Perception of Family Headed Farm Women about Integrated Farming System in Southern Karnataka

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ABSTRACT

The study was conducted in purposively selected three districts of Southern Karnataka. One taluk from each district, oneGrama Panchayath from each taluk and five villages from each Grama Panchayath were selected based on the maximum number of beneficiaries covered under Livelihood Improvement of SC Farm Families through Integrated Farming System (IFS) project. Further, from each village, eight respondents were selected by using simple random technique thus making a total sample of 120. The data were collected by using structured interview schedule. The perception of family headed farm women about IFS was recorded on three point continuum viz. 'Agree' 'Uncertain' and 'Disagree' with a score of 3,2 and 1 respectively. Further, analysed the data by using appropriate statistical tests.The results revealed that majority of respondents (51.67 %) belonged to high category of perception about IFS. With respect to the different statements such as IFS ensures food and nutritional security of farm family, IFS helps to increase income diversification and every piece of land is effectively utilized in IFS were recorded maximum mean scores (each 3.00) with the respondents. But, the statements namely IFS helps to protect environment through recycling of animal waste and IFS increases competition for resources among different enterprises were recorded least means scores (2.14 and 2.19) with the respondents. The characteristics such as educational status, occupational status, land holding, farming experience, extension participation, economic orientation and scientific orientation exhibited positive and significant relationship with perception of family headed farm women about IFS. Hence, the concerned development departments should organize the extension educational activities with gender expertise to educate the family headed farm women about all the benefits of IFS. The positive and significantly related characteristics of respondents need to be considered while selecting for the extension educational programmes to enhance their perception level and promote the IFS for doubling the family headed farm women income.

Key words: *Perception, Family Headed Farm Women, Integrated Farming System*

INTRODUCTION

India has basically an agriculture driven economy where, agriculture and allied activities contribute about 17.32 per cent to the GDP (2015-16).It employs 48.90 per cent of the total work force and it is the principal source of livelihood for 5et al8.00 per cent of population. The population of India has already crossed 1.28 billion in 2016 (Vinodakumar *et al*.,2017)and expected to increase 1.39 billion by 2025 (https://timesofindia.indiatimes.com). The demand for foodgrains would increase from 273.38 million tons in 2016-17(pib.nic.in) to 334.9 million tons by 2025(spandan-india.org). Simultaneously, the demand for high value commodities viz., fruits, vegetables, livestock products, fish, poultry etc, are increasing faster than food grains and is expected to increase by more than 100.00 per cent by 2030 (Surve *et al*. 2014).

According to the reports of Indian Council of Medical Research (ICMR) the per capita daily requirement for a adult is worked out to be 420 gms cereals, 40 gms pulses, 50 gms leafy vegetables, 60gms other vegetables, 150 ml milk and 40 gms fat and oils to get 2738 calories of energy and 65 gms of protein to perform voluntary as well as involuntary functions of body (Ray, 2009). Hence, the country has to produce more food and other agricultural commodities. But, the average size of land holding has declained to 1.16 ha during 2010-11 from 2.28 ha in 1970-71. If this trend continues, the average size of holding in India would be mere 0.68 ha in 2020 and would be further reduced to 0.32 ha in 2030 (Agriculture Census Report, 2010-11). This is due to fragmentation, rapid urbanization and creation of infrastructure facilities. With gradual declining trend in size of land holding poses a serious

challenge to the sustainability and profitability of farming. This situation in India calls for an integrated effort to address the emerging livelihood issues.

Women play a key role in agriculture and allied activities than men and in some cases households are being managed by women alone. Women end up heading households were often found to be absence of a resident male head due to widowhood, divorce, separation, desertion, lack of mature sons to take over the households, migration of male member for long periods or loss of economic function by resident male due to disability and illness. The portion of female headed households in India has been raising. The national average of households having a women as head on 29 per cent. Kerala tops the list with 23 per cent, Tamil Nadu &Andhra Pradesh (each 20%)and Karnataka (14.91 %) (Anon., 2011).

