Agricultural Information Needs of Farmers in Select Villages of Varanasi District: A Case Study

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Abstract

This study was intended to discover the agricultural information needs of farmers in the selected eight villages of Varanasi district. Further the review of pertinent literature, the study administered 350 questionnaires to farmers working in the villages of Varanasi district, Uttar Pradesh. 287(82%) were duly completed. Findings revealed that farmers need various types of information related to agricultural activities, and also they use diverse information sources for accessing of such information. Several farmers affirmed that they are not well acquainted with modern techniques of agriculture as a result they rarely use such techniques. Because of many new challenges and factors they are not satisfied with agricultural information, and in several cases their satisfaction level is very low. It is recommended that there must be proper solution for which farmers faces many problems. Climate change is also big issue before the farmers in this situation they must be given proper information related to farming.

Keywords

Information; information needs; agricultural information; Indian Farmers; Rural Farmers.

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INTRODUCTION

Information plays a very important role in meeting the information needs of human activities which are presented in many formats such as print and non-print. Development of any nation is depending on the availability of value-oriented information and making it available to the users in right time. India is a country, where about three-fourth of the population living in rural areas need basic information. Similarly, agriculture farmers' also need information to work in their agricultural fields. According to Kemp (1999) "Information has been described as the fifth need of man ranking after air, water, food, and shelter. Everyone needs information about everything even in his daily life". Mittal & Mehar (2013) expressed that farmers face new challenges due to lack of information on how to deal with various issues of climatic changeability, market improbability, new technology etc. e.g., farmer producing wheat on his/her field for that they need accurate information on various issues i.e. weather, temperature, soil moisture, soil quality, and biological factors. It is very difficult for a farmer to find information on these new challenges from their conventional sources of information, to maintain or improve their yield. Further, (Mittal & Mehar (2013) affirmed that farmers need to cope with these challenges by means of information about the advanced techniques and methods to facilitate their confined atmosphere.

BACKGROUND OF THE STUDY

This study was conducted among the eight villages of Varanasi district. The names of villages are Ramraipur, Unchganv, Dayapur, Titkhori, Sajoi, Akabarpur, Kanudeeh and Kaziszrai. These villages are situated in two Blocks of Varanasi first one is Araziline Block and second one is Harahuna Block. All the eight villages are small in population and maximum people of these villages are doing farming work. Agriculture is the only livelihood for them. Varanasi also known as Banaras or Kashi is a North Indian city located on the banks of the Ganges in Uttar Pradesh, India. It is popularly known as Kashi Nagari which is very much famous all over the world, because of Baba Vishwanatha. It has rarely been an important political centre, and the rise and fall of its rulers throughout its long history has had little impact on the story of the city's sanctity. Kashi to a large extent, has maintained an age-old and hoary living tradition right up to the present day, and

is therefore the cumulative face of the Santana tradition (Prabuddha Bharata, n.d.).

REVIEW OF LITERATURE

Elly & Silayo (2013) conducted a study to determine information needs and sources of the rural farmers in Tanzania specifically from Iringa rural district. It was clear that the first preferred source of the information is colleague or fellow farmers. It was also observed that farmers constitute a particular group of users whose information needs is very specific. On the other hand, Hossin & Islam (2012) studied and found that the maximum rural areas women in Bangladesh are literate, but nearly all of them are housewives. It was found that government of Bangladesh has taken many initiatives for Women education, but at the same time ignored the information needs of the rural women. It was suggested that training on use of information and communication technology (ICT) can be arranged in schools and colleges as well as in public libraries, particularly for the women of rural area as a result they can get access to quick and accurate information regarding every aspect of their daily lives. In the same way, Babu et. al., (2012) examined the farmers information needs and search behavior of two districts of Tamil Nadu, South India. The findings of study highlighted that the major constraints to information access, common to all search groups, were poor reliability and timeliness. The results show that tailoring the delivery of agricultural information to the different information search behaviors of farmers is essential for extension programs to consider. Achigbue & Sylvester (2011) observed that the rural farmers were made to know about the activities of the ministry of Agriculture in Delta State and were forced to form Rural Farmers Agricultural Cooperative Societies which will help them to get quick information about new arrivals as well as new product and services. It was highly recommended that government must take various initiatives to uplift them by providing right information and necessary facilities required for farming.While, Mwakaje (2010) conducted a study and reported that there is a knowledge gap between information needs and their sources of the rural farmers. It was suggested that there must be a proper study which regulates these needs and the mechanisms used to disseminate the right information at the right time. Meitei& Devi (2009) explained in their study that majority of farmers did not have access to agricultural information for their activities. It was stressed out upon implementation and support based agricultural information must be developed for farmers' information needs. Tologbonse & others (2008) reported that the women farmers required information on weather, soil management, credit availability, and farm management. It revealed that women farmers' information needs were improved on seedlings, fertilizer and insecticides, animal health, future market prices, land tenure, child immunization, and vaccination for animals.

