UTILIZATION OF SOURCES OF FARM INFORMATION IN RELATION TO ADOPTION OF IMPROVED AGRICULTURAL PRACTICES*

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Introduction

THE importance of farm information to farmers in the adoption process has been recognised with increased impetus of agricultural development work in Community Development Blocks. The farmers secure information from many sources other than the Agricultural Extension Workers. Part of these are rendered by neighbours, friends, relatives, school teachers, members of Panchayat and Agricultural Colleges. Important as these agencies are in the dissemination of information, it is with the Agricultural Extension Agency and particularly the Village Level Workers that the major responsibility lies. The present study was designed to find out : (i) the extent of utilization of sources of information by farmers at different stages of adoption (ii) the relationship between the extent of utilization of sources of information and type of farm practices and (iii) to provide information to the Block staff for efficient planning for their different channels of communication.

Review of Literature

Lionberger (1949) while studying distinct stages in adoption process observed that usefulness of sources of information varied with different stages in the adoption process. Beal (1956) found that personal sources exercised a disproportionately large influence at the evaluation or "decision to try" stage where local legitimation was a requisite to further action. Wilkening (1956) reported that the mass media had proved highly valuable in making farmers aware of the improved pratices. Beal and Bohlen (1957) assessed the usefulness of a source as a notifying, interest-creating, informing, legitimatising and/or a reinforcing agent. Beal and Rogers (1960) observed that from personal sources there was an increase in percentage of respondent from 37 per cent at the awarness stage to 50% at the interest stage 63% at the evaluation stage and 50% at the trial stage. Rahim (1960) concluded that impersonal sources of information were very important in the awareness stage, informed personal sources were most important in the information stage, while formal personal sources (agency personnel) were most important in the trial stage. Pandit (1962) reported that highest percentages of information for different practices were obtained from the Village Level Workers followed by neighbours and meetings in the villages. Singh (1962) remarked that use of mass media should never be neglected in the initial phases of introduction of a practice. Another investigator Singh (1963) reported that impersonal information sources were most important at the evaluation stage in the adoption process.

Area of Research and Methodology

Th nature of the problem and the practices selected for the study made a definite demand for the field investigation in Paddy growing tract of Community Development Block, Sabour attached to Bihar Agricultural College. Of the four main paddy growing sets, a set of three contiguous villages namely Parghari, Kashil and Siargarh of a Panchayat was selected as the area of research. Of 179 farm families, 72 respondents were selected which formed 40 per cent sample of the entire farm families.

The sample was drawn by simple radom sampling method. The study reported here was limited to three agricultural practices namely (i) use of fertilizers, (ii) use of improved seeds of paddy and (iii) use of mouldboard plough. Interviews with schedules, participant and non-participant observations, diary, personal contact and content analysis were the research techniques used in this study. The sources of information were grouped under two heads namely institutionalized and non-institutionalized. Village Level Worker, Agricultural Extension Supervisor, Block Development Officer, Panchayat, Cooperative, Schools and Colleges, Agricultural College and other Block personnels were the ones considered as institutionalized sources. Non-institutionalized sources comprised neighbours, relatives, friends and associates and village leaders. As regards channels of communication, demonstration, exhibition, published materials, radio, cinema, tours and visits were the ones considered in this study. The study was conducted during the year 1964.

Findings

To assess the utilization of different sources of information in regard to improved agricultural practices, a list of sources was read before the farmers. They were requested to give their opinion about utilization in order of preference. Village Level Workers, Agricultural College, Agricultural Extension Supervisor, Block Development Officer, Panchayat, Cooperative and Schools and Colleges were listed in order of preference among the institutionalized sources. Neighbours, relatives and associates, and village leaders were mentioned among non-institutionalized sources. As for channels of communication or media; demonstration, cinema, radio, publications and tours and visits were mentioned in order of importance and utilization. It is apparent from Table 1, 2, & 3 that village level worker in the institutionalized group and neighbours in the non-institutionalized group were the most important sources of tnformation utilized by farmers. Demonstration was most commonly used channel of communication. Taking institutionalized and non-institutionalized groups together, it was noticed that neighbour was the most important source of information followed by the village level workers.

One type of data from which source preference for specific purposes could be inferred was use of data relating to where farmers got most of information from, about a specific practice.

