



Extent of use of Information and Communication Technologies (ICTs) by the Farmers of Guntur District

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ABSTRACT

The findings of the study indicated that all ICT tools were not used by the farmers. Only Radio, Television and mobile were used to some extent. Majority of the farmers (65.83%) belonged to medium category of extent of use of ICTs followed by low (21.67%) and high (12.50%).

Key words : ICTs, Extent of use.

Communication makes technical know-how accessible to increase knowledge about the production, transformation, organization, and marketing dimensions of agriculture. Improved agricultural technologies have been disseminated to rural farmers using different communication channels. Information and Communication Technologies (ICTs) are the basket of technologies which assist in storage, processing and dissemination of the information. ICT includes any communication device or application encompassing radio, television, mobiles, internet, kiosks, call centres, satellite systems etc. Farmers are information hungry and they need information on all aspects of agriculture right from sowing of seeds to marketing. The extension staff strength is not adequate to provide information to each and every farmer. In this context, Information and Communication Technologies (ICTs) plays an important role in reaching the unreached.

Keeping in view the above facts, the present study was contemplated with objective to find out the extent of use of ICTs.

MATERIAL AND METHODS

The research was conducted during the year 2011 in Guntur district of Andhra Pradesh. The selected crops include paddy, cotton and chilli. Ex-post facto research study was followed. Guntur district of Andhra Pradesh was selected purposively. One mandal for each crop with highest area of cultivation was selected for the study. Thus a total

of three mandals viz., Bapatla for paddy, Amaravathi for cotton and Veldurthy for chillies were selected for the study. Four villages from each mandal were selected randomly with a total twelve villages. For each crop forty farmers were selected by following proportionate random sampling constituting the total sample size to 120. Data was collected through Interview schedule, which was subjected for statistical analysis and interpretation. The indicators of the investigation that the paper seeks to study are contribution of ICT's towards the dissemination of agricultural information; the extent of utilisation of ICT's to promote agriculture and sustainable development.

RESULTS AND DISCUSSION

The extent of use of ICT tools by the overall farmers to get information on different areas was studied and depicted in the table 1

The results presented in the Table 1 clearly indicate that all ICT tools were not used. Only radio, TV and mobile were used by the respondent farmers. With regard to soil health management, radio was used occasionally by 55.84 per cent of the farmers and regularly by 14.16 per cent of the farmers. Television was used occasionally by 51.66 per cent of the farmers and regularly by 15.84 per cent of the farmers. Mobile was used by very few.

For weather forecasting, radio and television were used regularly by 92.50 per cent and 84.16 per cent of the farmers respectively and occasionally by 5.83 per cent and 4.17 per cent of

Table 1. Distribution of respondents according to the extent of use of ICT tools for getting information.

n = 120

S.No	Type of Information	ICT Tool	Regularly		Occasionally		Never	
			F	%	F	%	F	%
1.	Soil Health Management	Radio	17	14.16	67	55.84	36	30.00
		TV	19	15.84	62	51.66	39	32.50
		Mobile	-	-	2	1.67	118	98.33
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
2.	Weather Forecasting	Radio	111	92.50	7	5.83	2	1.67
		TV	101	84.16	5	4.17	14	11.67
		Mobile	-	-	-	-	120	100.00
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
3.	Cultivation Aspects	Radio	96	80.00	5	4.17	19	15.83
		TV	67	55.84	35	29.16	18	15.00
		Mobile	7	5.83	12	10.00	101	84.17
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
4.	Input availability and Prices	Radio	45	37.50	36	30.00	39	32.50
		TV	22	18.34	57	47.50	41	34.16
		Mobile	11	9.16	25	20.84	84	70.00
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
5.	Integrated Nutrient management	Radio	34	28.33	45	37.50	41	34.17
		TV	14	11.67	62	51.66	44	36.67
		Mobile	1	0.83	2	1.67	117	97.50
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
6.	Disease and Pest Early Warning System	Radio	-	-	-	100.00	-	-
		TV	2	1.67	6	5.00	112	93.33
		Mobile	3	2.50	5	4.17	112	93.33
		Internet	-	-	1	0.83	119	99.17
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00

Table 1 (cont.).