It is imperative to develop strategies and agricultural technologies that enable adequate income and employment generation for family headed farm women. Integration of enterprises lead to greater dividends than single enterprise based farming, especially for family headed farm women. In this context, the University of Agricultural Sciences, Bengaluru has taken up an innovative development initiative called "Livelihood Improvement of SC FarmFamilies through Integrated Farming System(IFS)". It was implemented with the assistance of Department of Agriculture, Government of Karnataka during 2014-17. About 3000farmers were benefited from the project. The success of project is well evident from the increase in yield of 25-40 per cent, provided employment to the family members and checked the migration. Realising the importance of the project, the present study was undertaken with following objectives.

OBJECTIVES

1. To ascertain the family headed farm women perception about Integrated Farming System
2. To know the relationship between characteristics of family headed farm women with their perception about Integrated Farming System

METHODOLOGY

The study was conducted in purposively selected three districts of Southern Karnataka. One taluk from each district, one Grama Panchayath from each taluk and five villages each Grama Panchayath were selected based on maximum number of beneficiaries covered under Integrated Farming System project. Further, from each Grama Panchayath five villages were selected based on the maximum number of family headed farm women availed the benefits under the project. From each village, prepared the list of beneficiaries and eight respondents were selected by using simple random technique thus making a total sample of 120. The scale developed by Argade Dadabhau *et al*., (2015) was used measure the family headed farm women perception about Integrated Farming System on three point continuum viz. 'Agree' 'Uncertain' and 'Disagree' with a score of 3,2 and 1 respectively for positive statements and reverse scoring for negative statements. The over all possible maximum and minimum scores ranges for between 45 to 15. The respondents were asked to indicate any one of three responses against each of the statements depending upon their perception. The data were collected by using structured interview schedule and analysed by using frequency, percentage, mean, standard deviation and correlation & regression.

RESULTS AND DISCUSSION

Distribution of respondents according to their perception about integrated farming system

The results presented in Table 1 revealed that majority of respondents belonged to high perception category (51.67%) followed by medium perception (25.83 %) and low perception (22.50%)categories.The possible reasons might be due to more profit, more income per unit area, increased employment and reduction in input cost. These findings are inline with the findings of Mithun Kadachi *et al*., (2014)

Table 1.
Distribution of respondents according to their perception about integrated farming system

Sl. No.	Category	Number	Per cent
1	Low perception (< 42.198)	27	22.50
2	Medium perception (42.198-47.635)	31	25.83
3	High perception (>47.635)	62	51.67

Table 2.
Distribution of respondents according to their perception about statement wise IFS.(N=120)

Sl. No.	Statements	A	UC	DA	Total Scores	MS
1	IFS reduces vulnerability of family headed farm women in adverseconditions	108(90.00)	05(4.17)	07(5.83)	341	2.84
2	Crop integration helps to mitigate weeds, pet and disease problems.	96(80.00)	13(10.83)	11(9.16)	325	2.71
3*	Marketing of different products from IFS farm is very difficult	08 (6.67)	05(4.16)	107(89.16)	339	2.83
4	IFS ensures food and nutritional security of farm family.	120(100.00)	-	-	360	3.00
5	IFS helps to increase income diversification.	120(100.00)	-	-	360	3.00
6	IFS provides enough scope to employ family members round the year.	113 (94.17)	07(5.83)	-	352	2.94
7	The manure and organic waste obtained from IFS farms reduce fertilizer requirement.	112(93.33)	08 (6.67)	-	352	2.93
8	IFS provides great opportunity to produce diversified products	117(97.50)	03(2.50)	-	357	2.98
9	IFS helps to protect environment through recycling of animal waste.	53(44.17)	31(25.83)	36(30.00)	257	2.14
10	IFS helps to achieve optimum production level through integration.	76(63.33)	11(9.17)	33(27.50)	283	2.35
11*	IFS values are not compatible with the values and beliefs of farming community.	5(4.17)	14(11.67)	101(84.17)	336	2.80
12	IFS increases competition for resources among different enterprises	49(40.83)	42(35.00)	29(24.17)	263	2.19
13	Fodder shortage can be managed by planting perennial fodder trees as a part of IFS.	79(65.83)	25(20.83)	16(13.33)	303	2.25
14	Every piece of land is effectively utilized in IFS.	120(100.00)	-	-	360	3.00
15*	The management of IFS farm is more difficult than conventional farm.	15(12.50)	02(1.67)	103(85.83)	328	2.73

