INTERPERSONAL COMMUNICATION BEHAVIOUR OF MEMBERS OF GROUP FARMING COMMITTEES IN THE ADOPTION OF RICE PRODUCTION TECHNOLOGY

By

VIPINKUMAR. V. P.

THESIS

Submitted n partial fulfilment of the
requ rement for the degree

Master of Scienre in Agriculture

(AGRICULTURAL EXTENSION)
Faculty of Agr culture
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Department of Agricultural Extens on
COLLEGE OF HORTICULTURE
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DECLARATION

I hereby declare that this thesis entitled **"Interpersonal Communication Behaviour of Members of Group Farming Committees in the Adoption of Rice Production Technology"** is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

Vellanikkara

16-6-1994

VIPINKUMAR, V.P.

CERTIFICATE

Certified that this thesis entitled **"Interpersonal Communication Behaviour of Members of Group Farming Committees in the Adoption of Rice Production Technology"** is a record of research work done independently by **Mr.Vipinkumar, V.P.**, under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship, associateship or other similar titles to him.

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VIPINKUMAR, V.P.

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CHAPTER-I

INTRODUCTION

Kerala witnessed a novel strategy for paddy cultivation commencing from the kharif season of 1989. This great kharif experiment namely 'Group Farming' for rice development has been widely acclaimed by one and all to be of maximum benefit to paddy cultivators for obtaining better yields with lower cultivation expenses.

Rice cultivation in Kerala was indeed facing a crisis. It has become a nonremunerative proposition and consequently the area under paddy cultivation began to dwindle season after season. At the same time, the requirement of rice was going up year after year. Now there is only 5.41 lakh hectares under rice (F.I.B., 1994). Eventhough all the conditions congenial for paddy cultivation such as good varieties, heavy rainfall, availability of plant protection measures and fertilizers, machinery for land preparation etc. are available and the price of rice was somewhat reasonable, our paddy area was dwindling by 2000 ha/year. The only way out for facing the situation was to enhance the productivity and reduce the cost of production simultaneously by transferrring the modern technology to our lakhs and lakhs of small holders. The increasing productivity drop prompted the Government to adopt the new strategy of massive involvement of farmers on group basis to take up rice cultivation adopting modern farming technology.

Group Farming is in effect a massive technology transfer programme, in which thrust is given to unite farmers and take up paddy cultivation by adopting modern scientific methods of cultivation. Considering the specialities of farming

conditions in Kerala, it was evident that group management was the only answer to make available to our farmers, the fruits of modern technology (K.A.U., 1989).

The thrust areas identified for bringing down the cost of cultivation were:

1) Introduction of power tillers/tractors for land preparation

2) Use of weedicides

3) Planned sowing and community nursery raising

4) Fertilizer application based on soil test data and combined action for getting fertil izers at site

5) Agroclinics for crop care

6) Integrated pest management and need-based application of pesticides

7) Making irrigation water available in critical plant growth stages

To start with, Group Farming could be extended in 62,000 hectares in the kharif season of 1989, involving over 1.6 lakh farmers, covering more than 3000 *padasekharams*. The required leadership could be extended to the farmers for carrying out the programme through 900 Krishi Bhavans. *Padasekharam* is a cluster of rice fields.

The reorganised set up of State Department of Agriculture with Krishi Bhavan in every panchayat, Municipality and Corporation, with a functional and representative advisory body to formulate, guide and implement location specific agricultural schemes emerged as a big promise for this programme of rice development. The popular acceptance received by Krishi Bhavans and its capacity to ensure people's participation for effective technology transfer exercised at microlevel encourages thinking at the highest level initiating a massive development programme for rice.

Individual farmer retains his ownership of land and yield, and is free to take decisions on management practices in Group Farming. The operations, purchase of inputs, water management, plant protection etc. are undertaken on group basis. In these ways it is different from collective or co-operative farming.

The harvest of paddy in Group Farming fields was a morale booster to participant farmers. It proved that from every hectare, on an average, a minimum additional yield of 500 kg rice and a saving in cultivational expenses of Rs.1000/- could be ensured (Menon, 1993). The success of the Group Farming strategy achieved in the short span gave confidence to the farmers to adopt group approach in paddy cultivation in subsequent years also.

Group Farming approach in rice is acclaimed as a practicable solution for the improvement of paddy cultivation and the farmers and public have accepted it whole heartedly because it proved to be successful in reducing the cost of cultivation in rice significantly along with increasing the production and productivity of rice fields. This model has an added advantage of helping the marginal farmers to adopt improved cultivation practices which were not easily feasible for them on individual basis. The success of this model has encouraged the administrators to extend the same to coconut as well as pepper cultivation in the state later. Experiences and observations indicated that informal interpersonal communication network that is existing among the members of a Group farming committee was significantly contributing to the diffusion of location specific and problem oriented improved agricultural technologies which helped to make the decisions more collective and democratic. The transfer of rice production technologies among the Group farming

committee members takes place mainly through 'word-of-mouth' communication. But, a farmer needs to know not only about technical messages necessary for improving production and reducing cultivational expenses, but also the much desired "communication skills" to give effect to the transfer of technologies thus known. Obviously, the success of Group Farming system would depend on the efficiency with which the committee members communicate the technologies to their peers.

Diffusion researches conducted in the past bring evidence to the fact that farmers consulted more of interpersonal information sources than mass media sources to gather information on agricultural aspects. The epochal statement made by Rogers (1973) bears ample testimony to this. According to his epitomisation: The 'word-of-mouth' communication that occurs in face-to-face interaction between two or more individuals is the most potential source in the diffusion of innovations in the world over, particularly in the developing countries. According to Murthy and Singh (1974), research studies which throw light on the intricacies of interpersonal communication behaviour of farmers are very hard to come by. However, adequate empirical data are not available regarding the interpersonal communication network among Group Farming committee members. Another significant aspect that could be cited here is the interplay of members' personal and socio-psychological characterisation in their interpersonal communication behaviour. It has been repeatedly pointed out that a study on farmers' communication behaviour would be incomplete if their personal and socio-psychological characteristics are not taken into account (Sandhu and Darbarilal, 1976; Channegowda, 1977; Bhaskaran, 1979; Kareem, 1984; Manandhar, 1987).

In view of the foregoing observations, the present investigation was

undertaken to study the interpersonal communication behaviour of members of Group farming committees in the adoption of rice production technology, with a set of distinct objectives.

Objectives of the study

The specific objectives of the study were

1) To identify the Interpersonal Communication Behaviour Efficiency (IPCBE) of the members of Group Farming committees.
2) To assess the influence of the selected personal and socio-psychological characteristics of the members of the Group Farming committees on their inter-personal communication behaviour efficiency.
3) To study the perceived group cohesiveness in relation to interpersonal communication behaviour efficiency of the members of Group Farming committees.
4) To assess the extent of information flow for adoption of rice production technology through interpersonal means.

Scope of the study

The study, which intended to measure the interpersonal communication behaviour of members of Group Farming committees was the first of its kind on the topic. It analysed the significant factors, their relative importance and also their direct and indirect effect on interpersonal communication behaviour. Moreover, the study has attempted to measure the perceived group cohesiveness of members of the committee as a result of the IPCBE of the members and the extent of information flow for adoption of rice production technology through interpersonal means. The

empirical knowledge about these aspects was expected to give valid revelations on the interpersonal communication functions of the committee members. The findings of the study might give useful insight on the feasibility of using the interpersonal communication network in the transfer of technology process. The analysis of perceived group cohesiveness and extent of information flow might give important indications on strengthening the working of these action groups.

Limiations of the study

All the efforts for any achievement may not click at a time due to circumstantial limitations. Likewise, this study was also not beyond the limitations. One of the obvious limitations was that, a single student research project of this mangitude at the Master's Degree level covered a vast area of four districts in Kerala State. During the period of study, the irreversible time, resources and intermittent financial constraints were the next irrefutable limitations.

The ex post facto research design itself had some impediments, though it was the only suitable design for this particular study. The restricted sample size, though it was within the framework of standard sampling procedures, was another limitation to be pronounced here. Since the study was based on the expressed opinion of the respondents, it may or may not be free from their individual biases and prejudices. However, every possible care was taken to dig out maximum accuracy right from the very beginning of the research to the end. Hence it is hoped that, the findings of this study will be much applicable for the same and similar areas and helpful for the succeeding investigations on interpersonal communication behaviour in Kerala.

Presentation of the study

The study is presented in five chapters. The first chapter deals with the introduction covering the statement of the problem, objectives, scope and limitations of the study. The review of related literature in the light of the present investigation and the conceptual framework are given in the second chapter. The third chapter contains the methodology adopted for the conduct of the study. The results and discussion are presented in the fourth chapter. The fifth chapter summarises the study followed by references, appendices and the abstract of the thesis.

Theoretical Orientation

CHAPTER-II

THEORETICAL ORIENTATION

This chapter is aimed at developing a theoretical frame work based on the review of past research studies related to interpersonal communication behaviour. A review of all the past efforts would help to identify the variables that are relevant to the area of present research and to presume the probable relationships among them. Hence, an attempt is made here to present the available literature, directly or indirectly related to the topic. They are given under the following main heads.

2.1. Concept of Group

The word "group" is used in everyday language to stand for a collection of individuals or things contingent to one another over some period of time. it has been defined in different ways by different authors. Smith (1945) defined social group as a unit consisting of plural number of separate organisms who have a collective perception of their unity and who have the ability to act/or are acting in a unitary manner towards this environment.

Sherif and Sherif (1956) defined group as a social unit which consists of a number of individuals who stand in (more or less) definite status and role relationships to one another and which possesses a set of values or norms of its own regulating the behaviour of individual members, at least in matters of consequence to the group.

Mc David and Harari (1968) defined a social psychological group as an organized system of two or more individuals who are interrelated so that the system performs some functions, and has a standard set of norms that regulate the function of the group and each of its members.

Groups are not only essential and beneficial for the enterprise, they also have advantages for individuals by providing social statisfaction and security and by promoting communication, as remarked by Koontz and O'Donnel (1976).

Sharma (1979) explained the groups to have the characteristics such as relationship of group members to each other, a sense of unity, a sense of we feel ing, common interests, ideals and values of group members, similarity of behaviour of members and control of action of members by the group.

Interaction within the group

A group may be regarded as an open interaction system in which actions determine the structure of the system and successive interactions exert coequal effects upon the identity of the system (Stogdill, 1948).

Homans (1950) used the notion of interpersonal communication to define group as a number of persons who communicate with one another often over a span of time, and who are far enough so that each person is able to communicate with all the others, not at second hand through other people, but face-to-face.

A group is a number of people in interaction with one another, and it is this interaction process that distinguishes the group from an aggregate (Bonner, 1959). Cartwright and Zander (1968) explained interaction as a form of interdependence. According to them, this form of interdependence is the essence of "groupness" and hence have based their definitions of group upon this aspect. Although each of these definitions includes other elements, the central concept in each seems to be interaction among group members. The definition of Homans used the notion of interpersonal communication, but in some sense, interpersonal communication can be considered isomorphic with interaction. It is difficult to identify an instance of interpersonal communication that does not imply interaction, and vice versa. Any given group probably involves many types of interaction, such as verbal, physical or emotional; hence specification of type of interaction in defining group would be unduly restrictive.

The definitions in terms of interdependency or interaction more directly delineate the basic elements of the concept "group". If a group exists, then it may be

assumed that its members (1) are motivated to join the group (and hence expect that it will satisfy, some of their needs) and (2) are aware of its existence, i.e. their perceptions are veridical.

Furthermore, it is a common observation that when incividuals interact, even for brief periods, differentiations begin to develop. Some persons contribute more to group processes than others, some are valued more than others, and certain approved patterns of behaviour appear. Finally, it is not obvious that a common goal is an essential characteristic of a group. It is atleast theoretically possible for a group to meet only individual goals. So to summarise motivations of members may account for the formation of a group; the group members may veridically perceive that the group exists or that they are members of a group; and organization may be an inevitable consequence of group process. Since the interaction of all the members of group improves the group productivity, it is more than the individual's productivity.

An individual brings certain characteristics which are peculiarly his own to the group. These include, his interests, his abilities, his desires, or wishes as well as his blocks and frustractions and his adjustments to them - in other words, his "personality". All these items of individuality as forces contribute to the dynamics of the group. In addition to these forces, certain other forces seem to develop as a result of the interaction between individuals. These are the properties of the group as a whole. The summation, integration and resolution of all these forces have been labelled the dynamics of the group.

2.2. Concept of Group Management in Farming

The fragmentation of agricultural land with little or no resources with the

owner farmers for the efficient utilization of the holdings is one of the main causes for low agricultural production and productivity in India. While about 75 per cent of the operational holdings in India belongs to the small and marginal category (<2 ha). (In Kerala, the corresponding figure is 87 per cent). These small holdings are uneconomic for the optimum use of resources, adoption scientific technology, efficient management of farm operations etc. The concept of group management in Kerala owed its origin to the factors mentioned above. Moczarski (1975) reported that organizing potato farmers in a group in Lesothos had helped in increasing the production and reducing the cost. The results were so encouraging that during the next season another group of farmers volunteered to pool their land and to grow the crop under Group Farming System.

Swaminathan (1988) stated that group endeavour should be promoted in areas like land and water management, pest management, nutrient supply and post harvest technology. Unless there is individual initiative, group endeavour and government support become mutually reinforcing, the efficiency of small farm management will continue to be low. Cultivation of crops, dairying, poultry etc. have been brought under group management with varying degrees in countries such as Java, Bali, Taiwan, Mexico, Colombia, Malaysia and Indonesia, besides India, as reported by Menon (1990).

According to Raghavan (1990) Kerala witnessed a novel strategy for paddy cultivation commencing from kharif season of 1989. This experiment, namely, "Group Farming for Rice Development" had been widely acclaimed by one and all, to be of maximum benefit to paddy cultivators, for obtaining higher yields with minimum cultivation expenses. He opined that considering the specialities of farm-

ing conditions in Kerala, it was evident that Group Management was the only answer to make available the benefits of modern technology to our farmers.

2.3. Committee

The committee is the most important type of formally designated group found in today's organizations. They mostly serve as a focal point for the exchange of different view points and information but some may make major decisions. Haimann and Scott (1970) defined committee as a group of people who function collectively. Committee has been defined by Koontz and O'Donnel (1976) as a group of persons, to whom, as a group, some matter has committed.

Committees may be referred to as teams, commissions, boards, groups or task forces, according to Luthans (1981). Committees have specified duties and authority. They might act in a service, advisory, coordinating, informational or final decision making capacity. In the decision making functions, committee acts in a line capacity and is termed as "plural executive". Group management of this type is becoming increasingly common in many companies. The main advantage of committees lies on a fact that it provides the young and inexperienced ample opportunities to learn from the members with experience.

Group Farming committees

When the farmers of Kerala felt that rice cultivation was a non remunerative enterprise, there was a trend to leave the wet lands fallow for several seasons or to convert them to garden lands for planting perennials or cash crops. In spite of the Kerala Land Utilisation Act or other legal checks, this tendency was reflecting in all paddy growing areas of the State. In the meanwhile, the need for

increasing food grain production in the State was also much pressing to get some degree of relief from the higher dependency on other States for her food stock. The viable alternative at this juncture was to have some measures for reducing the cost of cultivation along with increasing the productivity of the lands, which could be attained only through transferring the modern technology to our lakhs and lakhs of small holders. Therefore, a massive programme was launched by the government to enhance the rice production, leading to the emergence of Group Farming.

In Group Farming system, the problems faced by individual farmers are eased out and solved by group activity. Farmers of *padasekharams* with an area of 10 to 50 ha or more are organized and group committees formed for each *padasekharam*. The committee consists of cultivators' representatives, Agricultural Officers and staff of the Krishi Bhavans. The committee elects a convenor to look after the proper functioning of the group. The system arranges easy financial and technical assistance, technical expertise etc. from the Department and financial institutions and also co-ordinates the farming activities of each person as per an agreed plan.

Since the group effort always gives better results than individual effort, the collective operations undertaken by the committees of Group Farming had a good number of advantages.

Preparation of land using power tiller/tractor, application of weedicides etc. could bring down the cost of production substantially even from the beginning.

Participation of people in transplanting, harvesting, procurement etc. was very much appreciated by cultivators, as it helped them to bring to the notice of leaders the infrastructure development needed in the fields.

Information of agro-clinics in most of the *padasekharams* for crop care, was a novel idea which has gained universal appreciation of farmers. Weekly clinics were conducted on specific days very close to the fields, and this could change the concept of pest control, with timely and adequate prophylactic care and integrated management.

The whole-hearted co-operation and coordination of all the members of Group Farming committees helped for the timely adoption of modern technologies to a greater extent. It also brought about a considerable reduction in the cost of transporting, marketing and procurement of the inputs as well as products. Joint efforts by the participation of all the members of Group Farming committees also envisaged the adoption of scientific water management practices in an efficient manner.

2.4. Communication process

Lasswell (1948) explained the communication process in the form of five questions such as who says, what, to whom, through what channels, and with what effect?

According to Loomis (1960) "Communication is the process in which information, decisions and directives are transmitted among factors and the way in which knowledge, opinions and attitude are formed or modified by interaction".

Schramm (1960) opined that communication is the process of establishing "commonness" with some one. He explained communication process with elements such as source, encoder, signal, decoder, destination and feedback. He also

pointed out that each person in the communication process acts atonce as a source and a receiver.

Leagans (1961) considered communication as an act by which two or more people exchange ideas, feelings or impressions of fact in such a way that each gains a common understanding of the meaning, intent and use of the message.

Lerner (1967) recognized communication as a stimulus for peasant modernization and social change. He emphasised that since communication is central to diffusion of innovations, an analysis of social change must intimately focus upon the communication process.

Rogers and Svenning (1969) putforth a general theoretical view point that communication processes are integral, vital elements of modernization and development. They concluded that it was hardly possible to design research in any field of human behaviour without making some assumptions about human communication.

Agee *et al.* (1979) defined communication as the act of transmitting information, ideas and attitudes from one person to another.

It could be summarised from the above reviews that communication exists at the root of all human behaviour.

2.5. Concept of communication behaviour

The research work conducted by Hovland *et al.* (1953) was the pioneering one dealing with the concept of communication behaviour. They spelled out communication behaviour with reference to receivers understanding as well as their

acceptance of information communicated. Katz and Lazarsfeld (1955) opined about communication behaviour as respondents' listening and reading habits, while Fliegel (1956) conceptualized it as information contact. Communication behaviour was conceived as the exposure to adoption of recommended practices by Emery and Oeser (1958).

The term communication behaviour was used by Schramm (1960) while reporting the study of radio audience.

Communication behaviour according to Berlo (1960) explains why, how, when, with whom and with what consequence man behaves.

Rogers (1962) considered communication behaviour as the degree to which an individual is willing to seek information and advice.

Nafeziger and White (1966) related communication behaviour to modification in knowledge, attitude and overt action following the attention given to a message.

Singh and Singh (1974) considered communication behaviour as the extent to which an individual is exposed to the different messages from various communication sources for the sake of adopting particular message.

Reddy and Singh (1979) considered that communication behaviour consists of two parts, such as receiver's communication behaviour and sender's communication behaviour. The sender's communication behaviour includes the compoents of communication ability, skills and channel use effectiveness and the

receiver's communication behaviour includes components of awareness, comprehension and attitude change.

2.6. Interpersonal Communication Behaviour (IPCB)

Katz and Lazarsfeld (1955) were the pioneers who introduced the concept of interpersonal influence in the communication process. Based on their results of research in personal influence, they generally devalued the idea that mass media had greater power over their audience and substituted it with the concept of personal influence as responsible for most of the social control within the mass media audience.

Berlo (1960) found that effective communication behaviour may also be a function of individual's attitude towards interpersonal relations. In case it is positive, there is extensive and intensive contact of the individual with the people around him, and this develops a better comprehension about the people and situation in general and it enhances his communication ability. Respondent's differences regarding their attitude towards interpersonal relations are expected to be reflected in the effectiveness of communication.

Frey (1966) pointed out that the adoption of a new idea by majority of respondents was based on a recent conversation with a neighbour rather than a radio programme heard several months before.

Katz and Khan (1966) generally concluded that in a well functioning system, interpersonal communication must flow both ways freely and that information communication bypasses and parallels the formal hierarchial pattern.

Duck (1973) while discussing interpersonal attraction in communication process, emphasised that similarity leads to attraction, because cognitive similarity leads to communication effectiveness.

The major barrier in interpersonal communication, as Rogers (1973) suggested, is the very natural tendency to judge, to evaluate, to approve or disapprove the statement of other persons or groups.

Singh *et al.* (1973) reported that the pattern of interpersonal communication in rural areas generally follow a sociometric structure. They also indicated that the key communicator appeared to be the best farmer from whom most of the other farmers seek advice on agricultural matters.

Afanasov and Arkadyi (1974) made a distinction between the informal approach to the social phenomena and the informational theory wherein they made a typology of interpersonal communication according to its function viz., managerial, educational, agitational and propaganda.

Murthy and Singh (1974) opined that interpersonal relations depend upon the efficiency of communication. They also emphasised the need for indepth studies on the nature of interpersonal communication behaviour of farmers.

Rath and Sahoo (1974) from their study of the role of Panchayat leaders in agricultural production concluded that only middle and upper class members and not lower class members were effective in their role as interpersonal channels.

Gangappa (1975) found that small farmers consulted more of formal and informal interpersonal sources than mass media sources.

Chesterfield and Ruddle (1976) studied the role of intermediaries in Venesuelan agricultural extension programme. They pointed out that well chosen intermediaries enhance the effectiveness of interpersonal communication in the diffusion of agricultural innovation in the rural communities.

Von Blackenburg (1976) maintained that in most of the rural areas of developing countries, the social disparities could be minimised through maximising interpersonal communication.

Sinha *et al.* (1976) conducted an intensive study of interpersonal communication in three Indian states, namely, Maharashtra, Bihar and Punjab and claimed that attitude towards interpersonal communication relationship was positively correlated with the effectiveness of communication in the transfer of technology.

According to Dube (1977), in the developing societies interpersonal networks of communication continue to be strong. Face-to-face communication carries a considerable volume of message, he contended.

Ambastha and Singh (1978) conducted a detailed study of interpersonal communication pattern in the client system and listed out the operationalisation of concepts and measurements of technology in terms of information input pattern, information processing pattern and information output pattern.

Rahiman (1978) used sociometric technique to identify the interpersonal communication patterns in the farmers' discussion groups in Kerala, and emphasised the need for strenghtening the farmers' discussion groups so that they would play the role expected of them.

2.7. Effect of personal and socio-psychological factors on communication behaviour

Here an attempt has been made to study the effects of a few selected personal and socio-psychological factors on interpersonal communication behaviour.

2.7.1. Age

Most of the studies during the past did not reveal any consistant relationship between age and communication behaviour. While studying the case of village level workers, Reddy (1976) found that there was no significant relationship between age and communication behaviour. Similar findings among the extension personnel have been reported by many researchers from different socio-cultural settings (Sridhar and Reddy, 1980; Reddy, 1982; Venkateshappa, 1983). In connection with some studies on interrelated attributes, age was not found to be significantly related with communication efficiency of the farm scientists (Sanoria and Singh, 1976). On the contrary, in some other socio-cultural arena, Patel (1967), Jain (1970) and Shete (1978) observed positive and significant association of age with communication behaviour among the extension personnel. Bhalaral *et al.* (1986) found that age was not significantly associated with communication behaviour of contact farmers under T & V system in Rajkot district in Gujarat state.

Manandhar (1987) also did not find any significant relationship of age with communication behaviour of extension personnel under T & V system in Nepal.

So, it can be concluded that depending upon the socio-cultural aspects, the age may or may not have relationship with interpersonal communication behaviour.

2.7.2. Education

Viswanathan *et al.* (1975) found that education of small farmers had reduced their contact with informal sources.

Ambastha and Singh (1975) found that educational level of farmers was not significantly correlated with their information input in the study of communication pattern of farmers.

In the study of correlates of communication behaviour, Sandhu and Darbarilal (1976) reported that education and communication behaviour of farmers were significantly correlated.

Rao and Reddy (1980) found that majority of contact farmers were having better education compared to their fellow farmers, and education was one of the most important characteristics associated with interpersonal communication of contact farmers.

Reddy and Reddy (1980) in their study of interpersonal communication behaviour of farmers under T & V system in Andhra Pradesh found that education was not significantly associated with the interpersonal communication behaviour of contact farmers.

Vijayaraghavan and Subramaniam (1981) found that education had nonsignificant association with information processing of farmers in the study of socio-psychological factors associated with communication behaviour.

The study of communication and management abilities of extension staff

conducted by Kusumakara (1981) revealed significant association between educational level and communication ability among Assistant Agricultural Officers.

Patil (1983) reported positive and significant correlation between education and information output behaviour among the agricultural researchers.

In the study of communication behaviour and training needs of extension personnel under T & V system in Bangalore district, Venkateshappa (1983) observed that there was no influence of educational qualification on communication behaviour.

However, majority of evidences showed significant relationship of education with communication behaviour of extension personnel (Patel, 1967; Shete, 1978; Sridhar and Reddy, 1980; Natikar, 1983). Bhalaral *et al.* (1986) found positive and significant relationship of education with communication behaviour of contact farmers.

In the light of above findings, education was considered one of the independent variables affecting interpersonal communication behaviour efficiency of the farmers.

2.7.3. Occupation

In the absence of direct research studies conducted on relationship between occupation and interpersonal communication behaviour, a few related studies are reviewed here.

Kherde and Sahay (1972) reported that father's occupation was positively and significantly associated with role performance of farmers.

Schooler and Nowi (1988) suggested that occupational commitment resulted in occupational self direction which led to positive attitude towards work. In the case of farm women, Seema (1986) found occupation to be the only variable having significant negative relation with role perception.

Based on the above findings occupation was expected to have an influence on interpersonal communication behaviour efficiency and hence selected as an independent variable in this study.

2.7.4.. Socio-economic status

Ambastha and Singh (1975) found that socio-economic status of farmers was significantly related with information input of farmers.

