Current Journal of Applied Science and Technology

40(48): 33-37, 2021; Article no.CJAST.83693
ISSN: 2457-1024
(Past name: British Journal of Applied Science & Technology, Past ISSN: 2231-0843, NLM ID: 101664541)

Utilisation Pattern of Annapurna Krishi Prasaar Seva (AKPS) by Farmers of Nagarkurnool District of Telangana

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Authors' contributions

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

Article Information

DOI: 10.9734/CJAST/2021/v40i4831641

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/83693

Original Research Article

Received 23 October 2021
Accepted 28 December 2021
Published 30 December 2021

ABSTRACT

This study was conducted to know the utilisation pattern of Annapurna Krishi Prasaar Seva (AKPS) project by farmers of Nagarkurnool district of Telangana. Among the various projects in operation, Annapurna Krishi Prasaar Seva (AKPS) was selected for the study. Twelve respondents were selected randomly from each village that constituted 120 respondents for the study. It was observed that out of 120 respondents almost two-thirds of farmers (65.00 per cent) were utilising services with 3.33 per cent of farmers using it daily once, 13.33 per cent using it weekly once, 22.50 per cent using it monthly once and 25.83 per cent using it whenever needed. Further, the study also revealed that half of the farmers (50.83 per cent) were utilising services for information regarding crop protection followed by 42.50 per cent for weather information, 39.16 per cent for cultivation practices, 34.16 per cent for market prices and 29.16 per cent for livestock information. Whereas, 27.50 per cent, 24.16 per cent, 20.00 per cent and 15.83 per cent were utilizing Annapurna krishi prasar seva for quality inputs, irrigation practices, alternate crops and post-harvest practices

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information respectively. From this study it was found that Annapurna krishi prasar seva (AKPS) was a popular ICT and the farmers were interested in getting information which need regular update like quality inputs, information on government schemes, crop protection practices, market prices.

Keywords: ICTs; information technology; utilisation pattern; AKPS.

1. INTRODUCTION

Extension in today's Indian context, includes all those agencies in the public, private, NGO and community based initiatives that provide a range of agricultural advisory services and facilitate technology application, transfer and management. India has a wide diversity of ICT enabled agricultural extension service providers representing the public, private and the voluntary sector. Most of them provide new information, knowledge and skills through trainings, visit to farmer groups, organizing demonstrations, farm schools, exhibitions and disseminating information through different media and ICT tools. But most of the initiatives have been using computer based web portals for delivery of information or through local village internet kiosks. Since they are computer and internet based, these initiatives have not been very successful, as farmers were either illiterate or not culturally attuned to access information through the internet. In this existing scenario, it is expected that integration of ICTs in agricultural extension will provide needed impetus to agricultural sector and ICTs can complement the traditional extension system for "Knowledge Resource" delivery to the millions of the farmers [1].

Annapurna Krishi Prasaar Seva (AKPS) is a project designed and developed by Media Labs Asia , a section company of Department of Electronics and Information Technology, MCIT, Government of India, a project awarded by National Agricultural Innovation Project (NAIP), ICAR-Project Period 2009-2014. IIDS is a pull and push based system where agriculture related information can be pulled by the farmers using the mobile phones. There is a mobile interface at front end and web interface at the back end. Data would be transmitted through voice, text, images and videos from both end (farmers to expert and back). This system will provide the options to the farmer to subscribe for the various services. Farmer will receive information for only those services for which he has subscribed and has an option at a later date to either select some more services or unsubscribe to some of the existing services. The system will be connected to a centralized database, which would have all information of farm, farmer and previous transactions. The experts at back end (web application) would have access to the database of the farmers while responding the farmer's queries.

At present, there are many ICT initiatives by government, non-government and private organisations in the field of agriculture Farmers are seeking agricultural related queries using their mobile phone [2]. Annapurna Krishi Prasaar Seva (AKPS) is delivering information to the grass root level and is widely popular in Telangana. The reasons for this pattern may be because farmers were interested in getting information which need regular update like crop protection practices, crop production, market prices and weather information. Claire et al. [3] reported that farmers face a lot of difficulties in getting timely, reliable and relevant information. This is mainly because the technologies developed for farmers were not suited to the farmer's capacity to take risk. This severely affects their ability to increase their productivity, profitability and income. To overcome these challenges of providing timely agro advisories, mobile based ICTs are being implemented across the country. For instance, farmers can raise queries related to agriculture and allied sectors using their mobile phones using and receive information through pull and push based system of AKPS. There is a need for research to know the utilisation pattern of Annapurna Krishi Prasaar Seva (AKPS) among the farmers and their major constraints in effective utilisation of ICTs. Therefore, the present study was undertaken with the above specific objective.

