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Socio-economic and Psychological Profile of Farmers Practicing Integrated Farming Systems (IFS) in Andhra Pradesh

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Agriculture is always been considered as the backbone of our country. In India, 70 per cent of the rural population is engaged in agriculture and 80 per cent of the population lives directly or indirectly on agriculture. There are 115 million operational holdings in the country and about 80 per cent are marginal and small farmers [1]. Indian agriculture has been taken the responsibility of providing food and employment to its millions of people. The present study described the socio-economic and psychological profile of Integrated Farming System practicing farmers in Chittoor from Rayalaseema region, East Godavari from North East Coastal region and Srikakulam from North Coastal region. The sample constituted to a total of 189 farmers. The farmers practicing Integrated Farming System were middle aged (52.38%), completed graduation (26.98%), were small land holders (43.39%) with high experience in IFS (55.56%), had nuclear family (88.89%) and with fair cropping pattern (69.31%). The major occupation of the IFS farmers was cultivation (51.85%) with medium family size (67.72%), annual income (49.21%), extension contact (43.39%),

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mass media exposure (43.92%), economic motivation (54.50%), decision making ability (46.03%), risk preference (53.44%), enterprise combination (100.00%) and members of at least one organization (65.08%).

Keywords: IFS; enterprise combinations; livelihood; sustainability and nutritional security.

1. INTRODUCTION

Integrated farming is a sustainable and effective tool for improving rural economy due to its cumulative cost effectiveness, low investment and higher profitability. It optimizes the farm productivity per unit area through incorporation of recycling wastes and residues from one farming system to the other with due environmental consideration. Integrated Farming System approach focuses on a few selected interdependent, interrelated and interlinking enterprises of crops, animals and other related subsidiary professions. Thus, it is helpful in enhancing productivity, profitability and nutritional security of the farmer and various enterprises involved in farming system sustain the soil productivity through recycling of organic sources [2].

The farming systems need to be cost-effective or economically viable, eco-friendly, socially acceptable and have a high cost benefit cost benefit ratio. The adoption of an integrated farming system could generate additional income ranging from Rs. 9000/- to Rs. 200000/- per hectare, depending on the inclusion of number and kind of other farm enterprises and their effective combination as reported by Ponnusamy [3]. Different farming combinations are proved successful based on different context such as agriculture with poultry, agriculture with sheep rearing and agriculture with sericulture and the relative profitability of the selected farming systems reported that agriculture + sheep was most profitable as reported by Ravi [4]. Solaiappan et al*.,* [5] found that the effective recycling of organic residues and animal wastes from different IFS components, the soil fertility improved with higher values of organic C, soil N, P and K nutrients of the fields with different IFS components.

Integrated farming system improves economic condition of the small and marginal farmers which enhances the education, health and social obligations and overall improvement in livelihood security [6]. Integrated Farming System (IFS) plays an imperative role in maximizing profits as well as production to meet nutritional requirement with food security with less investment. Integrated farming system is farming system which consists of at least two separate but logically interdependent farm enterprises. Integration in IFS occurs when output of one enterprise is used as an input in another enterprise. Hence the present study was undertaken with an objective to study the socio-economic and psychological profile of IFS practicing farmers.

2. MATERIALS AND METHODS

An *Ex post facto* research design was followed to study the socio-economic and psychological profile of the farmers practicing Integrated Farming Systems. Predominant IFS models pertaining to each of the three regions which were being followed by most of the farmers were selected based on secondary data available at Department of Agriculture. One district from each region i.e. Chittoor, East Godavari and Srikakulam from Rayalaseema, North East Coastal and North Coastal regions respectively were selected purposively for the study based on the highest number of farmers practicing the selected IFS models. Three mandals[1] from each of the districts were selected purposively for the study based on highest number of farmers practicing the selected IFS models making a total of nine mandals. Three villages from each of the three mandals were selected by following simple random sampling procedure thus making a total of 27 villages. Regarding the number of respondents, uniform sample of seven farmers was selected from each of the villages as the exact number of farmers practicing the predominant IFS was not available with the Department of Agriculture. The farmers were selected such that they were practicing IFS for more than five years. Thus, the sample constituted to a total of 189 farmers. After review of literature and consultation with experts a set of 16 personal, psychological and socio-economic variables were selected. The data was collected through a structured comprehensive interview schedule and analyzed using statistical tools like frequencies, percentages, mean, standard deviation and Cumulative Square Root

Frequency method for drawing meaningful interpretations.