Bhaskaran (1979) found significant influence of economic status and the interpersonal communication behaviour of farmers in all the three villages, namely less progressive, progressive and non progressive in Kanyakumaridistrict of Tamil Nadu.

Vijayaraghavan and Subramaniam (1981) found that economic status had significant and positive correlation with information input of farmers.

In the study of communication fidelity of farm information, Balasubramoniam and Knight (1977) reported that socio-economic status of the farmers was significantly contributing to the prediction of communication fidelity of farmers.

Kareem (1984) reported a positive and significant relationship of socio-

economic status of contact farmers in T & V system and their interpersonal communication behaviour.

In the study of correlates of interpersonal communication behaviour of farmers of differenially progressive villages, Bhaskaran and Rao (1985) also reported a significant and positive relationship of socio-economic status with interpersonal communication behaviour efficiency of farmers.

Bhalaral *et al.* (1986) also observed a positive and significant relationship of socio-economic status with communication behaviour of contact farmers.

In the case of socio-economic status, Reddy and Reddy (1990) found that high interpersonal communication behaviour efficiency prevailed with less of heterophily and low interpersonal communication behaviour efficiency prevailed with highly heterophilous dyads.

In view of the above revelations, it was decided to include this variable as an independent variable in the study inorder to verify its influence on the interpersonal communication behaviour efficiency of Group Farming committee members.

2.7.5. Extension orientation

Bhaskaran (1979) found that there was significant difference in the interpersonal communication behaviour efficiency of farmers belonging to low and high levels of extension orientation both in less progressive and more progressive villages in Kanyakumari district in Tamil Nadu.

The extension contact was found as an essential variable associated with interpersonal communication behaviour of contact farmers by Reddy and Reddy (1980).

Shilaja (1981) found that extension agency contact of opinion leaders was related to their information seeking and diffusing behaviour.

Similarly Kareem (1984) also reported a positive and significant relation of extension orientation with interpersonal communication behaviour of contact farmers in T & V system.

The above studies pointed out significant association of extension contact and extension participation with farmers' communication behaviour. Therefore it would be worthwhile to test the extent of this influence with reference to Group Farming committee members' interpersonal communication behaviour in the present study also.

2.7.6. Scientific orientation

Singh (1973) observed that key communicators of agricultural innovations were characterised by more scientism compared to communicators and non-communicators.

In the study of motivational patterns of farmers in the adoption of high yielding varieties of rice, Reddy and Reddy (1975) found that farmers with high scientific orientation were more innovative and less prestige-oriented than the farmers with medium and low scientific orientation.

Rao and Reddy (1980) found scientific orietnation as one of the essential characteristics associated with interpersonal communication behaviour of contact farmers.

Similarly, Vijayaraghavan and Subramaniam (1981) reported that scientific orientation had significant and positive correlation with information input and information output of farmers but it had no significant association with information processing.

Kareem (1984) found that scientific orientation was not significantly affecting the interpersonal communication behaviour of contact farmers in T & V system of extension.

In the case of scientific orientation, Reddy and Reddy (1990) reported that high interpersonal communication behaviour efficiency prevailed in less heterophilous dyads and low interpersonal communication behaviour efficiency prevailed in high heterophilous dyads.

Based on these findings scientific orientation also was decided to be included as one of the independent variables for the present study.

2.7.7. Mass media participation

In the study of innovativeness of farmers associated with adaptive research trials, Basha *et al* (1975) found that media participation of farmers was significantly associated with their innovativeness.

Reddy and Reddy (1975) found that farmers with high mass media exposure were more innovative, ideal and less motive oriented than those with

medium and low mass media exposure.

Bhaskaran (1979) found that media participation of farmers was positively and significantly related to their interpersonal communication behaviour.

Similarly in the study on interpersonal communication behaviour of contact farmers, Rao and Reddy (1980) observed that majority of the contact farmers were having high mass media exposure compared to the fellow farmers.

Reddy and Reddy (1980) found mass media exposure of contact farmers was not significantly related to their interpersonal communication behaviour.

Kareem (1984) found that mass media participation had positive and significant relationship with the interpersonal communication behaviour of contact farmers.

Based on the above research findings, it was decided to include mass media participation as an independent variable to test its association with the interpersonal communication behaviour of Group Farming committee members.

2.7.8. Social participation

Makkar (1981) found that social participation was positively and significantly associated with role performance of farm youth leaders.

In the study of communication behaviour of contact farmers in T & V system in Gujarat, Bhalaral *et al.* (1986) reported no significant relationship of social participation with communication behaviour.

Subramoniam (1986) also reported that social participation was signifi-

cantly and positively related with communication behaviour of tribal farmers.

Reports of Kubde *et al*. (1989) indicated that persons who showed more social participation performed the role of opinion leadership better than others.

Menon (1993) reported that social participation was not significantly related with role perception of the conveners of Group Farming committees.

Based on the above reviews the variable social participation also was decided to be included as one of the independent variables.

2.7.9. Cosmopoliteness

In the study of social and psychological correlates in predicting communication behaviour of farmers, Murthy (1972) observed positive and significant correlation between cosmopoliteness and communication behaviour of farmers.

Singh (1973) reported that key communications were distinctively characterised by more cosmopoliteness compared to communicators and noncommunicators while studying the role of communication in agricultural development.

The more cosmopolite an individual, the more was the communication behaviour as reported by Murthy and Singh (1974).

Ambastha and Singh (1975) found positive and significant correlation between cosmopoliteness and information input as well as output indices of farmers.

Kalamegam and Menon (1977) in their study on communication behaviour of small farmers found that personal cosmopolite sources were utilized to a greater extent in the progressive villages than in a less progressive village.

Vijayaraghavan and Subramaniam (1981) found that farmers' cosmopoliteness had significant and positive correlation with information input and output, and that it had significant association with information processing by farmers.

In the study of communication behaviour of village level extension personnel, Joseph (1983) found no significant correlation of cosmopliteness on communication behaviour.

In the experimental evidence regarding the relative effectiveness of combinations of radio, slide show and film show, Siddaramaiah and Rajanna (1984) found that farmers with high cosmopoliteness had significantly higher gain in knowledge about agricultural aspects.

Sherief (1985) reported a positive and significant correlation between cosmopoliteness and communication behaviour of noncontact farmers of T & V system.

Bhalaral *et al.* (1986) indicated a significant positive correlation on cosmopoliteness - localiteness with communication behaviour of contact farmers in T & V system.

Manandhar (1987) also observed a positive and significant relationship of cosmopoliteness with communication behaviour of extension personnel of T & V system in Nepal.

Based on the above mentioned research evidence, it was decided to include cosmopoliteness also as one of the independent variables.

2.7.10. Knowledge

English and English (1958) defined knowledge as a body of understood information processed by an individual or by a culture. Berlo (1960) stated that the amount of knowledge of subject matter possessed by the source would affect his communication behaviour.

Kherde and Sahay (1972) found significant relationship between knowledge of village level workers on multiple cropping and their role performance.

A study of Chakravarthy and Singh (1974) concluded that level of technical knowledge of village level workers was one of the most important indicators of their role performance.

Pandyaraj (1978) observed no significant relationship between knowledge of Junior Agricultural Officers about high yielding varieties and their communication behaviour.

In a study of elements of communication process, Pathak and Majumdar (1981) observed positive and high correlation between level of knowledge and fidelity of communication.

Higher level of knowledge contributed significantly to the role performance of contact farmers, as found by Jayaramaiah *et al.* (1985).

Seema (1986) while studying the role of farm women in the decision making process of farming community in Trivandrum district, observed that knowledge in farming contributed significantly to variation in role perception.

Based on these reviews knowledge also was included as an independent variable in the present study.

2.7.11. Attitude towards Group Farming

Allport (1935) defined attitude as "a mental and neural state of readiness organised through experience exerting a directive dynamic influence upon the individual's response to all objects and situations with which it is related". Thurstone (1946) defined attitude "as the degree of positive or negative affect associated with some psychological object". Newcomb (1965) defined attitude "as a state of readiness for motive arousal". Remmers *et al.* (1967) defined attitude, informally as feelings for or against something. Mehrabian (1973) defined attitude as the degree of liking, positive evaluation and/or preference of one person for another.

Gnanasekharan (1978) observed that attitude towards extension agency and information seeking behaviour were positively and significantly related.

While studying the role performance of village level workers Kherde and Sahay (1979) noticed the attitude towards beaurocracy to be positively significant to role performance.

Ravi (1979) observed a non significant relationship between attitude and information seeking behaviour of the tapioca growing farmers.

Sobhana (1982) reported that attitude towards farming had positive and significant relationship with role perception and role performance of Junior Agricultural Officers.

Similarly Seema (1986) observed that attitude towards farming was negatively, but significantly related with role performance of farm women.

Reports by Kobzak (1990) indicated that utilization of production potential of engineering and technical staff in agriculture depended on their attitude towards work.

Menon (1993) reported non significant relationship of attitude twoards group farming with role perception and performance of Group Farming committee convenors.

Based on the above reviews, it was decided to include attitude towards Group Farming as one of the independent variables.

2.7.12. Attitude towards other farmers

Berlo (1960) stated that attitude of the source towards the receiver would affect the communication behaviour of the source.

Kherde and Sahay (1972) found positive relationship between attitude towards villagers and role performance of village level workers.

In a study of role of communication in Agricultural development, Singh (1973), opined that communicator's attitude towards the recipient of the message would positively affect the effectiveness of the communicator.

Mehrabian and Reed (1973) hypothesised that the accuracy of communication is inversely correlated with the magnitude of the positive (or negative) attitude of the communicator towards his addressee.

Reports of Reddy (1976) indicated a positive relationship between attitude towards farmers and communication behaviour of village level workers.

Sinha *et al.* (1976) observed that as favourableness of attitude towards the receiver increased, the perception of village level workers about their own effectiveness of communication also increased.

The study of Pandyaraj (1978) revealed a positive and significant relationship between attitude of the Junior Agricultural Officers towards farmers and their communication behaviour.

Pathak and Majumdar (1981) observed positive and high correlation between attitude towards receivers and communication fidelity.

These results pointed out the possibility of definite relationship of attitude of the source towards receivers with his communication effectiveness. Therefore in this study, it was assumed that the extent of positive or negative effect of Group farming committee members towards other farmers would influence their interpersonal communication behaviour.

2.7.13. Information source use pattern

Closely related studies establishing the relationship between information source use pattern of farmers and their communication behaviour were not available.

Rogers (1962) viewed communication behaviour as the degree to which the individual is willing to seek information and advice.

Rao and Moulik (1966) reported that the individual contacts and neigh-

bours were the most utilized sources at awareness stage in the adoption of agricultural practices.

In a study of sources of information in the adoption of improved agricultural practices Lakshmana and Satyanarayana (1967) also reported similar finding.

Kanagasabai (1975) reported that efficiency of agricultural extension officers was not related with their habit of reading literature.

Reports of Bhatia and Sandhu (1975) indicated that magazine reading of village level workers was positively and significantly related with their role performance.

Ambastha and Singh (1978) while studying about interpersonal communication reported significant positive correlation of information source use pattern with communication variables.

Pandyaraj (1978) reported a positive relationship of information seeking behaviour and communication behaviour of agricultural extension personnel.

Similarly Kareem (1984) also reported a positive and significant relationship between pattern of preference of information sources and interpersonal communication behaviour of contact farmers in T & V system of extension.

Based on the above findings, the design of the present study necessitates orientation in to the relationship of information source use pattern of Group farming committee members with their interpersonal communication behaviour.

2.7.14. Farm size

. Trivedi *et al.* (1976) established no relationship of parents' land holding with communication behaviour.

Sagar (1989) in his study of determinants of farmers' productivity of crops established positive and significant relationship of farm size with input use behaviour of farmers.

In a study on opinion leaders Kubde *et al.* (1989) found that persons having more farm size performed the role of opinion leadership with good communicating ability.

Based on these previous related findings, a positive relation between farm size and interpersonal communication was anticipated in the present study and hence it was also included as an independent variable.

2.7.15. Farming experience

Frutchey (1953) reported that experience was not a differential characteristic to discriminate between more or less efficient extension workers. However, in the direction of communication, many researchers reported significant and positive relationship of experience with communication behaviour in Indian conditions (Shete, 1978; Natikar, 1983).

Towards the components of communication behaviour, Patil (1983) identified positive and significant correlation of experience with information processing and information output of agricultural scientists.

Nevertheless, Reddy (1976) and Venkateshappa (1983) could not find any significant relationship of experience with communication behaviour in their studies.

Therefore it was decided to include farming experience also as one of the independent variables, for the present study.

2.8. Perceived group cohesiveness of Group Farming committee members

The interpersonal relationship is the degree to which the members of the group are attracted to each other, or the degree to which the group coheres or 'hangs together'. This aspect of the group is usually referred to as "group cohesiveness", according to Shaw (1977). Three different meanings have been attached to the term 'cohesiveness': (1) attraction to the group, including resistance to leaving it (2) morale, or the level of motivation evidenced by group members, and (3) coordination of efforts of group members. Most of the persons agree that it refers to the degree to which members are motivated to remain in the group. Members of highly cohesive groups are more energetic in group activities, they are less likely to be absent from group meetings, they are happy when the group succeeds and sad when it fails, etc., whereas members of less cohesive groups are less concerned about the group's activities.

Festinger (1950) explained "group cohesiveness as the resultant of all the forces acting on the members to remain in the group. This definition emphasised that all the factors contributing to interpersonal attraction will contribute to group cohesiveness".

According to Cartwright and Zander (1953) cohesiveness is the motivation to participate and it takes the form of co-ordination of efforts.

Israel (1956) and Hare (1962) also supported Festinger's view point that cohesion is the resultant force that acts on the members to remain in the group.

Cohesiveness was described by Konopka (1963) as a feeling of belonging. Northern (1969) defined cohesion by giving a catalogue of variables which are consonant with a cohesive group state as follows: The group is integrated and identified; there is a total group orientation; increased awareness; and acceptance of the group; there is consciousness of group dynamics and group process problems; the group is effective; and so on. Friedman and Jacka (1969) found that it impaired a group's ability to agree with or made concession to other groups during negotiations.

Reports of Hartford (1971) also supported Festinger's view of force acting on members to remain in the group.

Napier and Gershenfeld (1973) indicated that cohesion arises when members' needs are met.

Maley (1974) discovered that cohesiveness increases the influence of group members, reduces the anxiety within the group, increases the number of active members; and decreases the number of absences.

According to Feldman and Wodarski (1975), cohesion is concerned with the emergence of norm structure, functional interdependences, and costs and rewards balances.

O'Keefe (1975) showed that highly cohesive groups handled the flow of information in the group more efficiently and agree about the use of new information quicker than less cohesive groups.

Therefore, there must be some minimum degree of cohesiveness if the group is to continue to function as a group. To the extent that this minimum requirement is exceeded, it may be expected that the degree of cohesiveness will be related to other aspects of group process. Above reviews pointed out that group cohesiveness increases the group's effectiveness through increasing commitment and reducing tension and negative attitudes. So, for the present study, an attempt was made to assess the perceived group cohesiveness of Group Farming committee members, in the context of interpersonal communication behaviour.

2.9. Extent of information flow for adoption of rice production technology through interpersonal communication behaviour

Lakshmana and Satyanarayana (1967) in their study of sources of information in the adoption of improved agricultural practices found a great role of neighbours and other farmers as major sources of information in the adoption of improved practices.

Farmer productivity, according to Welch (1970), is substantially affected by two types of efficiency, technical efficiency and allocative efficiency, each of which may be much influenced by the extent of flow of information. Technical efficiency is the application of knowledge of techniques of production. The second type, allocative efficiency, treats the farm as business and refers to the ability to allocate resources, so as to maximise returns over the long term.

Mathur *et al.* (1974) in their study of source utilization and rate of spread of information on high yielding varieties of wheat in a farming community, observed that farmers had shown greater dependence on interpersonal local sources for information and consultation. The sources were relatives, neighbours, friends, village level workers and IARI personnel. The study clearly indicated the dominance of interpersonal local sources like friends, neighbours, relatives etc. in communication of information on high yielding varieties of wheat and the process of its ultimate adoption.

In the study of communication behaviour and source credibility perception of young farmers, Singh and Prasad (1974) found that young farmers of progressive village had more knowledge about existing communication sources than those of the nonprogressive village. Their knowledge about communication sources was higher in respect of use of high yielding varieties of paddy seed than in application of nitrogeneous fertilizers.

Somasundaram and Singh (1978) analysed the communication gap between extension workers and paddy growing small farmers and found that there were significant difference in all the operations namely variety, seedrate, seed treatment, area of nursery, spacing, application of NPK and plant protection.

Studies of Chaudhri (1979) explained information flow to the farmers as innovative effect, which includes, the ability to decode new information, to evaluate the costs and benefits of alternative information sources, and to establish access to newly available, economically useful information.

In the study about correlates of interpersonal communication behaviour

of farmers in differentially progressive villages, Bhaskaran and Rao (1985) found that there was significant relationship of adoption of agricultural practices with interpersonal communication behaviour efficiency in less progressive and progressive villages and nonsignificant relationship in more progressive villages. In this study, significant relationship of adoption of agricultural practices with interpersonal communication behaviour was particularly notable with regard to the farmers with small holdings.

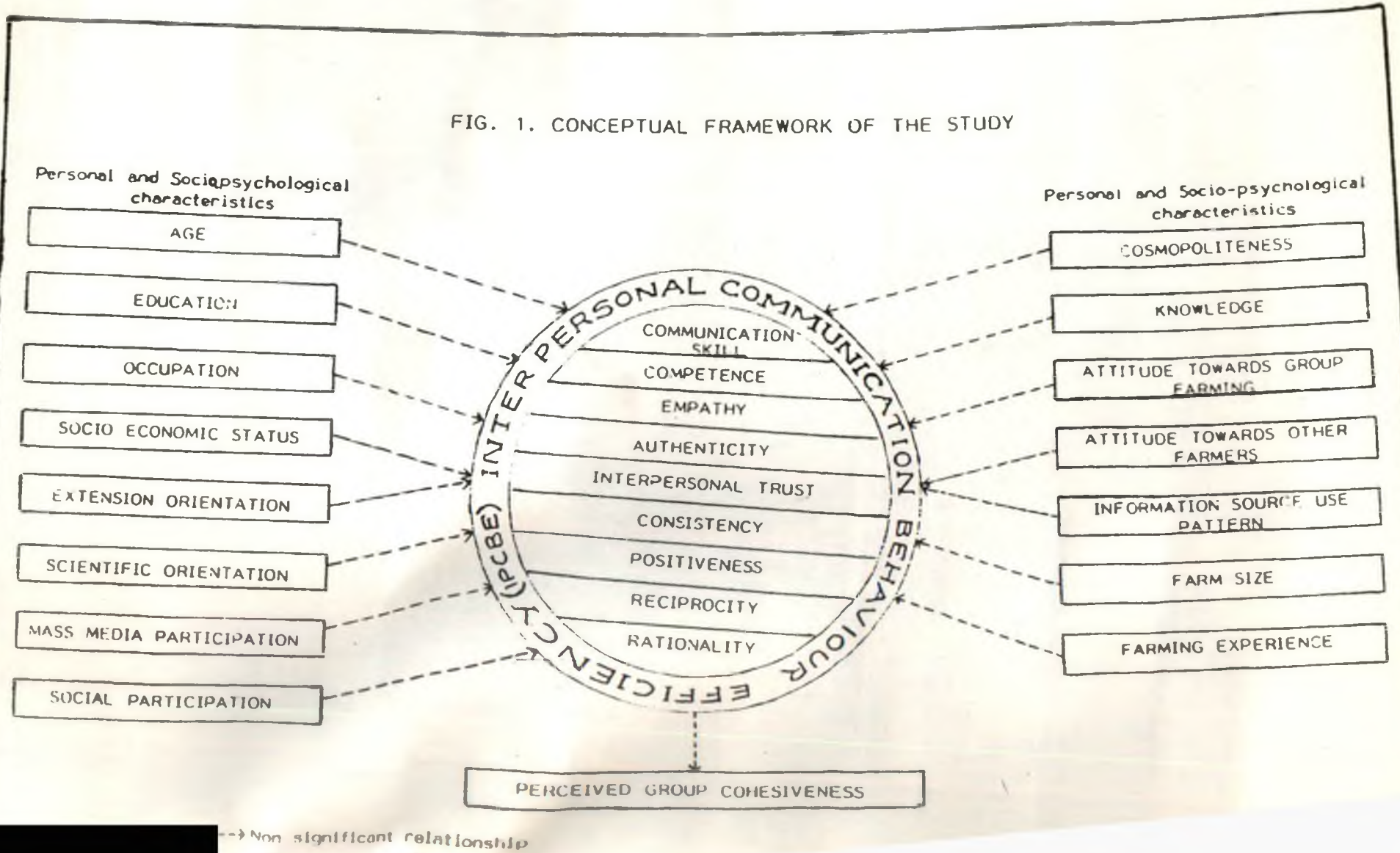
2.10. Conceptual frame work of the study

The main objective of the conceptual framework being developed here is to provide a perspective reference for systematically analysing the process of IPCBE of the individual farmer as members of Group Farming committees influenced by a multiplicity of personal, socio-psychological factors and the consequent implications on the group. The framework is expected to facilitate theoretical and empirical analysis of interpersonal communication behaviour of Group Farming committee members (Fig.1).

It is accepted from the past studies of human behaviour that interpersonal communication behaviour is a multivariate phenomenon explained by a wide spectrum of personal and psychological factors. These factors are so intricately associated with each other that they should not be viewed as separate entities for the study. Hence a wholistic view of all these contributing factors, only would give a clear picture of the interactional implicationof the process of Interpersonal Communication Behaviour. The identified subdimensions of IPCBE were

A. Communication skill

FIG. 1. CONCEPTUAL FRAMEWORK OF THE STUDY



B. Competence

C. Empathy

D. Authenticity

E. Interpersonal trust

F. Consistency

G. Positiveness

H. Reciprocity

I. Rationality

A. Communication skill

Berlo (1960) explained that fidelity of communication would be associated with the communication skill of the source. Leagans (1961) expressed that good communicators should have interest to develop their communication skill. Dube (1958) and Singh (1973) found that the communicators differed greatly in their communication skill and the communication skill was also found to have influence on the communication effectiveness.

Singh and Jha (1971) found communication skill as one of the factors associated with communication fidelity. Same result was reported by Parshad and Sandhu (1974) while study the communication skills of village level workers in Punjab State.

Sinha *et al.* (1976) found that there was no relationship between communication skill and effectiveness of communication of village officials.

Reports of Dhillon and Sandhu (1977) indicated that communication skill was not significantly related with job effectiveness.

Russel (1970) discovered communication skill as one of the dimensions of leaders behaviour in group decision making with evidence that it does affect the message content in the communication situation and its expression within the sequence of communicative acts indisputable.

Fisher (1980) stressed the essentiality of communication skill in a conversational situation as it involves a knowledge and an understanding of the communicative process and the ability to be flexible, adapting to the demands of the social system and the situation.

Based on the above reviews, it was decided to consider communication skill as an important sub-dimension of IPCBE.

B. Competence

Hovland *et al.* (1953) explained competence as the qualification of source that effects his credibility in communication.

Berlo (1960) suggested that qualification, which indicated the competence, as a factor of communication credibility of the source.

Mc Croskey *et al.* (1971) also used the term qualification as a factor of credibility of the source.

Devito (1978) explained competence as the knowledge that a speaker has in his or her head as a dimension of credibility for better performance in communication and is uninfluenced by psychological and physical processes.

Taylor (1980) gave the interpretation that being perceived as competent

means, the person is judged reliable, informed, qualified and intelligent.

These findings indicated that relevance of competence as an important factor determining communication efficiency and hence it was decided to verify it in the present context also.

C. Empathy

Bell and Hall (1954) found 'empathy' as positively correlated with leadership behaviour and group effectiveness.

Rogers (1962) defined empathy as experiencing an accurate understanding of the other's private world and communicating that understanding.

Lerner (1965) explained empathy as the capacity to see ourself in the other fellow's situation.

Rogers and shoemaker (1971) established positive and significant relationship of empathy with communication behaviour efficiency.

Supe and Gajbhiye (1977) measured empathy by regarding it as a tendency of a perceiver to assume another person's feelings, thoughts and behaviour as similar as his own.

Devito (1978) mentioned empathy as the feeling of another person's feeling; the feeling or perceiving something as does another person. It is one of the integral qualities for effective interpersonal communication.

Ray (1991) concluded empathy as an indispensable skill for people moving in traditional settings.

Based on these view points, empathy also was included as one of the sub-dimensions.

D. Authenticity

Applebaum *et al.* (1973) specified that authenticity is the genuineness a person shows while communicating without wearing a mask or facade and without becoming defensive.

The term authenticity was explained by Fisher (1980) in terms of honesty and was defined as the member's judgement, based on a sensitive understanding of the nature of communication and the group process, essential for effective group communication.

On the basis of these reviews authenticity was decided to be included as a sub-dimension of interpersonal communication behaviour efficiency.

E. Interpersonal trust

Hovland *et al.* (1953) included safety as the first factor associated with source credibility which designates trustworthiness.

Berlo (1960) also gave emphasis to safety as the first factor associated with source credibility which designates trustworthiness.

Applebaum *et al.* (1973) explained that interpersonal trust is one of the necessary ingredients for fidelity in communication. Trust is primarily communicated, in the relationship between what we do and what we say in the interpersonal setting.

Pearce (1974) pointed out that to talk about interpersonal trust with any understanding is to consider the interdependence involved in the situation, the attitudes and expectations of all participants, and the mutuality and reciprocity of those attitudes and expectations, as well as behaviours, and reciprocated behaviours during human communication.

Gulley and Leathers (1977) explained interpersonal trust as the relationship that exists when the interactants base their behaviour on the expectation and prediction that each will act in mutually beneficial ways as they strive to achieve objectives that involve some degree of risk.

Fisher (1980) emphasised that interpersonal trust involves objectives that are shared by, or common to all participants in a situation, and typically such a goal is one that either can not be accomplished or can be accomplished only with utmost difficulty by one person functioning alone.

