

## Original Research Article

# Agricultural Development with Accessibility of Information and Communication Technology (ICT) by Farmers in Bihar State (Samastipur)

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## ABSTRACT

In this era of modernization, Information and Communication Technology (ICT) play a vital role in agriculture and firms of all areas. The term ICT has progressed and evolved to include many aspects of computing and technology, and has indeed become very distinguishable. For rural India, information is key issue and providing the right information at the right time to vast rural majority in a short time is of paramount importance. Information and Communication Technology plays a key role in the dissemination of the information in short span of time to large numbers. Among various socio-economic, technological and managerial reasons, ineffective transfer of farm technology might be an important causal factor for poor performance of agriculture in Bihar. As per NSS survey, only 0.4 per cent farmers had access to extension workers for information on modern farm technology in Bihar against 5.7 per cent at national level and 22 per cent in Gujarat. As far as quality of information received by farmers through different sources is concerned, about 10.4 per cent of farmers received quality information from extension workers in Bihar against 51.5 per cent at national level. It clearly indicates inadequate and poor quality of information passed on through extension workers to farmers in Bihar, NSS 2005. Bihar aims to achieve 5-7 per cent agricultural growth rate in XI Five Year Plan.

## Keywords

Information and  
Communication  
Technology (ICT),  
Extension workers,  
NSS survey, XI  
Five year plan

## Introduction

In this era of modernization, Information and Communication Technology (ICT) play a vital role in agriculture and firms of all areas. The term ICT has progressed and evolved to include many aspects of computing and technology, and has indeed become very distinguishable. ICT involves converting, protecting, transferring, keeping and receiving information. ICT are a very useful in agricultural extension and advisory services and in facilitating reaching out to family farmers. Most of the family farmers in developing countries live rural areas and are

in most cases divorced from technology and vital agricultural support services need to carry out farming practices. Providing farmers with timely and relevant information, access to credit and better market prices could go along way in addressing global poverty and improving agricultural productivity. For rural India, information is key issue and providing the right information at the right time to vast rural majority in a short time is of paramount importance. Information and Communication Technology plays a key role in the dissemination of the information in short span of time to large numbers.

Among various socio-economic, technological and managerial reasons, ineffective transfer of farm technology might be an important causal factor for poor performance of agriculture in Bihar. As per NSS survey, only 0.4 per cent farmers had access to extension workers for information on modern farm technology in Bihar against 5.7 per cent at national level and 22 per cent in Gujarat. As far as quality of information received by farmers through different sources is concerned, about 10.4 per cent of farmers received quality information from extension workers in Bihar against 51.5 per cent at national level. It clearly indicates inadequate and poor quality of information passed on through extension workers to farmers in Bihar, NSS 2005. Bihar aims to achieve 5-7 per cent agricultural growth rate in XI Five Year Plan. Transfer of technology has been among the major obstacles in achieving the targets set in the past. There is a wide gap between the potential yield and the actual yield. This is a country-wide phenomenon. A large number of agro-economic and socio-political factors are responsible for this yield gap but the weak and ineffective agricultural technology transfer has been one of the important factors for the higher yield gap in Bihar. However the detailed study based on primary data on transfer of agricultural technology is not available with respect to Bihar. Olaniyi (2013); Chhachar *et al.*, (2014) revealed that anecdotal evidence of research findings pointed that mobile phones, radio and television are the most important tools of communication which can be accessed by farmers for agricultural related information and knowledge.

### **Materials and Methods**

The study was carried out in Samastipur district of Bihar state. A total of 80 respondents were randomly selected from 4 villages based on proportion of the

respondents in each village. A structured and validated interview schedule was used for collecting information. Descriptive statistical tools used for data analysis, e.g. frequency, percentage, standard Deviation etc....

### **Results and Discussion**

#### **Accessibility (status) of ICTs among farmers**

It is operationalized as the degree to which an individual respondent is able to use ICT or its applications for the purpose of agriculture and rural development. A scoring of 1 and 2 was given to the respondents accessing ICT and not accessing ICT respectively.

As it appeared from Table No. 1 that out of 80 respondents, among progressive farmers 87.5 per cent having access radio, 90 per cent used television, 25 per cent were used video recorder, 75 per cent having used mobile, 62.5 per cent used audio cassette, 75 per cent were used camera, 87.5 per cent used print media, and 75 per cent were used ATM. Further, among non-progressive farmers 75 per cent having access radio, 82.5 per cent used television, 10 per cent were used video recorder, 62.5 per cent having used mobile, 30 per cent used audio cassette, 65 per cent were used camera, 95 per cent used print media, and 45 per cent were used ATM. None, of the respondents having accessed internet, computer, software and you tube as ICTs tools for information.

