: Association between the group dynamics and independent variables

(Pooled n=300)

Sr. No.	Variables	Correlation coefficient (r)			
		1 st Year	2 nd Year	3 rd Year	Pooled
X ₁	Age	-0.20673*	0.19660*	-0.04248 ^{NS}	0.11281 ^{NS}
X ₂	Education	0.52555**	0.35161**	0.20084*	0.29907**
X ₃	Family type	0.09882 ^{NS}	-0.06905 ^{NS}	-0.08940 ^{NS}	-0.00059 ^{NS}
X ₄	Family size	-0.02247 ^{NS}	-0.08719 ^{NS}	-0.06190 ^{NS}	-0.02087 ^{NS}
X ₅	Occupation	-0.08954 ^{NS}	-0.02987 ^{NS}	-0.05933 ^{NS}	-0.01512 ^{NS}
X ₆	Annual Income	0.16876 ^{NS}	0.26858**	0.22837*	0.28636**
X ₇	Land Holding	0.12535 ^{NS}	0.23777*	0.06098 ^{NS}	0.02429 ^{NS}
X ₈	Herd size	0.22836*	0.20072*	0.12336 ^{NS}	-0.01835 ^{NS}
X ₉	Social Participation	0.31759**	0.66896**	0.26507**	0.27518**
X ₁₀	Extension contacts	0.33592**	0.72015**	0.53675**	0.61481**
X ₁₁	Mass media exposure	0.42886**	0.63448**	0.45752**	0.32534**
X ₁₂	Training received	0.46801**	0.62212**	0.45177**	0.23964*
X ₁₃	Farming experience	-0.23059*	0.13002 ^{NS}	-0.00812 ^{NS}	0.14773 ^{NS}
X ₁₄	Economic orientation	0.53915**	0.80777**	0.76063**	0.70793**
X ₁₅	Risk orientation	0.64837**	0.73866**	0.71680**	0.44618**
X ₁₆	Market orientation	0.62819**	0.72240**	0.71529**	0.65714**

* Significant at 5 per cent level, ** Highly significant at 1 per cent level, ^{NS} Non significant

In the first year, among the 16 identified independent variables, it was found from the table 3 that, 8 variables viz., education, social participation, extension contacts, mass media exposure, training received, economic orientation, risk orientation and market orientation were positively and significantly related with the dependent variable “group dynamics”, at one per cent level of significance. Herd size positively and significantly related with the group dynamics while age and farming experience negatively related with the group dynamics. However, it was seen that five variables namely family type, family size, occupation, annual income and land holding did not have any significant relationship with the dependent variable.

In the second year, Among the 16 identified independent variables, it was found from the table 3 that, 9 variables viz., education, annual income, social participation, extension contacts, mass media exposure, training received, economic orientation, risk orientation and market orientation were positively and significantly related with the dependent variable “group dynamics”, at one per cent level of significance. Age, land holding and herd size were positively and significantly related with the group dynamics. However, it was seen that four variables namely family type, family size, occupation and farming experience did not have any significant relationship with the dependent variable.

In the third year, among the 16 identified independent variables, it was found from the table 3 that, 7 variables viz.,

social participation, extension contacts, mass media exposure, training received, economic orientation, risk orientation and market orientation were positively and significantly related with the dependent variable “group dynamics”, at one per cent level of significance. Education and annual income were positively and significantly related with the group dynamics. However, it was seen that seven variables namely age, family type, family size, occupation, land holding, herd size and farming experience did not have any significant relationship with the dependent variable. This finding has been supported by the finding of Kharade and Patel (2021) and Patil (2021).

The pooled data shows that among the 16 identified independent variables, it was found from the table 3 that, 8 variables viz., education, annual income, social participation, extension contacts, mass media exposure, economic orientation, risk orientation and market orientation were positively and significantly related with the dependent variable “group dynamics”, at one per cent level of significance. Training received was positively and significantly related with the group dynamics. However, it was seen that seven variables namely age, family type, family size, occupation, land holding, herd size and farming experience did not have any significant relationship with the dependent variable.

