



Dissemination of Agricultural Information with Respect to Tribal Community

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This study was conducted in Keonjhar district of Odisha state. Agriculture information management behaviour is to be focussed on the flow of information regarding seeking information on various practice of crops and seeking information on various agri-allied activities. The flow of information is based on the various aspect in which tribal people are most probably involved in transferring information through various methods. The result showed that observed that some respondents were receiving information about cultivation practices 33.33% followed by greengram cultivation practices 29.16% and black gram cultivation practices 25%. And 98.32% are receiving information from AAO followed by VLW (95.83%) and from training programme (54.15%) according to personal

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sources. According to impersonal sources majority of the respondents 64.33% are receiving information from radio followed by television (61.66%) and newspaper (59.16%). Agricultural information interacts with and influences agricultural productivity in a variety of ways. It can help inform decision regarding land, labour, livestock, capital and management. Agricultural productivity can arguably be improved by relevant, reliable and useful information and knowledge. Hence the creation of agricultural information by extension services, research, education programmes and others are managed by agricultural organizations that create information systems to disseminate information to farmers so that farmers can make better decisions in order to take advantage of market opportunities and manage continuous changes in their production systems. All these information seeking behaviours with respect to ICT, the farmers help them to manage in agricultural and other allied activities.

Keywords: ICT; agricultural information; livelihood; decision making; tribal community etc.

1. INTRODUCTION

Agriculture acts as the key development in the rise of sedentary human civilization, where by farming of domesticated species creates food surpluses that enables people to survive and showing them the way of earning. Thus our country is enhancing agro-based industries. Industrial agriculture based on large scale monoculture, which is dominated by agricultural output. Hence it is the dynamically economic improvement of our country with the help of agriculture basing on modern information technology. Information technology means the latest version of information facilities like computer, mass media and Internet. Information technology (IT) or Information communication technology (ICT) is a broad subject concerned with technology and other aspects of managing and processing information. On behalf of advanced modern technology in agriculture supports the following benefits- Higher crop productivity. Decreased use of water, fertilizer and pesticides which in turn keeps food prices down. Reduced impact on natural ecosystem less runoff chemicals into river and groundwater. Increased worker safety [1-5].

Information technology contributes much to agriculture and rural development. It facilitates rural activities and provides more comfortable and also saves the rural life with equivalent services to those in urban areas such as provision of distance education, tele-medicine, remote public services, remote entertainment etc. IT initiates new agricultural and rural business such as e-commerce, real estate business for satellite offices, rural tourism, and virtual corporation of small-scale farms. It also supports policy-making and evaluation on optimal farm production, disaster management,

agro-environmental resource management etc using tools such as geographic information systems (GIS). It also helps in improving farm management and farming technologies by efficient farm management, risk effective information or knowledge transfer etc realizing competitive and sustainable farming with safe products.

As the world is globalizing, a global knowledge and information society is emerging, spanning all regions, knowledge and information have become significant factors for producing of goods and services. The globalization approach is capital intensive and useful where large tracts of land are involved. Consequently, it is more suitable for farming taken up on corporate lines. Due to globalization, there is a real threat for decline in prices of agricultural products. On the other hand a constant increase in crop inputs is also causing a concern for farmers and several farmers have started thinking that agriculture is not a viable occupation. In India globalization has signified Agriculture related information management. Agriculture related information management incorporates with these following activities:

- To support the implementation of structured and linked information and knowledge to enable institutions and individuals from different technical backgrounds to build open and interoperable information systems.
- To provide advice on how to best manage, disseminate, share and exchange agricultural scientific information.
- To promote good practices widely applicable and easy to implement.
- To foster communities of practices centered on interoperability, reusability and cooperation.

Agricultural information interacts with and influences agricultural productivity in a variety of ways. It can help inform decision regarding land, labour, livestock, capital and management. Agricultural productivity can arguably be improved by relevant, reliable and useful information and knowledge. Hence the creation of agricultural information by extension services, research, education programmes and others is managed by agricultural organizations that create information systems to disseminate information to farmers so that farmers can make better decisions in order to take advantage of market opportunities and manage continuous changes in their production systems. All these information seeking behaviours with respect to ICT, the farmers help them to manage in agricultural and other allied activities. Even if the odisha farmers are also utilizing their good efforts through gaining information technology and it's application in their farm activities.

