ROLE OF KRISHI BHAVANS IN AGRICULTURAL DEVELOPMENT IN THIRUVANANTHAPURAM DISTRICT

BY

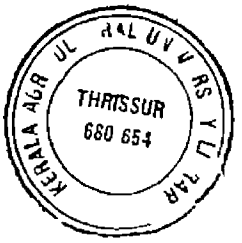
A SURESH NELSON

THESIS

SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE DEGREE
MASTER OF SCIENCE IN AGRICULTURE
[AGRICULTURAL EXTENSION]
FACULTY OF AGRICULTURE
KERALA AGRICULTURAL UNIVERSITY

DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
VELLAYANI
THIRUVANANTHAPURAM

1992



DECLARATION

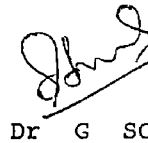
I hereby declare that this thesis entitled Role of Krishi Bhavans in Agricultural Development in Thiruvananthapuram District is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree diploma associateship fellowship or other similar title of any other University or society

Vellayani
30th June 1992

A SURESH NELSON

CERTIFICATE

Certified that this thesis entitled Role of Krishi Bhavans in Agricultural Development in Thiruvananthapuram District is a record of research work done independently by Mr A SURESH NELSON under my guidance and supervision and that it has not previously formed the basis for the award of any degree fellowship or associateship to him



Dr G SOBHANA
Chairman Advisory Committee
Associate Professor [N C]
Department of Agricultural Extension
College of Agriculture
Vellayani

Approved by

Chairman — Dr G SOBHANA

Members — Dr G T NAIR

Dr C BHASKARAN

Dr [illegible] SARASWATHY

External Examiner

5992

(R VIJAYARAGHAVAN)

ACKNOWLEDGEMENT

I express my sincere thanks to Dr G Sobhana Associate Professor of Department of Agricultural Extension and Chairman of my Advisory Committee for her propitious guidance and encouragement throughout the study and the preparation of this thesis

I express my deep sense of gratitude to Dr G T Nair Professor and Head of the Department of Agricultural Extension Dr C Bhaskaran Associate Professor of Department of Agricultural Extension and Dr P Saraswathy Associate Professor and Head of the Department of Agricultural Statistics for their valuable suggestions and guidance throughout the research programme as members of the Advisory Committee

I have great pleasure to express my heartfelt thanks to Dr S Bhaskaran Associate Professor of Department of Agricultural Extension for his immense help and guidance throughout the study

I am thankful to Dr R Prakash Associate Professor of Department of Agricultural Extension and Mr Mothilal Nehru Associate Professor of Department of Agricultural Extension for their constant encouragement and guidance I also acknowledge the kind co-operation of other staff members of the Department of Agricultural Extension

I avail this opportunity to thank Mr C E Ajith Kumar Junior Programmer of the Department of Agricultural Statistics for his sincere help rendered to me during the analysis of data

I also thank M/s Fair Types Bakery junction Thiruvananthapuram for neatly typing the thesis and Mr Sanjeev for the graphic assistance

Above all I am deeply indebted to my grandmother parents brother sister s family and aunt s family for their constant encouragement and moral support which made this venture possible

Vellayani
30th June 1992

A SURESH NELSON

CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

ABBREVIATIONS

AOs	Agricultural Officers
AAs	Agricultural Assistants
T & V system	Training and Visit System

INTRODUCTION

Chapter 1

INTRODUCTION

Speedy development of agriculture is vital to the progress of any developing country whose economy depends mainly on agriculture and India is no exception to this To achieve this proper planning and implementation of Agricultural Development Programmes coupled with successful transfer of useful technology from the scientists to farmers is essential To make any planning exercise relevant and meaningful the planning process at levels below the national level have to be necessarily carried out To obtain the best use of available land a strategy of agricultural planning evolved at the grass roots level and guided by a master plan for the whole state is essential especially in a State like Kerala where the nature climate soil structure and topography presents a picture of vast variation

Taking this into consideration the Kerala State Department of Agriculture was restructured and the Krishi Bhavan Programme was launched in 1987 Accordingly Panchayat level agricultural development units called Krishi Bhavans are started in every Panchayat of the

State At the base level Panchayat has been accepted as the basic unit for development administration and therefore all the Agricultural Development Programmes are conceived developed and implemented through the Panchayat level units

According to the reorganised set up there are 1046 local body units in the State including 999 Panchayats 44 Municipalities and 3 Corporations Each of the 999 Panchayat level unit is under the control of an Agricultural Officer In addition in 198 units where there are less than 2800 farm families there are two Agricultural Assistants and in the remaining units there are three Agricultural Assistants for assisting the Agricultural Officer The Municipal areas and Corporations are headed by an Agricultural Officer assisted by one Agricultural Assistant as the scope for agricultural development is limited in urban areas

In the reorganised set up the field units devote their entire time and attention in extension and development of agriculture so as to create an impact to increase the production and productivity of agricultural crops in each unit

To ensure people s participation in the Agricultural Development Programmes and to govern the activities of each Krishi Bhavan a Karshika Vikasana Samithy with the undermentioned members is formed in each Panchayat

1 Panchayat President Chairman

2 President of the Primary Service Co operative Society/ Service Co operative Bank in the Panchayat

3 M L A of the area

4 District Council member of the area

5 11 Farmers of the Panchayat cultivating major crops In this there should be atleast three marginal farmers two small farmers and two other farmers of which one should be a lady A farmer engaged in dairying and poultry should also be represented

6 Representatives of State level agricultural organisations They should be farmers permanently residing in the Panchayat

7 3 Convenors of Padasekhara committee in the Panchayat

8 3 Agricultural labourers (one should be from SC/ST)

9 Presidents of the Milk Producers Co operative Societies in the Panchayat

10 Representative of the Primary Agricultural Development Bank

11 Representative of the Commercial Bank working in the Panchayat

12 Veterinary Surgeon Dairy Extension Officer Village Extension Officer of the area

13 Local Officers not below the rank of Assistant Engineer of the Irrigation or Minor Irrigation Department and Kerala State Electricity Board

14 Assistant Director of Agriculture having jurisdiction over the area

15 Agricultural Officer of the Krishi Bhavan

(member secretary)

Members in categories 5 to 8 above will be nominated by the Joint Director of Agriculture of the District One farmer in category 5 will be authorised by the Joint Director of Agriculture to act as Vice Chairman of the Samithy

The term of the Samithy will be for a period of three years The Samithy with the assistance of the technical personnel will propose a production plan for the area within the first 3 months of its constitution and will strive to mobilise public will and action to achieve production targets This action programme will be periodically reviewed vis a vis supply position of inputs credit infrastructural developments etc

The following are the roles expected of each Krishi Bhavan

1 Identifying planning and implementing need based location specific programme for agricultural development taking panchayat as the basic unit

2 Involving the farmers in the planning and implementation of Agricultural Programmes

3 Creating the basic infrastructures necessary to improve the production and productivity of crops

4 Planning optimum use of available land water and solar energy

5 Formulating location specific programmes for agricultural development and channelising institutional finance

6 Ensuring the timely availability of relevant technology inputs and credit to farmers and organising community efforts among them for agricultural operations

7 To give special attention in the case of crops under cultivation in certain pockets which have not received adequate priority and and care so far

8 Giving recognition to meritorious service of the field officers by rewarding outstanding service and encouraging efforts of farmers producing maximum out put from unit area

9 To take adequate steps for the farmers to secure remunerative prices for their produce by promoting collection storage processing and marketing on co operative basis through organised efforts

10 Monitoring the progress of agricultural development in each Panchayat based or physical achievements on a regular basis

Four years have passed since the implementation of Krishi Bhavan Programme and except for the periodical survey conducted by the Monitoring and Evaluation Unit of the Department of Agriculture no attempt has been made so far to analyse the role played by the Krishi Bhavans in agricultural development Hence the present study was undertaken to study the role of Krishi Bhavans in agricultural development as perceived by the Agricultural Extension Personnel working in Krishi Bhavans and farmers with the following specific objectives

Objectives of the Study

1 To analyse the role of Krishi Bhavans in agricultural development as perceived by farmers and Agricultural Extension Personnel

2 To study the awareness of farmers and Agricultural Extension Personnel about the concept and functioning of Krishi Bhavans

3 To study the attitude of farmers and Agricultural Extension Personnel towards Krishi Bhavans

4 To identify the constraints if any perceived by farmers and Agricultural Extension Personnel in the functioning of Krishi Bhavans

Need for the study

If the Krishi Bhavan Programme is to succeed the farmers and Agricultural Extension Personnel should have a clear understanding of the concept of Krishi Bhavans and their role in agricultural development A research investigation into the awareness and attitude of farmers and Agricultural ExtenSion Personnel towards Krishi Bhavans and their perception about the role of Krishi Bhavans in agricultural development will throw some useful light on the problems involved and thereby will enable initiation of suitable measures to ensure the effective functioning of Krishi Bhavans

It is hoped that the study would be of much use to extension administrators and planners to take corrective measures for the effective functioning of Krishi Bhavans and also in formulating effective and useful future agricultural programmes

Limitations of the study

The present study was undertaken by a single researcher as a part of the requirement for the Post Graduate degree programme Hence the limited time and other resources available to the researcher restricted the exploration of the area in a greater depth and in a more comprehensive manner The study was also restricted to only one district and hence the findings cannot be generalized for the whole State Moreover 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, utmost care was taken to make the study as objective as possible

Presentation of the report

The remaining chapters of this report are presented as follows

In chapter II which follows this chapter theoretical orientation definitions of concepts and hypotheses are furnished

Chapter III covers the methodology followed for the study

The results of the study are given in detail in Chapter IV

Chapter V deals with the interpretation of the findings and their discussion

Chapter VI gives the summary of the entire study emphasising salient findings

The references appendices and the abstract of the thesis are given at the end

THEORETICAL ORIENTATION

Chapter II

THEORETICAL ORIENTATION

> The more one knows about the peripheral investigations germane to one s own study the more knowledgeably one can approach the problems inherent to one s own area of investigation Paul Leedy

Theoretical orientation helps in clarification of important concepts being studied with theoretical definitions and explanations From a survey of literature hypotheses may be developed suggesting methods of research and may also provide comparable data useful in the interpretation of results It also assists in evaluating one s own research efforts by comparing them with related efforts of others

Here an attempt is made to review pertinent literature to cover the efforts made by other researchers in the related fields of investigation Previous studies on Role of Krishi Bhavans in Agricultural Development are very much limited However the available literature was pursued and the review is presented under the following headings

2 1 Concept of Krishi Bhavans

2 2 Concept of Role

2 4 Awards as Agricultural Development Programmes

2 5 Relationship of awareness with selected characteristics

2 6 Relationship of attitude with selected characteristics

2 7 Constraints in the functioning of Agricultural Development Programmes

2 8 Hypotheses developed

2 1 Concept of Krishi Bhavans

The basic concept of Krishi Bhavan Programme is the grass roots level or microlevel agricultural planning guided by a master plan for the whole state

Though many agricultural development programmes like Intensive Agricultural District Programme Intensive Agricultural Area Programme Multiple Cropping Programme Highly yielding Varieties Programme Intensive Paddy Development Programme and Training and Visit System were implemented in Kerala no programme was found to give consideration to grass roots level planning

During the period of Training and Visit system four projects were operating in Kerala upto 1987 viz Kerala Agricultural Development Project Multistate Cashew Project Kerala Agricultural Extension Project and Coconut Rejuvenation Scheme The field units functioning under these four projects were

attending to agricultural activities and services in general in their areas of operation over and above the programme of works contemplated under the respective project Even though 378 Agricultural Development Units functioning under the Kerala Agricultural Extension Project were expected to handle supplies and services to the farmers they were not functioning effectively due to wider jurisdiction ranging from 3 to 4 Panchayats

On critical analysis it was found that at the base level Panchayat must be the basic unit for development administration and therefore all the Agricultural Development Programmes are also to be conceived developed and implemented through the Panchayat level units It was also found that be redistributing the posts created under the four projects mentioned earlier it would be possible to establish an Agricultural Development Unit for each Panchayat with an Agricultural Officer in charge and 2 to 3 Agricultural Assistants to assist the Agricultural Officer Accordingly the Kerala State Department of Agriculture was reorganised as per the G O M S 188/87/AD dated 17-08 1987 This re organisation came into effect from September 1987

Thus in all the 1046 local body units of Kerala State including 999 Panchayats 44 Municipalities and 3 Corporations agricultural development units namely Krishi Bhavans were started The Krishi Bhavans in the local body units will devote their entire time and attention to agricultural extension and development work so as to create an impact on production and productivity of agricultural crops in each unit

2 2 Concept of Role

According to Cottrel (1942) the term role is used to refer to an internally consistant series of conditioned responses by one member of a social situation which represent the stimulus pattern for a similar internally consistant series of conditioned responses of others in that situation

Linton (1945) defined role as the sum total of cultural patterns associated with a particular status

Wilson and Kolb (1949) defined role as a pattern of behaviour corresponding to a system of rights and duties and associated with a particular position in a social group

Role was defined by Lundberg et al (1958) as a pattern of behaviour expected of an individual in certain group or situation

Davis (1960) said that role is the manner in which a person actually carries out the requirement of his position

Ogburn and Nimkoff (1964) defined role as a set of socially expected and approved behaviour patterns consisting of both duties and previleges associated with a particular position in a group In otherwords role refers to the obligations which an individual has towards his group

According to Hodge and Johnson (1970) role means a unique combination of talent and attitude adopted to discharge of specific assignment

In the present study role is not associated with an individual but with an organization namely Krishi Bhavan Therefore role in this study is operationalized as the functions and activities to be carried out through Krishi Bhavans for agricultural development in each Panchayat

Nair (1964) found that more than 50 per cent of the members of the Panchayat Samithi played a vital role in publicity of agricultural development programmes distribution of seeds and arranging demonstrations in the villages

Reddy (1965) found that various roles performed by the leaders in the adoption of farm practices in the community development work were securing and supplying seeds fertilizers etc giving information and advice propagation of new ideas guiding and helping people in availing governmental assistance focussing on the problems of village and helping the extension workers

Reddy (1972) found that majority of the Panchayat Chairmen and Co operative Presidents had a good understanding of the role of their Panchayats and Co-operatives in carrying out extension educational acitivities which were that they should take responsibility in establishing demonstrations arranging field days conducting extension meetings and leader training sessions

Dudhani and Salvi (1977) reported that majority of the effective gram sevaks were following prescribed procedures while conducting method demonstrations result demonstrations and meetings (only 35 per cent used visual aids) They also play an important

role in leadership development introducing improved agricultural practices participation in development projects and systematic office management

Sabarathnam (1977) studied the extension role of an Agricultural University as viewed by extension workers and reported the following

The Agricultural University should

1 play a key role in formulating the policies of Agricultural Development Programmes in the State

2 a)publish extension literature

b)publish a journal exclusively for extension workers

c)organise its own demonstration centres in villages

d)organise farmers fairs

e)conduct competition and organise contests in connection with Kissan Melas

3 conduct refresher and inservice training courses to extension personnel and also farmers training courses

Amalraj and Prasad (1984) revealed that the fertilizer and pesticide dealers have a significant role as a source of information on farm technology to the farmers It has been observed that dealers provide information to farmers on the rate timing and methods of fertilizer and pesticide application

Vekaria et al (1989) reported the following as the role of co-operative sugar factories in sugarcane development as perceived by sugarcane growers

- supply of improved varieties of sugarcane for planting
  arranging supply of pressmud and castor cake
  arranging for fertilizers and sunhemp
  arranging for soil testing
- supply of insecticides and fungicides and arranging for aerial spray
  providing technical guidance to the growers through distribution of literature by organising farmers tours and farmers days
  arranging credit facilities to the members

Similarly the Krishi Bhavans will also have definite roles in agricultural development Except for the survey conducted by the Monitoring and Evaluation Unit of Department of Agriculture no attempt has been made so far to analyse the role of Krishi Bhavans in agricultural development Therefore the present study was undertaken to analyse the role of Krishi Bhavans in agricultural development as perceived by Agricultural Extension Personnel and farmers