3. RESULTS AND DISCUSSION

The Integrated Farming System practicing farmers were distributed into different categories based on their socio-economic and psychological profile and the results were represented in the Table 1.

More than half (52.38%) of the IFS farmers were middle aged followed by old (25.93%) and young (21.69%) age groups (Table 1). Young farmers being educated were reluctant to take farming as their profession as they felt that agriculture is not remunerative because of increasing input costs and unstable markets. Regarding middle and old aged farmers, most of them practiced farming as they inherited the occupation from their predecessors and showed interest in IFS as it provided a consistent source of income, year-round employment and the potential to integrate new enterprises. The findings are in line with the results of Dhanushkodi et al. [7] and Ravinder et al. [8].

More than one-fourth (26.98%) of the IFS farmers were graduates followed by high school (24.34%), illiterate (22.22%), middle school (15.35%) and 11.11 per cent were educated up to primary school (Table 1). Most of the farmers in the study area are of middle age, so they were aware of importance of education and were either graduated or educated up to high school. On the other hand, some of the farmers could not be educated as they were residing in the villages that were located at a far off distance from the school or due to lack of financial support.

More than two-fifth (43.39%) of the IFS farmers had small land holding followed by marginal (33.86%), semi-medium (18.52%) and small per cent of 4.23 had medium land holding (Table 1). Due to proclivity for the nuclear family approach, land holdings have been fragmented resulting in small land holdings among nearly half of the farmers. On the other end, the remaining half of the farmers may be sustaining their farms and residing in villages with agriculture as their primary source of income as it was inherited from their ancestors. In marginal land holding category, among enterprise combinations A+D+Se system was mostly followed by farmers illustrating that farmers with marginal land holding can adopt sericulture as an enterprise component as it can be performed in less space and it is more economical to farmers. In small land holding category, A+D+H+S system is economical to farmers requiring less space for sheep rearing, vegetables and fruits can be grown generating more income to the farmers and minimizing environmental risks. In semi-medium and medium land holding category, A+D+P+Pl system, the plantation crops were grown creating additional employment days and better recycling between the enterprises is achieved by the farmers. Similar findings were communicated in the studies of Ponnusamy [3] and Ogunmefun and Achike [9].

More than half (55.56%) of the IFS farmers had high IFS experience followed by medium (28.57%) and low (15.87%) levels of IFS experience (Table 1).The probable reason for this trend might be that majority of them were depending on agriculture as their main source of livelihood. Farmers were practicing agriculture as their primary source of income and obtained extensive farming skills throughout their lifetime. Most of the farmers were graduated and middle aged, they could gain knowledge from different information sources about IFS and also motivated from the success stories, they could have adopted IFS. Moreover, they could realize the benefits of IFS in terms of monetary returns and sustainability on long term basis which is the main reason for high farming experience. This finding was similar with the findings reported by Dhanushkodi et al. [7].

Slightly more than half (51.85%) of the IFS farmers had cultivation as major occupation followed by cultivation + labour (31.75%) and 16.40 per cent of them had cultivation + business as occupation (Table 1). The probable reason could be the involvement of farmers in agriculture occupation since ages as it was their main occupation and source of livelihood. As agriculture is the main occupation for most of the people in villages, it is quite natural that most of the respondents have either taken up farming as their main activity or dependent on farm labour for their livelihood. Farmers who primarily practiced IFS farming were able to allocate sufficient attention and effort to enhance the profitability of various enterprise combinations. The result was in confirmation with the findings reported by Nagaraju and Raghavendra [10].

More than three-fifth (67.72%) of the IFS farmers had medium family size followed by small (20.11%) and large (12.17%) family size respectively (Table 1). This trend might be due to

increased cost of living, most of the respondents have opted for small and marginal family size. Moreover, the concept of 'small family-happy family' was well inculcated among the farmers by wide publicity given by government. Hence, many of them had small and medium size of families. On the other hand, some of the old farmers who were traditional and highly orthodox had large families. These findings were in agreement with that of Mamatha et al. [11] and Shivakumara et al. [12].