Stepwise Regression between the group dynamics and independent variables was also carried out to find out the variables with maximum effect, presented in Table 4.

Table 4: Stepwise regression between the group dynamics and independent variables: (n=300)

Sr. No.	Variables	Coefficient of Regression	Std. Error
X ₁₄	Economic orientation	21.110	2.763
X ₁₀	Extension contacts	10.003	1.294
X ₁₆	Market orientation	10.081	2.190
X ₇	Land Holding	-7.267	2.318
X ₉	Social Participation	-6.652	2.854
X ₁₁	Mass media exposure	-6.219	2.498
X ₄	Family size	-1.753	0.870

* Dependent Variable: Group Dynamics, * Adjusted R Square: 0.626

Among the 16 identified independent variables, it was found from the table 4 that, 3 variables viz., Economic orientation, Extension contacts and Market orientation have positive maximum effect on Group Dynamics, while 4 variables viz., Land Holding, Social Participation, Mass media exposure and Family size have negative effect on Group Dynamics.

Constraints faced by member respondents of FIG/CIG

The respondents were asked to describe any

Table 5: Ranking of constraints faced by member respondents of FIG/CIG (n=300)

Sr. No.	Constraints	Rank		
		1 st Year	2 nd Year	3 rd Year
A	General constraints			
1	Poor economic condition	V	III	V
2	Lack of education	VI	IX	X
3	Lack of irrigation facility	IV	V	IV
4	Shortage of labour	II	IV	II
5	Low profit due to low rate of produce	III	II	III
6	Monopoly of buyer/agents	VII	VII	VI
7	Lack of storage facility/capacity	XI	VIII	VII
8	High cost of inputs	I	I	I
9	Lack of loan facility	IX	X	IX
10	Damage to crop by pig/peacock/blue bull	VIII	-	VIII
11	Shortage of electricity	-	-	XII
12	Crop damage due to flood	-	-	XIII
13	Damage to crop due to polluted air/water	-	-	XI
B	Constraints related to FIG/CIG			
1	Personal and local problems interrupt in group activities	X	-	-
2	Lack of time due to family burden	XII	VI	-

In the third year, it can be seen from the table 5 that, 'High cost of inputs' ranked first, while 'Shortage of labour' and 'Low profit due to low rate of produce' ranked second and third respectively. Other constraints viz., Lack of Irrigation facility, Poor Economic condition, Monopoly

constraints faced by them in empowerment of farmers as a member of FIG/CIG. The responses thus received were ranked as per table 4, according to the number of members facing the constraints.

In the first year, it can be seen from the table 4 that, 'High cost of inputs' ranked first, while 'Shortage of labour' and 'Low profit due to low rate of produce' ranked second and third respectively. Other constraints viz., Lack of Irrigation facility, Poor Economic condition, Lack of Education, Monopoly of buyer/agents, Damage to crop by Pig/Peacock, Lack of loan facility, Personal and local problems interrupt in group activities, Lack of storage facility/capacity and Lack of time due to family burden were the major constraints faced by the members. This finding has been supported by the finding of Mathuabirami and Kalaivani (2021), Patil et al. (2024) and Bariya et al. (2023).

In the second year, it can be seen from the table 4 that, 'High cost of inputs' ranked first, while 'Low profit due to low rate of produce' and 'Poor Economic condition' ranked second and third respectively. Other constraints viz., shortage of labour, lack of irrigation facility, lack of time due to family burden, monopoly of buyer/agents, lack of storage facility/capacity, lack of education and lack of loan facility were the major constraints faced by the members (Table 5).

of buyer/agents, Lack of storage facility/capacity, Damage to crop by Pig/Peacock/blue bull, Lack of loan facility, Lack of Education, Damage to crop due to polluted air/water, Shortage of electricity, Crop damage due to flood, were the major constraints faced by the members.