(a) *Fertilizer*. In case of fertilizer, as is evident from Table 1, village level worker was the most utilized source in all stages of adoption. Use of V. L. W. is increasing from awareness (36.2 per cent) to trial stage (60.0 per cent) and suddenly declines at adoption stage (33.3 per cent). This is because of the fact that fertilizer application needs technical information. The sharp decline at adoption stage indicates that after the farmers are convinced about the effectiveness of practices, the services of a V.L.W. is less utilized for information regarding this practice. Agricultural College occupied second position at awareness (23.2 per cent) and interest (27.0 per cent) stages. The Agricultural Extension Supervisor came third in all the five stages. As he is the man technically qualified and competent, located at Block level and who always renders his personal services to farmers, he commands a respect of confidence and is

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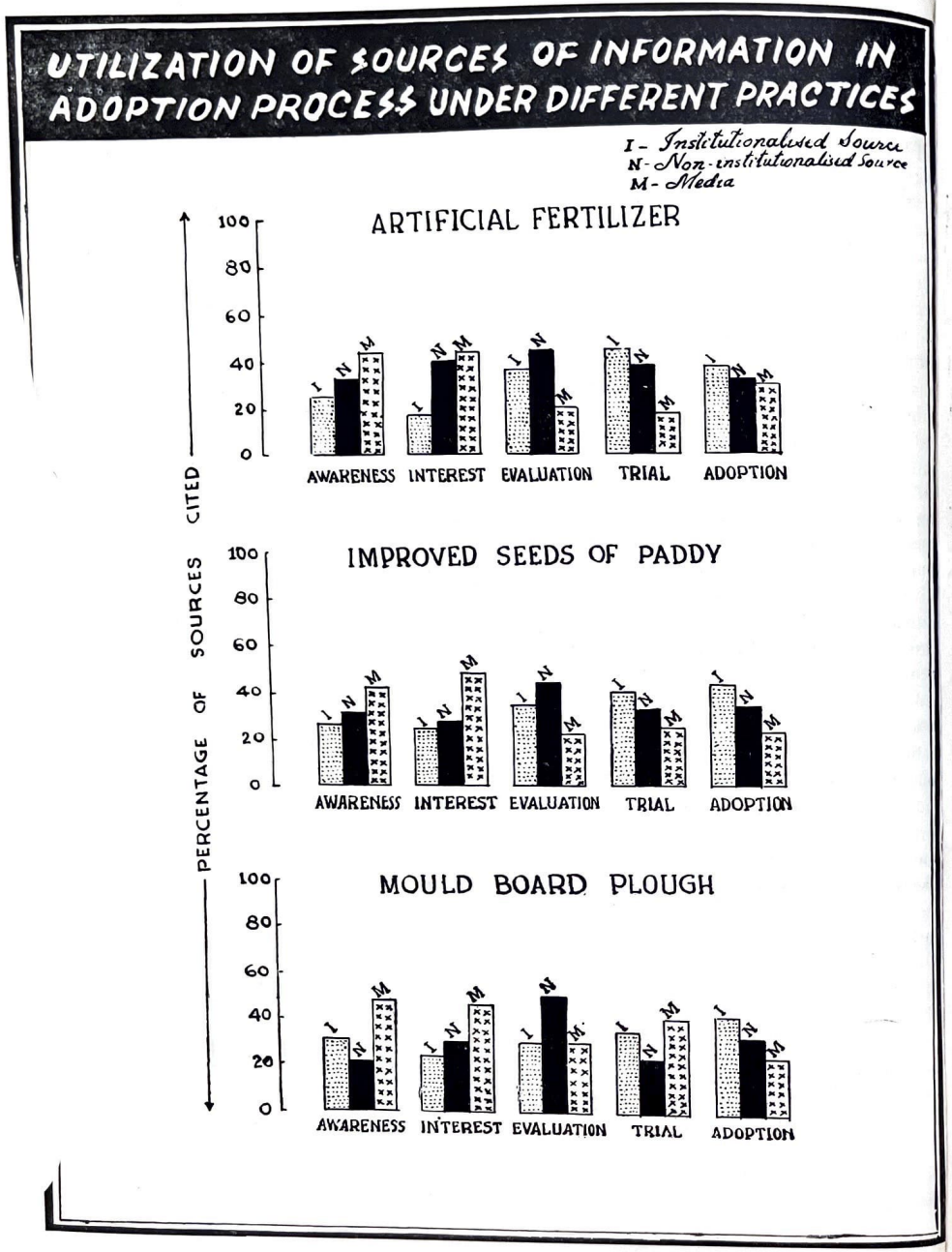

