



## Communicational Behaviour of Beneficiary and Non-Beneficiary Farmers : A Comparative Study of Krishi Vigyan Kendras of Chhattisgarh

P.K. Pandey\*, M.L. Sharma, S.R.K. Singh<sup>1</sup>, M.A. Khan and A.K. Gupta

Department of Agricultural Extension, IGKV, Krishak Nagar, Raipur-492012 (C.G.)

<sup>1</sup>ICAR-ATARI, Zone-IX, Jabalpur (M.P.)

\*Email : [prasant.igau@gmail.com](mailto:prasant.igau@gmail.com)

### Abstract

Study was conducted in 2019-20 among the 11 Krishi Vigyan Kendras of Chhattisgarh State including 495 farm families (330 beneficiary and 165 non-beneficiary farmers) of respective KVK territories. The results reveals that the majority of the farmers belonged to age group of 36-55 years, scheduled tribe caste, educated up to primary level resided with nuclear family system with medium sized family, up to 3 members engaged in agriculture. About 57.67 per cent KVK beneficiaries were in regular contact with KVK while, 52.12 per cent non-beneficiary farmers were regularly approached to State Agriculture Department. In case of level of extension contact with different extension agencies majority of KVK beneficiaries (47.27%) had medium level of the contact while, 62.42 per cent non-beneficiaries had low level of extension contact with different agencies. Regarding extent of information utilization, majority of KVK beneficiaries (79.80%) were utilized the information provided by KVKs at higher extent which was also most credible with 81.92 per cent of credibility index. While, majority of the non-beneficiary farmers (95.75%) were utilized the information provided by RAEs which credibility index was 71.52 per cent. In case of overall extent of utilization and credibility of information sources majority of the KVK beneficiaries (49.09%) has utilized different information sources at medium level which credibility was also reported medium level by 47.27 per cent respondents. Similarly, in case of non-beneficiary farmers, majority of the respondents (50.91%) were utilized the information sources at medium level and reported medium level of credibility by 66.67 per cent of non-beneficiaries. In case of agricultural information disseminated by respondents, most of the KVK beneficiaries (76.36%) were disseminated the agricultural information to their relatives while 44.85 per cent non-beneficiary farmers were disseminated agricultural information among their friend circle.

**Key words :** Communicational behaviour, KVKs, Information sources, utilization, credibility.

### Introduction

Current era is known as the 'Information-era' real time and trustworthy information are most necessary factor for production not only in agriculture but it is applicable for all other sectors. In agriculture, the timely availability of credible information related to various agricultural operations and also for marketing their produce is most important to gain the profit through optimization of resources by farming community. Ministry of Agriculture and Farmers Welfare, GOI is making very huge efforts to doorstep information delivery among farming communities of country through NARS (ICAR, NRCs, CAUs and SAUs) and State Department of Agriculture. In spite of several efforts made from different agencies, institutes, private agencies, NGOs etc. there is very huge gap between information delivery and utilization among the farming community of the country. The KVK is a milestone for the technology assessment, refinement and agricultural information dissemination among the farmers. For effective dissemination and utilization of the agricultural information, it is necessary to study the behavior of the farmers towards utilization of different information sources

for their agricultural practices (1). Keeping theses in view, present investigation was conducted in territories of 11 KVKs of Chhattisgarh State with 330 KVK beneficiaries and 165 non-beneficiary farmers with its specific objective to determine the communicational behaviour of both the category of the farmers with special reference to determine the extent and level of information sources utilization and its credibility and also find out the information dissemination activities of the respondents.