2 3 Awareness about Agricultural Development Programmes

According to the Dictionary of Behavioural Sciences awareness is being conscious of something as a state of perceiving and taking account of some event occasion experience or object

Lionberger (1960) defined awareness as the first knowledge about a new idea product or practice At the awareness stage a person has only general information about it

Behera and Sahoo (1975) studied the impact of National Demonstration on adoption of agricultural practices and revealed that only about three fourth of the sample farmers know about National Demonstration in some way or other Less than half of the farmers visited the plot although quite a good number of them had seen the sign board

Gosh and Reddy (1978) conducted a study on attitude of farmers and Agricultural Extension Workers towards T & V system in West Bengal and reported that majority of the farmers and contact farmers belonged to the category of below mean value in terms of their awareness on different aspects of T & V system Although most of the officials were aware of T & V system majority of them did not know about the day of visit of the other functionaries

Rao and Reddy (1979) conducted an evaluative study on the impact of T & V system in Andhra Pradesh and reported that almost all the farmers were aware of the term contact farmers and also the year of inception of T & V system Majority of the farmers were knowing the Village Extension Officers and Assistant Agricultural Officers by name and person But they did not know the Assistant Director of Agriculture and Deputy Director of Agriculture None of them were aware of the actual number of contact farmers in their

T & V unit Almost all the farmers were not aware of the day of visit of Village Extension Officers and their frequency of visit

Rao and Reddy (1980) in their study on interpersonal communication behaviour of farmers in Sree Ram Sagar Command Area of Andhra Pradesh found that majority of the farmers were aware of T & V system

Sarkar and Reddy (1980) studied the impact of T&V system in West Bengal and reported that all the farmers were aware of the term contact farmers and most of them were aware of the year of inception of T&V system Most of them know the Village Extension Workers and Agricultural Extension Officers and their days of visit It was also stated that compared to non contact farmers the contact farmers were showing better awareness about T&V system

In a participative analysis of Farmers Service Co operative Society Balasubramani (1981) found that nearly one third of small farmers (30 per cent) one fifth of big farmers (17 50 per cent) and negligible percentage of medium farmers possessed high awareness about the activities carried out by Farmers Service Co-operative Society

Another study conducted by Naik (1981) revealed that majority of the farmers were unaware of the terms Benors extension system T & V system Intensive Extension System and contact farmers They were also ignorant of the correct year of inception of the T & V system Majority of them were knowing

Assistant Director of Agriculture by person only but their awareness and acquaintance about the Deputy Director of Agriculture Subject Matter Specialists and Project Administrator were poor Majority of them could not tell correctly about the number of contact farmers in their unit and frequency of visit of the Village Extension Officers to the T & V unit It was also revealed that all the officials covered by the study obtained highest awareness scores showing that all of them were fully aware of the different aspects and concepts of T & V system signifying their professionalism

Theodore (1988) found that same proportion of contact farmers (45 per cent) and other farmers (45 per cent) belonged to the high awareness category with respect to the awareness about technological units of contingency farming practices Nearly equal number of contact farmers (40 per cent) and other farmers (42 50 per cent) were in the low awareness category Only least percentage of both contact farmers (15 per cent) and other farmers (12 50 per cent) were found to be with medium degree of awareness

Sheela (1989) revealed that more than 47 per cent of the Junior Soil Conservation Officers possessed high level of awareness in watershed planning Majority of the respondents among the Junior Soil Survey Officers and Agricultural Officers possessed only low level of awareness in watershed planning

Report of Monitoring cum Evaluation Survey conducted in Kerala State during Rabi 1988 89 revealed that 31 70 per cent of the selected farmers had knowledge about the Agricultural Officer of

the area and 50 80 per cent had knowledge about the Agricultural Demonstrators working in their area

The Studies reviewed depict that the Agricultural Extension Personnel and farmers had varying levels of awareness about defferent Agricultural Development Programmes If the Krishi Bhavan Programme is to succeed the Agricultural Extension Personnel and farmers should have a better awareness about the concept of Krishi Bhavans and the role of Krishi Bhavans in agricultural development Hence in the present study an attempt was made to find the extent of awareness of Agricultural Extension Personnel and farmers about Krishi Bhavans

2 4 Attitude towards Agricultural Development Programmes

According to Allport (193[illegible]) attitude is a mental and neural state of readiness organised through experience exerting a directive or dynamic influence upon the individual s response to all objects and situations with which it is related

Kuppuswamy (1964) stated that attitudes are learned in the course of life experience which make the individuals behave in characteristic ways towards persons objects or issues to which they get related

Dahama (1970) opined that attitudes are learned responses and since they are always found in relation to objects ideas and persons they play an important role in determining human behaviour

Clifford and Richard (1971) defined attitude as a learned orientation or disposition towards an object or situation which provides a tendency to respond favourably or unfavourably to the object or situation

Vasudeva (1976) defined attitude as an enduring organisation of evaluative belief and a learned tendency to react positively or negatively varying in degree to certain class of objects which determine the actual and potential responses of the individual

Basha (1972) in his study on the impact of adaptive research as an extension promotion programme in Tanjavur district of Tamil Nadu found that the Agricultural Extension Officers had quite favourable attitude towards adaptive research

Gosh and Reddy (1978) studied the attitude of farmers and Agricultural Extension Workers towards T&V system in West Bengal and reported that majority of the farmers had moderately favourable attitude towards T&V system Officials had medium or less favourable attitude towards T&V system It was found that the attitude of farmers was influenced by the degree of their awareness

Samad (1979) studied the response of Special Package Programmes for Agricultural Development in Kerala and found that as much as 84 per cent of farmers of Intensive Paddy Development Units 83 per cent of farmers of Coconut Package Units and 76 per cent of farmers of Pepper Package Units were having favourable attitude towards the respective package programmes It was also found that 93 per cent of Junior Agricultural Officers of

Intensive Paddy Development Units 81 per cent of Junior Agricultural Officers of Coconut Package Units and 100 per cent of Junior Agricultural Officers of Pepper Package Units had favourable attitude towards the respective programmes

Rao and Reddy (1979) conducted an evaluative study on the impact of T&V system in Andhra Pradesh and stated that majority of the farmers and officials had moderately favourable attitude towards T&V system

Sarkar and Reddy (1980) stated that majority of the farmers and officers had moderately favourable attitude towards the T&V system However there was a need for developing a more favourable attitude towards the system

Balasubramani (1981) in the participative analysis of Farmers Service Co operative Society revealed that majority of the small farmers (65 per cent) big farmers (57 50 per cent) and a considerable percentage of marginal farmers (40 per cent) have most favourable attitude towards Farmers Service Co operative Society More favourable attitude was indicated by 35 per cent of small farmers 4z 5 per cent of big farmers and 55 per cent of marginal farmers

Naik (1981) revealed that majority of the farmers and officials had moderately favourable attitude towards T&V system However there was still a need for developing favourable attitude among those having unfavourable attitude

Cherian (1984) found that majority of contact farmers and other farmers had medium attitude towards T&V system It was also found that majority of Village Extension Workers belonged to low attitude category and majority of officials belonged to medium attitude category

Prajapathi and Patel (1984) found that only 15 per cent of the extension workers had unfavourable attitude towards the T&V programme while the majority of the respondents (62 5 per cent) were neutral About 22 5 per cent of the respondents had a favourable attitude towards the programme

From the above reviews it is understood that Agricultural Extension Personnel and farmers had varying degrees of attitude towards different extension systems In this study an attempt was made to know the attitude of Agricultural Extension Personnel and farmers towards Krishi Bhavans

2.5 Relationship of awareness with selected characteristics

2 5 1 Age

Behera and Sahoo (1975) revealed that age of the farmers do not have any relationship with either awareness of National Demonstrations or attending field days

Somasundaram and Duraiswamy (1975) stated that there was significant relationship between age of farmers and their awareness about demonstrations

Somasundaram (1976) reported that age had no significant relationship with the awareness of the farmers about demonstrations

Rao and Reddy (1979) reported that awareness of farmers and officials about Training and Visit system was not related to their age

Balu (1980) found that age had a negative and significant relaitonship with awareness of participants and non participants of Integrated Dryland Agricultural Development Project

Mani (1980) revealed that age of participants and non participants had negative and significant relationship with their awareness about regulated market

Nandakumar (1980) found a negative but significant relationship between age and awareness of partcipants and non participants of Drought Prone Area Programme

Sarkar and Reddy (1980) reported that awareness of farmers about T&V system was found to be unrelated to age

Balasubramani (1981) revealed that age of marginal farmers showed a negative and significant relationship with their awareness about Farmers Service Co-operative Society

Naik (1981) stated that the awareness of farmers about the T&V system was found to be dependent on age while in the case of officials there was no association of age with the awareness about the T&V system

Vijaya (1982) stated that the awareness of the farmers about T&V system was independent of their age

According to Cherian (1984) age of contact and other farmers was negatively and significantly related with their awareness about T&V system There was positive but non significant relationship between age and awareness of Village Extension Workers and officials about T&V system

Srinath (1988) revealed that age had no relationship with awareness

Sekar and Perumal (1988) stated that younger the age more would be the tendency for an increased awareness of extension personnel about farm broadcast programmes

Sajeevchandran (1989) revealed that age was found to be non significantly correlated with the level of awareness about Pepper Package Programme in the case of both beneficiaries and non beneficiaries

Most of the above studies depict that age had significant influence on the awareness of both Agricultural Extension Personnel and farmers Here also the influence of age on the awareness of Agricultural Extension Personnel and farmers about Krishi Bhavans was studied

2 5 2 Education

Behera and Sahoo (1975) revealed that education of the farmers do not have any relationship with either awareness of National Demonstrations or attending field days

Rao and Reddy (1979) reported that awareness of farmers and officials about T&V system was fairly related to their education

Vijayaraghavan (1979) stated that education of farmers had positive and significant association with awareness about high yielding varieties of paddy

Balu (1980) observed that eductional status had a positive and significant relationship with awareness of participants and non participants of Integrated Dryland Agricultural Development Project

Mani (1980) revealed that educational status had positive and significant relationship with awareness of turmeric growers about regulated market

Nandakumar (1980) found that educational status was positively and significantly related with the awareness of participants of Drought Prone Area Programme whereas there was no relationship in the case of non participants

Sarkar and Reddy (1980) stated that awareness of farmers about T&V system was fairly related to education

Naik (1981) concluded that for both contact and other farmers there existed a positive association of eduction and awareness about T&V system But in the case of officials education has no association with awareness about T&V system

Haraprasad (1982) revealed that there was positive and significant relationship between education and level of awareness of Small Farmers Development Agency activities of farmers

Vijaya (1982) revealed that there was a positive influence of education on awareness of farmers about T&V system

Cherian (1984) reported that education had a positive and non significant relationship with the awareness of Village Level Workers Officials and contact farmers and positively and significantly correlated in the case of other farmers about T&V system

Theodore (1988) reported that there was positive and significant relationship of education of contact and other farmers with their extent of awareness about contingency farming practices

According to Sekar and Perumal (1988) more the extension personnel were educated, greater would be the degree of awareness of farm broadcast programmes

Selvakumar (1988) revealed that there was positive and significant relationship of education of contact and non contact farmers with their awareness about cotton white fly control measures

Sajeevchandran (1989) found that awareness towards Pepper Package programme and Pepper Rejuvenation Programme had significant relationship with education in the case of beneficiaries and non significant relaitonship in the case of non beneficiaries

In the present study also an attempt was made to know the influence of education of Agricultural Extension Personnel and farmers on their awareness about Krishi Bhavans

2 5 3 Farm size

Vijayaraghavan (1979) concluded that farm size was positively and significantly associated with the awareness of small

and marginal farmers about high yielding varieties of paddy

Balu (1980) reported that farm size showed significant relationship with awareness of participants and non participants of Integrated Dryland Agricultural Development Project

Mani (1980) found that farm size of turmeric growers both participants and non participants showed positive and significant relationship with their awareness about regulated market

Nandakumar (1980) reported a non significant association of farm size of both participants and non participants of Drought Prone Area Programme with their awareness

Naik (1981) revealed that there was significant association between farmsize and awareness of other farmers while for contact farmers there was no association between farm size and awareness about T&V system

Haraprasad (1982) revealed that the farm size of farmers was positively and significantly related with the level of awareness of activities of Small Farmers Development Agency

Cherian (1984) stated that there was positive and significant relationship between awareness about T&V system and farm size

Theodore (1988) found that the farm size of other farmers showed positive and significant relationship with their extent of awareness whereas the farm size had no relationship with the awareness of contact farmers

Srinath (1988) reported that size of holding had no relationship with awareness

Sajeevchandran (1989) reported that there was no relationship between awareness of Pepper Rejuvenation Programme and Integrated Programme for Development of Spices in the case of both beneficiary and non beneficiary farmers and farm size

Majority of the reviews presented here proves that farm size of farmers had a significant relationship with their awareness In this study an attempt was made to test whether farm size is a determinant of the awareness of farmers about Krishi Bhavans

2 5 4 Farming experience

Balu (1980) stated that farming experience showed significant relationship with awareness of participants and non participants of Integrated Dryland Agriculture Development Project

Mani (1980) revealed that farming experience of turmeric growers had no relationship with their awareness about regulated market

Nandakumar (1980) reported a negative and significant relationship between farming experience and awareness of non participant of Drought Prone Area Programme while there was no relationship in the case of participants

Balasubramani (1981) observed that awareness of farmers about Farmers Service Co operative Society was not related to their farming experience

Theodore (1988) found that there was a positive and significant relationship of farm experience of other farmers and their awareness while there was no relationship between farm experience and awareness of contact farmers

Selvakumar (1988) reported non significant relationship between farming experience and awareness of both contact and non contact farmers about cotton white fly control measures

From the above studies it is clear that the relationship of farming experience with awareness deffer considerably In this study an attempt was made to know the relationship of farming experience with the awareness of farmers about Krishi Bhavans

2 5 5 Occupation

Nandakumar (1980) reported positive and significant relationship between occupational status and awareness of participants and non participants of Drought Prone Area Programme

Balasubramani (1981) revealed that occupation had no relationship with the awareness of farmers about Farmers Service Co-operative Society

The results of the above studies are contradictory The relationship of occupational status of farmers with their awareness about Krishi Bhavans is therefore tested in this study also

2 5 6 Social participation

Somasundaram and Druaiswamy (1975) stated that social participation of farmers had no relationship with awareness about the demonstrations

Vijayaraghavan (1979) reported that social participation was positively and significantlty associated with awareness about high yielding varieties of paddy

Rani (1980) found that social participation showed positive and significant relationship with awareness of participant turmeric growers in regulated market

Nandakumar (1980) revealed that there was a positive and significant relationship between social participation and awareness of participants about Drought Prone Area Programme

Balasubramani (1981) reported that there was no relationship between social participation and awareness of farmers about Farmers Service Co-operative Society

Cherian (1984) reported that there was a positive and significant relationship between social participation and the level of awareness about T&V system in the case of contact farmers but there was no relationship in the case of other farmers

Haraprasad (1982) concluded that there was a significant and positive relationship between social participation and level of awareness about Small Farmers Development Agency activities

Thus social participation was found to have significant relationship with the awareness as evident from majority of the above reviews In the present study also social participation was tested for its kind of relationship with the awareness of farmers about Krishi Bhavans

2 5 7 Cosmopoliteness

Kamarudeen (1981) stated that there was non significant relationship between cosmopoliteness and awareness of farmers about demonstrated cultivation practices

No other study relating cosmopoliteness and awareness could be reviewed But this variable was included in this study to find its effect on the awareness of farmers about Krishi Bhavans

2 5 8 Information source utilisation

Cherian (1984) reported that the relationship between the exposure to information source and the level of awareness of contact and other farmers about T&V system was found to be positive and significant

Sajeevchandran (1989) revealed that there was positive and significant correlation between the information source used and the level of awareness about Pepper Package Programme and Pepper Rejuvenation Programme in the case of both beneficiaries and non-beneficiaries