Most (88.89%) of the IFS farmers had nuclear family while 11.11 per cent of farmers had joint family (Table 1). The proportion of respondents having nuclear family was found higher in almost all enterprise combinations reflecting current trend in rural society. It indicated that nuclear family type was gradually replacing joint family in rural areas. This might be due to changing socio-cultural fabric in area under study. This finding was similar with the findings reported by Haobijam et al. [13], Ravinder et al. [8] and Abhishek [14].

Nearly half (49.21%) of the IFS farmers had medium annual income followed by low (29.63%) and high (21.16%) levels of annual income (Table 1). The IFS farmers had different enterprises and could get unrelenting income as the combination of the enterprises was in such a manner that they supplemented each other. The byproduct of one enterprise was used as input to another enterprise thus reducing the costs of external input costs. In addition to these, the interaction of enterprises provides income flow round the year. Thus, the adaptability of different farming systems increases the income of farmers. This might the probable reason for most of the IFS farmers having medium level of income. These findings were supported with Jagwinder [15] and Pegu et al. [16].

More than two-fifth (43.39%) of the IFS farmers had medium extension contact followed by high (32.27%) and low (24.34%) levels of extension contact (Table 1). The IFS farmers were having different enterprises and invariably have to contact different extension functionaries for seeking information on different enterprises. As most of the respondents are middle aged and educated, they showed interest and enthusiasm in contacting the extension functionaries for information about latest technologies, improved practices, training programmes, policies and schemes. This has resulted in most of the respondents falling in medium and high categories of extension contact. On other hand, nearly one-third of farmers had low extension contact which might be due to illiteracy, lack of interest in consulting the extension officials and less number of extension agents at grass root level. This finding was similar with the findings of Sarkar [17] and Vekariya et al. [18].

More than two-fifth (43.92%) of the IFS farmers had medium mass media exposure followed by low (31.75%) and high (24.33%) level of mass media exposure respectively (Table 1). In the study area, most of the IFS farmers were educated and being middle aged was enthusiastic to utilize different mass media to gain knowledge and skill in farming. Furthermore, the capacity building programmes organized by Krishi Vignan Kendras, free mobile advisories and other ICT services provided by private extension agencies and KVKs in the study area might have contributed to medium level of mass media exposure of the respondents. Old age farmers due to their educational status could not utilize the mass media for gaining information which resulted in low mass media exposure. This finding was in agreement with the findings of Shwetha [19] and Vekariya et al. [18].

More than two-third (69.31%) of the IFS farmers had fair cropping pattern followed by poor (22.22%) and good (8.47%) cropping pattern (Table 1). The IFS farmers cultivated one to two crops in addition to other enterprises. The available land was utilized for diversified activities for year round income and the land would not be kept vacant. This might be the reason for most of the IFS farmers having fair cropping pattern.

About 16.40 per cent of the farmers had Agriculture + Dairy + Horticulture combination followed by Agriculture + Dairy + Sericulture (16.93%), Agriculture + Dairy + Poultry (16.40%), Agriculture + Dairy + Poultry + Plantation (16.93%), Agriculture + Dairy + Horticulture + Sheep (16.40%) while 16.93 per cent farmers followed Agriculture + Dairy + Plantation + Sheep combination (Table 1). In the combination of A+D+H and A+D+Se combination, the agriculture crops like paddy, groundnut, horticultural crops like tomato, mango, chilli, brinjal, bhendi were grown. Dairy component included cow (Jersey, Holstein Friesian) and buffalo (Hybrid). In A+D+P and A+D+P+Pl combination, the agriculture crops like paddy, green gram were grown. Dairy component included cow (Jersey) and buffalo (Murrah Buffalo), poultry (country hen) and

coconut was taken up as plantation crop. In A+D+H+S and A+D+Pl+S combination, the agriculture crops like paddy, groundnut, black gram and green gram were grown. Dairy component included cow (Jersey) and buffalo (Graded Murrah Buffalo), horticultural crops raised were tomato, mango, chilli, brinjal, bhendi and banana. Sheep rearing was unique to Srikakulam district and in A+D+Pl+S system the plantation crop grown was cashew in this combination. The findings indicated there was no much difference in the distribution of the respondents in different combinations of the enterprises. The enterprises were combined according to the resources availability in the respective areas and also the level of remuneration from these combinations. Paddy was the major crop cultivated by most of the farmers wherever there was agricultural component as rice was consumed by the family members and after meeting the requirement of the family, the remaining was sold out. Besides meeting the dietary needs of the farmer's families, the straw from paddy crop met the fodder needs of the cattle. Dairy component was also included as an enterprise in almost all the combinations as it was found remunerative.

