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Agricultural Information Service for the Farmers and the Public: A Study

DR. R. RAMAN NAIR

Librarian, H.H. The Maharaja's Government Women's College, Trivandrum-695043, Kerala

ABSTRACT

The study evaluates farmer oriented information resources available in agricultural sector and outside as well as awareness about them among farmers and public, their accessibility relevance and services. It is based on a survey conducted among the institutions as well the expected user community representing various spheres of activity interested in small scale agriculture. The findings revealed that information resources and services in agricultural sector are mostly restricted to scientists. It was found that within the limitations that existed village libraries contained substantial quantity of agricultural information materials in local language and script produced for the use of the farmers and non-specialists. They deal with the situations and crops of the region. Psychological barriers are absent among farmers in approaching village libraries. Their timings and location is also convenient to the farming community. Various recommendations are made on the basis of the study to extent the agricultural information services to the farmers and public living in remote areas using the existing infrastructures.

KNOWLEDGE ON FARMING

"Access to information may improve a farmer's productivity; enhance awareness about innovative farm practices and market trends, and this in turn will contribute immensely to national development".

Before entering a discussion on agricultural information resources maintained for the farmers and the public we have to attempt a definition of Agriculture. Agriculture is the art, science, economics and all practices related to cultivating the land and rearing of the animals of land and waters. We have to include sky also as the birds, climate, satellite technology etc. are also the concern of agriculture.

Let us be just! Can we think that every thing related to agriculture o a major portion of its knowledge and science has developed in our agricultural research institutions? And that only is of great significance? The answer is a big NO.

Then what is the fact to be considered? Agricultural science and practices is an experience, to a very great degree unconsciously passed on by ancestors from generation to generation, from father to son and tested and perfected through centuries in village environments.

Such type of traditional knowledge is sustainable knowledge. It is tested in the agro climatic regions in actual situations. It is suited to and it blends with the ways of the society. The traditional knowledge contains the science and technology which considers the future, the mother earth, our children, the generations that are to come, their comforts, their peace, their existence.

ACCESSIBILITY FOR THE COMMON MAN

Normally those who require information related to agriculture, animal husbandry etc. for research or application approach agricultural university / college libraries, agricultural research libraries or information divisions under agricultural department of government. As the majority of users of agricultural information for application are farmers and are located in remote areas and information required in most occasions is for application or problem solving in such locations the facilities of educational and research institutions and even departments are not accessible in time. But institutions outside the agricultural stream like study centers of traditional universities, arts and science colleges, public libraries; village libraries etc. hold agricultural information that may be useful in similar situations. They can be strengthened without much financial commitments to serve such requirements of the farmers and public. Also such institutions hold agricultural

information, which is rare, like the traditional knowledge, which is otherwise not available for agricultural research institutions. All these make resources outside agricultural stream important for agricultural development.

The present paper is a comparative appraisal of such resources in agricultural sector as well as in universities, colleges and few selected libraries outside agricultural sector in Kerala based on a random survey conducted among them and also based on survey conducted among 220 persons representing various spheres of activity interested in agriculture by the broad sense of the term. Two sets of questionnaires in Malayalam were used for the survey.

AGRICULTURE IN KERALA

For Kerala Agriculture is to be considered the main footing of the economy. This has been revealed by the many facts like those listed below.

For the State; agriculture is the source of supply of the basic wage goods, and food items. Scarcity of this basic wage good creates imbalances in the economy and thereby inhibits economic growth and development. Agriculture provides raw materials required for Kerala's industries. It earns foreign exchange, which is essential for the import of machinery" technology and other inputs necessary for the successful implementation of the industrialization programmes envisaged under our Five Year Plans. Agriculture also contributes the biggest share to the domestic product. The primary sector contributed 46.1% to the domestic product in seventies and its contribution to the domestic product was as high as 54.7%. It also provides the market for the industrial products. The strength and growth of the industrial sector, therefore, depend upon the strength and growth of the agricultural sector.

There are a number of distinctive features, which are characteristics of the agricultural sector of Kerala. In the first place, Kerala surpasses all the other states of India in respect of the high pressure of population on land. Secondly, on account of the large number of valuable cash crops, the agricultural sector is more commercialized in the State than elsewhere. Thirdly, food production has always fallen far short of Kerala's requirements. Another notable feature of the agricultural sector in Kerala is the high intensity of cropping.

