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Effect of Socio Economic Factors on Food and Nutrient Consumption of Rural Women

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Women invariably perform the duties of both employees and the housewives. This dual role entails heavy mental and physical effort which often leads to complete exhaustion of women due to over work. .But very often are overlooked in the family and instead they are viewed as economic burdens. . Good health is a requirement throughout life and vital to women in terms of their daily activities, but nutritional deficiency is a major problem for women in India. To overcome these problems daily diet of the women should be nutritious. But health is a crucial area where no due attention has been paid for women. The study was carried out in Jagatsinghpur district of Odisha. This research consist sample of three hundred rura women 150 each from farm and non farm women catagory. The respondents were interviewed personally. In the present study is about effects of socioeconomic factors like age,education,occupation,income, family size on, daily food intake and nutrient intake of the respondents were calculated. Results of this study reveals that except income no other variable has any significant effect on consumption pattern of rural women in both the groups.

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I. INTRODUCTION

Despite India's considerable social and economic progress over the decades, malnutrition continues to be of the country. The World, Bank reported that India had 20% of world population, out of which 40% are malnourished.As per the estimates of National Family Health Survey Orissa lies far behind the National average in terms of many important aspects of nutrition. According to NFHS-II the percentage of underweight women (BMI<18.1) is 48% and it is 41 percent as per the report of NFHS-III. The problem is more acute in case of women staying in rural area. In surveys done by National Nutrition Monitoring Board in 2005, it was found that inadequate intake of food and nutrients are the major etiological factors for most of the nutritional problems in the country. The prevalence of undernutrition was about 33% and 36% among adult men and women respectively.

Poor nutrition of women is one of the most damaging outcome of gender inequality. It undermines their health, stunts their opportunity for education and employment and impedes progress towards gender equality and empowerment of women. In rural India in agriculture and allied activities as much as 59.5% of total labour force are women. Women have extensive workloads with dual responsibility for farm and household production. Women's contribution to agriculture wether it be subsistence farming or commercial agriculture when measured in terms of numbers of tasks performed and time spent is greater than men.Women's work is getting harder and more time consuming due to ecological degradation and changing agricultural technology and practices. Women contribute considerably (84%) to household income through farm and non farm activities as well as through work as landless agricultural labourers. They are subjected to different health stresses from economic domestic and agricultural works. However, it is not clear that what are those factors and by what mechanism these result in differences in nutritional status. The present study set out to asses to identify the social, economic, environmental factors that affect the food consumption and nutrient intake of farm women.

II. METHODOLOGY

Jagatsinghpur district of orissa is selected purposively. Stratified two stage random sampling method will be adopted for the selection of the sample respondents of the rural areas of Jagatsinghpur district. Out of eight blocks of Jagatsinghpur district three blocks are to be selected randomly. In the second stage 100 women from each block out of which 50 Nos from farm sector and 50 Nos. from non farm sector are to be selected randomly. All total 300 women are to be selected for this study. Dietary investigation of the subject was conducted by 24 hour recall method. The consumed food was listed under different food groups like cereals, pulses, vegetables, fruits meat & fish, nuts & oil seeds, sugar and Jaggery. The nutrient intake was calculated

using food consumption tables of ICMR. The results was interpreted through frequency distribution, mean, median, range and mean+ SO for socio economic variables of dietary intake (food groups and various nutrients) Statistical Analysis was also be performed by paired 't' test and P<0.05 and 0.01 will be considered to be statistically important.

III. DISCUSSION

The nutritional status of any individual lis directly affected by his/her food intake. Man needs a wide range of nutrients to lead a healthy and active life and these are derived through the diet they consume daily.The components of diet should be chosen judiciously so that it provides all the nutrients in adequate amount and in proper proportions(ICMR,2000).The daily intake of food by the sample women was studied by using 24hoursrecall method for average of three days to find out,their dietary intake with respect to various socio economic variables and is presented and analysed in the following Tables. The food intake was calculated and expressed in percentage to a balanced diet(NIN, 1998)recommended for moderate worker women.The amount of each nutrient that is required by a human being depends upon his age and physiological status..Low intake of nutrients makes a significant contribution to poor nutritional status.Daily intakeof various nutrientsby each subject was calculated using food compositiontable(ICMR,2000) .

Table-1.2.3: Mean, SD and F-tests on Dietary Intakes of Farm and Non-Farm Women of Different Age Groups.

Food Stuffs	Age Groups	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F	N	Mean	S.D.	F
Cereals	Below 25	50	469.70	16.67	0.200 NS	37	391.22	35.77	1.109 NS
	25-35	52	467.50	18.43		60	402.08	35.69	
	35-45	32	468.59	15.15		35	392.71	39.23	
	Above 45	16	466.88	11.67		18	405.56	43.48	
	Total	150	468.40	16.44		150	397.63	37.58	
Pulses	Below 25	50	22.62	3.60	0.858 NS	37	30.95	5.12	1.759 NS
	25-35	52	23.15	3.90		60	32.42	6.92	
	35-45	32	23.94	3.95		35	29.29	7.49	
	Above 45	16	22.81	2.81		18	31.94	6.22	
	Total	150	23.11	3.71		150	31.27	6.63	
Green leafy vegetables	Below 25	50	35.14	5.34	0.693 NS	37	38.11	4.91	0.381 NS
	25-35	52	34.62	6.80		60	38.33	7.35	
	35-45	32	35.16	7.28		35	37.14	6.89	
	Above 45	16	37.19	4.46		18	36.94	5.72	
	Total	150	35.18	6.23		150	37.83	6.49	
Other vegetables	Below 25	50	65.00	14.74	0.781 NS	37	77.16	18.69	0.731 NS
	25-35	52	65.58	14.71		60	76.08	13.12	
	35-45	32	69.84	21.38		35	72.86	13.19	
	Above 45	16	69.06	12.94		18	78.06	12.14	
	Total	150	66.67	16.18		150	75.83	14.57	
Roots and tubers	Below 25	50	129.20 B	19.47	2.821*	37	118.51	24.72	0.191 NS
	25-35	52	120.19 A	21.47		60	118.33	27.09	
	35-45	32	127.50 B	20.48		35	116.29	24.51	
	Above 45	16	115.63 A	21.90		18	113.89	20.04	
	Total	150	124.27	21.03		150	117.37	24.97	
Fruits	Below 25	50	20.04 G	5.56	4.005*	37	35.81	6.07	1.845 NS
	25-35	52	22.71 G	6.93		60	34.33	4.46	
	35-45	32	19.91 G	4.88		35	36.43	5.76	
	Above 45	16	24.38 H	2.50		18	36.94	4.89	
	Total	150	21.40	5.90		150	35.50	5.30	
Fish	Below 25	50	12.62	12.02	0.311 NS	37	25.76	7.57	1.171 NS
	25-35	52	14.79	11.83		60	22.92	7.71	
	35-45	32	13.03	13.87		35	23.54	11.06	
	Above 45	16	14.44	11.92		18	25.94	7.62	
	Total	150	13.65	12.28		150	24.13	8.58	
Meat	Below 25	50	0.60	2.40	0.273 NS	37	0.68	4.11	1.046 NS