More than half (54.50%) of the IFS farmers had medium economic motivation followed by high (26.98%) and low (18.52%) level of economic motivation (Table 1). It is well known that IFS is combination of enterprises for facilitating stable and steady income round the year to the practicing farmers so the farmers who adopted IFS naturally can improve their livelihood. Hence, the farmers endeavor hard to obtain good economic yields by putting their maximum efforts. At the same time, most of the farmers being educated, they are aware that they should take into consideration the cost of cultivation and availability of resources for attaining sustainable yields. All these reasons contributed for most of the IFS farmers falling in medium and high categories of economic motivation. The similar finding was also confirmed by Mangala [20], Kapil [21] and Pegu et al*.* [16].

About half (46.03%) of the IFS farmers had medium decision making ability followed by low (28.04%) and high (25.93%) levels of decision making ability (Table 1). The success of IFS depends on managing the resources efficiently for which apt decisions are to be made. Decision making depends on intellectual levels of the individuals. As most of the respondents in the study area were educated, they might have taken rationale decisions after consulting their spouse, elders, neighbours and extension agents rather taking decisions on their own. The IFS farmers are encountered with several issues other than farming like procuring resources, marketing, allocating resources etc and often are in a dilemma in taking appropriate decisions. This might be the reason for most of the respondents having medium decision making abilities.

More than three-fifth (65.08%) of the IFS farmers were member of one organization followed by member of more than one organization (20.11%) and 14.81 per cent of them were office holders (Table 1). Most of the farmers were poorly exposed to formal and informal organizations in the study area which might be due to lack of awareness about different extension programmes and activities. Farmers remain busy in their farming activities and might have been less involved in social organizations. The findings clearly indicate that the extension personnel should motivate farmers by creating awareness about membership in organizations and farmers groups. The farmers should be educated on enrolling in farmers groups like FPOs for availing loans, marketing their produce, receiving trainings etc. This finding was in conformity with Haobijam et al*.* [13].

More than half (53.44%) of the IFS farmers had medium risk preference followed by high (28.04%) and low (18.52%) level of risk preference (Table 1). IFS farmers are prone to risk as they have diversified activities and also they have to explore opportunities for combining different enterprises in a compatible manner. Due to complimentary and supplementary nature of enterprises, farmers have to invariably take risk in choosing the enterprise combinations ensuring stable income which improves their livelihood security. The same trend was observed in the above findings. The findings of the study were in conformity with the studies of Mangala [20] and Ramesh [22].

Table 1 Distribution of Integrated Farming Systems practicing farmers according to their socio-economic and psychological profile (n=189)

S.No	Variables	Integrated Farming Systems						Total Number (f)	Total Percentage (%)
		Rayalaseema		Coastal		North-Coastal			
		A+D+H	A+D+Se	A+D+P	A+D+P+Pl	A+D+H+S	A+D+Pl+S		
1.	**Age (Years)**								
1.	Young age (35 years and below)	5 (2.65%)	9 (4.76%)	6 (3.17%)	6 (3.17%)	6 (3.17%)	9 (4.76%)	41	21.69
2.	Middle age (36-58 years)	22 (11.64%)	17 (8.99%)	18 (9.52%)	12 (6.35%)	13 (6.88%)	17 (8.99%)	99	52.38
3.	Old age (58 years and above) Mean-47.00 SD-11.45	4 (2.12%)	6 (3.17%)	7 (3.70%)	14 (7.41%)	12 (6.35%)	6 (3.17%)	49	25.93
2.	**Education**								
1.	Illiterate	8 (4.23%)	7 (3.70%)	7 (3.70%)	9 (4.76%)	6 (3.17%)	5 (2.65%)	42	22.22
2.	Primary school	5 (2.65%)	2 (1.06%)	3 (1.59%)	2 (1.06%)	5 (2.65%)	4 (2.12%)	21	11.11
3.	Middle school	5 (2.65%)	6 (3.17%)	4 (2.12%)	6 (3.17%)	4 (2.12%)	4 (2.12%)	29	15.35
4.	High school	2 (1.06%)	9 (4.76%)	10 (5.29%)	10 (5.29%)	5 (2.65%)	10 (5.29%)	46	24.34
5.	Graduate	11 (5.82%)	8 (4.23%)	7 (3.70%)	5 (2.65%)	11 (5.82%)	9 (4.76%)	51	26.98
3.	**Land Holding**								
1.	Marginal land holding (Below 1.00 ha)	11 (5.82%)	32 (16.93%)	12 (6.35%)	0 (0.00%)	3 (1.59%)	6 (3.17%)	64	33.86
2.	Small land holding (1.01 to 2.0 ha)	19 (10.05%)	0 (0.00%)	14 (7.41%)	14 (7.41%)	20 (10.58%)	15 (7.94%)	82	43.39
3.	Semi- medium	1	0	4	13	7	10	35	18.52

