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Profile and constraints faced by the beneficiaries of farmer first programme

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Abstract

The Directorate of Extension Education, Navsari Agricultural University had implemented a project titled "Ensuring livelihood security for small and marginal farmers of South Gujarat" under Farmer FIRST Programme in 2017. The study was carried out during the year 2021. Objectives of the study were to study the personal profile of beneficiary farmers under FFP and to identify the constraints perceived by beneficiary farmers and seek their suggestion for developing extension strategy. The study was conducted in South Gujrat region. Navsari district was purposively selected since the Farmer FIRST Programme was implemented in Navsari district. Two talukas of Navsari District, namely Jalalpore and Gandevi were purposively selected Farmer FIRST Programme (FFP) was implemented in for the study. Hansapore, and Chijgam villages from Jalalpore taluka and Pathri village from Gandevi taluka were purposively selected. Majority of the beneficiary farmers were belonged to middle age group with high school level education, having farming with animal husbandry as their main occupation. They also belonged to nuclear family and had marginal land holding, income of Rs. 1,00,001 to 1,50,000, membership in more than one organization. They also had medium level of extension contact, innovativeness, economic motivation, scientific orientation and risk orientation. Major constraints perceived by the beneficiary farmers were unavailability of land, unpunctuality by staff in the meetings, some decisions were made with contact farmers without consulting other farmers, lack of clear understanding of project objectives and major suggestions offered by the beneficiary farmers were development programmes for small and marginal farmers, timely conduct of meetings, consult all the farmers in decision making, bring awareness about FFP and motivate the farmers.

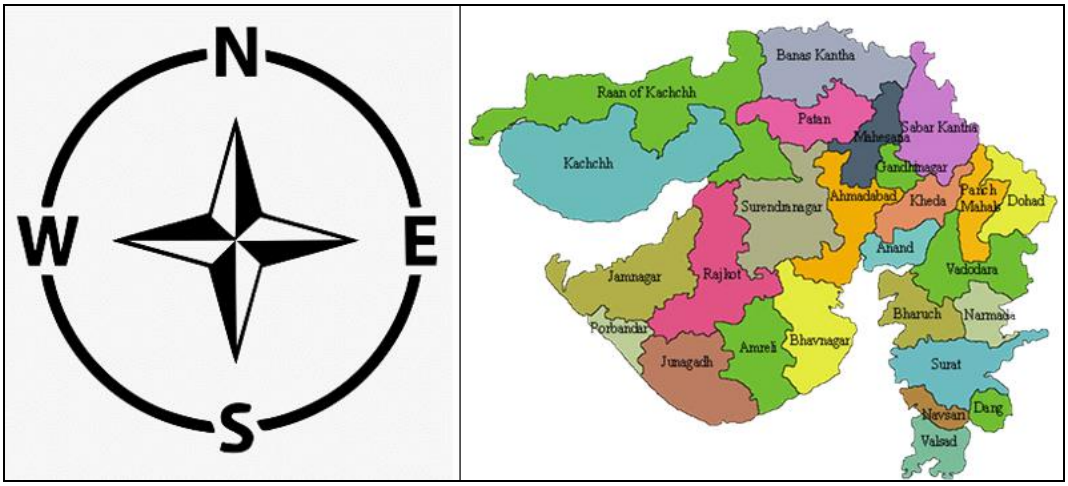
Keywords: FFP, crop based module, horticulture based module, NRM based module, IFS based module and vermicompost

Introduction

The Farmer FIRST Programme was launched by ICAR in October 2016. It aims to go beyond production and productivity aspects in agriculture. It focuses on enhancing knowledge and integrating technology for farmers. ICAR has launched this program in XI ATARI Zones, which are externally funded. Navsari Agricultural University falling under ICAR-ATARI Zone-VIII Pune had implemented this initiative in Navsari District of South Gujarat. In 2017, the Directorate of Extension Education, Navsari Agricultural University had implemented a project titled "Ensuring livelihood security for small and marginal farmers of South Gujarat." This project included six modules *i.e.* Crop-based, Horticulture-based, Integrated Farming System-based, Natural Resource Management-based, Livestock-based, and Entrepreneurship-based modules. There was not a single study conducted and reported so far on this important project in the Gujarat area. Hence, an attempt was made to study the "Profile and Constraints faced by the Beneficiaries of Farmer FIRST Programme" This leads to addressing of some questions. i.e. What is the profile of beneficiary farmers that affecting their knowledge, adoption of demonstrated technologies and impact created by these technologies on livelihood security of farmers? What are the constraints faced by the beneficiary farmers during implementation of FFP and suggestion given by them to overcome the constraints? Objectives of the study were to study the personal profile of beneficiary farmers under FFP and to identify the constraints perceived by beneficiary farmers and seek their suggestion for developing extension strategy. The findings about profile will help to get an idea on basic characteristics of the beneficiaries for enhancing the scope of farmers inclusion in the programme. The findings about the constraints as expressed by beneficiary farmers along with their suggestions will be used as guidelines for modifying and formulating the future strategies.