### Materials and Methods

Eleven KVKs were selected randomly from all three agro-climatic zones of the Chhattisgarh State. From each selected KVK's territory, two villages were selected purposively where KVKs made its interventions as adopted village and one village selected randomly where the KVK had never drawn any intervention, as non-adopted village. From each village, 15 beneficiary farmers were considered as respondents purposively. In this way, a sample of 330 beneficiary farmers (11x2x15) from adopted villages and 165 non-beneficiary farmers from non-adopted villages (11x1x15) were considered (Total 495) as respondents for above study. A

**Table-1 : Socio-personal characteristics of the respondents.**

Sl. No.	Particulars	Beneficiaries		Non-beneficiaries	
		n = 330		n = 165	
		F	%	F	%
<b>1. Age</b>					
	Up to 35 years	49	14.85	31	18.79
	36 to 55 years	195	59.09	92	55.76
	56 years and above	86	26.06	42	25.45
<b>2. Education</b>					
	Illiterate	48	14.55	26	15.76
	Primary school	86	26.06	32	19.39
	Middle school	59	17.88	31	18.79
	High school	65	19.70	30	18.18
	Higher secondary	51	15.45	28	16.97
	Graduate and above	21	6.36	18	10.91
<b>3. Caste</b>					
	Scheduled Caste	06	1.82	03	1.82
	Scheduled Tribe	180	54.55	69	41.82
	Other Backward Class	125	37.88	86	52.12
	General	19	5.76	07	4.24
<b>4. Family type</b>					
	Nuclear	188	56.97	102	61.82
	Joint	142	43.03	63	38.18
<b>5. Family size</b>					
	Small (Up to 5 members)	140	42.42	57	34.55
	Medium (6 to 10 members)	148	44.85	48	29.09
	Big (More than 10 members)	42	12.73	60	36.36
<b>6. Family members engaged in agriculture</b>					
	Up to 3 members	209	63.33	107	64.85
	4 to 6 members	107	32.42	52	31.52
	> 6 members	14	4.24	06	3.64

well-structured interview schedule was used for collection of information from both the category of farmers. Appropriate statistical tools were used for the purpose of computation and analysis of the information as data gathered regarding above investigation.

## Results and Discussion

### Socio-personal characteristics of the respondents :

Variables viz., age, education, caste, family type, family size, family members engaged in agriculture, farming experience and social participation were studied under the socio-personal characteristics of the respondents which are given in Table-1. The data on age of the both beneficiary and non-beneficiary respondents are presented in Table-1. The data reveals that majority of the beneficiary respondents (59.09%) belonged to age group 36 to 55. Similar trend was also found in case of non-beneficiary farmers where 55.76 per cent respondents were following this trend. It indicates that in the study area middle aged farmers were more active in crop husbandry. Findings related to education of the KVK beneficiaries reveals that around one forth beneficiary farmers were educated up to primary school followed by

high school (19.70%) and middle school (17.88%) while, in case of non-beneficiaries it was observed that around 20.00 per cent were educated up to primary school followed by middle (18.79%) and high school (18.18%). Data pertaining to caste of the respondents are reveals that 54.55 per cent of beneficiary respondents belonged to Scheduled Tribe followed by Other Backward Class (37.88%). On other hand, in case of non beneficiaries it was observed that 52.12 per cent were falls in to Other Backward Class category followed by Scheduled Tribe (41.82%). The findings reveals that nearly 57.00 per cent of beneficiaries belonged to nuclear family and rest of them belonged to joint family. Although, similar findings also reported for non beneficiaries, where majority of the farmers (61.82%) had nuclear family. As far as family size is concerned, it was found that 44.85 per cent of the beneficiary farmers had medium size family followed by small size family (42.42%). While, in the case non-beneficiary farmers it was observed that 36.36 per cent had big size family followed by small size (34.55%). With regard to, average family size it was recorded that farmers had average family size of 6.73 members, whereas non beneficiaries had average family size of 7.50

Table-2 : Distribution of the respondents according to their level of contact with extension agencies.

Sl. No.	Name of Extension Agency	Level of Extension Contact					
		Beneficiary Farmers			Non-beneficiary Farmers		
		Never	Occasionally	Regularly	Never	Occasionally	Regularly
1.	Agriculture Department	186 (56.36)	121 (36.67)	23 (6.97)	24 (14.55)	55 (33.33)	86 (52.12)
2.	Krishi Vigyan Kendra	00 (0.00)	143 (43.33)	187 (56.67)	135 (81.82)	20 (12.12)	10 (6.06)
3.	Veterinary Department	288 (87.27)	20 (6.06)	22 (6.67)	134 (81.21)	24 (14.55)	07 (4.24)
4.	Fishery Department	320 (96.97)	03 (0.91)	07 (2.12)	146 (88.48)	13 (7.88)	06 (3.64)
5.	Horticulture Department	242 (73.33)	56 (16.97)	32 (9.70)	139 (84.24)	20 (12.12)	06 (3.64)
6.	Non-Govt. Organization	231 (70.00)	80 (24.24)	19 (5.76)	140 (84.85)	17 (10.30)	08 (4.85)

\* Figures in parenthesis are percentage

Table-3 : Extent of utilization and credibility of various information sources among the respondents.