TABLE 1

Utilization of Sources of Information and Channels of Communication at Different Stages in Adoption of Fertilizer

Stage / *Source and Channel*	*Awareness N=69*		*Interest N=63*		*Evaluation N=50*		*Trail N=45*		*Adoption N=40*	
	Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
V.L.W.	6	36.2	5	46.0	8	55.0	12	60.0	5	33.3
A.E.S.	2	11.6	2	18.0	3	16.5	3	15.0	—	—
B.D.O.	2	21.6	—	—	2	11.0	2	10.0	—	—
Panchayat	1	5.8	—	—	1	5.5	—	—	4	27.1
Cooperative	1	5.8	—	—	1	5.5	—	—	3	19.8
Schools and Colleges	1	5.8	—	—	—	—	—	—	—	—
Agricultural College	4	23.2	3	27.0	1	5.5	3	15.0	1	6.6
Other Block Personnels	—	—	1	9.0	2	11.0	—	—	2	13.2
Total	17	100.0	11	100.0	18	100.0	20	100.0	15	100.0
Neighbours	12	54.8	15	60.0	12	54.4	10	59.4	4	31.0
Relatives	6	27.1	4	16.0	3	13.6	5	29.0	6	46.0
Village leaders	4	18.1	6	24.0	7	31.8	2	11.6	3	23.0
Total	22	100.0	25	100.0	22	100.0	17	100.0	13	100.0
Demonstration	15	50.0	12	44.5	4	40.0	8	100.0	12	100.0
Exhibition	7	23.6	6	22.2	1	10.0	—	—	—	—
Newspaper and other published material	2	6.6	2	7.4	—	—	—	—	—	—
Radio	2	6.6	2	7.4	—	—	—			
Cinema	3	9.9	4	14.8	3	30.0	—	—	—	—
Tours and Visits	1	3.3	1	3.7	2	20.0	—	—	—	—
Total	30	100.0	27	100.0	10	100.0	8	100.0	12	100.0

d.f.=8, χ^2=20.322, Significant at P=.05

TABLE 2

Utilization of Sources of Information and Channels of Communication at Different Stnges in Adoption of Improved Seeds of Paddy

Stage / Source and Channel	Awareness N=64		Interest N=58		Evaluatian N=46		Trial N=39		Adoption N=35	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
V.L.W.	5	29.0	6	50.3	6	37.4	6	37.4	5	33.3
A.E.S.	2	11.6	2	14.2	3	18.7	3	18.7	2	13.2
B.D.O.	—	—	—	—	2	12.6	—	—	1	6.6
Panchayat	2	11.6	2	14.2	3	18.7	2	12.6	4	27.1
Cooperative	—	—	—	—	—	—	—	—	—	—
Schools and Colleges	1	5.8	1	7.1	—	—	2	12 6	—	—
Agricultural Colleges	6	36.2	2	14.2	2	12.6	3	18.7	2	13.2
Other Block Personnels	1	5.8	—	—	—	—	—	—	1	6.6
Total	17	100.0	14	100.0	16	100.0	16	100.0	15	100.0
Neighbours	12	60.0	8	50.0	10	50.0	6	46.0	4	33.3
Relatives	2	10.0	3	18.7	6	30.0	3	23.0	5	41.7
Village leader	6	30.0	5	31.3	4	20.0	4	31.0	3	25.0
Total	20	100.0	16	100.0	20	100.0	13	100.0	12	100.0
Demonstration	12	44.5	15	54.5	4	40.0	5	50.0	5	62.5
Exhibition	5	18.5	5	17.5	3	30.0	2	20.0	—	—
Newspaper and other published materials	2	7.4	2	7.0	—	—	—	—	—	—
Radio	3	11.1	2	7.0	—	—	1	10.0	1	12.5
Cinema	4	14.8	1	3.5	2	20.0	—	—	1	12.5
Tours and visits	1	3.7	3	10.5	1	10.0	2	20.0	1	12.5
Total	27	100.0	28	100.0	10	100.0	10	100.0	8	100.0

d.f.=8, χ^2=15.683, Significant at P=.05

TABLE 3

Utilization of Sources of Information and Channels of Communication at Diffarent Stages in Adoption of Mould Board Plough

