

COMPARATIVE SOCIO-ECONOMIC STATUS OF THE ORGANIC AND CONVENTIONAL RICE FARMING SYSTEMS OF THE SAMPLE FARMERS IN GORAKHPUR DISTRICT OF UTTAR PRADESH

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ABSTRACT

The present study is the comparative socio-economic status of the Organic and Conventional Rice in Gorakhpur District of Uttar Pradesh. The Farm Level Data and required information of Rice collected by primary and as well as secondary level in Gorakhpur district where three blocks (Pipraich, Sahjanwa and Campienganj) were selected. The total numbers of 120 farmers were selected in which 60 Organic farmers who is growing rice with help of Government Subsidies and 60 Conventional farmers. The Average age of Organic farmers are 51.06 years and conventional farmers are 50.67 years. The Average literacy rate is 76.67 per cent of organic farmers and 73.33 per cent literacy rate of conventional farmers. The Family composition are overall 43.53 per cent male, 41.53 per cent female and 15.42 per cent children in organic farming, while conventional farming are 39.70 per cent male, 37.31 per cent female and 22.99 per cent children. The total land holding size on average for per farmer was found 2.16 ha and

net cultivated area was 98.61 per cent, Gross cropped area was 264.35 per cent in organic farming, while conventional farming total land holding size on average for per farmer was found 2.55 ha and net cultivated area was 97.25 per cent, Gross cropped area was 200.78 per cent. The Overall 43.33 per cent of the total organic farmers were acting as agriculture, 5 per cent farmers were engaged in agriculture and dairy, 11.67 per cent farmers were agriculture and service, 30 per cent farmers were agriculture and business, 10 per cent farmers were agriculture and others, where as in conventional farmers 43.33 per cent of the farmers were acting as agriculture, 25 per cent farmers were engaged in agriculture and dairy, 15 per cent farmers were agriculture and service, 15 per cent farmers were agriculture and business, 1.67 per cent farmers were agriculture and others. The overall per farm maximum investment on tractor was 67.52 percent in Organic Rice Farmers whereas in Conventional Rice Farmers 70.90 percent.

KEYWORDS: *Organic Farming, Conventional Farming, Land Utilization Pattern, Cropping Pattern, Farm Assets And Investment.*

INTRODUCTION

India is the land of organic farming in past century. Organic farming is not a new concept in India, with farmers having tilled their land without the use of chemicals largely relying on organic residues, cow dung and compost etc. since time immemorial. In current situation of India ranks first in the number of organic farmers and fifth in terms of area of organic farming. Sikkim becomes the first state in the world to become fully organic and other states including Tripura and Uttarakhand have set similar targets. North East India has traditionally been organic and the consumption of chemicals is far less than the rest of the country. Similarly, the tribal and island territories are being nurtured to continue their organic story.

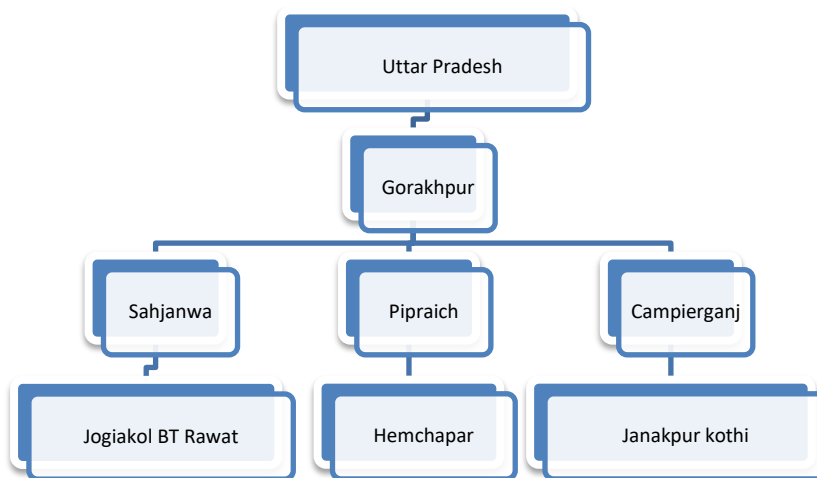
Rice (*Oryza sativa*) is one of the chief grains of India. India has the largest area under rice cultivation. India is the world second largest producer of rice and the largest exporter of rice in the world. Rice farming is categorized into two parts: organic rice farming and conventional rice farming. Organic rice farming is a system that avoids the use of chemical fertilizers, pesticides and growth regulators, through organic farming systems in pursuit of natural balance. While conventional rice farming is at the opposite end, and is represented by intensive mechanized agriculture based on maximizing productivity and profitability.

