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Impact assessment on socio-economic profile of women mushroom growers in Samastipur district of Bihar

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Abstract
Mushroom cultivation is an important activity contributing to the livelihood security of the nation. It has been observed that women have immense role for mushroom cultivation as women can easily inculcate the technology to grow mushroom. The study was conducted in 4 villages of Samastipur district of Bihar. A total 60 respondents were selected from identified villages *i.e.* 15 respondents from each villages for "Impact assessment on socio economic profile of women mushroom growers". Data were collected with the interview and observation method. The study revealed that majority of the respondents were young aged (56.67%), 91.67 per cent were married, 65 per cent belongs to backward class and 71.66 per cent had joint family. Maximum (60%) of respondents had family income of Rs. 50,000- Rs. 80,000 per annum.

Keywords: Mushroom, women mushroom grower, economic empowerment

Introduction
Mushroom cultivation is a friendly profession for women. It is one of the activity in which women can play a vital role without sacrificing their household responsibilities. Mushroom production provides a number of opportunities for improving the sustainability of small farming system and rural development. It is an effective form of bioconversion technology and can be based on a wide range of agricultural by-products. Substrate remains after the mushroom harvesting form a good organic fertilizer for the soil that can be used for crop production.

It is a high value product with great potential by utilizing agricultural wastes, thus it gives an environmentally friendly disposal system (Isikhuemhen et al, 2000) [2]. It can help in reducing poverty and strengthens livelihoods through the making money and nutritious source of food and a reliable source of income (Marshall and Nair, 2009) [5]. Edible mushrooms are a source of high quality protein which is about 19-35 per cent (Longvah and Deosthale, 1998) [4] with having all the medicinal value and essential amino acids. Mushroom helps to cure anaemia, obesity and suitable for people with hypertension (Dubost, 2006) [6].

Mushroom production is highly combinable option with other traditional agricultural and domestic activities and it can make an important contribution to the livelihoods of small and marginal farmers and the landless poor with appropriate training and access to inputs can increase their independence and self-sufficient through income generation. This means that mushroom can provide year round income or food for households (Marshall and Nair, 2009) [5]. It requires less space so mushroom production offers a viable option for those with small plots of land and also the landless people. Mushroom production provides economic empowerment which enables them to buy other items required for the household. Hence, keeping in view these rational in mind the present study has been planned with the objective of assessing the impact of mushroom cultivation on socio economic profile of women mushroom growers.

Research Methodology
The study was conducted in Samastipur district of Bihar. Two blocks namely Pusa and Tajpur of identified district were selected for the study. Out of selected blocks four villages were purposely selected. A sample of 60 respondents *i.e.* 15 from each village selected with the help of snowball sampling technique. Data were collected using personal interview method with the help of structural interview schedule and thereafter, data were analysed.

Result and discussions

Socio-economic profile of the respondents

Age

In the social science research, Age is an important variable from the centre of study. Majority of the women mushroom growers were young aged (28-38 years) followed by 31.67 per cent and 11.66 per cent of middle aged (39-49 years) and old aged (50-59 years) respectively. This finding is supported by Kulvir, (2016)

Table 1: Distribution of respondents according to their age-

Sl. No.	Age	Frequency	Percentage
1.	Young (28-38 years)	34	56.67
2.	Middle (39-49 years)	19	31.67
3.	Old (50-59 years)	7	11.66
Total		60	100.00

Respondents Education

For the determination of degree of success or failure of any training, education is considered as one of the most important factor.

Table 2: Distribution of respondents according to their education level-

Sl. No.	Respondent's Education	Frequency	Percentage
1.	Illiterate	7	11.67
2.	Primary	7	11.67
3.	Upper Primary	16	26.67
4.	High school	13	21.66
5.	Intermediate	14	23.33
6.	Graduation	2	3.33
7.	Post-graduation	1	1.67
Total		60	100

Majority of the respondents (26.67%) had received upper primary education. Whereas, 23.33 per cent of the respondents had studied up to intermediate and 21.66 per cent had studied up to high school.

Family income

Annual income of the respondents has significant influence on their socio-economic status. Therefore, family income the most important factor in determining the socio- economic profile of the respondents.

Table 3: Distribution of respondents according to their family income

Sl. No.	Family Income	Frequency	Percentage
1.	Very low (below- Rs. 40,000)	3	5.00
2.	Low (Rs. 50,000- Rs. 80,000)	36	60.00
3.	Medium (Rs. 90,000- Rs.1,50,000)	21	35.00
Total		60	100

It is evident that 60 per cent of the women mushroom growers were getting low income (Rs. 50,000- Rs. 80,000), 35 per cent had medium income (Rs. 90,000- Rs. 1,50,000) and remaining 5 per cent were getting very low income (below- Rs. 40,000).

Occupation

Attitude of the family, economic condition, flow of capital, decision making of the family members towards new technology largely affect due to occupation of the respondents. On the basis of their occupation they have been categorized as follows. It showed that 45 per cent of the respondents were engaged in business followed by 40 per cent were in farming in agriculture. 6.67 per cent of the respondents were doing labour, 5 per cent of the total respondents were engaged in other work and a very less number of the respondents were having their own business that is only 3.33 per cent.