	25-35	52	0.96	5.69		60	0.83	4.53	
	35-45	32	0.63	2.46		35	1.57	6.50	
	Above 45	16	0.00	0.00		18	3.33	9.70	
	Total	150	0.67	3.78		150	1.27	5.77	
Chicken	Below 25	50	9.20	14.23	0.083^{NS}	37	0.00	0.00	1.791^{NS}
	25-35	52	9.13	14.27		60	2.75	8.36	
	35-45	32	7.81	12.82		35	4.29	10.72	
	Above 45	16	9.38	14.59		18	3.61	10.82	
	Total	150	8.90	13.87		150	2.53	8.35	
Egg	Below 25	50	10.20	16.66	1.590^{NS}	37	17.43	13.16	2.244^{NS}
	25-35	52	10.29	15.76		60	20.17	11.93	
	35-45	32	12.34	18.49		35	16.14	13.51	
	Above 45	16	1.88	7.50		18	11.67	13.50	
	Total	150	9.80	16.17		150	17.53	12.96	
Milk and Milk products	Below 25	50	82.30	52.89	0.113^{NS}	37	145.41	46.72	0.219^{NS}
	25-35	52	87.12	55.44		60	150.67	54.39	
	35-45	32	80.78	54.26		35	147.14	64.56	
	Above 45	16	85.94	65.45		18	157.50	58.87	
	Total	150	84.03	54.98		150	149.37	55.31	
Fat and Oil	Below 25	50	17.20	3.58	0.382^{NS}	37	21.76	3.58	1.835^{NS}
	25-35	52	17.04	3.12		60	23.00	6.12	
	35-45	32	16.75	3.65		35	21.86	5.70	
	Above 45	16	16.25	2.24		18	25.28	7.95	
	Total	150	16.95	3.30		150	22.70	5.81	
Sugar	Below 25	50	18.90	2.53	0.623^{NS} .	37	26.30	7.86	1.542^{NS}
	25-35	52	19.13	3.24		60	28.92	7.08	
	35-45	32	18.28	2.73		35	26.86	6.31	
	Above 45	16	18.75	2.24		18	25.83	7.52	
	Total	150	18.83	2.80		150	27.42	7.20	
Jaggery	Below 25	50				37	0.00	0.00	0.495^{NS}
	25-35	52				60	0.42	3.23	
	35-45	32				35	0.00	0.00	
	Above 45	16				18	0.00	0.00	
	Total	150				150	0.17	2.04	
Condiments and Spices	Below 25	50	9.92^{K}	1.66	3.082*	37	10.05	1.45	0.382^{NS}
	25-35	52	10.54^{K}	1.49		60	10.22	1.60	
	35-45	32	10.19^{K}	1.91		35	9.89	1.53	
	Above 45	16	11.25^{L}	1.44		18	10.22	1.66	
	Total	150	10.33	1.67		150	10.10	1.54	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.3 presents mean, SD and F-values of different items of food intakes by both the groups of women belonging to different age groups. In case of farm women, F-values observed against cereals (0.2), pulses (0.858), green leafy vegetables (0.693), other vegetables (0.781), fish (0.311), meat (0.273), chicken (0.083), egg (1.590), milk & milk products (0.113), fat and oil (0.382) and sugar (0.623) are non-significant at 5% level (P>0.05). This implies,average volumes of consumption of these items by farm women of each age group are almost similar. Further, F-values shown against roots and tubers (2.821), fruits (4.005) and condiments (3.082) are significant at 5% level. On application of Duncan's Multiple Range Test (DMRT) and allotting superscripts over the means, it may be envisaged that the consumption of roots and tubers by farm women below 25 years(129.20) and 35-45 years (127.50) are similar (Superscript "B") besides 25-35 years (120.19) and above 45 years (115.63) (Superscript "A"). Further, consumption of fruit by farm women of below 25 years (20.04), 25-35 years (22.71) and 35-45 years (19.91) are similar (Superscript "G") and different from above 45 years (24.38) (Superscript "H"). On the other hand, almost similar trend is observed in case of food intakes by the non-farm women on the basis of different age groups. In this case, F-values observed against cereals (1.109), pulses (1.759), green leafy vegetables (0.831), other vegetables (0.731), roots and tubers (0.191), fruits (1.845), fish (1.171), meat (1.046), chicken (1.791), egg (2.244), milk & milk products (0.219), fat and oil (1.835), sugar (1.542), jiggery (0.495) and condiments (0.382) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above food items by the non-farm women remains almost

similar in all age groups. In this way, the results obtained on analysis of variance over the nutrients intake by both communities of various age groups have been presented in the following table.

Table-1.2.4: Mean, SD and F-tests on Nutrient Intakes of Farm and Non-Farm Women of Different Age Groups.

Food Stuffs	Age Groups	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F	N	Mean	S.D.	F
Protein	Below 25	50	50.13	5.12	0.257 NS	37	50.91	4.78	1.055 NS
	25-35	52	50.76	5.70		60	52.67	6.08	
	35-45	32	50.43	5.85		35	51.20	6.75	
	Above 45	16	49.51	4.07		18	53.20	7.34	
	Total	150	50.35	5.35		150	51.95	6.13	
Fat	Below 25	50	27.26	6.03	0.458 NS	37	36.60	5.68	1.226 NS
	25-35	52	27.50	5.68		60	38.52	8.07	
	35-45	32	27.05	6.68		35	36.60	9.05	
	Above 45	16	25.55	4.25		18	40.30	10.94	
	Total	150	27.11	5.87		150	37.81	8.22	
Carbohydrate	Below 25	50	441.32	16.91	0.132 NS	37	396.55	34.02	1.289 NS
	25-35	52	439.63	19.55		60	408.96	38.08	
	35-45	32	440.67	16.79		35	396.73	37.90	
	Above 45	16	438.71	11.63		18	408.09	43.47	
	Total	150	440.32	17.26		150	402.94	37.87	
Calorie	Below 25	50	2218.03	124.43	0.219 NS	37	2127.96	189.18	1.401 NS
	25-35	52	2216.21	135.12		60	2201.97	230.53	
	35-45	32	2214.84	133.27		35	2129.56	234.42	
	Above 45	16	2189.71	78.83		18	2216.62	291.58	
	Total	150	2213.70	125.43		150	2168.58	231.14	
Calcium	Below 25	50	480.98	118.86	0.157 NS	37	650.12	93.64	0.292 NS
	25-35	52	495.69	121.21		60	654.61	112.47	
	35-45	32	484.26	139.72		35	638.84	130.55	
	Above 45	16	497.60	130.32		18	667.74	105.83	
	Total	150	488.55	124.48		150	651.40	111.21	
Phosphorus	Below 25	50	458.07	93.54	0.226 NS	37	596.13	80.50	0.410 NS
	25-35	52	466.93	98.33		60	610.86	103.39	
	35-45	32	465.03	118.19		35	589.82	117.47	
	Above 45	16	445.24	80.35		18	611.06	99.41	
	Total	150	461.26	98.93		150	602.34	100.80	
Iron	Below 25	50	15.38	1.18	0.325 NS	37	16.61	1.18	1.486 NS
	25-35	52	15.48	1.45		60	16.87	1.63	
	35-45	32	15.63	1.81		35	16.21	1.53	
	Above 45	16	15.71	0.89		18	16.67	1.30	
	Total	150	15.50	1.40		150	16.63	1.48	
Carotene	Below 25	50	2108.69	268.44	0.221 NS	37	2360.96	238.21	0.917 NS
	25-35	52	2079.35	349.51		60	2387.16	352.07	
	35-45	32	2124.31	371.00		35	2302.06	317.29	
	Above 45	16	2140.53	216.71		18	2277.51	255.05	
	Total	150	2105.25	315.16		150	2347.68	308.12	
Thiamin	Below 25	50	1.71	0.28	0.054 NS	37	1.93	0.29	0.536 NS
	25-35	52	1.73	0.31		60	1.99	0.33	
	35-45	32	1.71	0.30		35	1.93	0.39	
	Above 45	16	1.71	0.33		18	2.02	0.38	
	Total	150	1.72	0.30		150	1.96	0.34	

