

Case Study of Tribal Farmers' Agricultural Information Needs and Accessibility in Attappady Tribal Block, Palakkad

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Abstract: This paper highlights agricultural information needs of tribal farmers in Attappady Tribal Block, Palakkad District, Kerala. Tribal farmers play an immeasurable role in agricultural production. This study investigated how tribal farmers access and use information in their Agricultural field to attain food security. The study sought to establish the farming activities of the tribal farmers, ascertain their information needs, their information seeking behavior, establish information sources, channels of information and the problems they face while seeking information and suggest ways for improvement. A survey is carried out on the 150 tribal farmers of the 3 panchayats, 50 tribal farmers from each panchayat of Attappady Tribal Block, Palakkad District, Kerala, but only data for 131 respondents were analyzed.

Keywords: Information Need, Agricultural information, Tribe.

I. Introduction

Attappady is an area classified as the first Integrated Tribal Development Block of Kerala and forms part of Mannarkkad Taluk of Palakkad District. It is situated North of Palakkad town, close to the Tamilnadu border in the East. It has a total area of 750 sq.km spread over three Panchayats namely Agali, Pudur and Sholayur. This area was covered with the dense forests and infested with wild animals. Tribals in Attappady are most backward among the underprivileged groups in Kerala. There are 180 tribal hamlets in Attappady (GOI-2011), populated by three tribal groups namely Irulas (82.3% of the total tribal population), Muduga (9.6% and Kurumbas (4.6%). Among them, Kurumbas are the most primitive, whereas the Irulas are numerically dominant and more advanced. Overall literacy rate of Attappady is 49.55%, in sharp contrast to the rest of Kerala. Not surprisingly, 83 % of the population lives below poverty line.

II. Tribes In Attappady

The tribal communities in the area, namely, Irulas, Mudugas and Kurumbas, belong to the broad group of Dravidians. Among them, Kurumbas were less exposed to and have suffered less from the incursions of plainsmen into Attappady. All the tribal communities are listed as Scheduled Tribes. The tribes in Attappady are most backward among the underprivileged tribal groups in Kerala. The tribal economy is traditional one, characterized by high dependence on agriculture, minimum surplus allocation and general reciprocity within the group. Land mostly forests are the important natural resources and are under different uses, ranging from shifting cultivation to sedentary agriculture.

2.1. Irulas

The Irulas (Irulans or Irulars), the numerically dominant tribe of Attappady, derive their name from their pitch black complexion. Irulas are of Tamil origin and former inhabitants of Coimbatore district. Originally they were shifting cultivators. They used to cultivate millets such as makka cholam or maize (*Zea mays*), ragi or French millet (*Eleusine coracana*) and chama or little millet (*Panicum miliaceum*), pulses (like thuvvara or red gram) and oilseeds (like groundnut and castor seed). As of now, they have added to their cropping pattern almost all the crops cultivated by Tamil and Malayali settlers.

2.2. Mudugas

Mudugas (Mudugars) are the second largest tribal community in Attappady. The name Mudugar is said to have originated from the primitive custom of carrying children on their Muthuku (back) which is not the practice with other tribes of the valley. Mudugas live in remote forest settlements of the Attappady tribal area. They always prefer to remain as far removed as possible from the 'civilized' people from the plain. Like Irulas, Mudugas also practice settled agriculture retaining several features of shifting cultivation. Their principal agricultural products are chama, ragi, rice, red gram, black gram, horse gram, cotton, groundnut, ginger, sweet potato, and tapioca.

2.3. Kurumbas

Kurumbas are one of the most primitive tribal communities in Kerala. They were perhaps the earliest inhabitants of Attappady and are strongly believed to have moved down from the Nilgiris following the colonization of the area by Badugas. Kurumbas also claim that they are the descendants of people who had fled from Mysore during a period of war and hid in the forests. Kurumbas continue to be shifting cultivators and food gatherers. In olden days, they had freedom to cut and burn as much area as they could manage for shifting cultivation. Kurumbas cultivate a variety of crops such as chama, thuvara, jower, black gram, and ragi.