Conclusions of the study are as follows:

ICTs have a possibility of strengthening the linkage between extension, research and farmers. Among the total respondents i.e. 90 per cent progressive farmers accessed television and 95 per cent of the non-progressive farmers were accessed print media as ICT tools for agriculture related

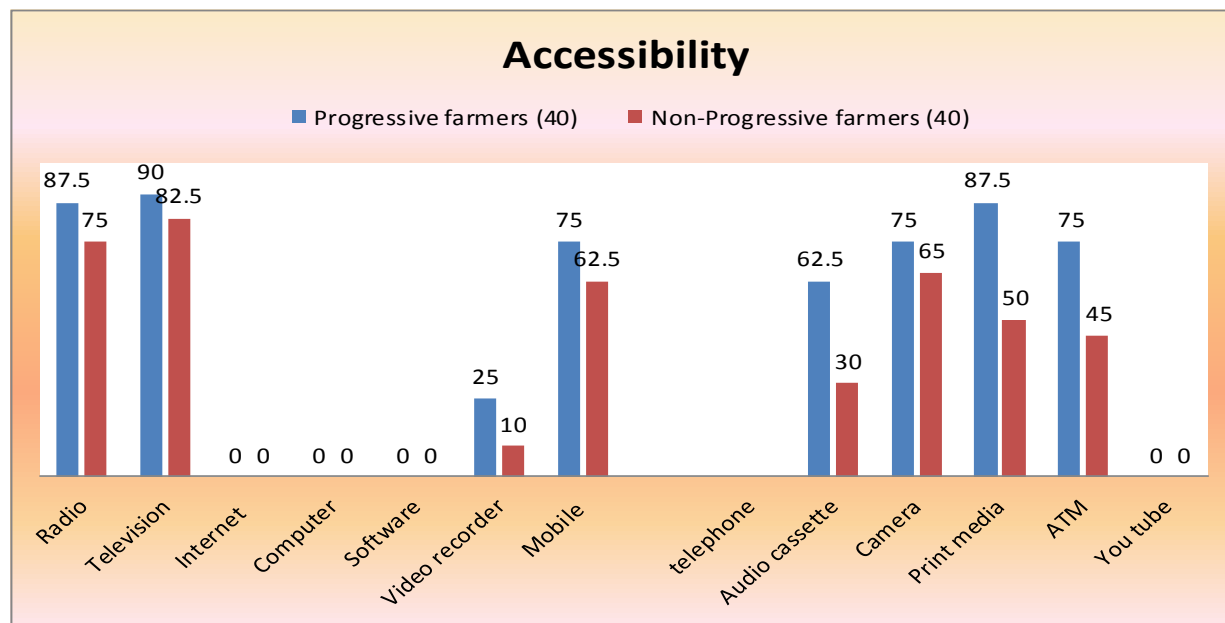
information. None, of the respondents having accessed internet, computer, software and you tube as ICT tools for agricultural information. According to this work, concluded that there is a need to establish new technologies centers and media houses

for dissemination of the agriculture information among farmers in rural areas. Government should also take initiatives for the development of agriculture and provide trainings and latest information by using the communication technologies tools.

**Table.1** Distribution of respondents into different categories with respect to accessibility of ICT

Sl. No.	ICT tools	Total 80 respondents			
		Progressive farmers (40) ACCESS		Non-Progressive farmers (40) ACCESS	
		Frequency	Percentage	Frequency	Percentage
1.	Radio	35	87.5	30	75
2.	Television	36	90	33	82.5
3.	Internet	-	-	-	-
4.	Computer	-	-	-	-
5.	Software	-	-	-	-
6.	Video recorder	10	25	4	10
7.	Mobile telephone	30	75	25	62.5
8.	Audio cassette	25	62.5	12	30
9.	Camera	30	75	25	65
10.	Print media	35	87.5	20	50
11.	ATM	30	75	15	45
12.	You tube	-	-	-	-

**Figure.1** Distribution of respondents among different categories with respect to accessibility of ICT



**References**

WWW.fao.org.

WWW.ukessays.com.

NSSO. (2005). Situation Assessment Survey of Farmers - Access to Modern Technology for Farming, 59<sup>th</sup> Round (January - December 2003), National Sample Survey Organization (NSS), Ministry of Statistics and Programme

Implementation, Government of India, New Delhi.

Olaniyi, O.A. (2013). Assessment of utilization of Information and Communication Technologies (ICTs) among poultry farmers in Nigeria: an Emerging Challenge. *Journal of Animal Science Advances*, 3(7): 361-369.