Based on these findings, interpersonal trust also was considered a subdimension of interpersonal communication behaviour.

F. Consistency

Webster (1768) explained consistency as the degree of firmness and persistent adherance to moral and ethical standards in thought and action.

Schneider (1977) specified the predictions of various consistency theories in such a way that people should prefer to have their expectancies about their performance confirmed and that they should manipulate events to ensure such confirmation.

Devito (1978) stressed that consistency is one of the integral components to be considered for the perceptual judgement of a person in an interpersonal communication situation and was defined as a strong tendency to maintain balance among our attitudes and perceptions.

Based on these reviews, consistency was also decided to be included as a subdimension of Interpersonal Communication Behaviour Efficiency.

G. Positiveness

Schutz (1958) in his theory of FIRO (Fundamental Interpersonal Relations Orientation) stressed that the people's positive orientation to others in certain characteristic pattern can be the major determinent of interpersonal behaviour.

Rogers (1962) defined positiveness as a warm positive acceptant attitude toward what is in the client; praizing the client as a person.

Devito (1978) considered positiveness as an essential component for effective interpersonal communication and was referred to at least three different aspects or elements. They included the positive regard for self, positive feeling for the other person and positive feeling for the general communication situation.

In the light of the above findings, positiveness also was included as one among the subdimensions of Interpersonal Communication Behaviour Efficiency.

H. Reciprocity

Schutz (1958) found that the reciprocity reflects the degree to which two persons "reciprocally satisfy each other's behaviour preferences".

Gouldner (1960) explained reciprocity as a social norm and tendency of humans to react to other humans in a manner similar to the way in which those humans behave towards them.

Shaw (1977) explained the term reciprocity as the extent to which the behaviours of two or more persons are mutually agreeable, i.e., can coexist without conflict.

Fisher (1980) supported that the most common norm of interaction among individuals is reciprocity, the tendency to behave towards other people as they behave towards us.

Taylor (1980) described the importance of reciprocal perspectives and reciprocal liking in interpersonal perception and attraction. She stressed that reciprocal liking is a basic element in interpersonal attraction and reciprocity hinges on two factors (1) the person extending (reinforcement) (liking) must be someone you are willing to be attracted to (2) secondly the recipient of liking must not have a negative self concept.

Bhaskaran and Rao (1985) in their study of interpersonal communication behaviour, considered reciprocity as one of the dimensions of ICBE index and found a positive and significant correlation with it.

One the basis of these, reciprocity also was considered one of the dimensionsof Interpersonal Communication Behaviour Efficiency.

1. Rationality

Katz and Kahn (1966) explained the term psychological rationality as the acceptance of the most important and painless solution.

Supe (1969) inferred that the act of an individual is considered rational to the extent to which he justifies his selection of most efficient means, from among the available alternatives on the basis of scientific criteria for achieving maximum ends.

Rogers and Shoemaker (1971) defined rationality as the most effective means to reach a given goal.

Sawant and Thorat (1977) explained that rationality involves deliberate planning and best available sources of information and advice in arriving at a means for achieving maximum economic ends. He found a positive and significant correlation of rationality with adoption of improved farm practices.

Prasad (1978) observed that rationality of a farmer was significant in explaining the variation in achievement motivation of rice farmers in progressive villages of Kerala.

Fisher (1980) emphasised the need of a rational approach to information processing in group decision making for effective communicative behaviour. He also stressed the necessity of human rationality as a necessary component for improving communication and group effectiveness.

Based on the above mentioned reviews, rationality also was decided to

be included as one of the sub-dimensions of Interpersonal Communication Behaviour Efficiency.

2.11. Hypotheses for the study

Based on the review of literature and conceptual framework, the following hypotheses were derived for the study.

(1) There is no significant variation in interpersonal communication behaviour among the members of Group Farming committees.

(2) There would be no significant relationship between the personal and socio-psychological characteristics of members of Group Farming committees and their interpersonal communication behaviour.

(3) There would be no significant relationship between the perceived group cohesiveness of the members of Group Farming committees and their interpersonal communication behaviour.

Methodology

CHAPTER-III

METHODOLOGY

The methodology employed for the study is furnished in this chapter under the following main headings:

3.1. Research design

Research designs are developed to enable the researchers to answer research questions as validly, objectively, accurately and economically as possible. This study, with the main objective of measuring the interpersonal communication behaviour of members of Group farming committees was conducted, adopting an ex post facto research design. Ex post facto research is a systematic empirical inquiry in which the scientist does not have direct control of the independent variables because their manifestations have already occurred or because they are inherently not manipulable (Kerlinger, 1964).

Inferences about relations among variables are made without direct

intervention, from cocomitant variation of independent and dependent variables. In this research study, since the manifestations of the independent variables had already occurred and there was no scope for manipulation of any variable, ex post facto research design was resorted to.

3.2. Locale of the study

The study was conducted in four districts in Kerala having maximum area under paddy with Intensive Programme for Rice Development (IPRD) in operation (F.I.B., 1994). The districts were Palakkad, Thrissur, Ernakulam and Alappuzha. From each of these districts, one block each with maximum area under rice cultivation was identified. They were Alathur (Palakkad), Cherpu (Thrissur), Chengamanadu (Ernakulam) and Nedumudi (Alappuzha) blocks. (Fig. 2).

3.3. Selection of the sample

The unit of analysis for the present study was the member of a rice Group Faming committee. From each of the selected blocks, two Group Farming committees were randomly selected and from each committee, 30 members were identified as respondents using simple random sampling procedures. Thus, in total, 240 respondents from among the members of Group Farming committees were selected as the sample for the study.

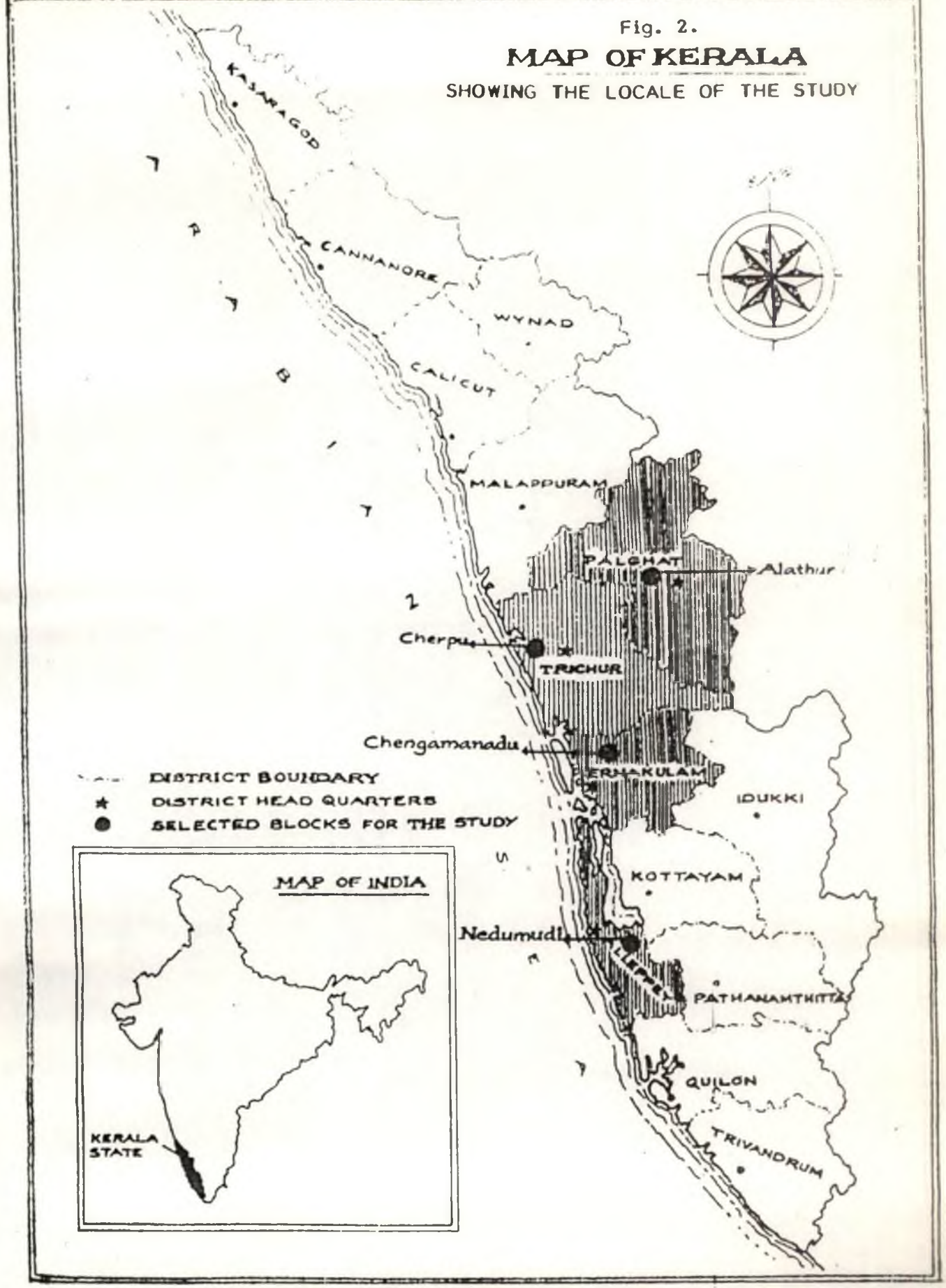
3.4. Methods used for data collection

A pre-tested, structured interview schedule containing appropriate questions for obtaining the required data was prepared. The interview schedule was discussed with a group of experts and necessary modifications were made to avoid

Fig. 2.

MAP OF KERALA

SHOWING THE LOCALE OF THE STUDY



ambiguity and redundance in the questions. The schedule was pre-tested before it was finalised. Then it was translated to Malayalam for keeping uniformity while data collection (Appendix-IIIB). The data were collected through personal interview method by the researcher using the final interview schedule. The researcher developed adequate rapport with the respondents before the interview.

3.5. Operationalisation and measurement of variables

3.5.1. Operationalisation and measurement of the dependent variable

The dependent variable for the present study was interpersonal communication behaviour of members of group farming committees, which was measured by developing an index called "Interpersonal Communication Behaviour Efficiency Index" (IPCBEI). Communication behaviour has been operationalised and measured by different researchers in different ways. Katz and Lazarsfeld (1955) measured communication behaviour for listening and reading habit of respondents.

Berlo (1960) in his SMCR model of interpersonal communication, suggested the factors within a source that can increase fidelity after the source develops a purpose for communicating such as communication skills, attitudes, knowledge level, position within a social system and culture.

Murthy and Singh (1974) in their study on communication behaviour of farmers, conceptualized it as a composite measure of awareness of technologically competent information sources, comprehension, attitudinal change and adoption of the referent.

Singh and Prasad (1974) measured communication behaviour of the farmers as the extent to which farmers were exposed to different messages from

various communication sources for the sake of adopting these messages.

Reddy (1976) measured communication behaviour of village level workers as a composite measure of awareness, comprehension, attitude, education, skills and effective use of communication channels.

Sandhu and Darbarilal (1976) identified the components of communication behaviour as inward exposure and outward exposure. Inward exposure was measured as the exposure of farmers to those information sources through which, they received information and outward exposure was measured in terms of their use of the information sources to pass on information to fellow farmers.

Channegowda (1977) identified some dimensions of farmer's communication behaviour, namely comprehension, recall behaviour, information re-inforcing behaviour, credibility, symbolic adoption, attitude and information disseminating behaviour.

Balasubramaniam and Menon (1978) measured communication behaviour of research personal in terms of activities related to acquisition, processing and dissemination of Agricultural information.

Pandyaraj (1978) measured communication behaviour of Junior Agricultural Officers of Kerala in terms of information input, information processing, information output and information feedback indices. Communication behaviour index was a composite measure of all these indices in terms of information encoding and information decoding.

Somu *et al.* (1978) quantified the communication behaviour of opinion

leaders as the extent to which opinion leaders were exposed to the messages through different sources and channels. The components considered were newspaper reading habit, radio listening habit, extension agency contacts and participation in the activities arranged by extension workers.

Bhaskaran (1979) in the study of interpersonal communication behaviour of small and other farmers in a less progressive, progressive and more progressive village developed an interpersonal communication behaviour efficiency index. This referred to the cumulative score obtained by a respondent and indicates the effectiveness of his interpersonal cummunication behaviour as measured with reference to the selected sub-dimensions of interpersonal communication behaviour such as reciprocity, intertia, intention, directness, transitivity etc. Operationally it indicated a person's extent of effective interaction in interpersonal information exchange situations.

Reddy and Singh (1979) developed a communication behaviour index to measure the communication behaviour of village level workers. The index represented different components of communication behaviour viz. awareness of the selected agricultural messages through technologically competent sources. Knowledge-cum translation behaviour was in respect of selected messages, communication abilities, skills and qualities and channel-use-effectiveness.

Kareem (1984) measured interpersonal communication behaviour of contact farmers of T & V system as a composite of information receipt or input, information processing consisting of information decoding and information encoding, information communication or output and information feedback.

Most of the past studies focussed on the need to assess the personality traits that are relevant to interpersonal relations to estimate the IPCBE. For the purpose of the present study based on the review of previous work and discussion with experts, nine dimensions related to interpersonal communication behaviour were identified. The dimensions were

Communication skill

Competence

Empathy

Authenticity

Interpersonal trust

Consistency

Positiveness

Reciprocity

Rationality

Considering these identified nine sub-dimensions, Interpersonal Communication Behaviour Efficiency was operationally defined for the study as the degree to which a farmer is efficient to communicate with other farmers, with adequate skills of communication, competence, empathy, authenticity, interpersonal trust, consistency, positiveness, reciprocity and rationality.

The identified nine dimensions of interpersonal communication behaviour were subjected to relevancy rating by a sample of scientists and extension personnel. This was done to ascertain whether all the nine dimensions are equally applicable to the IPCBE or not. The relevancy rating revealed that all the nine dimensions were relevant in the case of IPCBE.

The judges were further requested to assign weightage for each dimension in the range of 0 to 100, based on the importance they attached to each dimension in such a manner as to get a total of 100 for all the identified relevant dimensions. They were asked to consider the importance of each dimension in relation to interpersonal communication behaviour efficiency while assigning the weightage to each dimension. The scores obtained by a particular dimension were added up and was divided by the number of judges to arrive at the weightage for a particular dimension. This procedure was carried out in the case of all the identified relevant dimensions. These dimensions along with their weightages thus obtained are furnished in Table 1.

Table 1. Dimensions of IPCBE and weightages

Sl.No.	Dimensions	Weightage
1	Comunication skill	2.4
2	Competence	1.3
3	Empathy	1.0
4	Authenticity	0.8
5	Interpersonal trust	1.2
6	Consistency	0.7
7	Positiveness	0.8
8	Reciprocity	0.9
9	Rationality	0.9
		10.0

The actual score for each sub-dimension was obtained by Scale Product

method i.e., by multiplying its raw score by its weightage. The total score of IPCBE for and individual was obtained by adding the individual scores of each component together.

Computation of index of IPCBE

For the computation of the Interpersonal Communication Behaviour Efficiency Index (IPCBEI) the scores obtained for each of the above mentioned sub-dimensions were first made uniform and then multiplied by the corresponding weightage, assigned to each as given in Table 1. These scores were then added up to get the IPCBEI of each respondent.

Pilot study and analysis of data

A pilot study was undertaken in a nonsample area with sixty respondents selected at random. The data were analysed with appropriate statistical techniques. The results showed that slight modifications were necessary for some questions for the dimensions of the dependent variable. After discussions with experts and on the basis of the empirical analysis the questionnaire was restructured and modified for the final data collection.

It was also ensured that all the sub-dimensions identified as components of IPCBE were of high significance on the basis of the coefficient of agreement in judges rating as well as the statistical evidence from the results of the pilot study. The measurement device developed for the dependent variable i.e., IPCBE was ascertained for its content validity as evidenced from the rating scores.

Measurement of sub-dimensions

3.5.1.a. Communication skill

Berlo (1960) defined communication skill as a composite of skills in writing, speaking, reading, listening and reasoning. In a face-to-face interaction, i.e., in an interpersonal communication situation, the transmission of technology largely takes place through "word-of-mouth" communication. Therefore, in the present study, communication skill was operationally defined as the composite of skills in reception, processing, expression and feedback.

3.5.1.a1. Reception skill

Reception skill was operationally defined as the capability and easiness of the farmer in listening and picking up messages from another farmer in an interpersonal communication situation. For measuring this, four questions (one positive and three negative) arranged in a three point continuum such as always, sometimes and never were used (see Appendix-IIIA). Scoring pattern was 2, 1 and 0 for positive statements and vice versa for negative statements. Scores were added up to get the total score of reception skill.

3.5.1.a2. Processing skill

Bloom (1956) identified three specific dimensions for information processing such as Translation, Interpretation and Extrapolation in the context of comprehesion. For the present study, ability of the respondent to process an information was measured in terms of these three specific components.

Translation

The skill in translation for the present study was operationally defined as the degree to which a farmer can give meanings to the message he received from the 'other farmer' in an interpersonal communication situation. A single question with responses ranging in a three point continuum of always, sometimes and never with scoring pattern of 2, 1 and 0 was used here to measure the translation skill.

Interpretation

The skill of interpretation was operationally defined as the degree to which a farmer can reorder these ideas in a new configuration based on the already available mental images and identify the inter-relationships of these ideas in an interpersonal communication situation. Here again, a single question having responses in a three point continuum of always, sometimes and never with scoring pattern of 2, 1 and 0 was used to measure the interpretation skill.

Extrapolation

Skill of extrapolation was operationally defined as the degree to which a farmer can visualise or predict the implications of an idea received from another farmer in his own conditions and life situations. Here also a single question in a three point continuum of always, sometimes and never with scoring pattern 2, 1 and 0 was used to measure the extrapolation skill.

The total score for processing skill was obtained by adding the individual scores of translation, interpretation and extrapolation.

3.5.1.a3. Expression skill

This was operationally defined as the capability of the farmer in expressing the technical information connected with paddy Group farming into a meaningful message of simple words, with clarity, conviction and continuity in a dyadic communication situation. Four positive questions in the statement form arranged in a three point continuum from always to never with scoring pattern of 2, 1 and 0 were used for measuring this skill, and the scores were added up to get the total score of expression skill.

3.5.1.a4. Feedback orientation

This was operationally defined as the degree to which a farmer is interested in getting responses from the fellow farmer in a general interpersonal communication situation. This was measured based on the interest to get feedback, ability to arouse feedback and skill to respond to feedback. For measuring this four positive questions arranged in three point continuum of always, sometimes and never with scoring pattern 2, 1 and 0 were used and the scores were added to get the total score of feedback orientation.

The total score of communication skill was obtained by adding together the individual scores of reception, processing, expression and feedback.

3.5.1.b. Competence

Competence of the committee member was operationally defined as the level of confidence upon himself based on his perceived level of knowledge in different operations in Group Farming, its practical experience and application abili-

ties. For measuring this sub-dimension, the first two questions, one positive and other negative related to confidence in convincing another individual with communication of new ideas in three point continuum with a scoring pattern of 2, 1, 0 for positive and 0, 1, 2 for negative were arranged. The third question covered the perceived level of knowledge of the respondent on the eight different operations of group farming and it again was arranged in a three point continuum as full, some and Nothing with scoring pattern ranging as 2, 1 and 0. The scores were added together to get the total score of competence.

3.5.1.c. Empathy

For the present study, empathy was operationally defined as the degree to which the respondent is able to make out other person's feelings and thereby to understand it as he feels. To measure this dimension, two questions were included. The first one was a direct positive question arranged in the three point continuum of always, sometimes and never with scoring pattern 2, 1 and 0. The second question was a multiple choice question with three answers ranging from most favourable, to least favourable with scoring pattern of 2, 1 and 0 respectively. The scores were added up to get the total score of empathy.

3.5.1.d. Authenticity

For the present study, authenticity was operationally defined as the genuineness of a communicator while he delivers a message to the communicatee in an interpersonal communication situation. This dimension was measured by using one direct positive question arranged in three point continuum of always to never with scoring pattern 2 to 0 and three multiple choice questions with choices ranging

from most favourable to least favourable. The second and third questions consisted of four choices with scoring pattern 3, 2, 1 and 0 and the last question consisted of three choices with scoring pattern 2, 1 and 0 respectively. The individual scores of each question were added up to get the total score of authenticity.

3.5.1.e. Interpersonal trust

Interpersonal trust is one of the necessary ingredients for fidelity in communication. Trust is primarily communicated in the relationship between what we do and what we say in the interpersonal setting. Here, for the present study, interpersonal trust was operationally defined as the degree to which communicator trusts the other farmers as well as the faith, other farmers have in him, as perceived by the communicator. For measuring this, four questions (two positive and two negative) arranged in three point continuum of always to never with scoring pattern ranging from 2 to 0 were used. Scoring pattern was reversed for negative questions. Individual scores were added up to get the total score of interpersonal trust.

3.5.1.f. Consistency

Consistency was operationally defined as the degree to which the communicator shows stability, firmness and assertiveness in opinion formation, thought and action. To measure this dimension, four questions (first three negative and last one positive) arranged in three point continuum of always, sometimes and never with scoring pattern 2, 1 and 0 respectively were used. Total score of consistency was obtained by adding up the individual scores.

3.5.1.g. Positiveness

For the present study, positiveness was operationally defined as the quality of the communicator of being positive towards self, towards others and also towards communication context. This was measured by four questions (one negative and three positive) arranged in three point continuum of always, sometimes and never with scoring pattern 2, 1 and 0 for positive and vice versa for negative questions. Scores were added up to get the total score of positiveness.

3.5.1.h. Reciprocity

The reciprocity was operationally defined as the mutual regard and responsiveness that a communicator shows to a communicatee in a general interpersonal communication situation in terms of giving praise and recognition, admitting mistakes and giving and taking criticisms. Measurement of this dimension was done using three multiple choice questions, each with three choices of most to least favourable and with scores ranging as 2, 1 and 0 respectively. Individual scores were added up to get the total score of reciprocity.

3.5.1.i. Rationality

Rationality is operationally defined as the quality or the state of the respondent of being logical and his acceptability of reasonableness in an interpersonal communication situation as perceived by the respondent. This covered the discriminating ability of the farmer to say what, when, where, to whom and to what extent. This dimension again was measured by using three multiple choice questions, each with three choices of most to least favourable and with scoring pattern

ranging from 2 to 0. The individual scores were added up to get the total score of rationality.

3.5.2. Operationalisation and measurement of Independent variables

1. Age

Age was operationalised as the number of years completed by the respondent at the time of investigation.

2. Education

This indicated the level of formal education of the respondent, which was quantified using the procedures adopted by Karippai (1988) with some modifications.

Sl.No.	Category of responses	Scores
1	Illiterate	0
2	Functionally literate	1
3	Primary school level	2
4	Middle school level	3
5	High school level	4
6	College level and above	5

3. Main occupation

This was operationally defined as the vocation from which the farmer derives major part of the income. It was scored as follows.

Sl.No.	Category of responses	Score
1	Agriculture	2
2	Service	1
3	Business	1
4	Others	1

4. Socio-economic status

Socio-economic status was operationally defined as the position a contact farmer occupies in the community with reference to his occupation, land holding, caste, education, socio-political participation, material possessions, house and household.

To measure this variable, the scale developed by Venkataramaiah (1983) was used. The scale consisted of eight main items, viz., occupation, land holding, caste, education, socio-political participation, possessions, house and household. The respondent was given a score under each of these eight categories so that the final socio-economic status index was the total of these scores. Only the maximum possible score was considered under each category. The score depends on the weightage of items. For instance (see Appendix-IIIA), under eighth category, "possessions", the farmer may possess a farm animal as well as a radio, and no other possessions. One farm animal has a weight of 1, and radio has a weight of two, so the farmers' score under this category is two. Eventually, the scores of all eight categories were added and this represented the socio-economic status.

5. Extension orientation

Extension orientation was operationally defined as the extent of contact

of the members of Group Farming committees with extension agencies and their extent of participation in extension activities.

The method used by Menon (1993) was used here for quantifying this variable. The extension orientation was measured on two dimensions, viz., extension contact and extension participation.

A. Extension contact

The degree of extension contact by the respondent was computed by giving scores to the items as below:

Sl. No.	Frequency of meeting Agricultural Assistant/ Agricultural Officer	Scores
1	Two or more times a week	3
2	Once a week	2
3	Once to thrice a month	1
4	Never	0

B. Extension participation

Extension participation was defined as frequency of participation of the individual respondents in different extension activities conducted for the past one year. Extension activities conducted to evaluate the extension participation of the respondents were study tours, seminars, farm fair, meetings of the groups, demonstrations and others.

The respondent's participation in each of the above extension activities

for the past one year was the method used to arrive at extension participation scores as below.

Sl.No.	Category or Response	Scores
1	Attended whenever conducted	2
2	Attended occassionally	1
3	Never attended	0

The scores obtained for both the sub-items by each respondent were calculated and the total score for extension orientation was obtained by summation of the scores of extension contact and extension participation.

6. Scientific orientation

Scientific orientation in this study, was operationally defined as those aspects of respondent's orientation, which commits him to the observance of certain norms, standards and criteria for selection based on scientific principles, which directly or indirectly influence his behaviour.

The scale developed by Supe (1969) and used by Kareem (1984) was followed, with some modifications to measure the extent of scientific orientation of the respondents in this study.

The scale consisted of 6 items (see Appendix-IIIA). The scoring for positive items in the scale was given below.

Sl.No.	Category of response	Score
1	Agree	1
2	Disagree	0

The scoring pattern was reversed in the case of negative items. Scientific orientation score for each individual was found out by adding the scores corresponding to each response pattern.

7. Mass media participation

Mass media participation was operationally defined as the extent to which the respondents were exposed to different mass media sources.

Bhaskaran (1979) measured the mass media participation of farmers by preparing a list of different mass media sources and the respondents were asked to indicate as to how often they used each of these sources. The same procedure was followed in this study also. The mass media sources included are given below.