Riboflavin	Below 25	50	0.89	0.25	0.206 NS	37	1.25	0.20	0.252 NS
	25-35	52	0.93	0.26		60	1.26	0.23	
	35-45	32	0.90	0.30		35	1.23	0.28	
	Above 45	16	0.89	0.27		18	1.29	0.24	
	Total	150	0.91	0.26		150	1.26	0.24	
Niacin	Below 25	50	20.33	0.75	0.080 NS	37	17.97	1.48	1.268 NS
	25-35	52	20.29	1.00		60	18.38	1.49	
	35-45	32	20.34	0.83		35	17.95	1.70	
	Above 45	16	20.23	0.56		18	18.66	2.03	
	Total	150	20.30	0.84		150	18.21	1.61	
Vitamin_C	Below 25	50	72.20	8.76	0.402 NS	37	85.85	8.70	0.432 NS
	25-35	52	72.44	10.14		60	84.68	8.30	
	35-45	32	73.34	13.44		35	83.69	9.17	
	Above 45	16	75.19	6.43		18	85.48	7.02	
	Total	150	72.84	10.15		150	84.83	8.43	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.4 presents mean, SD and F-values of different items of nutrient intakes by both the groups of women belonging to different age groups. In case of farm women, F-values observed against protein (0.257), fat (0.458), carbohydrates (0.132), calorie (0.219), calcium (0.157), phosphorus (0.226), iron (0.325), carotene (0.221), thiamin (0.054), riboflavin (0.206), niacin (0.080) and Vitamin_C (0.402) are non-significant at 5% level (P>0.05). This implies, average volumes of nutrients of consumed by farm women of each age group are almost similar. On the other hand, almost similar trend is observed in case of nutrients intake by the non-farm women of different age groups. In this case, F-values observed against protein (1.055), fat (1.226), carbohydrates (1.289), calorie (1.401), calcium (0.292), phosphorus (0.410), iron (1.486), carotene (0.917), thiamin (0.536), riboflavin (0.252), niacin (1.268) and Vitamin_C (0.432) are non-significant at 5% level (P>0.05). are non-significant at 5% level (P>0.05). Hence, the average quantities of consumednutrients of above food items by the non-farm women remain almost similar in all age groups. In this way, the results obtained on analysis of variance over the food intake by both communities of various income groups have been presented in the following table.

Table-1.2.5: Mean, SD and F-tests on Dietary Intakes of Farm and Non-Farm Women of Different Income Groups.

Nutrients	Income Groups	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F-value	N	Mean	S.D.	F-value
Cereals	Below 10,000	41	468.90	18.56	1.171 NS	2	375.00	35.36	1.002 NS
	10,000 - 15,000	60	465.58	15.97		20	407.00	37.25	
	15,000 - 20,000	32	471.09	15.80		57	400.09	37.26	
	Above 20,000	17	472.06	13.12		71	393.66	37.95	
	Total	150	468.40	16.44		150	397.63	37.58	
Pulses	Below 10,000	41	23.32	3.66	0.139 NS	2	22.50	3.54	1.360 NS
	10,000 - 15,000	60	23.05	3.00		20	30.50	5.36	
	15,000 - 20,000	32	23.19	4.40		57	31.32	6.45	
	Above 20,000	17	22.65	4.85		71	31.69	7.07	
	Total	150	23.11	3.71		150	31.27	6.63	
Green leafy vegetables	Below 10,000	41	33.66	6.74	1.319 NS	2	37.50	3.54	1.173 NS
	10,000 - 15,000	60	36.00	6.25		20	38.75	6.46	
	15,000 - 20,000	32	35.06	6.53		57	36.58	6.14	
	Above 20,000	17	36.18	3.32		71	38.59	6.77	
	Total	150	35.18	6.23		150	37.83	6.49	
Other vegetables	Below 10,000	41	62.44	15.33	1.329 NS	2	70.00	14.14	0.291 NS
	10,000 - 15,000	60	68.17	15.86		20	73.75	15.29	
	15,000 - 20,000	32	68.91	20.03		57	76.58	15.82	
	Above 20,000	17	67.35	8.86		71	75.99	13.51	
	Total	150	66.67	16.18		150	75.83	14.57	
Roots and tubers	Below 10,000	41	125.12	20.39	1.076 NS	2	100.00	0.00	0.748 NS