The assumption made in the selection of this variable was that there may be a variation in the awareness of farmers about Krishi Bhavans due to the influence of their information source utilization pattern

2 5 9 Contact with extension agency

Khan (1978) reported that effort of the change agents was

one of the main factors responsible for the increase in awareness of Small Farmers Development Agency programmes in the study area

Rao and Reddy (1979) reported that contact of farmers with extension agency was not related and had no influence on the extent of awareness about T&V system

Balasubramani (1981) revealed that contact with extension agency had a positive and significant association with awareness of small farmers about Farmers Service Co operative Society

Haraprasad (1982) showed a positive and significant relationship between contact with extension agencies and level of awareness of small farmers about Small Farmers Development Agency activities

Selvakumar (1988) found that there was positive and significant relationship between contact with extension agency and awareness about cotton white fly control measures of both contact and non contact farmers

Majority of the studies reviewed advocate a positive relationship between contact with extension agency and awareness The relationship between contact of farmers with extension agency and their awareness about Krishi Bhavans was tested in this study also

2 5 10 Innovativeness

Balasubramani (1981) reported that innovativeness showed a positive and significant association with awareness of big farmers about Farmers Service Co operative Society

Sajeevchandran (1989) revealed that there was no relationship between innovativeness and awareness

The contradictory results of the two studies prompt the researcher to test the relationship between innovativeness of farmers and their awareness about Krishi Bhavans

2 5 11 Scientific orientation

Nandakumar (1980) reported that there was positive and significant relationship between awareness and scientific orientation of both participants and non participants of Drought Prone Area Programme

Aristotle (1981) revealed that there was positive and significant relationship between scientific orientation and awareness of farmers about the facilities in Nationalized Banks

Theodore (1988) reported a non significant relationship between scientific orientation and awareness of both contact and other farmers about the contingency farming practices for rice

Sajeevchandran (1989) found that there was positive and significant relationship between scientific orientation and awareness

Many of the studies support the view of positive relationship of scientific orientation with awareness of farmers This variable was included in this study to find whether scientific orientation has any influence on the awareness of farmers about Krishi Bhavans

2 5 12 Economic motivation

Mani (1980) found that economic motivation of both participants and non participants showed positive and significant relationship with awareness about regulated markets

Nandakumar (1980) reported positive and significant relationship between economic motivation and awareness in the case of both participant and non participant farmers about the functioning of Drought Prone Area Programme

Balasubramani (1981) revealed that economic motivation of farmers had no relationship with their awareness about Farmers Service Co-operative Society

Sajeevchandran (1989) found that economic motivation had positive and significant association with awareness

To know the influence of economic motivation on the awareness of farmers about Krishi Bhavans, the variable was included in this study

2 5 13 Training

Cherian (1984) reported that there was a positive and significant relationship between level of training of Village Extension Workers and officials and their awareness about T&V system

No other study relating training of extension personnel with their awareness could be reviewed by the researcher In this study an attempt was made to know the relationship of training with the awareness of Agricultural Extension Personnel about Krishi Bhavans

2 5 14 Experience

Rao and Reddy (1979) reported that awareness of officials about T&V system was not related to the service experience

Naik (1981) stated that the experience of officers had no association with awareness of officers about certain aspects of T&V system

Cherian (1984) reported that there was a positive and significant relationship between experience and awareness of officials about T&V system while in the case of Village Level Workers there was positive and non significant relationship

Sekar and Perumal (1988) observed that more the field experience the extension personnel had greater would be the degree of awareness about farm broadcast programmes

It was proposed to find the relationship of service experience of extension personnel with their awareness about Krishi Bhavans in this study

2 5 15 Job satisfaction

Katzell (1964) defined job satisfaction as the verbal expression of the incumbent s evaluation of his job

Subalekshmi and Singh (1974) found that nearly two third of the Gram Sevaks were either very much satisfied or satisfied with their job nearly 20 per cent were dissatisfied or very much dissatisfied and the remaining Gram Sevaks were neutral in their job satisfaction

Perumal and Rai (1978) reported that maximum number of Agricultural Extension Officers in Tamil Nadu were in average job satisfaction category and rest in low and high categories Also there was no relationship existed between job satisfaction and job performance

No study relating job satisfaction and awareness of extension personnel could be reviewed Here an attempt was made to find the relationwship of job satisfaction of Agricultural Extension Personnel with their awareness about Krishi Bhavans

2 5 16 Job commitment

According to Clegg (1963) commitment may be a basic source of motivation since a person is more likely to perform better when he is commited to a cause He further says that the least commited agents were those whose major concern and attitude were not focussed on goals or objectives of the profession

While studying the role commitment Werkmeister (1967) pointed out that individuals own self and his value considerations lead to commitment

No study relating job commitment and awareness of extension personnel could be reviewed But this variable was included in the study with the assumption that it may have a definite role in determining the awareness of Agricultural Extension Personnel about Krishi Bhavans

2 6 Relationship of attitude with the selected characteristics

2 6 1 Age

Makkar and Sohal (1974) reported that a significant relationship was found to exist between age and attitude of the respondents The farmers with younger age had more favourable attitude than those with advanced age

Menon and Prema (1976) observed that age had positive influence in creating a favourable attitude towards Applied Nutrition Programme

Reddy and Reddy (1977) revealed that the attitude of farmers towards crop loan system was independent of their age

Kher and Jha (1978) reported a non significant relationship between attitude of farmers towards Primary Agricultural Credit Society and their age

Lakshminarayan (1978) revealed that age in the case of agricultural and non agricultural students was not related to their attitude towards agriculture

Sushama (1979) found that age was not a discriminating factor in changing the attitude of tribes towards modern living practices

Thangavelu (1979) observed that there was non significant relationship between age and attitude of loanees of State Bank of India

Jayavelu (1980) found that the relationship of age and attitude of participants towards regulated market was negative and significant while in the case of non participants the relationship was negative and non significant

Rani (1980) revealed that age was found to have negative and significant relationship with attitude of both participant and non participant turmeric growers towards regulated market

Ravichandran (1980) reported that there was no significant relationship between age and attitude

Subburaj (1980) identified a non significant association between age and attitude of regular credit users whereas it exhibited a negative and significant association with attitude of defaulter credit users

Kamarudeen (1981) stated that there was no significant relationship between age and attitude of farmers towards the demonstrated cultivation practices

According to Perinbam (1981) the contact farmers with young age had more favourable attitude towards T&V system

Vijayakumar (1983) reported that age was not found to have a significant relationship with the attitude of beneficiaries towards improved agricultural techniques on coconut development while age of non beneficiaries had a negative and non significant relationship with their attitude

Cherian (1984) found that the relationship between attitude towards T&V system and age of contact farmers other farmers Village Level Workers and officials were not significant

According to Ranganathan (1984) age had no significant relationship with attitude towards farming of farm youths of full time farm families

Krishnakumar (1987) revealed that age had no significant relationship with attitude towards soil conservation practices of both adopters and non adopters of soil conservation practices The same result was also obtained by Prabhu (1988)

A study by Sajeevchandran (1989) showed that there was no relationship between age and attitude of both beneficiaries and non beneficiaries towards Pepper Package Programme Pepper Rejuvenation Programme and Integrated Programme for the Development of Spices

Hence it is seen that age is not consistant in determining attitude The relationship of age with attitude of Agricultural

Extension Personnel and farmers was studied in the present context

2 6 2 Education

Makkar and Sohal (1974) revealed that there was a positive correlation between the level of education of farmers and their attitude towards soil testing

Reddy and Reddy (1977) found that the attitude of farmers towards crop loan system was independent of their education

Kher and Jha (1978) reported that there was no significant association between loanees attitude towards Primary Agricultural Credit Society and their education

Lakshminarayan (1978) found that education was not related to attitude towards agriculture in the case of agricultural and non agricultural students

Rao and Reddy (1979) reported that education was not related with attitude of farmers towards T&V system but related to the attitude of officials

Jayavelu (1980) observed a positive and significant relationship between educational status of both participant and non-participant cotton growers and their attitude towards regulated market

Ravichandran (1980) found a positive and significant relationship between education and attitude of registered sugarcane growers towards sugar factory

Sarkar and Reddy (1980) found that the attitude of farmers and officials towards T&V system was significantly related to their education

Subburaj (1980) found that age was positively and significantly related tc the attitude of regular credit users

Kamarudeen (1981) stated that the level of education and attitude towards National Demonstration Programme was positively and significantly related in the case of both neighbouring and control farmers cf demonstration plots

Vijayakumar (1983) indicated that the education of both beneficiaries and non beneficiaries had a significant relationship with their attitude towards improved practices of coconut cultivation

Cherian (1984) indicated that there was a positive and significant relationship between attitude of contact and other farmers towards T&V system and education but the relationship was positive and non significant in the case cf Village Extension Workers and officials

Sinha et al (1984) reported that the attitude of farmers towards soil conservation programme was significantly and positively associated with their education

Bhatnagar and Singhal (1984) found that education was significantly related with attitude

Krishnakumar (1987) found that the education level cf farmers adopting soil conservation practices was positively and significantly related to their attitude towards soil conservation practices

Swamy (1988) revealed that the relationship of education of contact farmers to their attitude towards National Agricultural Extension Project was not significant

Sajeevchandran (1989) observed that education had positive and significant relationship with the level of attitude of beneficiaries and non beneficiaries towards Pepper Package Programme Pepper Rejuvenation Programme and Integrated Programme for Development of Spices

Many of the reviews show a positive relationship between education and attitude This study attempts to analyse whether education has any influence in shaping the attitude of both Agricultural Extension Personnel and farmers towards Krishi Bhavans

2 6 3 Farm size

Menon and Prema (1976) found that size of holding had positive influence on farmers in creating a favourable attitude towards kitchen gardening

Reddy and Reddy (1977) reported that attitude of farmers towards crop loan system was independent of their farm size

Pillai (1978) reported that size of holding was positively related to farmers attitude towards soil conservation measures

Rao and Reddy (1979) reported that there was no relationship between farm size and attitude of farmers towards T&V system

Sushama (1979) revealed that farm size was found to have no significant relationship with attitude of tribes towards modern living practices

Mani (1980) observed positive and significant association between farm size and attitude of turmeric growers towards regulated market

Prakash (1980) revealed that there was no significant relationship between farm size and attitude towards settled agriculture

Ravichandran (1980) reported that farm size and attitude were found to maintain a non significant association

Naik (1981) revealed that farm size had no association with attitude of contact and other farmers towards T&V system

Pathak (1981) revealed that farm size had positive and highly significant relationship with attitude of farmers towards farm practices

Vasoya et al (1983) reported a non significant relationship between size of holding and attitude of contact farmers towards T&V system

Cherian (1984) revealed that there was positive but non significant relationship between farm size and attitude of contact and other farmers towards T&V system

Sinha et al (1984) reported that the association of attitude of farmers towards soil conservation programme with farm size was not significant

Reddy (1987) reported that farm size was found to have positive and highly significant relationship with attitude of farmers towards watershed management practices

Prabhu (1988) found a non significant relationship between farm size and attitude of farmers towards soil conservation practices

Sajeevchandran (1989) found that there was no relationship between farm size and attitude of beneficiaries and non beneficiaries towards Pepper Package Programme Pepper Rejuvenation Programme and Integrted Programme for Development of Spices

Thus it is seen that farm size of farmers and their attitude had no consistant relationship In this study an attempt was made to test the relationship between farm size and the attitude of farmers towards Krishi Bhavans

2 6 4 Farming experience

Jayavelu (1980) revealed that farming experience had a negative and significant relationship with attitude of participant farmers towards cotton regulated market while the relationship was not significant in the case of non participant farmers

Ravichandran (1980) stated that there was positive and significant relationship between farming experience and attitude of registered sugarcane growers towards Sugar Factory

Krishnakumar (1987) reported that farming experience had no significant relationship with attitude of farmers towards soil conservation practices

Prabhu (1988) found that farming experience was not significantly related to the attitude of farmers towards soil conservation practices

Swamy (1988) reported that the length of farming experience had no significant relationship with the attitude of farmers towards National Agricultural Extension Project

The results of the above studies are highly contradictary Therefore farming experience of farmers was tested for its relationship pattern with their attitude towards Krishi Bhavans in this study

2 6 5 Occupation

Reddy and Reddy (1977) reported that the attitude of farmers towards crop loan system was independent of their occupation

Ravichandran (1980) revealed that the occupational status of registered sugarcane growers had no significant relationship with their attitude towards Sugar Factory

Balasubramani (1981) found that attitude of farmers towards Farmers Service Co-operative Society was not related to their occupation

Sinha et al (1984) stated that the attitude of farmers towards soil conservation practices was significantly and positively associated with their occupation

Many of the studies reviewed support the view of nc relationship betwen occupation and attitude In this study it was proposed to test whether the occupation of farmers had any bearing on their attitude

2 6 6 Social participation

Reddy and Reddy (1977) revealed that the attitude of farmers towards crop loan system is dependent upon their social participation

Thangavelu (1979) reported non significant association between social participation and attitude of loanees and non loanees towards State Bank of India

Ravichandran (1980) found that social participation had positive and significant association with the attitude of registered sugarcane growers

Perinbam (1981) reported that farmers with increased social participation had more favourable attitude towards T&V system

Vijaya (1982) reported that farmers who had favourable attitude towards T&V system were having better social participation

Sinha et al (1984) observed that the attitude of farmers towards soil conservation programme was significantly and positively associated with their social participation

Krishnakumar (1987) found that social participation of adopters and non adopters had no significant asscciation with their attitude towards soil conservation practices

In this study the relationship of social participation of farmers with their attitude towards Krishi Bhavans was also proposed to be studied

2 6 7 Cosmopoliteness

Kamarudeen (1981) revealed that cosmopoliteness and attitude towards demonstrated practices were positively but non significantly related with respect to neighbour farmers but it was positively and significantly related in the case of control farmers

Vijayakumar (1983) reported that cosmopoliteness had a significant and positive relationship with the attitude of beneficiaries and non beneficiaries of Special Agricultural Development Units towards improved practices of coconut cultivation

Swamy (1988) reported that the cosmopoliteness of contact farmers had a significant association with their attitude towards National Agricultural Extension Project

Cosmopoliteness was included in this study to find its extent of influence on the attitude of farmers towards Krishi Bhavans

2 6 8 Information source utilisation

Sushama (1979) found that there was no significant relationship between the use of information sources and attitude of tribes towards modern living practices

Prakash (1980) found that there was no significant relationship between information source utilisation pattern and attitude of tribes towards settled agriculture

Kamarudeen (1981) stated that there was a positive and significant relationship between information source utilisation and attitude towards the demonstrated practices of neighbour and control farmers

Cherian (1984) indicated that there was positive and significant relationshp between expousure to information sources and attitude of contact and other farmers towards T&V system

Sajeevchandran (1989) observed that there was positive and significant correlation between the information source utilisation and the attitude of both beneficiaries and non beneficiaries of Pepper Development Programmes

In this study, an attempt was made to know the relationship of this variable with the attitude of farmers towards Krishi Bhavans

2 6 9 Contact with extension agency

Reddy and Reddy (1977) reported that the attitude of farmers towards crop loan system was independent of their contact with extension agency

Rao and Reddy (1979) reported that the attitude of farmers towards the T&V system was significantly associated with their contact with extension agency

Ravichandran (1980) revealed that there was positive and significant relationship between the degree of contact with extension agency and the attitude of registered sugarcane growers towards sugar factory

Kamarudeen (1981) found that there was positive and significant relationship between contact with extension agencies and attitude towards demonstrated practices

Sinha et al (1984) stated that the attitude of farmers towards soil conservation programme was significantly and positively associated with their extension contact

Majority of the studies support the view of positive relationship between contact with extension agency and attitude The present study attempts to find the relationship of cosmopoliteness with the attitude of farmers towards Krishi Bhavans

2 6 10 Innovativeness

Ravichandran (1980) reported that the relationship of attitude of registered sugarcane growers towards sugar factory with innovativeness was not significant

Balasubramani (1981) revealed that the innovativeness of farmers had negative and significant relationship with attitude of big farmers towards Farmers Service Co operative Society