CONCLUSION

From the results of present study, it can be concluded that the majority of the members of FIG/CIG are from middle to old age group, having middle school education, living in nuclear family, farming + animal husbandry as main occupation, land holding up to 1 ha., keeping small size of herd, medium level of farming experience, income between Rs. 50,000 to 1 lakh, participated in 2-3 organizations, received two trainings, medium extension contacts, mass media exposure, economic orientation, risk orientation and low market orientation. The members exhibited moderate to strong group dynamics pattern. Highly significant association of 8 identified independent variables found with group dynamics. Stepwise regression shows that 3 variables viz., Economic orientation, Extension contacts and Market orientation have positive maximum effect on Group Dynamics. The identified constraints of FIG/CIGs give an idea to take action to solve it, for the empowerment of FIG/CIG members.

MESSAGE FOR POLICY MAKERS/ EXTENSION WORKERS

Extension officers of ATMA project are advised to emphasize on the three dimensions of group dynamics viz. interpersonal trust, group leadership and group atmosphere in order to empower group functioning through the members. Moreover, economic orientation, extension contacts and market orientation factors/aspects of groups should also be prioritized.

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CONFLICT OF INTEREST

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

REFERENCES

Anonymous (2018). ATMA Guidelines under Krishonnati Yojana. Directorate of Extension, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, GoI, KrishiBhawan, New Delhi, 99p.

Bariya, Minaxi K., Chandravadia, Kiran and Gami, Hansa (2023) Social empowerment of women

through self help groups. *Gujarat Journal of Extension Education*, 35(1):104-108. <https://doi.org/10.56572/gjoeec.2023.35.1.0022>.

Darsana, S. and Ravichandran, V. (2014). Group Dynamics among The Members of NABARD Farmers' Clubs. *Inter. J. of Exten. Edu.* 10: 156-58.

Ghetiya, N. G., Patel J. B. and Patel, P. C. (2019). Awareness of members of farmers interest group about significance of agricultural technology management agency. *Guj. J. Ext. Edu.* 30(2):122-124. <https://extensionreforms.da.gov.in/PDF/atmaguid23814.pdf>

Kharade, P. P. and Patel, J. K. (2021). Relationship between profile of ATMA beneficiary farmers and their perceived effectiveness of ATMA. *Guj. J. Ext. Edu.* 32(1):80-84.

Mathuabirami V. and Kalaivani S. (2021). Constraints in functioning of tribal FIGs and suggestions offered for effective functioning of tribal FIGs. *J. of Pharmacognosy and Phytochemistry*; Sp 10(2): 120-122.

Patel, J. B., Chauhan, N. B. and Vinaya Kumar, H. M. (2018). Relationship between attitude of farmers towards FIG and their profile in Anand district of Gujarat. *Guj. J. Ext. Edu.*, 29 (2): 174-177.

Patil C. N., Patel, J. K. and Bellagi, R. D. (2021). Relationship between characteristics of SHG members and their group dynamics effectiveness index. *Guj. J. Ext. Edu.* 32(2):140-143.

Patil, Chethan N. D., Patel, J. K. and Bellagi, Rahul Dundesh (2024) A scale to measure the group dynamics effectiveness of the members of self-help groups. *Gujarat Journal of Extension Education*, 37(1):125-133. <https://doi.org/10.56572/gjoeec.2024.37.1.0021>

Poornima, K. S. (2005). Women self help group dynamics in North coastal zone of Andhra Pradesh. Unpublished Ph. D. thesis, Acharya N.G. Ranga Agricultural University, 110p.

Sreevalsan, J., Jojo Anto and Sowmya, C. (2012). Effectiveness of farmer groups-the case of Pananchery farmers' club. *Inter. J. of Recent Scientific Res.* 3(2): 86-90.