	10,000 - 15,000	60	120.83	20.28		20	116.00	26.24	
	15,000 - 20,000	32	128.75	20.12		57	120.53	25.61	
	Above 20,000	17	125.88	26.23		71	115.70	24.40	
	Total	150	124.27	21.03		150	117.37	24.97	
Fruits	Below 10,000	41	20.22 ^{A}	5.48		2	35.00	7.07	
	10,000 - 15,000	60	20.65 ^{A}	5.33		20	36.25	7.23	
	15,000 - 20,000	32	21.63 ^{A}	4.91	5.526*	57	35.88	5.27	0.441 ^{NS}
	Above 20,000	17	26.47 ^{B}	8.06		71	35.00	4.71	
	Total	150	21.40	5.90		150	35.50	5.30	
Fish	Below 10,000	41	9.29 ^{G}	11.92		2	25.00	7.07	
	10,000 - 15,000	60	12.73 ^{G}	12.73		20	26.25	9.10	
	15,000 - 20,000	32	19.03 ^{H}	11.12	4.707*	57	25.26	9.04	1.522 ^{NS}
	Above 20,000	17	17.29 ^{H}	9.37		71	22.59	7.95	
	Total	150	13.65	12.28		150	24.13	8.58	
Meat	Below 10,000	41	0.98	3.00		2	0.00	0.00	
	10,000 - 15,000	60	0.33	1.81		20	1.50	6.71	
	15,000 - 20,000	32	0.00	0.00	1.728 ^{NS}	57	0.96	5.13	0.125 ^{NS}
	Above 20,000	17	2.35	9.70		71	1.48	6.12	
	Total	150	0.67	3.78		150	1.27	5.77	
Chicken	Below 10,000	41	7.93	13.74		2	0.00	0.00	
	10,000 - 15,000	60	11.50	14.42		20	1.50	6.71	
	15,000 - 20,000	32	6.72	12.22	1.260 ^{NS}	57	3.16	9.43	0.272 ^{NS}
	Above 20,000	17	6.18	14.74		71	2.39	8.01	
	Total	150	8.90	13.87		150	2.53	8.35	
Egg	Below 10,000	41	7.80	16.66		2	25.00	0.00	
	10,000 - 15,000	60	8.50	14.97		20	14.00	13.04	
	15,000 - 20,000	32	11.72	17.49	1.219 ^{NS}	57	17.46	13.10	0.815 ^{NS}
	Above 20,000	17	15.59	16.19		71	18.38	12.98	
	Total	150	9.80	16.17		150	17.53	12.96	
Milk and Milk products	Below 10,000	41	69.63 ^{K}	48.80		2	175.00	35.36	
	10,000 - 15,000	60	79.08 ^{K}	56.44		20	147.00	72.05	
	15,000 - 20,000	32	101.72 ^{L}	50.78	2.989*	57	152.46	54.00	0.261 ^{NS}
	Above 20,000	17	102.94 ^{L}	61.82		71	146.83	52.12	
	Total	150	84.03	54.98		150	149.37	55.31	
Fat and Oil	Below 10,000	41	16.51	3.54		2	20.00	0.00	
	10,000 - 15,000	60	16.85	3.27		20	22.00	6.96	
	15,000 - 20,000	32	16.69	3.09	2.201 ^{NS}	57	23.51	6.81	0.704 ^{NS}
	Above 20,000	17	18.82	2.81		71	22.32	4.54	
	Total	150	16.95	3.30		150	22.70	5.81	
Sugar	Below 10,000	41	18.05 ^{N}	2.93		2	27.50	10.61	
	10,000 - 15,000	60	18.75 ^{N}	3.00		20	29.50	8.41	
	15,000 - 20,000	32	19.06 ^{N}	2.35	3.554*	57	26.37	7.04	0.991 ^{NS}
	Above 20,000	17	20.59 ^{M}	1.66		71	27.68	6.91	
	Total	150	18.83	2.80		150	27.42	7.20	
Jaggery	Below 10,000	41				2	0.00	0.00	
	10,000 - 15,000	60				20	0.00	0.00	
	15,000 - 20,000	32				57	0.00	0.00	0.366 ^{NS}
	Above 20,000	17				71	0.35	2.97	
	Total	150				150	0.17	2.04	
Condiments and Spices	Below 10,000	41	9.83 ^{S}	1.73		2	8.00	0.00	
	10,000 - 15,000	60	10.17 ^{S}	1.57		20	9.70	1.49	
	15,000 - 20,000	32	10.91 ^{S}	1.67	3.978*	57	10.33	1.60	2.165 ^{NS}
	Above 20,000	17	11.06 ^{R}	1.43		71	10.08	1.49	
	Total	150	10.33	1.67		150	10.10	1.54	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.5 presents mean, SD and F-values of different items of food intakes by both the groups of women belonging to different income groups. In case of farm women, F-values observed against cereals (0.171), pulses (0.139), green leafy vegetables (1.319), other vegetables (1.329), roots and tubers (1.076), meat (1.728), chicken (1.260), egg (1.219), fat and oil (2.201) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each income group are almost similar. Further, F-values shown against fruits (5.526), fish (4.707), sugar (3.554) and condiments (3.978) are significant at 5% level (P<0.05). On application of Duncan's Multiple Range Test (DMRT) and allotting superscripts over the means, it may be envisaged that the consumption of fruits by farm women in above 20,000 income group (26.47) is different from those of other similar groups. So, consumption of fruits by farm women having income below 20,000 (superscript "A") is significantly different from above 20,000 income group ("B"). Further, consumption of fish by farm women of income groups below 10,000 (9.29) and10,000-15,000 (12.73) are similar (Superscript "G") and different from 15,000-20,000 (19.03) and above 20,000 (17.29) (Superscript "H"). Further, consumption of milk and milk products by farm women of below 10,000 (69.63) and 10,000-15,000 (79.08) income groups are similar (Superscript "K") and different from 15,000-20,000 (101.72) and above 20,000 (102.94) (Superscript "L"). Consumption of sugar by farm women in above 20,000 income group (20.59) is different from those of other similar groups. So, consumption of sugar by farm women having income below 20,000 (superscript "N") is significantly different from above 20,000 income group ("M"). Consumption of condiments by farm women in above 20,000 income group (11.06) is different from those of other similar groups. So, consumption of fruits by farm women having income below 20,000 (superscript "S") is significantly different from above 20,000 income group ("R"). On the other hand, a bit different trend is observed in case of food intakes by the non-farm women of different income groups. In this case, F-values observed against cereals (1.002), pulses (1.360), green leafy vegetables (1.176), other vegetables (0.291), roots and tubers (0.748), fruits (0.441), fish (1.522), meat (0.125), chicken (0.272), egg (0.815), milk & milk products (0.261), fat and oil (0.704), sugar (0.991), jiggery (0.366) and condiments (2.165) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above food items by the non-farm women remains almost similar in all income groups. In this way, the results obtained on analysis of variance over the nutrients intake by both communities of various income groups have been presented in the following table.

Table-1.2.6: Mean, SD and F-tests on Nutrient Intakes of Farm and Non-Farm Women of Different Income Groups.

Nutrients	Income Groups	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F-value	N	Mean	S.D.	F-value
Protein	Below 10,000	41	48.40 ^{A}	5.35	3.836*	2	49.05	0.81	0.457 ^{NS}
	10,000 - 15,000	60	50.23 ^{A}	5.23		20	51.97	7.03	
	15,000 - 20,000	32	51.93 ^{B}	5.25		57	52.58	6.39	
	Above 20,000	17	52.45 ^{B}	4.65		71	51.53	5.75	
	Total	150	50.35	5.35		150	51.95	6.13	
Fat	Below 10,000	41	25.43 ^{C}	6.09	4.698*	2	37.12	2.02	0.518 ^{NS}
	10,000 - 15,000	60	26.51 ^{C}	5.86		20	36.58	10.43	
	15,000 - 20,000	32	28.29 ^{D}	5.06		57	38.84	9.22	
	Above 20,000	17	31.09 ^{D}	4.86		71	37.36	6.69	
	Total	150	27.11	5.87		150	37.81	8.22	
Carbohydrate	Below 10,000	41	438.75	18.46	2.413 ^{NS}	2	376.91	38.74	0.810 ^{NS}
	10,000 - 15,000	60	437.14	16.03		20	411.36	38.46	
	15,000 - 20,000	32	444.68	17.92		57	404.49	37.17	
	Above 20,000	17	447.09	14.90		71	400.06	38.40	
	Total	150	440.32	17.26		150	402.94	37.87	
Calorie	Below 10,000	41	2184.04 ^{E}	128.98	4.151*	2	2046.08	140.01	0.496 ^{NS}
	10,000 - 15,000	60	2194.96 ^{E}	122.10		20	2191.33	255.48	
	15,000 - 20,000	32	2248.60 ^{F}	122.97		57	2186.58	239.27	
	Above 20,000	17	2285.69 ^{F}	95.62		71	2151.16	220.85	
	Total	150	2213.70	125.43		150	2168.58	231.14	
Calcium	Below 10,000	41	439.98 ^{G}	107.62	5.881*	2	671.82	61.75	0.219 ^{NS}
	10,000 - 15,000	60	477.38 ^{G}	122.43		20	652.76	147.02	
	15,000 - 20,000	32	541.86 ^{H}	130.67		57	659.33	111.12	
	Above 20,000	17	544.78 ^{H}	106.96		71	644.07	102.02	
	Total	150	488.55	124.48		150	651.40	111.21	
Phosphorus	Below 10,000	41	422.07 ^{J}	89.78	5.868*	2	587.90	42.56	0.382 ^{NS}