But this study is limited to homestead cultivation, which can be considered as small-scale farming or armature farming, or whatever we may think apt to call it. The homestead cultivation is the unique feature of Kerala's crop pattern, which is the result of the settlement pattern of the people that exists in the State. Due to successful implementation of land reforms and sub- division and fragmentation of holdings, a majority of the land holdings are small, being less than one hectare. With such smallholdings, the growers prefer cultivation of a number of horticultural and perennial tree crops like coconut, areca nut, mango, jack tree, banana tree, etc. to a single crop. The agro-climatic and social conditions of the State are highly suitable for the cultivation of horticultural crops and have led to the shift away from food crops. Even in suburban villages as well as interior villages we can see such cultivation of crops. More than 90% people engaged in agriculture come under this group of cultivators. More than this every one even the city dwellers plant some crops or trees in the limited land area available to them like one or two coconut trees, a mango tree, a jack tree, a neem, some garden crops and the like.

SUBJECT AND COVERAGE

This paper deals mainly with matters related to the type of scenario described above, and information services accessible to people who are part of such scenario, and not those who are part of the highly specialized academic and research environments, and large scale farming systems with strong information support mechanisms which comes to our mind when we hear the words agriculture and agricultural information.

The libraries taken as sample for this study can be grouped as follows :

- Randomly selected libraries of agricultural research institutions in different locations of Kerala.
- College Libraries
- Central and Department Libraries of the Universities
- Public Libraries
- Village Libraries and Krishi Bhavans

The sample user category for the study, constitute 77 librarians and officers in-charge of information systems/ libraries and 220 farmers and the public. Two types of questionnaires were used for the survey.

USERS OF AGRICULTURAL INFORMATION

Of the people who use agricultural information; student, scientists, extension workers and administrators in total comes to less than 0.27 %. Farmers and the public who needs agricultural information come to 99.73%. The

information systems as well as the first category of users themselves exist to serve the second user category. But what actually happens? The major information resources in the agricultural sector remain for use of the first category and even the information if any generated by the first category for the sake of the second never reach the second category, the farmers and the public.

Users of Agricultural Information can be categorized as follows for the convenience of this study.

- Teachers/Students
- Scientists/Extension Activists
- Administrators
- Large Scale Agriculturists
- Farmers, Amateurs and General Public

This paper deals with the last category and in them coverage is limited to small scale and amateur / general farmers which come under homestead farming under which all of us also may come.

AGRICULTURAL INFORMATION CENTERS

The institutions or libraries, which possess agricultural information, that are covered can be categorized into the following for this evaluation :

- Specialized/Research Libraries
- Krishi Vigyan Kendras
- General/Other Libraries
- Village/Public Libraries

FINDINGS

The instruments of the study were framed in a manner in which information on farmer oriented knowledge resources available at different institutions can be extracted from librarians or scientists in charge of systems as well as the awareness about their existence, the nature of services and the accessibility of services can be extracted from farmers and the public. The major findings of the survey are provided below.

CROPS MAINTAINED

Crops Maintained by the 220 users revealed by the survey are detailed in Figure -1. The survey revealed that 110 respondents from among the 220 cultivated coconut, 57 rice, 19 cashew, 11 rubber and 23 other crops. They required information on various aspects of these crops at one time or other.

Information Resources at Research Institutes

The survey revealed that Kerala Agricultural University Central Library (KAUC) is having a Farmer's Division with approximately 700 books on different crops and various aspects of agriculture, animal rearing etc as well as about 600 video films most of them highly relevant to educate the farmer and the public.