Reported that majority of (51.25 per cent) respondents were belonging to the middle age group and majority (27.5 per cent) of respondent passes high school. The majority of the respondents 67.50 belong to the OBC group. The majority of 46.25 percent respondent were having medium land holding (2-4 ha.) (Saini *et al.* 2017). More than 50% of the sample farmers were found from marginal categories where as 48% comes under small and medium size of farms. Per farm investment was inversely related with size of holding. The rice, wheat and maize, and sugarcane were the main crops of cropping pattern, cropping intensity was highest on marginal farms followed by small and medium size of farms (Chaudhary *et al.* 2017 The resulted average holding of arable land was 33 per cent higher in organic farms (0.72 ha) compared to conventional farms (0.54 ha). The number of cattle per farm and therefore, the access to manure did not differ between the two groups. In both organic and conventional farms, the main crops grown in the Kharif season were paddy, soybean and amaranth, while in the Rabi season; wheat

was the dominant crop, with some farmers also growing pulses, vegetables and spices (**Frank et al. 2018**). The reported that little more than half of the respondents (53.33 per cent) were old aged, followed by middle aged (32.50 per cent) and young aged (14.17 per cent) categories. The education level one-fourth of the respondents (24.17 per cent) belonged to illiterate category, followed by primary school education (20.83 percent), higher secondary school education (17.50 percent), middle school education (16.67 percent), secondary school education (15.00 per cent) and collegiate education (5.83 percent). The Occupation level most of the respondents (87.50 percent) were found to have agriculture as their primary occupation. Respondents with agriculture as secondary occupation constituted only a limited proportion (12.50 percent). The areas of holding land are a large number of proportions of the respondents (60.00 percent) were small farmers followed by big and marginal farmers (20.00 percent)(**Muthukumar et al. 2021**).

MATERIAL AND METHODS

The Gorakhpur district was selected purposely for socio-economic status of the sample farmers. The Study data collected from three different blocks Pipraich, Sahjanwa and Campierganj are randomly selected by different region in Gorakhpur District. From each Block, a list of villages with organic rice and conventional rice cultivation were prepared, from which one village was selected at random to make a sample out of each block for the study. Total number of 40 farmers whose data is collected from which 20 Organic and 20 Conventional Rice farmers are selected for the study from each block. Thus, a final sample of 60 organic farmers and 60 conventional farmers out of 120 farmers from three selected blocks were taken for the present study. The selected villages the list of farmers organic rice and conventional rice farmers was prepared and further classified in four size groups based on their size of holdings viz. marginal farmer (having below 1 hectare), small farmer (having 1-2 hectare), medium (having 2-4 hectare) and large (having more than 4 hectare). From each size group farmers were selected randomly method.



The data were collected from rice farmers by personal interview. The Information regarding the organic rice and conventional rice farmers was collected from socio- economic characteristics, cropping pattern, land holding, asset position, age of organic and conventional rice farmers family size, income, education, occupation, number of the family member available for work, types of machinery and implements, irrigation structure along with their value were procured. The farm level data and required information of organic and conventional rice farmers pertaining

to crop year 2020-21 was during December- January by personal survey method. The collected data were compiled and analyzed with a graphical and tabular method of analysis simple statistical tools such as arithmetical average and percentage were worked out for the purpose of interpretation of results.

RESULT AND DISCUSSION

Age wise distribution of organic and conventional rice farmers

It can be seen from the table that the average famers age borrowers under organic rice was 51.06 years, while it was 50.67 years conventional rice farmers. It can be seen from the table that at overall farmers was found 21.67 per cent belong to less than 40 years age, 23.33 per cent belong to age group 40-50 years, 26.67 per cent belong to age group 50-60 years and 28.33 per cent belong to more than 60 years in case of organic rice farmers, while for conventional rice farmers overall farms was found 11.66 per cent belong to less than 40 years old, 26.67 per cent belong to age group 40-50 years, 35 per cent belong to age group 50-60 years, 26.67 per cent belong to more than 60 years old.

In this table show that more Marginal farmers belong the age group below 40 years and 50-60 years in organic rice farming, while conventional rice farming belong to the age group 50-60 years. The highest percentage of small farmers belong to age group above 60 years in organic rice farming, while conventional rice farming belongs to age group 40-50 years. The highest percentage of medium farmers belong to age group 50-60 years in organic rice farming, while conventional rice farming belongs to age group above 60 years. The highest percentage of large farmers belong to age group above 60 years in organic rice farming, while conventional rice farming belongs to age group below 40 years and 50-60 years.

TABLE 1: AGE WISE DISTRIBUTION OF ORGANIC AND CONVENTIONAL RICE FARMERS

Sl. No.	Age Group	Organic Rice Farmers					Conventional Rice Farmers				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1.	<40 years	6 (31.58)	3 (10.71)	3 (33.33)	1 (25.00)	13 (21.67)	6 (19.35)	0 (0.00)	0 (0.00)	1 (50.00)	7 (11.66)
2.	40-50 Years	3 (15.78)	9 (32.14)	1 (11.11)	1 (25.00)	14 (23.33)	7 (22.58)	9 (42.86)	0 (0.00)	0 (0.00)	16 (26.67)
3.	50-60 Years	6 (31.58)	6 (21.43)	4 (44.45)	0 (0.00)	16 (26.67)	13 (41.94)	5 (23.81)	2 (33.33)	1 (50.00)	21 (35.00)
4.	>60 years	4 (21.05)	10 (35.72)	1 (11.11)	2 (50.00)	17 (28.33)	5 (16.13)	7 (33.33)	4 (66.67)	0 (0.00)	16 (26.67)
	Total	19 (100)	28 (100)	9 (100)	4 (100)	60 (100)	31 (100)	21 (100)	6 (100)	2 (100)	60 (100)
	Average	50	51.14	53.77	49.50	51.06	51.45	61.16	47.58	45	50.67

(Figures in parentheses indicate percent to total number of farmers)