S.No	Type of Information	ICT Tool	Regularly		Occasionally		Never	
			F	%	F	%	F	%
7.	Pest and Disease Management	Radio	54	45.00	62	51.66	4	3.34
		TV	32	26.66	75	62.50	13	10.84
		Mobile	6	5.00	8	6.67	106	88.33
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
8.	Combination of Pesticides and Insecticides.	Radio	16	13.33	7	5.83	97	80.84
		TV	12	10.00	17	14.16	91	75.84
		Mobile	3	2.50	7	5.83	110	91.64
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
9.	Post Harvest Technology	Radio	1	0.83	3	2.50	116	96.67
		TV	-	-	12	10.00	108	90.00
		Mobile	-	-	-	-	120	100.00
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
10.	Seed Production	Radio	-	-	3	2.50	117	97.50
		TV	-	-	7	5.83	113	94.17
		Mobile	-	-	3	2.50	117	97.50
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
11.	Quality standards of produce for export	Radio	-	-	-	-	120	100.00
		TV	-	-	1	0.83	119	99.17
		Mobile	-	-	-	-	120	100.00
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
12.	Credit and Finance Information.	Radio	54	45.00	62	51.66	4	3.34
		TV	32	26.66	75	62.50	13	10.84
		Mobile	6	5.00	8	6.67	106	88.33
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00

Table 1 (cont.).

S.No	Type of Information	ICT Tool	Regularly		Occasionally		Never	
			F	%	F	%	F	%
13.	Crop Insurance.	Radio	1	0.83	1	0.83	118	98.34
		TV	-	-	2	1.66	118	98.34
		Mobile	1	0.83	6	5.00	113	94.17
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
14.	Marketing Information and Price Trends.(Market Intelligence)	Radio	6	5.00	42	35.00	72	60.00
		TV	15	12.50	67	55.83	38	31.67
		Mobile	5	4.16	18	15.00	97	80.84
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00
15.	Market infrastructure like Warehouses and Cold Storages.	Radio	2	1.66	16	13.34	102	85.00
		TV	3	2.50	11	9.16	106	88.34
		Mobile	12	10.00	15	12.50	93	77.50
		Internet	-	-	-	-	120	100.00
		Kiosk	-	-	-	-	120	100.00
		CC	-	-	-	-	120	100.00

the farmers. Similarly, radio and television were used regularly for cultivation aspects by 80.00 per cent and 55.84 per cent farmers respectively and occasionally by 4.17 per cent and 29.16 per cent farmers respectively. Mobile was used by 10.00 per cent occasionally and 5.83 per cent regularly. The results were in conformity with regularly of Madhubabu 2008.

With regard to information on input availability and prices, radio was used regularly (37.50%) and occasionally (30.00%); whereas television was used occasionally by 47.50 per cent of the farmers and regularly by 18.34 per cent. Mobile was used occasionally by 20.84 per cent of the farmers and 9.16 per cent regularly.

For integrated nutrient management, radio was used occasionally by 37.50 per cent and regularly by 28.33 per cent of the farmers, while 51.66 per cent used television occasionally and 11.67

per cent used regularly. Mobile was used by very few farmers.

With regard to disease and pest early warning system, very few farmers used ICT tools. But for pest and disease management, radio was used occasionally by a little more than half of the respondents (51.66%) and regularly 45.00 per cent of the farmers. Similarly the television was used occasionally (62.50%) and regularly (26.66%). Mobile was also used to some extent about 10.00 per cent each regularly and occasionally.

With regard to combination of pesticides and insecticides; post harvest technology; seed production; quality standards of produce for export; crop insurance and market infrastructure, the usage of ICT tools were used by very few farmers. Whereas radio and television were used occasionally (51.66%, 62.50%) and regularly (45.00%, 26.66%) respectively for knowing the information on credit and financial institutions.

Table 2. Distribution of respondents according to the extent of use of ICTs.

n = 120

S.No	Category	Frequency	Percentage
1.	Low	26	21.67
2.	Medium	79	65.83
3.	High	15	12.50
	Total	120	100.00

Mean = 115.11

SD=9.69

For market intelligence, the radio and television were used occasionally by 35.00 per cent and 55.83 per cent of the farmers respectively. Mobile was used occasionally by 15.00 per cent and regularly by 4.16. per cent.

By summing up the responses of 15 areas, the respondents were classified into three categories *viz.*, low, medium and high. The results are presented in Table 2

It is evident from Table 2 that majority (65.83%) of the respondents belonged to medium extent of use, followed by low (21.67%) and high (12.50%). The results were in accordance with findings of Pandey and Mehta 2003.

The above results clearly indicate that among the ICT tools, radio, television and mobile were used and the other ICT tools were not used. The reason might be that whatever the developments took place in communication might

have not been reached indicating the need for establishing the information kiosks. The farmers are in the opinion that compared with the benefits of using ICTs, the cost of using ICTs is modest. More awareness is to be created on call centres and their toll free numbers to make use of their services.

LITERATURE CITED

- Madhubabu K 2008** A study on training intervention of Extension Education Institute on the capacity building of functionaries of developments. *Ph. D Thesis* Acharya N G Ranga Agricultural University, Hyderabad, India.
- Pandey R and Mehta S 2003** Extent and use of educational technology by distant learners. *Journal of Communication Studies* 20 (1): 78-82.

(Received on 06.03.2012 and revised on 06.06.2012)