Methodology

The study was conducted in South Gujrat region during the year 2021 and the reason behind the selection was the limitation of Navsari Agricultural University functioning to this area and the study was part of Pg programme of research scholar in the university. South Gujrat region consists of seven districts namely Surat, Navsari, Valsad, Dang, Tapi, Bharuch and Narmada. Out of these districts Navsari district was purposively selected for the present investigation because Farmer FIRST Programme was implemented in Navsari district. Out of six talukas of Navsari District, Farmer FIRST Programme (FFP) was implemented in two talukas, namely Jalalpore and Gandevi. Thus, two talukas were purposively selected for the study. Farmer FIRST Programme (FFP) was implemented in the three villages of Navsari district, namely Hansapore, Chijgam and Pathri. Thus, total three villages were selected for the study.



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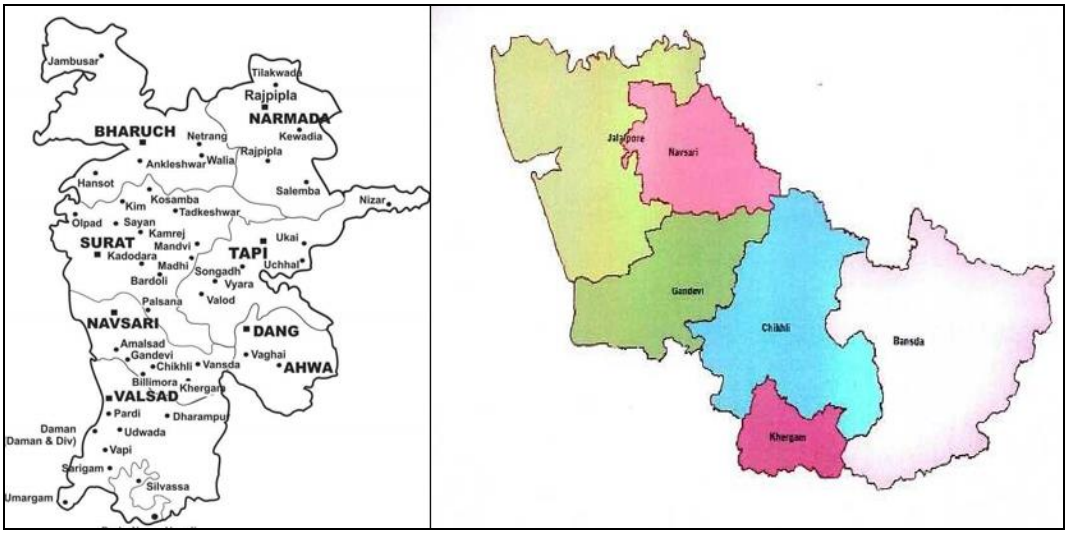

South Gujarat **Navsari District**

Fig 1: Map of the Navsari District showing selected talukas

"Ex-post facto research design" was used in the current investigation as the events have already occurred and design was considered appropriate. The list of number of the beneficiary farmers of all six modules was obtained. From each module, farmers were proportionally randomly selected *i.e.* 26, 34, 10, 25, 19 and 6 from Crop-based, Horticulture-based, Integrated Farming System-based, Natural Resource Management-based, Livestock-based, and Entrepreneurship-based module, respectively. Thus, the sample size was 120 respondents for the present study. Twelve independent variables were selected for the study. For age Chronological age of respondents in completed years was considered. For education, occupation, type of family, land holding, annual income and social participation scale developed by Pandya (2010) [9] was used with due modifications. For extension contact scale developed by Patil (1994) was used with due modifications. For innovativeness schedule was developed. For economic motivation, scientific orientation and risk orientation scale developed by Supe (1969) was used with due modifications. The beneficiary farmers were asked to mention the constraints experienced in implementation of FFP. These were considered as constraints and all were noted down in the interview schedule in abstract form and converted into frequency and percentages. Lastly, looking to frequency of constraints the rank was given by putting them in ascending order. Considering the constraints experienced by the beneficiary farmers the investigator had asked to give their valuable suggestion to overcome their constraints. The responses were summed up and converted into frequency and percentages. The rank was given to each suggestion by putting them in ascending order. The statistical tests *viz.*, frequency, percentage, mean, standard deviation and rank were used for analysing the data.

