

RESEARCH ARTICLE :

Socio-economic status and expenditure pattern of the organic farmers of selected agro-climatic zones of northern Karnataka versus conventional farmers

■ **RAJESHWARI DESAI AND K.V. ASHALATHA**

ARTICLE CHRONICLE :

Received :
05.07.2017;

Revised :
17.08.2017;

Accepted :
03.09.2017

SUMMARY : Socio-economic status (SES) is a measure of a family's economic and social position in the society. Sociologists often use socio-economic status as a means of predicting quality of life. The present study was conducted in three agro climatic zones of northern Karnataka with a sample size of each 150 organic and conventional farmers, thus comprising of total of 300 samples. The results revealed that the socio-economic status of the organic farmers was higher as compared to conventional farmers. The farm expenditure grabbed the lion's share in the total family income expenditure followed by food. All the selected respondents under the study were able to make minimum savings from their earnings and none of the families was not free of loans, however, the percentage was meagre.

How to cite this article : Desai, Rajeshwari and Ashalatha, K.V. (2017). Socio-economic status and expenditure pattern of the organic farmers of selected agro-climatic zones of northern Karnataka versus conventional farmers. *Agric. Update*, 12(4): 526-532; DOI : 10.15740/HAS/AU/12.4/526-532.

KEY WORDS :

Socio-economic status, Expenditure pattern, Organic farmers, Conventional farmers

BACKGROUND AND OBJECTIVES

Agriculture is the backbone of the Indian economy, around seventy per cent of the population earns its livelihood from agriculture. Agriculture at present provides livelihood to 60 per cent of the total population. The sector provides employment to 58.4 per cent of the country's workforce and is the single largest private enterprise. Agriculture also plays an important role on the socio-economic status of the rural families. Socio-economic status (SES) is a measure of a family's economic and social position in the society. Sociologists often use socio-economic status as a means of predicting quality of life. The socio

economic status components include, educational level, occupation, annual income, possession of land holdings, live stock, household assets and housing condition in the present research.

The expenditure pattern of farm families is dependent and varies with type of farming, socio-economic status, family size and so on. Savings and investment are also the criterion used for measuring the economic behaviour of human beings. Savings and investments have the positive impact on the quality life. A liability can mean something that is a hindrance or puts a family at a disadvantage, or something that someone is responsible for, or

Author for correspondence :

RAJESHWARI DESAI
AICRP-H.Sc. (Family Resource Management),
Main Agricultural Research Station (UAS),
DHARWAD (KARNATAKA)
INDIA
Email:rajmanohardesaiuas@gmail.com

See end of the article for authors' affiliations

something that increases the chance of something occurring. It has negative effect on the quality of life.

The present study is an attempt to study the socio economic status and expenditure pattern of farm families with the following objectives.

- To study the socio demographic characteristics and socio economic status of the organic and conventional farmers of agro-climatic zones of northern Karnataka.

- To study the relationship between the independent variables and the annual expenditure pattern on various items of selected farm families.

- To study the mode of savings, investment and liabilities of selected farm families.

RESOURCES AND METHODS

Keeping in view of the objectives, three villages viz., Hirehandigol from Northern Dry Zone (zone -3), Ammangi from Northern Transitional Zone (zone-8) and Kamadheneu from Northern Hilly Zone (zone-9) were selected for the present study. Fifty farm women involved in organic farming from each village were selected for collecting the required information for the study. Thus, the total sample of the study comprised of 300 farm women. Pre-structured questionnaire with personal interview method was the research tool used to collect the required information from the sample under the study. Percentages were computed to analyse the data. The socio economic scale of Aggarwal *et al.* (2005) was used to assess the socio economic status of the farm families. Under expenditure pattern of farm families, the data on frequency of purchase and amount spent on food items, clothing, education, personal and house keeping and farm were calculated separately. The cereals, millets, pulses, oil seeds, vegetables and fruits grown in own farm and consumed for self were quantified by converting the quantity consumed into rupees by multiplying with the market rate at the time of data analysis.

OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

Socio demographic characteristics of the selected respondents :

Regarding socio demographic characteristics of the

selected respondents, mean age of the selected organic and conventional farm women in all the zones ranged from 41-44 years and it was found to be in the category of middle age group (Table 1). Poyyamoli and Padmavaty (2011) also found in their study that majority of the organic farmers were middle aged (40-45 years) in Pondicherry region. With respect to caste, majority of both the organic and conventional farm women belonged to upper caste.