1. Newspaper
2. Radio (general)
3. Radio (rural programme)
4. Magazine and other literature on agriculture

The weightage for each item with reference to frequency is given below.

Sl.No.	Frequency	Score
1	Two or more times a week	4
2	At least once a week	3
3	At least once a fortnight	2
4	At least once a month	1
5	Never	0

Thus the score of each respondent was calculated, by adding the scores of each medium together.

8. Social participation

Sadamate (1978) defined social participation of the respondent as participation in social institutions as a member or as an office bearer.

Social participation was operationalised in this study as the extent of involvement of an individual in any formal organisation in his community. The scale used by Subramoniam (1986) was followed here with modification to suit this study. The Social Participation was measured in terms of the membership of the individual in the organisations as well as his frequency of participation in his activities. The scoring pattern of this variable was done as follows.

(i) Membership or official position in organisation

The organisations include, Panchayaths, Co-operative Societies, Youth clubs, Labour organisations, Socio-political organisations and others. A score of 2 for the official position and a score of 1 for mere membership was given in the case of each organisation.

(ii) Extent of participation in the activities of the organisation

Sl.No.	Category of response	Score
1	Whenever conducted	2
2	Occasionally	1
3	Never	0

Scores for attending the activities of each organisation 'wherever conducted', 'occasionally' and 'never' were given 2, 1 and 0 respectively. To obtain the final score of the respondent, the scores given as the member or office bearer were multiplied with scores given for attendance in the activities and added up for all the organisations.

9. Cosmopoliteness

Rogers (1962) defined cosmopoliteness as the degree to which an individual's orientation is external to a particular social system.

In this study, cosmopoliteness is operationally defined as a tendency of the Group Farming committee member to be in contact with outside world, based on the belief that all the needs of an individual cannot be satisfied within his own community. The variable was measured by using the scale developed by Desai (1981). The two dimensions of the variable are

a) The frequency of visits to the nearest town in a month.

b) The purpose of visit to the town in a month.

Scoring pattern

a) Frequency of visit to the nearest town

1. Twice or more a week	(5)
2. Once a week	(4)
3. Once a fortnight	(3)
4. Once a month	(2)
5. Very rarely	(1)
6. Never	(0)

b) Purpose of visit to the town in a month

1. All visits relating to agriculture (5)
2. Some relating to agriculture (4)
3. Personal or domestic matters (3)
4. Entertainment (2)
5. Any other purpose (1)
6. No response (0)

The total score for each respondent will be found out by adding the scores of the above two dimensions of cosmopoliteness.

10. Knowledge

For the purpose of this study, knowledge was operationalised as the knowledge status of the respondent in the cultivation of paddy, in different practices such as seed variety, diseases, plant protection chemicals, seed treatment, soil testing and fertilizer application. To measure this variable, the procedure followed by Menon (1993) was adopted with suitable modifications. Eight questions were framed on the above mentioned topics and each correct answer was scored one. The total number of correct answers were summed up to get the knowledge score of the respondent.

11. Attitude towards Group Farming

In this case attitude was operationally defined as the degree of positive or negative effect of the Group Farming committee member towards the Group Farm-

ing Programme. The scale used by Menon (1993) following the procedure by Sulaiman (1989) was used to measure this variable.

The scale consisted of eight items, including both positive and negative. For the purpose of scoring there were three columns of responses representing a three point continuum and the scoring pattern was as follows for a positive statement.

Sl.No.	Category of response	Score
1	Agree	2
2	Neutral	1
3	Disagree	0

The scoring pattern was reversed in the case of negative statements. The total score of the respondent was the sum of the scores of all statements.

12. Attitude towards other farmers

Attitude of the Group Farming committee members towards other farmers was measured by using the scale developed by Pandyaraj (1978) with appropriate modifications to suit the context of the study. Six statements (three favourable and three unfavourable) representing the attitude towards other farmers were included in the scale on a three point continuum of 'Agree', 'Neutral' and 'Disagree'. Scoring pattern was as follows:

Sl.No.	Category of response	Score	
1	Agree	2	Scoring pattern was
2	Neutral	1	reversed in the case
3	Disagree	0	of negative items.

Attitude score of the respondent was obtained by adding up the individual score of all statements.

13. Information source use pattern

Information source use pattern was operationally defined as the degree to which the Group Farming committee members use to get information from different sources.

Pandyaraj (1978) measured the information seeking behaviour of Junior Agricultural Officers by preparing a list of all the information sources and asking respondents to indicate their preference in respect of each of the source. This method was modified and used in this study. The respondents were asked to indicate how frequently they use to seek information from those sources. The response was rated on a three-point continuum ranging from 'always' to 'never'.

Sl.No.	Category of Response	Score
1	Always	2
2	Sometimes	1
3	Never	0

The score of the respondents for information source use pattern was worked out by adding the scores corresponding to each response.

14. Farm size

Farm size was defined as the area of land in acres under rice cultivation both owned and cultivated by the respondents.

15. Farming Experience

Experience in rice cultivation was operationalised as the number of years the farmer has been involved in rice cultivation in his land, similar to the method given by Menon (1993).

3.6. Perceived group cohesiveness as influenced by IPCBE

There must be some minimum degree of cohesiveness if the group is to continue to function as a single unit. Festinger (1950) explained group cohesiveness as the resultant of all the forces acting on the members to remain in the group. For the present study, group cohesiveness was operationally defined as the perceived level of group interaction, opinion difference or uniformity, decision making ability, stages of planning, implementation and evaluation of activities and the satisfaction of members of Group Farming committee. For measuring this, an arbitrary scale was developed after seeking the judges rating with eight questions covering all aspects of the operational definition (see Appendix-IIIA). All questions except 2nd and 3rd were positive and were arranged in a three point continuum with responses of always, sometimes and never having a scoring pattern 2, 1 and 0 respectively. Scoring pattern was reversed in the case of negative questions. By adding the scores together, the total score for perceived group cohesiveness was obtained.

3.7. Extent of information flow for adopting the the rice production technology through interpersonal communication behaviour

As a separate objective, an attempt was made to quantify the information flow through interpersonal communication among the members of Group Farming committees for adopting the rice production technology.

For this, eight different critical farm operations in Group Farming were listed down and each respondent was asked to indicate the extent to which he or she got the needed information through interpersonal communication for adopting the practice. Each stage was arranged in a three point continuum ranging through all information, some information and no information, with scoring pattern of 2, 1 and 0, respectively. The number of respondents falling under these three categories for each of the eight stages of paddy Group farming was tabulated to get a percentage index to classify the stages from maximum to minimum information flow.

3.8. Statistical tools used for the study

The following statistical techniques were used in the analysis of data.

Correlation analysis

Correlation coefficient is a measure of the association between two or more variables. Correlation coefficient was worked out to measure the degree of association between interpersonal communication behaviour and the different explanatory variables. Inter correlation analysis was also done to find out the extent of association between the various pairs of independent variables.

In order to test the statistical significance of the observed correlation coefficient, the student's t test at (n-2) degrees of freedom was ued.

To test the significance of correlation coefficient, the table for the values of correlation coefficient for different levels of significance was used (Pillai, 1957). Non significant variables were excluded from further analysis.

Categorisation

The means ($\overline{X}$) of interpersonal communication behaviour efficiency index and the independent variables were calculated and these were used for categorisation of respondents into two strata (i) $\overline{X}$ and above $\overline{X}$, (ii) Below $\overline{X}$.

After grouping the respondents into two strata, the frequency of farmers falling under each category and their percentages were worked out to know the distribution of farmers under each category in relation to interpersonal communication behaviour.

Multiple Linear Regression Analysis (MLR)

Multiple Linear Regression analysis was done (1) to find out the relative contribution of each of the significant personal and socio-psychological factors on interpersonal communication behaviour and (2) to find out the relative contribution of the components of interpersonal communication behaviour of Group Farming committee members.

Step down Regression Analysis

Step down regression analysis was carried out -

1) to trace the independent variables contributing to maximum variability in interpersonal communication behaviour efficiency
2) to trace the important components responsible for contributing maximum variability in interpersonal communication behaviour efficiency

Multivariate Path Coefficient Analysis

Path analysis originally developed by Wright (1921) followed by Li (1955) and Singh and Chowdhary (1979) was made use of to know the nature of influence with direct or indirect effect of the personal and socio-psychological characteristics on the dependent variable IPCBE and to know the nature of influence with direct or indirect effect of the sub-dimensions of dependent variable on IPCBE.

Results and Discussion

CHAPTER-IV

RESULTS AND DISCUSSION

This chapter deals with the results obtained in this study and the discussions based on the results. Keeping the objectives in view, the findings as well as the discussion on them are presented in the following sequence.

4.1. Distribution of the respondents based on their personal and socio-psychological characteristics

4.2. Distribution of the respondents based on their IPCBE

4.3. Influence of the personal and socio-psychological characteristics on the IPCBE of respondents

4.4. Influence of the sub-dimensions of the IPCBE on the dependent variable

4.5. Perceived group cohesiveness as influenced by the IPCBE

4.6. Extent of information flow for adoption of rice production technology

4.1. Distribution of the respondents based on their personal and socio-psychological characteristics

A perusal of the Table 2 and Figure 3 revealed that majority of respondents were in high category in the case of the variables, namely age, education, occupation, socio-economic status, extension orientation, scientific orientation, mass media participation, cosmopoliteness, attitude towards Group Farming, attitude towards other farmers, Information source use pattern and farming experience. Maximum number of respondents (90.42 per cent) in high category was observed for the variable scientific orientation followed by main occupation (81.25 per cent), extension orientation (80.42 per cent), mass media participation (75.42 per cent), attitude towards other farmers (69.17 per cent), attitude towards Group Farming,

Table 2. Distribution of respondents based on their personal and socio-psychological characteristics (n = 240)

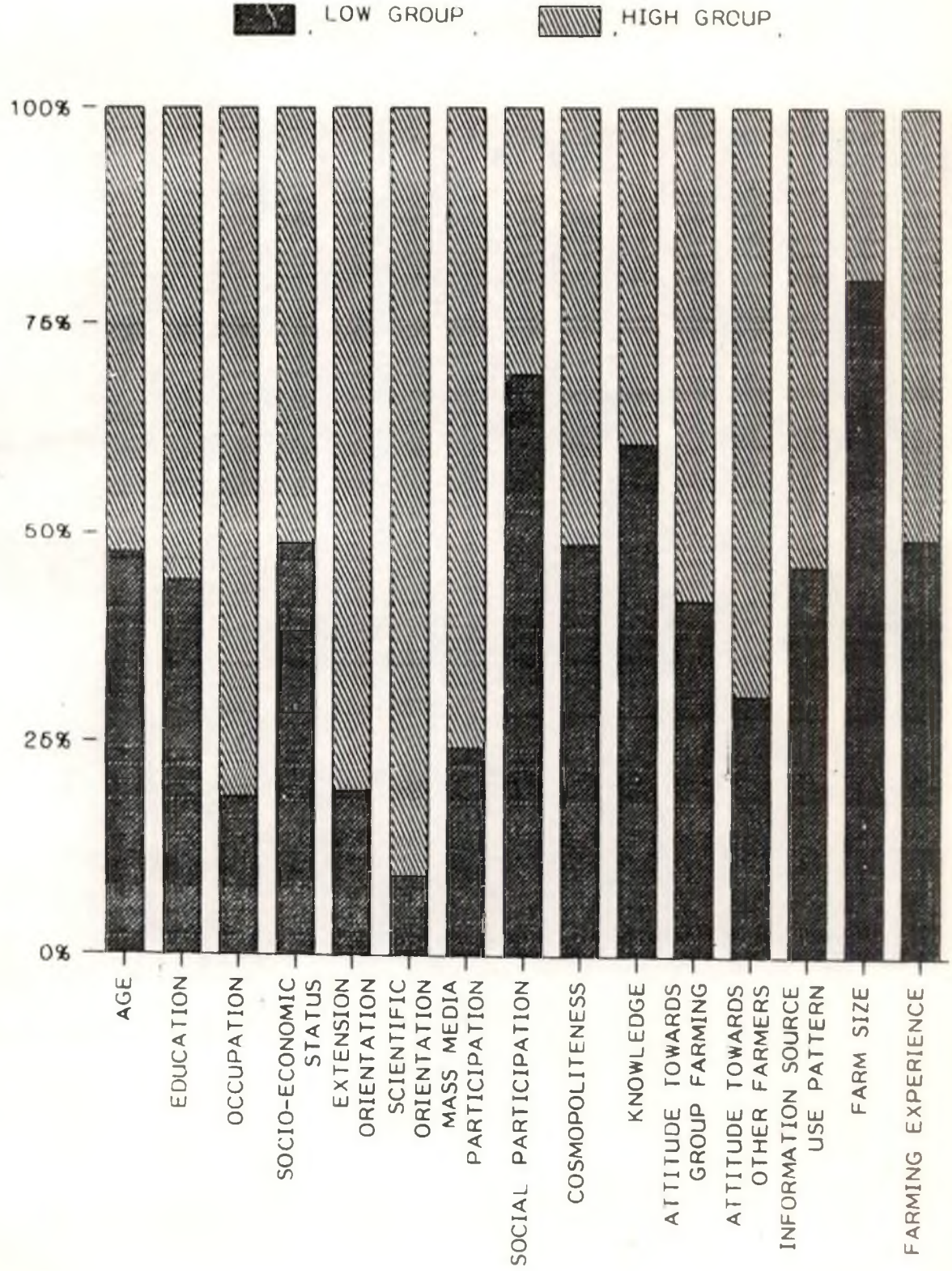
Variable	Characteristic	Category	Range	Frequency	Per cent
1	2	3	4	5	6
1	Age	Low	< 55.95	114	47.50
		High	55.95 and above	126	52.50
2	Education	Low	< 3.38	106	44.17
		High	3.38 and above	134	55.83
3	Occupation	Low	< 1.69	45	18.75
		High	1.69 and above	195	81.25
4	Socio-economic status	Low	< 19.72	117	48.75
		High	19.72 and above	123	51.25
5	Extension orientation	Low	< 4.55	47	19.58
		High	4.55 and above	193	80.42
6	Scientific orientation	Low	< 4.55	23	9.58
		High	4.55 and above	217	90.42
7	Mass media participation	Low	< 10.76	59	24.58
		High	10.76 and above	181	75.42
8	Social participation	Low	< 2.37	166	69.17
		High	2.37 and above	74	30.83
9	Cosmopoiiteness	Low	< 6.35	117	48.75
		High	6.35 and above	123	51.25
10	Knowledge	Low	< 5.07	146	60.83
		High	5.07 and above	94	39.17

Contd.

Table 2. Continued

1	2	3	4	5	6
11	Attitude towards group farming	Low High	< 11.55 11.55 and above	101 139	42.08 57.92
12	Attitude towards other farmers	Low High	< 9.40 9.40 and above	74 166	30.83 69.17
13	Information source use pattern	Low High	< 7.83 7.83 and above	111 129	46.25 53.75
14	Farm size	Low High	< 3.53 3.53 and above	193 47	80.42 19.58
15	Farming experience	Low High	< 32.24 32.24 and above	119 121	49.58 50.42

Fig. 3. Distribution of respondents based on their personal and socio-psychological characteristics



(57.92 per cent), information source use pattern (53.75 per cent), socio-economic status (51.25 per cent), cosmopoliteness (51.25 per cent) and farming experience (50.42 per cent) in that order. Regarding the rest of the variables, only less than 50 per cent of the respondents were in high category. Among them, maximum number respondents (80.42 per cent) was found in the low category in the case of the variable 'farm size' followed by 'social participation' (69.17 per cent) and 'knowledge' (60.83 per cent).

A close observation of the sample profile presented above indicated that the sample was more or less following an even distribution except for a few variables.

Further, it could be observed from the results that maximum number of respondents in the high category was observed for the variable scientific orientation. This is probably due to the relatively higher social synergy prevailing in the state of Kerala, which is essentially contributed by the multitude of formal education avenues. According to Swaminathan (1982), the communities with high social synergy strive to make the best use of the available environmental stimuli for acts which are mutually re-inforcing and to derive maximum benefits out of it. In such cases social institutions generally ensure mutual advantage from their undertakings leading to the members of the community to trigger a self-propelling growth in line with the developmental symphony. This evidence has further justifications with the 'cognitive field theory' of Lewin (1935) related to learning and motivation, which proposed the increase in tension within the organism, by the environmental stimuli, inducing valence which directs the behaviour of the organism. The theory suggested that this valence creates a need within the individual for changing himself in line

with the changes in the sorroundings. When the arena of knowledge systems is exposed to the literate individual through the world of letters and words, it is only natural to have a substantial amount of scientific orientation in this type of community.

Similarly, it was also observed that the main occupation was predominantly agriculture for the entire sample as indicated by majority of respondents in the agriculture group. Only very few of them were engaged in business, services or any other occupation.

It also is evident from the Table 2 that extension orientation of the Group Farming committee members also was high since most of them visited the Krishi Bhavans frequently and willingly tried out the latest technological recommendations of the Department of Agriculture. Majority established good contact with various kinds of extension agencies and also used to participate in various extension activities.

The sample showed that 75.42 per cent of respondents had high mass media participation by reading newspapers and listening to radio. This finding is obvious since the literacy rate in Kerala is as high as 95 per cent and that most of the households in Kerala subscribe to atleast one newspaper. The listening habit of the Group Farming committee members to radio and radio rural programmes also contributed to the high per cent of mass media participation.

It could be noted that 69.17 per cent of the farmers showed favourable attitude towards other farmers and 57.92 per cent showed favourable attitude towards Group Farming. For undertaking the activities of Group Farming programme

harmoniously, each and every member of the committee had to have a network of contacts outside his social system. Unless he had a positive attitude towards the programme and towards the fellow farmers he could not perform as an efficient communicator. Therefore, it was only natural that majority of the respondents were in high category for their attitude towards Group Farming and the attitude towards other farmers.

The results also showed that 55.83 per cent of the respondents were in high category for the variable education. Kerala being the state with highest literacy level in the country, this result was least surprising and the reason was obvious.

Regarding the pattern of utilization of information sources, 53.75 per cent of respondents were in high category. For the efficient implementation of the Group Farming programme satisfactorily, the members of the committees should be keen in utilizing the potential sources of agro information. Majority of respondents prefered newspapers, radio broadcasts, agricultural seminars, agricultural department officials etc. to get the relevant agro information. The role of mass media like newspaper and radio in agricultural information communication has assumed significance in recent times with more newspaper pages and broadcast schedules allotted to agricultural programmes.

Table also showed 51.25 per cent of respondents in the high category for the variable socio-economic status. Education, occupation, caste, land holding, socio-political participation, possessions, house, household etc. are some of the important factors that bring in status and prestige in the society. Hence a member of Group Farming committee with high socio-economic status would have enough morale to explore new vistas of interpersonal relations, wherein he would be coming

in contact with various kinds of people and sources of information.

Another evidence from the Table 2 is that 51.25 per cent of the farmers was with high category of cosmopoliteness. Majority of farmers are conscious about the necessity of contact with outside world and they used to visit the nearest town frequently. They know that unless a farmer has adequate contact with outside world he won't flourish in his farming career. Almost all the potential farmers are aware of this aspect and many-a-times they move to semi-urban and urban areas for day-to-day information and hence it is only natural to get a higher category of contacts outside the social system.

It is to be noted that for the variable farm size, most of the participants (80.42 per cent) were found in lower category. In a state like Kerala where more than 87 per cent of farmers are small and marginal farmers, the sample drawn for the study typically represent the population and it is only natural to have more number of respondents belonging to lower category in respect of farm size.

Similarly for the variable social participation, 69.17 per cent of respondents were found accumulated in lower category. Rice farmers, whose main occupation being agriculture, seldom get involved in various activities of various organisations, though they retain membership there. Limitations of leisure time might be a constraint for such a tendency as rice farming occupation demands intensive management and serious involvement. This might be the probable reason for the majority of the respondents for their lower degree of involvement in social organisations and hence a lower score.

Yet another important finding from the Table was with regard to knowledge. As much as 60.83 per cent of the respondents were in the lower category. Before the inception of the Group Farming approach, many of the farmers were doing the farming enterprise by their own ways and means, with little care on the scientific package of practices recommendations. The Group Farming approach facilitated the adoption of the modern practices at lesser cost with much easiness in implementation, but the knowledge gap resulted from the earlier situations could not be vanished with a sudden spell. This might be the plausible reason for a lower degree of knowledge level on improved technological packages for majority of the respondents.

4.2. Distribution of respondents based on their Interpersonal Communication Behaviour efficiency and its sub-dimensions

The distribution of the respondents based on the IPCBE is shown in Table 3 and Figure 4 and the distribution based on subdimensions in Table 4 and Figure 5.

The results in the Table 3 showed distinctly that 59.58 per cent of the respondents were in the high category for the dependent variable, 'Interpersonal Communication Behaviour Efficiency'. Since the observed value of the normal deviate ($z = 4.608$) is being significant, it led to the rejection of the first null hypothesis and concluded that there is significant variation in interpersonal communication behaviour efficiency among the two categories of members of group farming committees. The probable reason for justification of this finding can be explained based on the 'Trait-Factor theory of personality' put forth by Allport (1937). The theory postulates that traits are common to many individuals and vary in absolute amounts between individuals. They are relatively stable and exert fairly universal

Table 3. Distribution of respondents based on the interpersonal communication behaviour efficiency (n = 240)

No.	Category	Range	Frequency	Per cent	Z value
1	Low	< 68.69	97	40.42	4.608**
2	High	68.69 and above	143	59.58	

** Significant at 1% level of significance

Fig. 4

Pie diagram showing the distribution of respondents based on the Interpersonal Communication BehaviourEfficiency

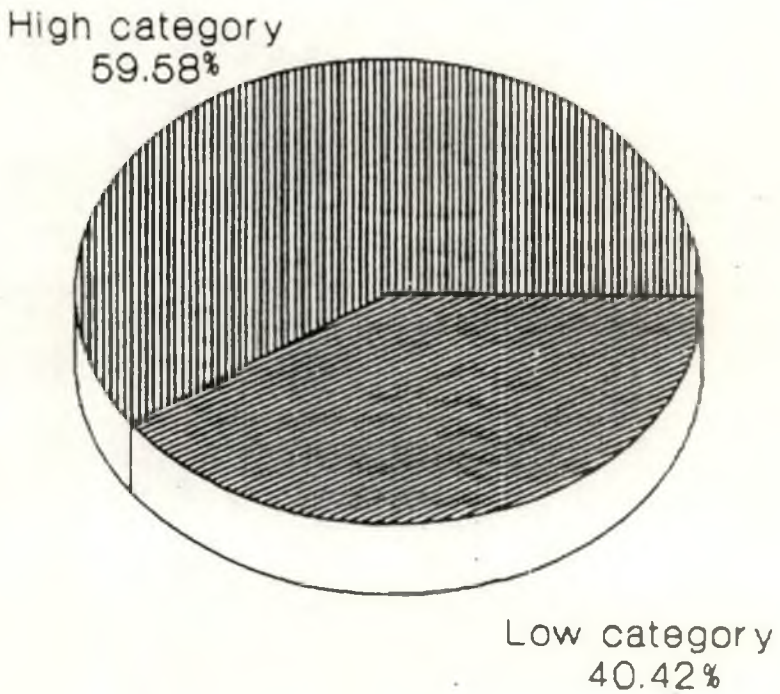
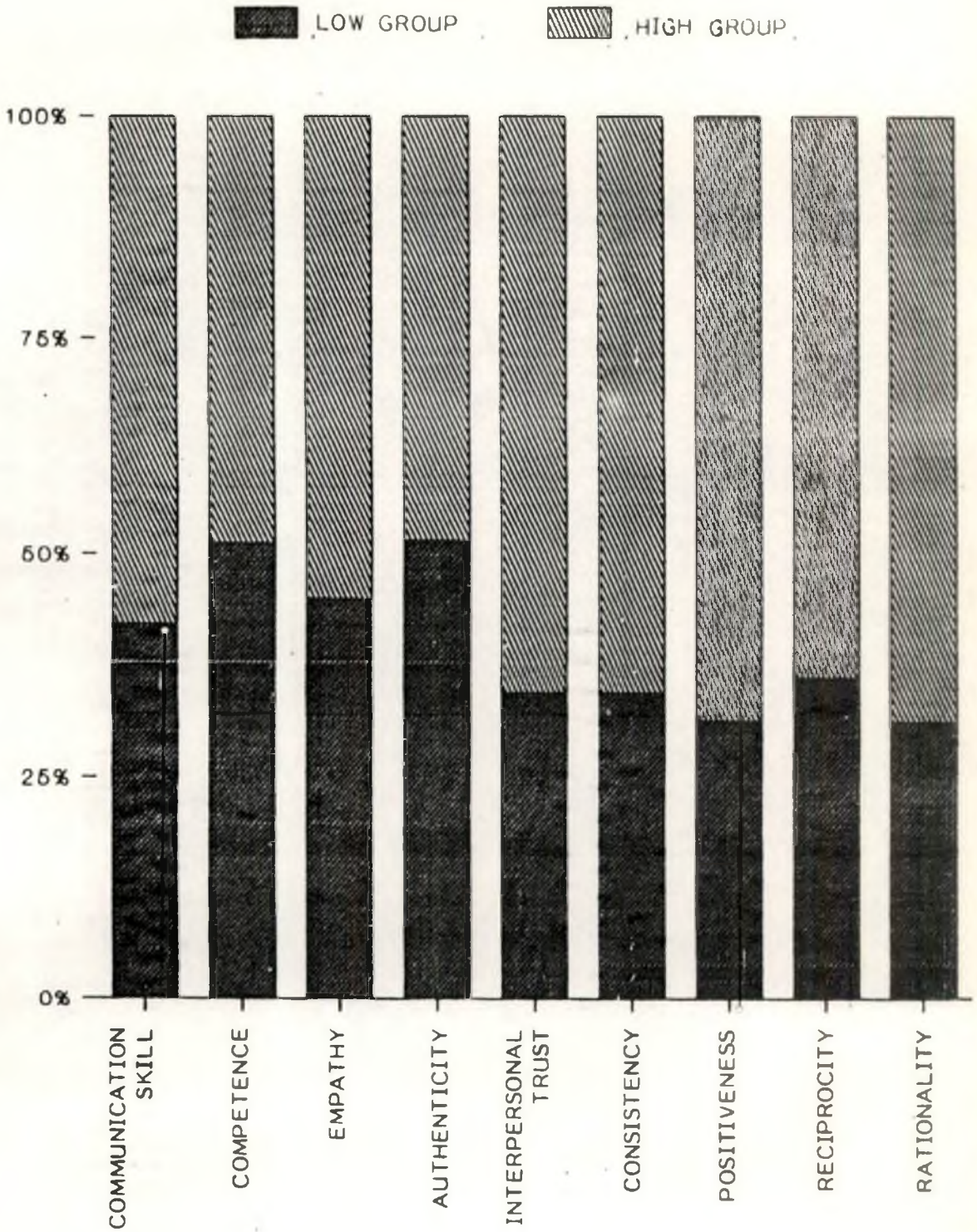


Table 4. Distribution of respondents based on the identified sub-dimensions of interpersonal communication behaviour efficiency (n = 240)

Variable	Sub-dimension	Category	Range	Frequency	Per cent
1	Communication skill	Low	< 6.48	101	42.08
		High	6.48 and above	139	57.92
2	Competence	Low	< 6.10	123	51.25
		High	6.10 and above	117	48.75
3	Empathy	Low	< 6.50	108	45.00
		High	6.5 and above	132	55.00
4	Authenticity	Low	< 7.34	124	51.67
		High	7.34 and above	116	48.33
5	Interpersonal trust	Low	< 7.07	83	34.58
		High	7.07 and above	157	65.42
6	Consistency	Low	< 7.98	83	34.58
		High	7.98 and above	157	65.42
7	Positiveness	Low	< 7.45	75	31.25
		High	7.45 and above	165	68.75
8	Reciprocity	Low	< 7.59	87	36.25
		High	7.59 and above	153	63.75
9	Rationality	Low	< 6.59	75	31.25
		High	6.59 and above	165	68.75

Fig.5. Distribution of respondents based on the identified subdimensions of IPCBE



effects on behaviour regardless of environmental situations. It is needless to say that IPCBE is a trait of personality, as it is an accumulation of skills and orientations acquired from the past life experiences. Hence it is only logical to observe a significiant variation in IPCBE among respondents. Moreover, since IPCBE is considered a trait of personality, it definitely varies from person to person, place to place, time time and from situation to situation. Therefore, differential degrees of IPCBE was observed among respondents.