	10,000 - 15,000	60	453.09 ^{J}	98.70		20	591.27	129.18	
	15,000 - 20,000	32	502.34 ^{K}	99.17		57	613.36	103.32	
	Above 20,000	17	507.25 ^{K}	78.80		71	597.02	91.45	
	Total	150	461.26	98.93		150	602.34	100.80	
Iron	Below 10,000	41	15.01 ^{L}	1.39	3.900*	2	15.32	0.90	0.563 ^{NS}
	10,000 - 15,000	60	15.46 ^{L}	1.30		20	16.65	1.27	
	15,000 - 20,000	32	15.89 ^{M}	1.56		57	16.60	1.51	
	Above 20,000	17	16.13 ^{M}	1.00		71	16.68	1.52	
	Total	150	15.50	1.40		150	16.63	1.48	
Carotene	Below 10,000	41	2012.21	342.72	2.065 ^{NS}	2	2329.46	133.89	0.678 ^{NS}
	10,000 - 15,000	60	2121.96	300.61		20	2360.43	298.80	
	15,000 - 20,000	32	2135.20	345.21		57	2302.96	305.26	
	Above 20,000	17	2214.24	171.88		71	2380.51	316.66	
	Total	150	2105.25	315.16		150	2347.68	308.12	
Thiamin	Below 10,000	41	1.64 ^{N}	0.26	3.505*	2	1.98	0.08	0.146 ^{NS}
	10,000 - 15,000	60	1.68 ^{N}	0.30		20	1.96	0.43	
	15,000 - 20,000	32	1.82 ^{P}	0.29		57	1.98	0.34	
	Above 20,000	17	1.83 ^{P}	0.32		71	1.94	0.32	
	Total	150	1.72	0.30		150	1.96	0.34	
Riboflavin	Below 10,000	41	0.80 ^{R}	0.23	7.047*	2	1.33	0.16	0.493 ^{NS}
	10,000 - 15,000	60	0.87 ^{R}	0.26		20	1.26	0.33	
	15,000 - 20,000	32	1.03 ^{S}	0.26		57	1.28	0.23	
	Above 20,000	17	1.04 ^{S}	0.22		71	1.23	0.21	
	Total	150	0.91	0.26		150	1.26	0.24	
Niacin	Below 10,000	41	20.21 ^{T}	0.82	2.774*	2	17.00	1.33	1.042 ^{NS}
	10,000 - 15,000	60	20.15 ^{T}	0.74		20	18.58	1.61	
	15,000 - 20,000	32	20.53 ^{U}	0.86		57	18.32	1.62	
	Above 20,000	17	20.66 ^{U}	1.01		71	18.05	1.61	
	Total	150	20.30	0.84		150	18.21	1.61	
Vitamin_C	Below 10,000	41	69.39 ^{W}	10.24	3.309*	2	80.45	1.56	0.218 ^{NS}
	10,000 - 15,000	60	72.74 ^{W}	9.46		20	85.20	10.36	
	15,000 - 20,000	32	75.21 ^{X}	11.43		57	85.09	8.94	
	Above 20,000	17	77.10 ^{X}	7.27		71	84.65	7.58	
	Total	150	72.84	10.15		150	84.83	8.43	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.6 presents mean, SD and F-values of different nutrients intakes by both the groups of women belonging to different income groups. In case of farm women, F-values observed against carbohydrates (2.413) andcarotene (2.065) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each income group are almost similar. Further, F-values shown against protein (3.836), fat (4.698), calorie (4.151), calcium (5.881), phosphorus (5.868), iron (3.9), thiamin (3.505), riboflavin (7.047), niacin (2.774) and Vitamin_C (3.309) are significant at 5% level (P<0.05). On application of Duncan's Multiple Range Test (DMRT) and allotting superscripts over the means, it may be envisaged that the intake of protein by farm women in above 20,000 income group (52.45) and 15,000-20,000 (51.93) are different from those of other similar groups. So, consumption of protein by farm women having income below 10,000 and 10,000-15,000 (superscript "A") is significantly different from 15,000-20,000 (51.93) and above 20,000 (52.45) income group ("B"). Further, consumption of fat by farm women of income groups below 10,000 (25.43) and10,000-15,000 (26.51) are similar (Superscript "C") and different from 15,000-20,000 (28.29) and above 20,000 (31.09) (Superscript "D"). Further, consumption of calorie by farm women of below 10,000 (2184.04) and 10,000-15,000 (2194.96) income groups are similar (Superscript "E") and different from 15,000-20,000 (2248.60) and above 20,000 (2285.69) (Superscript "F"). Consumption of calcium by farm women of below 10,000 (439.98) and 10,000-15,000 (477.38) income groups are similar (Superscript "G") and different from 15,000-20,000 (541.86) and above 20,000 (544.78) (Superscript "H"). Consumption of phosphorus by farm women of below 10,000 (422.07) and 10,000-15,000 (453.09) income groups are similar (Superscript "J") and different from 15,000-20,000 (502.34) and above 20,000 (507.25) (Superscript "K"). Consumption of iron by farm women of below 10,000 (15.01) and 10,000-15,000 (15.46) income groups are similar (Superscript "L") and different from 15,000-20,000 (15.89) and above 20,000 (16.13) (Superscript "M"). Consumption of thiamin by farm women of below 10,000 (1.64) and 10,000-15,000 (1.68) income groups are similar (Superscript "N")

and different from 15,000-20,000 (1.82) and above 20,000 (1.83) (Superscript "P"). Consumption of riboflavin by farm women of below 10,000 (0.80) and 10,000-15,000 (0.87) income groups are similar (Superscript "R") and different from 15,000-20,000 (1.03) and above 20,000 (1.04) (Superscript "S"). Consumption of niacin by farm women of below 10,000 (20.21) and 10,000-15,000 (20.15) income groups are similar (Superscript "T") and different from 15,000-20,000 (20.53) and above 20,000 (20.66) (Superscript "U"). Consumption of Vitamin_C by farm women of below 10,000 (69.39) and 10,000-15,000 (72.74) income groups are similar (Superscript "W") and different from 15,000-20,000 (75.21) and above 20,000 (77.10) (Superscript "X").On the other hand, a bit different trend is observed in case of nutrient intakes by the non-farm women of different income groups. In this case, F-values observed against protein (0.457), fat (0.518), carbohydrates (0.81), calorie (0.496), calcium (0.219), phosphorus (0.382), iron (0.563), carotene (0.678), thiamin (0.146), riboflavin (0.493), niacin (1.042) and Vitamin-C (0.218) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above nutrients by the non-farm women remains almost similar in all income groups. In this way, the results obtained on paired t-test analysis over the food intake by both communities of family sizes have been presented in the following table.

Table-1.2.7: Mean, SD and t-tests on Dietary Intakes of Farm and Non-Farm Women of Different Family Sizes.