Sl. No.	Information Sources	Utilization level (%)		Credibility level (%)	
		Beneficiary	Non-Beneficiary	Beneficiary	Non-Beneficiary
1.	Friends	52.83	54.34	63.84	44.24
2.	Neighbour	35.05	26.26	36.26	23.03
3.	Relatives	58.79	56.97	66.36	56.57
4.	Agri-input Dealers	27.98	64.85	36.97	39.19
5.	RAEOs	53.23	95.76	64.75	71.52
6.	KVKs	79.80	15.15	81.92	37.37
7.	Farmers friends	39.80	14.14	28.38	31.52
8.	TV/Radio	36.46	50.10	39.19	54.75
9.	Kisan Call Centre	16.87	20.81	33.94	30.51
10.	Kisan Mobile Sandesh	45.35	27.47	48.79	36.16
11.	Kisan Portal	7.17	2.42	10.81	34.34
12.	Internet	7.17	2.42	16.26	28.08
13.	Agricultural Mobile apps	7.17	2.42	14.85	27.47
14.	NGOs	11.41	28.89	14.04	31.92

members. The findings of (2) was supporting the results of this study, he reported that that slightly less than half (42.00 per cent) of the KVK beneficiaries had medium size of family, followed by small size of family and large size of family category. The finding in this regard shows similar trend for both beneficiary and non-beneficiary respondents. It is crystal clear from the Table 4.3 that in both cases more than 60.00 per cent of the respondents' family engaged their up to 3 members in agriculture followed by more than 30.00 per cent of the farm families who engaged their 4 to 6 members in agricultural activities.

**Communicational Characteristics of the respondents :** To analyze the communicational characteristics of the respondents, questions were asked to respondents regarding their level of extension contact, utilization pattern and credibility level of information sources and corresponding findings are discussed with following sub headings :

**Level of contact with extension agencies :** To find out the contact and participation level of the respondents in

different extension agencies, questions were asked and tabulated in Table-2. The responses were compiled in form of respondent's distribution with respect to their frequency of contact and participation in extension activities performed by different extension agencies in study area. In case of level of contact from state agriculture department, majority of the KVK beneficiaries (56.36 %) had never contact with state agriculture department followed by 36.67 per cent farmers who had occasionally contact with agriculture department. Only 6.97 per cent beneficiary farmers had regular contact with agriculture department for farming related issues. In case of frequency of contact with Krishi Vigyan Kendra, it was found that all the beneficiary were in contact with KVK out of which 56.67 per cent were approached to KVK regularly followed by 43.33 percent respondents who had medium level of contact with KVK to resolve their farming related concerns. The contact of beneficiary farmers with fishery department was very negligible while, more than 87.00 per cent KVK beneficiaries had never approached to veterinary department followed by 73.33 and 70 per cent KVK beneficiaries who had never contacted horticulture

**Table-4 : Distribution of the respondents according to their extent of utilization and credibility of various information sources.**

Sl. No.	Particulars	Beneficiary		Non-beneficiary	
		F	%	F	%
<b>A.</b>	<b>Extent of utilization</b>				
1.	Low (<33.33%)	123	37.27	73	44.24
2.	Medium (33.34-66.66 %)	162	49.09	84	50.91
3.	High (>66.66%)	45	13.64	08	4.85
<b>B.</b>	<b>Extent of credibility</b>				
1.	Low (<33.33%)	96	29.09	42	25.45
2.	Medium (33.34-66.66 %)	156	47.27	110	66.67
3.	High (>66.66%)	78	23.64	13	7.88