III. Need And Significance Of The Study

The economic development of any state depends on the progress of the agricultural sector. In agricultural environment relevant and timely information helps farmers to take the right decision to the sustained growth of agriculture activities. Use of right information in agriculture is enhancing farming productivity in a number of ways. Providing information on weather trends, best practice in farming, and timely access to market information helps farmers make correct decisions about what crops to plants and where to sell their products. The developments in society depend largely on the availability and access to accurate and reliable information. The information generated from different sources should reach the intended users and ultimately meet their information needs.

Tribals in Kerala have been making important contributions to in our agricultural fields. They engaged in various farming activities such as planting, weeding, harvesting and processing, storage and marketing agricultural products. Many of the tribes in Kerala are agricultural laborers. They are directly involved in the production of some important crops as yams, maize, ragi, ground nuts etc.

We can identify that one of the problem of tribal areas as geographic remoteness. This remoteness manifests itself in various ways, such as remote from social agencies, educational institutions, business activities and information supply sources. The tribal areas as places where people live in scattered and isolated communities that lack electricity, portable water, good roads, hospitals and schools. There are also low employment opportunities in these areas.

The tribal farmers require various types of information for their day to day agricultural activities. But tribal areas in Kerala lack proper information infrastructure and service centres. Tribal farmers are not getting the right information at the right time, leading to slow development of tribal farmers in agricultural development activities. Over years, our tribal farmers depend on indigenous knowledge for improved farming system. Such knowledge refers to skill and experience gained through oral tradition and practice over many generations. Acquisition of such knowledge has not helped to improve agricultural yield. All that is witnessed in our agricultural system range from poor farm yields, emergence of new crops, resistant plant weeds and pests that attack farm crops, old farm methods poor quality fertilizers etc. Agricultural information is always meant to get tribal farmers via extension workers, community leaders, rural libraries radio, television, film shows, documentaries, agricultural pamphlets, state and local government agricultural agencies. Tribal farmers in their effort to access this agricultural information from available sources for better farming system and improved agricultural yield are confronted with certain constraints. Therefore, information is a powerful tool in addressing the agricultural needs and if it is used to properly it could be change nations economic. The present study was designed to identify the information needs and problems which hinder tribal farmers from accessing agricultural information for improved crop production.

IV. Objectives Of The Study

The main objective of the study is to assess the agricultural information needs of the tribal farmers in Attappady Tribal Block of Palakkad District. The specific objectives as follows:

1. Identify the various agricultural information needs of the tribal farmers in the study area.
2. To examine the channels of information communication and sources of information used by tribal farmers
3. To find out major problems encountered by the farmers when accessing and using information
4. To suggest some effective measures to improve the overall situation of information literacy of tribal farmers in Attappady Tribal Block.

V. Methodology

The tool used for collection of data for this study was questionnaire. It was made up of two sections. The first section sought demographic data while the second section contained structures items that were developed through an extensive review of literature in order to ensure content validity of the tool. The population for the study consisted of tribal farmers in Attappady Tribal Block. 150 respondents of three panchayats were selected through the random sampling technique. The study was conducted using survey method. A well-structured interview schedule was developed for data collection. The questions based on the types of information needs, various types of information sources and their purpose of using information sources,

the problems faced by the tribes to access agricultural information. The respondents were personally contacted and rapport was established to get unbiased information. Out of the 150 tribal farmers from three panchayats in Attappady contacted, only 131 had responded. Panchayat wise distribution of respondents presented in table 1.

Table.1: Panchayats wise distribution of Respondents

Sex	Agali panchayat	Pudur panchayat	Sholayur Panchayat	Total
Male	30	28	31	89
Female	15	13	14	42
Total	45	41	45	131

VI. Findings And Discussion

6.1. Socio economic characteristics of the tribal farmers

The socioeconomic characteristics of the tribal farmers were presented in table 2. The socio economic characteristics were examined include age, Education, family size, land holding, and income level.