**Negative Statements, A-Agree, UC-Uncertain, DA-Disagree.*

The results presented in Table 2 revealed that the statements such as IFS ensures food and nutritional security of farm family, IFS helps to increase income diversification and every piece of land is effectively utilized in IFS were recorded maximum mean scores (each 3.00) with the respondents. Further, the highest mean scores were recorded in statement IFS provides great opportunity to produce diversified products (2.98), IFS provides enough scope to employ family members round the year (2.94) and the manure and organic waste obtained from IFS farms reduce fertilizer requirement(2.93). The possible reasons might be due to IFS ensured the food and nutritional security of family headed farm women, increased income and every piece of land was effectively utilized. These findings are inline with the findings of Madhu Prasad *et al*., (2008) and Mithan Kadachi *et al*., (2014). But, the statements namely IFS helps to protect environment through recycling of animal waste , IFS increases competition for resources among different enterprises and fodder shortage can be managed by planting perennial fodder trees as a part of IFS were recorded least mean scores of 2.14, 2.19 and 2.25, respectively with the respondents. The possible reasons might be due to lack of sufficient knowledge about environment protection through recycling of animal waste, resources of different enterprises and planting perennial fodder trees. These findings are more or less inline with the findings of Mithan Kadachi *et al*., (2014) and Sona Wane and Shirke (2016).

Table 3
Relationship between characteristics of respondents with their perception about IFS (N=120)

Sl.No.	Characteristics	'r' value
1	Age	0.109NS
2	Educational status	0.326**
3	Occupational status	0.254**
4	Land holding	0.249**
5	Farming experience	0.189*
6	Mass media exposure	0.112 NS
7	Social participation	0.019 NS
8	Extension participation	0.284**
9	Economic orientation	0.338**
10	Material possession	0.089 NS
11	Credit orientation	0.032 NS
12	Scientific orientation	0.235**

The results presented in Table 3 indicated that independent variables viz., educational status, occupational status, landholding, farming experience, extension participation, economic orientation and scientific orientation had positive and significant relationship with perception about IFS. It implies that higher the education status, occupational status, larger size of land holding, farming experience, higher extension participation, economically motivated to earn money and later oriented towards scientific IFS technologies were perceived better by family headed farm women. Similar findings were reported by Madhu Prasad *et al*.,(2008)

CONCLUSION

It can be concluded that majority offamily headed farm women belonged to high category of

perception about IFS. With regard to the perception about different statements such as IFS ensures food and nutritional security of farm family, IFS helps to increase income diversification and every piece of land is effectively utilized in IFS were recorded maximum mean scores (each 3.00) with the respondents. But, the statements namely IFS helps to protect environment through recycling of animal waste and IFS increases competition for resources among different enterprises were recorded least means scores (2.14 and 2.19) with the respondents. The characteristics such as educational status, occupational status, land holding, farming experience, extension participation, economic orientation and scientific orientation exhibited positive and significant relationship with perception of family headed farm women about IFS.

Therefore recommendations of study are :

1. It is necessary to increase the perceptions level respondents about IFS. Hence, the concerned development departments and NGO's should organize the extension educational activities with gender expertise to educate the family headed farm women to increase their perceptions about all the benefits of IFS.
2. The positive and significantly related characteristics of respondents need to be considered while selecting for the extension educational programmes to enhance their perception level.
3. Promote IFS by enhancing the perception about IFS among family headed farm women for increasing the income.

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