**Table-5 : Agricultural information disseminated by the respondents to other fellows.**

Sl. No.	Information given to	Beneficiaries		Non-beneficiaries	
		F	%	F	%
1.	Friends	230	69.70	74	44.85
2.	Neighbors	226	68.48	41	24.85
3.	Relatives	252	76.36	58	35.15
4.	Others	58	17.58	22	13.33

\*Percentage are based on multiple responses.

department and NGOs for their farming related issues. The overall extent of extension contact by the KVK beneficiaries is presented in Fig.-1 reveals that the majority of the respondents (47.27%) had medium extent (33.34-66.66 %) of contact with extension agencies followed by 46.36 per cent respondents who had contact with extension agencies with lower extent i.e. up to 33.33 per cent. Only 6.36 per cent of KVK beneficiaries were had higher extent (>66.66%) of contact with different extension agencies. It was also remarkable that more than 80.00 per cent of the non-beneficiary farmers were never had approached to KVKs, veterinary, fishery, horticulture department and NGOs for their farming related issues. About 14.55 per cent respondents were had occasionally contact with veterinary department followed by 12.12 per cent respondents who had occasionally approached to KVKs and horticulture department and 10.30 per cent non-beneficiary farmers were found occasionally contact with NGOs for their farming concerns. In case of regular contact with different extension agencies by non-beneficiaries farmers, it was found that, except state agricultural department; very few respondents (<6.50%) were had regular contact with KVKs, veterinary, fishery, horticulture department and NGOs. In case of level of contact with various extension agencies by non-beneficiary farmers, it was found that, majority of the respondents (52.12%) were had regular contact with agricultural agency followed by 33.33 per cent non-beneficiary farmers who had occasionally contact with agriculture department. The overall level contact of beneficiary and non-beneficiary farmers was also determined through analyzing contact index which has

depicted in Fig.-1. The diagram shows that the majority of beneficiary farmers (47.27%) had the medium level of extension contact with different extension agencies which was followed by 46.36 per cent beneficiary farmers had low level of extension contact with extension agencies. Only 6.36 per cent KVK beneficiaries had very high level of extension contact with different agencies. In case of non-beneficiaries, majority of the farmers (62.42%) had low level of extension contact with various extension agencies for performing their activities in study area was followed by 32.73 per cent respondents who had medium level of contact with the extension agencies to get solutions regarding farming related problems. Only 4.85 per cent non-beneficiary farmers were had high level of extension contact with different extension agencies in study area. Findings are in conformity with findings of (3).

**Extent of utilization and credibility of various information sources :** The data presented in Table-3, Fig.-3 and 4 shows that the media utilization pattern and credibility of various information sources among the beneficiary and non-beneficiary farmers of the study area. The result reveals that the KVK beneficiaries were utilized information from KVKs in very higher extent which was 79.80 per cent followed by relatives, RAEs, friends, and Kisan Mobile Sandesh (KMA) were utilized up to extent of 58.79, 53.23, 52.83, 45.35 per cent respectively. The KVK beneficiaries were utilized the farmer's friends (Kisan Sangwari) as information source up to extent of 39.80 per cent which was followed by TV/Radio, neighbors, agri-input dealers, Kisan Call Centre and NGOs with 36.46, 35.05, 27.98, 16.87 and 11.41 per cent extent of utilization respectively. The digital sources of information