Food Stuffs	Family Size	Farm Women				Non-Farm Women			
		N	Mean	S.D.	t-value	N	Mean	S.D.	t-value
Cereals	Upto 5 Members	95	470.11	15.76	1.680 ^{NS}	86	398.31	35.48	0.256 ^{NS}
	6 or more Members	55	465.45	17.30		64	396.72	40.49	
Pulses	Upto 5 Members	95	22.74	3.22	1.615 ^{NS}	86	31.86	6.56	1.273 ^{NS}
	6 or more Members	55	23.75	4.39		64	30.47	6.71	
Green leafy vegetables	Upto 5 Members	95	34.65	6.36	1.367 ^{NS}	86	37.97	6.83	0.288 ^{NS}
	6 or more Members	55	36.09	5.94		64	37.66	6.04	
Other vegetables	Upto 5 Members	95	66.95	14.97	0.278 ^{NS}	86	76.86	16.61	1.001 ^{NS}
	6 or more Members	55	66.18	18.21		64	74.45	11.24	
Roots and tubers	Upto 5 Members	95	125.89	21.06	1.249 ^{NS}	86	118.95	25.53	0.902 ^{NS}
	6 or more Members	55	121.45	20.85		64	115.23	24.22	
Fruits	Upto 5 Members	95	21.16	5.45	0.659 ^{NS}	86	35.64	5.68	0.373 ^{NS}
	6 or more Members	55	21.82	6.65		64	35.31	4.79	
Fish	Upto 5 Members	95	12.81	11.90	1.106 ^{NS}	86	24.10	8.04	0.036 ^{NS}
	6 or more Members	55	15.11	12.89		64	24.16	9.32	
Meat	Upto 5 Members	95	0.53	2.24	0.596 ^{NS}	86	0.29	2.70	2.441 ^{NS}
	6 or more Members	55	0.91	5.54		64	2.58	8.12	
Chicken	Upto 5 Members	95	7.95	13.40	1.107 ^{NS}	86	3.26	9.10	1.231 ^{NS}
	6 or more Members	55	10.55	14.61		64	1.56	7.18	
Egg	Upto 5 Members	95	10.74	16.84	0.932 ^{NS}	86	17.85	13.30	0.345 ^{NS}
	6 or more Members	55	8.18	14.95		64	17.11	12.59	
Milk and Milk products	Upto 5 Members	95	84.74	51.29	0.205 ^{NS}	86	147.15	54.49	0.567 ^{NS}
	6 or more Members	55	82.82	61.30		64	152.34	56.68	
Fat and Oil	Upto 5 Members	95	17.02	3.43	0.361 ^{NS}	86	22.21	4.31	1.201 ^{NS}
	6 or more Members	55	16.82	3.10		64	23.36	7.35	
Sugar	Upto 5 Members	95	18.89	2.93	0.352 ^{NS}	86	27.24	7.30	0.346 ^{NS}
	6 or more Members	55	18.73	2.59		64	27.66	7.13	
Jaggery	Upto 5 Members	95	0.00	0.00		86	0.29	2.70	0.862 ^{NS}
	6 or more Members	55	0.00	0.00		64	0.00	0.00	
Condiments and Spices	Upto 5 Members	95	10.23	1.72	0.979 ^{NS}	86	10.28	1.51	1.655 ^{NS}
	6 or more Members	55	10.51	1.60		64	9.86	1.57	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05) for DF=148.*

Table-1.2.7 presents mean, SD and t-values of different items of food intakes by both the groups of women belonging to different family sizes. In case of farm women, t-values observed against cereals (1.680), pulses (1.615), green leafy vegetables (1.367), other vegetables (0.278), roots and tubers (1.249), fruits (0.659), fish (1.106), meat (0.596), chicken (1.107), egg (0.932), milk & milk products (0.205), fat and oil (0.361), sugar (0.352) and condiments (0.979) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each family size groups are almost similar. On the other hand, almost similar trend is observed in case of food intakes by the non-farm women on the basis of different family

sizes. In this case, t-values observed against cereals (0.256), pulses (1.273), green leafy vegetables (0.288), other vegetables (1.001), roots and tubers (0.902), fruits (0.373), fish (0.036), meat (2.441), chicken (1.231), egg (0.345), milk & milk products (0.567), fat and oil (1.201), sugar (0.346), jiggery (0.862) and condiments (1.655) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above food items by the non-farm women remains almost similar in all family sizes. In this way, the results obtained on paired t-test analysis over the nutrients intake by both communities of various family size groups have been presented in the following table.

Table-1.2.8: Mean, SD and t-tests on Nutrient Intakes of Farm and Non-Farm Women of Different Family Sizes.

Nutrients	Family Size	Farm Women				Non-Farm Women			
		N	Mean	S.D.	t-value	N	Mean	S.D.	t-value
Protein	Upto 5 Members	95	50.07	5.29	0.834 ^{NS}	86	52.15	5.98	0.457 ^{NS}
	6 or more Members	55	50.83	5.48		64	51.69	6.35	
Fat	Upto 5 Members	95	27.31	5.90	0.542 ^{NS}	86	37.22	6.78	1.026 ^{NS}
	6 or more Members	55	26.77	5.84		64	38.61	9.84	
Carbohydrate	Upto 5 Members	95	441.70	16.34	1.293 ^{NS}	86	404.09	35.75	0.429 ^{NS}
	6 or more Members	55	437.93	18.66		64	401.40	40.79	
Calorie	Upto 5 Members	95	2219.83	120.41	0.785 ^{NS}	86	2168.67	209.43	0.005 ^{NS}
	6 or more Members	55	2203.11	134.14		64	2168.46	259.19	
Calcium	Upto 5 Members	95	485.59	121.66	0.381 ^{NS}	86	650.47	114.37	0.118 ^{NS}
	6 or more Members	55	493.66	130.19		64	652.64	107.70	
Phosphorus	Upto 5 Members	95	458.61	95.25	0.430 ^{NS}	86	605.08	103.66	0.384 ^{NS}
	6 or more Members	55	465.84	105.74		64	598.67	97.50	
Iron	Upto 5 Members	95	15.43	1.37	0.897 ^{NS}	86	16.75	1.56	1.201 ^{NS}
	6 or more Members	55	15.64	1.45		64	16.46	1.34	
Carotene	Upto 5 Members	95	2090.55	321.22	0.749 ^{NS}	86	2360.41	333.00	0.585 ^{NS}
	6 or more Members	55	2130.62	305.62		64	2330.58	272.78	
Thiamin	Upto 5 Members	95	1.72	0.27	0.309 ^{NS}	86	1.95	0.33	0.294 ^{NS}
	6 or more Members	55	1.71	0.34		64	1.97	0.36	
Riboflavin	Upto 5 Members	95	0.90	0.25	0.183 ^{NS}	86	1.25	0.24	0.191 ^{NS}
	6 or more Members	55	0.91	0.29		64	1.26	0.23	
Niacin	Upto 5 Members	95	20.34	0.76	0.723 ^{NS}	86	18.22	1.49	0.037 ^{NS}
	6 or more Members	55	20.24	0.96		64	18.21	1.78	
Vitamin_C	Upto 5 Members	95	72.57	10.15	0.429 ^{NS}	86	85.47	9.07	1.066 ^{NS}
	6 or more Members	55	73.31	10.23		64	83.98	7.46	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05) for DF=148*

Table-1.2.8 presents mean, SD and t-values of different nutrients intakes by both the groups of women belonging to different family sizes. In case of farm women, t-values observed against protein (0.834), fat (0.542), carbohydrate (1.293), calorie (0.785), calcium (0.381), phosphorus (0.430), iron (0.897), carotene (0.749), thiamin (0.309), riboflavin (0.183), niacin (0.723) and Vitamin-C (0.429) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each family size groups are almost similar. On the other hand, almost similar trend is observed in case of nutrients intakes by the non-farm women on the basis of different family sizes. In this case, t-values observed against protein (0.457), fat (1.026), carbohydrate (0.429), calorie (0.005), calcium (0.118), phosphorus (0.384), iron (1.201),

carotene (0.585), thiamin (0.294), riboflavin (0.191), niacin (0.037) and Vitamin-C (1.066) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above nutrients by the non-farm women remains almost similar in all family sizes.