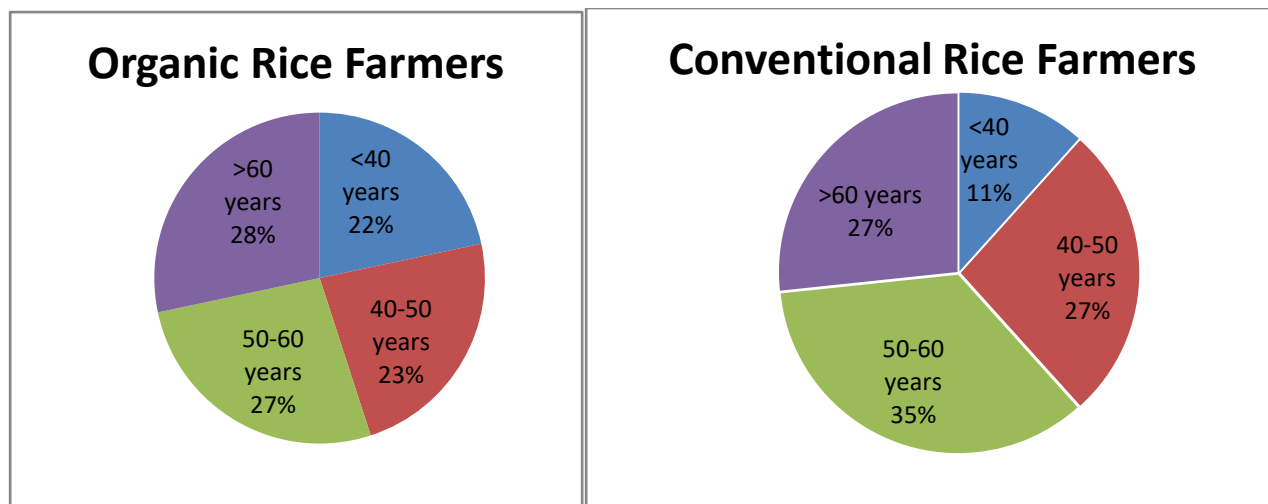


Fig No 1: Age wise Percentage of Organic and conventional Rice Farmers

It can also observe that more of old people are interested in organic rice farming and conventional farming. Most of the sample farmers in both organic and conventional farming were in the age group of 50-60 years. In this age group 50-60 years. In this 50-60 age group, Organic rice farming contributes was 28.33 per cent whereas only 26.67 per cent were involved in conventional farming.

Educational Level of the Sample Organic and Conventional Rice Farmers

The study of collected organic and conventional rice farmer’s data show that 76.67 per cent literacy rate of organic rice farmers and 73.33 per cent literacy rate of conventional rice farmers. In these sample survey data, 84.21 per cent marginal, 67.86 per cent Small, 77.78 per cent medium, 100 per cent large Organic rice farmers are educated and 67.74 per cent marginal, 76.19 per cent Small, 83.33 per cent medium, 100 per cent large Conventional rice farmers are educated.

For overall organic rice farmers, 23.33 per cent farmers belong to illiterate group, 11.67 per cent primary school, 3.33 per cent secondary educated, 21.67 per cent high school educated, 26.67 per cent intermediate educated, 10 per cent under graduated and 3.33 per cent post graduate, while overall conventional rice farmers, 26.67 per cent farmers belong to illiterate group, 6.67 per cent primary school, 8.33 per cent secondary educated, 25 per cent high school educated, 20 per cent intermediate educated, 8.33 per cent under graduated and 5 per cent post graduated.

In this table show that more marginal farmers are intermediate education in organic rice farming, while conventional rice farming many farmers are illiterate. The large numbers of small farmer are illiterate in organic rice farming, while conventional rice farming was illiterate and high school education. The large number of medium farmers was intermediate education in organic rice farming, while conventional rice farming was high school education. Many Large farmers are intermediate education in organic rice farming, while conventional rice farming was secondary and under graduate education.

It can also observe that more of intermediate educated are interested to adopt organic rice farming and more of illiterate farmers are interested in conventional rice farming. In intermediate

education, Organic rice farming contributes 26.67 per cent whereas only 20 per cent were involved in conventional farming.

TABLE 2: EDUCATIONAL STATUS OF THE ORGANIC AND CONVENTION RICE FARMERS

Sl. No.	Education	Organic Rice Farmers					Conventional Rice Farmers				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1.	Illiterate	3 (15.79)	9 (32.14)	2 (22.22)	0 (0.00)	14 (23.33)	10 (32.26)	5 (23.81)	1 (16.67)	0 (0.00)	16 (26.67)
2.	Primary	4 (21.05)	3 (10.71)	0 (0.00)	0 (0.00)	7 (11.67)	3 (9.68)	1 (4.77)	0 (0.00)	0 (0.00)	4 (6.67)
3.	Secondary	1 (5.26)	1 (3.57)	0 (0.00)	0 (0.00)	2 (3.33)	1 (3.23)	3 (14.29)	0 (0.00)	1 (50.00)	5 (8.33)
4.	High School	4 (21.05)	8 (28.57)	1 (11.11)	0 (0.00)	13 (21.67)	3 (25.80)	5 (23.80)	2 (33.32)	0 (0.00)	15 (25.00)
5.	Intermediate	6 (31.59)	5 (17.87)	3 (33.34)	2 (50.00)	16 (26.67)	7 (22.58)	4 (19.05)	1 (16.67)	0 (0.00)	12 (20.00)
6.	Under Graduate	1 (5.26)	2 (7.14)	2 (22.22)	1 (25.00)	6 (10.00)	2 (6.45)	1 (4.76)	1 (16.67)	1 (50.00)	5 (8.33)
7.	Post Graduate	0 (0.00)	0 (0.00)	1 (11.11)	1 (25.00)	2 (3.33)	0 (0.00)	2 (9.52)	1 (16.67)	0 (0.00)	3 (5.00)
	All	19 (100)	28 (100)	9 (100)	4 (100)	60 (100)	31 (100)	21 (100)	6 (100)	2 (100)	60 (100)
	Literacy Level	16 (84.21)	19 (67.86)	7 (77.78)	4 (100)	16 (76.67)	21 (67.74)	17 (76.19)	5 (83.33)	2 (100)	44 (73.33)