Educational level of the respondent is important for acquisition, comprehension and acceptance of information about improved farming. With respect to educational level of the selected organic and conventional farm women under the study, majority of the organic farm women were literate with formal education upto higher standard. However, majority of the conventional farm women (73%) studied upto primary school. These results are similar to the results of study conducted by Lalitha *et al.* (2000), which disclosed that farm women (90%) were educated upto primary level.

Similarly, majority of the organic farm women's counterparts studied upto middle school and one third of them studied upto pre university, while, less than half percentage of the counter parts of conventional farm women (40.66%) studied upto middle school and only 14.68 per cent of them studied upto pre university. These findings are at par with the results of Singh and George (2012) which revealed that largest percentage of the organic farmers were high school educated and few were college educated. Thus, the researcher opines that education of the farmers motivated them towards organic farming.

The main occupation of the cent per cent of the selected respondents of both the organic and conventional farming was agriculture. More than one third (33.33%) of both the organic and conventional farm women/men were working as agricultural labourers. About 12 per cent of the organic farming families and one third of the conventional farming families had horticulture and either employment or business as their subsidiary occupation, respectively.

Irrespective of the agro-climatic zones, majority of the organic and conventional farming families (64.67% and 68.67%, respectively) had medium size family with 6-10 members followed by small family size of upto five members (26.67% and 20.67%, respectively). The mean family size of both the organic and conventional farming families was six *i.e.* medium family. Karki *et al.* (2011)

Table 1 : Socio demographic characteristics of the organic and conventional farmers of agro-climatic zones of northern Karnataka (n=300)