Sajeevchandran (1989) found that there was no relationship between innovativeness and attitude of pepper growers towards Pepper Package Programme

It is assumed that innovativeness of farmers may or may not have its influence on the attitude of farmers towards Krishi Bhavans

2 6 11 Scientific orientation

Subburaj (1980) reported that scientific orientation of regular credit users was positively and significantly related to the attitude towards Nationalised Banks

Cherian (1984) found that scientific orientation of contact and other farmers was not related to their attitude towards T&V system

Sinha et al (1984) revealed that the association of attitude of farmers towards soil conservation programme with scientific orientation was not significant

Reddy (1987) observed that scientific orientation was found to have positive and highly significant relationship with attitude of farmers towards watershed management practices

Sajeevchandran (1989) reported that attitude towards Pepper Package Programme was positively and significantly related with scientific orientation of pepper growers

Hence it can be hypothesised that the relationship of scientific orientation with the attitude of farmers towards Krishi Bhavans may or may not be significant

2.6.12 Economic motivation

Kher and Jha (1978) found that the level of economic motivation was directly related to farmers attitude towards Primary Agricultural Credit Society

Thangavelu (1979) reported that the relationship between attitude and economic motivation was positive and significant in the case of loanees while the same was not significant in the case of non loanees

Jayavelu (1980) observed that economic motivation was positively and significantly associated with attitude of cotton growers towards regulated market

Balasubramani (1981) reported that economic motivation had no relationship with attitude of farmers towards Farmers Service Co-operative Society

Sinha et al (1984) revealed that the attitude of farmers towards soil conservation programme was significantly and positively associated with economic motivation

Sajeevchandran (1989) reported that attitude of pepper growers towards Pepper Package Programme had positiv significant relationship with economic motivation

On the basis of the above reviews economic motivatin is expected to have a direct bearing on the attitude of farmers towards Krishi Bhavans

2 6 13 Training

Basha et al (1975) found that inservice training undergone by Deputy Agricultural Officers had no considerable bearing on their attitude towards Adaptive Research Programme

Rahiman and Menon (1980) found that there was no change in the attitude towards training of supervisors of Primary Land Mortgage Banks due to training

Cherian (1984) revealed that there was positive and significant relationship between training undergone by Village Extension Workers and officials and their attitude towards T&V system

Training is expected to have direct or indirect bearing on the attitude of extension personnel towards Krishi Bhavans

2 6 14 Experience

Basha (1972) found that total experience experience as Agricultural Extension Officer and experience in Intensive Agricultural Development Project were statistically confirmed as contributing variables for attitude of Agricultural Extension Oficers towards adaptive research

Basha et al (1975) found that total experience and experience as Deputy Agricultural Officers of Deputy Agricultural Officers were found to be significant in influencing general strength of their attitude towards adaptive research

Rao and Reddy (1979) reported that attitude of officials towards T&V system was not related to their service experience

Rahiman and Menon (1980) revealed that there was significant relationship between experience and attitude of supervisors of Primary Land Mortgage Banks towards training

Cherian (1984) found that experience of Village Extension Workers and officials had no significant relationship with their attitude towards T&V system

The experience of extension personnel may or may not have any influence on their attitude towards Krishi Bhavans

2.6.15 Job satisfaction

Sinha et al (1976) defined job satisfaction as a mental state of an individual in an organisation when he feels satisfaction in performing the job of his position

Anastasi (1979) explained job satisfaction essentially as the degree of correspondence between each workers needs and their need fulfilling characteristics of the job

Holder (1984) considered job satisfaction as a positive attitude towards the job as whole

Dakhore and Bhilegaonkar (1987) reported that attitude towards job had positive and significant relationship with job satisfaction

Mohanty (1988) explained that job satisfaction is the result of vairous attitudes that the worker holds towards his job towards related factors and towards life in general

Kalavathy (1989) reported that there was no significant relationship between job attitude and job satisfaction for the agricultural graduates working in Department of Agriculture whereas those who work in banks and Agricultural University job attitude had significant relationship with job satisfaction

Though studies relating job satisfaction and attitude are limited the variable was selected with the assumption that it may have a significant bearing on the attitude of extension personnel towards Krishi Bhavans

2 6 16 Job commitment

Kanter (1968) viewed commitment as the willingness of members to give energy and loyalty to organisations

Mowday et al (1974) pointed out that in any situation highly commited employees performed better than the less committed employees

Kalavathy (1989) reported that there was positive and significant association between job involvement and job attitude of agricultural graduates working in Department of Agriculture and

banks but the relationship was not significant in the case of those working in Agricultural University

No study relating attitude of extension personnel with job commitment could be reviewed But it is assumed that job commitment of extension personnel may have a definite role in shaping their attitude towards Krishi Bhavans

2.7. Constraints in the fuctioning of Agricultural Development Programmes

2.7.1 Constraints experienced by farmers

Parameswaran (1973) revealed that lack of knowledge poor efficiency unsuitability of soil and lack of conviction among the farmers were the important reasons for non adoption of package programmes of cotton by the farmers of Coimbatore district of Tamil Nadu

Sundaraswamy and Duraiswamy (1975) found that lack of knowledge and finance and low contact with extension agency were the main reasons for non adoption and/or partial adoption of recommended practices

Anbalagan (1976) observed lack of knowledge and lack of conviction as the main reasons for non adoption of package of practices for high yielding varieties of paddy

Kaleel (1978) reported that non availability of inputs in time lack of irrigation facilities lack of credit facilities high labour consumption lack of support price for paddy lack of

adequate marketing facilities and inadequate support from extension personnel were the constraints perceived by the farmers in the adoption of improved practices of rice cultivation

Pillai (1978) found that lack of technical guidance inadequate financial assistance lack of knowledge and non availability of materials are the main reasons for the non adoption of soil conservation measures by the farmers of Kerala

Waghmare and Pandit (1982) observed that lack of knowledge technical guidance and inputs and small size of holdings were the important constraints in adoption of wheat technology by tribal farmers of Madhya Pradesh

Cherian (1984) reported that increasing cost of cultivation lack of timely availability of credit and lack of timely availability of other inputs are the problems perceived by farmers in T&V system

Singh and Mathur (1984) found that lack of knowledge high cost of materials and non co-operativeness of neighbouring farmers were the constraints in the adoption of fertilizers and plant protection measures in bajra cultivation

Prasannan (1987) found that non availability of inputs in time non availability of plant protection equipments in time non availability of labour high labour cost involved and high cost of materials were the constraints experienced by contact farmers for adoption of messages on coconut cultivation

Sajeevchandran (1989) observed that inadequate and untimely supply of inputs large scale destruction of vines due to quick and slow wilt diseases high cost of plant protection equipments high labour consumption high cost of fertilizers and lack of adequate financial assistance in the descending order of importance were the constraints faced by the pepper growers in the adoption of improved farm practices

In this study the constraints experienced by farmers in adopting technologies transferred through Krishi Bhavans were studied

2.7.4 Constraints experienced by agricultural extension personnel

Jaiswal et al (1978) observed that the important administrative constraints perceived by the officials under T&V system were lack of promotional avenue lack of allotment of incentives and improper supervision

Perinbam (1981) observed that Village Level Workers had encountered the problem of undertaking responsibility from other ongoing developmental programmes which reduces the concentration on T&V works lack of promotional avenues for field level workers lack of incentives improper supervision and non provision of office facilities in the working areas of Village Level Workers

Somasundaram (1983) observed that the important problem existing and encountered by the Agricultural Officers in T&V system was absence of contact farmers during Village Level Workers visit

Kalaichelvan (1984) studied the technology transfer through T&V system and found that the major constraints encountered by the officials were lack of housing and conveyance facilities to the officials and larger jurisdiction to extension workers

Cherian (1984) observed that lack of office facilities in the areas of operation of Village Level Workers and frequent transfers were the important problems perceived by the Village Level Workers whereas lack of conveyance facilities and heavy work load for time bound projects were the important problems perceived by the officials working under T&V system in Kerala

Kumar (1984) found that about three fourth (60 40 per cent) of the Assistant Agricultural Officers working under T&V system felt that the messages given to them through lessons in fortnightly training sessions were more theoretical in nature rather than practical oriented Delay in getting solutions to the farmers problems referred to the Subject Matter Specialists was the second major technical problem experienced by about two-fifth (41 71 per cent) of the respondents

Puttaswamy (1986) reported the following as the problems in T&V system as perceived by Agricultural Assistants

i Inputs like seeds fertilizers pesticides loans etc are not available in time to farmers

ii Contact and other farmers are not available at the time of visit and do not co operate fully

iii Proper and timely promotional opportunities for Agricultural Assistants are not available

iv Supervisors are not co operative

v It is not always possible to stick to the fixed schedule of visits

vi Agricultural Assistants cannot help farmers to obtain any financial help

Sheela (1989) revealed that non availability of demonstration plots for seeing the benefits of watershed management was the most important constraint in watershed planning as perceived by Junior Soil Conservation Officers But accordking to the Junior Soil Survey Officers lack of awareness of policy makers on the advantages of watershed planning and management was the most important constraint whereas the Agricultural Officers perceived inadequate training of the Officers in watershed planning and management as the most imporant constraint

In the present study an attempt was made to identify the constraints perceived by Agricultural Extension Personnel in the effecctive functioning of Krishi Bhavans

2 8 Hypotheses developed

The following null hypotheses were derived for the present study

1 There will be no significant difference in the awareness of Agricultural Officers and Agricultural Assistants about Krishi Bhavans

2 There will be no significant difference in the awareness of Karshika Vikasana Samithy Members and other farmers about Krishi Bhavans

3 There will be no significant difference in the attitude of Agricultural Officers and Agricultural Assistants towards Krishi Bhavans

4 There will be no significant difference in the attitude of Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavans

5 There will be no significant difference in the attitude of Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavans

6 There will be no signficant relationsip between the awareness of Agricultural Officers about Krishi Bhavans and their selected characteristics

7 There will be no significant relationship between the awareness of Agricultural Assistants about Krishi Bhavans and their selected characteristics

8 There will be no significant relationship between the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans and their selected characteristics

9 There will be no significant relationship between the awareness of other farmers about Krishi Bhavans and their selected characteristics

10 There will be no significant relationship between the attitude of Agricultural Officers towards Krishi Bhavans and their selected characteristics

11 There will be no significant relationship betweeen the attitude of Agricultural Assistants towards Krishi Bhavans and their selected characteristics

12 There will be no significant relationship between the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans and their selected characteristics

13 There will be no significant relationship between the attitude of other farmers towards Krishi Bhavans and their selected characteristics

METHODOLOGY

Chapter III

METHODOLOGY

This chapter presents a detailed description of the methods and procedures followed in conducting the study consisting of locale of the study sampling procedure measurement techniques used data collection procedure categorisation of respondents and statistical tests used in the analysis of data

3 1 Locale of the study

The study was conducted in Thiruvananthapuram district of Kerala State Thiruvananthapuram district was selected taking into consideration the acquaintance of the student researcher as it would help in establishing quick rapport and obtaining correct information from the respondents The study was confined to one district due to the limited time and resource availabe at the disposal of the investigator

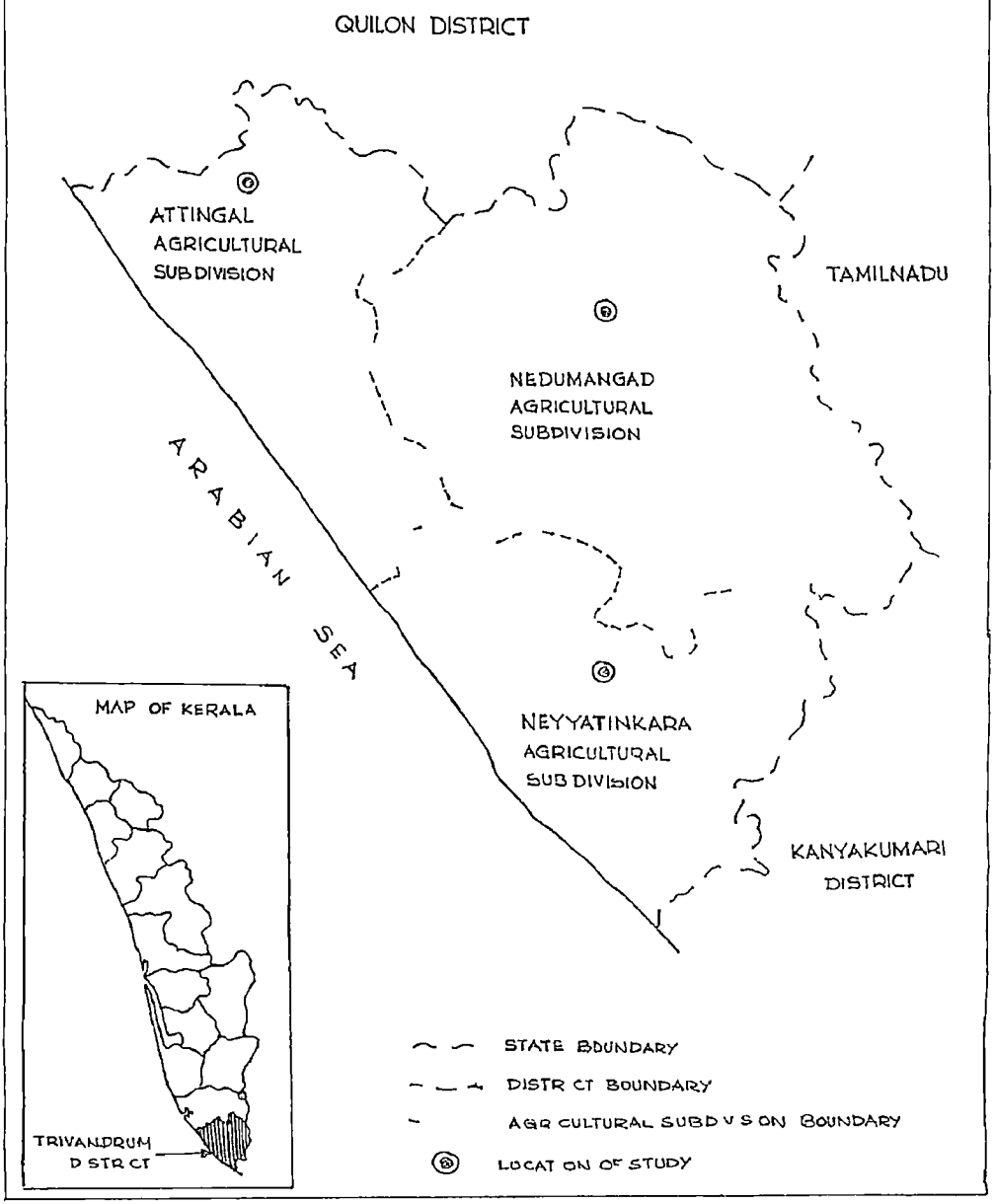
Thiruvananthapuram district consists of three agricultural sub divisions namely Neyyattinkara Nedumangad and Attingal and the study was conducted in all the three agricultural sub divisions of the district

3 2 Sampling procedure

3 2 1 Selection of Krishi Bhavans

There are 89 Krishi Bhavans in Thiruvananthapuram district Out of the 89 Krishi Bhavans a random sample of 30

FIG I MAP SHOWING THE LOCATION OF THE STUDY



Krishi Bhavans were selected for the study with 10 Krishi Bhavans from each of the three sub divisions

3 ∠ 2 Selection of Agricultural Extension Personnel

Each Krishi Bhavan is under the charge of an Agricultural Officer and assisted by two or three Agricultural Assistants depending upon the number of farm families in each Krishi Bhavan area Therefore all the Agricultural Officers in charge of the selected Krishi Bhavans were selected as respondents Besides one Agricultural Assistant from each of the selected Krishi Bhavan were also selected at random as respondents Thus there were 60 Agricultural Extension Personnel including 30 Agricultural Officers and 30 Agricultural Assistants as respondents