2. METHOLOGY

The State of Telangana is purposively selected for this study which was formed on 2nd June 2014 and it is one of the potential State contributing more for the nation development. The economy of Telangana is mainly driven by agriculture. Two important rivers of India, the Godavari and Krishna flow through the State, providing irrigation. Rice is the major food crop. Other important crops are cotton, sugar cane,

mango and tobacco. There are many multi-state irrigation projects in development, including Godavari River Basin Irrigation Projects and Nagarjuna Sagar Dam, the world's highest masonry dam. Telangana government is taking various development measures including ICT project for promotion of agriculture. However being a newly formed State, Telangana needs furthur suggestions for effective implementation of ICT projects for developing farming community. The government of India is also introducing digitalization in all sectors. Hence it is right time to take stock of possibility of digitalization in agriculture sector too. Even though for the past two decades, the government is implementing many ICT initiatives for dissemination of agriculture information, only limited studies are available about the extent of use of ICT projects in promotion of agriculture.

The present study was undertaken in Nagarkurnool district of Southern Telangana region which was purposively selected as it has more ICT projects operating in the region. Annapurna Krishi Prasaar Seva (AKPS) was operational in the study area. The other institutions like one college of Agriculture, Palem and one Krishi Vigyan Kendra, Palem and one Regional Agricultural Research Station also available in Nagarkurnnol district and who are providing agro-technological information through ICT services for the benefit of farming community. There are three revenue divisions available in Nagarkurnool district. They are Nagarkurnool, Kalwakurthy and Achampet. Nagarkurnool revenue division was purposively selected for this study since Kisan Call Centre was in operation in this division. There are 21 mandals available in Nagarkurnool revenue division of which four mandals viz., Thadur, Bijinepally, Thimmajipeta and Nagarkurnool were purposively selected for this study.

Since all these four mandals are very closer to the district head quarters and getting benefit of ICTs from long period and they are also very adjacent to college of Agriculture, Krishi Vigyan Kendra and Regional Agricultural Research station and very well exposed to ICT projects by these institutions. Collection of data and getting suggestions from the respondents will be of more appropriate for developing stratergies. There are totally 88 villages available in all the four mandals of which ten villages viz., Kummera, Lingasanapally, Vattem, Nandivadennam, Bijinepally, Ippalapally, Gummukonda, Palem, Malkapur and Gagallapalli were selected by random sampling method for study. From the selected ten villages, the list of farmers enrolled under ICT projects was obtained. A total of 1207 farmers were enrolled in these selected villages. Since the population size of all the selected villages was almost equal and in order to have a representative sample, 12 respondents were selected randomly from each village that constituted 120 respondents for the study. “Ex-post facto design” was employed for the study as the ICT project had already started working in the area. A detailed pre-tested schedule was prepared to know the extent of utilisation, utilisation pattern of services provided by the Annapurna Krishi Prasaar Seva (AKPS) project. The appropriate responses were collected from the respondents through personal interview. The respondents were interviewed personally by a well-structured and pre-tested interview schedule. The data collected were coded, tabulated and analyzed using suitable statistical tools and the results were described in this paper.

3. RESULTS AND DISCUSSION

The data in Table 1 indicated that almost two-thirds of farmers (65.00 per cent) were utilising services with 3.33 per cent of farmers using it daily once, 13.33 per cent using it weekly once, 22.50 per cent using it monthly once and 25.83 per cent using it whenever needed.

Adequate utilisation was there because the project was successfully implemented and the KVK staff were popularizing the project among the famers and enrolling the new farmers by concentrating on providing timely and relevant advisory services in local language and other additional services.

Annapurna Krishi Prasaar Seva (AKPS) being a popular ICT and a modern source of information, more farmers were inclined to know new information through AKPS platform, thus the higher utilisation of AKPS was justifiable.