Table 4: Distribution of respondents according to their occupation

Sl. No.	Occupation	Frequency	Percentage
1.	Labour	4	6.67
2.	Caste based occupation	2	3.33
3.	Business	27	45.00
5.	Farming	24	40.00
6.	Others	3	5.00
Total		60	100

Caste

Caste system largely affects adaptation trends towards new technology among rural area. On the basis of their caste they has been divided into various caste categories as follows.

Table 5: Distribution of respondents according to their caste

Sl. No.	Caste	Frequency	Percentage
1.	Extremely backward class	19	31.66
2.	Backward class	39	65.00
3.	General	2	3.33
Total		60	100

The overall data pertaining to the caste indicates that a majority of the respondents *i.e.* 65 per cent belonged to backward class followed by 31.66 per cent and 3.33 per cent of the extremely backward class and general class respectively. Women mushroom growers do not belong to SC/ST categories in selected area.

Type of family

Decision making in the family depends on their type. In nuclear family decision making is quicker as compare to the combined family.

Table 6: Distribution of respondents according to their type of family

Sl. No.	Type of Family	Frequency	Percentage
1	Nuclear	17	28.3
2	Joint	43	71.7
Total		60	100.0

The data pertains in the table revealed that maximum respondents (71.7%) belonged to the joint family followed by the nuclear family *i.e.* 28.33 per cent.

Family education status

Family education status is an important factor for the adaptation of new technology. The data pertaining to the family education status of the women mushroom growers showed that a majority of the respondents having high family education status (4.7 to 5.7) *i.e.* 43.34 per cent followed by medium family education status (3.6 to 4.6) *i.e.* 38.33 per cent and low education status (2.5 to 3.5) 18.33 per cent.

Table 7: Distribution of respondents according to their family education status

Sl. No.	Family Education Status	Frequency	Percentage
1.	Low (2.5-3.5)	11	18.33
2.	Middle (3.6-4.6)	23	38.33
3.	High (4.7-5.7)	26	43.34
Total		60	100

Family size

Size of the family affects the economic behaviour of the family relating to the income and expenditure. The data in table indicates that 73.34 per cent of the respondents had small family size, 26.66 per cent of them had medium size of the family. The similar result was found by Singla *et al.* (2016) [9].

Table 8: Distribution of respondents according to their size of family

Sl. No.	Size of Family	Frequency	Percentage
1	Small (1-6)	44	73.34
2	Medium (7-10)	16	26.66
Total		60	100

Land holding

Respondents were categorized into four groups on the basis of size of the land holding**.**

Table 9: Distribution of respondents according to their land holding

Sl. No.	Land Holding	Frequency	Percentage
1	Landless (no land)	8	13.3
2	Marginal (Up to 2.5 acre)	24	40.0
3	Small (2.5 to 5 acre)	24	40.0
4	Medium (5 to 10 acre)	4	6.7
Total		60	100.0

It is observed that a majority of respondents belong to the small and marginal farmers (40%) followed by landless farmers *i.e* 13.33 per cent and 6.7 per cent were medium farmers. Similar result found by Priyanka *et al*. (2015).

Social participation

Social participation is defined as voluntary sharing in between beyond the immediate household. It refers to the involvement of respondents as a member of any organization or not. The data in the table revealed that majority of the respondents *i.e.* 53.33 per cent of the respondents participated in SHGs groups and remaining 46.67 per cent of the respondents had no involvement in any group. Similar result was reported by Jogender *et al*. (2015).

Table 10: Distribution of respondents according to their social participation

Sl. No.	Social Participation	Frequency	Percentage
1	SHG members	32	53.33
2	No membership	28	46.67
Total		60	100

Training

The Table indicates that all the respondents of selected villages and selected respondents had got training. In this Table it is observed that there was cent per cent respondents got training through various sources.

Table 11: Distribution of respondents according to their training

Sl. No.	Training	Frequency	Percentage
1	Yes	60	100
Total		60	100

Source of income

It is analysed from data that majority of the respondents (48.3%) doing their allied activities followed by agriculture *i.e.* 45 per cent.

Table 12: Distribution of respondents according to their source of Income

Sl. No.	Source of Income	Frequency	Percentage
1	Wages	4	6.7
2	Agriculture	24	45.0
3	Allied activities	29	48.3
Total		57	100.0

Marital status

Majority of the mushroom growers were married that is 91.67 per cent followed by divorced *i.e.* only 8.33 per cent. Unmarried respondents were not found in my selected village.

Table 13: Distribution of respondents according to their marital status

Sl. No.	Marital Status	Frequency	Percentage
1	Married	55	91.67
2	Widow	5	8.33
Total		60	100

Conclusion

Above findings clearly indicate that the majority of the women mushroom growers were young aged (27-38 years), belongs to backward class and had received upper primary education. Most of them were from small and marginal farmers and their family income was low (Rs. 50,000- Rs. 80,000). In the coming years, mushroom farming by women grower will become an integral part of socio-economic development.

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