3 ∠ 3 Selection of Farmers

For the farmer respondent category three farmers each were selected at random from an area covered by each selected Krishi Bhavan Out of the three farmers one was from among the Karshika Vikasana Samithy (advisory committee) Members Thus there were 30 Karshika Vikasana Samithy Members and 60 other farmers as farmer respondents

In total there were 150 respondents for the study including 30 Agricultural Officers 30 Agricultural Assistants 30 Karshika Vikasana Samithy Members and 60 other farmers

3 3 Measurement Techniques used

3 3 1 Role of Krishi Bhavans in Agricultural Development

One of the major objectives of the study is to analyse the role of Krishi Bhavans in agricultural development as perceived by farmers and Agricultural Extension Personnel

The various roles of Krishi Bhavans in agricultural development were collected through a pilot study conducted among farmers and Agricultural Extension Personnel and also by refering relevant literature The role items thus collected were finalised after having extensive discussion with experts from College of Agriculture Vellayani and the Department of Agriculture Finally thirty five role items were selected for the study

The responses from the subjects were collected in terms of their perception about the importance of each role and their perception about the performance of each role

The perception of farmers and Agricultural Extension Personnel about the importance of each role was categorised into five with weightages as follows

Level of perception	Score
Very important	5
Important	4
Undecided	3
Less important	2
Not important	1

The perception of farmers and Agricultural Extension Personnel about the performance of each role was also collected in five response categories with weightages assigned for different levels of perception as given below

Level of perception	Score
Adequately performed	5
Fairly performed	4
Moderately performed	3
Poorly performed	2
Inadequately performed	1

Based on the levels of perception about the importance and performance of roles by farmers and Agricultural Extension Personnel the selected role items were individually analysed for their importance and performance as perceived by farmers and Agricultural Extension Personnel

3.3.2 Awareness about Krishi Bhavans

Awareness is one of the dependent variables for the present study In this study awareness was operationally defined as the extent of general information possessed by farmers and Agricultural Extension Personnel about Krishi Bhavans Earlier researchers have used almost similar procedures to measure the extent of awareness of their respondents

Gaikwad (1971) studied the awareness of participant farmers of Integrated Area Development Scheme by asking a few question to find out whether they were aware or not about the scheme and awareness was measured by calculating percentage of farmers aware and unaware of the programme

Salunkhe (1977) measured awareness of farmers by asking questions on different aspects of Small Farmers Development Agency activities and giving scores for each correct answer

Khan (1978) measured awareness by asking the respondents whether they were aware of certain measures of the government for improving the conditions of small farmers

Cherian (1984) studied the awareness of farmers and Village Extension Workers by asking a few questions on T&V system and a score of one was given for each correct answer and zero for wrong answers The officials were given a few statements on the general principles and working of T&V system and were asked to indicate whether they agree or disagree with the statements and a score of one was given for agree and zero for disagree for positive statements and vice versa for negative statements The scores obtained for all the questions were summed up to get the awareness score of an individual

In the present study the awareness of farmers was measured by asking a few questions about different aspects of Krishi Bhavans A list of questions were prepared in consultation with extension personnel experts and refering relevant literature The

questions were pretested among 30 non sample farmers and most simple and most difficult questions were deleted The final schedule consisted of 17 questions [Appendix II (xiii)] The responses to the questions were collected in two steps As the first step the farmers were asked whether they were aware about a particular aspect and answers were collected as yes or No If the answer is No zero score was given If the answer is yes as a second step it was cross checked by asking one more related question and the response was rated as accurate answer nearly accurate answer and incorrect answer based on the personal judgement of the answer by the researcher with scores of 3 2 and 1 respectively

Then the awareness index was calculated using the formula

$$\frac{\text{Actual score obtained}}{\text{Maximum possible score}} \times 100$$

The possible awareness index of each respondent ranged from 0 to 100

The awareness of Agricultural Extension Personnel was measured using the forced choice technique Ten questions were prepared in consultation with experts and based on available literature and for each question three possible answers were given with only one correct answer [Appendix I (vii)] The respondents were asked to choose the correct answer from among the given three answers A score of one was given for each correct answer and zero for wrong answers The scores for all the questions were

added up tc get the total awareness score for both Agricultural Officers and Agricultural Assistants The awareness score for each respondent will range from zero to ten

3 3 3 Attitude towards Krishi Bhavans

Attitude is operationalised as the degree of positive or negative disposition of Agricultural Extension Personnel and farmers towards Krishi Bhavans

An attitude scale is one which assesses the degree of affect the individual may associate with some psychological object In this study the attitude of farmers and Agricultural Extension Personnel was measured using the attitude scale constructed for the purpose using the method of summated ratings as described by Likert (1932)

Based on the review of literature discussion with experts and following the informal criteria for the preparation of attitude statements as given by Edwards & Kilpatrick (1948) a number of statements regarding different aspects of Krishi Bhavans were set so as to make the respondents both farmers and Agricultural Extension Personnel reflect their attitude through their responses to those statements

The statements were then given to 30 judges from the College of Agriculture Vellayani for relevancy rating and based on their responses the statements were selected and finally 25 statements were retained for item analysis

The statements were then administered to sixty non sample respondents comprising of both farmers and Agricultural Extension Personnel and they were asked to respond to each statement in terms of their own agreement or disagreement with the statements on a five point continuum namely strongly agree (SA) agree (A) undecided (UD) disagree (DA) and strongly disagree (SDA) The responses were assigned numerical weights as follows for positive statements 4 strongly agree 3 agree 2 undecided 1 disagree and 0 strongly disagree This order was reversed for negative statements For each respondent the total score was obtained by summating the scores over all the items

For the selection of statements to the final attitude scale item analysis was done The scored papers were placed in rank order of the total scores Twenty five per cent of the subjects with highest total scores and twenty five per cent of the subjects with lowest total scores were selected from among the respondents These two groups provided criterion groups in terms of which to evaluate the individual statements In evaluating the responses of the high and low groups to the individual statements t value was computed using the formula

$$t \quad \frac{|\bar{X}_H \quad \bar{X}_L|}{\sqrt{\frac{S_H^2}{n_H} + \frac{S_L^2}{n_L}}} \qquad \text{where}$$

$\bar{X}_H$ the mean score on a given statement for the high group

$\bar{X}_L$ the mean score for the same statement for the low group

SH^2 the variance of the distribution of responses of the high group to the statement

SL^2 the variance of the distribution of responses of the low group to the statement

nH the number of subjects in the high group

nL the number of subjects in the low group

From the statements with t value above 1 75 nine positive statements and five negative statements with high t values were selected for the final attitude scale Thus the final attitude scale consisted of fourteen statements The selected attitude statements with their corresponding t values are given in appendix III

Reliability of the scale

A scale is said to be reliable only when it will consistently produce the same or similar results when applied to the same sample In this study the reliability of the scale was tested using the split-half method

Split half method

As the scale was used to measure the attitude of both farmers and Agricultural Extension Personnel reliability was tested for both the categories of respondents The scale was administered to 30 non sample respondents of each category The scores of the odd numbered items and the scores of the even numbered items of

the above categories of respondents were correlated separately using the Pearson s product moment correlation co efficient The coefficient of internal consistency 'r$_{oe}$ was worked out using the formula

$$\sqrt{\ } \quad r_{oe} \quad \frac{p_{xy}}{\sigma_x \sigma_y}$$

where r_{oe} correlation between odd and even numbered item scores

p_{xy} product moment of odd and even numbered items scores

σ_x standard deviation of the distribution of odd numbered items scores

σ_y standard deviation of the distribution of even numbered items scores

The r_{oe} value obtained will give the half test reliability Therefore it was corrected using the Spearman Brown formula and thus obtained the reliability r_{tt} of the original test The formula used was

$$r_{tt} \quad \frac{2\, r_{oe}}{1+r_{oe}}$$

The obtained r_{tt} value for farmers was 0 9681 and that of Agricultural Extension Personnel was 0 7264 Both the r_{tt} values were highly significant and hence it was concluded that the scale was reliable

Validity of the Scale

The validity of a scale means the fedelity with which it measures what it is supposed to measure The developed scale was tested for the following two types of validity

Content Validity

The main criterion for content validity is how well the content of the scale represents the subject matter under the study Since the items selected for the scale were from the universe of contents it was ensured that the items covered all aspects of the Krishi Bhavans

Construct Validity

A measurement of a given concept has construct validity to the degree that when it is employed in research it is able to yield an entire set of relationships that makes good theoretical sense to the researcher

In the present study construct validity was tested by calculating the correlation coefficient between attitude and scientific orientation for farmers and between attitude and job satisfaction for extension personnel The attitude and scientific orientation scores of 30 farmers were measured and the correlation between these two sets of scores was found to be 0 8618 which was highly significant The attitude and job satisfaction scores of 30 Agricultural Extension Personnel were also measured and the correlation coefficient between these two sets of scores was found to be 0 4843 which was significant Hence it was concluded that the scale had the construct validity too

The scale was administered to the sample respondents and the responses were collected in a five point continuum as strongly agree agree undecided disagree and strongly disagree with scores 5 4 3 2 and 1 respectively for positive statementts The scoring procedure was reversed in the case of negative statements These scores were summated over the 14 statements to get the attitude score of each individual The possible attitude score of an individual ranged from 14 to 70

3 3 4 Measurement of selected characteristics of farmers

1 Age Age refers to the number of chronological years completed by the respondent at the time of investigation since his birth

The respondents were asked to mention their age in terms of completed years and a score of one was assigned to each completed year

2 Education Education refers to the extent of literacy obtained by the respondent at the time of investigation

Education was measured with the help of the scoring procedure followed by Trivedi (1963) in his socio economic status scale as follows

Category	Score
Illiterate	0
Can read only	1
Can read and write	2

Primary school	3
Middle school	4
Secondary	5
Collegiate	6

3 Farm size Farm size refers to the number of cents of land cultivated by the respondent

The number of cents of land possessed by the respondent was taken as the index of farm size

4 Farming experience This refers to the number of years of experience in farming a respondent possessed at the time of interview

Farming experience was measured in terms of number of years and a score of one was assigned to each year of experience

5 Occupation This refers to the extent to which a respondent was agriculturally occupied

The scoring procedure followed by Chandrasekaran (1979) was adopted in this study

		Score
i	Agriculture as the sole occupation	3
ii	Agriculture as main occupation with some non agricultural occupation as subsidiary	2
iii	Non agricultural occupation as the main occupation	1

6 Social participation Social participation refers to the degree to which a respondent is involved in formal organisations either as member or as office bearer

In the present study this variable was measured using the scoring procedure followed by Trivedi (1963) in his socio economic status scale

		Score
i	Not participating in any organisation	0
ii	Member in one organisation	1
iii	Member in more than one organisation	2
iv	Office bearer	3
v	Wider public leader	6

7 Cosmopoliteness This refers to the farmers extent of contact with outside village such as visiting the nearest town the purpose of visit and membership in organistions outside the village

The scoring procedure developed and used by Desai (1981) was used with slight modifications in the quantification of this variable

(i)	Frequency of visit to nearest town	Score
	Two times or more/week	5
	Once in a week	4
	Once in 15 days	3
	Once in a month	2
	Seldom	1
	Never	0

(ii)	Purpose of visit	Score
	All relating to agriculture	5
	Some relating to agriculture	4
	Personal/domestic	3
	Entertainment	2
	Others	1
	No response	0
iii	Membership in organisations outside the village	
	Member	1
	Non member	0

The cosmopoliteness score of an individual was worked out by adding the scores obtained by him in all the three categories The possible cosmopoliteness score of an individual ranged from 0 to 11

8 Information source utilisation This refers to the frequency of use of various information sources for obtaining information on agricultural technology by the respondent

The procedure followed by Anithakumari (1989) was used to quantify this variable [See appendix II (viii)] Various sources for obtaining information on agricultural technology were listed and the respondents were asked to indicate the frequency of thier use Three

response categories namely regularly occasionally and never were used with assigned scores of 2 1 and 0 respectively

There were fifteen information sources in the list and the score of the different information sources were added up to obtain the total score of an individual The total score ranged from 0 to 30

9 Contact with extension agency This refers to the degree to which an individual contact extension agency to get information on agricultural or non agricultural aspects This variable was measured in terms of the frequency and purpose of meeting the extension agents by farmers

The following scoring procedure was adopted as followed by Sirajudeen (1980)

a)	Awareness	Score
i	Aware of extension agents	1
ii	Not aware of extension agents	0
b)	Frequency of contact	
i	Beyond 3 months/once in a while	1
ii	Once in 3 months	2
iii	Once in a month	3
iv	Once in 15 days	4
v	Once in a week or more	5

c)	Purpose of contact	Score
i	Non agriculture	1
ii	To avail input assistance	2
iii	To avail subsidies and agricultural implements	3
iv	To get technical guidance	4

The scores obtained for a b and c were added up to obtain the total score for this variable

10 Innovativeness According to Rogers and Shoemaker (1971) innovativeness is the degree to which an individual is relatively earlier in adopting new ideas rather than other members of a social system

As this variable denotes overt behaviour it was measured in terms of covert behaviour closely associated with change The innovativeness scale of Feaster (1968) with the modifications as done by Prasad (1983) was adopted in this study [Appendix II(x)]

The scale consisted of eight statements For the first four statements a score of 3 2 and 1 was assigned to yes undecided and No responses respectively and the scoring procedure was reversed in the case of last four statements The summation of the scores obtained by a respondent for all the eight statements indicated the innovativeness score with possible range from eight to twenty four

11 Scientific orientation This refers to the degree to which a farmer was oriented with use of scientific methods in farming

This variable was measured using the scientific orientation scale developed by Supe (1969) [Appendix II(xi)] The scale consisted of six statements with one negative statement and five pcsitive statements The responses were collected in a five point continuum as strongly agree agree undecided disagree and strongly disagree with assigned scores of 5 4 3 2 and 1 respectively for positive statements and 1 2 3 4 and 5 for the negative statement The socres of all the six statements were added up to get the scientific orientation score of an individual respondent

12 Economic motivation This refers to the attitude of farmers towards farming as a profit oriented enterprise Economic motivation is operationalised interms of profit maximisation and the relative value placed by a farmer on economic ends

This variable was measured using the economic motivation scale developed by Supe (1969) [Appendix II (xii)] The scale consisted of six statements with one negative statement and five positive statements The responses were collected in a five point continuum as strongly agree agree undecided disagree and strongly disagree with assigned scores of 5 4 3 2 and 1 respectively for

positive statement The scoring procedure was reversed in the case of negative statement The score obtained by an individual on all the six statements were added up to get the economic motivation score of that individual

3 3 5 Measurement of selected characteristics of Agricultural Extension Personnel

1 Age Age was measured in terms of number of completed years of age by the Agricultural Extension Personnel at the time of investigation

2 Education Education refers to the educational qualification acquired by the respondent Education of Agricultural Extension Personnel was measured in terms of their basic qualification and technical qualification Quantification of this variable was done as follows

Basic Qualification	Score	Technical Qualification	Score
S S L C	1	6 months training	1
P D C	2	KGTE(Agri)Lower	2
Graduate	3	KGTE(Agri)Higher	3
Post graduate	4	Diploma(Agri)	4
		B Sc (Agri)	5
		M Sc (Agri)and above	6

The scores obtained by each respondent for basic qualification and technical qualification was summated to find the education score of that respondent

3 Training Training refers to the number of days of training programmes attended by the respondents after the implementation of Krishi Bhavans

For quantification of this variable the total duration of training in number of days irrespective of the type of training was taken into consideration, except the regular block level and sub division level trainings The number of days of total training was taken as the training score for each respondent

4 Total experience It refers to the number of completed years of service of the extension personnel in the Kerala State Department of Agriculture A score of one was given to each completed year of service

5 Experience in Extension work It refers to the number of completed years of service the extension personnel had in extension work in the Kerala State Department of Agriculture A score of one was given to each completed year of service

6 Job satisfaction Job satisfaction is the degree of satisfaction or dissatisfaction of an individual regarding various aspects of his job

In the present study this variable was measured by adopting the scale developed by Manandhar (1987) [Appendix I(v)]