	land holding (2.01 to 4.0 ha)	(0.53%)	(0.00%)	(2.12%)	(6.88%)	(3.70%)	(5.29%)		
4.	Medium land holding (4.01 to 10.0 ha)	0 (0.00%)	0 (0.00%)	1 (0.53%)	5 (2.65%)	1 (0.53%)	1 (0.53%)	8	4.23
5.	Large land holding (10.01 ha and above)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0	0.00
4.	**IFS experience**								
1.	Low IFS experience (<5 years)	4 (2.12%)	3 (1.59%)	5 (2.65%)	7 (3.70%)	4 (2.12%)	7 (3.70%)	30	15.87
2.	Medium IFS Experience (5-10 years)	10 (5.29%)	13 (6.88%)	9 (4.76%)	8 (4.23%)	5 (2.65%)	9 (4.76%)	54	28.57
3.	High IFS experience (>10 years)	17 (8.99%)	16 (8.47%)	17 (8.99%)	17 (8.99%)	22 (11.64%)	16 (8.47%)	105	55.56
5.	**Occupation**								
1.	Cultivation	16 (8.47%)	14 (7.41%)	18 (9.52%)	16 (8.47%)	16 (8.47%)	18 (9.52%)	98	51.85
2.	Cultivation + Labour	9 (4.76%)	11 (5.82%)	7 (3.70%)	11 (5.82%)	12 (6.35%)	10 (5.29%)	60	31.75
3.	Cultivation + Business	6 (3.17%)	7 (3.70%)	6 (3.17%)	5 (2.65%)	3 (1.59%)	4 (2.12%)	31	16.40
6.	**Family size**								
1.	Small family size(2 to 3 members)	11 (5.82%)	8 (4.23%)	3 (1.59%)	4 (2.12%)	4 (2.12%)	8 (4.23%)	38	20.11
2.	Medium family size(4 to 5 members)	18 (9.52%)	19 (10.05%)	23 (12.17%)	24 (12.70%)	25 (13.23%)	19 (10.05%)	128	67.72
3.	Large family size(more than 6 members)	2 (1.06%)	5 (2.65%)	5 (2.65%)	4 (2.12%)	2 (1.06%)	5 (2.65%)	23	12.17

7.	**Family type**							
1.	Nuclear family	26 (13.76%)	28 (14.81%)	30 (15.87%)	28 (14.81%)	28 (14.81%)	28 (14.81%)	168	88.89
2.	Joint family	5 (2.65%)	4 (2.12%)	1 (0.53%)	4 (2.12%)	3 (1.59%)	4 (2.12%)	21	11.11
8.	**Annual income**							
1.	Low annual income (<281)	2 (1.06%)	32 (16.93%)	5 (2.65%)	4 (2.12%)	6 (3.17%)	7 (3.70%)	56	29.63
2.	Medium annual income (281-499)	29 (15.34%)	0 (0.00%)	14 (7.41%)	18 (9.52%)	19 (10.05%)	13 (6.88%)	93	49.21
3.	High annual income (>499)	0 (0.00%)	0 (0.00%)	12 (6.35%)	10 (5.29%)	6 (3.17%)	12 (6.35%)	40	21.16
9.	**Extension contact**							
1.	Low extension contact (<54)	8 (4.23%)	3 (1.59%)	11 (5.82%)	11 (5.82%)	9 (4.76%)	4 (2.12%)	46	24.34
2.	Medium extension contact (54-60)	16 (8.47%)	15 (7.94%)	14 (7.41%)	11 (5.82%)	14 (7.41%)	12 (6.35%)	82	43.39
3.	High extension contact (>60)	7 (3.70%)	14 (7.41%)	6 (3.17%)	10 (5.29%)	8 (4.23%)	16 (8.47%)	61	32.27
10.	**Mass media exposure**							
1.	Low mass media exposure (<11)	8 (4.23%)	15 (7.94%)	10 (5.29%)	4 (2.12%)	3 (1.59%)	20 (10.58%)	60	31.75
2.	Medium mass media exposure (11-17)	6 (3.17%)	14 (7.41%)	16 (8.47%)	24 (12.70%)	14 (7.41%)	9 (4.76%)	83	43.92
3.	High mass media exposure (>17)	17 (8.99%)	3 (1.59%)	5 (2.65%)	4 (2.12%)	14 (7.41%)	3 (1.59%)	46	24.33
11.	**Cropping pattern**							
1.	Poor cropping pattern (<4)	7 (3.70%)	0 (0.00%)	25 (13.23%)	0 (0.00%)	10 (5.29%)	0 (0.00%)	42	22.22
2.	Fair cropping		32	6	26	21	24	131	69.31