SCOPE & LIMITATION

The scope of the present study is to explore the information needs of the farmers in the eight selected villages of Varanasi district. In this study investigators have tried to cover the male and female farmers of the eight villages of the Varanasi district. Therefore, this study was limited to cover only above given villages of Varanasi district, Uttar Pradesh.

OBJECTIVES OF THE STUDY

The major objectives of the study are

- To study the farmers' information needs
- To identify various types of information required by the farmers.
- To find the source of information used by the farmers.
- To identify the problem faced by the farmers

METHODOLOGY

The survey method was employed to conduct the study and questionnaire was administered to collect necessary data for fulfilling the objectives of this research work. The random sampling techniques were used for selection of the farmers of eight villages. The data was carefully organized and tabulated by using frequency and percentage. Total 350 questionnaires were distributed randomly to the farmers. The investigators found in return 287(82%) questionnaires from the respondents.

DATA ANALYSIS

Demographic profiles of respondents

Table 1: Profiles of respondents

Attribute		**Response (N=287)**	**%**
	Less than 20 years	3	1.05
	21-30	36	12.54

Age	31-40	69	24.04
	41-50	92	32.06
	51-60	57	19.86
	More than 60	30	10.45
	Total	287	100
Sex	Male	209	72.82
	Female	78	27.18
	Total	287	100
Education	Illiterate	41	14.29
	Primary	67	23.34
	8th Standard	51	17.77
	10th Standard	71	24.74
	12th Standard	46	16.03
	Graduation	11	3.83
	Total	287	100
Income Level	Low	187	65.16
	Medium	83	28.92
	High	17	5.92
	Total	287	100
Farming Experience	Less than 10 years	13	4.53
	10-20	150	52.26
	21-30	114	39.72
	31-40	10	3.48
	Total	287	100
Known Language	Bhojpuri	95	33.10
	Hindi	177	61.67
	English	15	5.23
	Total	287	100

Table 1 shows that the responses received from the farmers on various aspects. The highest percentage of age group belong to the 41-50, 92(32.06%) followed by age group of 31-40, 69(24.04%) and age group of 51-60, 57(19.86%). Whereas, the sex-wise distribution shows that Male 209(72.82%) followed by Female 78(27.18%). Educational status of farmers shows that maximum 246(85.71%) are educated and 41(14.29%) illiterate. The income level of participants shows that low-income level 187(65.16%) followed by medium income level 83(28.92%) and higher income level 17(5.92%). Whereas, the maximum experience of participants show that 10-20 years 150(52.26%) followed by minimum 31-40 years 10(3.48%). Participants confirmed that their known language in which they communicate for farming related activities as Hindi 177(61.67%), Bhojpuri 95(33.1%) and very few speaks English 15(5.23%) a little bit as and when it required.