It has been established unequivocally that the process of technology transfer in paddy Group Farming is taking place mainly through "word-of-mouth" communication in a face-to-face interaction. As the paddy cultivation encountered several constraints and the area under paddy began to dwindle season after season, farmers naturally became fully conscious about the necessity of keeping good interpersonal relationship with the other farmers to reduce the cost of cultivation and thereby to achieve maximum yield.

Since all the operations of Group Farming have to be accomplished with full co-operation and co-ordination of all the members of Group Farming committee, it brought about adequate group interaction among the members and thereby majority of respondents possessed good interpersonal communication behaviour efficiency. This is the possible explanation, for majority of farmers in higher category of IPCBE.

Similarly, the results in Table 4 and Figure 5 also showed the majority of respondents in the high category with regard to the sub-dimensions namely communication skill, empathy, interpersonal trust, consistency, positiveness, reciprocity and rationality - whereas, the majority of respondents was found in the lower

category with regard to the sub-dimensions competence and authenticity which necessitates the improvement of confidence upon themselves based on the perceived level of knowledge in Group Farming operations, practical experiences, application abilities and a little more genuineness in delivering messages to other farmers.

4.3. Influence of personal and socio-psychological characteristics on interpersonal communication behaviour

The relationship of personal and socio-psychological characteristics with interpersonal communication behaviour was established in this study first by simple correlation analysis and the findings are presented in Table **5**.

4.3.1. Simple correlation analysis of interpersonal communication behaviour efficiency with the personal and socio-psychological characteristics of farmers

It was found that out of the fifteen independent variables, education, socio-economic status, extension orientation, scientific orientation, mass media participation, social participation, cosmopoliteness, knowledge, attitude towards group farming, attitude towards other farmers, information source use pattern and farm size were positively and significantly related with the dependent variable "Interpersonal communication behaviour efficiency" at one per cent level of significance. However, it was seen that three variables, namely, age, occupation and farming experience did not have any significant relationship with the dependent variable. Since their effects were not significant on IPCBE, these variables were excluded from further analysis.

4.3.2. Multiple linear regression analysis

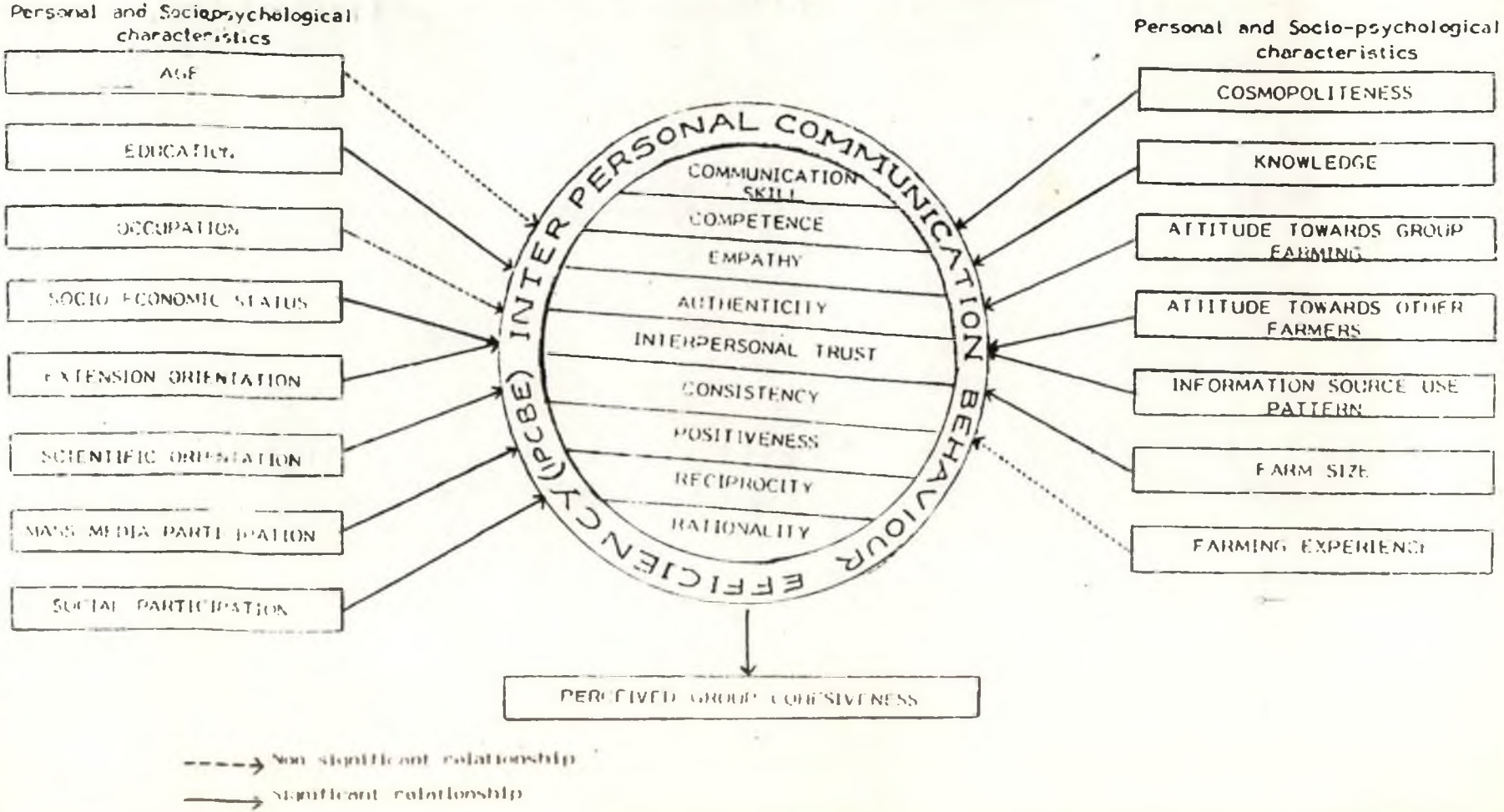
In correlation analysis, the research worker deals with the relationship of

Table 5. Results of simple correlation analysis of interpersonal communication behaviour efficiency with the personal and socio-psychological characteristics of farmers (n= 240)

Variable No.	Characteristic	Correlation coefficient
1	Age	0.070
2	Education	0.443**
3	Occupation	0.055
4	Socio-economic status	0.619**
5	Extension orientation	0.527**
6	Scientific orientation	0.439**
7	Mass media participation	0.525**
8	Social participation	0.361**
9	Cosmopoliteness	0.257**
10	Knowledge	0.603**
11	Attitude towards Group farming	0.527**
12	Attitude towards other farmers	0.673**
13	Information source use pattern	0.602**
14	Farm size	0.360**
15	Farming experience	0.100

** Significant at 1% level of significance

Fig. 6. EMPIRICAL MODEL OF INTERPERSONAL COMMUNICATION BEHAVIOUR EFFICIENCY OF RESPONDENTS WITH THE PERSONAL AND SOCIO-PSYCHOLOGICAL CHARACTERISTICS



a dependent variable with an independent variable. But in practice, several independent variables or casual factors affect the response (dependent variable). In the study of simultaneous variability of two or more causal factors on an effect (dependent variable) the researcher may want to get the relative contribution of each of the independent variables as the dependent variable and the total predictability of the linear model in representing the relationship. The method of multiple linear regression is used for this purpose. Using the twelve variables selected from correlation analysis, MLR analysis was done and the findings are presented in Table 6.

The findings of multiple linear regression analysis in Table 6 revealed that the F value (29.32) obtained was significant indicating that all the variables together contributed significantly in the variation of interpersonal communication behaviour of the members of Group Farming committees. The coefficient of determination (R^2) revealed that 60.80 per cent of the variation in the IPCBE was explained by these twelve variables.

Out of the twelve variables, only four were found to be significant namely attitude towards other farmers, extension orientation, socio-economic status and attitude towards Group Farming. These significant variables alone were selected (and non significant variables were eliminated) for attempting step down regression analysis.

4.3.3. Step down regression analysis

Though the multiple linear regression analysis gave the joint influence of all the selected independent variables on IPCBE, it is always better to have a simpler model in which, there are lesser number of predictors in explaining the relationship.

Table 6. Results of multiple linear regression analysis of IPCBE with the personal and socio-psychological characteristics of farmers (n = 240)

Variable No.	Characteristics	Regression coefficient	Standard partial regression coefficient	t value
2	Education	-0.58080	-0.057781	-0.924
4	Socio-economic status	0.51426	0.187590	2.331*
5	Extension orientation	0.61316	0.165520	2.646**
6	Scientific orientation	0.73518	0.075286	1.503
7	Mass media participation	0.35904	0.098969	1.515
8	Social participation	0.34553	0.053970	1.148
9	Cosmopoliteness	-0.13079	-0.017355	-0.378
10	Knowledge	0.88066	0.095216	1.450
11	Attitude towards Group farming	0.54917	0.118160	2.265*
12	Attitude towards other farmers	2.06990	0.313660	5.289**
13	Information source use pattern	-0.10086	0.025590	-0.319
14	Farm size	0.07960	0.040945	0.797

Intercept = 20.784439

R^2 = 0.608

F = 29.32**

** Significant at 1% level of significance

* Significant at 5% level of significance

So to get the joint influence of the best subset of predictors of IPCBE, step down regression analysis was done.

The step down regression analysis was carried out in three steps. Initially all the fifteen variables were included in the analysis. In the next step, three insignificant variables namely age, occupation and farming experience were excluded based on the probability values and the process was repeated. Again the variables with high probability values were eliminated and step down regression analysis was done with four variables such as attitude towards other farmers, extension orientation, socio-economic status and attitude towards Group Farming. The coefficient of determination (R^2) was found to be 0.582 which indicated that 58.20 per cent variation in IPCBE could be explained in these four variables at probability level of 0.01. Results of step down regression analysis are presented in Table 7.

4.3.4. Path analysis

The simple correlation coefficients indicated the degree and nature of relationship of each personal and socio-psychological characteristic with IPCBE ignoring the possible influence of other personal and socio-psychological characteristics while multiple regression analysis revealed the joint influence of all the selected personal and socio-psychological characteristics on IPCBE. It could be of interest to split the amount of relationship that a particular characteristic had with the IPCBE into

1) Its direct influence on IPCBE and

2) Possible indirect effect on IPCBE through the influence of other personal and socio-psychological characteristics

Table 7. Results of step down regression analysis of IPCBE with the selected personal and socio-psychological characteristics of farmers (n = 240)

Variable No.	Characteristic	Regression coefficient	Standard partial regression coefficient	t value
4	Socio-economic status	0.76450	0.27887	5.255**
5	Extension orientation	0.65658	0.17724	3.550**
11	Attitude towards Group farming	0.76450	0.15130	2.962**
12	Attitude towards other farmers	2.32040	0.35162	6.187**

Intercept = 20.708288

R^2 = 0.582

F = 81.92**

**Significant at 1% level of significance

Since this information was not available in the earlier analysis, the data were subjected to the multi-variate path analysis in order to get the desired information. Path coefficient analysis would enable us to measure the direct and indirect effects of each personal and socio-psychological characteristic on the IPCBE and the results are presented in Table 8 and Fig.7.

From Table 8, it was interesting to note that attitude towards other farmers had the highest direct effect on interpersonal communication behaviour efficiency, followed by socio-economic status. Similarly extension orientation and attitude towards Group Farming are the other two important variables with substantial direct effect.

The remaining variables such as knowledge, mass media participation, scientific orientation, social participation and farm size also had positive direct effects on the dependent variable. The rest of othe variables like cosmopoliteness, information source use pattern and education had negative direct effect on the dependent variable.

One interesting thing to be noted from the Table 8 was that all the variables excluding farm size had their largest indirect effect through the variable, attitude towards other farmers, whereas attitude towards other farmers had its indirect effect through socio-economic status. The variable farm size also exerted its largest indirect effect through socio-economic status.

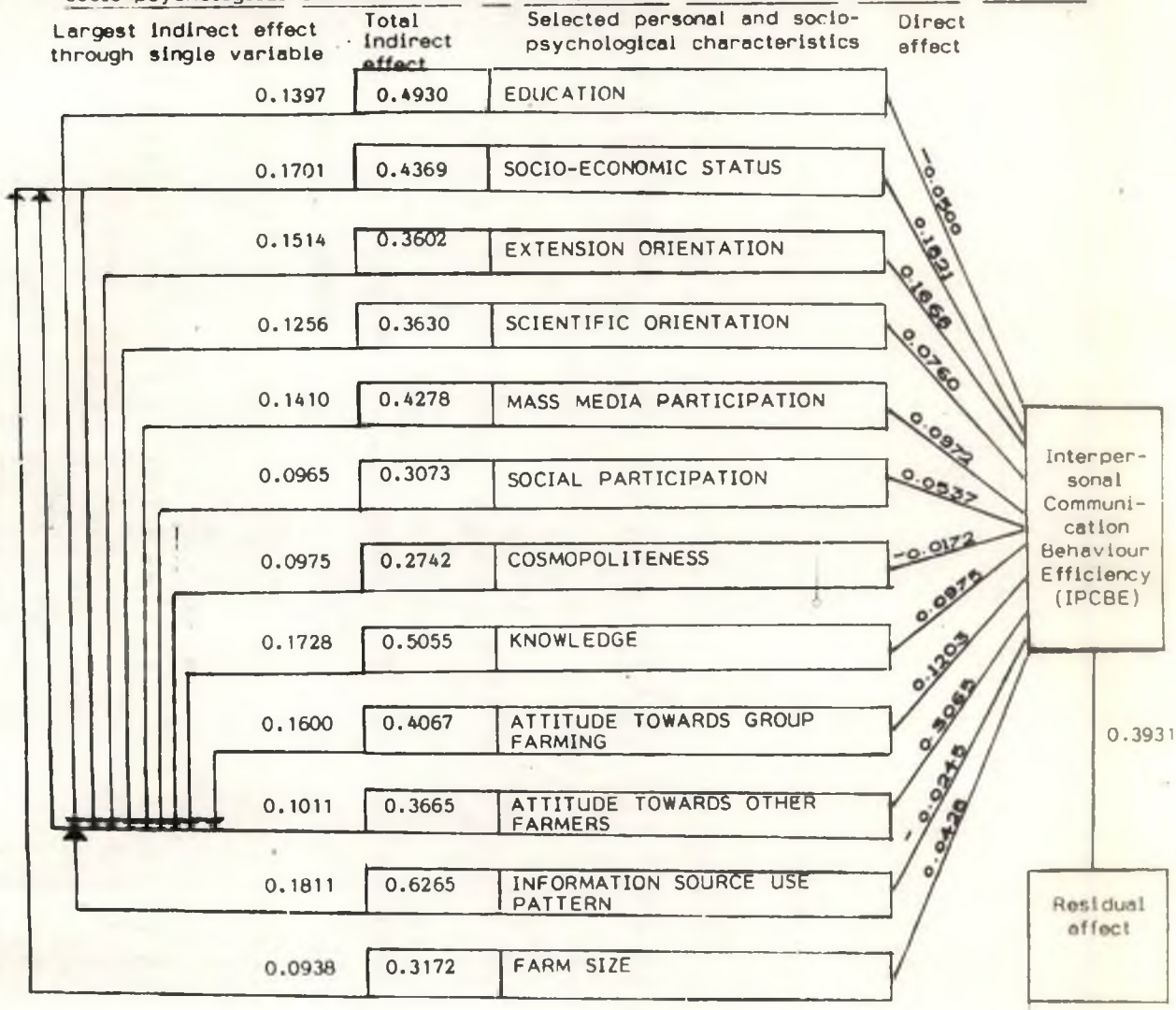
The correlation analysis (Table 5), regression analysis (Table 6), step down regression analysis (Table 7) and path analysis (Table 8) revealed that the most important variable significantly affecting interpersonal communication behaviour

Table 8. Results of path analysis of selected personal and socio-psychological characteristics of respondents with IPCBE

Variable No.	Characteristics	Direct effect		Total direct effect		Indirect effect	
		Effect	Rank	Effect	Rank	Effect	Through variable number
2	Education	-0.0500	12	0.493	3	0.1397	12
4	Socio-economic status	0.1821	2	0.4369	4	0.1701	12
5	Extension orientation	0.1668	3	0.3602	9	0.1514	12
6	Scientific orientation	0.0760	7	0.363	8	0.1256	12
7	Mass media participation	0.0972	6	0.4278	5	0.1410	12
8	Social participation	0.0537	8	0.3073	11	0.0965	12
9	Cosmopoliteness	-0.0172	10	0.2742	12	0.0975	12
10	Knowledge	0.0975	5	0.5055	2	0.1728	12
11	Attitude towards Group Farming	0.1203	4	0.4067	6	0.1600	12
12	Attitude towards other farmers	0.3065	1	0.3665	7	0.1011	4
13	Information source use pattern	-0.0245	11	0.6265	1	0.1811	12
14	Farm size	0.0428	9	0.3172	10	0.0938	4

Residual effect = 0.3931

Fig. 7. Path diagram showing the direct and indirect effect of the selected personal and socio-psychological characteristics on Interpersonal Communication Behaviour Efficiency



efficiency was 'attitude towards other farmers'. The theory of Fundamental Interpersonal Relationship Orientation (FIRO) putforth by Schutz (1958) emphasised the attitudinal disposition of an individual towards the other to affect the interaction patterns. He indicated that these dispositions would be manifested with expressed and wanted dimensions of inclusion, control and affection needs. The interchange compatibility is based upon the mutual expression of these three needs and hence is very much influenced by the orientation towards the other individual.

The exchange theory proposed by Thibaut and Kelley (1959) also assumed that the existence of a group is based solely upon the participation and satisfaction of individuals in the group. They further stated that every interaction involved a behaviour sequence and would be highly selective both with respect to who interacted with whom and with respect to what behavioural sequences were enacted. Probably no person interacts with every other person, nor does a person enact all possible behavioural sequences. This conceptual formulation underscores the relevance of the attitude towards the other individual in an interpersonal communication situation.

The empirical studies conducted on the effect of similarity on interpersonal attraction also brought to limelight the fact that agreement in activity preferences, attitudes and value ensures that the persons involved would be able to carry out the activities without much friction according to Werner and Parmelee (1979). Similarity in opinions and social background characteristics make the individuals have a favourable attitude towards the other which leads to interpersonal attraction and better interactions.

In this background, it is only logical to find that an individual with

favourable attitude towards another individual in the same environmental setting had better interpersonal communication behaviour efficiency as evidenced from the findings of this study. Kherde and Sahay (1972); Reddy (1976); Sinha *et al.* (1976); Singh (1976) and Pandyaraj (1978) also showed that attitude towards farmers is significantly correlated with communication behaviour.

The next important variable was found to be socio-economic status owing to its significant correlation coefficient, regression coefficient and high direct effect which was supplemented by a fairly high indirect effect through attitude towards other farmers and farm size. Education, occupation, caste, land-holding, socio-political participation, possessions, house and household etc. are some of the important factors that secure prestige and influence in any society.

Applebaum *et al.* (1973) described that status and power in a society are manifested when the actions of an individual change the behaviour of another person or group of persons and high status persons initiate more communication than do low status persons. Hence a Group Farming committee member's high socio-economic status would provide him enough morale to explore new areas and vistas of interpersonal relations wherein he would be coming in contact with various kinds of people and sources of information. With the knowledge and past experience he acquired, he would certainly be communicating to persons of low socio-economic status as well as to those of his own status.

This finding was also in accordance with the theory of Collins and Guetzkow (1964) which documented the finding that social structure in a group does affect the structural aspects of its communication. Leaders and other high status

persons, for example, are major participators during group interaction, both as initiators or respondents of messages, and their communication behaviour also will be high. Low status members communicate for a disproportionately large amount of their time with high status members, thus affirming that network centrality is linked with leadership and status. So socio-economic status was a considerable determinant of interpersonal communication behaviour. Similar findings were reported by Murthy (1972), Ambastha and Singh (1975), Sandhu and Darbarilal (1976), Balasubramaniam and Knight (1977), Bhaskaran (1979) and Kareem (1984).

The next variable that showed positive and significant relationship with IPCBE was extension orientation. There is every chance for an individual with high degree of extension orientation to get up-to-date and innovative information on agricultural technologies from authentic sources. The accumulation of this information will necessarily prompt him to share it with his fellow beings for whom they are relevant, as an innate tendency to act as an informer thereby acquiring an elevated status in the society. Hence it improves their degree of interpersonal communication behaviour.

The 'theory of motivation' by Murray (1938) also stated about the psychogenic needs of the similance which tempts an individual to empathise and initiate interaction with others and the need for exposition which induces the tendency to demonstrate the available information and skills in front of others. These needs are matured by the extension orientation of an individual farmer, which in turn, according to the theory, might result in increased interpersonal communication behaviour.

The results of Bhaskaran (1979), Reddy and Reddy (1980) and Kareem (1984) corroborate the findings of this study.

The variable attitude towards Group Farming also showed significant and positive correlation with interpersonal communication behaviour efficiency. This finding was in accordance with two theories. Firstly, in the theory of Group Syntality put forth by Cattel (1948), out of the seven theorems proposed in the analysis of dynamics of synatality an important one says that the total synergy of a group is the vectorial resultant of the attitudes of all the members toward the group. Synergy thus depends on the number of persons in the group, the strength and direction of the satisfactions each person obtains from the group, and the relation of such satisfactions to other groups.

Kelman (1958) in his Attitude-Action Approach, observed that attitudes were constantly shifting and changing as people interacted with the attitude object and with their social environment. Attitude flow from social interaction evolves in the course of it. In turn, the attitudes feed into social interaction and help to guide the interaction process. In his analysis of the interrelationships between attitudes and action of individuals, Kelman emphasised the importance of situational demands, and observed that the requirements of the microsystem determined the efficiency of this interaction. In the present context, the exchange of technological options and the related information packages in Group farming of rice cultivation constituted the microsystems requirements and hence the attitude towards Group farming certainly would have influenced their interpersonal interaction patterns and communication behaviour.

The variable knowledge also showed a substantial significance of positive correlation with IPCBE. It is true that a farmer's level of technical knowledge would influence his interpersonal communication behaviour efficiency as he is communicating message regarding scientific agricultural practices. Berlo (1960) in his SMCR model of interpersonal communication, pointed out that knowledge is one of the most important factors for both the source and the receiver in an interpersonal communication situation, because it is impossible to communicate purposively what one does not know, or knows incompletely. Rogers and Shoemaker (1971) also stressed that in homophily concept, interpersonal communication interaction takes place more effectively when individuals differ at least in one character, preferably knowledge level. Hence the farmers with high mass media participation would be efficient in their interpersonal communication than those with low level of mass media participation. This result was in conformity with the findings of Kherde and Sahay (1972), Chakaravarthy and singh (1974), Pathak and Majumdar (1981) and Joseph (1983).

The variable information source use pattern also showed significant positive correlation with interpersonal communication behaviour efficiency. This result was in line with the findings of Bhatia and Sandhu (1975), Pandyaraj (1978), Joseph (1983) and Kareem (1984).

An examination of the Table 2 demonstrates that majority of the respondents were having information source utilization behaviour scores above the mean value. It can be argued that successful communication needs complete and comprehensive information which requires frequent contact with various information

sources. Moreover, in this study, positive and significant inter-correlation was obtained between information source use pattern and knowledge of scientific agriculture. Hence it could be assumed that the contacts with various communication sources of a person would increase his knowledge which in turn would affect his interpersonal communication behaviour efficiency. In another angle, the information source use behaviour could be presumed to be an indicator of information seeking nature and those individuals would have naturally a better communication behaviour. This also justifies the positive and significant relationship obtained between these variables.