Nowdays, information is a basic necessity of everyday life. For anything and everything information is required. Information can be obtained or retrieved from a variety of sources. Farmers constitute a particular group of users where information needs is very specific. The present age has been called as "Information age". Information has become the most important element for progress in society. According to Kemp "Information has been described as the fifth need of man ranking after air, water, food and shelter". Everyone needs information about everything even in day to day life. In agriculture environment relevant and timely information helps farmers community to take right decision to sustain growth of agricultural activities. Use of information in agriculture sector is enhancing farming productivity in a number of ways.

2. METHODOLOGY

The study was undertaken in Keonjhar district of Odisha during 2018-19. Keonjhar is a land locked district situated in the northern part of Odisha state. For the study Ex-post facto research design was used for the study. Keonjhar district is tribal dominated area and it constitutes 44.5% of the total population of this district. Hence this district was selected purposively due to the course of the research study based on behavioural approaches on Agriculture information management among tribal people [6-8]. A research method is a systematic plan for conducting research. Hence research methodology is described as a systematic, theoretical analysis of the methods

applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. It especially encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. Research methodology is a vital pre-requisite procedure of any research study since it bears the relevant and valid research findings. The research study was followed by both purposive and simple random sampling method for selection of district, block, gram panchayat and respondents. The Keonjhar district consists of 13 blocks. Out of 13 blocks ten blocks are tribal dominated and came under PESA Act (Panchayat Extension to the Schedule Area) in 1996. Among these 10 blocks the study was undertaken in 2 blocks i.e. Ghatgaon and Harichandanpur. These two blocks were selected on the basis of easy accessibility of transport facility from the headquarter of Keonjhar district. There are 27 panchayats in Ghatagaon block and 25 Panchayats in Harichandanpur block. Out of 27 panchayats in Ghatagaon block 2 panchayats were selected. These panchayats are Mukundapurpatna and Balipokhari. Out of 25 panchayats in Harichandanpur block 2 panchayats namely was selected. From each selected Grampanchayat one village was taken for the research study. The study was conducted in 4 panchayats. From 4 panchayats four villages were selected for the study. The villages were Banachakulia from Mukundapurpatna Gram panchayat, Dhangadidih from Balipokhari Gram panchayat, Tangiriapal from Tangiriapal Gram panchayat, Rasola from Rasola Gram panchayat. A preliminary survey of the selected village was carried out at the beginning of the following aspects with 12% of farm families. 120 respondents were selected through simple random sampling.

3. RESULTS AND DISCUSSION

3.1 Source of Flow of Information for the Identified Agri-allied Activities

It revealed from Table 1 that the respondents were seeking less information on crop practices. The main crop of this area is rice. So it was observed that some respondents were receiving information about cultivation practices 33.33% followed by greengram cultivation practices 29.16% and black gram cultivation practices 25%. Some of the respondents were receiving information on marketing i.e. 45.83% in rice, 45.83% also in blackgram and 44.16% in greengram [9-11].

Table 1. Seeking information on various practices of crops (major crops are doing this area)

Receiving Information	Rice				Blackgram				Greengram			
	Yes		No		Yes		No		Yes		No	
	f	%	f	%	f	%	f	%	f	%	f	%
Cultivation practices	40	33.33	80	66.66	30	25	90	75	35	29.16	85	70.83
Harvesting	31	25.83	89	74.16	30	25	90	75	29	24.16	91	75.83
Storage	35	29.16	85	70.83	38	31.66	82	68.33	30	25	90	75
Processing	42	35	78	65	39	32.5	81	67.5	38	31.66	82	68.33
Pakaging	41	34.16	79	65.83	38	31.66	82	68.33	37	30.83	83	69.16
Marketing	55	45.83	65	54.16	55	45.83	65	54.16	53	44.16	67	55.83
Total	244	174.15	476	396.64	230	191.65	490	408.32	222	184.97	498	414.98

Table 2. Seeking information on major vegetables practised by the respondents

Receiving information	Tomato				Watermelon			
	Yes		No		Yes		No	
	f	%	f	%	F	%	f	%
Cultivation practices	60	50	60	50	65	54.16	55	45.83
Harvesting	30	25	90	75	45	37.5	75	62.5
Storage	20	16.66	100	83.33	39	32.5	81	67.5
Sorting and grading	25	20.83	95	79.16	35	29.16	85	70.83
Marketing	45	37.5	75	62.5	50	41.66	70	58.33
Total	180	149.99	420	349.99	234	194.98	366	304.99

It revealed from Table 2 that most of the respondents were seeking information on cultivation practices i.e.54.16% in water melon cultivation followed by tomato cultivation i.e. 50% .The information about marketing of these two vegetables were relevant to the respondents i.e.37.5% in tomato and 41.66% in watermelon.