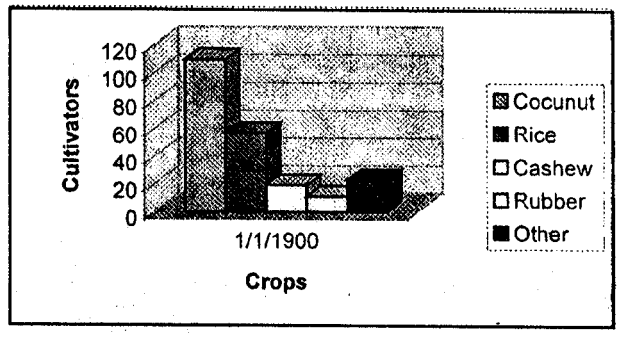

Figure- 1: Crops Maintained by the Respondents

KAUC has also a few interactive multimedia programmes intended for the farmers, excellent exhibition facilities, TV, VCP, Multimedia Computer and Video presentation facilities etc. But the documents, films etc. require a little customizing by translating into regional language. The facility presently remains under utilized. Central Plantation Crops Research Institute, Kasaragod (CPCRI) has also some resources on this line.

But the survey at selected agricultural institutes other than KAU Central Library, Krishi Bhavans and libraries of institutions outside the stream of agriculture revealed that agricultural research and educational institutions are not having much document resources in the regional language packaged for the farmer, Krishi Bhavans are not having any document resources, but village libraries are rich in this aspect when compared to the others.

RESOURCES OUTSIDE AGRICULTURAL SECTOR

The findings of the survey on resources available at institutions outside the stream of agriculture revealed very important facts. Libraries outside the stream of agriculture hold very important, and otherwise not available information on agriculture, which is original, traditional and sustainable. This will be of great use to agricultural research for developing sustainable methods of farming, animal rearing and fishing. Village libraries generally have a good collection of agriculture books in Malayalam dealing the subject in a simple manner without technical jargon apt for the farmer.

The study clearly revealed that village libraries contained substantial quantity of agricultural information materials produced for the use of the farmers and non-specialists. This is in regional language and script. These documents deal with the situations and crops of the region. Psychological barriers are absent among farmers in approaching village libraries and in using these materials. Timings and location is also convenient to the farmer.

The findings related to resources available in the libraries outside the agricultural sector are the following :

- All libraries surveyed contained general reference sources giving information on agriculture also.
- Of the Arts and Science and other colleges surveyed each contained more than 275 English books on various aspects of agriculture.
- Each of the college surveyed contained more than 75 Malayalam books related to agriculture.
- All public libraries that were covered by this study have each 100+ English books and 150+ Malayalam books on agriculture.
- All village libraries contained an average of 100+ Malayalam books on agriculture related aspects.
- None of the Krishi Bhvans surveyed contained any books/library or even publications of the agricultural department.

Krishi Bhavans/Farm Information Bureau (FIB) etc. exist to satisfy the agricultural information needs of the farmer. But they do not consider library systems as a tool for disseminating information and knowledge on new agricultural techniques. So they are not having any document collection on agriculture meant for the farmer. Agricultural research institutes, university and colleges and libraries of agriculture related departments of government are presently not useful to farmers and the public.

The major expected user category of agricultural information systems is farmers. But presently the information systems are not accessible or inviting to the farmers whom they have to serve directly and indirectly. The privilege of information availability remains with the scientist who may use it for the benefit of the farmer. But this is according to his will.

AWARENESS AND ACCESSIBILITY OF SERVICES

Farmers form the major expected user group of agricultural information. The second group of users agricultural information, students, scientists, extension workers and administrators in total will comes to less than 1 %. The information systems as well as the second category of users themselves exist to serve the first user category. But the major information resources in the agricultural sector remain for use of the second category and even the information if any generated by the second category for the sake of the first never reach the first category, the farmers and the public.

The survey conducted for this study covered many of the farmers and public living near the regions of the major agricultural institutions. The survey checked the sources they use for agricultural information, its accessibility and relevance. Result is presented in the following table. The responses from users in regard to awareness and satisfaction levels are presented in graphical form in Figure -2. The assessment of the farmers on access to the systems and aptness of the systems for them is presented in Figure -3. The table and the figures revealed various important factors related to accessibility of agricultural information services to farmers as well as the apt place for extending agricultural information service to the farm.