The results obtained in the study revealed a positive and significant relationship between mass media participation and interpersonal communication behaviour efficiency of the members of Group Farming committees. Mass media participation creates a favourable condition for better interaction because of the natural human tendency for onward transmission of any available information with him. Katz and Lazarsfeld (1955) also substantiated this type of tendency for the persons having close contact with mass media channels. Moreover, an individual obtaining varying information through the mass media channel may seek a sort of reinforcement of such information by consultations through interpersonal means. These might be the probable reasons for getting significant relation of mass media participation with IPCBE. The results of this study are in line with the findings of Bhaskaran (1979) and Kareem (1984).

The variable education also showed significant positive correlation with the dependent variable interpersonal communication behaviour efficiency. This was in accordance with the results of Salvi and Dudhani (1967), Patel and Leagans

(1968) and Sinha *et al.* (1976). Higher level of formal education would have contributed to an individual an elevated status in a heterogeneous rural setting. This status will prompt him to act as communicators and to initiate interaction in the group. This is in addition to the higher levels of knowledge contributed to the individual by the formal education. Moreover, as the educational status improves, the committee members show more preference to information sources to be effective communicators. These reasons might have contributed for the positive and significant correlation for education with interpersonal communication behaviour. Singh (1970), Sundaraswamy (1971), Ramachandran (1974), Sandhu and Darbarilal (1976), Rao and Reddy (1980), Ambastha (1980), Natikar (1983) and Subramoniam (1986) also reported the same results.

The next variable significantly and positively correlated with IPCBE was Scientific Orientation. The studies reported by Murthy (1972), Singh (1973), Sandhu and Darbarilal (1976) and Vijayaraghavan (1976) and Joseph (1983) support the above finding.

The introduction of Group Farming approach has substantially contributed to adoption of scientific package of practices in rice cultivation. Hence a Group Farming committee member has to communicate messages which are mostly scientific innovations. Effective communication of these innovations requires a favourable orientation of individuals towards scientific aspects. When a person is committed himself to traditional values and farming styles, it is difficult to communicate scientific information as he is tradition bound. Hence it is only natural that the respondent with more scientific orientation will be better in interpersonal communication behaviour efficiency also.

The variable social participation also was positively and significantly correlated with the interpersonal communication behaviour efficiency. It is natural that as a result of social participation, the committee members establish better contacts with other people, which have resulted in acquiring new knowledge about agriculture. Thus it could be understood that social participation increased the knowledge about modern agricultural practices in addition to the increased interaction behaviour resulting in high level of interpersonal communication behaviour of committee members.

The results showed that the variable farm size also was significantly and positively correlated with IPCBE. The committee members with substantial paddy acreage naturally become confident in the peer group situation and it leads to the creation of assertiveness and dominance in the society. Therefore they communicate more with the fellow farmers as the sources of information and it in turn brings about higher interpersonal interactions. The related findings of positive correlation of farm size were reported by Sethu (1981), Seema (1986) and Kubde *et al.* (1989).

Cosmopoliteness was the next variable found to be positively and significantly related with interpersonal communication behaviour. This relationship might be due to the fact that the people who interact with others during their visit to the nearest town or market places receive more information from them and communicate it to other farmers of their system. Since they act as personal localite sources, other farmers accept the information from the committee members without much hesitation. As a result, the interpersonal communication behaviour will be improved. In this circumstance, it can be informed that the higher the cosmopoliteness, the more is the interpersonal communication behaviour efficiency. This result is in accordance

with the findings of Murthy (1972), Singh (1973), Ambastha and Singh (1975), Vijayaraghavan and Subramaniam (1981), Subramoniam (1986) and Manandhar (1987).

From the Table, it is observed that the rest of the variables such as farming experience, occupation and age were not significantly correlated with interpersonal communication behaviour efficiency. Reddy (1982), Sobhana (1982) and Menon (1993) reported nonsignificant relationship of experience with role performance of different categories of respondents. Similarly, Seema (1986) and Menon (1993) reported that occupation also had no significant relationship with communication behaviour. Age also was not correlated with IPCBE and this result was in conformity with the findings of Sandhu and Darbarilal (1976) and Nehru (1980).

The results reported above rejected the hypothesis that there would be no significant relationship between the interpersonal communication behaviour efficiency and the personal and socio-psychological characteristics of Group farming committee members except for age, occupation and farming experience.

4.4. Influence of sub-dimensions of Interpersonal Communication Behaviour Efficiency on the dependent variable IPCBE

The relationship of sub-dimensions of IPCBE with interpersonal communication behaviour was established in this study first by simple correlation analysis and the findings are present in Table 9.

4.4.1. Simple correlation analysis of interpersonal communication behaviour efficiency with its sub-dimensions

A perusal of the Table indicated that all the nine sub-dimensions were

Table 9. Results of simple correlation analysis of interpersonal communication behaviour efficiency with its sub-dimensions (n = 240)

Variable No.	Characteristic	Correlation coefficient (r)
1	Communication skill	0.882**
2	Competence	0.757**
3	Empathy	0.744**
4	Authenticity	0.679**
5	Interpersonal trust	0.623**
6	Consistency	0.611**
7	Positiveness	0.786**
8	Reciprocity	0.559**
9	Rationality	0.485**

** Significant at 1% level of significance

positively and significantly related with IPCBE, at one per cent level of significance. The degree of relationship goes maximum in the case of communication skill, followed by positiveness, competance, empathy, authenticity, interpersonal trust, consistency, reciprocity and rationality in that order.

4.4.2. Multiple linear regression analysis

Multiple regression analysis was carried out using all the nine sub-dimensions to assess the joint influence on IPCBE. The findings are presented in Table 10.

The findings of multiple linear regression analysis in Table revealed that the F value (3129.01) obtained was significant indicating that all the nine sub-dimensions together contributed significantly in the IPCBE. The coefficient of determination (R^2) was 0.922 which revealed that 99.20 per cent of the variation in IPCBE was explained by these nine sub-dimensions. Out of the nine sub-dimensions, four dimensions with highest t value, namely communication skill, empathy, interpersonal trust and competence were selected for step down regression analysis.

4.4.3. Step down regression analysis

The step down regression analysis was carried out in two steps. Initially all the nine sub-dimensions were included in the analysis and in the next step, four sub-dimensions such as communication skill, empathy, interpersonal trust and competence with highest t value were selected and analysis was carried out. The coefficient of determination (R^2) was found to be 0.938 which means that 93.80 per cent in variation of IPCBE was explained by these four sub-dimensions. The results of step down regression analysis are presented in Table 11.

Table 10. Results of multiple linear regression analysis of IPCBE with the sub-dimensions (n = 240)

Variable No.	Characteristic	Regression coefficient	Standard partial regression coefficient	't' value
1	Communication skill	2.18870	0.285970	28.288**
2	Competence	1.31500	0.172900	21.210**
3	Empathy	1.02520	0.212720	27.240**
4	Authenticity	0.87463	0.088276	11.352**
5	Interpersonal trust	1.16030	0.165020	23.235**
6	Consistency	0.78056	0.104990	14.469**
7	Positiveness	0.83020	0.131450	14.670**
8	Reciprocity	0.88150	0.112390	16.434**
9	Rationality	0.88471	0.118110	18.010**

Intercept = 0.365583

R^2 = 0.992

F = 3129.01**

** Significant at 1% level of significance

Table 11. Results of step down regression analysis of IPCBE with the selected sub-dimensions (n = 240)

Variable No.	Characteristic	Regression coefficient	Standard partial regression coefficient	't' value
1	Communication skill	3.3722	0.44125	18.127**
2	Competence	1.9327	0.25411	11.862**
3	Empathy	1.4220	0.29504	14.453**
5	Interpersonal trust	1.5407	0.21912	11.699**

Intercept = 14.895321

R^2 = 0.938

F = 885.17**

** Significant at 1% level of significance

4.4.4. Path analysis of different sub-dimensions of dependent variable with IPCBE

The path coefficient analysis was carried out to find the direct and indirect effects of the sub-dimensions on IPCBE and the results are presented in Table 12 and Fig.8.

From Table 12, it was obvious that communication skill had the highest direct effect on IPCBE followed by empathy, competence, interpersonal trust, positiveness, rationality, reciprocity, consistency and authenticity. Communication skill covered the skills in reception, processing, expression and feedback orientation of the messages received by the Group Farming committee members. Another important finding was that all the sub-dimensions had their largest indirect effect through communication skill itself, whereas communication skill had its indirect effect through the sub-dimension empathy.

The regression coefficients (Table 11) also showed that the dimensions such as communication skill, competence, empathy and interpersonal trust contributed significantly to interpersonal communication behaviour with a maximum regression coefficient for communication skill. The significant correlation coefficient of communication skill was due to its high direct effect on interpersonal communication behaviour, which was supplemented by a good contribution of indirect effect of all other sub-dimensions.

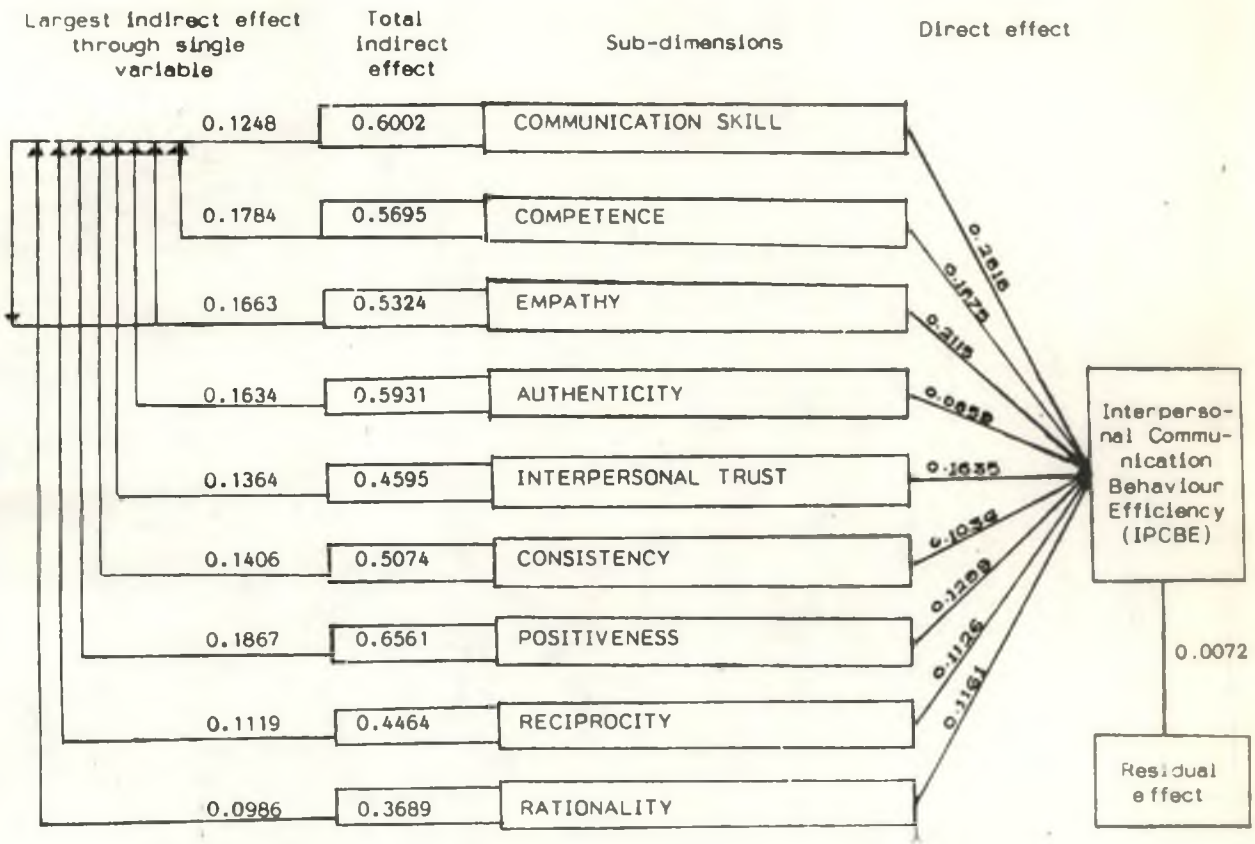
Skill in doing an act will definitely be related with the efficiency in the performance of that act. The more the skill in doing an act, the more will be the efficiency in performing that act. The finding was in accordance with the observations of Berlo (1960), Leagans (1961), Singh (1973) and Singh and Jha (1971).

Table 12. Results of path analysis of different sub-dimensions of dependent variable with IPCBE (n = 240)

Sl. No.	Sub-dimensions	Direct effect		Total direct effect		Largest indirect effect	
		Effect	Rank	Effect	Rank	Effect	Through variable number
1	Communication skill	0.2818	1	0.6002	2	0.1248	3
2	Competence	0.1875	3	0.5695	4	0.1784	1
3	Empathy	0.2115	2	0.5325	5	0.1663	1
4	Authenticity	0.0859	9	0.5931	3	0.1634	1
5	Interpersonal trust	0.1635	4	0.4595	7	0.1364	1
6	Consistency	0.1036	8	0.5074	6	0.1406	1
7	Positiveness	0.1299	5	0.6561	1	0.1967	1
8	Reciprocity	0.1126	7	0.4464	8	0.1119	1
9	Rationality	0.1161	6	0.3689	9	0.0986	1

Residual effect = 0.0072

Fig. 8. Path diagram showing the direct and indirect effect of the sub-dimensions of the dependent variable on IPCBE



All the other sub-dimensions were positively and significantly correlated with interpersonal communication behaviour efficiency. These results led to the conclusion that all the identified sub-dimensions were important and highly contributing to the dependent variable IPCBE.

4.5. Perceived group cohesiveness as influenced by IPCBE

The cohesiveness of the Group Farming committees according to the member's perception was quantified and the results obtained are furnished in Table 13.

From the Table, it is obvious that 63.75 per cent of the respondents were in the high category with regard to the perceived group cohesiveness. Another important point was that in the simple correlation analysis, the perceived group cohesiveness was positively and significantly related with the dependent variable, interpersonal communication behaviour efficiency of Group Farming committee members.

After the implementation of Group Farming in paddy, the farmers became fully conscious about the necessity of co-operation and co-ordination with fellow farmers to undertake different operations in Group Farming which resulted in considerable group cohesion. As a result of the improvement in the IPCBE and thus the dynamics of Group Farming committees also showed substantial improvement in leadership development and group cohesiveness. These might be the probable reasons, why the cohesion of Group Farming committees as perceived by the committee members had a better frequency in the category and is only natural to have a positive

Table 13. Perceived group cohesiveness of Group Farming committee members (n = 240)

Sl.No.	Characteristic	Category	Range	Frequency	Per cent	Correlation coefficient with IPCBE
1	Perceived group cohesiveness	Low	< 9.9	87	36.25	0.386**
		High	9.9 and above	153	63.75	

** Significant at 1% level of significance

and significant relationship with the process variable interpersonal communication behaviour efficiency.

This finding was also in accordance with the 'exchange theory' put forth by Thibaut and Kelley (1959) and it intended to explain interpersonal behaviour and group processes. The theory assumed that the existence of the group is based solely upon the participation and satisfaction of individuals in the group. Therefore the analysis of group processes must be in terms of adjustments that individuals make in attempting to solve the problems of interdependency, so as to bring about greater cohesiveness and good interpersonal relations.

Based on this result, the null hypothesis of nonsignificant relationship between the perceived group cohesiveness of the members of Group Farming committees and their interpersonal communication behaviour was rejected.

4.6. Extent of information flow for adopting the rice production technology through interpersonal means

Here an attempt was made to quantify the extent of information flow in different operations of Group farming by the committee members. Results are tabulated and the close examination of the Table 14 revealed that the highest percentage of information flow from the fellow farmers took place with regard to the operation 'Plant Protection'. The lowest percentage was noticed for seed treatment. Seed variety and fertilizer application also scored a substantial percentage of information flow. Irrigation and nursery management also scored more than 50 per cent. But for the operations like transplanting, land preparation and organic manure application the per cent of extent of information flow for adopting the technology was below 50. It was interesting to note the results in the Table that, for the important operation,

Table 14. Extent of information flow for adopting rice production technology (n = 240)

Stages	All information			Some information			No information			Total score	Total percentage
	No. of respondents	Percentage	Score	No. of respondents	Percentage	Score	No. of respondents	Percentage	Score		
Seed variety	114	47.50	228	115	47.92	115	11	4.58	0	343	71.46
Land preparation and organic manure application	17	7.08	34	175	72.92	175	48	20.00	0	209	43.54
Seed treatment	1	0.42	2	12	5.00	12	227	94.58	0	14	12.92
Nursery management	44	18.33	88	170	70.83	170	26	10.84	0	258	53.75
Transplanting	23	9.58	46	167	69.58	167	50	20.84	0	213	44.38
Fertilizer application	111	46.25	222	121	50.42	121	8	3.33	0	343	71.46
Plant protection	116	48.33	232	117	48.75	117	7	2.92	0	349	72.71
Irrigation	60	25.00	120	161	67.08	161	19	7.92	0	281	58.54

plant protection, 48.33 per cent of respondents got all information from other farmers, 48.75 per cent got at least some information and only 2.92 per cent got no information at all from other farmers. This probably might be because of the fact that, the plant protection for control of pests and insects is an integral component of paddy farming that has to be done with much care. So, only after consultations and discussions with fellow farmers, majority of respondents collected and adopted the information on plant protection. Therefore it is only natural to see that the total percentage of information flow is the maximum (71.46 per cent) in that case.

The most important thing to be observed from the Table was that for the operation seed treatment only 0.42 per cent of respondents got all information and only 5 per cent got some information. The remaining 94.58 per cent of respondents got no information on seed treatment of paddy. This might be because of the following reasons.

1. The seed treatment with chemical fungicides before sowing is a little bit technical, so that an ordinary farmer without much education and knowledge might not be able to pick it up.
2. Lack of adequate training and demonstrations on seed treatment. formulation of the chemical solution etc.
3. Lack of observability of the result of seed treatment i.e., farmers might not believe the efficacy of seed treatment in the control of diseases because the result is not observable. According to Rogers and Shoemaker (1971), observability of results is one of the important attributes of an innovation.

Summary

CHAPTER-V

SUMMARY

Effective communication of improved technology is one of the most important factors for agricultural development. Being predominantly agricultural in nature, Kerala economy can not anticipate a bright future unless significant break-through is achieved in agricultural production. One of the major reasons which made the scientific cultivation methods uneconomical was marginalisation of holdings. So as a viable solution, Group Farming approach for rice cultivation was introduced through Krishi Bhavans of every panchayath in the State.

Group Farming approach which has been accepted as a new extension model in Kerala, has been proved to be successful in reducing the cost of cultivation in rice significantly along with increasing the production and productivity of our fields. This model has an added advantage of helping the marginal farmers to adopt improved cultivation practices which were not easily feasible for them on individual basis. Experiences and observations indicated that the informal interpersonal communication network that is existing among the members of Group Farming committee is significantly contributing to the diffusion of location specific and problem oriented improved agricultural technology, which helps to make the discisions more collective and democratic. It was therefore decided to make a study on the Interpersonal Communication Behaviour Efficiency (IPCBE) of Group Farming committee members to get a useful insight on the feasibility of using the interpersonal communication network in the transfer of technology process and to analyse the group cohesiveness and the extent of information flow for adopting the rice production technology through interpersonal means.

The study was conducted with the following specific objectives.

1. To identify the interpersonal communication behaviour efficiency of the members of Group Farming committees.
2. To assess the influence of selected personal and socio-psychological characteristicts of the members of Group Farming committees on their interpersonal communication behaviour efficiency.
3. To study the perceived group cohesiveness in relation to interpersonal communication behaviour efficiency of the members of Group Farming committees.
4. To assess the extent of information flow for adoption of rice production technology through interpersonal means.

To conduct the study, 240 respondents were selected by simple random sampling from the highest paddy growing blocks of four districts namely Palakkad, Thrissur, Ernakulam and Alappuzha with maximum paddy area in Kerala State. The required information was collected by personally interviewing them with a pre-tested structured interview schedule. Ex-post-facto research design was followed here. The major results of the study were as detailed below

1) There was a significant variation in the interpersonal communication behaviour efficiency of the members of Group Farming committees and the majority of respondents were in the higher category of interpersonal communication behaviour efficiency.

2) Distribution of respondents based on the personal and socio-psychological characteristics showed majority of the respondents belong to the

higher category with regard to age, education, occupation, socio-economic status, extension orientation, scientific orientation, mass media participation, cosmopoliteness, attitude towards Group Farming, attitude towards other farmers, information source use pattern and farming experience. For the rest of the variables such as farm size, social participation and knowledge, majority of respondents were in lower category.

3) The simple correlation analysis to study the influence of personal and socio-psychological characteristics revealed that out of the fifteen variables education, socio-economic status, extension orientation, scientific orientation, mass media participation, social participation, cosmopoliteness, knowledge, attitude towards Group Farming, attitude towards other farmers, information source use pattern and farm size were positively and significantly related with IPCBE. Multiple regression analysis explained 60.80 per cent variation in the dependent variable by these selected personal and socio-psychological characteristics and only four variables namely attitude towards other farmers, socio-economic status, extension orientation and attitude towards Group Farming were positively and significantly related with IPCBE. The step down regression analysis explained 58.20 per cent variability on IPCBE by these four variables. The results of path analysis also showed that the highest direct effects on IPCBE were due to these four variables.

4) Out of the nine identified sub-dimensions of IPCBE, majority of the respondents were in the higher category for seven dimensions namely communication skill, empathy, interpersonal trust, consistency, positiveness, reciprocity and rationality and the remaining two dimensions such as competence and authenticity could get majority of the respondents in the lower category.

5) The simple correlation and multiple regression analysis revealed that all the nine identified sub-dimensions were positively and significantly related with interpersonal communication behaviour efficiency which explained 99.20 per cent of variation in IPCBE. The step down regression analysis pointed out that 93.80 per cent of variation was explained by four sub-dimensions namely communication skill, empathy, competence and interpersonal trust. These four sub-dimentsions exerted the highest direct effects on IPCBE according to the results of path analysis.

6) The results of perceived group cohesiveness as influenced by the IPCBE showed that majority of respondents (63.75 per cent) belonged to the higher category of perceived group cohesiveness and the correlation coefficient revealed a positive and significant influence of IPCBE on the perceived group cohesiveness.

7) The assessment of extent of information flow for adopting rice production technology through interpersonal means showed that out of eight critical operations of Group Farming, the highest percentage of information flow from the fellow farmers took place with regard to 'plant protection', followed by 'seeds variety', 'fertilizer application', 'irrigation', 'nursery management', 'transplanting' and 'land preparation'. The least percentage of information flow was in the case of 'seed treatment'. Hence the transfer of scientific information on the technologies for which the information flow was less need to be strengthened, as they remain to be the unfelt needs of the farming community.

Suggestions for future research

In the crux of present agricultural system prevailing in Kerala, there should be a continuous effort in the line of communication research among the

farmers in all the levels in order to update their efficiency in the transfer of technology to bring about continuous improvement in the production and productivity of rice.

Since the present study was envisaged to get a vivid picture about interpersonal communication behaviour efficiency of the committee member as a personality trait, most of the dimensions were measured as perceived by the farmer and hence natural biases might have been crept in. Since the measurement of interpersonal communication behaviour efficiency was done by identifying nine dimensions, this scale can be used for similar future research in different agricultural as well as non agricultural situations for larger application. This procedure would be useful for assessing the interpersonal communication behaviour of different types of respondents such as farm women, youth, labourers, extension personnel etc. even in the allied areas of Group Farming also. Due to the lack of time and resources, this research was focussed only on a small sample of 240 respondents. To get a distinct outlook of the cultivation scenario, an exhaustive research with larger sample and a wider area involving the farmers of other crop enterprises like cashcrops, perennials and homestead farming systems would be of ample scope.