Results

Profile of Beneficiary Farmers

Table 1 indicated that slightly more than half (52.50%) of the beneficiary farmers belonged to middle age category of 36 to 50 years, followed by 25.00% and 22.50% of them belonged to young age category of up to 35 years and old age category of above 50 years, respectively. Slightly more than one third (35.83%) of the beneficiary farmers had high school level education, followed by 30.83% had middle school level education and 18.33% had college/post-graduation level education. Whereas, very few 8.33%,

4.17% and 2.50% were belonged to primary school, functionally literate and illiterate categories, respectively. Slightly more than half (53.33%) of the beneficiary farmers had farming + animal husbandry as their main occupation, followed by 32.50%, 7.50% and 6.67% had farming, farming + animal husbandry + business, and farming + animal husbandry + service as their main occupation, respectively.

Table 1: Distribution of the respondents according to profile (N=120)

Sr. No.	Variables	Category	Frequency (f)	Percentage (%)
1	Age	Young	30	25.00
		Middle	63	52.50
		Old	27	22.50
2	Education	College/ post-graduation	22	18.33
		High school	43	35.83
		Middle school	37	30.83
		Primary school	10	8.33
		Functionally literate	05	4.17
		Illiterate	03	2.50
3	Occupation	Farming + Animal husbandry + Service	08	6.67
		Farming + Animal husbandry + Business	09	7.50
		Farming + Animal husbandry	64	53.33
		Farming	39	32.50
4	Type of family	Joint	57	47.50
		Nuclear	63	52.50
5	Land holding	Small	58	48.33
		Marginal	62	51.67
6	Annual Income	Above Rs. 2,00,000	17	14.17
		Rs. 1,50,001 to 2,00,000	34	28.33
		Rs. 1,00,001 to 1,50,000	38	31.67
		Rs. 50,001 to 1,00,000	26	21.67
		Up to Rs. 50,000	05	4.17
7	Social participation	No membership in any organization	17	14.17
		Membership in one organization	31	25.83
		Membership in more than one organization	57	47.50
		Holding a position in organization	15	12.50
8	Extension contact	Low	19	15.83
		Medium	69	57.50
		High	32	26.67
9	Innovativeness	Low	21	17.50
		Medium	63	52.50
		High	36	30.00
10	Economic motivation	Low	16	13.33
		Medium	78	65.00
		High	26	21.67
11	Scientific orientation	Low	25	20.83
		Medium	68	56.67
		High	27	22.50
12	Risk orientation	Low	19	15.83
		Medium	62	51.67
		High	39	32.50

Further slightly more than half (52.50%) of the beneficiary farmers belonged to nuclear family, followed by 47.50% were belonged joint family. Slightly more than half (51.67%) of the beneficiary farmers possessed marginal land holding, followed by 48.33% had small land holding. The result indicated that slightly less than one third (31.67%) of the beneficiary farmers belonged to income group of Rs. 1,00,001 to 1,50,000, followed by 28.33%, 21.67%, 14.17% and 4.17% of the beneficiary famers belonged to income group of Rs. 1,50,001 to 2,00,000, Rs. 50,001 to 1,00,000, Above Rs. 2,00,000 and up to Rs. 50,000, respectively.

Moreover, less than half (47.50%) of the beneficiary farmers had membership in more than one organization, followed by 25.83%, 14.17% and 12.50% had membership in one organization, no membership in any organization and holding position in organization, respectively. more than half (57.50%) of the beneficiary farmers had medium level of extension contact, followed by 26.67% and 15.83% had high extension contact and low extension contact, respectively. slightly more than half (52.50%) of the beneficiary farmers had medium level of innovativeness, followed by 30.00% and 17.50% had high level of innovativeness and low level of innovativeness, respectively.

Majority (65.00%) of the beneficiary farmers had medium level of economic motivation, followed by 21.67% and 13.33% had high level of economic motivation and low level of economic motivation, respectively. More than half (56.67%) of the beneficiary farmers had medium level of

scientific orientation, followed by 22.50% and 20.83% had high level of scientific orientation and low level of scientific orientation, respectively. Slightly more than half (51.67%) of the beneficiary farmers had medium level of risk orientation, followed by 32.50% and 15.83% had high level of risk orientation and low level of risk orientation, respectively.