(Figures in parentheses indicate percent to total number of farmers)

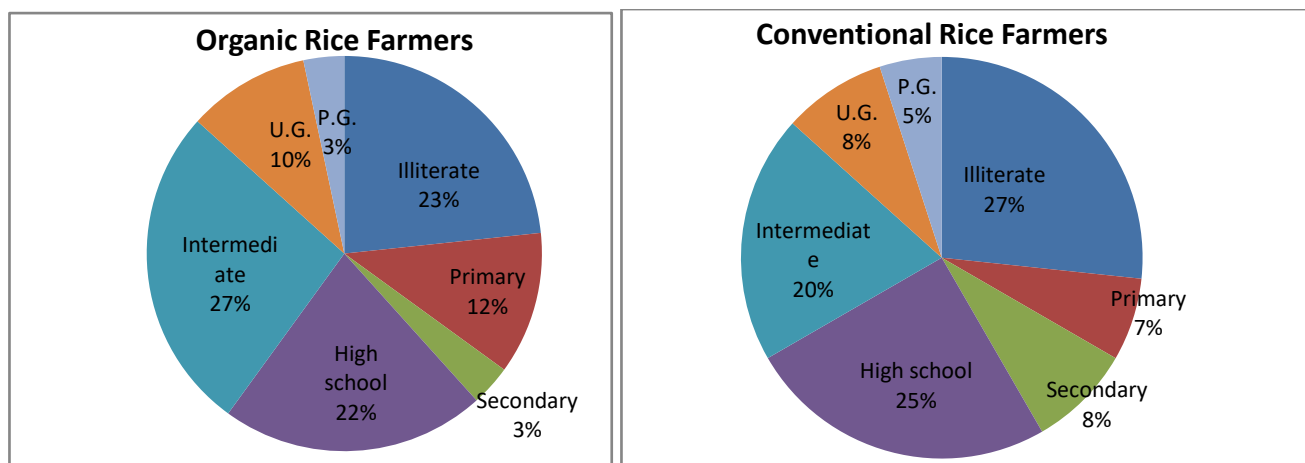


Fig No 2: Education wise per cent distribution of organic and conventional rice farmers Occupation Pattern of the sample organic and conventional farmers

In this given table show the main occupation was only agriculture was 36.84 per cent marginal, 39.29 per cent small, 66.67 per cent medium and 50 per cent large organic rice farmers, while conventional rice farming was 51.61 per cent marginal, 52.38 per cent small and 66.67 per cent

medium. The agriculture and dairy occupation are 10.71 per cent small farmers in organic rice farming, while conventional rice farming 25.81 marginal and 9.52 per cent small farmers. The agriculture and service occupation are 15.79 per cent marginal, 10.71 per cent small and 25 per cent large farmers in organic rice farming, while conventional rice farming 12.90 per cent marginal, 9.52 per cent small, 33.33 per cent medium and 50 per cent large farmers. The agriculture and business occupation are 42.11 per cent marginal, 21.43 per cent small, 33.33 per cent medium and 25 per cent large farmer in organic rice farming, while conventional rice farming 6.45 per cent marginal, 28.58 per cent small and 50 per cent large farmers. The agriculture and other occupation are 5.26 per cent marginal and 17.86 per cent small farmers in organic rice farming, while conventional rice farming 3.23 per cent marginal farmers. The table3. revealed that the overall 43.33 per cent of the total farmers were acting as agriculture, 5 per cent were engaged in agriculture and dairy, 11.67 per cent were agriculture and service, 30 per cent were agriculture and business, 10 per cent were agriculture and others in organic rice farmers where as in conventional rice farmers 43.33 per cent of the farmers were acting as agriculture, 25 per cent were agriculture engaged in agriculture and dairy, 15 per cent were agriculture and service, 15 per cent were agriculture and business, 1.67 per cent were agriculture and others. They can be observed that large number of farmers main occupation was only agriculture in both organic and conventional rice farming.

TABLE 3: OCCUPATION PATTERN OF THE SAMPLE ORGANIC AND CONVENTIONAL RICE FARMERS

Sl. No	Occupation	Organic Rice Farmers					Conventional Rice Farmers				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1.	Agriculture only	7 (36.84)	11 (39.29)	6 (66.67)	2 (50.00)	26 (43.33)	16 (51.61)	11 (52.38)	4 (66.67)	0 (0.00)	26 (43.33)
2.	Agriculture and Dairy	0 (0.00)	3 (10.71)	0 (0.00)	0 (0.00)	3 (5.00)	8 (25.81)	2 (9.52)	0 (0.00)	0 (0.00)	15 (25.00)
3.	Agriculture and Service	3 (15.79)	3 (10.71)	0 (0.00)	1 (25.00)	7 (11.67)	4 (12.90)	2 (9.52)	2 (33.33)	1 (50.00)	9 (15.00)
4.	Agriculture and Business	8 (42.11)	6 (21.43)	3 (33.33)	1 (25.00)	18 (30.00)	2 (6.45)	6 (28.58)	0 (0.00)	1 (50.00)	9 (15.00)
5.	Agriculture and others	1 (5.26)	5 (17.86)	0 (0.00)	0 (0.00)	6 (10.00)	1 (3.23)	0 (0.00)	0 (0.00)	0 (0.00)	1 (1.67)
		19 (100)	28 (100)	9 (100)	4 (100)	60 (100)	31 (100)	21 (100)	6 (100)	2 (100)	60 (100)

