# Awareness of Livestock Farmers on ICT tools

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#### ABSTRACT

A study was conducted to assess farmer capability, awareness and preparedness about ICT tools for livestock farming. The data were collected from 60 respondents of Karnataka, India regarding awareness about ICT tools. The results indicate that 100 per cent of the farmers were aware about various ICT tools and media such as TV, websites, Mobile Applications, SMS based services, Kisan Call Centres etc. All the respondents had knowledge about how to use SMS based services, whereas 97 percent of them knew about use of Mobile applications. Many of them did not know how to use websites.

#### Keywords: ICTs; Livestock; Knowledge; Awareness; Karnataka

In the context of globalizing agriculture, need for information becomes most critical. The smallholders, face challenges in access to digital tools, technologies, financial, insurance services as well as infrastructure facilities, as compared to industrial producers. Many of these challenges can be addressed by Information Technology (IT) effectively (Aker, 2011).

There is a vast amount of scientific and technological knowledge related to agriculture and food that has been generated over the last fifty years in the Agriculture and Food Research System. The generation continues. The knowledge is scattered across in, theses, papers, Annual Reports, technical bulletins in universities, ICAR labs, etc. Some of these are in digital form. What is needed is a well taxonomized, data and knowledge base, searchable by educated farmers and scientists. Questions that need to be answered therefore are the likes of: how to acquire/accumulate this data? How to structure the huge amount of data? How to identify queries appropriate for other, interlinked databases, transmit them to those database, and forward replies received to the user? The study attempts to assess the awareness of livestock farmers on ICT tools and evaluates a livestock advisory and information system.

### **METHODOLOGY**

The awareness of livestock farmers in Karnataka, India was assessed and an Information system was developed with the

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following steps. The sample size was 60,

- Identify the various topics under livestock farming
- Classification of areas into sets and subsets, Creation/compilation of contents
- Structuring four forms of information under each topic
- Compiling the already available resources in various forms for digital network library
- Classification of resources, creating structured web page with links to respective resources
- Developing the web based platform as a structured tool for information dissemination through internet and uploading the contents into the web platform
- Validating the developed web tool through workshops/ feedback from stakeholders
- Modifications in the advisory and information system, as per the needs of the end users.
- A semi structured interview schedule was prepared for collecting data regarding farmer capability, awareness and preparedness about IT tools for livestock farming. The data collection was completed from 60 respondents regarding awareness about IT tools.

## FINDINGS AND DISCUSSION

The results of the survey are presented in Table 1.

Design and Development of Information system

Technical content under feeding, breeding, health care and general management of four species of cattle, sheep, goat and buffalo were organized into different modules with different formats like text, images etc. A portal/ web based advisory and information system based on the user requirements was developed for uploading the information. The portal was developed using PHP and back end data was with MS Access. The portal is hosted on the Institute website. An atlas of Indian Livestock Information Resources & disease outbreaks, with facility for keyword based search is a part of the information system developed. Mapping of Central and State Resource Centres/Experts with key word search facility was also done. The web

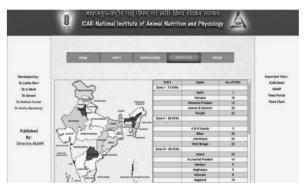


Figure 1. General Information on KVKs (Krishi Vigyan Kendras)

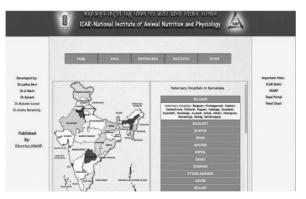


Figure 2. Veterinary Dispensaries

Table 1.Awareness and Use of ICT tools for livestock farming

SI. No.	Characteristics	Yes	No
		(%)	(%)
Ι	Awareness		
1	TV/ any other media	100	-
2	Websites	96	4
3	Mobile phones/ Mobile Applications	100	-
4	SMS based services	100	-
II	Knowledge to Use		
1	TV/ any other media	100	
2	Websites	34	66
3	Mobile phones/ Mobile Applications	97	3
4	SMS based services	100	-
	Actual Use		
1	TV/ any other media	100	
2	Websites	27	73
3	Mobile phones/ Mobile Applications	97	3
4	SMS based services	100	-



Figure 3. Healthcare information

based livestock advisory system developed is compatible with all browsers and devices: PCs, laptops, tablets, mobiles. The screenshots of the information system are given in Fig, 1, 2 & 3.

#### **Evaluation of Information System**

Testing and evaluation of the developed web based Livestock Advisory and Information system was completed at the field level and modifications were brought in the advisory and information system, as per the needs of the end users. The results are given in Table 2.

Indian livestock farmers face challenges in accessing information & services via digital tools that are crucial for decision making. This study has revealed that most of the livestock farmers did not know how to use websites, which the extension system needs to

(n=60)

Table 2.
Evaluation of Livestock Advisory and Information Portal

SI.No.	Characteristics	Strongly Agree (%)	Agree	Disagree	Don't		
			(%)	(%)	know (%)		
I	Usefulness						
1	It is informative and logical	86	14				
2	It saves time and money	75	25				
3	It provides least cost practical solution	24	26	50			
4	It is handy and easy to operate	26	31	43			
	Technical component						
1	Layout is simple and systematic		90	10			
2	Information and options are easy to understand	4	84	12			
3	Steps involved is easy to navigate	4	64	32			
4	It is user friendly		78	22			
111	User attributes						
1	Improves self confidence		90	10			
2	Creates interest	3	87	10			
3	Favourable attitude towards ICT		90	10			
4	Helps in decision making	2	48	50			
5	Motivate in improving the farm			85	15		
6	Motivate to learn computer	19	54	27			

take care of. Structuring scattered information in searchable interactive system, delivery by proper channel and creating trustworthiness of data is a challenge. A multi lingual web based Livestock Advisory and Information System may help to address these issues.

# REFERENCE

Aker, J. C. (2011). Dial "A" for agriculture: A review of information and communication technologies for agricultural extension in developing countries. *Agricultural Economics*, *42* (6), 631-647.

(n=60)