Information Needs of Agriculture farmers

Table 2: Various Types of Information Needs of Agriculture farmers

Types of Information	Never	Rarely	Occasion	Often	Very Often	Total
Modern Cultivation system	31 (10.80%)	51 (17.77%)	102 (35.54%)	84 (29.27%)	19 (42.22%)	287 (100%)
Seeds and planting materials	14 (4.88%)	49 (17.07%)	79 (27.53%)	106 (36.93)	39 (13.59%)	287 (100%)
Diseases & pest management	77 (26.83%)	49 (17.07%)	70 (24.39%)	56 (19.51%)	35 (12.20%)	287 (100%)
Fertilizer management	33 (11.50%)	65 (22.65%)	67 (23.34%)	58 (20.21%)	41 (14.29%)	287 (100%)
Weather information	31 (10.80%)	69 (24.04%)	87 (30.31%)	56 (19.51%)	44 (15.33%)	287 (100%)
Soil & water conservation	15 (5.23%)	53 (18.47%)	62 (21.60%)	110 (38.33%)	47 (16.38%)	287 (100%)
Irrigation	24 (8.36%)	45 (15.68%)	79 (27.53%)	93 (32.40%)	46 (16.03%)	287 (100%)
Government schemes on agriculture	82 (28.57%)	76 (26.48%)	64 (22.30%)	40 (13.94%)	25 (8.71%)	287 (100%)
Post harvesting techniques	87 (30.31%)	81 (28.22%)	75 (26.31%)	22 (7.67%)	22 (7.67%)	287 (100%)
Market information	28 (9.76%)	83 (28.92%)	123 (42.86%)	24 (8.36%)	29 (10.10%)	287 (100%)
Weeding & thinning	18 (6.27%)	99 (34.49%)	79 (27.53%)	62 (21.60%)	29 (10.10%)	287 (100%)

Storage of crops	41 (14.29%)	63 (21.95%)	71 (24.74%)	67 (23.34%)	45 (15.68%)	287 (100%)

(Note: Likert five point Scale was used for this study-Never, Rarely, Occasional, Often and Very often)

The results in above Table.2 show that only 157(54.71%) of the participants acknowledged that they need information on soil and water conservation, whereas only 145(37.06%) need information on seeds and planting materials. The participants confirm lack of interest in information on Government schemes on agriculture 65(22.65%), market information 53(18.46%) and post-harvesting techniques 44(15.34%). On the other side, a good number of participants stated that they need information often on Irrigation 139(48.43%), Storage of crops 112(39.02%), Modern Cultivation system 103(71.49%), Weather information 100(34.84%), Fertilizer management 99(34.50%), Diseases& pest management 91(31.71%) and Wedding & thinning 91(31.71%).

Information sources used by agricultural farmers

Table 3: Information sources used by agricultural farmers

Information Source	Never	Rarely	Occasional	Often	Very Often	Total
Agriculture farm	97 (33.80%)	91 (31.71%)	64 (22.30%)	26 (9.06%)	9 (3.14%)	287 (100%)
Extension service	114 (39.72%)	81 (28.22%)	50 (17.42%)	30 (10.45%)	12 (4.18%)	287 (100%)
Cooperative bank	18 (6.27%)	45 (15.68%)	83 (28.92%)	88 (30.66%)	53 (18.47%)	287 (100%)
Other farmers	41 (14.29%)	39 (13.59%)	70 (24.39%)	61 (21.25%)	76 (26.48%)	287 (100%)
School teacher/lecturer	200 (69.69%)	46 (16.03%)	10 (3.48%)	11 (3.83%)	20 (6.97%)	287 (100%)
Community leader	159 (55.40%)	80 (27.87%)	23 (8.01%)	14 (4.88%)	11 (3.83%)	287 (100%)
Text books	144 (50.17%)	77 (26.87%)	41 (41.29%)	16 (5.57%)	9 (3.14%)	287 (100%)
Newspaper	51 (17.77%)	77 (26.83%)	116 (40.29%)	31 (10.80%)	12 (4.18%)	287 (100%)
Leaflet/Brochure/ Poster	92 (32.06%)	63 (21.95%)	59 (20.56%)	51 (17.77%)	22 (7.67%)	287 (100%)
TV	44 (15.33%)	68 (23.69%)	94 (32.75%)	50 (17.42%)	31 (10.80%)	287 (100%)
Radio	50 (17.42%)	123 (42.86%)	67 (23.34%)	39 (13.59%)	8 (2.97%)	287 (100%)
Internet/Email	180 (62.72%)	53 (18.47%)	22 (7.67%)	13 (4.53%)	19 (6.62%)	287 (100%)
Mobile phone	121 (42.16%)	85 (29.62%)	52 (18.12%)	18 (6.27%)	11 (3.83%)	287 (100%)
Workshop	192 (66.90%)	41 (14.29%)	35 (12.20%)	15 (5.23%)	4 (1.39%)	287 (100%)