Stage / Source and Channel	Awareness N—61		Interest N=29		Evaluation N=20		Trial N=17		Addoption N=12	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
V.L.W.	5	26.0	2	22.0	2	33.4	4	66.7	3	60.0
A.E.S.	—	—	1	11.1	1	16.6	—	—	2	40.0
B.D.O.	—	—	—	—	—	—	—	—	—	—
Panchayat	3	15.6	1	11.1	3	50.0	2	33.3	—	—
Cooperative	1	5.2	1	11.1	—	—	—	—	—	—
Schools and Colleges	2	10.4	—	—	—	—	—	—	—	—
Agricultural College	8	42.8	4	44.5	—	—	—	—	—	—
Other Block Personnels	—	—	—	—	—	—	—	—	—	—
Total	19	100.0	9	100 0	6	100.0	6	100.0	5	100.0
Neighbours	8	61.7	5	41.7	5	50.0	1	25.0	1	25.0
Relatives	3	23.0	3	25.0	3	30.0	2	50.0	1	25.0
Village leaders	2	15.3	4	33.3	2	20.0	1	25.0	2	50.0
Total	13	100.0	12	100.0	10	100.0	4	100.0	4	100.0
Demonstration	7	24.6	6	33.3	4	100.0	5	71.6	3	100.0
Exhibition	8	27.4	5	27.9	—	—	1	14.2	—	—
Newspaper and other published materials	3	10.3	2	11.1	—	—	—	—	—	—
Radio	4	13.7	2	11.1	—	—	—	—	—	—
Cinema	3	10.3	3	16.6	—	—	—	—	—	—
Tours and Visits	4	13.7	—	—	—	—	1	14.2	—	—
Total	29	100.0	18	100.0	4	100.0	7	100.0	3	100.0

d.f.=8, χ^2=9 634, Non-Significant at P=.05

therefore, used as a source of information mostly at evaluation (16.5 per cent) and trial 15.0 per cent) stages. Other institutionalized ɔurces were utilized in few cases varying from .8 to zero per cent. The lower use of other ɔurces lends credence to the lack of confidence nd interest on the part of farmers to seek information from sources other than those menioned above. Although farm information may ɔe had from Block personnel such as village level workers, the Agricultural Extension Supervisor, Bihar Agricultural College, Sabour, their use depended upon initiative on the part of farmers. In most of the cases the farmers get information at their village from Block personnel and when the farmer wants to get more information about a particular practice, he looks forward towards the Agricultural College.

With respect to infomation from non-institutionalized sources, farmers made most frequent use of neighbours. They were specially important at interest (60.0 per cent) and trial stages (59.4 per cent). Associates, relatives and members of family came next to neighbours at awareness (27. 1 per cent) and trial (29.0 per cent) stages. They were the most important sources at the adoption stage (46.0 per cent) because they are to be most depended upon in time of risk and uncertainty due to certain action. Village leaders were most utilized source of information at evaluation stage (31.8 per cent) because they are looked up to for advice and are superior in ability.

As for channels of communication, demonstration was rated the most important channel of communication to farmers because it exhibited the skills of doing the practices and gave them opportunity to make use of the maximum numbers of senses for learning. Demonstration was followed by exhibition. Every year such an agricultural exhibition is held in each block as an extension method under special grant of Rs. 500 per block. Documentary films occupied the third position because they are screened every now and then in the block on improved agricultural practices.

Statistically, the relationship among these was highly significant at 5% probability level, the value of chi-square being 20.322. This showed that the utilization of sources of farm information was positively related to the stages in adoption.

(b) *Improved Seeds of Paddy* : A similar trend as found in the case of fertilizer was also noticed in case of improved seeds of paddy as is apparent from Table 2. The village level worker was rated first as source of information in all the stages except in the awareness stage (only 29 per cent) at which the Agricultural College (36.2 per cent) was the most important source. This is due to its long existence. Other sources were very poorly used in all the stages. Reasons for the use of these sources may be similar to what were mentioned in case of fertilizer.

