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Study on Background Characteristic and Use of ICTs in Agriculture and Allied Areas by the Rural Women of Assam

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ABSTRACT

A study was conducted to find out the background characteristics including personal and socio-economic characteristics and use of ICTs in agriculture and allied areas by the rural women of Jorhat and Nagaon districts of Assam, India. A total of 400 rural women were selected randomly for the present study. The results showed that little less than half i.e., 42.25 per cent of the respondents belonged to lower middle age group i.e., 35-47 years. Large majorities (94.75%) were married and 39.75 per cent of respondents had education up to high school level. Majority (60.25%) of rural women belonged to Other Backward Caste (OBC). A large majority 82.50 per cent of the respondent family occupation was farming with 68.75 per cent. Data on use of ICTs in agriculture reflected that television was used for gathering information on improved farming methods (88.47%), mobile phone for availing information about fertilizers (78.10%), radio for accessing information on weather (66.17%) etc. The study explores the areas where ICTs were used.

Key words: Rural women, ICTs, Agriculture, Socio-economic characters

Agriculture plays very important role in overall development of the nation. It is considered to be the most predominant sector of Indian economy with largest livelihood provider among the rural poor. On the other hand, Information and Communication Technology (ICT) are always necessary in agriculture. ICT perform many different roles in agricultural development starting from decision support system to the marketing of crops [1]. Through ICT rural women can be updated with the recent information about agriculture, weather, new varieties of crops and new ways to increase production and quality control. ICT revolution is upcoming rapidly and more noticeable now a days [2]. With the introduction of information and communication technologies, the traditional agriculture has been reformed, eventually contributing to the significant improvement in agriculture productivity and sustainability. Empowering rural women with the right information at the right time is essential for improving the efficiency and viability of small and marginal farm families.

MATERIALS AND METHODS

The study was carried out in the state of Assam.

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Simple random sampling was selected for selection of districts, blocks, villages and respondents. Jorhat and Nagaon districts were selected randomly from the state of Assam. From the selected districts four (4) blocks were selected following simple random sampling method, out of the four blocks two (2) villages were selected randomly. Thus, altogether eight (8) villages were selected.

Selection of respondents

A list of villages was prepared with the help of village leaders. Then fifty (50) respondents were selected from each village, thus altogether 200 respondents were selected from each district. Thus, a total of 400 rural women were finally selected for data collection of the study.

Data collection

Primary data on background characteristic and use of ICTs in agriculture and allied areas by the rural women were collected from the respondents through well-structured and pretested schedule. The information generated by PRA and group discussion complemented the questionnaire-based information collected through personal interview.

RESULTS AND DISCUSSION

Background characteristics

The background characteristic of the respondents which includes personal and socio-economic characteristics is presented below:

Personal characteristics

Age

Age is considered as one of the most important personal characteristics of rural women which affects the women’s participation in various training programmes as well as socio-economic activities. Further maturity and experiences varies according to age level of the respondents. Hence it has been included as one of the independent variables for the present study. The data presented in the (Table 1) reveals that 42.25 per cent of the respondents belonged to lower middle age group i.e., 35-47 years followed by young age group (38.00%) and 19.75 per cent of respondents belonged to upper middle age group (48 and above years) [3]. The table shows slightly high frequency distribution among the lower middle age category respondents than the other two categories. This means that involvement of lower middle age group respondents in agricultural and allied activities was higher than the other

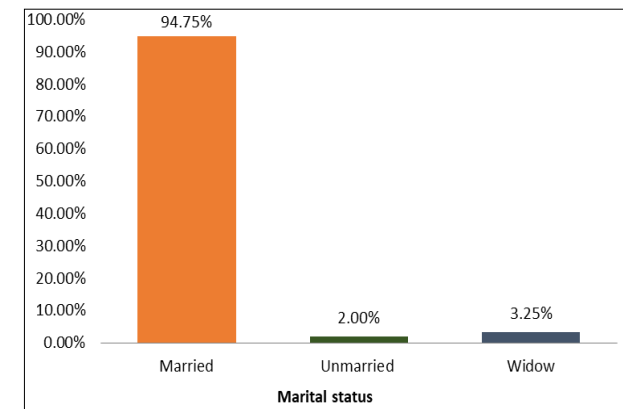


Fig 1 Distribution of respondents according to marital status

Socio-economic characteristics

Educational qualification

Education can change the behaviour of an individual which can be reflected through their mental and personality development. The individual with higher education acquires more knowledge and are able to accept new ideas and can also offer solutions to certain problems more quickly. The data presented in (Fig 2) reveals that a high majority of the respondents were literate (97.25%) while only 2.75 per cent of respondents were found to be illiterate. Out of the literate groups, 39.75 per cent of respondents had education up to high school followed by 39.00 per cent middle school, 10.50 per cent primary school and only 8.00 per cent were found to be graduate [5]. From the findings it can be assumed that rural women have the ability to comprehend and use information’s easily in their day-to-day life. It may be due to the various steps taken by the education department for encouraging rural women in enrollment to formal education. Further, the findings will help the extension agencies to organize formal trainings related to use of ICTs in agriculture and allied activities in near future. It was also noted during the survey that respondents with limited education are not familiar with use of new Information Communication Technologies, which may limit their ability to access timely and relevant information on various agricultural and allied areas.