It revealed from Table 3 that most of the respondents are receiving information about marketing i.e. 70.83% in goatery followed by 33.33% in forest products. The respondents have not sought the information on other practices of allied activities. They can't get good opportunity to enhance these allied activities [12,13].

The Graph 1 revealed that the respondents were receiving information on crop practices followed by vegetables and allied activities. The respondents sought less information for their agri-allied activities compared to the individuals of other areas. The tribals had low literacy level,

they can't learn new method of practices. So they were facing many problems in cultivation practices as well as marketing . So that the tribal farmers can't get remunerative price of the product and they also much time to do agri-allied practices.

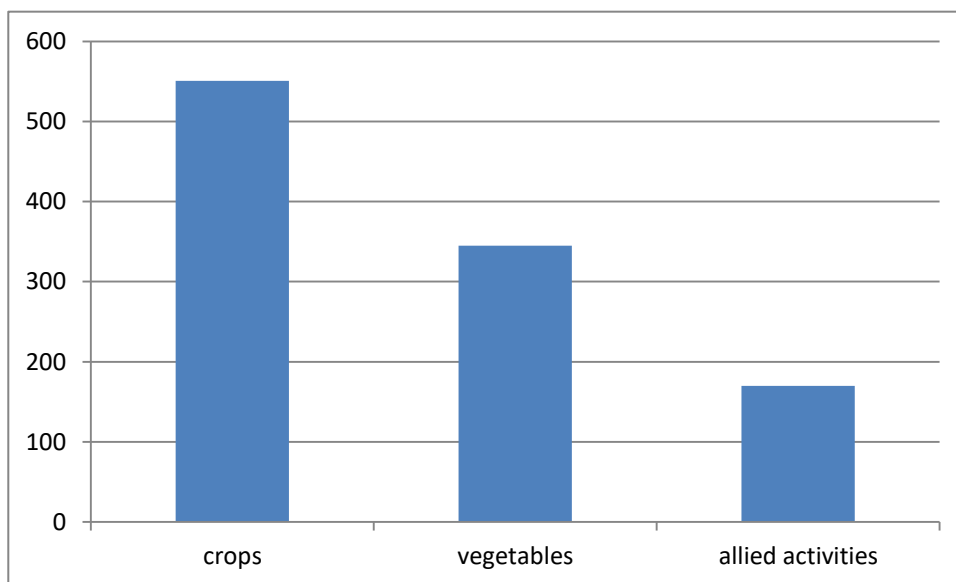
3.2 Source of Flow of Information

It is defined as the receiving agricultural information from various sources. These source are distinct as personal and interpersonal sources.

Table 4 revealed that majority of the respondents 98.32% are receiving information from AAO followed by VLW (95.83%) and from training programme (54.15%) according to personal sources. According to impersonal sources majority of the respondents 64.33% are receiving information from radio followed by television (61.66%) and newspaper (59.16%).

Table 3. Seeking information on allied activities

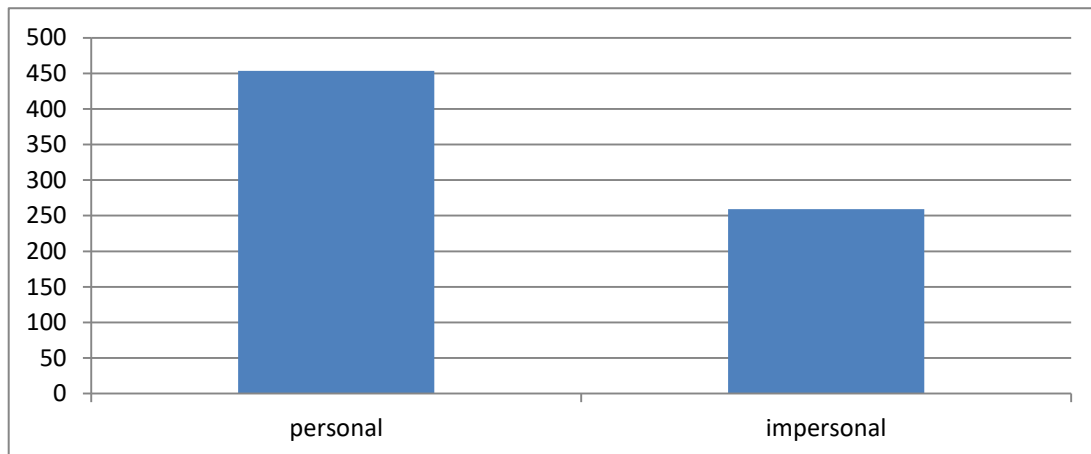
Receiving information	Forest products				Receiving information	Goatery			
	Yes		No			Yes		No	
	f	%	f	%		f	%	f	%
Collection	33	27.5	87	72.5	Maintenances of shed	21	17.5	99	82.5
Manufacturing	20	16.67	100	83.33	Protection from disease	29	24.16	91	75.83
Marketing	40	33.33	80	66.67	Marketing	35	29.17	85	70.83
Preparing enterprise	26	21.66	94	78.33					
Total	119	99.16	361	300.83	Total	85	70.83	275	229.16