	pattern (4-8)	22 (11.64%)	(16.93%)	(3.17%)	(13.76%)	(11.11%)	(12.70%)		
3.	Good cropping pattern (>8)	2 (1.06%)	0 (0.00%)	0 (0.00%)	6 (3.17%)	0 (0.00%)	8 (4.23%)	16	8.47
12.	**Enterprise combination**								
1.	Enterprise combination	31 (16.40%)	32 (16.93%)	31 (16.40%)	32 (16.93%)	31 (16.40%)	32 (16.93%)	189	100.00
13.	**Economic motivation**								
1.	Low economic motivation (<24)	11 (5.82%)	7 (3.70%)	1 (0.53%)	0 (0.00%)	8 (4.23%)	8 (4.23%)	35	18.52
2.	Medium economic motivation (24-28)	15 (7.94%)	16 (8.47%)	20 (10.58%)	22 (11.64%)	13 (6.88%)	17 (8.99%)	103	54.50
3.	High economic motivation (>28)	5 (2.65%)	9 (4.76%)	10 (5.29%)	10 (5.29%)	10 (5.29%)	7 (3.70%)	51	26.98
14.	**Decision making ability**								
1.	Low decision making ability (<13)	6 (3.17 %)	13 (6.88%)	9 (4.76%)	3 (1.59%)	13 (6.88%)	9 (4.76%)	53	28.04
2.	Medium decision making ability (13-17)	19 (10.05%)	8 (4.23%)	13 (6.88%)	21 (11.11%)	13 (6.88%)	13 (6.88%)	87	46.03
3.	High decision making ability (>17)	6 (3.17 %)	11 (5.82%)	9 (4.76%)	8 (4.23%)	5 (2.65%)	10 (5.29%)	49	25.93
15.	**Social participation**								
1.	Member of one organization	22 (11.64%)	18 (9.52%)	19 (10.05%)	21 (11.11%)	20 (10.58%)	23 (12.17%)	123	65.08
2.	Member of more than one organization	5 (2.65%)	8 (4.23%)	8 (4.23%)	6 (3.17%)	7 (3.70%)	4 (2.12%)	38	20.11
3.	Office holders	4 (2.12%)	6 (3.17%)	4 (2.12%)	5 (2.65%)	4 (2.12%)	5 (2.65%)	28	14.81
16.	**Risk preference**								

1.	Low risk preference (<24)	11 (5.82%)	6 (3.17%)	1 (0.53%)	1 (0.53%)	7 (3.70%)	9 (4.76%)	35	18.52
2.	Medium risk preference (24-28)	15 (7.94%)	17 (8.99%)	20 (10.58%)	21 (11.11%)	14 (7.41%)	14 (7.41%)	101	53.44
3.	High risk preference (>28)	5 (2.65%)	9 (4.76%)	10 (5.29%)	10 (5.29%)	10 (5.29%)	9 (4.76%)	53	28.04

A= Agriculture, D=Dairy, H=Horticulture, Se= Sericulture, P=Poultry, Pl=Plantation, S=Sheep

4. CONCLUSION

Majority of the Integrated Farming System practicing farmers belongs to medium level category with respect to most of the variables selected, hence there is immediate need for the extension functionaries to conduct capacity building programmes on management, resource allocation and input recycling. Further, the Government must also encourage the IFS farmers by arranging timely credit, storage facilities and linking them to markets.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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