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* Originals not seen

Appendices

APPENDIX-I

Intercorrelation matrix between the independent variables and interpersonal communication behaviour efficiency

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.000															
-0.327	1.000														
0.136	-0.140	1.000													
-0.057	0.710	-0.006	1.000												
-0.050	0.313	0.064	0.431	1.000											
-0.106	0.311	-0.096	0.439	0.286	1.000										
-0.081	0.526	-0.059	0.619	0.334	0.277	1.000									
-0.080	0.261	0.013	0.316	0.331	0.256	0.318	1.000								
-0.167	0.299	-0.064	0.279	0.278	0.141	0.313	0.227	1.000							
-0.088	0.488	-0.039	0.648	0.435	0.507	0.620	0.315	0.282	1.000						
-0.098	0.358	0.006	0.454	0.367	0.302	0.449	0.255	0.145	0.479	1.000					
-0.157	0.465	-0.025	0.555	0.494	0.410	0.460	0.315	0.318	0.564	0.522	1.000				
-0.059	0.490	-0.024	0.617	0.706	0.364	0.659	0.383	0.305	0.634	0.466	0.591	1.000			
0.083	0.221	0.043	0.515	0.222	0.237	0.319	0.295	0.088	0.316	0.178	0.295	0.347	1.000		
0.589	-0.163	0.147	0.044	0.105	-0.075	0.041	-0.042	0.044	-0.009	-0.021	-0.029	0.014	0.142	1.000	
-0.070	0.443	0.055	0.619	0.527	0.439	0.525	0.361	0.257	0.603	0.527	0.673	0.602	0.360	0.100	1.000

APPENDIX-II

Intercorrelation matrix between the identified sub-dimensions and interpersonal communication behaviour efficiency

	1	2	3	4	5	6	7	8	9	10
1	1.000									
2	0.633	1.000								
3	0.590	0.472	1.000							
4	0.580	0.490	0.504	1.000						
5	0.484	0.386	0.315	0.400	1.000					
6	0.499	0.396	0.374	0.320	0.397	1.000				
7	0.698	0.564	0.527	0.502	0.383	0.489	1.000			
8	0.397	0.330	0.339	0.353	0.340	0.341	0.421	1.000		
9	0.350	0.365	0.323	0.238	0.177	0.164	0.330	0.215	1.000	
10	0.882	0.757	0.744	0.679	0.623	0.611	0.786	0.559	0.485	1.000

APPENDIX-IIIA

A STUDY ON THE INTERPERSONAL COMMUNICATION BEHAVIOUR OF THE MEMBERS OF GROUP FARMING COMMITTEES IN THE ADOPTION OF RICE PRODUCTION TECHNOLOGY

INTERVIEW SCHEDULE

1. Name and address of the Group Farming committee member

2. Age

3. Edcuation
   - No schooling :
   - Functionally literate :
   - Upto primary school :
   - Middle school :
   - High school :
   - College level and above :

4. Main occupation
   - Agriculture :
   - Service sector :
   - Business :
   - Others (specify) :

5. Farm size (Acres)
   - Garden land :
   - Wet land :

6. Experience in rice cultivation

7. Socio-economic status

   1. Occupation
      - 0. Nothing ( )
      - 1. Unskilled ( )
      - 2. Semiskilled ( )
      - 3. Farming/Business ( )
      - 4. Professional ( )

   2. Land holding
      - 0. Landless ( )
      - 1. Marginal (0.1-1 ha) ( )
      - 2. Small (1.1-2 ha) ( )
      - 3. Semimedium (2.1-4ha) ( )

4. Medium (4.1-10 ha) ( )
5. Large (10 + ha) ( )

3. Caste

0. Schedule ( )
1. Most backward ( )
2. Backward ( )
3. Forward ( )
4. Dominant ( )

4. Education

0. No schooling ( )
1. Functionally literate ( )
2. Up to primary school ( )
3. Middle school ( )
4. High school ( )
5. College level and above ( )

5. Socio-political participation

0. Without any official position in socio-political organization ( )

1. Official position in one or more organizations ( )

2. Official position in social and political committees ( )

3. Financial contribution or raising funds for common work ( )

4. Active office bearer ( )

5. Involvement in community work ( )

6. Possessions

0. None ( )

1. One farm animal (bullock, buffalo, cow, bicycle, furniture) ( )

2. Two farm animals/Improved farm implement/Newspaper/Electricity/Radio ( )

3. 3-4 farm animals/Implement/Newspaper/ Electricity ( )

4. 5-10 farm animals/Pumpset ( )

5. More than 10 farm animals/tractor/ Automobile ( )

7. House

0. Shed thatched ( )
1. Mudd walled & thatched ( )
2. Brick walled and tiled ( )
3. Concretehouse ( )
4. Concrete & Double storeyed ( )

8. House hold

0. Small (1-3 members) ( )
1. Medium (4-6 members) ( )
2. Large (7-9 members) ( )
3. Very large (9 and above) ( )
4. Special features ( )

8. Extension orientation

a) Extension contact

No Frequency of meeting Agrl. Assistant/Agrl. Officer

1. Once a week ( )
2. Once a fortnight ( )
3. Once a month ( )
4. Never ( )

b) Extension participation

Sl. No.	Activities	Attended whenever conducted	Occasionally attended	Never attended
1.	Study tours			
2.	Seminars/Meetings			
3.	Farm days/Farm fair			
4.	Demonstrations			
5.	Others (specify)			

9. Scientific orientation

	Agree/Disagree
1. New methods of farming give better results than old methods	
2. The way of farming by our forefathers is the best way to farm today	
3. Even a farmer with lot of experience should use new methods of farming	
4. A good teacher experiments with new ideas in farming	
5. Though it takes time for a farmer to learn new methods in farming it is worthwhile the efforts	
6. Traditional methods of farming have to be changed inorder to raise the level of living of a farmer	

10. Mass media participation

Sl. No.	Media	Twice or more a week	Once a week	Once a fortnight	Once a month	Never
1	Newspaper					
2	Radio (general)					
3	Radio rural programmes					
4	Magazines & other literature on agriculture					

11. Social participation

Sl. No.	Organization	Member	Office Bearer	Participation		
				Always	Sometimes	Never
1	Panchayat					
2	Co-operative society					
3	Youth clubs					
4	Labour organization					
5	Socio-cultural organizations					

12. Cosmopoliteness

A. Frequency of visit to the nearest town

1. Twice or more a week ( )
2. Once a week ( )
3. Once a fortnight ( )
4. Once a month ( )
5. Very rarely ( )
6. Never ( )

B. Purpose of visit

1. All visits relating to agriculture ( )
2. Some relating to agriculture ( )
3. Personal or domestic matters ( )
4. Entertainment ( )
5. Any other purpose ( )
6. No response ( )

13. Knowledge

A) The rice variety resistant to the attack of BPH

a) Jaya (b) I.R.8 (c) Annapoorna (d) Bharathi

B) What is the purpose of seed treatment with chemicals before sowing?

a) To kill the insects present in the seed
b) To kill the disease causing pathogens present in the seed
c) To kill the weed seeds present in the seed

C) Soil to a depth of ..... is collected for testing it's fertility status

a) 6 inches (b) 15 inches (c) 10 inches (d) 20 inches

D) How will you apply Ammonium sulphate/Urea to paddy crop?
a) Entire quantity as basal dose
b) Entire quantity as top dressing
c) Split doses in different growth phases

E) The chemical used for the control of rice stem borer

a) Sevin (b) Ekalux (c) BHC (d) Dimecron

F) The chemical used for the control of blast disease of paddy

a) Hinosan (b) Bordeaux mixture (c) Sevin (d) Ekalux

G) Which one is the high yielding short duration variety of paddy?

a) Chitteni (b) Chenkaima (c) Mashoori (d) Triveni

H) The rice variety tolerant to blast disease

a) Annapoorna (b) Jyothi (c) Triveni (d) Jaya

14. Attitude towards Group Farming

Sl.No.	Statements	Agree	Undecided	Disagree
1	Group Farming has made significant improvement in the economic condition of farmers			
2	The Group Farming programme should be immediately absolished as no good work is actually done			
3	Group Farming promotes mutual co-operation among farmers			
4	In reality, no individual farmer is interested in Group Farming			
5	Knowledge of farmers of Group Farming committees has increased due to better contact with Extension Officers and other farmers			
6	Group Farming solves many problems of our farmers			
7	Cost of cultivation has been reduced by following Group Farming programme			
8	The Group Farming programme has nothing new to offer			

15. Attitude towards other farmers

Sl.No.	Statements	Agree	Undecided	Disagree
1	It is always good to keep good relationship with other farmers of the Group Farming committee			
2	Discussing the agricultural matters of Group Farming with other farmers is merely a waste of time			
3	To bring about substantial improvement in rice production, it is a necessity to retain frequent interpersonal contact with other farmers			
4	Since the other farmers are not much bothered about improving the agricultural practices of Group Farming I do not convey the information I received to them			
5	I am proud of the fact that, mututal help and co-operation from other farmers are possible profusely in Group Farming			
6	I think it is of no use to discuss the agricultural matters to other farmers, because majority of them are not interested in the socio-economic development aspects			

16. Information source use pattern

	Always	Sometimes	Never
1. Radio rural programme			
2. Newspaper			
3. Agricultural publications			
4. Agricultural guide/diary			
5. Agricultural journals			

	Always	Sometimes	Never
6. Agricultural seminars			
7. Agricultural workshops			
8. Agricultural training classes			
9. Agricultural exhibitions			
10. Agricultural assistants/officers			

17. Perceived Group Cohesiveness

Statements	Always	Sometimes	Never
1. The Group Farming committee in which I am a member functions properly			
2. Contradictions in opinions are common during the time of a group dicision making in the committee			
3. Since the differences in opinions exeed its limits, it becomes difficult to arrive at wise dicissions			
4. All the members of the committee use to take part actively during the planning stage of various Group Farming operations			
5. When the plans are being implemented, all the committee members use to take part actively			
6. When the Group Farming activities are being appraised, all the members of the committee feel alike and equally impor tant			
7. During the evaluation of various programmes of Group Farming, the members use to have a common opinion and a common conclusion			
8. As a member of the Group Farming committee, I am fully satisfied with my present conditions			

18. Extent of information flow for adoption of the rice production technology

Sl. No.	Stages of operations in Group Farming	All Information	Some Information	No Information
1	Seed variety			
2	Land preparation & application of FYM			
3	Seed treatment			
4	Nursery management			
5	Transplanting of crop			
6	Manuring the field			
7	Plant protection in the field			
8	Water management in the field			

DEPENDENT VARIABLE: Interpersonal communication behaviour efficiency

Measurement of sub-dimensions

1. COMMUNICATION SKILL

	Always	Sometimes	Never
A. Reception skill			
When another farmer describes the matters regarding paddy cultivation			
1. Do you listen it carefully?			
2. Do you become impatient when the other farmer speaks too much?			
3. Do you interrupt him before he finishes the matter?			
4. Do you try to guess the matter before he starts talking?			
B. Processing skill (Translation, Interpretation, Extrapolation)			
1. When another farmer tells you the agricultural methods to make Group Farming programme profitable, do you try to make it out in your own way?			
2. When you get an information about a new method of farming do you use to think about its' feasibility in your field conditions and your sorroundings?			
3. When you understand a new method of farming from another farmer, will you be able to predict its results in advance, if you apply that practice in your own field?			
C. Expression skill			
When you disseminate some agricultural information to another farmer, to what extent you insist on the following points			

Always Sometimes Never

1. Make sure to say only the accurate information to the possible extent

2. Speak in an easily understandable way without any block or obstruction

3. Without creating a feeling of enforcement, try to convince the other farmer

4. Explain the ideas with creation of a feeling of honesty in communication

D. Feedback orientation

1. When you describe any information on farming to another farmer, do you try to elicit questions from him?

2. When the other farmer asks questions do you feel happy in getting an opportunity to explain it further?

3. If the other farmer asks doubts again and again, do you try to convince him to the maximum extent without showing any displeasure?

4. Even if you encourage questions from the other farmer and he does not react, do you probe further to ascertain whether he understood it or not.

Always Sometimes Never

2. COMPETENCE

1. When you explain the agricultural information to any other farmer, do you feel confidence in your ability to convince him?

2. Do you explain the new ideas in farming to any other farmer without any personal experience in your field?

3. When any other farmer asks doubts regarding the following operations of Group Farming programme, to what extent you can explain it authoritatively?

	Fully	To some extent	Not at all
1. Seed variety			
2. Land preparation & application of FYM			
3. Seed treatment			
4. Nursery management			
5. Transplanting			
6. Fertilizer application			
7. Plant protection			
8. Water management			

3. EMPATHY

	Always	Sometimes	Never
1. When you speak about agricultural matters to other farmers, do you imagine in terms of "You were in his position"?			

2. When you communicate an information regarding paddy cultivation to another farmer, if the farmer metions his problems that are coming in the way of adopting that technology

1. You get angry and irritated	( )
2. You consider it an escapism and leave him	( )
3. You try to understand his problems and make necessary alternative solutions	( )

4. AUTHENTICITY

	Always	Sometimes	Never
1. When you disseminate an information regarding paddy cultivation to another farmer, do you try to keep hundred per cent sincerity in it?			

2. If you don't have complete information on a method of farming

   1. You won't tell anything about it ( )

   2. You speak about the matters, which you know well and admit your ignorance frankly for the matters which you don't know ( )

   3. You speak in detail about the matters which you know and purposefully hide the matters which you don't know to keep up your image ( )

   4. You give interpretation on the matters in your own way even if you don't know ( )

3. When you are sure that, an information conveyed by another farmer is wrong

   1. You will point out his mistakes without bothering about the possible annoyance in him ( )

   2. You will try to point out his mistake without hurting his ego ( )

   3. You will keep mum, fearing that he will become antagonistic ( )

   4. You will openly reveal his mistake in front of other members of Group Farming committee ( )

4. If you have a thorough knowledge on a new method of farming

   1. You will approach another farmer and explain everything distinctly and persuade him to adopt that technology ( )

   2. Only if another farmer approaches you, you will explain the technology ( )

   3. You don't try to disseminate any idea to anybody ( )

5. INTERPERSONAL TRUST

	Always	Sometimes	Never
1. When you discribe about new agricultural information to another farmer, do you think that he believes you completely?			
2. In your perception, does the other farmer have only good opinion about your capability to explain it?			
3. When the other farmer conveys information regarding agriculture to you, do you think that he may try to mislead you?			
4. When the other farmer explains about new methods of farming, do you think he does not possess the qualifications to describe those matters to you?			

6. CONSISTENCY

1. After expressing an opinion on agricultural topics to another farmer, do you ever change it?			
2. If another farmer points out that your opinion is wrong, do you change it quickly?			
3. Do you change your opinions from time to time just for the sake of pleasing others?			
4. Do you have a well defined opinion of your own in all agricultural matters and assert it while discussing with other farmers?			

7. POSITIVENESS

1. Do you have the willingness to discuss the matters of agriculture with any category of farmers?			
2. Do you ever feel that there is no point in discussing the agricultural matters with farmers?			

	Always	Sometimes	Never
3. Do you feel proud of you when you discuss agricultural matters with other farmers?			
4. Do you feel it as your duty to convince other farmers on various aspects of paddy cultivation?			

8. RECIPROCITY

1. During the conversation with another farmer if you make out that he performed in a better way than you in any farming operation

   1. You will encourage and appreciate him ( )

   2. For preventing him from getting arrogant you will not say anything ( )

   3. You will criticise him to prevent him from having better image than you ( )

2. If you realise that you have committed a mistake in a paddy farming operation

   1. You will admit your mistakes to other farmers ( )

   2. You will keep mum to retain your image ( )

   3. You will hide your mistake and will try to blame other persons ( )

3. If another person criticises you while you describe agricultural aspects to him

   1. You will get angry and express your anger ( )

   2. You will hide your anger thinking that expression of anger is not good ( )

   3. Since you believe healthy criticisms will do only good, you will patiently listen to the criticisms ( )

9. RATIONALITY

1. When you speak agricultural aspects with other farmer

   1. You speak only about the necessary and needed information ( )

2. Sometimes some unnecessary matters also may come to the topic ( )

3. Most of the time you use to get deviated from the main topic ( )

2. When you realise that other farmer does not have much time to spare

1. You use to describe the matter briefly ( )

2. Since that time is not suited you will postpone the discussion to a later occasion ( )

3. Without bothering about his shortage of time, you will explain everything in that occasion itself ( )

3. When the relevance of an agricultural topic is seemed to be lost

1. You use to speak about the topic though it is not relevant at that time ( )

2. If the information is untimely or irrelevant you won't utter even a single word about it ( )

3. You will just mention about the topic and stop it since it is irrelevant ( )

APPENDIX-IIIB

INTERPERSONAL COMMUNICATION BEHAVIOUR OF RICE GROUP FARMING COMMITTEE MEMBERS.

ചോദ്യാവലി

1. കർഷകന്റെ പേരും മേൽവിലാസവും :

2. ഗ്രാമം :

3. വിദ്യാഭ്യാസ യോഗ്യത :

4. കൃഷിയല്ലാതെ മറ്റു തൊഴിലുകൾ :

5. കൃഷി സ്ഥലത്തിന്റെ വിസ്തീർണ്ണം :

6. കാർഷിക ഗ്രൂപ്പിൽ എത്ര വർഷത്തെ പരിചയമുണ്ട്? :

7. സാമൂഹ്യസാമ്പത്തിക നില :

1. ജോലി

0. ഒന്നുമില്ല ( )
1. വൈദഗ്ദ്ധ്യമില്ലാത്തത് ( )
2. സാമാന്യ വൈദഗ്ദ്ധ്യമുള്ളത് ( )
3. വൈദഗ്ദ്ധ്യമുള്ളത് ( )
4. കൃഷി / ബിസിനസ്സ് ( )
5. പ്രൊഫഷണൽ ( )

2. കൃഷിസ്ഥലം

0. ഭൂരഹിതം ( )
1. നാമമാത്രം ( )
2. ചെറുകിടം ( )
3. ചെറുകിട ഇടത്തരം ( )
4. ഇടത്തരം ( )
5. വൻകിടം ( )

3. ജാതി

0. പട്ടികജാതി വർഗ്ഗം ( )
1. വളരെ പിന്നോക്കം ( )
2. പിന്നോക്കം ( )
3. മുന്നോക്കം ( )
4. ഉന്നതം. ( )

4. വിദ്യാഭ്യാസം

1. നിരക്ഷരൻ ( )
2. പ്രവൃത്തിമൂല സാക്ഷരൻ ( )
3. പ്രൈമറി സ്കൂൾ ( )
4. യു.പി. സ്കൂൾ ( )
5. ഹൈസ്കൂൾ ( )
6. കോളേജ് വിദ്യാഭ്യാസം ( )

5. സാമൂഹിക രാഷ്ട്രീയ ബന്ധം

0. ഒരു സാമൂഹിക രാഷ്ട്രീയ സംഘടനയിലും ഭാരവാഹിയല്ല. ( )
1. ഒന്നിലധികം സംഘടനകളിൽ അംഗത്വം. ( )
2. സാമൂഹിക രാഷ്ട്രീയ സംഘടനകളിൽ ഭാരവാഹിത്വം. ( )
3. പൊതുകാര്യങ്ങൾക്ക് സാമ്പത്തിക സഹായം / ധനശേഖരണം ( )
4. ഔദ്യോഗിക പദവി ( )
5. സാമൂഹ്യ പ്രവർത്തന പങ്കാളിത്തം.

6. ഉടമസ്ഥത ( )

0. ഒന്നുമില്ല ( )
1. ഒരു വളർത്തുമൃഗം (കാള, പോത്ത്, പശു, സൈക്കിൾ) ( )
2. രണ്ടു വളർത്തുമൃഗങ്ങൾ / കാർഷികോപകരണം / ദിനപത്രം / ഇലക്ട്രിസിറ്റി. ( )
3. 3-4 വളർത്തുമൃഗങ്ങൾ / കാർഷികോപകരണം / ദിനപത്രം / ഇലക്ട്രിസിറ്റി ( )
4. 5-10 വളർത്തുമൃഗങ്ങൾ / പമ്പ്സെറ്റ്. ( )
5. പത്തിലധികം വളർത്തുമൃഗങ്ങൾ / ട്രാക്ടർ / വാഹനം. ( )

7. വീട്

0. കുടിൽ ( )
1. ഓലമേഞ്ഞ വീട് ( )
2. ഓടിട്ടത് ( )
3. കോൺക്രീററ് മന്ദിരം ( )
4. ഇരുനില കോൺക്രീറ്റ് മന്ദിരം ( )

8. കുടുംബം

0. ചെറുത് (1-3 അംഗങ്ങൾ) ( )
1. ഇടത്തരം (4-6 അംഗങ്ങൾ) ( )
2. വലുത് (7-9 അംഗങ്ങൾ) ( )
3. വളരെ വലുത് (9ൽ കൂടുതൽ അംഗങ്ങൾ) ( )
4. മറ്റെന്തെങ്കിലും പ്രത്യേകത ഉള്ളത് ( )

8. [illegible]

1. [illegible] ( )
2. [illegible] ( )
3. [illegible] ( )
4. [illegible] ( )

2. [illegible]

1.	[illegible]	[illegible]	[illegible]	[illegible]
2.	[illegible]			
3.	[illegible]			
4.	[illegible]			

9.	[illegible]	[illegible]	[illegible]
1.	[illegible]		
2.	[illegible]		
3.	[illegible]		
4.	[illegible]		
5.	[illegible]		
6.	[illegible]		

10. മാധ്യമങ്ങളുമായുള്ള സമ്പർക്കം

നം.	മാധ്യമം	ആഴ്ചയിൽ രണ്ടോ അതിലധികമോ	ആഴ്ചയിൽ ഒരു തവണ	രണ്ടാഴ്ചയിൽ ഒരു തവണ	മാസത്തിൽ ഒരു തവണ	ഒരിക്കലുമില്ല
1.	ദിനപത്രം					
2.	റേഡിയോ					
3.	റേഡിയോ ഗ്രാമരംഗം					
4.	കാർഷിക പ്രസിദ്ധീകരണങ്ങൾ					

11. സാമൂഹ്യബന്ധം

താഴെപറയുന്ന സ്ഥാപനങ്ങളിൽ താങ്കൾ അംഗമാണോ ഭാരവാഹിയാണോ എന്ന് സൂചിപ്പിക്കുക

നം.	സ്ഥാപനം	അംഗം	ഭാരവാഹി	പരിപാടികളിലുള്ള പങ്കാളിത്തം		
				എല്ലായ്പോഴും	വല്ലപ്പോഴും	ഒരിക്കലുമില്ല
1.	പഞ്ചായത്ത്					
2.	കോ-ഓപ്പറേറ്റീവ് സൊസൈറ്റി					
3.	യുവജനസംഘടന					
4.	തൊഴിലാളി സംഘടന					
5.	രാഷ്ട്രീയ/സാംസ്കാരിക സംഘടന					

12. 1. തൊട്ടടുത്ത നഗരവുമായുള്ള സമ്പർക്കം

1. ആഴ്ചയിൽ രണ്ടോ-അതിലധികമോ തവണ ( )
2. ആഴ്ചയിൽ ഒരു തവണ ( )
3. രണ്ടാഴ്ചയിൽ ഒരു തവണ ( )
4. മാസത്തിൽ ഒരു തവണ ( )
5. വല്ലപ്പോഴും മാത്രം ( )
6. ഒരിക്കലുമില്ല ( )

2. നഗരസന്ദർശനത്തിന്റെ ഉദ്ദേശം

1. എല്ലാ സന്ദർശനങ്ങളും കൃഷികാര്യങ്ങളുമായി ബന്ധപ്പെട്ട് ( )
2. ചില കാര്യങ്ങൾ കൃഷിയുമായി ബന്ധപ്പെട്ട് ( )
3. വ്യക്തിപരമായ/വീട്ടുകാര്യങ്ങൾ ( )
4. ഉല്ലാസങ്ങൾക്ക് ( )
5. മറ്റെന്തെങ്കിലും കാര്യത്തിന് ( )

15. കൃഷികാര്യങ്ങളിലുള്ള അറിവ്

1. മുഞ്ഞയുടെ ആക്രമണത്തെ ചെറുക്കുന്ന നെല്ലിനം ഏത്?
   1) ജയ (2) ഐ.ആർ.8 (3) അന്നപൂർണ്ണ 4) ഭാരതി

2. വിതയ്ക്കുന്നതിനു മുമ്പു വിത്തുകൾ രാസവസ്തുക്കളുമായി കലർത്തുന്നത് എന്തിനുവേണ്ടി?
   1. വിത്തിലുള്ള കീടങ്ങളെ നശിപ്പിക്കാൻ ( )
   2. രോഗാണുക്കളെ നശിപ്പിക്കാൻ ( )
   3. കളവിത്തുകളെ നശിപ്പിക്കാൻ ( )

3. മണ്ണിന്റെ ഫലപുഷ്ടി പരിശോധിക്കാൻ എത്ര ആഴത്തിൽ കുഴിക്കണം?
   1) 6 ഇഞ്ച് (2) 15 ഇഞ്ച് (3) 10 ഇഞ്ച് (4) 20 ഇഞ്ച്

4. അമോണിയം സൾഫേറ്റ് വളങ്ങൾ കൂടിയ നിരക്കിൽ നെല്ലിനു ചേർക്കുന്നത് -
   1) മുഴുവനും വിതയ്ക്കുമ്പോൾ തന്നെ ( )
   2) മുഴുവനും വിതച്ച് ഒരു മാസം കഴിഞ്ഞ് ( )
   3) കുറേശ്ശെ പല തവണകളിൽ ( )

5. നെല്ലിന്റെ തണ്ടുതുരപ്പനെ നശിപ്പിക്കാനുപയോഗിക്കുന്ന ഒരു രാസ...
   1) സെവിൻ (2) ഇക്കാലക്സ് (3) ബി.എച്ച്.സി 4) ഫ്യൂറഡാൻ

6. നെല്ലിന്റെ ബ്ലാസ്റ്റ് രോഗം നിയന്ത്രണം ചെയ്യാൻ ഉപയോഗിക്കുന്ന രാസവസ്തു
   1) ഹിനോസാൻ (2) ബോർഡോമിശ്രിതം (3) സെവിൻ (4) ഇക്കാലക്സ്

7. നല്ല വിളവു തരുന്നതും മൂപ്പ് കുറഞ്ഞതുമായ നെല്ലിനം ഏത്?
   1) ചിറ്റേനി (2) ചെങ്കഴമ (3) മസൂരി (4) ത്രിവേണി

8. കുലവാട്ടരോഗത്തെ ഒരു വിധം നന്നായി ചെറുത്തു നിൽക്കുന്ന ഒരു നെൽവിത്തിനം
   1) അന്നപൂർണ്ണ (2) ജ്യോതി (3) ത്രിവേണി (4) ജയ

14. കൂട്ടുകൃഷിയോടുള്ള മനോഭാവം

		അനുകൂലം	നിഷ്പക്ഷം	പ്രതികൂലം
1.	കർഷകരുടെ സമ്പദ് വ്യവസ്ഥയിൽ കാര്യമായ പുരോഗതി വരുത്താൻ കൂട്ടുകൃഷിക്ക് സാധിച്ചിട്ടുണ്ട്.			
2.	സമൂഹത്തിന് നല്ല ഒരു കാര്യവും ചെയ്യാൻ സാധിച്ചിട്ടില്ലാത്തത് കൊണ്ട് കൂട്ടുകൃഷി സമ്പ്രദായം അപ്പാടെ നിർത്തലാക്കണം.			
3.	കർഷകരുടെ പരസ്പരസഹകരണം പുരോഗമിക്കുവാൻ കൂട്ടുകൃഷി സഹായിക്കുന്നു.			
4.	യാഥാർത്ഥ്യത്തിൽ ഒരു കർഷകനും കൂട്ടുകൃഷിയിൽ താല്പര്യമില്ല.			
5.	കൃഷി ഉദ്യോഗസ്ഥന്മാരുമായും മറ്റു കർഷകരുമായുള്ള നിരന്തരസമ്പർക്കം കാരണം കൂട്ടുകൃഷി പാടശേഖര കമ്മറ്റിയിലെ അംഗങ്ങളുടെ അറിവ് വർദ്ധിച്ചിട്ടുണ്ട്.			
6.	കൂട്ടുകൃഷി നമ്മുടെ കർഷകരുടെ ഒട്ടധികം പ്രശ്നങ്ങൾ പരിഹരിക്കുന്നു			
7.	കൃഷിച്ചെലവ് കുറയ്ക്കാൻ കൂട്ടുകൃഷി [illegible] സഹായിച്ചിട്ടുണ്ട്.			
8.	നമ്മുടെ [illegible] സമ്പാദനം ചെയ്യാൻ കൂട്ടുകൃഷിക്ക് [illegible].			