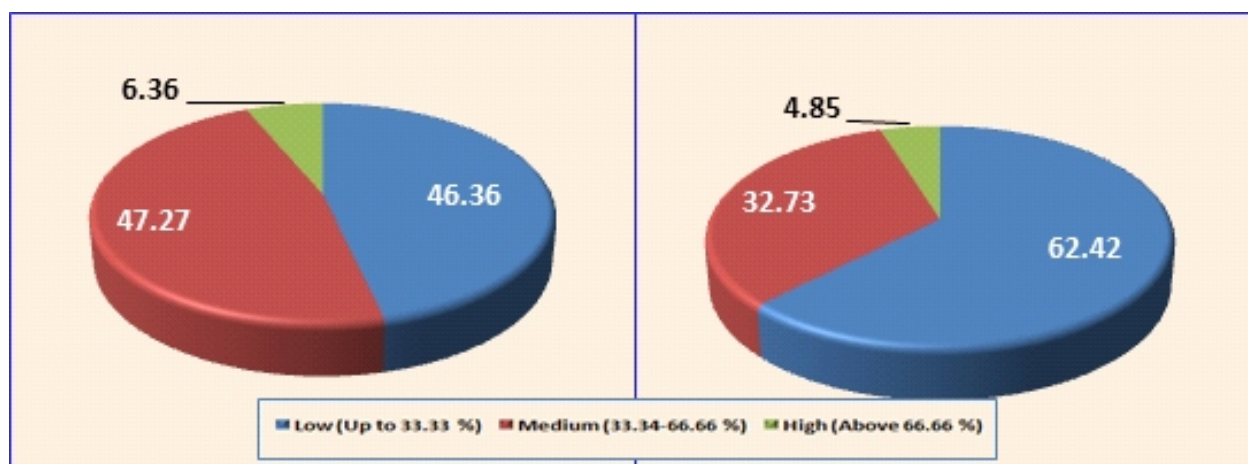


Fig-1 : Distribution of Respondents according to their level of contact with different extension agencies.

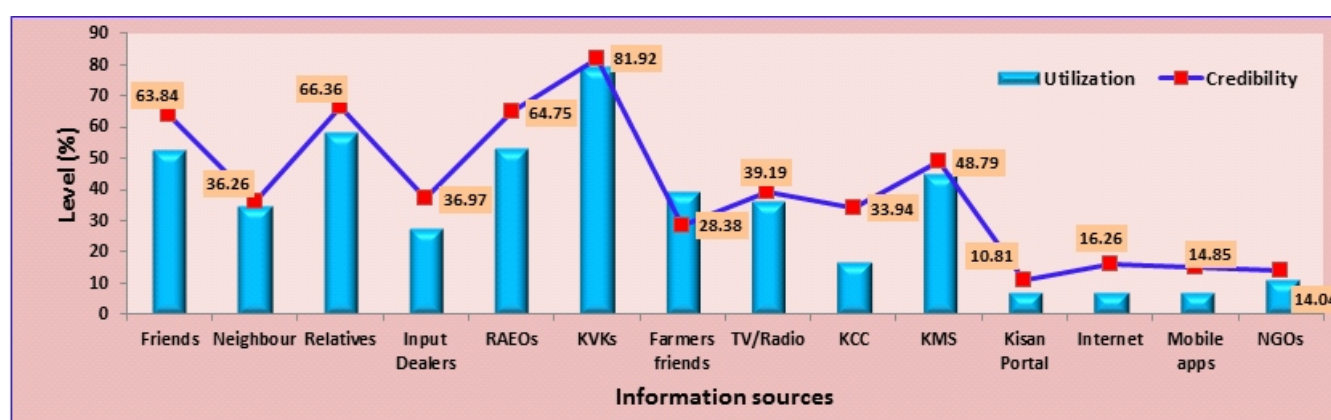


Fig-2 : Level of utilization and credibility of information sources among the beneficiary farmers.