Table -1: Assessment of Facilities by Farmers

Institution	Aware	%	Approach	%	Sati	%	NotSat	%	Psyc	%	AptPlace	%
Agri Res In	37	16.82	17	7.727	1	0.45	10	4.55	70	31.82	27	12.27
Krishi Bhav	170	77.27	31	14.09	7	3.18	20	9.09	16	7.273	142	64.55
Village Lib	205	93.18	70	31.82	40	18.2	12	5.45	20.	909	130	59.09

Of the 220 persons who responded to the questionnaire 37 persons (17%) only stated that they were aware of the agricultural research or educational institution existing near them and of this 17 persons coming to 8% of the total responses stated that they approach those institutions for information. From this 10 persons stated that the information service is not satisfactory or relevant to them. Only less than 1% stated that they get satisfactory service. 70 persons coming to 32% of the respondents stated that the procedural difficulties and the psychological barriers prevented them from using the services of educational and research institutions in agriculture. Of those-who responded 170 persons (77%) stated that they were aware of the Krishi Bhavans existing nearby and of this 31 persons coming to 14% of the total responses stated that they approach Krishi Bhavans for information. From this 7 persons stated that the information service is satisfactory. 20 persons stated that the information services from Krishi Bhavans are not satisfactory.

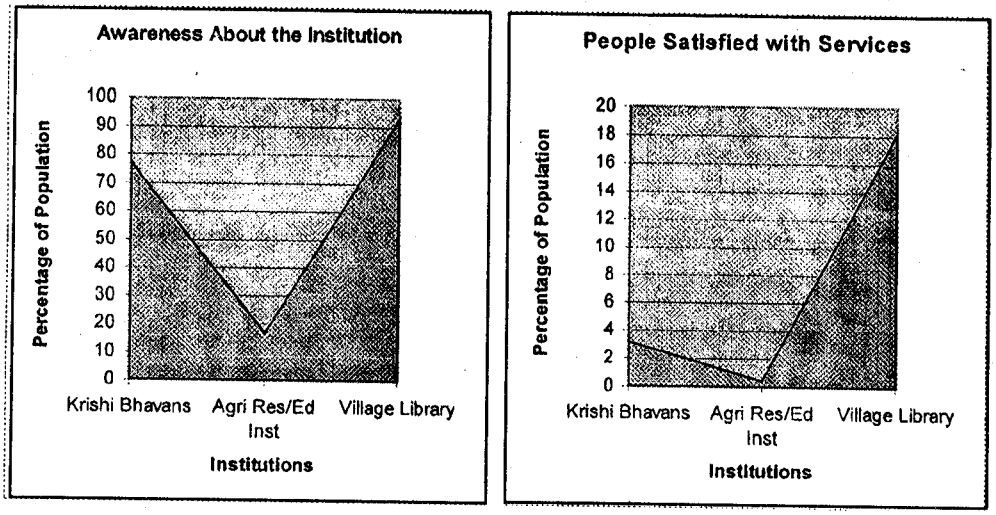

Figure -2: Awareness and Satisfaction Levels

Of the responses 205 persons (93%) stated that they were aware of the village library existing in their locality and of this 70 persons coming to 32% of the total responses stated that they approach village library for agricultural information. From this 40 persons stated that the information service is satisfactory. 12 persons stated that the information services from village libraries are not satisfactory.