The scale consisted of ten items with five alternatives for each item namely very much satisfied satisfied partially satisfied dissatisfied and very much dissatisfied bearing scores of 5 4 3 2 and 1 respectively The score of an individual on this scale was worked cut by summating the scores of all the items The possible score range of an individual on this scale is 10 to 50

7 Job commitment Job commitment is conceptualised as the extent of dedication devotion or adherence of an individual with a strong belief in accepting his existing job

In the present study the job commitment of Agricultural Officers and Agricultural Assistants was measured by adopting the scale developed by Panandhar (1987) [Appendix I(vi)] The scale consisted of eight statements The response on these eight statements were collected on a five point continuum as strongly agree agree undecided disagree and strongly disagree The scoring for positive statements were 5 4 3 2 and 1 respectively and for the negative statements the same was reversed The job commitment socre of an individual was worked out by summating the scores of individual items The possible score of an individual on this scale ranges from 8 to 40

3 3 6 Constraints in the effective functioning of Krishi Bhavans as perceived by farmers and Agricultural Extension Personnel

Based on the review of relevant literature and discusssions with farmers Agricultural Assistants and Agricultural Officers a list of constraints being encountered by them in the effective functioning of Krishi Bhavans was prepared The lists of constraints were prepared separately for farmers Agricultural Assistants and Agricultural Officers

For the farmer respondents there were twelve items [Appendix II(xvi)] and their responses were collected in a three point continnum of most serious constraint serious constraint and not a constraint and scores of three two and one were given respectively The total scores were then worked out for each item and the constraints were ranked based on the total scores separately for Karshika Vikasana Samithy Members and other farmers

For the Agricultural Assistants and Agricultural Officers separate lists of constraints were prepared with ten items in each case [Appendix I(x)a & I(x)b] These problems were placed before the sample respondents with instructions to place each problem on the appropriate steps of the given ladder on the basis of intensity with which each problem is experienced by the respondent The ladder had 7 steps and the steps were scored from 0 to 6 from bottom to top ie first step was given a score of 0 and seventh step a score of 6 Total score obtained for each probelm was calculated by summing up the response score of all respondents for that particular problem and mean score was worked out

3 4 Data collection procedure

Two types of tools were used for data collection namely an interview schedule for obtaining data from farmer respondents and a questionnaire for obtaining data from Agricultural Extension Personnel

Data were collected from farmers by personnal interview by the researcher with the help of the Agricultural Assistant working in the area Data from Agricultural Extension Personnel were also collected in person by the researcher by supplying them with structured questionnaires

3 5 Categorisation of respondents

All the four categories of respondents were categorised into low group and high group based on the scores obtained for awareness attitude and their selected characteristics Those respondents with scores below the sample mean for a particular variable were categorised as low group and those with scores above the sample mean for that variable were categorised as high group

3 6 Statistical tests used

3 6 1 Mean The arthmatic mean x is the quotient that results when the sum of all items in the series is divided by the number of items

$$\bar{x} \quad \frac{\Sigma x}{N}$$

Where x Mean

Σx Sum of scores on individual items

N Number of items

The calculated means were used in the categorisation or respondents and to find the mean scores obtained for roles and constraints

3 6 2 Coefficient of variation

Coefficient of variation was used to identify the magnitude of variation present in each set of observations relative to the values of arithmatic means It is the ratio of standard deviation to arithmatic mean expressed in percentage Lesser the coefficient of variation for a series of observations the more homogenous the sample will be with respect to that observation

3 6 3 Frequency and percentage

Some of the data were subjected to and interpreted in terms of frequency and percentages

3 6 4 Correlation coefficient

The correlation coefficient (r_{xy}) was computed to find out the degree of relationship of awareness and attitude of the respondents with their selected characteristics

$$r_{xy} \quad \frac{p_{xy}}{\sigma_x \sigma_y} \qquad \text{where}$$

p_{xy} Covariance between x and y

σ_x Standard deviation of the distribution of x

σ_y Standard deviation of the distribution of y

3 6 5 Path analysis

Path analysis was used to know the direct and indirect influence of the selected characteristics on awareness and attitude and to know the extent of determination of these characteristics on awareness and attitude

3 6 6 Mann Whitney test

This test is used to test whether there is significant difference between two groups of respondents with respect to awareness and attitude

The scores of both the groups would be arranged in ascending order of magnitude and were ranked from the lowest value to the highest irrespective of the groups to which each score belongs

Let W be the number of times the score in one group precedes the score of the other group W could be obtained directly using the formula

$$W \quad n_1 n_2 + \frac{n_1(n_1+1)}{2} \quad T_1$$

where n_1 number of observations in group 1

n_2 number of observations in group 2

T_1 the sum of the ranks in the group of size n_1

Then the normal test of significance z was calculated using the formula

$$z = \frac{W - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}}$$

Where W number of times the scores in one group precedes the score of other group

n_1 number of observations in group 1

n_2 number of observations in group 2

3 6 7 Kruskal Wallis test

Kruskal Wallis test was employed for comparison among the four categories of respondents viz AOs AAs Karshika Vikasana Samithy Members and farmers with respect to their attitude towards Krishi Bhavans Here all the observations are ranked on one scale The following formula was used to compute the test

$$\chi^2_P = \frac{12}{n(n+)} \sum_j^P \frac{C_j^2}{n_j} - 3(n+)$$

Where P number of independent samples

n Total number of observations

C_j Total of ranks in j^{th} sample

n_j number of observations in j^{th} sample

RESULTS

Chapter IV

RESULTS

In this chapter the results of the study are presented under the following main heads

4 1 Role of Krishi Bhavans in Agricultural development as perceived by Agricultural Extension Personnel and farmers

4 2 Distribution of respondents based on their awareness and attitude

4 3 Distribution of respondents based on their selected characteristics

4 4 Relationship of awareness and attitude of respondents with their selected characteristics

4 4 1 Correlation analysis

4 4 2 Path analysis

4 5 Constraints perceived by Agricultural Extension Personnel and farmers in the effective functioning of Krishi Bhavans

4 1 Role of Krishi Bhavans in agricultural development as perceived by Agricultural Extension Personnel and farmers

The major objective of the study is to analyse the role of Krishi Bhavans in agricultural development as perceived by the Agricultural Extension Personnel and farmers The thirty five identified roles were analysed based on the perception of four categories of respondents viz Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers about the importance of each role and the performance of the same The mean scores obtained by each role and the coefficient of variation in the perception of four categories of respondents are given in Table 1

Table 1

Mean scores and coefficient of variations on perceived importance and performance of roles by Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy (KVS) Members and other farmers

(Mean scores are given at the top of each coloumn and coefficient of variation in bottom inside brackets)

Code No	Roles	PERCEPTION							
		IMPORTANCE				PERFORMANCE			
		Agricultural Officers	Agricultural Assistants	KVS Members	Other farmers	Agricultural Officers	Agricultural Assistants	KVS Members	Other farmers
R_1	Planning and implementing need based location specific programmes for each panchayat	4 53 (11 66)	4 60 (10 65)	4 43 (14 37)	4 08 (15 57)	3 30 (24 99)	3 43 (32 00)	3 30 (20 99)	3 10 (20 91)
R_2	Involving the farmers in the planning and implementation of agricultural programmes	4 30 (12 31)	4 40 (12 65)	4 43 (15 56)	4 10 (14 63)	3 30 (27 27)	3 67 (25 28)	3 27 (24 41)	3 08 (20 37)
R_3	Planning optimum use of available land water and solar energy	4 33 (13 09)	3 90 (26 40)	4 27 (16 51)	4 07 (14 22)	2 87 (35 42)	3 10 (36 64)	3 13 (23 33)	3 03 (17 75)
R_4	Giving special attention in the case of minor crops like tuber crops vegetables flowering plants etc	3 93 (25 76)	4 20 (17 82)	4 60 (10 65)	4 50 (11 76)	3 07 (26 16)	3 80 (27 47)	3 87 (18 44)	3 83 (15 02)
R_5	Organising Karshika Vikasana Samithy in each panchayat	3 53 (34 34)	4 07 (28 07)	4 37 (17 77)	4 20 (16 67)	3 63 (30 09)	4 13 (18 96)	3 47 (26 24)	2 98 (22 99)

(Contd)

6	Promoting collection storage and processing of farmers produce in co-operative basis	4 20 (17 82)	4 10 (23 01)	4 63 (12 47)	4 42 (15 73)	2 53 (45 57)	2 63 (50 77)	1 27 (39 93)	1 50 (48 07)
7	Promoting co-operative marketing among farmers	4 30 (18 16)	4 33 (15 51)	4 63 (12 47)	4 50 (13 70)	2 30 (52 89)	2 33 (58 23)	1 43 (47 18)	1 25 (40 60)
8	Conducting farmers group discussion to convince them about new technologies	4 63 (11 08)	4 67 (9 36)	4 77 (8 04)	4 63 (11 69)	4 07 (22 45)	4 17 (15 93)	3 77 (20 84)	3 60 (22 57)
9	Conducting agricultural seminars and training camps for farmers benefit	4 60 (10 65)	4 67 (9 36)	4 73 (10 07)	4 63 (11 08)	3 87 (21 51)	4 30 (13 56)	4 03 (14 24)	3 72 (21 02)
10	Increasing the coverage under high yielding varieties	4 30 (14 89)	4 43 (11 84)	4 63 (11 08)	4 68 (11 26)	3 73 (21 06)	4 10 (18 09)	3 93 (17 72)	4 00 (19 84)
11	Implementing group farming programme in paddy	4 47 (10 47)	4 53 (11 66)	4 43 (23 41)	4 33 (24 34)	4 20 (20 76)	4 20 (18 90)	3 90 (29 90)	3 63 (27 45)
12	Implementing group management programme in coconut pepper etc	4 33 (11 57)	4 47 (11 82)	4 53 (17 23)	4 68 (11 26)	3 93 (23 11)	4 03 (21 19)	3 83 (28 13)	3 90 (21 76)
13	Raising community nursery for paddy by providing incentive subsidy	4 30 (14 89)	4 40 (12 65)	4 13 (27 32)	4 27 (24 97)	3 97 (23 48)	4 07 (20 63)	3 10 (38 44)	3 08 (38 33)
14	Supply of seeds seedlings fertilizers pesticides and other inputs at subsidised rate	4 50 (11 11)	4 63 (11 08)	4 63 (11 08)	4 57 (10 15)	3 83 (23 80)	4 07 (14 85)	3 53 (19 40)	3 40 (19 51)
15	Conducting method domon strations result demonstrations and minikit trails in farmers fields	4 30 (10 66)	4 47 (10 47)	4 53 (11 66)	4 43 (13 26)	3 33 (25 32)	3 73 (23 33)	3 10 (24 14)	3 12 (27 11)
16	Establishing model gardens for coconut pepper cashew etc	4 17 (14 80)	4 43 (11 84)	4 67 (10 94)	4 43 (14 80)	3 07 (30 99)	3 43 (35 29)	2 70 (39 54)	2 37 (39 65)

(Contd)

7	Implementing integrated programmes for the development of spices like pepper clove etc	4 07 (14 85)	4 37 (13 21)	4 73 (10 07)	4 53 (13 59)	3 00 (30 91)	3 60 (24 37)	3 70 (19 86)	3 77 (17 13)
8	Conducting weekly agro-clinics to solve the problems of farmers regarding crop cultivation	4 43 (11 84)	4 50 (11 11)	4 53 (17 23)	4 58 (13 87)	4 03 (23 92)	4 10 (20 26)	3 37 (26 76)	3 13 (30 36)
9	Providing sprayers at low hire rate	4 27 (11 40)	4 53 (13 05)	4 57 (10 15)	4 50 (12 57)	3 83 (24 78)	4 10 (17 07)	3 83 (14 33)	3 78 (17 97)
0	Implementing special component scheme for the benefit of SC & ST farmers	4 27 (17 64)	4 43 (16 67)	4 50 (12 57)	4 38 (13 23)	3 83 (23 80)	4 23 (13 73)	4 07 (14 85)	3 70 (16 66)
1	Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results	4 37 (10 31)	4 40 (13 82)	4 60 (13 22)	4 65 (11 73)	4 10 (23 00)	4 17 (18 28)	3 80 (17 26)	3 70 (22 77)
2	Taking adequate steps for the eradication of pest and diseases in endemic areas	4 63 (11 08)	4 40 (15 08)	4 33 (11 57)	4 33 (13 09)	4 00 (19 36)	3 90 (22 35)	3 33 (16 75)	3 17 (15 81)
3	Quality control of various agricultural inputs	4 23 (15 08)	4 27 (17 64)	4 50 (11 11)	4 38 (13 23)	4 00 (24 11)	4 13 (17 84)	3 33 (25 32)	3 22 (21 55)
24	Arranging for agricultural Magazines and supply of extention bulletin to interested farmers	4 07 (13 57)	4 23 (18 42)	4 47 (13 22)	4 52 (13 81)	3 47 (25 11)	3 60 (25 46)	3 50 (28 28)	2 98 (34 22)
25	Publishing the success stories of farmers in the Panchayat through various mass media	4 23 (12 44)	4 27 (21 43)	4 47 (13 22)	4 65 (10 26)	2 97 (26 28)	3 30 (35 08)	2 67 (37 47)	2 83 (35 71)
26	Giving subsidy for development of infrastructure for irrigation like digging wells ponds consstruction of channel etc	4 47 (10 47)	4 63 (11 08)	4 47 (10 47)	4 52 (10 37)	4 07 (23 38)	3 97 (22 66)	3 90 (10 26)	3 90 (15 17)

(Contd)

R_{27}	Giving subsidy for buying agricultural implements and equipments	4 10 (13 13)	4 50 (11 11)	4 53 (11 66)	4 43 (12 47)	3 33 (31 65)	3 70 (28 86)	3 87 (13 99)	3 70 (19 30)
R_{28}	Arranging loans from Banks and Societies to farmers for agricultural purposes	4 37 (14 53)	4 43 (13 26)	4 57 (10 15)	4 42 (11 17)	3 40 (33 66)	3 43 (32 00)	3 23 (25 80)	2 80 (27 43)
R_{29}	Arranging crop insurance to farmers who avail loans from Banks and Societies	4 07 (19 58)	4 43 (14 37)	4 73 (10 07)	4 52 (13 08)	2 43 (42 47)	2 17 (52 97)	1 00 (0 00)	1 05 (26 51)
R_{30}	Giving subsidy for land development works	4 10 (17 07)	4 30 (18 16)	4 57 (10 15)	4 40 (12 65)	3 80 (20 89)	3 83 (25 60)	3 43 (24 99)	3 22 (23 07)
R_{31}	Encouraging registered seed growers in the area by providing incentive subsidy	4 30 (12 31)	4 20 (19 78)	4 30 (14 89)	4 18 (18 18)	3 37 (31 73)	3 37 (33 48)	1 80 (48 43)	2 13 (46 07)
R_{32}	Conducting crop cutting experiments regularly in farmers fields	4 17 (18 28)	4 27 (15 48)	4 27 (12 77)	3 95 (23 72)	3 90 (19 19)	3 83 (22 78)	3 17 (21 19)	3 13 (24 19)
R_{33}	Conducting harvest festivals	3 97 (18 49)	4 27 (16 51)	4 07 (19 58)	3 92 (22 58)	3 83 (17 14)	3 50 (31 04)	2 80 (32 54)	2 92 (27 69)
R_{34}	Monitoring the progress of agricultural development based on physical achievement on a regular basis	4 13 (14 18)	4 27 (11 40)	4 30 (13 56)	4 00 (17 68)	3 43 (24 99)	3 57 (24 34)	3 17 (22 71)	3 17 (17 88)
R_{35}	Encouraging the efforts of farmers producing maximum output from unit area	4 30 (12 31)	4 37 (14 53)	4 70 (9 75)	4 58 (12 03)	3 33 (33 45)	3 10 (41 06)	1 43 (56 60)	1 53 (56 95)
Average	Mean	4 26	4 38	4 50	4 40	3 52	3 68	3 17	3 07
	Coefficient of variation	(14 62)	(14 87)	(13 32)	(14 41)	(27 28)	(26 87)	(25 41)	(26 27)