The major constraints faced by the beneficiary farmers

As presented in the table 2, the results with regard to the constraints faced by the beneficiary farmers in adoption of demonstrated technology were analysed using the frequency, percentage and rank. The major constraints perceived by the beneficiary farmers were unavailability of land (rank I), unpunctuality by staff in the meetings (rank II), some decisions were made with contact farmers without consulting other farmers (rank III), lack of clear understanding of project objectives (rank IV), lack of co-operation from village panchayat in implementing the project (rank V), lack of interest in learning new skills by farmers (rank VI), lack of finance (VII), difficulty in obtaining inputs (rank VIII), lack of technical guidance (rank IX) and lack of proper monitoring and follow up of the project (rank X).

Table 2: Constraints faced by the respondents (N=120)

Sr. No.	Constraints	Frequency	Percentage	Rank
1	Unavailability of land	102	85.00	I
2	Unpunctuality by staff in the meetings	94	78.33	II
3	Some decisions were made with contact farmers without consulting other farmers	89	74.16	III
4	Lack of clear understanding of project objectives	84	70.00	IV
5	Lack of co-operation from village panchayat in implementing the project	83	69.16	V
6	Lack of interest in learning new skills by farmers	76	63.33	VI
7	Lack of finance	64	53.33	VII
8	Difficulty in obtaining inputs	58	48.33	VIII
9	Lack of technical guidance	51	42.50	IX
10	Lack of proper monitoring and follow up of the project	46	38.33	X

Suggestions to overcome the constraints offered by respondents for improvement of FFP

As observed from the table 3, that major suggestions offered by the beneficiary farmers were development programmes for small and marginal farmers (rank I), timely conduct of meetings (rank II), consult all the farmers in decision making (rank III), bring awareness about FFP and motivate the farmers (rank IV), regular meetings of staff and gram panchayat members (rank V), more educational trip to be organized (rank VI), loan amount for the purchase of inputs (rank VII), timely supply of inputs related to demonstrated technology (rank VIII), more demonstrations to be organized (rank IX) and regular field visits and monitoring to be organized (rank X). Similar findings were reported by Sharma and Khare (2017) [12].

Table 3: Suggestions by the respondents (n=120)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1	Development programmes for small and marginal farmers	105	87.50	I
2	Timely conduct of meetings	94	78.33	II
3	Consult all the farmers in decision making	86	71.66	III
4	Bring awareness about FFP and motivate the farmers	73	60.83	IV
5	Regular meetings of staff and gram panchayat members	68	56.66	V
6	More educational trip to be organized	61	50.83	VI
7	Loan amount for the purchase of inputs	55	45.83	VII
8	Timely supply of inputs related to demonstrated technology	49	40.83	VIII
9	More demonstrations to be organized	44	36.67	IX
10	Regular field visits and monitoring to be organized	35	29.16	X

Discussion:

It can be concluded from the table 1 that, a little more than half of the beneficiary farmers belonged to middle age group of 36 to 50 years. The possible reason for the result could be the social bearing of responsibility of family. Moreover, the proportion of old beneficiary farmers was slightly lower than the young beneficiary farmers. The possible reason could be that the old farmers are moving out of farming because of their age and assigning responsibilities of farming to their offsprings. Similar results are reported by Kumar *et al.* (2018) [6] and Manjeet and Malik (2019) [8]. It is obvious from the findings of education that the beneficiary farmers have understood the importance of education as a means to improve their overall living standard. Other possible reason for education up to middle school and high school could be the availability of the schools at their village level and close proximity of their villages to blocks and towns. The finding is in support to the findings revealed by Pankaja *et al.* (2017) [10]. The probable reasons for these findings of occupation might be that they have inherited agriculture land and were continuing agriculture along with animal husbandry as a subsidiary occupation. The finding is in concurrence with the findings revealed by Biswas *et al.* (2014) [2] and Parvez *et al.* (2016) [11].

The reason for relatively equal number of nuclear and joint families could be the preference of people is changing to move from joint families to nuclear families even in the

rural areas. The present finding gets support from research reported by Chhodvadia *et al.* (2016) [3]. While collecting the data, not a single landless, semi medium, medium and big land holding beneficiary farmer was reported. The possible reason of this finding was inclusion of only small and marginal farmers as beneficiaries under FFP. The reason for relatively equal number of marginal and small farmers could be due to equal preference by the officials in beneficiary selection while implementing the project. The finding has been partially supported by findings reported by Pankaja *et al.* (2017) [10]. Up to seventy-five% of the farmers were earning the annual income of more than one lakh rupees even though they were small to marginal farmers. The reason for such result could be that the farmers were started getting the monetary benefits of the demonstrated technologies. Other reason could be the closer proximity of their village to blocks and towns which might have created the opportunity for their family members to get employment in the city and contribute to annual income. The finding is in concurrence with the findings revealed by Arya *et al.* (2019) [1].