Table 2: Socio-economic profile of tribal farmers (n=131)

Sl.No	Variables	Category	No.	%
1.	Age	21-30	9	6.9
		31-40	18	13.7
		41-50	46	35.1
		51-60	52	39.7
		61 and above	6	4.6
2.	Family size	Small (up to 4)	52	39.69
		Medium(5-9)	67	51.14
		Large (above 9)	12	9.16
3.	Education	Illiterate	71	54.2
		Neoliterates	23	17.6
		Primary	19	14.5
		Secondary	12	9.2
		Graduate and above	6	4.6
4.	Land Holding	Marginal(below1 acre)	108	82.4
		Small(1-2 acre)	14	10.7
		Medium(2-4)	9	6.9
		Large (4 acre and above)	0	0
5.	Income Level	High	7	5.2
		Average	32	23.7
		Low	96	71.1

The highest percentage (39.7) of individuals belong to the age group 51-60 years followed by the age group 41-50 (35.1%), 31-40 (13.7%), 21-30 (6.9%) and 61 and above (4.6%). This indicates that the elder farmers are mostly participated in the farm activities. Most of the respondents (51.14%) were having Medium family size followed by small family size (39.69%) and large family size (9.16%). The majority of the respondents were Illiterate (54.2%) followed by Neoliterates (17.6%), primary (14.5%), Secondary (9.2%) and Graduate and above (4.6%). Income level of respondents depicts that 71.1% were having a low level of income followed by average (23.7%) and high-level income (5.2%). The majority (82.4%) were possessing marginal (below 1 acre) land, followed by small (10.7%) and medium. The findings show that tribal farmers in the study area are small-scale farmers. Most of the respondents were illiterates (54.2%). The majority of the respondents in the study area should not be able to use the information sources in meeting their agricultural information needs.

6.2. Agricultural information needs of tribal farmers

Agricultural information means data related to agricultural matters which indicate communication among farmers. Paddy, grains and vegetables are the main cultivation done by the tribal farmers in Attappady. Types of responses of the tribal farmers were presented in table 3.

Table 3

Sl.No	Type of Response	No.of Response	Percentage
1	Daily	41	31.29
2	Some times	72	54.96
3	Never	18	13.74

As for the distribution of respondents the information need is concerned, 31.29% of farmers need daily information, while 54.96% of the farmers need information sometimes. 13.74% farmers are stated that they do not need information. Most of the farmers seek sometimes information.

6.3. Areas of information needs of Tribal farmers

The respondents were asked questions to understand their knowledge on agricultural implements, inputs and information sources. The information need was identified by two methods that is information collected through questionnaire and followed with a group discussion in each of the selected panchayats. The investigator asked the respondents the areas of which require for day to day farming activity. The respondents have expressed a variety of information needs related to different areas of agriculture.

Table 4: Areas of information needs of Tribal farmers (n=131)

Sl.No	Area of information needs	Frequency	Percentage
1.	New crop production	118	90.7
2.	Soil preparation	63	48.09
3.	Seeds availability	126	96.18
4.	Storage methods	56	42.74
5.	Insecticide availability	106	80.91
6.	Pesticides application methods	92	70.22
7.	Irrigation	56	44.27
8.	Fertilizer availability	78	59.54
9.	Fertilizer application methods	76	58.01
10.	Weather information	41	31.29
11.	New agricultural equipments	74	56.48
12.	New agricultural methods	74	56.48
13.	Labor availability	34	25.95
14.	Agriculture insurance policy	45	34.35
15.	Harvesting methods	69	52.67
16.	Loan facility	72	54.96
17.	Government scheme	82	62.59
18.	Market information on agricultural information	34	25.95
19.	Transport facilities	24	18.32

The data in table 4 indicate that majority of the farmers need information on availability of seeds (96.18%) followed by new crop production (90.7%), Insecticide availability (80.91%), and pesticide application (70.22%). Other areas that were mentioned by tribal farmers include Government scheme (62.59), Fertilizer availability (59.54%), Fertilizer application methods (58.01%), New agricultural equipments and New agricultural methods (56.48%), Loan facility (54.96%), Harvesting methods (52.67%), Soil preparation (48.095), Irrigation (44.27%), Storage methods (42.74%), agriculture insurance policy (34.35%), Weather information (31.29%), Market information on agricultural information (25.95%), and Labor availability (25.95%) and transport facility (18.32%). The table reveals that the tribal farmers required information on seeds, crop production and insecticide availability.