The roles which were given more importance by the four categories of respodents and those roles perceived by them as being adequately performed were identified based on high mean score (above the average mean score) and low coefficient of variation (below the average coefficient of variation) The results thus obtained are given below

Agricultural Officers

Out of the thirty five identified roles of Krishi Bhavans seventeen roles with code numbers R_1 R_2 R_3 R_8 R_9 R_{11} R_{12} R_{14} R_{15} R_{18} R_{19} R_{21} R_{22} R_{26} R_{28} R_{31} and R_{35} were perceived as very important roles by the AOs Of the above seventeen roles ten roles with code numbers R_8 R_9 R_{11} R_{12} R_{14} R_{18} R_{19} R_{21} R_{22} and R_{26} were perceived by the AOs as being adequately performed They were not found to be satisfied with the performance of the remaining seven roles

Agricultural Assistants

With respect to Agricultural Assistants eighteen roles with code numbers R_1 R_2 R_8 R_9 R_{10} R_{11} R_{12} R_{13} R_{14} R_{15} R_{16} R_{18} R_{19} R_{21} R_{26} R_{27} R_{28} and R_{29} were the important roles of Krishi Bhavans Out of the eighteen roles perceived as important AAs felt that the performance of twelve roles viz R_8 R_9 R_{10} R_{11} R_{12} R_{13} R_{14} R_{15} R_{18} R_{19} R_{21} and R_{26} were adequate whereas the remaining six roles were perceived by them as not being performed well

Karshika Vikasana Samithy Members

The farmer respondents who are Karshika Vikasana Samithy Members attached more importance to seventeen roles viz R_4 R_6 R_7 R_8 R_9 R_{10} R_{14} R_{15} R_{16} R_{17} R_{19} R_{21} R_{27} R_{28} R_{29} R_{30} and R_{35} Out of the above seventeen roles ten roles with code numbers R_4 R_8 R_9 R_{10} R_{14} R_{17} R_{19} R_{21} R_{27} and R_{30} were perceived by them as being adequately performed through Krishi Bhavans The remaining seven roles for which the members attached more importance were not performed well according to their perception

Other farmers

Out of the thirty five roles of Krishi Bhavans subjected to the analysis the farmers were of the view that the following nineteen roles with code numbers R_4 R_7 R_8 R_9 R_{10} R_{12} R_{14} R_{15} R_{17} R_{18} R_{19} R_{21} R_{24} R_{25} R_{26} R_{27} R_{28} R_{29} and R_{35} are very important Regarding the performance of the above nineteen roles the farmers were satisfied with the performance of only eleven roles namely R_4 R_8 R_9 R_{10} R_{12} R_{14} R_{17} R_{1^o} R_{21} R_{26} and R_{27} and the performance of remaining eight roles were not good according to them

The roles of Krishi Bhavans perceived as important by (1) both categories of Agricultural Extension Personnel viz AOs and

AAs (ii) both categories of farmer respondents viz Karshika Vikasana Samithy Members and other farmers and (iii) all the four categories of respondents together are also presented here along with the performance of those identified roles in each case

(i) Roles of Krishi Bhavans perceived as important by both AOs and AAs

Thirteen roles were perceived as important by both AOs and AAs They are R_1 R_2 R_8 R_9 R_{11} R_{12} R_{14} R_{15} R_{18} R_{19} R_{21} R_{26} and R_{28} Of the above thirteen roles nine namley R_8 R_9 R_{11} R_{12} R_{14} R_{18} R_{19} R_{21} and R_{26} were perceived as being performed well by both AOs and AAs The role R_{15} was perceived as being performed well by AAs alone The remaining roles R_1 R_2 and R_{28} were not being performed adequately according to both categories of Agricultural Extension Personnel

(ii) Roles of Krishi Bhavans perceived as important by Karshika Vikasana Samithy Members and other farmers

The Karshika Vikasana Samithy Members and other farmers had consensus in their perception about the importance of fourteen roles of Krishi Bhavans viz R_4 R_7 R_8 R_9 R_{10} R_{14} R_{15} R_{17} R_{19} R_{21} R_{27} R_{28} R_{29} and R_{35} Of the 14 roles perceived as important by both categories of farmer respondents nine roles namely R_4 R_8 R_9 R_{10} R_{14} R_{17} R_{19} R_{21} and R_{27} were perceived

by both categories as being performed well The remaining five roles R_7 R_{15} R_{28} R_{29} and R_{35} were not performed adequately according to the perception of both Karshika Vikasana Samithy Members and other farmers

(iii) Roles of Krishi Bhavans perceived as important by AOs AAs Karshikha Vikasana Samithy Members and other farmers

The important roles of Krishi Bhavans as perceived by the four categories of respondents viz AOs AAs Karshika Vikasana Samithy Members and other farmers were R_8 R_9 R_{14} R_{15} R_{19} R_{21} and R_{28} Out of the seven important roles all the four categories were of the view that the performance of five roles namley R_8 R_9 R_{14} R_{19} and R_{21} was good The Role R_{15} was perceived as adequately performed by AAs alone and AOs Karshika Vikasana Samithy Members and other farmers perceived R_{15} as inadequately performed R_{28} was perceived as inadequately performed by all the four categories of respondents

4 2 Distribution of respondents based on their awareness and attitude

An attempt was made to know the percentage distribution of four categories of respondents based on their awareness and attitude and the results are presented in tables 2 to 5

4 2 1 Distribution of respondents based on their awareness about Krishi Bhavans

4 2 1 1 Agricultural Extension Personnel (AOs & AAs)

Table 2

Distribution of Agricultural Officers and Agricultural Assistants based on their awareness about Krishi Bhavans

Respondents	Sample size	Category	Score range	Number	Per cent
Agricultural Officers	30	High	above 5 37	17	56 67
		Low	upto 5 37	13	43 33
Agricultural Assistants	30	High	above 5 3	16	53 33
		Low	upto 5 3	14	46 67

z 0 2292

From Table 2 it can be seen that more than half of the Agricultural Officers (56 67 per cent) belonged to the high awareness category and less than half of them (43 33 per cent) belonged to the low awareness category

Regarding Agricultural Assistants 53 33 per cent of them belonged to the high awareness category and 46 67 per cent of them belonged to the low awareness category It is imperative that there was no significant difference between Agricultural Officers and Agricultural Assistants with regard to their awareness about Krishi Bhavans as revealed by the Mann Whitney test (z 0 2292)

4 2 1 2 Farmers (Karshika Vikasana Samithy Members & other farmers

Table 3

Distribution of Karshika Vikasana Samithy Members and other farmers based on their awareness about Krishi Bhavans

Respondents	Sample size	Category	Score range	Number	Per cent
Karshika Vikasana Samithy Members	30	High	above 87 97	17	56 67
		Low	upto 87 97	13	43 33
Other farmers	60	High	above 75 27	32	53 33
		Low	upto 75 27	28	46 67

z 5 2554

Table 3 revealed that 56 67 per cent of Karshika Vikasana Samithy Members and 53 33 per cent of other farmers belonged to the high awareness category while 43 33 per cent of Karshika Vikasana Samithy Members and 46 67 per cent of other farmers belonged to the low awareness category

The calculated z value using Mann Whitney test was 5 2554 which is greater than the critical value 1 96 Hence it is clear that there is significant difference between the awareness of Karshika Vikasana Samithy Members and other farmers Therefore it can be concluded that the Karshika Vikasana Samithy Members were having better awareness about Krishi Bhavans than other farmers

4 2 2 Distribution of Agricultural Extension Personnel and farmers based on their attitude towards Krishi Bhavans

4 2 2 1 Agricultural Extension Personnel (AOs & AAs)

Table 4

Distribution of Agricultural Officers and Agricultural Assistants based on their attitude towards Krishi Bhavans

Respondents	Sample size	Category	Score range	Number	Per cent
Agricultural Officers	30	Favourable	above 49 33	14	46 67
		Unfavourable	upto 49 33	16	53 33
Agricultural Assistants	30	Favourable	above 49 97	14	46 67
		Unfavourable	upto 49 97	16	53 33

z 0 0296

Table 4 shows that less than half of both Agricultural Officers and Agricultural Assistants (46 67 per cent each) belonged to the favourable attitude category and 53 33 per cent of both belonged to the unfavourable attitude cateogry

There was no significant difference between the attitude of AOs and AAs as evident from Mann Whitney test (z 0 0296)

4 2 2 2 Farmers (Karshika Vikasana Samithy Members and other farmers)

Table 5

Distribution of Karshika Vikasana Samithy Members and other farmers based on their attitude towards Krishi Bhavans

Respondents	Sample size	Category	Score range	Number	Per cent
Krishi Vikasa sana Samithy Members	30	Favourable	above 52 6	18	60 00
		Unfavourable	upto 52 6	12	40 00
Other farmers	60	Favourable	above 51 07	34	56 67
		Unfavourable	upto 51 07	26	43 33

z 1 2496

From table 5 it can be seen that 60 per cent of Karshika Vikasana Samithy Members and 56 67 per cent of other farmers belong to the favourable attitude category while 40 per cent of Karshika Vikasana Samithy Members and 43 33 per cent of other farmers belonged to the unfavourable attitude category

The Mann Whitney test value between Karshika Vikasana Samithy Members and other farmers based on their attitude towards Krishi Bhavans was found to be 1 2496 which was less than the

critical value 1 96 Therefore it is imperative that there was no significant difference between Karshika Vikasana Samithy Members and other farmers with regard to their attitude towards Krishi Bhavans

Kruskal Wallis test

The Kruskal - Wallis test was employed to test the significance of the difference between the attitude of four categories of respondents for the study viz AOs AAs Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavan programme The Chi square value calculated using the Kruskal Wallis test was 8 9618 which is significant at 5 per cent level of probability Hence it is clear that the four categories of respondents differ significantly in their attitude towards Krishi Bhavans It could also be noticed that the Karshika Vikasana Samithy Members had better attitude towards Krishi Bhavans than other farmers AAs and AOs

4 3 Distribution of Agricultural Extension Personnel and farmers based on their selected characteristics

An attempt was also made to know the distribution of four categories of respodents viz Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers based on their respective selected characteristics and the results are presented in Tables 6 to 9

Table 6

Distribution of Agricultural Officers based on their selected characteristics

(n 30)

Sl No	Characteristics	Category	Number	Per cent
1	Age	High above 32 8	12	40 00
		Low upto 32 8	18	60 00
2	Education	High above 7 1	13	43 33
		Low upto 7 1	17	56 67
3	Training	High above 13 03	8	26 67
		Low upto 13 03	22	73 33
4	Total experience	High above 9 23	11	36 67
		Low upto 9 23	19	63 33
5	Experience in extnsion work	High above 7 6	10	33 33
		Low upto 7 6	20	66 67
6	Job satisfaction	High above 31 67	15	50 00
		Low upto 31 67	15	50 00
7	Job commitment	High above 28 37	14	46 67
		Low upto 28 37	16	53 33

4 3 1 Agricultural Officers

Data in Table 6 show that 40 per cent of Agricultural Officers were less than 33 years of age and 60 per cent were above 33 years 43 33 per cent of Agricultural Officers had higher educational status and 56 67 per cent of them had low educational status Nearly one fourth (26 67 per cent) only had more training and the remaining (73 33 per cent) of them had only less training after the implementation of Krishi Bhavan Programme Almost equal percentage of respondents had high total experience and experience in extension work (36 67 per cent and 33 33 per cent) and low total experience and low experience in extension work (63 33 per cent and 66 67 per cent respectively) Fifty per cent of Agricultural Officers had higher job satisfaction and same percentage of them had lower job satisfaction The table also revealed that 46 67 per cent of the Agricultural Officers had higher degree of job commitment and 53 33 per cent of them had lower degree of job commitment

4 3 2 Agricultural Assistants

Table 7 shows that 56 67 per cent of Agricultural Assistants were of the age group of more than 44 years Only 13 33 per cent of Agricultural Assistants had educational status above the average education of the sample group So also only less per centage of Agricultural Assistants (26 67 per cent) had more training and 73 33 per cent of them had less training With respect to total experience

Table 7

Distribution of Agricultural Assistants based on their selected characteristics

(n 30)

Sl No	Characteristics	Category	Number	Per cent
1	Age	High above 44 97	17	56 67
		Low upto 44 97	13	43 33
2	Education	High above 4 13	4	13 33
		Low upto 4 13	26	86 67
3	Training	High above 12 5	8	26 67
		Low upto 12 5	22	73 33
4	Total experience	High above 18 9	12	40 00
		Low upto 18 9	18	60 00
5	Experience in extension work	High above 16 4	11	36 67
		Low upto 16 4	19	63 33
6	Job satisfaction	High above 33 67	15	50 00
		Low upto 33 67	15	50 00
7	Job commitment	High above 28 13	14	46 67
		Low upto 28 13	16	53 33

40 per cent and 60 per cent of the Agricultural Assistants had high and low total experience respectively A little more than one third of the Agricultural Assistants (36 67 per cent) had more experience in extention work and remaining 63 33 per cent had less extension experience Similar to AOs equal proportion of AAs come uder the high and low category with regard to job satisfaction In the case of job commitment 46 67 per cent were in the high group and 53 33 per cent were in the low group

4 3 3 Karshika Vikasana Samithy Members

In the case of farmers who are Karshika Vikasana Samithy Members 53 33 per cent were above 53 years of age and 46 67 per cent were below 53 years of age With regard to education more than three fourth of them (76 67 per cent) had higher educational status whereas only 23 33 per cent had lower educational status One third of the Karshika Vikasana Samithy Members (33 33 per cent) had more farm size and remaining 66 67 per cent had only less farm size A little more than half of them (53 33 per cent) had less farming experience while 46 67 per cent had more farming experience Considering the occupation 70 per cent were more agriculturally occupied and remaining 30 per cent were less agriculturally occupied In the case of social participation 46 67 per cent of the Karshika Vikasana Samithy Members belonged to the high group and 53 33 per cent belonged to the low group More

than half (56 67 per cent) had more cosmopoliteness and 43 33 per cent had less cosmopoliteness Similarly 56 67 per cent of respondents had high information source utilisation and 43 33 per cent had low information sources utilisation for obtaining agricultural technology Two third of the respondents (66 67 per cent) had more contact with extension agency while 33 33 per cent were having less contact with extension agency

A little more than half of them (53 33 per cent) were more innovative and the remaining 46 67 per cent were less innovative In the case of scientific orientation 63 33 per cent were in the high group and 36 67 per cent were in the low group Regarding economic motivation 56 67 per cent belonged to low group and 43 33 per cent were in high group The above details can be understood by the perusal of Table 8

Table 8
Distribution of Karshika Vikasana Samithy Members
based on their selected characteristics

(n 30)

Sl No	Characteristics	Category		Number	Per cent
1	Age	High	above 53 47	16	53 33
		Low	upto 53 47	14	46 67

(Contd)

Sl No	Characteristics	Category		Number	Per cent
2	Education	High	above 4 93	23	76 67
		Low	upto 4 93	7	23 33
3	Farm size	High	above 242 27	10	33 33
		Low	upto 242 27	20	66 67
4	Farming experience	High	above 26 83	14	46 67
		Low	upto 26 83	16	53 33
5	Occupation	High	above 1 9	21	70 00
		Low	upto 1 9	9	30 00
6	Social participation	High	above 4 03	14	46 67
		Low	upto 4 03	16	53 33
7	Cosmopolite ness	High	above 6 8	17	56 67
		Low	upto 6 8	13	43 33
8	Information source utilisation	High	above 18 7	17	56 67
		Low	upto 18 7	13	43 33
9	Contact with extention agency	High	above 9 47	20	66 67
		Low	upto 9 47	10	33 33
10	Innovativeness	High	above 19 97	16	53 33
		Low	upto 19 97	14	46 67

(Contd)

Sl No	Characteristics	Category		Number	Per cent
11	Scientific orientation	High	above 25 13	19	63 33
		Low	upto 25 13	11	36 67
12	Economic motivation	High	above 24 2	13	43 33
		Low	upto 24 2	17	56 67