Socio demographic characteristics	NDZ		NTZ		NHZ		Total	
	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=150)	CF (n=150)
Age								
Young (< 40 years)	13 (26.00)	11 (22.00)	18 (36.00)	18 (36.00)	10 (20.00)	10 (20.00)	41 (27.34)	39 (26.00)
Middle (40-47 years)	22 (44.00)	22 (44.00)	18 (36.00)	12 (24.00)	23 (46.0)	23 (46.00)	63 (42.00)	57 (38.00)
Old (> 47 years)	15 (30.00)	17 (34.00)	14 (28.00)	20 (40.00)	17 (34.00)	17 (34.00)	46 (30.66)	54 (36.00)
Mean	43	44	41	43	44	44	43	44
Caste								
Upper caste	50 (100)	50 (100)	42 (84.00)	45 (90.00)	50 (100)	50 (100)	142 (94.67)	145 (96.67)
OBC	-	-	08 (16.00)	05 (10.00)	-	-	08 (5.33)	05 (3.33)
Dalits	-	-	-	-	-	-	-	-
Education								
Illiterate	-	-	-	-	-	-	-	-
Functional literate	-	-	-	-	-	-	-	-
Primary school	-	27 (54.00)	03 (06.00)	40 (80.00)	-	43 (86.00)	03 (2.00)	110 (73.33)
Middle school	37 (74.00)	18 (36.00)	35 (70.00)	10 (20.00)	50 (100)	07 (14.00)	122 (81.33)	35 (23.33)
High School	13 (26.00)	05 (10.00)	12 (24.00)	-	-	-	25 (16.67)	05 (3.33)
Marital status								
Married	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	150(100)	150(100)
Education of the respondent's husband								
Illiterate	-	-	-	-	-	-	-	-
Functional literate	-	-	-	-	-	-	-	-
Primary school	-	-	-	-	-	-	-	-
Middle school	-	18 (36.00)	02 (04.00)	12 (24.00)	11 (22.00)	37 (74.00)	13 (8.67)	67 (44.67)
High School	30 (60.00)	20 (40.00)	30 (60.00)	28 (56.00)	33 (66.00)	13 (26.00)	93(62.00)	61(40.66)
Pre university	20 (40.00)	12 (24.00)	18 (36.00)	10 (20.00)	06 (12.00)	-	44 (29.33)	22 (14.68)
Occupation								
Main occupation								
Agriculture	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	150 (100)	150 (100)
Subsidiary occupation								
Agricultural labourers	-	10(20.00)	12 (24.00)	12 (24.00)	38 (76.00)	28(56.00)	50(33.33)	50(33.33)
Horticulture	06 (12.00)	-	-	-	12 (24.00)	-	18(12.00)	-
Others	-	15(30.00)	-	-	-	22(44.00)	-	37(24.67)
Family size								
Small (upto 5 members)	02 (04.00)	03 (06.00)	15 (30.00)	10 (20.00)	23 (46.00)	27 (54.00)	40 (26.67)	40 (20.67)
Medium (6-10 members)	37 (74.00)	40 (80.00)	33 (66.00)	40 (80.00)	27 (54.00)	23 (46.00)	97 (64.67)	103 (68.67)
Big (>10 members)	12 (24.00)	07 (14.00)	02 (04.00)	-	-	-	13 (8.66)	07 (4.66)
Mean	08	07	05	06	05	05	06	06
Possession of land holdings								
Marginal (>2.5 acres)	-	-	02 (4.00)	05 (10.00)	10 (20.00)	10 (20.00)	12 (8.00)	15 (10.0)
Small (2.51 to 5 acres)	03 (6.00)	-	10 (20.00)	13 (26.00)	33 (66.00)	37 (74.00)	46 (30.67)	50 (33.33)
Medium (5.01-10 acres)	04 (8.00)	08 (16.00)	18 (36.00)	08 (16.00)	07 (14.00)	03 (6.00)	29 (19.33)	19 (12.67)
Large (> 10 acres)	43 (86)	42 (84.00)	20 (40.00)	24 (48.00)	-	-	63 (42.00)	66 (44.00)
Mean	22	23	12	12	6	5	13.33	13.33
Annual income								
Low (<Rs. 2,202,60/-)	02 (04.00)	03 (06.00)	15 (30.00)	22 (44.00)	47 (94)	50 (100)	64 (42.66)	75 (50.00)
Medium (Rs. 2,202,60/- to 396604/-)	23 (46.00)	22 (44.00)	18 (36.00)	13 (26.00)	03 (06.00)	-	44 (29.33)	35 (23.33)
High (Rs. 3,96,604/-)	25 (50.00)	25 (50.00)	17 (34.00)	15 (30.00)	-	-	42 (28.00)	40 (26.67)
Mean	4,44,780	4,13,417	300,633	2,99,198	2,21,600	1,70,800	3,22,338	2,94,472
Livestock possession								
No animals	-	15 (30.00)	-	27 (54.00)	-	37 (74.00)	-	79 (52.67)
1 animal	12 (24.00)	28 (56.00)	17 (34.00)	16(32.00)	37 (74.00)	13 (26.00)	66 (44.00)	57(38.00)
2-3 animals	30 (60.00)	02 (04.00)	25 (50.00)	07 (14.00)	13 (26.00)	-	68 (45.33)	09 (6.00)
4 or more animals	08(16.00)	05 (10.00)	08 (16.00)	-	-	-	16 (10.67)	05 (3.33)
Mean	03	01	02	01	0.260	0.26	02	01

(Figures in the parenthesis indicate percentage)

and Adesope *et al.* (2012) also found in their studies that the organic respondents belonged to medium size family with 6-10 members.

Size of the land holding is an important component of socio-economic status. The respondents of three agro-climatic zones differed significantly from each other in respect of this variable. The mean land holdings of both organic (22 acres) and conventional farming families (23 acres) from NDZ was higher than organic and conventional farming families of NTZ (12 acres each). The organic and conventional farming families of NHZ possessed least land holdings *viz.*, six and five, respectively among all the three agro-climatic zones. In NDZ and NHZ, complete land holding was being cultivated under organic farming. However, the organic farmers of NHZ-8 had converted 50 per cent of their land holdings to organic farming. Ramesh *et al.* (2007) revealed that higher percentage of large and medium farmers were involved in organic farming compared to small farmers in the study area of Madhya Pradesh. The findings of Poyyamoli and Padmavaty (2011) were also similar to these results *i.e.*, majority of the organic farmers possessed small level of farm size in Pondicherry region

Accordingly, average annual income of the organic (Rs. 444,780/-) and conventional farming families (Rs. 413417/-) from NDZ was comparatively higher than other two agro-climatic zones, which was identified as high income category. The average annual income of both the organic and conventional farming families of NTZ was almost equal (Rs. 3,00,633/- and Rs.2,99,198/-), respectively). The average annual income of the organic and conventional farming families of NHZ was lower compared to other two agro-climatic zones *i.e.*, (Rs. 221,600/- and Rs. 170800/-, respectively,) which was identified as medium and low income categories.