In general majority of the beneficiary farmers had membership in one organization or more than one organization. The probable reason might be that the availability of number of formal and informal organizations at village level and farmers interest to join these organizations as a result of sense of belongingness. The reasons for higher level of extension contact could be that different extension institutions are able to reach every individual of society and also beneficiary farmers were trying to get other best sources of information for sustaining their production. Similar results are reported by Hanagi and Joshi (2016) [4]. This reasons for medium to high level of innovativeness might be because the respondents were getting some rewards from demonstrated technology and therefore, they had only good amount of inclination to adopt new technology and practices for further improvement of farms. Similar results are reported by Katole *et al.* (2017) [5]. The moderate level of economic motivation is likely influenced by the volatility in farm product prices and the high costs of agricultural inputs. These factors have made farmers more circumspect in their investment decisions, aiming to maximize returns while minimizing expenditures in farming activities. Similar results are reported by Kumbhani *et al.* (2018) [7]. It is evident that the reason behind medium to high level of scientific orientation could be the success of extension programmes run by the government and NGO about scientific farming practices, education levels of farmers and their enthusiasm for innovativeness. High innovativeness and annual income might have motivated the respondents in taking decisions that are perceived as risky by them related to farming practices. This finding is in accordance with the findings of Manjeet and Malik (2019) [8].

The reasons for unavailability of land as a problem could be due to the hereditary distribution of land, marginal and small farm holdings which might have led to limited land size for crop production. The reason for unpunctuality by staff in the meetings could be the excessive roles and responsibilities for the extension functionaries, weather conditions in the area, and distance of these villages from the city. The reason for perception of farmers as some decisions were made with contact farmers without consulting other farmers could be the excessive contact of extension agency with contact farmers and might not be able to cover each and every farmer in the decision-making process. Most of the farmers felt that the beneficiaries' lack of clear understanding of project objectives, it could be because the inputs provided to farmers were used for the purpose than it is intended to be such as sowing the recommended crops in IFS only when they got seeds otherwise not adopting it. Other constraints were lack of co-operation from village panchayat in implementing the project, it could be due to local political situation or members were not ready for participation and cooperation. The reasons for lack of interest in learning new skills by farmers could be their unrecognised needs and unfavourable attitude towards the project. Difficulty in obtaining inputs as perceived by beneficiaries could be due to delayed provision of inputs and lesser quantity than the required one. Lack of technical guidance and lack of proper monitoring and follow up of the project as perceived by farmers could be due to lesser time availability for the extension and technical staff and large number of farmers to be covered. Similar findings were reported by Manjeet (2019) [8].

Proposed extension strategy to overcome the constraints

Constraints differ among individuals and locations. To devise a strategy for the target users in the study area, it is essential to gather experience-based insights from FFP beneficiaries alongside technical recommendations from experts. Recognizing that constraints can hinder personal development, extension researchers were encouraged to adopt the Situation Based Extension Approach (SBEA) to address these issues and formulate an effective strategy. Additionally, beneficiary farmers were consulted after identifying constraints and potential solutions. These findings were then organized based on the perspectives of technical experts. The proposed strategy by which suggestion executed were divided into 4 columns and presented in Table 4.

Table 4: Extension strategy to overcome the constraints

Sr. No.	Constraints	Suggestions from beneficiary farmers	Options of Experts	Who will execute
1	Unavailability of land	Development programmes for small and marginal farmers	Specific extension programmes should be identified and organized for small and marginal farmers	Government, ICAR and SAU
2	Unpunctuality by staff in the meetings	Timely conduct of meetings	Strict regulation for timely meetings	University and Directorate of Extension
3	Some decisions were made with	Consult all the farmers in	Democratic decision-making	ATIC and concerned

	contact farmers without consulting other farmers	decision making	approach should be adopted.	extension institute
4	Lack of clear understanding of project objectives	Bring awareness about FFP and motivate the farmers	Increase the awareness and training programmes by extension institutions.	ATIC

Conclusion

It can be concluded that majority of the beneficiary farmers were belonged to middle age group with high school level education, having farming with animal husbandry as their main occupation. They also belonged to nuclear family and had marginal land holding, income of Rs. 1,00,001 to 1,50,000, membership in more than one organization. They also had medium level of extension contact, innovativeness, economic motivation, scientific orientation and risk orientation. Major constraints perceived by the beneficiary farmers were unavailability of land, unpunctuality by staff in the meetings, some decisions were made with contact farmers without consulting other farmers, lack of clear understanding of project objectives and major suggestions offered by the beneficiary farmers were development programmes for small and marginal farmers, timely conduct of meetings, consult all the farmers in decision making, bring awareness about FFP and motivate the farmers.

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