(Figures in parentheses indicate percent to total number of farmers)

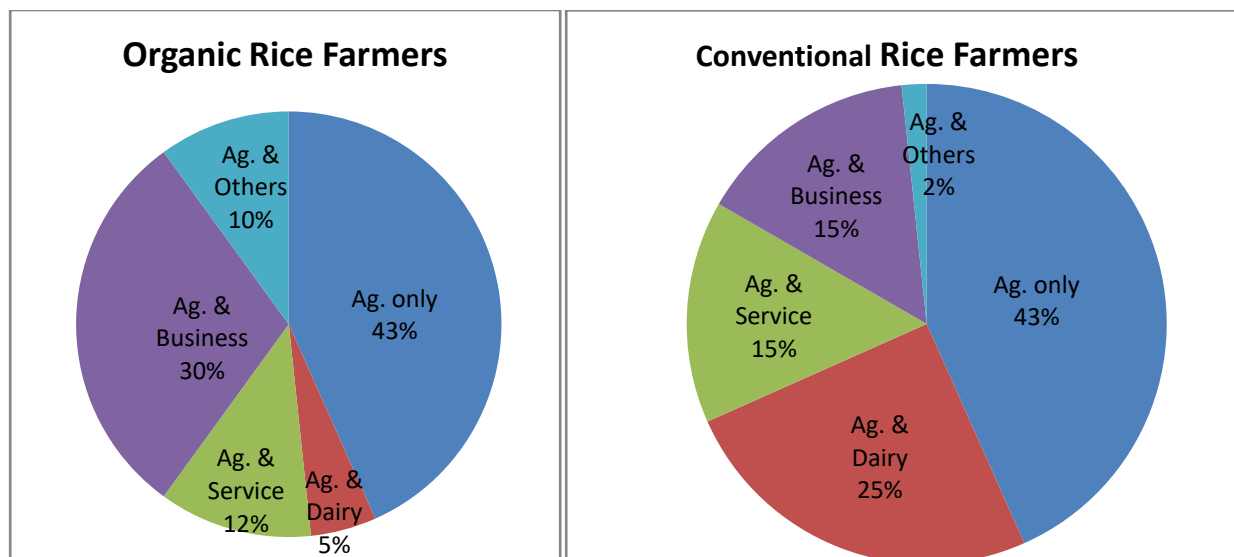


Fig No 3: Occupation Wise per cent distribution of organic and conventional rice farmers

Family Composition of the sample organic and conventional farmers

The overall level in organic rice farmers, the average size of the family was 402 family members consisting of 43.53 per cent adult’s males, 41.04 per cent adult’s females and 15.42 per cent children. The total numbers of persons in small groups was highest with 198 people consisting of 43.94 per cent adult’s males, 39.39 per cent adult’s females and 16.67 per cent children. The overall level in conventional rice farmers, the average size of the family was 461 family members consisting of 39.70 per cent adult’s males, 37.31 per cent adult’s females and 22.99 per cent children. The total numbers of persons in marginal groups was highest with 228 people consisting of 38.60 per cent adult’s males, 36.84 per cent adult’s females and 24.56 per cent children. The total family members in marginal group was 114 members, consisting of 39.47 per cent adult’s males, 43.86 per cent adults females and 16.67 per cent children in organic rice farming, while conventional rice farming total family members in marginal group was 228 members, consisting of 38.60 per cent adult’s males, 36.84 per cent adult’s females and 24.56 per cent children.

The total family members in small group was 198 members, consisting of 43.94 per cent adult’s males, 39.39 per cent adults females and 16.67 per cent children in organic rice farming, while conventional rice farming total family members in small group was 170 members, consisting of 40.59 per cent adult’s males, 37.65 per cent adult’s females and 21.76 per cent children. The total family members in medium group was 65 members, consisting of 46.15 per cent adult’s males, 41.54 per cent adults females and 12.31 per cent children in organic rice farming, while conventional rice farming total family members in medium group was 46 members, consisting of 43.48 per cent adult’s males, 36.96 per cent adult’s females and 19.57 per cent children. The total family members in large group was 25 members, consisting of 52.00 per cent adult’s males, 40.00 per cent adults females and 8.00 per cent children in organic rice farming, while conventional rice farming total family members in marginal group was 17 members, consisting of 35.29 per cent adult’s males, 41.18 per cent adult’s females and 23.53 per cent children.