On an average, the organic farming families possessed two animals, while, conventional farming families had only one animal. The data regarding the possession of draft and milch animals revealed that irrespective of the agro-climatic zones, the organic farmers possessed more number of draft and milch animals when compared to conventional farmers. Possession of cow was the main component of the organic farming. The possession of cattle at home is an advantageous condition for organic farming. Cultivation of fodder was the major constraint in rearing of animals.

Since, the organic respondents from NDZ had larger size of land holding, they could afford to cultivate fodder crops and hence they could maintain 2-3 animals. In case of respondents from the other two zones, only one or two animals were found and they grew forage crops along the bunds (Table 1).

Socio-economic status of the selected farming families :

The socio-economic status scale as per Agarwal (2005) was used to assess the socio economic status of the selected farming families. It comprised of components related to occupation, land holding, caste, education, socio-political participation, possessions and housing conditions. The findings of the present study revealed that slightly higher percentage of the organic farmers (56% and 28%, respectively) belonged to upper middle class as compared to conventional farmers in NDZ (40%) and NTZ (12%), while, cent per cent and 84 per cent of the organic and conventional farming families belonged to lower middle socio-economic status in NHZ. This was due to the reason that the average family income drawn by the organic farmers was slightly higher in NDZ and NHZ. The social participation of the organic farming families was higher than those of conventional farming families as the organic farming families were the members of the organic farming association and they participated in the meetings with the progressive farmers frequently. These results are supported by the research findings of Chand and Sharma (1999); Lalitha *et al.* (2000) and Wakle *et al.* (2003). The reported findings by Chand and Sharma (1999) indicated that two thirds of the farming families had low socio economic status in tribal area of Himachal Pradesh. About 32 per cent of them had medium socio-economic status. Only two per cent were found to have high socio economic status. Lalitha *et al.* (2000) conducted a study in Bangalore rural area and found that almost equal percentage of the farm women (36.70% and 35 %) belonged to medium and high socio-economic status. One fourth of the sample belonged to low socio-economic status. Wakle *et al.* (2003) revealed that majority of the rural women (70.50 %) were from low socio-economic status followed by medium (28.10 %) and high (1.40 %) socio-economic status in western and central Maharashtra (Table 2).

Relationship between the independent variables

and the annual expenditure pattern on various items of the organic and conventional farmers of the selected northern agro-climatic zones :

The relationship between the annual family income and family size were found to be positively and statistically significant (Table 3). The percentage family income share of selected farming families on family clothing was 5.0. This was supported by findings of the study conducted in Haryana by Verma (1992), which also revealed that the percentage of income spent on clothing ranged from 5.58 to 11.70. Pradhan (2012) also disclosed similar findings that the selected rural households in Sundargarh district of Odisha spent around five per cent of their income on clothing.

Savings, investment and liabilities of the selected farming families :

It was gratifying to note that cent per cent of the selected sample under the study were able to make minimum savings from their earnings. The selected farm women in all the zones were the members of self-help groups and they compulsorily saved money weekly, other than this, pigmy followed by chit funds were the common modes of savings in all the selected zones as the service of pigmy collectors was door to door. Chit funds were local and farm men showed interest towards them. It

was observed from the data that savings in the form of insurance and bank deposits was followed by organic and conventional farming families in NDZ and NTZ. The percentage share of savings from the total annual income of the family ranged from 3.86 to 5.59 among the farming families of all zones.

With respect to liabilities, even the farming families of higher annual income *i.e.*, NDZ were not free of loans, however, the percentage was meager. Some of the reasons like construction of house, purchase of vehicle, agricultural implements, and bullocks, the social obligations like marriage of children may be quoted for the loans (Table 4).

Percentage relationship between the annual income and expenditure pattern :

Percentage relationship between the annual income and expenditure pattern on various items is depicted in Table 5. It is studied from the data that except NHZ, in all zones, percentage share of the total annual family income spent on farming was found to be high when compared to other expenditure pattern. Thus, the recorded figure for both organic and conventional farming families of NDZ and conventional farming families of NTZ was 29.58, 38.90 and 36.77 per cent of the total family income, respectively was spent on farming.