15. മറ്റു കർഷകരോടുള്ള മനോഭാവം

		എല്ലായ്പ്പോഴും	വല്ലപ്പോഴും	ഒരിക്കലുമില്ല
1.	മറ്റു കർഷകരുമായുള്ള സുഹൃദ്ബന്ധം തുടർന്നുകൊണ്ടുപോകുന്നത് എന്നും ഗുണം മാത്രമേ ചെയ്യൂ.			
2.	മറ്റു കർഷകരുമായി കൃഷികാര്യങ്ങൾ ചർച്ച ചെയ്യുന്നത് വെറും സമയം നഷ്ടപ്പെടുത്തൽ മാത്രമാണ്.			
3.	എന്റെ നെൽകൃഷി ഉല്പാദനം ഗണ്യമായ തോതിൽ വർദ്ധിപ്പിക്കാൻ മറ്റു കർഷകരുമായി നിരന്തര സമ്പർക്കം പുലർത്തേണ്ടത് ആവശ്യമാണ്.			
4.	മറ്റു കർഷകർ സ്വന്തം കൃഷിരീതികൾ മെച്ചപ്പെടുത്തുന്നതിൽ വലിയ ശ്രദ്ധ ചെലുത്താത്തതിനാൽ എനിക്ക് കിട്ടുന്ന കാർഷിക വിവരങ്ങൾ ഞാൻ അവരെ അറിയിക്കാറില്ല.			
5.	സമൂഹത്തിൽ കർഷകരുടെ പരസ്പര സഹായവും സഹകരണവും നിർലോഭം കിട്ടുമെന്നതിനാൽ ഞാൻ അതിൽ അഭിമാനം കൊള്ളുന്നു.			
6.	മറ്റു കർഷകർ സാമൂഹ്യസാമ്പത്തിക നിലവാരങ്ങളിൽ ഒട്ടും ഉയർന്നവരല്ലാത്തതുകൊണ്ട് അവരുമായി കാർഷിക കാര്യങ്ങൾ ചർച്ച ചെയ്യാൻ ഞാൻ സമയം മിനക്കെടുത്താറില്ല.			
16.	കാർഷിക വിവരങ്ങൾ അറിയാനുള്ള ആഭിമുഖ്യം			
1.	റേഡിയോ ഗ്രാമീണ പരിപാടി			
2.	ദിനപത്രം			
3.	കാർഷിക പുസ്തകങ്ങൾ			
4.	കാർഷിക ഗൈഡ്/ഡയറി			
5.	കാർഷിക ജേർണലുകൾ			
6.	കാർഷിക സെമിനാർ			
7.	കാർഷിക ശില്പശാല			
8.	കാർഷിക പരിശീലന ക്ലാസ്സുകൾ			
9.	കാർഷിക പ്രദർശനങ്ങൾ			
10.	കൃഷി ഉദ്യോഗസ്ഥർ			

17. PERCEIVED GROUP COHESIVENESS

1.				
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18. EXTENT OF INFORMATION FLOW

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DEPENDENT VARIABLE: INTERPERSONAL COMMUNICATION BEHAVIOUR EFFICIENCY

1. COMMUNICATION SKILL

A. RECEPTION SKILL

		എല്ലായ്പ്പോഴും	വല്ലപ്പോഴും	ഒരിക്കലുമില്ല
1.	കൃഷി സംബന്ധമായ കാര്യങ്ങൾ നിങ്ങൾക്ക് മറ്റൊരാൾ പറഞ്ഞുതരുമ്പോൾ അവ മുഴുവനും ശ്രദ്ധയോടെ കേൾക്കാറുണ്ടോ?			
2.	മറ്റൊരാൾ കാര്യങ്ങൾ വിശദീകരിക്കുമ്പോൾ നീണ്ടുപോകുന്നതായി തോന്നിയാൽ മുഷിയാറുണ്ടോ?			
3.	മുഴുവൻ പറഞ്ഞു തീരുന്നതിനുമുമ്പ് ഇടയ്ക്കു കയറി സംസാരിക്കാറുണ്ടോ?			
4.	പറയാൻ തുടങ്ങുമ്പോൾ തന്നെ എന്താണ് പറയാൻ പോകുന്നതെന്ന് ഊഹിക്കാൻ ശ്രമിക്കാറുണ്ടോ?			

B. PROCESSING SKILL (TRANSLATION, INTERPRETATION, EXTRAPOLATION)

1.	കൂടുതൽ ആദായകരമാകുന്ന കൃഷിരീതികൾ മറ്റൊരു കർഷകൻ നിങ്ങൾക്ക് പറഞ്ഞുതരുമ്പോൾ അവ നിങ്ങളുടേതായ രീതിയിൽ മനസ്സിലാക്കാൻ ശ്രമിക്കാറുണ്ടോ?			
2.	പുതിയ കൃഷിരീതികൾ മറ്റൊരു കർഷകനിൽ നിന്ന് മനസ്സിലാക്കിയാൽ അവ സ്വന്തം കൃഷി സ്ഥലത്തിനും പരിതസ്ഥിതിക്കും യോജിക്കുമോ എന്ന് ചിന്തിച്ചുനോക്കാറുണ്ടോ?			
3.	മറ്റൊരാളിൽ നിന്ന് പുതിയ ഒരു കൃഷിരീതി മനസ്സിലാക്കിയാൽ സ്വന്തം കൃഷിസ്ഥലത്ത് അതു പ്രയോഗിച്ചാലുണ്ടാകുന്ന ഫലം മുൻകൂട്ടി പറയാൻ കഴിയാറുണ്ടോ?			

C. EXPRESSION SKILL

	മറ്റൊരു കർഷകനു താങ്കൾ കാര്യങ്ങൾ പറഞ്ഞുകൊടുക്കുമ്പോൾ താഴെ പറയുന്ന കാര്യങ്ങൾ പാലിക്കാറുണ്ടോ?			
1.	കഴിയുന്നത്ര കൃത്യമായ വിവരങ്ങളാണ് പറയുന്നതെന്നുറപ്പ് വരുത്തുക			
2.	വിവരങ്ങൾ എളുപ്പം മനസ്സിലാകത്തക്കരീതിയിൽ തടസ്സങ്ങളില്ലാതെ പറഞ്ഞുകൊടുക്കുക			
3.	കേൾക്കുന്നവരിൽ ജിജ്ഞാസയും താല്പര്യവും ഉണർത്തുന്ന വിധം അവരെ പറ്റി പൂർണ്ണമായും അവതരിപ്പിക്കുക			
4.	ആരോടാണോ കാര്യങ്ങൾ പറയുന്നത് അവർ ശ്രദ്ധിക്കുന്നതിനു യോജിച്ച രീതിയിൽ കാര്യങ്ങൾ വിശദീകരിക്കുക.			

D. FEEDBACK ORIENTATION

1.	കൃഷിയുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ മറ്റൊരു കർഷകനു വിശദീകരിച്ചുകൊടുത്തതിനുശേഷം അയാളിൽ നിന്ന് മറുചോദ്യങ്ങളും പ്രതികരണവും പ്രതീക്ഷിക്കാറുണ്ടോ?			
2.	[illegible] കൂടുതൽ വിശദീകരിക്കാൻ അവസരം കൊടുക്കാറുണ്ടോ?			

3	അവർ എന്തൊക്കെ സംശയങ്ങൾ എത്ര തവണ നിങ്ങളോടു ചോദിച്ചാലും യാതൊരു നീരസവും പ്രകടിപ്പിക്കാതെ അവ വീണ്ടും വിശദീകരിച്ച് അവരെ പരിപൂർണ്ണമായും ബോദ്ധ്യപ്പെടുത്താൻ ശ്രമിക്കാറുണ്ടോ?			
4.	നിങ്ങൾ പ്രോത്സാഹിപ്പിച്ചിട്ടും കർഷകർ തിരിച്ചൊന്നും ചോദിക്കുന്നില്ലെങ്കിൽ അവർക്കു കാര്യങ്ങൾ വിശദമായി മനസ്സിലായോ എന്നറിയാൻ ചില ചോദ്യങ്ങൾ അവരോടു ചോദിക്കാറുണ്ടോ?			

2. COMPETENCE

1.	കൃഷിയുമായി ബന്ധപ്പെട്ട വിവരങ്ങൾ മറ്റൊരു കർഷകനു വിശദീകരിച്ചുകൊടുക്കുമ്പോൾ അവരെ ബോദ്ധ്യപ്പെടുത്താനുള്ള നിങ്ങളുടെ കഴിവിൽ ആത്മവിശ്വാസം തോന്നാറുണ്ടോ?			
2.	സ്വന്തം കൃഷിസ്ഥലത്ത് പരീക്ഷിച്ചറിഞ്ഞിട്ടില്ലാത്ത കാര്യങ്ങൾ നിങ്ങൾ മറ്റൊരു കർഷകനു പറഞ്ഞുകൊടുക്കാറുണ്ടോ?			
3.	താഴെ പറയുന്ന കാര്യങ്ങളെക്കുറിച്ച് മറ്റൊരു കർഷകൻ നിങ്ങളോടു സംശയം ചോദിച്ചാൽ എത്രത്തോളം ആധികാരികമായി നിങ്ങൾക്കു അവരെ പറഞ്ഞു മനസ്സിലാക്കാൻ സാധിക്കും?	വളരെ നന്നായി	കുറച്ചൊക്കെ	ഒട്ടും ഇല്ല
	1. വിത്തിനം			
	2. നിലമൊരുക്കലും പാകി നടലും			
	3. വിത്തിന്റെ തരംതിരിച്ചു പ്രയോഗം			
	4. ഞാറടി പരിപാലനം			
	5. പറിച്ചുനടീൽ			
	6. വളപ്രയോഗം			
	7. കീടരോഗസംരക്ഷണം			
	8. ജലനിയന്ത്രണം			

3. EMPATHY

1.	മറ്റൊരു കർഷകനുമായി കാർഷികകാര്യങ്ങൾ സംസാരിക്കുമ്പോൾ അവരുടെ സ്ഥാനത്ത് നിങ്ങളായിരുന്നെങ്കിൽ എന്തിലേക്കു ചിന്തിച്ചുകൊണ്ട് വേണ്ട കാര്യങ്ങൾ മാത്രമാണോ സംസാരിക്കാറ്?	എല്ലായ്പോഴും	വല്ലപ്പോഴും	ഒരിക്കലുമില്ല
2.	പുതിയ കാർഷികരീതികൾ മറ്റൊരു കർഷകനു നിങ്ങൾ വിശദീകരിച്ചുകൊടുക്കുമ്പോൾ അവ ശ്രദ്ധയോടെ കേട്ടു മനസ്സിലാക്കുന്നതിനുപകരം അവരുടെ പ്രശ്നങ്ങൾ നിങ്ങളുടെ മുമ്പിൽ നിരത്തുകയാണെങ്കിൽ?			

1. നിങ്ങൾക്കു ദേഷ്യം വരികയും അവരോടു നീരസം തോന്നുകയും ചെയ്യും ( )
2. അവരോടു കൂടുതൽ സംസാരിക്കുന്നത് സമയം പാഴാക്കലായിരിക്കുമെന്ന് കരുതും ( )
3. അവരുടെ പ്രശ്നങ്ങൾ മുഴുവൻ മനസ്സിലാക്കി അവർക്കുള്ള പരിഹാരമാർഗ്ഗങ്ങൾ നിർദ്ദേശിക്കാൻ ശ്രമിക്കും ( )

4. **AUTHENTICITY**

	എ.	വ.	ഒ.
1. മറ്റൊരാൾക്ക് നെൽകൃഷിസംബന്ധമായ കാര്യങ്ങൾ മനസ്സിലാക്കിക്കൊടുക്കുമ്പോൾ നിങ്ങൾ അതിൽ നൂറു ശതമാനം ആത്മാർത്ഥത പുലർത്താറുണ്ടോ?			
2. ഒരു കാര്യത്തെക്കുറിച്ച് പൂർണമായ അറിവില്ല എന്നു സ്വയം ബോധ്യപ്പെട്ടാൽ			
1. ആ കാര്യത്തെക്കുറിച്ച് ഒന്നും തന്നെ പറയില്ല	( )		
2. അറിവുള്ള കാര്യങ്ങൾ മാത്രം പറഞ്ഞ് അറിവില്ലാത്ത കാര്യങ്ങൾ തുറന്നു സമ്മതിക്കും	( )		
3. സ്വന്തം പ്രതിച്ഛായ രക്ഷിക്കാൻ വേണ്ടി അറിവില്ലാത്ത കാര്യങ്ങൾ മനഃപൂർവം മൂടിവെച്ച് അറിവുള്ളമാത്ര കാര്യങ്ങൾ വിശദമായും ആധികാരികമായും സംസാരിക്കും	( )		
4. മുഴുവൻ അറിവില്ലെങ്കിലും നിങ്ങൾക്കു തോന്നുന്നരീതിയിൽ അതിനെപ്പറ്റി പറയാൻ ശ്രമിക്കും	( )		
3. മറ്റൊരാൾ പറയുന്ന കാര്യം തെറ്റാണെന്നു പൂർണ്ണബോധ്യം വന്നാൽ നിങ്ങൾ:			
1. അയാൾക്ക് വിദ്വേഷം തോന്നിയാലും പ്രശ്നമില്ലെന്നു തീരുമാനിച്ച് അയാളെ മുഖം നോക്കാതെ നിശിതമായി വിമർശിക്കും	( )		
2. അയാൾക്ക് മനോവിഷമമുണ്ടാകാത്ത വിധം അനുനയ സ്വരത്തിൽ തെറ്റു ചൂണ്ടിക്കാട്ടും	( )		
3. തെറ്റു ചൂണ്ടിക്കാട്ടിയാൽ അയാൾക്ക് തന്നോട് വിദ്വേഷം തോന്നുമല്ലോ എന്നു ഭയന്ന് മൗനം പാലിക്കും	( )		
4. അയാൾ ചെയ്ത തെറ്റുകൾ മറ്റുള്ളവരുടെ സാന്നിധ്യത്തിൽ വിളിച്ചുപറഞ്ഞ് അയാളുടെ വിവരക്കേട് എല്ലാവരുടെ ശ്രദ്ധയിലും പെടുത്തും	( )		
4. കൃഷിസംബന്ധമായ ഏതെങ്കിലും കാര്യത്തെക്കുറിച്ച് ആധികാരികമായ അറിവുണ്ടായാൽ			
1. മറ്റൊരു കർഷകനെ സമീപിച്ച് എല്ലാം വിശദമായി പറഞ്ഞുകൊടുത്ത് അയാളെ ആ രീതി അനുവർത്തിക്കാൻ പ്രേരിപ്പിക്കും	( )		
2. മറ്റൊരു കർഷകൻ സംശയനിവാരണത്തിനു സമീപിച്ചാൽ മാത്രം കാര്യം വിശദീകരിച്ചുകൊടുക്കും	( )		
3. ആർക്കും ഒന്നും പറഞ്ഞുകൊടുക്കാൻ ശ്രമിക്കാറില്ല	( )		
4. അറിവുള്ള എല്ലാ കാര്യങ്ങളും പറഞ്ഞുകൊടുക്കാതെ അൽപം മറച്ചുവെയ്ക്കാൻ ശ്രമിക്കും	( )		

5. **INTERPERSONAL TRUST**	എ.	വ.	ഒ.
1. നെൽകൃഷിസംബന്ധമായ കാര്യങ്ങൾ നിങ്ങൾ മറ്റൊരു കർഷകനു വിശദീകരിച്ചുകൊടുക്കുമ്പോൾ അയാൾ നിങ്ങളെ പൂർണമായി വിശ്വസിക്കുന്നു എന്നു തോന്നാറുണ്ടോ?			
2. ഈ കാര്യങ്ങൾ സംസാരിക്കാനുള്ള നിങ്ങളുടെ യോഗ്യതയിൽ അയാൾക്കു [illegible] ഉണ്ടോ?			
3. മറ്റൊരാൾ നിങ്ങൾക്കു കാര്യങ്ങൾ പറഞ്ഞുതരുമ്പോൾ അയാൾ മനഃപൂർവം നിങ്ങളെ വഴി തെറ്റിക്കാൻ ശ്രമിച്ചേക്കാം എന്നു തോന്നാറുണ്ടോ?			
4. ഉപദേശം പറഞ്ഞുതരാൻ അയാൾക്കെന്ത് യോഗ്യത എന്നു തോന്നാറുണ്ടോ?			

6. CONSISTENCY		എ.	വ.	ഒ.
1.	കാർഷികകാര്യങ്ങൾ മറ്റൊരു കർഷകനുമായി ഒരിക്കൽ സംസാരിച്ചുകഴിഞ്ഞാൽ പിന്നീട് ആ അഭിപ്രായങ്ങൾ മാറ്റിപ്പറയാറുണ്ടോ?			
2.	നിങ്ങൾക്ക് ശരിയായി തോന്നിയത് മറ്റൊരാൾ തെറ്റ് ചൂണ്ടിക്കാട്ടിയാൽ ഉടനെ അഭിപ്രായം തിരുത്തിപ്പറയാറുണ്ടോ?			
3.	സന്ദർഭത്തിനനുസരിച്ച് മറ്റുള്ളവരെ പ്രീതിപ്പെടുത്താനെങ്കിലും സ്വാഭിപ്രായങ്ങൾ തിരുത്താറുണ്ടോ?			
4.	കൃഷികാര്യങ്ങൾ മറ്റൊരു കർഷകനുമായി ചർച്ചചെയ്യുമ്പോൾ ഏതെങ്കിലും ശക്തമായി ഒരു വ്യക്തമായ അഭിപ്രായം രൂപീകരിക്കുകയും അതിൽ ഉറച്ചുനിൽക്കുകയും ചെയ്യാറുണ്ടോ?			

7. POSITIVENESS

1.	ഉയർന്ന നിലവാരത്തിലുള്ള കർഷകനുമായും കൃഷികാര്യങ്ങൾ ചർച്ചചെയ്യാനുള്ള മനോഭാവം നിങ്ങൾ കാണിക്കാറുണ്ടോ?			
2.	കർഷകർ പരസ്പരം കാർഷികകാര്യങ്ങൾ ചർച്ചചെയ്യുന്നതിൽ യാതൊരു കാര്യവുമില്ല എന്ന തോന്നലുണ്ടാകാറുണ്ടോ?			
3.	മറ്റൊരു കർഷകനുമായി നെൽകൃഷികാര്യം ചർച്ച ചെയ്യുമ്പോൾ താങ്കൾക്ക് സ്വയം മതിപ്പ് തോന്നാറുണ്ടോ?			
4.	മറ്റൊരു കർഷകനെ നെൽകൃഷികാര്യത്തിൽ ഉപദേശിക്കേണ്ടത് സ്വന്തം കടമയായി കരുതാറുണ്ടോ?			

8. RECIPROCITY

1. ഏതെങ്കിലും കർഷകനുമായി നിങ്ങൾ സംഭാഷണത്തിൽ ഏർപ്പെട്ടിരിക്കുമ്പോൾ കാർഷികപരമായ കാര്യത്തിൽ അയാൾ നിങ്ങളെക്കാൾ മിടുക്ക് കാട്ടിയതായി മനസ്സിലായാൽ

   1. അയാളെ പ്രശംസിക്കുകയും പ്രോത്സാഹിപ്പിക്കുകയും ചെയ്യും ( )
   2. പ്രശംസിച്ചാൽ അയാൾക്ക് തലക്കനം കൂടിയാലോ എന്നു കരുതി ഒന്നും പറയാതിരിക്കും ( )
   3. ഞാൻ തന്നെയാണ് സമർത്ഥനെന്ന് മറ്റുള്ളവർ കരുതുന്നതിനാൽ അയാളെ വിമർശിക്കാൻ ശ്രമിക്കും ( )

2. നിങ്ങൾ ഏതെങ്കിലും കാര്യത്തിൽ തെറ്റുപറ്റി എന്ന് സ്വയം ബോദ്ധ്യപ്പെട്ടാൽ

   1. സ്വന്തം തെറ്റ് മറ്റുള്ളവരുടെ മുമ്പിൽ തുറന്നു സമ്മതിക്കും ( )
   2. പ്രതിച്ഛായയ്ക്ക് മങ്ങലേൽക്കാതിരിക്കാൻ തെറ്റുണ്ടായാലും മൗനം ദീക്ഷിക്കും ( )
   3. തെറ്റ് മറച്ചുവെച്ച് പകരം മുഖം രക്ഷിക്കാൻ മറ്റുള്ളവരെ പഴിചാരാൻ ശ്രമിക്കും ( )

8. മറ്റൊരാൾക്ക് കാർഷിക വിവരങ്ങൾ പറഞ്ഞുകൊടുക്കുമ്പോൾ അയാൾ നിങ്ങളെ വിമർശിക്കാൻ ശ്രമിച്ചാൽ

   1. അയാളോട് ദേഷ്യം അതൃപ്തിയും ഒപ്പം തന്നെ പ്രകടിപ്പിക്കുകയും ചെയ്യും ( )
   2. ദേഷ്യം തോന്നിയാലും പ്രകടിപ്പിക്കാതെ രോഷം ഉള്ളിൽ എന്നു കരുതി ഉള്ളിലൊതുക്കും ( )
   3. വിമർശനങ്ങൾ ഗുണമേ ചെയ്യൂ എന്നു കരുതി അവ ശ്രദ്ധാപൂർവ്വം കേട്ട് അവയിലെ കഴമ്പ് ഉൾക്കൊള്ളാൻ ശ്രമിക്കും ( )

9. RATIONALITY

   1. മറ്റൊരു കർഷകനുമായി കൃഷിക്കാര്യങ്ങൾ സംസാരിക്കുമ്പോൾ നിങ്ങൾ:

      1. ആവശ്യമെന്നു തോന്നുന്ന കാര്യങ്ങൾ മാത്രമേ നൽകാറുള്ളൂ ( )
      2. ചിലപ്പോൾ അനാവശ്യകാര്യങ്ങളും അറിയാതെ ചർച്ചചെയ്തു സമയം പോകാറുണ്ട് ( )
      3. ഭൂരിഭാഗം സമയവും ശരിയായ വിഷയത്തിൽ നിന്ന് വ്യതിചലിച്ചുപോകുകയാണ് പതിവ് ( )

   2. നിങ്ങൾ ഒരു കാര്യം മറ്റൊരു കർഷകനു മനസ്സിലാക്കി കൊടുക്കുമ്പോൾ അയാൾക്ക് സംശയമുണ്ടാകുന്ന അവസരങ്ങളെന്തു മനസ്സിലാക്കിയാൽ

      1. കാര്യങ്ങൾ വളരെ ചുരുക്കത്തിൽ വിവരിക്കും ( )
      2. ആ സമയം ശരിയല്ലാത്തതിനാൽ വിശദമായി സംസാരിക്കാൻ മറ്റൊരവസരത്തിലേക്ക് മാറ്റിവെയ്ക്കും ( )
      3. മുഴുവൻ കാര്യങ്ങളും അയാളുടെ സംശയമകറ്റി പ്രശ്നങ്ങളെ അപ്പോൾ തന്നെ വിശദീകരിക്കും ( )

   3. കാർഷിക സംബന്ധമായ ഒരു കാര്യം അപ്രധാനമായിത്തോന്നിയാൽ

      1. അപ്രധാനമായ ഒരു സമയത്താണെങ്കിലും അത് പറയും. ( )
      2. സമയോചിതമല്ലാത്തതും അപ്രധാനവുമാണ് വിവരമെങ്കിൽ അതിനെക്കുറിച്ച് ഒന്നും പറയില്ല. ( )
      3. കൂടുതൽ വിവരിക്കാൻ നിൽക്കാതെ ആ വിവരത്തെക്കുറിച്ച് സൂചനമാത്രം നൽകും. ( )

INTERPERSONAL COMMUNICATION BEHAVIOUR OF MEMBERS OF GROUP FARMING COMMITTEES IN THE ADOPTION OF RICE PRODUCTION TECHNOLOGY

By

VIPINKUMAR. V. P.

ABSTRACT OF A THESIS

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ABSTRACT

A study on the interpersonal communication behaviour efficiency (IPCBE) of the members of rice Group Farming committee was carried out using 240 respondents selected from the four highest paddy growing districts of Kerala state, namely Palakkad, Thrissur, Ernakulam and Alappuzha. The data were collected with the help of a pretested structured interview schedule by personally interviewing the respondents selected from four highest paddy growing blocks of the above districts. The analysis of the data revealed that, out of fifteen selected personal and socio-psychological characteristics (independent variables) twelve variables were positively and significantly related with IPCBE namely education, socio-economic status, extension orientation, scientific orientation, mass media participation, social participation, cosmopoliteness, knowledge, attitude towards Group Farming, attitude towards other farmers, information source use pattern and farmsize. Of these maximum variation on the dependent variable was caused by four characteristics namely attitude towards other farmers, socio-economic status, extension orientation and attitude towards Group Farming.

For measuring the dependent variable IPCBE an index was developed by identifying nine sub-dimensions namely communication skill, competence, empathy, authenticity, interpersonal trust, consistency, positiveness, reciprocity and rationality. The analysis of data revealed that all these dimensions were postively and significantly related with IPCBE, but the maximum variation on IPCBE was caused by mainly four sub-dimensions namely communication skill, empathy, competence and interpersonal trust. The perceived group cohesiveness of the committee members as influenced by IPCBE also was measured and found a positive and significant in-

fluence of IPCBE on it. The extent of information flow for adoption of rice production technology through interpersonal means also was measured by listing down the eight critical operations of Group Farming and found that the maximum extent of information flow took place with regard to 'plant protection' and the least extent with regard to 'seed treatment'.