TABLE 4: FAMILY COMPOSITION OF THE SAMPLE ORGANIC AND CONVENTIONAL RICE FARMERS

Sl. No.	Family Composition	Organic Rice Farmers					Conventional Rice Farmers				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1.	Male	45 (39.47)	87 (43.94)	30 (46.15)	13 (52.00)	175 (43.53)	88 (38.60)	69 (40.59)	20 (43.48)	6 (35.29)	183 (39.70)
2.	Female	50 (43.86)	78 (39.39)	27 (41.54)	10 (40.00)	165 (41.04)	84 (36.84)	64 (37.65)	17 (36.96)	7 (41.18)	172 (37.31)
3.	Children	19 (16.67)	33 (16.67)	8 (12.31)	2 (8.00)	62 (15.42)	56 (24.56)	37 (21.76)	9 (19.57)	4 (23.53)	106 (22.99)
4.	Total	114 (100)	198 (100)	65 (100)	25 (100)	402 (100)	228 (100)	170 (100)	46 (100)	17 (100)	461 (100)

(Figures in parentheses indicate percent to total number of farmers)

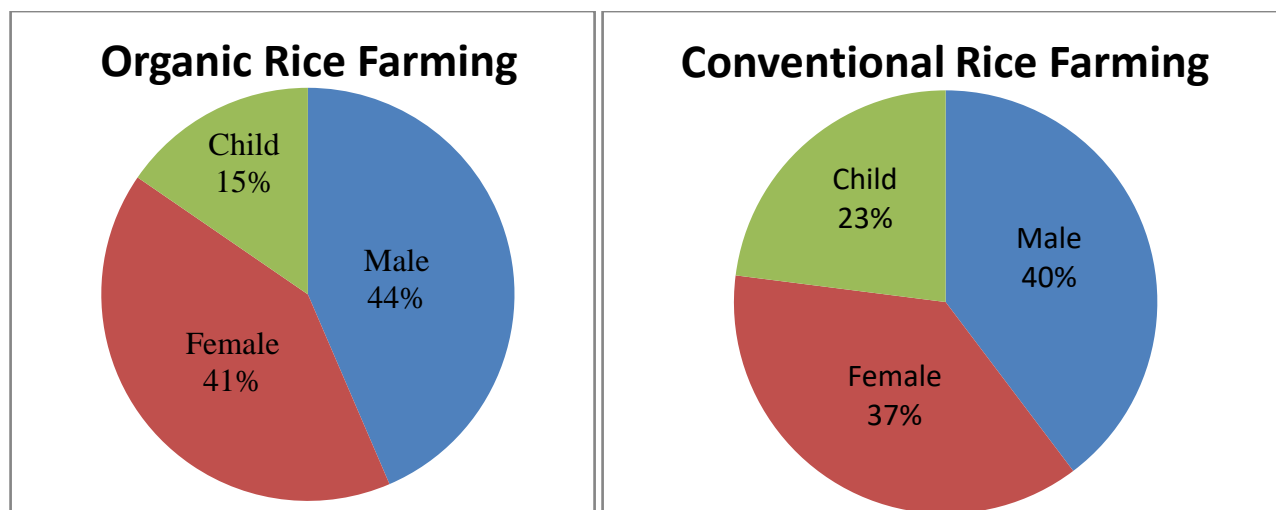


Fig No 4: Family composition percentage of organic and conventional rice farmers

Land Utilization Pattern

Land utilization indicates the area of land actually utilize in different purpose of like crop production, irrigated, leased in etc. it was revealed from the table 5. The average size of land holding pattern of organic rice farmers in respect of marginal ,small, medium and large farmers was 0.55 ha, 1.12 ha, 2.51 ha and 4.45 ha where as in conventional rice farmers of 0.66 ha, 1.21 ha.2.62 ha and 5.57 ha respectively.

The average size of holding at the overall level for all the groups worked out 2.16 hectare in organic farming, while conventional farming average size of holding at the overall level for all the groups worked out 2.55 hectare. The net cultivated area at the overall level for all the groups

worked out 2.13 hectare in organic rice, while conventional rice overall net cultivated area was 2.48 hectare.

TABLE 5: LAND UTILIZATION PATTERN OF THE SELECTED FARMERS

Sl. No.	Particular	Organic Rice Farming					Conventional Rice Farming				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
1.	Number of Household	19	28	09	04	60	31	21	6	2	60
2.	Size of Land Holding	0.55 (100.00)	1.12 (100.00)	2.51 (100.00)	4.45 (100.00)	2.16 (100.00)	0.66 (100.00)	1.21 (100.00)	2.62 (100.00)	5.57 (100.00)	2.55 (100.00)
3.	Current Fallow Area	0.01 (1.82)	0.02 (1.79)	0.03 (1.20)	0.05 (1.12)	0.03 (1.39)	0.01 (1.52)	0.02 (1.65)	0.04 (1.53)	0.07 (1.26)	0.04 (1.57)
4.	Net Cultivated Area	0.54 (98.18)	1.10 (98.21)	2.48 (98.80)	4.40 (98.88)	2.13 (98.61)	0.65 (98.48)	1.19 (98.35)	2.58 (98.47)	5.50 (98.74)	2.48 (97.25)
5.	Area Under Irrigated	0.54 (98.18)	1.10 (98.21)	2.48 (98.80)	4.40 (98.88)	2.13 (98.61)	0.65 (98.48)	1.19 (98.35)	2.58 (98.47)	5.50 (98.74)	2.48 (97.25)
6.	Area Sown more than once	1.08 (196.36)	2.21 (197.32)	3.98 (158.57)	7.04 (158.20)	3.58 (165.74)	1.13 (171.21)	1.96 (161.98)	4.04 (154.20)	4.64 (83.30)	2.64 (103.53)
7.	Gross Cropped Area	1.62 (294.55)	3.31 (295.54)	6.46 (257.37)	11.44 (257.08)	5.71 (264.35)	1.78 (269.70)	3.15 (260.33)	6.62 (252.67)	10.14 (182.05)	5.12 (200.78)