Socio-economic status	NDZ		NTZ		NHZ		Total	
	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=150)	CF (n=150)
Upper High (>76)	-	-	-	-	-	-	-	-
High (61-75)	-	-	-	-	-	-	-	-
Upper Middle (46-60)	28 (56.00)	20 (40.00)	14 (28.00)	06 (12.00)	-	-	42 (28.00)	26 (17.33)
Lower Middle (31-45)	22 (44.00)	30 (60.00)	36 (72.00)	44 (88.00)	50 (100)	42 (84.00)	108(72.00)	116 (73.33)
Poor (16-30)	-	-	-	-	-	08 (16.00)	-	08 (5.34)
Very Poor (<16)	-	-	-	-	-	-	-	-

(Figures in the parenthesis indicate percentage)

Table 3 : Relationship between the independent variables and the annual expenditure pattern on various items of the organic and conventional farmers of the selected northern agro-climatic zones (n=300)

Variables	NDZ		NTZ		NHZ		Total									
	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=150)	CF (n=150)								
	Family size	Annual income														
Food	0.854**	0.743**	0.775**	0.584**	0.703**	0.790**	0.741**	0.525**	0.760**	0.560**	0.756**	0.686**	0.762**	0.662**	0.747**	0.588**
Clothing	0.360**	0.638**	0.640**	0.694**	0.526**	0.646**	0.387**	0.625**	0.345**	0.325**	0.295**	0.35**	0.430**	0.526**	0.450**	0.556**
House keeping	0.382**	0.723**	0.692**	0.703**	0.436**	0.763**	0.435**	0.670**	0.404**	0.334**	0.55**	0.32**	0.417**	0.626**	0.569**	0.564**

(Figures in the parenthesis indicate percentage)

**indicates significance of value at P=0.01

NS=Non-significant

However, not much difference was noticed between share of family income spent on food and on farming among NTZ respondents from organic farming families and it was found to be 28.72 and 29.33 per cent, respectively. However, the organic and conventional farming families of NHZ, spent 34.65 and 30.89 per cent share of family income on food.

The next major percentage of annual income spent was housekeeping. It ranged from 15 per cent to 21 per cent for all the selected groups in all the zones. Both organic and conventional farming families in NDZ have reported 20 per cent each and around 20 per cent each in case of NTZ, while 15.12 per cent (organic farming families) and 17.08 per cent (conventional farming families) in NHZ reported as their total expenditure from their annual income on housekeeping.

Regarding clothing, in NHZ both organic and conventional farming families have reported 2.90 and 2.41

per cent of expenditure, respectively from their annual income on clothing. Among NDZ and NTZ not much of difference was seen. The organic farming families have reported higher percentage namely 7.41 and 5.56 when compared to conventional farming families, 6.97 per cent and 4.20 per cent, respectively. The percentage share of savings from the total annual income of the family ranged from 3.86 to 5.59 among the farming families of all zones.

It was interesting to know from the data that, irrespective of the zones, the percentage share of expenditure from the total income on farming for conventional farmers was more (36.18%) when compared to organic farmers (27.17%). The per cent of cash on hand, other expenses and liabilities to the annual family income ranged from 6.32 to 23.14. The expenses which are not included in the above mentioned categories viz., beverages, pan, tobacco, and other intoxicants, furnishings, foot wear, entertainment, miscellaneous

Table 4 : Percentage distribution of the selected respondents of northern agro-climatic zones according to mode of savings, investment and liabilities (n=300)

Particulars	NDZ		NTZ		NHZ		Average	
	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=150)	CF (n=150)
Savings								
Formal women groups	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	150 (100)	150 (100)
Chit fund	18 (36.00)	13 (26.00)	-	-	-	-	18 (12.00)	13 (8.67)
Pigmy	12 (24.00)	18 (36.00)	13 (26.00)	14 (28.00)	12 (24.00)	12 (24.00)	37 (24.67)	44 (29.33)
Insurance	04 (8.00)	03 (6.00)	03 (6.00)	04 (8.00)	-	-	07 (4.66)	07 (4.66)
Bank deposits	08 (16.00)	05 (10.00)	03 (6.00)	09 (18.00)	-	-	11 (7.33)	14 (9.33)
Investment								
Gold	04 (8.00)	02 (4.00)	02 (4.00)	02 (4.00)	03 (6.00)	-	09 (6.00)	04 (2.66)
Animal purchase	02 (4.00)	-	-	-	-	-	02 (1.33)	
Liabilities								
Hand loan	02 (4.00)	09 (18.00)	06 (12.00)	06 (12.00)	07 (14.00)	10 (20.00)	15 (10.00)	25 (16.66)