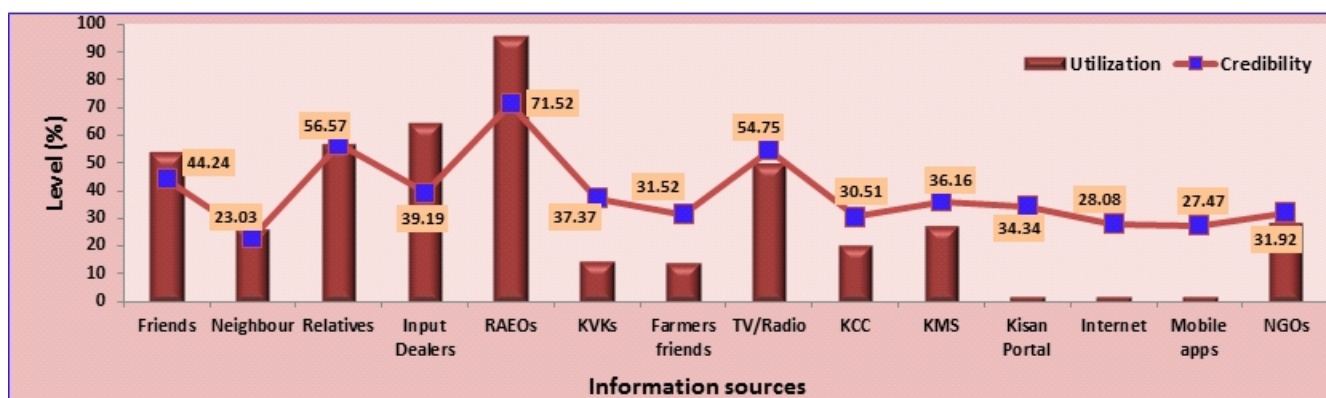


Fig-3 : Level of utilization and credibility of information sources among the non-beneficiary farmers.

like Kisan Portal, Internet and Agricultural mobile app were utilized in limited extent which was 7.17 per cent, for beneficiary farmers. In case of non-beneficiary farmers, it was found that, RAEs were mostly preferred by non-beneficiaries and utilized the information from RAEs up to 81.92 per cent which was followed by information sources like; agri-input dealers, relatives, friends, TV/Radio and NGOs which were utilized up to extent of 64.85, 56.97, 54.34, 50.10 and 28.89 per cent respectively. The information sources like; Kisan Mobile

Sandesh, neighbors, Kisan Call Centre and KVKs were utilized up to 27.47, 26.26, 20.81 and 15.15 per cent respectively. The farmer's friends were used as information source and utilized up to level of 14.14 per cent while, all the digital platforms i.e. Kisan Portal, internet and mobile based agricultural apps were utilized in very less extent which was 2.42 per cent by the non-beneficiary farmers of the study area. During the assessment of the most credible sources of information among the KVK beneficiaries and non-beneficiaries of the

study area, it was observed that the Krishi Vigyan Kendra was found as most credible information source with credibility index of 81.92 per cent followed by relatives, RAEs, friends, Kisan Mobile Sandesh, TV/Radio, agri-input dealers, neighbors and Kisan Call Centre which was found credible with credibility index of 66.36, 64.75, 63.84, 48.79, 39.19, 36.97, 36.26 and 33.94 per cent respectively. Farmer's friends were found credible with score of 28.38 per cent followed by internet; mobile phone based agricultural apps, NGOs and Kisan Portal with credibility index of 16.26, 14.85, 14.04 and 10.81 per cent respectively. In case of non-beneficiary farmers, it was observed that the maximum score (71.52%) given to the RAEs as most credible source of agricultural information followed by relatives, TV/Radio, friends, agri-input dealers, KVKs and Kisan Mobile Sandesh with credibility index of 56.57, 54.75, 44.24, 39.19, 37.37 and 36.16 per cent respectively. Information sources like; Kisan Portal, NGOs, Farmer's Friends, Kisan Call Centre, Internet, agricultural mobile apps, neighbors were found credible with credibility index of 34.34, 31.92, 31.52, 28.08, 27.47 and 23.03 per cent respectively.

**Overall extent of utilization and credibility of information sources :** The data presented in Table-4 reveals the distribution of beneficiary and non-beneficiary farmers according to overall extent of information utilization and credibility. It was found that majority of the KVK beneficiaries (49.09%) were utilized the information sources up to medium extent i.e. of 33.34 to 66.66 per cent followed by 37.27 per cent respondents who had utilized the various information sources at lower extent which was up to 33.33 per cent. About 13.64 per cent KVK beneficiaries were utilized the different information sources in higher extent (i.e. more than 66.66 %) in the study area. Finding related to extent of credibility of overall sources of information, it was observed that majority of the KVK beneficiaries (47.27%) reported medium level (33.34-66.66%) of credibility of overall information sources followed by 29.09 per cent respondents who stated lower level of credibility of information sources. Only 23.64 per cent beneficiaries rated higher level of credibility to various information sources. Similar findings were also reported by (4).