(Note: Likert five point Scale was used for this study-Never, Rarely, Occasional, Often and Very often)

Table.3 shows that the information sources use by the farmers for agricultural information. It reveals that Cooperative bank 141(49.13%), other farmers 137(47.73%), TV 81 (28.22%) and Leaflet/Brochure/Poster 73(25.44%) were the most often used sources of information by the participants to find information on agriculture. In addition the farmers rely on Radio 47 (16.56%), Newspaper 43(14.98%), Extension service 42(14.63%), Agriculture farm 34(12.20%), Internet/Email 32(11.15%) and School teacher/lecturer 31(10.80%) are the some other sources of getting information. Furthermore, the farmers sometimes depend on Mobile phone 29(10.10%),

community leader 25(8.71%), textbook 25(8.71%) and Workshop 19(6.25%) in order to get agricultural information.

Access information related to Agriculture

Table 4: Access information related to Agriculture

Information	Never	Rarely	Occasional	Often	Very Often	Total
With the help of Local people	30 (10.45%)	44 (15.33%)	82 (28.57%)	95 (33.10%)	36 (12.54%)	287 (100%)
Agriculture information Centre	72 (25.09%)	119 (41.46%)	60 (20.91%)	25 (8.71%)	12 (4.18%)	287 (100%)
NGO Information Centre	185 (64.46%)	77 (26.83%)	2 (0.70%)	16 (5.57%)	7 (2.44%)	287 (100%)
Library	266 (92.68%)	20 (6.97%)	0 (0.00%)	0 (0.00%)	1 (0.35%)	287 (100%)
Home	33 (11.50%)	28 (9.76%)	86 (29.97%)	76 (26.48%)	64 (22.30%)	287 (100%)
Community Information Centre	79 (27.53%)	73 (25.44%)	62 (21.60%)	52 (18.12%)	21 (7.32%)	287 (100%)

(Note: five point likert Scale was used for this study-Never, Rarely, Occasional, Often and Very often)

Table.4 shows the number and percentages of responses from the participants regarding access to information related agriculture. The study revealed that the majority of the farmers have access to information from their home 140(48.78%) followed by with the help of Local people 131(45.64%) and Community Information Centre 73(25.44%). It also revealed that Agriculture information Centre 37(12.89%) and NGO Information Centre 23(8.01%) respectively. Only 1(0.35%) stated they access information from the library.

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Problem faced by farmers

Table 5: Problem faced by farmers while search information

Problem faced	S	HS	NS	LS	N	Total
Inability to access formal channel of information	80 (27.87%)	73 (25.44%)	61 (21.25%)	52 (18.12%)	21 (7.32%)	287 (100%)
Low level of income	52 (18.12%)	87 (30.31%)	80 (27.87%)	47 (16.38%)	21 (7.32%)	287 (100%)
Inadequate transport facility	51 (17.77%)	77 (26.83%)	73 (25.44%)	51 (17.77%)	35 (12.20%)	287 (100%)
Lack of personal interest and special knowledge	55 (19.16%)	77 (26.83%)	81 (28.22%)	56 (19.51%)	18 (6.27%)	287 (100%)
Inadequate contact to extension agent	48 (16.72%)	60 (20.91%)	74 (25.78%)	77 (26.83%)	28 (9.76%)	287 (100%)
Inability to access formal channel of information	43 (14.98%)	87 (30.31%)	71 (24.74%)	53 (18.47%)	33 (11.50%)	287 (100%)
Inadequate market information	59 (20.56%)	83 (28.92%)	63 (21.95%)	39 (13.59%)	43 (14.98%)	287 (100%)
Agricultural information on radio and TV is always aired at odd hours	50 (17.42%)	77 (26.83%)	63 (21.95%)	60 (20.91%)	37 (12.98%)	287 (100%)
High rate of illiteracy	38 (13.24%)	53 (18.47%)	69 (24.04%)	64 (22.30%)	63 (21.95%)	287 (100%)