6.4. Sources of agricultural information

Farmers' ability to search for information depends on the sources that are accessible to them. There were several information sources used by tribal people in the study area. The information sources used and their percentage distribution presented in table 5

Table 5: Sources of Information (n=131)

Sl.No	Sources of Information	Frequency	Percentage	Rank
1	Government Office	32	24.42	III
2	Extension officials	32	24.42	III
3	Public Rural Library	18	13.74	IV
4	Community leaders	89	67.93	II
5	Magazines	18	13.74	IV
6	Newspaper	18	13.74	IV
7	Brochure/ posters	18	13.74	IV
8	Television	32	24.42	III
9	Radio	0	0.0	
10	Other farmers	118	90.07	I

Table 5 shows that the major source for getting agricultural information. It reveals that other farmers (90.07%) and Community leaders (67.93%) were the most often used sources by the respondents to obtain information on agriculture. The least source of information was television (24.42%), Extension officials and Government office (24.42%), public rural library (13.74%), newspapers (13.74%), magazines (13.74%), brochures and posters (13.74%). Radio was not used by the respondents. This investigation shows the main source for acquiring information is the fellow farmers. The fellow farmers were among the highly rated sources of information to tribal farmers who revealed that they rely on interpersonal communication for farm specific information.

6.5. Major problems faced by the tribal farmers

There are many problems that the tribal farmers have to go through while seeking information. The high rate of population growth, poverty, health problems, a small size of holdings, illiteracy, unemployment, land alienation are the common problems faced by the tribals. They are largely isolated from the mainstream of life and development.

Table 6: Problems faced by the tribal farmers (n=131)

Sl.No	Problems	Frequency	Percentage
1	Illiteracy	71	54.19
2	Ignorance of information sources	71	54.19
3	Inability to access formal channel of information	94	71.75
4	Low level of income	96	73.26
5	Lack of personal interest and special knowledge	94	71.75
6	Language barrier in accessing information	94	71.75
7	inadequate contact to extension officers	32	24.42
8	Agricultural information on radio and television is always aired at odd hours	32	24.42
9	Ignorance of government responsibility	71	54.19
10	Unavailability of information centres	18	13.74
11	Negative attitude of Government officials	32	24.42
12	Cultural beliefs	89	67.93
13	Poverty	96	73.26

A high rate of illiteracy (54.19%) and ignorance of information sources (54.19%) which also affect the efficiency of the agricultural practice and information use. Inadequate contact to extension officials (24.42%), Negative attitude of Government officials (24.42%), agricultural programmes in television and radio (24.42%) and unavailability of information centres (13.74%) were identified as the significant problems the tribal farmers faced today.

VII. Findings And Discussion

The investigator found that most of the tribal farmers of Attappady Tribal block are required information relating to their agricultural activities. The findings as follows:-

1. The tribal farmers in the study area are small-scale farmers. Most of the respondents were illiterates and should not be able to use the information sources in meeting their agricultural information needs.
2. Majority of the farmers need information on the availability of seeds, new crop production, insecticide availability.
3. The tribal farmers did not access formal Information Centre (library). Most tribal farmers were illiterate and did not know libraries are the potential providers of useful information.
4. The biggest weakness of the agricultural sector in Attappady Tribal Block is that the farmers are unable to obtain useful and reliable information.
5. The study revealed that existing information sources that provided tribal farmers with information were constrained by a number of factors. These include illiteracy, ignorance of information centres and sources, language barrier, widespread poverty, low-level income and unreliable information.

VIII. Conclusion

Many years ago a majority of the tribal people left agriculture as a means of livelihood. Many had lost their lands and those who still owned land had inadequate means to cultivate it. The absence of irrigation and marketing facilities worsened the matters. Many of them still hold a good extent of land and their main occupation was agriculture. The study has reported the needs and priorities of the tribal farmers. Many problems like lack of knowledge about various cultivation methods, non-availability of basic agricultural inputs on time, the inadequacy of labourer, high rate of illiteracy were faced by the tribal farmers. These problems caused them to access agricultural information properly. Based on the prevailing situation the study provides some recommendations for meeting the information needs of tribal farmers in Attappady.

1. Agricultural extension officials should concentrate the information needs of the tribal farmers in the areas of pesticide, fertilizer and improved farm activities.
2. Adult literacy education programme is required to help tribal farmers acquire basic skills and abilities to seek needed agricultural information through modern communication channels.
3. Government should encourage tribal farmers by giving them special attention in terms of access to needed farm inputs.
4. Needed infrastructural facilities are made available to ensure effective mass media support for information dissemination.
5. Tribal farmers should be considered in terms of granting loans to improve their production capacity to

ensure food security.

6. ICT-based agricultural information system should be developed to encourage modern production technology in the tribals areas especially Attappady.

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