In case of non-beneficiaries, the data related to utilization of information sources shows that the majority of the respondents (50.91%) were utilized the overall information sources at medium level (33.34-66.66%) followed by 44.24 per cent respondents utilized the information sources at lower extent (up to 33.33%). Only, 4.85 per cent respondent were utilized the various information sources at higher extent. The result related to credibility level of overall information sources reveals that

the majority of the non-beneficiary farmers (66.67%) reported medium level of credibility for overall information sources followed by 25.45 per cent respondent reported less credible to information sources. It was remarkable that about 7.88 per cent non-beneficiary farmers reported higher level of credibility for overall information sources. (5) found in this regard that majority of beneficiaries (80.00%) had medium use of information sources, while majority of non-beneficiaries respondents (53.34 %) had low use of information sources.

**Agricultural information disseminated by respondents :** Result given in Table-5 reveals the details about the agricultural information dissemination by the respondents to other fellow farmers. In case of beneficiary farmers, it was found that, majority of the KVK beneficiaries (76.36%) were disseminated the agricultural information to relatives followed by 69.70 and 68.48 per cent respondents who disseminated the agricultural information to their friends and neighbors, respectively. About 17.58 per cent respondents were disseminated agricultural information to other fellows after acquiring the information from different sources. In case of non-beneficiary farmers, it was observed that; majority of the respondents (44.85%) were disseminated agricultural information to their friends followed by 35.15 and 24.85 per cent non-beneficiary farmers who transferred the agricultural information to their relatives and neighbors. About 13.33 per cent non-beneficiary farmers were disseminated the agricultural information to other fellows of their locality.

## Conclusions

In light of above findings, the conclusion may be drawn that, the information access to the beneficiary farmers has at higher extent but they believes that the sources are not worthy credible up to higher extent. While in case of non-beneficiary farmers, the situation is just opposite. The access to different information sources to non-beneficiary farmers is limited but they feel the overall sources are trustworthy up to higher extent. The level of contact of KVK beneficiary is higher in some degree as compared to non-beneficiary farmers. While the non-beneficiary farmers are totally dependent on state agriculture department to resolve their farming related issues, which may also be approached to other agencies to avail better services. The majorities of the beneficiary farmers are in regular contact with Krishi Vigyan Kendras while non-beneficiary farmers are in regular touch with field functionaries of the State Agricultural Department utilizing the information sources at medium level and also reported the medium level credibility of the different extension agencies. It was also remarkable that the both the category of the farmers are utilizing the ICT tools like

mobile and internet media and apps in very limited extent. It means they need 'digital literacy' to utilize the information through use of ICT devices which will facilitate them real time and credible information regarding various production aspect of agriculture and allied activities. Non-beneficiary farmers are still now not in touch with the neighboring KVKs. It is necessary to make the efforts by KVKs to include the farmers from non-adopted villages in their different extension activities like trainings, field days, farmers fare, exhibitions, demonstrations etc. It is also necessary to make the visits of non-adopted villages by the KVK professionals for diagnosis and other purposes which may increase the extent of information utilization which is also reported credible by the non-beneficiary farmers. It will be helpful to cater the information need off the farming community with real time and quality information.

## References

1. Vashisht S.D., Yadav P., Satpal, Kumar P. and Kumar P. (2020). Information technology in agriculture : Boon in doubling farmers' income. *Frontiers in Crop Improvement*, 8(2): 132-136.
2. Deepika Thakur K.N. Pathak, Minakshi Meshram and Vidhi Motiwale (2020). Profile of Beneficiaries Rural Women under KVK in Madhya Pradesh. *Int. J. Curr. Microbiol. App. Sci.*, 9(10): 3535-3541.
3. Medhi S., Singha A.K., Singh R. and Singh R.J. (2020). Socio-Economic, Psychological Profile and Constraints Faced by the KVK Adopted Farmers for Improved Rice Cultivation in West Garo Hills District. *Economic Affairs*, 65(3): 379-388.
4. Shaik Mastanbi and Sharma G.R.K. (2017). An Analytical Study among the Beneficiaries of KVKs in Andhra Pradesh. *International Journal of Science, Environment and Technology*, 6(4): 2558-2566.
5. Parvez R., Rana K.K., Khare N. and Singh S.R.K. (2016). Adoption of KVK activities by tribal farmers in India. *International Journal of Agriculture Sciences*, 8(15): 1261-1265.