Inaccessibility to rural areas by the NGOs	36 (12.54%)	65 (22.65%)	73 (25.44%)	67 (23.34%)	46 (16.03%)	287 (100%)
Ignorance of government responsibility	39 (13.59%)	71 (24.74%)	69 (24.04%)	65 (22.65%)	43 (14.98%)	287 (100%)
Lack of rural electrification	43 (14.98%)	55 (19.16%)	85 (29.62%)	66 (23.00%)	38 (13.24%)	287 (100%)

(Note: five point Scale was used for the study: S-Significant, HS-Highly Significant, NS-Not Significant, LS-Low Significant, N-Neutral)

Table.5 shows the number and percentage of responses on problem faced by farmers while search information. The findings of the study revealed that Inability to access formal channel of information 153(53.31%) followed by Inadequate market information 142(49.48%), Low level of income 139(48.43%), Inability to access formal channel of information 130(45.29%), Inadequate transport facility 128(44.60%) and Agricultural information on radio and TV is always aired at odd hours 127(44.25%) are highly significant problem faced by the farmers.

FINDINGS AND DISCUSSION

The findings of the present study on agricultural information needs of farmers in eight selected villages of Varanasi District. The study revealed major finding as follow:

- The study highlights maximum farmers' belong to age group belong to the 41-50, 92(32.06%) followed by another age group. Further, it is also clear that Male farmer 209(72.82%) in comparison to Female farmer.
- On the other hand educational status of farmers shows that maximum 246(85.71%) are educated and 41(14.29%) illiterate. It is indicated by the participants that low-income level 187(65.16%) followed medium income and higher income level.
- Findings indicate that majority of farmers' were having 10-20 years experience150 (52.26%). Farmers' confirmed that their known language in which they communicate for farming related activities are Hindi 177(61.67%), Bhojpuri 95(33.1%) and very few speaks English 15(5.23%) a little bit as and when it required.
- It is evident that only 157(54.71%) of the participants acknowledged that they need information on soil and water conservation, whereas only 145(37.06%) need information on seeds and planting materials.
- Maximum number of participants stated that they need information often on Irrigation 139(48.43%), Storage of crops 112(39.02%), Modern Cultivation system 103(71.49%), Weather information 100(34.84%), Fertilizer management 99(34.50%), Diseases& pest management 91(31.71%) and Wedding & thinning 91(31.71%).
- It is clear that the information sources use by the farmers for agricultural information. It reveals that Cooperative bank 141(49.13%), other farmers 137(47.73%), TV81 (28.22%) and Leaflet/Brochure/Poster 73(25.44%) were the most often used sources of information by the participants to find information on agriculture.
- The study revealed that the majority of the farmers have access to information from their home 140(48.78%) followed by with the help of Local people 131(45.64%) and Community Information Centre 73(25.44%).
- The findings of the study revealed that Inability to access formal channel of information 153(53.31%) followed by Inadequate market information 142(49.48%), Low level of income 139(48.43%), Inability to access formal channel of information 130(45.29%), Inadequate transport facility 128(44.60%) and Agricultural information on radio and TV is always aired at odd hours 127(44.25%) were the highly significant problem faced by the farmers.

CONCLUSIONS

Agricultural information plays an essential role in agricultural growth and development as well as improving the employment of farmers. Due to climate and other factors agriculture information is dynamic, because of increased awareness of farmers of their needs. Farmers use a mixture of formal and informal sources of information to secure information. Most of the farmers reveal that Cooperative bank 141(49.13%), other farmers

137(47.73%), TV 81(28.22%) and Leaflet/Brochure/Poster 73(25.44%) were the most often used sources of information. The result of this study shows that the farmers use multiple sources of information since no one source gives them complete information regarding their particular problem. It is recommended that there must be the proper solution for which farmers face many problems. Climate change is also a big issue for the farmers in this situation they must be given proper information related to farming.

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