Graph 1. Receiving information on agri-allied activities

Table 4. On the basis of source of flow of information (n=120)

SI. No	Sources	Most frequently		Frequently		Occasionally		Rare		Never		Total	
		f	%	f	%	f	%	f	%	f	%	f	%
(A)	Personal												
	VLW	36	30	49	40.83	30	25	5	4.17	0	0	115	95.83
	AAO	59	49.16	44	36.66	15	12.5	1	0.83	1	0.83	118	98.32
	KVK	0	0	2	1.66	45	37.5	40	33.33	33	27.5	47	39.16
	SMS	12	10	0	0	31	25.83	42	35	37	39.16	31	25.83
	Neighbours	10	8.33	37	30.83	25	20.83	35	29.16	11	9.16	74	61.66
	Exposure visit	0	0	14	11.67	35	29.17	35	29.16	46	38.33	59	49.17
	Exhibition	0	0	1	0.83	34	28.33	45	37.5	40	33.33	35	29.16
Training programme	1	0.83	11	9.16	53	44.16	41	34.16	14	11.66	65	54.15	
(B)	Interpersonal												
	Newspaper	9	7.5	30	25	32	26.66	12	10	37	30.83	71	59.16
	Radio	12	10	12	10	9	7.5	38	31.67	49	40.83	33	27.5
	Magazine	3	23.5	28	23.33	21	17.5	24	20	18	15	52	64.33
	Television	14	11.6	39	32.5	21	17.5	15	12.5	31	25.83	74	61.66
	ICT(Internet)	4	3.33	21	17.5	31	25.83	22	18.33	42	35	56	46.66



Graph 2. Data revealed for seeking information from personal sources and impersonal sources

Graph 2 revealed that most of the respondents receive information from personal sources. They were seeking less information from impersonal sources. Personal sources are dominated over impersonal sources. Most of the respondents were not updated with modern technology, they had no idea about the use of internet. So that they were seeking information from personal sources.

4. CONCLUSION

The research study is based on the analysis of the seeking strategy of information for the tribal farmers. The present era is basing on information technology. So that in many areas the farmers can be relevant to the technology and they can try to improve the productivity in agri-allied sectors. But my research area is underprivileged. They are suffering with lack of education, lack of financial assistance and also lack of arrangement of demonstration and training programme. It was observed from the study that the tribes were receiving less information on various agri-allied activities. Most probably these tribes were dependent on forest products. But they can't get financial support and other provision for proper marketing of the products. They were only accepting information on rice cultivation. Other activities did not have assisted by the demonstration programme. So that they had lack of opportunities for continuing vegetable cultivation practices and allied activities.

The study with limited resources, mobility, specific time period due to academic and financial compulsion, definitely unfolded the importance areas of Agri-information management behaviour of tribal farmers in

Keonjhar district of Odisha. The study was conducted in particular area and left untouched vast areas which can be identified and evaluated in other studies.

The study revealed the personal and impersonal sources of information for the respondents. The personal sources belonged to VLW, AAO, Farmer's cooperative society, training programme, KVK, SMS, exposure visit, neighbour etc. and the impersonal sources belonged to Mass media and ICT. From this study it was observed that the tribes were mostly dependent on personal sources. Personal sources are dominated over impersonal sources. They were not seeking information from impersonal sources due to lack of education, lack of availability of financial assistance and demonstration.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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