Caste

It was evident from the data in (Table 2) that 60.25 per cent of the respondents belonged to other backward

two categories due to selection of the respondents through simple random sampling method.

Table 1 Distribution of respondents according to age (N = 400)

Category	Frequency	Percentage
Young (22 – 34 years)	152	38.00
Lower Middle (35 – 47 years)	169	42.25
Upper Middle (48 and above)	79	19.75

Marital status

The data presented in the (Fig 1) shows that majority of respondents (94.75%) were married, followed by widow (3.25%) and unmarried (2.00%) categories [4]. This may imply that married people were more involved in agriculture and allied activities and also have to play an important role for fulfilling needs of their family members.

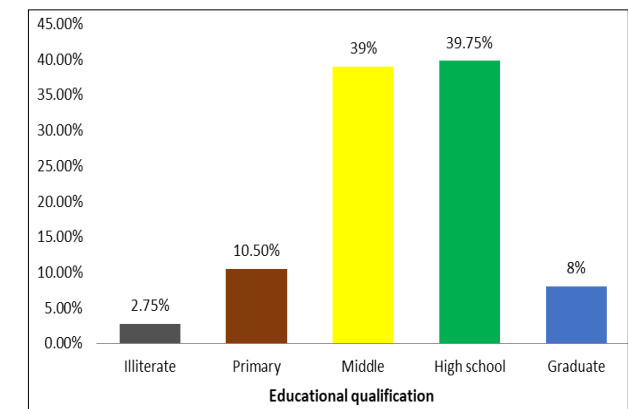


Fig 2 Distribution of respondents according to educational qualification

caste (OBC) followed by scheduled tribe (ST) with 31.50 per cent and only 8.25 per cent of respondents belonged to general category [6].

Table 2 Distribution of respondents according to caste (N = 400)

Category	Frequency	Percentage
OBC	241	60.25
ST	126	31.50
General	33	8.25

Main occupation

It is apparent from the (Table 3) that farming (82.50%) was the main occupation of the families included in the study followed by service (8.50%), business (6.25%) and daily wage earner (2.75%). This result may be due to the selection of study area and the sampled population who were from rural area and farm families [7].

Table 3 Distribution of respondents according to main occupation (N = 400)

Type of occupation	Frequency	Percentage
Farming	330	82.50
Service	34	8.50
Business	25	6.25
Daily wage earner	11	2.75

Use of ICTs

The purpose of using selected ICTs namely television, radio, mobile phone (with and without internet

facility) presented in the (Table 4). The purpose of using is categorized into two broad categories such as agriculture and allied areas. The numbers of respondents using the selected ICTs for that specific purpose are presented against those ICTs [8].

Out of the three ICT tools it can be seen from the data in (Table 4) that majority of the respondents were using television for accessing information on improved farming methods (88.47%), followed by mobile phone (71.62%). Further mobile phone was used for availing information

about fertilizers (78.10%), radio for accessing information on weather (66.17%). Mobile phone was also used for availing information about inputs and services (46.21%) and market prices of different agricultural products (49.21%). Nearly one third of the respondents (28.40%) used television for getting information about crop insurance [9]. Mobile phone was also used for accessing information’s on goat rearing (41.35%), dairy farming (75.40%), duckery farming (41.08%), piggery farming (24.05%), and accessing information’s on feed and fodder (63.78%) [10].

Table 4 Distribution of respondents according to use of ICTs

Purpose of usage	ICTs					
	Television (n=345)		Radio (n=68)		Mobile phone (n=370)	
	Agriculture					
Improved farming methods	288	83.47	19	27.94	265	71.62
Fertilizers	190	55.07	22	32.35	289	78.10
Weather information	61	17.68	45	66.17	86	23.24
Inputs and services	96	27.82	8	11.76	171	46.21
Market price	112	32.46	14	20.58	183	49.21
Crop insurance	98	28.40	10	14.70	85	22.97
	Allied areas					
Goat rearing	85	24.63	8	11.76	153	41.35
Dairy farming	189	54.78	29	42.64	279	75.40
Poultry farming	174	50.43	4	5.88	158	42.70
Piggery farming	51	14.78	9	13.23	89	24.05
Duckery farming	90	26.08	12	17.64	152	41.08
Feed and fodder	42	12.17	14	20.58	236	63.78

CONCLUSION

Information and Communication Technology (ICT) revolution is upcoming rapidly and more noticeable now a days. With the introduction of information and communication technologies, the traditional agriculture has been reformed, eventually contributing to the significant

improvement in agriculture productivity and sustainability. From the findings we may conclude that right use of ICTs at right time will actually help the farmers to solve their day-to-day problems. Therefore, to empower rural women with the right information at the right time is essential for improving the efficiency and viability of small and marginal farm families.

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