With respect to non-institutionalized sources, neighbours ranked first in all the stages except at the adoption stage (only 33.3 per cent) where associates, relatives and members of family were preferred. Village leaders occupied intermediate position at awareness (30.0 per cent), interest (31.3 per cent) and trial (31.0 per cent) stages.

Demonstration was the most important channel in all the stages, more so in the adoption (62.5 per cent) stage. Exhibition came next in all the stages, its use being maximum at evaluation (30.0 per cent) stage. Other channels were rarely mentioned. Reasons for the preference of channel may be the same as in case of fertilizer.

Statistically, the relationship was significant at 5 per cent probability level, the value of chi-square being 15.683. Hence the utilization of sources of farm information was significantly related to the stages in adoption.

(c) **Mould Board Plough** :—Again the village level worker was considered to be the most important source as is evident from Table 3. His use as a source was maximum at trial (66.7 per cent) and adoption (60.0 per cent) stages because of the technical nature of the practice. At awareness (42.8 per cent) and interest (44.5 per cent) stages, the Agricultural College was the most important source due to the fact that this implement has been in use since long on this college farm. Members of panchayat were consulted mostly at evaluation (50.0 per cent) stage.

Out of non-institutionalized sources, neighbours formed the most common sources of information at each stage. However, their use as a source varied with stages in the adoption. At awareness stage their use was maximum (61.7 per cent) and declined to 25.0 per cent in adoption stage. This decline many be due to the fact that they are not well informed about the techniques of practices. The gap is filled up by the use of institutionalized sources and village leaders.

Demonstration was preferred in all stages excepting the awareness stage (24.6 per cent) where exhibition (27.4 per cent) of implements attracted more attention than any other channel of communication.

Statistically, however, the relationship was non-significant at 5.0 per cent probability level, the value of chi-square being 9.634. Percentage distribution and the value of chi-square, however indicated that there was a tendency towards positive relationship between the two.

It is apparent that almost without exception the village level worker was rated to be the most important institutionalized source of information with all the three practices under study as he is most closely a ociated with farmers. The Agricultural College which has been in existence for the last several years occupied the second position. The Agricultural Extension Supervisor who is technically qualified in agriculture ranked third as source of information. With respect to use of information from non-institunalized sources, farmers made most frequent use of their neighbours in almost all the stages of adoption process. In adoption stage, the services of associates, friends and members of family were found to be more valuable and useful. Village Leaders were consulted more in evaluation and trial stages. Demonstration was rated the most important channel of communication in respect to all practices followed by exhibition. Film shows came third.

CONCLUSION

In general, the non-institutionalized sources of information were rated high over institutionalized sources in the initial stages of adoption, whereas the institutionalized sources of information were rated high over non-institutionalized sources in the advanced stages of adoption. Comparatively, the non-institutionalized sources were preferred at awareness, interest, and evaluation stages whereas institutionalized sources were preferred at trial and adoption stages. The village level worker was considered to be the most important source of information in all stages of adoption as having ready access to farmers. Only in the case of evaluation and trial stages was there a tendency on the part of farmers to seek advice of the technical specialist (Agricultural Extension Supervisor). The Agricultural College was looked up to for more technical and advanced knowledge. The sources chosen for information were predominantly personal in nature. However, the order of preference was V.L.W., Agricultural College and A.E.S., of the non-institutionalized sources; neighobours, relatives

and friends, and village leaders were used in order of preference as sources of information. Among media, Demonstration was the best channel of communication followed by exhibition and film shows.

The educational and service agencies of a community Department Block should make maximum use of non-institutionalized sources of information at the early stages of adoption. The panchayat members, school teachers and members of co-operative societies should be regularly oriented towards improved farm practices and should be geared up in the educational programme of a Block. The Agricultural College should be made responsible for imparting training to supervisory staff of Blocks and progressive farmers and publish technical bulletins in Hindi to satisfy the information needs of farmers.

The Block staff should extend all types of information needed by farmers and work through such media as demonstration, group discussion, exhibits, film shows etc. in extending their information.

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