Table-1.2.9: Mean, SD and F-tests on Dietary Intakes of Farm and Non-Farm Women of Different Farmer Categories.

Food Stuffs	Farmer Category	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F-value	N	Mean	S.D.	F-value
Cereals	Marginal Farmer	101	468.76	17.53	0.103 ^{NS}	77	392.47	36.02	1.197 ^{NS}
	Small Farmer	43	467.44	14.77		59	401.44	35.26	
	Medium Farmer	6	469.17	8.01		9	410.00	56.84	
	Big Farmer					5	410.00	46.90	
	Total	150	468.40	16.44		150	397.63	37.58	
Pulses	Marginal Farmer	101	23.00	3.96	0.370 ^{NS}	77	30.71	6.47	0.529 ^{NS}
	Small Farmer	43	23.47	3.25		59	31.95	6.70	
	Medium Farmer	6	22.33	2.25		9	30.56	8.82	
	Big Farmer					5	33.00	4.47	
	Total	150	23.11	3.71		150	31.27	6.63	
Green leafy vegetables	Marginal Farmer	101	34.54	6.55	1.625 ^{NS}	77	38.57	6.01	2.307 ^{NS}
	Small Farmer	43	36.47	5.51		59	37.54	6.85	
	Medium Farmer	6	36.67	4.08		9	32.78	7.95	
	Big Farmer					5	39.00	2.24	
	Total	150	35.18	6.23		150	37.83	6.49	
Other vegetables	Marginal Farmer	101	64.95	16.95	2.017 ^{NS}	77	76.43 ^{A}	12.97	2.746*
	Small Farmer	43	70.81	14.14		59	77.20 ^{A}	16.09	
	Medium Farmer	6	65.83	12.81		9	62.78 ^{B}	15.23	
	Big Farmer					5	74.00 ^{A}	8.22	
	Total	150	66.67	16.18		150	75.83	14.57	
Roots and tubers	Marginal Farmer	101	125.15	21.05	1.174 ^{NS}	77	117.86	26.54	0.313 ^{NS}
	Small Farmer	43	123.95	20.95		59	116.95	25.26	
	Medium Farmer	6	111.67	20.41		9	121.11	12.69	
	Big Farmer					5	108.00	10.95	
	Total	150	124.27	21.03		150	117.37	24.97	
Fruits	Marginal Farmer	101	21.20	6.51	0.181 ^{NS}	77	36.23	6.08	1.024 ^{NS}
	Small Farmer	43	21.84	4.65		59	34.75	4.59	
	Medium Farmer	6	21.67	2.58		9	34.44	3.00	
	Big Farmer					5	35.00	0.00	
	Total	150	21.40	5.90		150	35.50	5.30	
Fish	Marginal Farmer	101	12.16	12.20	2.998 ^{NS}	77	25.29 ^{G}	7.96	2.894*
	Small Farmer	43	16.00	11.93		59	23.71 ^{G}	8.40	
	Medium Farmer	6	22.00	12.00		9	16.67 ^{H}	13.23	
	Big Farmer					5	24.60 ^{G}	3.58	
	Total	150	13.65	12.28		150	24.13	8.58	
Meat	Marginal Farmer	101	0.99	4.58	1.131 ^{NS}	77	0.71	4.42	2.510 ^{NS}
	Small Farmer	43	0.00	0.00		59	1.36	5.93	
	Medium Farmer	6	0.00	0.00		9	6.11	12.19	
	Big Farmer					5	0.00	0.00	
	Total	150	0.67	3.78		150	1.27	5.77	

Chicken	Marginal Farmer	101	9.26	14.24	0.161 ^{NS}	77	2.27	7.93	0.780 ^{NS}
	Small Farmer	43	7.91	13.01		59	2.29	7.62	
	Medium Farmer	6	10.00	15.49		9	3.33	10.00	
	Big Farmer					5	8.00	17.89	
	Total	150	8.90	13.87		150	2.53	8.35	
Egg	Marginal Farmer	101	11.44	17.48	1.696 ^{NS}	77	16.49	13.40	0.404 ^{NS}
	Small Farmer	43	6.05	12.42		59	18.56	12.56	
	Medium Farmer	6	9.17	14.29		9	17.78	13.49	
	Big Farmer					5	21.00	11.94	
	Total	150	9.80	16.17		150	17.53	12.96	
Milk and Milk products	Marginal Farmer	101	78.86	55.87	1.400 ^{NS}	77	151.43	50.41	0.160 ^{NS}
	Small Farmer	43	95.35	53.37		59	148.31	57.73	
	Medium Farmer	6	90.00	45.17		9	138.33	68.74	
	Big Farmer					5	150.00	86.60	
	Total	150	84.03	54.98		150	149.37	55.31	
Fat and Oil	Marginal Farmer	101	16.78	3.52	1.045 ^{NS}	77	22.21	5.88	1.174 ^{NS}
	Small Farmer	43	17.49	2.86		59	22.71	5.20	
	Medium Farmer					9	25.56	7.26	
	Big Farmer	6	15.83	2.04		5	25.00	8.66	
	Total	150	16.95	3.30		150	22.70	5.81	
Sugar	Marginal Farmer	101	18.61	3.09	1.172 ^{NS}	77	26.95	6.70	0.371 ^{NS}
	Small Farmer	43	19.19	2.16		59	27.76	7.44	
	Medium Farmer	6	20.00	0.00		9	27.78	9.72	
	Big Farmer					5	30.00	8.66	
	Total	150	18.83	2.80		150	27.42	7.20	
Jaggery	Marginal Farmer	101	0.00	0.00		77	0.32	2.85	0.312 ^{NS}
	Small Farmer	43	0.00	0.00		59	0.00	0.00	
	Medium Farmer	6	0.00	0.00		9	0.00	0.00	
	Big Farmer					5	0.00	0.00	
	Total	150	0.00	0.00		150	0.17	2.04	
Condiments and Spices	Marginal Farmer	101	10.14	1.72	2.130 ^{NS}	77	10.01	1.56	0.695 ^{NS}
	Small Farmer	43	10.74	1.51		59	10.17	1.50	
	Medium Farmer	6	10.67	1.63		9	10.67	1.41	
	Big Farmer					5	9.60	2.19	
	Total	150	10.33	1.67		150	10.10	1.54	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.9 presents mean, SD and F-values of different items of food intakes by both the groups of women belonging to different farmer groups. In case of farm women, F-values observed against cereals (0.103), pulses (0.370), green leafy vegetables (1.629), other vegetables (1.625), roots and tubers (1.174), fruits (1.024), fish (2.098), meat (1.131), chicken (0.161), egg (1.696), milk and milk products (1.4), fat and oil (1.045), sugar (1.172) and condiments (2.130) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each farmer group are almost similar. On the other hand, almost similar trend is observed in case of food intakes by the non-farm women of different farmer groups. In this case, F-values observed against cereals (1.197), pulses (0.529), green leafy vegetables (2.307), other vegetables (2.746), roots and tubers (0.313), fruits (1.024), fish (2.894), meat (2.510), chicken (0.780), egg (0.404), milk & milk products (0.160), fat and oil (1.174), sugar (0.371), jiggery (0.312) and condiments (0.695) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above food items by the non-farm women remains almost similar in all farmer groups. In this way, the results obtained on analysis of variance

over the nutrients intake by both communities of various farmer groups have been presented in the following table.