These findings were in line with research findings of Subhas singh et al. [4] and Jadhav et al. [5] who noticed the usage of ICTs, were moderate to low in rural areas.

3.1 Utilisation Pattern of ICT Projects of Specific Information

The data in Fig. 1. indicated that half of the farmers (50.83 per cent) were utilising services

Table 1. Extent of utilisation Annapurna Krishi Prasaar Seva (AKPS) (n-120)

S. no.	Extent Of Utilisation	Frequency	Per cent
1	Daily once	4	3.33
2	Weekly once	16	13.33
3	Monthly once	27	22.50
4	Whenever needed	31	25.83
5	Never	42	35.00
	Total	**120**	**100.00**

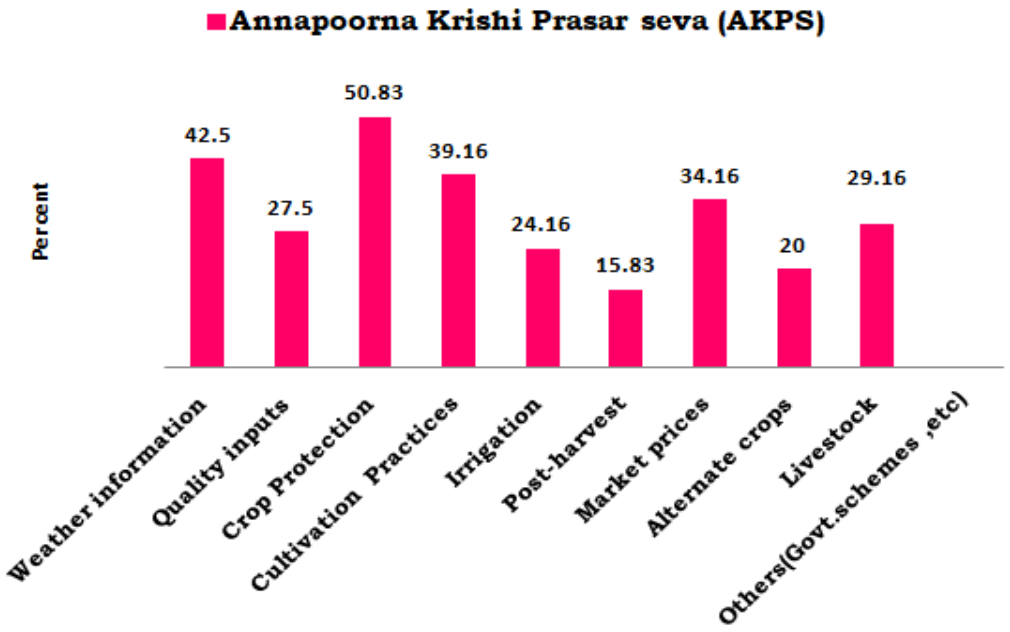

Fig 1. Type of information utilised

for information regarding crop protection followed by 42.50 per cent for weather information, 39.16 per cent for cultivation practices, 34.16 per cent for market prices and 29.16 per cent for livestock information.

Whereas, 27.50 per cent, 24.16 per cent, 20.00 per cent and 15.83 per cent were utilizing Annapoorna Krishi Prasar Seva for quality inputs, irrigation practices, alternate crops and post-harvest practices information respectively.

The reasons for this pattern may be because farmers were interested in getting information which need regular update like crop protection practices, crop production, market prices and weather information.

These findings are in line with research findings of Dhaka and Chayal [6], Manige et al. [7], Meena et al. [8], Parab et al. [9] and Ram et al. [10] who reported that most of the farmers expect information on high yielding varieties, plant protection practices and market information.

4. CONCLUSION

Information & Communication Technologies (ICTs) have a wide scope in providing information services to the farmers for the proper decision making regarding profitable farm businesses, given the low extension personnel to farmers' ratio in India. There are many ICT based initiatives which are trying to provide farm information, but among these very few projects are popular and effective among farmers. In this study it was observed that Annapoorna krishi prasar seva was widely popular in Telangana because of its ease of accessibility of pull and push based system where agriculture related information can be pulled by the farmers using the mobile phones and reliable delivery of information to the grass root level.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/83693