(Figures in parentheses indicate percent to total number of farmers)

Cropping Pattern

The table revealed that, crops grow during *Kharif*, *Rabi* and *Zaid* season on sample farmers are varying. The overall area under different crops in *Kharif* season was 1.35 ha in Organic rice farmers while the conventional rice farmers 1.72 ha. The area under different crops in *Kharif* season was observed to be 0.54 ha, 1.1 ha, 2.48 ha and 4.44 ha for marginal, small, medium and large farmers in organic rice farmers where as in conventional rice farmers category was observed to be 0.99 ha, 1.79 ha. 4.27 ha and 5.45 ha for marginal, small, medium and large farmers. The area under different crops in *Rabi* season was 1.08 ha in organic rice farmers while the conventional rice farmers 1.11 ha.

TABLE 6: CROPPING PATTERN OF THE SELECTED ORGANIC AND CONVENTIONAL RICE FARMERS

Sl. No.	Crops	Organic Rice Farmers					Conventional Rice Farming				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
Kharif Crops											
1.	Paddy	0.43	0.88	1.24	2.20	1.19	0.33	0.60	1.29	2.75	1.24
2.	Sugarcane	0.00	0.00	0.99	1.76	0.69	0.00	0.00	0.44	1.10	0.39
3.	Vegetable	0.09	0.20	0.24	0.44	0.24	0.65	1.18	2.51	1.54	1.47
4.	Others	0.02	0.02	0.01	0.00	0.01	0.01	0.01	0.03	0.06	0.03
Rabi Crops											
1.	Wheat	0.43	0.88	1.19	2.11	1.15	0.39	0.72	1.28	2.64	1.26
2.	Mustard	0.05	0.11	0.29	0.53	0.25	0.07	0.12	0.21	0.44	0.21
3.	Vegetable	0.04	0.09	0.00	0.00	0.03	0.19	0.35	0.62	1.28	0.61
4.	Others	0.02	0.02	0.01	0.00	0.01	0.01	0.01	0.02	0.04	0.02
Zaid Crops											
1.	Moong	0.52	1.09	2.48	4.40	2.12	0.12	0.14	0.21	0.26	0.18
2.	Others	0.02	0.02	0.01	0.00	0.01	0.01	0.02	0.01	0.03	0.02
Total											
Gross Cropped Area		1.62	3.31	6.46	11.44	5.71	1.78	3.15	6.62	10.14	5.12

The area under different crops for marginal, small, medium and large farmers was observed to be 0.54 ha, 1.1 ha, 1.49 ha and 2.64 ha in organic rice farmers where as in conventional rice farmers category was observed to be 0.66 ha, 1.2 ha, 2.13 ha and 4.4 ha for marginal, small, medium and large farmers. On an average cropping intensity was observed 170.04 percent in organic rice farmers while the conventional rice farmers 169.34 percent. The area under different crops in *zaid* season was 1.34 ha in organic rice farmers. The area under different crops for marginal, small, medium, large was observed to be 0.54 ha, 1.11 ha, 2.49 ha and 4.40 ha. In *Zaid* season, many conventional farmers land was fallow.

Livestock Position of the Selected Organic And Conventional Rice Farmers

The livestock value per farm presented in table 7. It can be observed that per farm total value of livestock was worked out to Rs. 40714.28, Rs. 45000.00, Rs.80000.00, Rs. and 75000.00 for marginal, small, medium large size group farms in organic rice farmers where as in conventional rice farmers Rs. 49833.33, Rs. 60000.00, Rs.55000.00, Rs. and 20000.00 for marginal, small, medium large size group farms. At overall level, livestock value in farm was worked out to Rs.60178.57 in organic rice farmers while the conventional rice farmers Rs. 46208.33.

TABLE 7: LIVESTOCK POSITION OF ORGANIC AND CONVENTIONAL RICE FARMERS (VALUE OF LIVESTOCK IN RS.)

Particulars	Organic Rice Farmers					Conventional Rice Farmers				
	Marginal	Small	Medium	large	All	Marginal	Small	Medium	large	All
Buffalo	25000 (61.40)	25000 (55.55)	80000 (100)	5000 (66.66)	45000 (74.77)	24000 (48.16)	4000 (66.66)	30000 (54.54)	0 (0.00)	23500 (50.85)
Cow	15714.28 (38.59)	20000 (44.44)	0 (0.00)	2500 (33.33)	15178.5 (25.22)	18333.33 (36.78)	2000 (33.33)	25000 (45.45)	20000 (100.0)	20833.3 (45.08)
Goat and sheep	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	7500 (15.05)	0 (0.00)	0 (0.00)	0 (0.00)	1875.0 (4.05)
Total	40714.28 (100.00)	45000 (100)	80000 (100)	7500 (100)	60178.5 (100)	49833.33 (100)	6000 (100)	55000 (100)	20000 (100)	46208.3 (100)

(Figures in parentheses indicate percentage to the respective total livestock value)