Table-1.2.10: Mean, SD and F-tests on Nutrient Intakes of Farm and Non-Farm Women of Different Farmer Categories.

Nutrients	Farmer Category	Farm Women				Non-Farm Women			
		N	Mean	S.D.	F-value	N	Mean	S.D.	F-value
Protein	Marginal Farmer	101	50.16	5.54	0.391 ^{NS}	77	51.53	6.23	0.55 ^{NS}
	Small Farmer	43	50.54	5.12		59	52.34	5.66	
	Medium Farmer	6	52.06	3.99		9	51.54	6.32	
	Big Farmer					5	54.72	10.06	
	Total	150	50.35	5.35		150	51.95	6.13	
Fat	Marginal Farmer	101	26.82	5.89	0.542 ^{NS}	77	37.28	8.09	0.534 ^{NS}
	Small Farmer	43	27.90	5.96		59	37.91	7.70	
	Medium Farmer	6	26.45	5.18		9	40.12	10.68	
	Big Farmer					5	40.60	12.61	
	Total	150	27.11	5.87		150	37.81	8.22	
Carbohydrate	Marginal Farmer	101	439.96	18.07	0.075 ^{NS}	77	398.57	37.52	0.806 ^{NS}
	Small Farmer	43	441.19	16.45		59	406.39	35.15	
	Medium Farmer	6	440.12	8.37		9	411.49	54.41	
	Big Farmer					5	414.33	44.40	
	Total	150	440.32	17.26		150	402.94	37.87	
Calorie	Marginal Farmer	101	2208.83	128.69	0.248 ^{NS}	77	2144.58	227.75	0.738 ^{NS}
	Small Farmer	43	2225.01	125.87		59	2184.87	212.92	
	Medium Farmer	6	2214.58	54.40		9	2221.37	324.93	
	Big Farmer					5	2250.77	326.13	
	Total	150	2213.70	125.43		150	2168.58	231.14	
Calcium	Marginal Farmer	101	472.79	127.64	2.538 ^{NS}	77	659.56	103.51	0.976 ^{NS}
	Small Farmer	43	520.19	112.84		59	649.20	118.73	
	Medium Farmer	6	527.15	116.36		9	593.01	102.32	
	Big Farmer					5	656.67	150.77	
	Total	150	488.55	124.48		150	651.40	111.21	
Phosphorus	Marginal Farmer	101	454.47	99.02	0.738 ^{NS}	77	603.76	100.68	0.362 ^{NS}
	Small Farmer	43	474.41	100.46		59	604.00	101.23	
	Medium Farmer	6	481.31	88.83		9	569.94	88.70	
	Big Farmer					5	619.21	136.92	
	Total	150	461.26	98.93		150	602.34	100.80	
Iron	Marginal Farmer	101	15.36	1.48	1.668 ^{NS}	77	16.66	1.62	0.977 ^{NS}
	Small Farmer	43	15.81	1.21		59	16.69	1.35	
	Medium Farmer	6	15.76	0.79		9	15.82	1.27	
	Big Farmer					5	16.87	0.49	
	Total	150	15.50	1.40		150	16.63	1.48	
Carotene	Marginal Farmer	101	2083.53	336.36	0.734 ^{NS}	77	2378.09	294.51	2.069 ^{NS}
	Small Farmer	43	2151.16	272.49		59	2339.43	320.46	

	Medium Farmer	6	2141.66	210.09		9	2114.42	346.19	
	Big Farmer					5	2396.51	124.68	
	Total	150	2105.25	315.16		150	2347.68	308.12	
Thiamin	Marginal Farmer	101	1.69	0.30	1.169 NS	77	1.96	0.32	0.054 NS
	Small Farmer	43	1.77	0.30		59	1.97	0.35	
	Medium Farmer	6	1.74	0.23		9	1.93	0.43	
	Big Farmer					5	1.99	0.51	
	Total	150	1.72	0.30		150	1.96	0.34	
Riboflavin	Marginal Farmer	101	0.88	0.26	1.681 NS	77	1.27	0.23	0.705 NS
	Small Farmer	43	0.96	0.26		59	1.25	0.25	
	Medium Farmer	6	1.00	0.28		9	1.15	0.19	
	Big Farmer					5	1.28	0.36	
	Total	150	0.91	0.26		150	1.26	0.24	
Niacin	Marginal Farmer	101	20.29	0.90	0.072 NS	77	18.01	1.61	0.929 NS
	Small Farmer	43	20.33	0.73		59	18.37	1.51	
	Medium Farmer	6	20.38	0.33		9	18.67	2.14	
	Big Farmer					5	18.62	1.85	
	Total	150	20.30	0.84		150	18.21	1.61	
Vitamin_C	Marginal Farmer	101	71.68	10.84	2.191 NS	77	86.04 A	8.09	3.369*
	Small Farmer	43	75.52	8.63		59	84.57 A	8.86	
	Medium Farmer					9	76.95 B	6.37	
	Big Farmer	6	73.24	2.70		5	83.51 A	3.38	
	Total	150	72.84	10.15		150	84.83	8.43	

N.B:- * - *Significant at 5% level (P<0.05), NS – Not Significant at 5% level (P>0.05).*

Table-1.2.10 presents mean, SD and F-values of different nutrients intakes by both the groups of women belonging to different farmer groups. In case of farm women, F-values observed against protein (0.391), fat (0.542), carbohydrate (0.075), calorie (0.248), calcium (2.538), phosphorus (0.738), iron (1.668), carotene (0.734), thiamin (1.169), riboflavin (1.681), niacin (0.072) and Vitamin-C (2.191) are non-significant at 5% level (P>0.05). This implies, average volumes of consumption of these items by farm women of each farmergroups are almost similar. On the other hand, almost similar trend is observed in case of nutrients intakes by the non-farm women of different farmergroups. In this case, F-values observed against protein (0.550), fat (0.534), carbohydrate (0.806), calorie (0.738), calcium (0.976), phosphorus (0.362), iron (0.977), carotene (2.069), thiamin (0.054), riboflavin (0.705) andniacin (0.929) are non-significant at 5% level (P>0.05). Hence, the quantity of consumption of above nutrients by the non-farm women remains almost similar in all women groups.

IV. CONCLUSION

It is evident from the above discussion that consumption of food and nutrients of rural women is significantly less than recommended dietary allowances irerespective of their socioeconomic factors except income. Since women faces various unique health issues as compared to male, there is a need for more specific and combined research on women health issues. So there is urjent need to address the public health problem of undernutrition in women . The causative factor of undernutrition in women is not limited to access to adequate and diversified food but is influenced by lack of awareness about balanced diet and health needs,sociocultural constraints etc. These factors directly or indirectly impact on the nutrition situation of women. A number of policies in India address these issues but implementation remains weak. The crucial role of women's nutrition on their right to healthy livng as well as for optimizing their productive and reproductive roles be recognised and accorded a high programme priority.

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