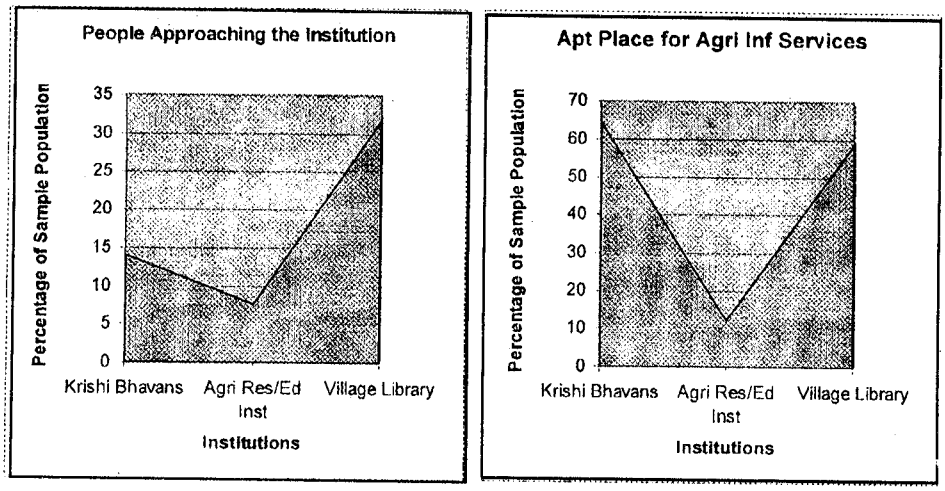

Figure -3: Access and Aptness

The survey revealed that village library was the most sought after institution by farmers, and that procedures and psychological barriers in using agricultural information materials were less in regard to the village library. But of the 220 persons surveyed 65% stated that Krishi Bhavans are the apt place for providing agricultural information services to the farmers, 59% stated that village libraries are the apt place and 12% stated that agricultural research institutes are the apt place.

LIMITATIONS TO BE REMOVED

The libraries, which have to serve the majority of user community that is farmers and the public; the Krishi Bhavans, village libraries, etc in total possess only less than I % of the information resources available in the State. There is no provision for this majority groups consisting of farmers or public or their libraries to access the information stored in resource rich institutions for the sake of the farming.

The study clearly reveled that within all the limitations that existed village libraries contained substantial quantity of agricultural information materials produced for the use of the farmers and non-specialists. This is in local language and script. These documents deal with the situations and crops of the region. Psychological barriers are absent among farmers in approaching village libraries and in using these materials. Timings and location is also found to be convenient to the farming community.

Krishi Bhavans/FIB etc which exist to satisfy the agricultural information needs of the farmer do not consider library and information services as a tool for disseminating information and knowledge on new agricultural techniques and are not having any document collection on agriculture meant for the farmer.

Agricultural Research Institutes, universities, colleges and libraries of agriculture related departments of Government are presently not useful to farmers and the public for obtaining information for their needs related to agriculture, animal rearing etc.

Of the expected users of Agricultural Information systems less than 1 % are scientists and administrators (who exist to serve the farmers) and 99% are farmers. But presently the systems are not accessible or inviting to the farmers whom they have to serve directly and indirectly. The privilege of information availability remains with the scientist who may use it for the benefit of the farmer. But this is according to his will.

SUGGESTIONS FOR IMPROVED SERVICES AND ACCESS

Building up farmer oriented collections and making them easily accessible to the public is not an easy task. Establishing special agricultural information centers near the farmer is also not viable due to financial crunch. But the ultimate aim of Agricultural Research Systems is to serve the farmer at his convenience. But our specialized agricultural information systems are disregarding their main objective

The following recommendations are made on the basis of the present study to improve the agricultural information services to the farmers and public living in remote areas as well as for whom the specialized institutes under agricultural sector are not accessible.

- College libraries, university department libraries, and others. have good collection of agricultural information and should make them accessible to the farmers and the public.
- They should also be connected to specialized agricultural libraries for mutual benefit.
- Agricultural libraries and information systems should extent services to the farmers through outlets nearest to them.
- Such service outlets should be those, which the farmers can access easily and without any formalities/procedures and psychological barriers.
- Village libraries should be made the lowest service outlet of any agricultural information system, let it be that of Agricultural University/College/ Research Institution or Government.
- Government should support every village library to build up a special section for the farmer.
- All agricultural books in Malayalam should be collected in village libraries. The agriculture book corner programme that once existed in village libraries with the support of government should be revived.
- All publications of Agriculture Department, Farm Information Bureau etc should be made available to village libraries.

- Village Library should be the lowest service point of farm information services of Government.
- Village Library being a center near the farm and farmer; Agricultural University also should make it a point near the farm for its extension activities.
- When a center like village library having resources is there, establishing other centers for disseminating knowledge and information to the farmer is duplication of effort and waste of resources.
- Hence village libraries should be supported and .their information base supplemented to enable them to provide agricultural information service to the farmers.
- State Information Infrastructure, Information Kerala Mission, etc should provided sufficient support to village libraries and Krishi Bhavans to maintain information services outlets on various areas of interest to the people including agricultural information.
- Public library network should be established and online information access facilities should be made available at each and every village library.
- Digital content on agriculture required for the common people which may include books in regional language, video programmes to create awareness on sustainable farming and animal rearing, interactive multimedia programmes on crops, pests etc should be developed and included in public library systems and networks also.

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