Farm assets and investment of Organic Farmers and Conventional Farmers

The fixed capital assets play an importance role in any business. The capital assets and investment was presented in table: 8. Overall per farm investment on farm building 3.95 percent, cattle shed 3.72 percent, well and tube wells 1.98 percent, electric motors 1.49 percent, pumping set 3.47 percent, spray pump 3.18 percent, tractors 67.52 percent, thresher 9.51 percent, plough 3.22 percent, harrow 1.42 percent and seed drill 0.48 percent in Organic Rice Farmers where as in Conventional Rice Farmers on farm building 4.16 percent, cattle shed 3.70 percent, well and tube wells 1.95 percent, electric motors 1.49 percent, pumping set 3.53 percent, spray pump 2.45 percent, tractors 70.90 percent, thresher 10.00 percent, plough 2.73 percent, harrow 1.34 percent and seed drill 0.45 percent respectively. At the overall per farm maximum investment on tractor was Rs. 105293.73(67.52 percent) in Organic Rice Farmers whereas in Conventional Rice Farmers Rs.107045.07 (70.90 percent). The table clear that the maximum investment in large size of group in Organic Rice Farmers and Conventional Rice Farmers

**TABLE 8: FARM ASSETS AND INVESTMENT OF SELECTED ORGANIC AND CONVENTIONAL RICE FARMERS
(VALUE OF ASSETS IN RS.)**

Sl. No	Particulars	Organic Rice Farmers					Conventional Rice farmers				
		Marginal	Small	Medium	Large	Overall	Marginal	Small	Medium	Large	Overall
	Farm Building	5025.33 (6.98)	6235.25 (6.65)	6324.55 (3.20)	7050.05 (2.70)	6163.00 (3.95)	4050.25 (7.02)	5625.2 (6.34)	7234.04 (3.63.)	8225.25 (3.18)	6287.93 (4.16)
	Cattle Sheds	4022.4 (5.59)	5384.53 (5.74)	6556.66 (3.31)	7272.33 (2.79)	5812.67 (3.72)	4032.54 (6.98)	5284.53 (5.96)	6156.66 (3.09)	6872.33 (2.66)	5590.52 (3.70)
	Well and Tube wells	2382 (3.31)	2733.33 (2.91)	3488.23 (1.76)	3766.67 (1.44)	3094.55 (1.98)	2482 (4.30)	2333.33 (2.63)	3333.33 (1.67)	3666.67 (1.42)	2955.98 (1.95)
	Electric Motors	1852.32 (2.57)	2023.33 (2.15)	2588.45 (1.31)	2866.67 (1.10)	2334.20 (1.49)	1662.32 (2.88)	2223.33 (2.50)	2488.45 (1.24)	2666.67 (1.03)	2261.85 (1.49)
	Pumping Set	3700 (5.14)	4100 (4.37)	6506.66 (3.29)	7333.33 (2.81)	5413.20 (3.47)	3800 (6.58)	4100 (4.62)	6406.66 (3.21)	7033.33 (2.72)	5338.605 (3.53)
	Spray Pumps	2600 (3.61)	4400 (4.69)	6046.66 (3.06)	6799.99 (2.61)	4946.50 (3.18)	1600 (2.77)	3400 (3.83)	4026.66 (2.02)	5799.99 (2.24)	3708.82 (2.45)
	Tractor	38000 (52.82)	48000 (51.21)	14000 (70.88)	19500 (74.91)	105293.73 (67.52)	28000 (48.53)	50000 (56.41)	150000 (75.32)	200000 (77.48)	107045.07 (70.90)
	Thresher	7865.55 (10.93)	13566.67 (14.47)	17342.43 (8.78)	20556.66 (7.89)	14841.37 (9.51)	6665.55 (11.55)	9545.67 (10.77)	12242.43 (6.14)	15256.66 (5.91)	10934.69 (10.0)
	Plough	4143.33 (5.75)	4388 (4.68)	5542.22 (2.80)	6048.33 (2.32)	5033.78 (3.22)	3343.33 (5.79)	3588.67 (4.04)	4542.23 (2.28)	5048.33 (1.95)	4133.67 (2.73)
	Harrow	1706.67 (2.37)	2124.67 (2.26)	2340 (1.18)	2742.2 (1.05)	2229.84 (1.42)	1506.67 (2.61)	1816.67 (2.04)	2040 (1.02)	2742.2 (1.06)	2027.80 (1.34)
	Seed drill	640 (0.88)	766.66 (0.81)	769.9 (0.38)	874.2 (0.33)	763.21 (0.48)	550 (0.95)	706.66 (0.79)	666.9 (0.33)	814.2 (0.31)	684.96 (0.45)
	Total	71937.74 (100)	93722.52 (100)	197505.74 (100)	260310.4 (100)	155944.1 (100)	57692.66 (100)	88624.06 (100)	199137.36 (100)	258125.63 (100)	150969.93 (100)

(Figures in parentheses indicate percentage to the respective total investment)

CONCLUSION

The major components i.e. age wise distribution, education status of the farmers Land utilization pattern, cropping pattern, farm building, machinery & implements and livestock position of per farm were considered. This is observed that large number of farmer's main occupation only agriculture in both organic and conventional rice farming. It was found that maximum investment on the farm building followed by machinery implements and livestock. On overall farm per farm investment was positively related with holding size but per hectare investment was inversely related. In the cropping pattern paddy in *Kharif*, wheat in *Rabi* and moong in *Zaid* season stood on first rank among all the crops. It was found as per farm maximum investment on tractor in Organic Rice Farmers whereas in Conventional Rice Farmers. The maximum investment in large size of group in organic rice farmers and conventional rice farmers.

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