(Figures in the parenthesis indicate percentage)

Table 5 : Percentage relationship between the annual income and expenditure pattern on various items (n=300)

Particulars	NDZ		NTZ		NHZ		Average	
	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=50)	CF (n=50)	OF (n=150)	CF (n=150)
Average annual income (Rs./-)	4,44,780	4,13,417	300,633	2,99,198	2,21,600	1,708,00	3,22,338	2,94,472
Possession of land holding (acres)	22	23	12	12	6	5	13.33	13.33
Food (%)	22.75	22.56	29.33	28.71	34.65	30.89	27.52	26.25
Clothing (%)	7.41	6.97	5.56	4.20	2.9	2.41	5.8	5.15
House keeping (%)	20.26	20.06	20.76	19.77	15.12	17.08	19.26	19.39
Farm (%)	29.58	38.90	28.72	36.77	20.25	28.55	27.17	36.18
Savings (%)	5.59	5.19	4.5	4.41	3.94	3.86	4.68	4.49
Other expenses/liabilities and Cash on hand (%)	14.41	6.32	11.13	6.14	23.14	17.21	15.57	8.54
Total	100	100	100	100	100	100	100	100

services, money given for charity, liabilities etc., may be diverted to other expenses and cash on hand category.

However, for remaining items of expenditure not much difference was noticed in percentage share of annual family income (Table 5).

Conclusion :

The shift to organic farming had positive impact on the socio-economic status of the farm families in all the selected agro-climatic zones. Organic agriculture can enhance the quality life of farm families; hence it has to be promoted among the farmers.

Authors' affiliations :

K.V. ASHALATHA, Department of Agricultural Statistics, College of Agriculture, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

REFERENCES

Adesope, O.M., Matthews, E.C., Oguzor, N.S. and Ugwuja, V.C. (2012). Effect of socio economic characteristics of farmers on their adoption of organic farming practices. In: *Crop production technologies*, Ed. Shrama, P., Intech Publications, Europe, pp. 211-220.

Aggarwal, O.P., Bhasin, S.K., Sharma, A.K., Chhabra, P., Aggarwal, K. and Rajoura, O.P. (2005). A new instrument (Scale) for measuring the socio-economic status of a family: preliminary study. *Indian J. Commu. Medi.*, **30**(4):111-114.

Chand, M. and Sharma, D.D. (1999). Tribal women's involvement

in farming. *Indian J. Extn. Educ.*, **35** (3&4): 241-244.

Karki, L., Schleenbecker, R. and Hamm, U. (2011). Factors influencing a conversion to organic farming in Nepalese tea farms. *J. Agric. Rural Dev. Tropics & Subtropics*, **112** (2): 113-123.

Lalitha, K.C., Siddaramaiah, B.S. and Chandradhekar, S.V. (2000). Profile of rural women of Karnataka. *Rural India*, **63**(10): 202-204.

Poyyamoli, G. and Padmavaty, A. (2011). Analyzing innovative practices extend and income generation in organic farming and GRA fields in Bahour, Puducherry. *Indian J. Dev. Agric. Eco.*, **3**(6): 252-260.

Pradhan, Hemant Kumar (2012). Patterns of consumption expenditure in rural household: A case study of select villages of Sundargarh district of Odisha, Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, p.45.

Ramesh, P., Singh, A.B., Ramana, S. and Panwar, N.R. (2007). Feasibility of organic farming: A farmers survey in Madhya Pradesh. *Kurukshetra*, **55**(4): 25-30.

Singh, S. and George, R. (2012). Organic farming: awareness and beliefs of farmers in Uttarkhand, India. *J. Hum. Ecol.*, **37**(2):139-149.

Verma, S.K. (1992). Women in agriculture-A socio economic analysis. Concept publishing company, New Delhi, p.73.

Wakle, P.K., Bellurkar, C.M. and Gholve, M.A. (2003). A study on decision making pattern and participation of rural women in farming enterprise. *Maharashtra J. Extn. Educ.*, **22** (2): 94-99.

12th
Year
★★★★★ of Excellence ★★★★★