4 3 4 Other Farmers

Table 9 deals with the distribution of other farmers based on their selected characteristics The table shows that 45 00 per cent of the other farmers were above 50 years of age and 55 per cent were less than 50 years of age Nearly half of the respondents had higher educational status (48 33 per cent) and a little more than half of them (51 67 per cent) had low educational status In the case of farm size 43 33 per cent of other farmers were in high group and 56 67 per cent were in low group Equal proportion of other farmers (50 per cent each) had high and low level of farming experience A little more than half of the other farmers (51 67 per cent) were more agriculturally occupied and almost equal proportion (48 33 per cent) were less agriculturally occupied The proportion of other farmers in high and low groups with regard to social

Table 9

Distribution of other farmers based on their selected characteristics

(n 60)

Sl No	Characteristics	Category		Number	Per cent
1	Age	High	above 50 02	27	45 00
		Low	upto 50 02	33	55 00
2	Education	High	above 4 12	29	48 33
		Low	upto 4 12	31	51 67
3	Farm size	High	above 261 6	26	43 33
		Low	upto 261 6	34	56 67
4	Farming experience	High	above 23 77	30	50 00
		Low	upto 23 77	30	50 00
5	Occupation	High	above 2 4	31	51 67
		Low	upto 2 4	29	48 33
6	Social participation	High	above 1 75	31	51 67
		Low	upto 1 75	29	48 33

(Contd)

Sl No	Characteristics	Category		Number	Per cent
7	Cosmopolite ness	High	above 6 38	24	40 00
		Low	upto 6 38	36	60 00
8	Information source utilisation	High	above 17 12	29	48 33
		Low	upto 17 12	31	51 67
9	Contact with extension agency	High	above 8 65	37	61 67
		Low	upto 8 65	23	38 33
10	Innovativeness	High	above 20 58	35	58 33
		Low	upto 20 58	25	41 67
11	Scientific orientation	High	above 23 92	40	66 67
		Low	upto 23 92	20	33 33
12	Economic motivation	High	above 22 83	32	53 33
		Low	upto 22 83	28	46 67

participation is similar to that of occupation (51 67 per cent and 43 33 per cent respectively) Two fifth of the other farmers had high level of cosmopoliteness (40 per cent) while three fifth (60 per cent) had low level of cosmopoliteness Considering the information source utilisation 48 33 per cent of other farmers were in the high group and 51 67 per cent were in the low group In the case of contact with extension agency 61 67 per cent of the other farmers had more contact and 38 33 per cent had less contact Nearly three fifth of the respondents (58 33 per cent) were more innovative in nature and remaining 41 67 per cent were less innovative Two third of the other farmers (66 67 per cent) had more scientific orientation and one third (33 33 per cent) of them had less scientific orientation In the case of economic motivation 53 33 per cent were in high group and 46 67 per cent were in low group

4 4. Relationship of awareness and attitude of respondents with their selected characteristics

4 4 1 Correlation analysis Correlation analysis was done to find out the relationship of awareness and attitude of four categories of respondents with their selected characteristics under study The results are presented in Tables 10 to 17

4 4 1 1 Relationship between the awareness of respondents about Krishi Bhavans and their selected characteristics

(1) Agricultural Officers

Table 10

Correlation between awareness of Agricultural Officers about Krishi Bhavans and their selected characteristics

(n 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 3109^{NS}
2	Education	0 1548^{NS}
3	Training	0 2920^{NS}
4	Total experience	-0 3207^{NS}
5	Experience in extension work	0 2644^{NS}
6	Job satisfaction	0 1358^{NS}
7	Job commitment	0 3694*

NS Not significant * Significant at 0 05 level

A perusal of the results presented in Table 10 revealed that the characteristic job commitment was positively and significantly related with the awareness of Agricultural Officers about Krishi Bhavans at 5 per cent level of probability All the other characteristics had no significant relationship with the awareness of Agricultural Officers about Krishi Bhavans

(11) Agricultural Assistants

Table 11

Correlation between awareness of Agricultural Assistants about Krishi Bhavans and their selected characteristics

(n 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 0875^{NS}
2	Education	0 0713^{NS}
3	Training	0 1100^{NS}
4	Total experience	0 0471^{NS}
5	Experience in extension work	0 1016^{NS}
6	Job satisfaction	0 1011^{NS}
7	Job commitment	0 0231^{NS}

NS Not significant

A perusal of the results presented in Table 11 revealed that all the selected characteristics were found to be statistically not related with the awareness of Agricultural Assistants about Krishi Bhavans

(iii) Karshika Vikasana Samithy Members

Table 12

Correlation between awareness of Karshika Vikasana Samithy Members about Krishi Bhavans and their selected characteristics

(n = 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0.1332^{NS}
2	Education	0.4250*
3	Farm size	0.2043^{NS}
4	Farming experience	0.0624^{NS}
5	Occupation	0.3094^{NS}
6	Social participation	0.5674**
7	Cosmopoliteness	0.0970^{NS}
8	Information source utilisation	0.2199^{NS}
9	Contact with extension agency	0.4622*
10	Innovativeness	0.4652**
11	Scientific orientation	0.4586*
12	Economic motivation	0.1000^{NS}

NS Not significant * Significant at 0.05 level

** Significant at 0.01 level

Table 12 revealed that social participation and innovativeness of Karshika Vikasana Samithy Members were positively and significantly related with their awareness about Krishi Bhavans at 1 per cent level of probability. It was also observed that

education contact with extension agency and scientific orientation were significantly and positively related with their awareness about Krishi Bhavans at 5 per cent level of probability All the other characteristics were found to have no significant relationship with the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans

(iv) Other farmers

Table 13

Correlation between awareness of other farmers about Krishi Bhavans and their selected characteristics

(n 60)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 0655^{NS}
2	Education	0 2533^{NS}
3	Farm size	0 0819^{NS}
4	Farming experience	0 1248^{NS}
5	Occupation	0 1700^{NS}
6	Social participation	0 6058**
7	Cosmopoliteness	0 2421^{NS}
8	Information source utilisation	0 3904**
9	Contact with extension agency	0 2293^{NS}
10	Innovativeness	0 3084*
11	Scientific orientation	0 1872^{NS}
12	Economic motivation	0 1178^{Ns}

NS Not significant * Significant at 0 05 level

** Significant at 0 01 level

Table 13 revealed that social participation and information source utilisation were positively and significantly related with the awareness of other farmers at 1 per cent level of probability and innovativeness was found to be postively and significantly related with their awareness at 5 per cent level of probability The relationship of all the other characteristics with awareness of other farmers were statistically found not significant

4 4 1 2 Relationship between the attitude of respondents towards Krishi Bhavans and their selected characteristics

(1) Agricultural Officers

Table 14

Correlation between attitude of Agricultural Officers towards Krishi Bhavans and their selected characteristics

(n 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 0537^{NS}
2	Education	0 3454^{NS}
3	Training	0 1267^{NS}
4	Total experience	0 0304^{NS}
5	Experience in extension work	0 1168^{NS}
6	Job satisfaction	0 5732**
7	Job commitment	0 4037*
8	Awareness	0 0171^{NS}

NS Not significant * Significant at 0 05 level
** Significant at 0 01 level

Table 14 revealed that the relationship of attitude of AOs towards Krishi Bhavans with their job satisfaction was positive and significant at 1 percent level of probability and the relationship of their attitude with job commitment was positive and significant at 5 per cent level of probability All the other characteristics were found to be satistically not having significant relationship with attitude

(ii) Agricultural Assistants

Table 15

Correlation between attitude of Agricultural Assistants towards Krishi Bhavans and their selected characteristics

(n 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 2242^{NS}
2	Education	0 0449^{NS}
3	Training	0 3238^{NS}
4	Total experience	0 2824^{NS}
5	Experience in extension work	0 0954^{NS}
6	Job satisfaction	0 4441*
7	Job commitment	0 2254^{NS}
8	Awareness	0 1388^{NS}

NS Not significant * Significant at 0 05 level

From Table 15 it was observed that job satisfaction of Agricultural Assistants was positively and significantly related with

their attitude towards Krishi Bhavans at 5 per cent level of probability All the other characteristics were found to be satistically not related with their attitude

(iii) Karshika Vikasana Samithy Members

Table 16

Correlation between attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans and their selected characteristics

(n 30)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 0525^{NS}
2	Education	0 0079^{NS}
3	Farm size	0 0916^{NS}
4	Farming experience	0 0475^{NS}
5	Occupation	0 0481^{NS}
6	Social participation	0 2044^{NS}
7	Cosmopoliteness	0 1022^{NS}
8	Information source utilisation	0 2374^{NS}
9	Contact with extension agency	0 4863**
10	Innovativeness	0 1425^{NS}
11	Scientific orientation	0 3710*
12	Economic motivation	0 0447^{NS}
13	Awareness	0 4422*

NS Not significant * Significant at 0 05 level

** Significant at 0 01 level

Table 16 revealed that contact with extension agency was positively and significantly related with the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans at 1 per cent level of probability Scientific orientation and awareness were positively and significantly related with their attitude at 5 per cent level of probability The remaining characteristics were satistically found to have no significant relationship with the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans

(iv) Other Farmers

Table 17

Correlation between attitude of other farmers towards Krishi Bhavans and their selected characteristics

(n 60)

Sl No	Characteristics	Correlation coefficients r
1	Age	0 0201^{Ns}
2	Education	0 1103^{NS}
3	Farm size	0 0220^{NS}
4	Farming experience	-0 0000^{NS}
5	Occupation	0 0473^{NS}
6	Social participation	0 1136^{NS}
7	Cosmopoliteness	0 1462^{NS}
8	Information source utilisation	0 0341^{NS}
9	Contact with extension agency	0 3835**

(Contd)

Sl No	Characteristics	Correlation coefficients r
10	Innovativeness	0 0273^{NS}
11	Scientific orientation	0 2559^{NS}
12	Economic motivation	0 0053^{NS}
13	Awareness	0 1673^{NS}

NS Not significant ** Significant at 0 01 level

The result presented in Table 17 revealed that the relationship of attitude of other farmers towards Krishi Bhavans with their contact with extension agency was positive and highly significant at 1 per cent level of probability All the other characteristics were found to have no significant relationship with their attitude towards Krishi Bhavans

4 4 2 Path analysis

The analysis of correlation coefficient indicates the degree and the nature of influence of each selected characteristic on awareness and attitude The effect of certain characteristics directly and indirectly on awareness and attitude was not explained in correlation analysis Hence the multivariate path co efficient analysis was carried out to explain the direct and indirect effect of the selected characteristics on awareness and attitude In the path analysis with attitude as the dependent variable awareness was also

included as the independent variable with the assumption that awareness may have a definite role in shaping the attitude of the respondents

4 4 2 1 Direct and indirect effects of selected characteristics on the awareness of respondents about Krishi Bhavan

The direct and indirect effects of selected characteristics on the awareness of AOs, AAs Karshika Vikasana Samithy Members and other farmers are presented in Tables 18 to 21 respectively

Table 18

Direct and indirect effects of selected characteristics on the awareness of Agricultural Officers about Krishi Bhavans

(n 30)

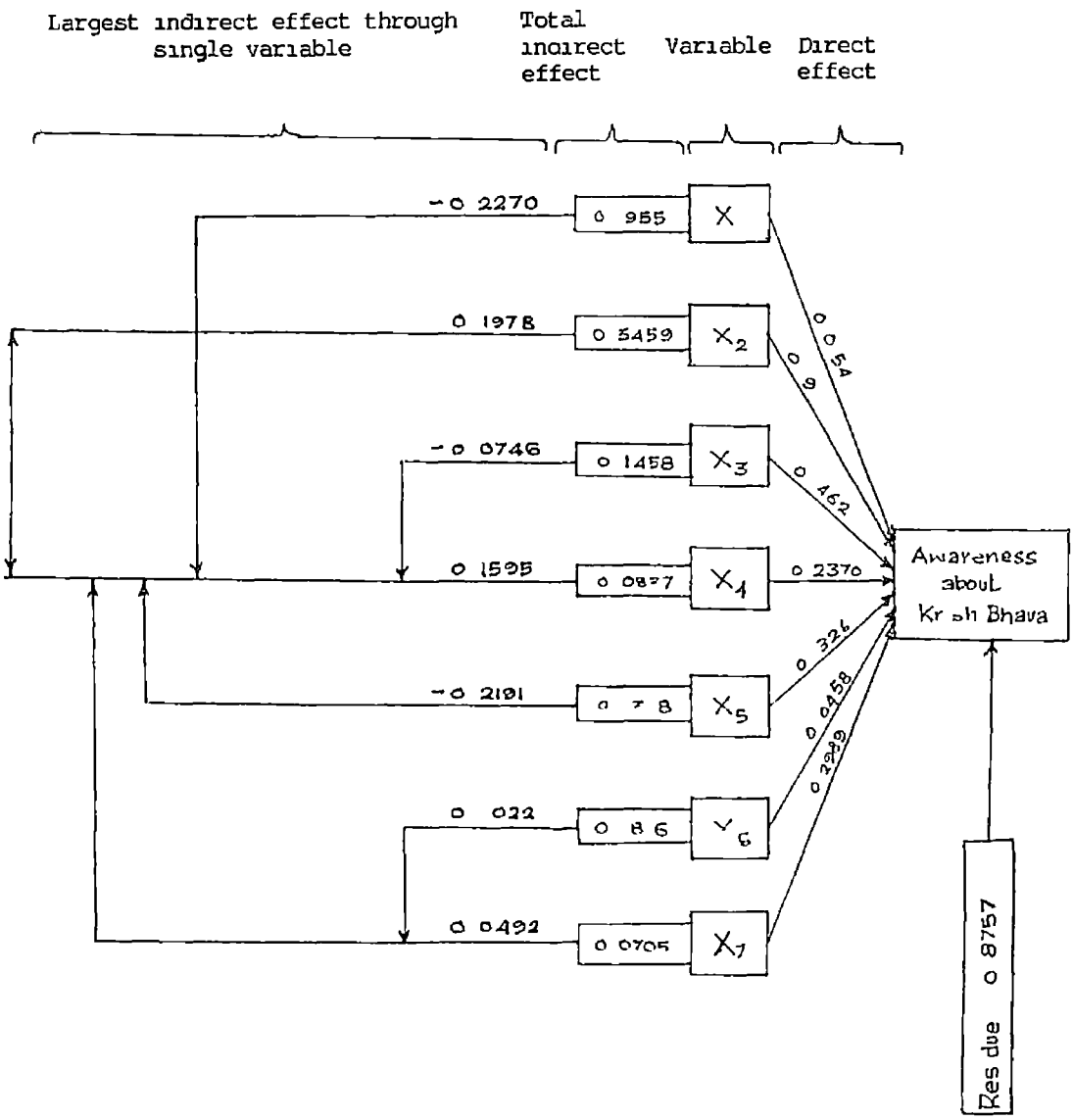
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 3109	0 0154	VII	0 2955	II	0 2270	X_4
X_2	Education	0 1548	0 1911	III	0 3459	I	0 1978	X_4
X_3	Training	0 2920	0 1462	IV	0 1458	IV	0 0746	X_4
X_4	Total experience	-0 3207	0 2370	II	0 0837	VI	0 1595	X_2
X_5	Experience in extension work	0 2644	0 1326	V	0 1318	V	0 2191	X_4
X_6	Job satisfaction	0 1358	0 0458	VI	0 1816	III	0 1042	X_7
X_7	Job commitment	0 3694*	0 2989	I	0 0705	VII	0 0492	X_4

* Significant at 0 05 level

Residue 0 8757

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE AWARENESS OF AGRICULTURAL OFFICERS ABOUT KRISHI BHAVANS

n 30



Fg 2

(1) Agricultural Officers

The data in Table 18 and Figure 2 revealed that the ranks of the variables with respect to the direct and total indirect effects were not the same Here the variable job commitment (X_7) which stood first in direct effect was ranked last in total indirect effect and total experience (X_4) which stood second in direct effect was ranked sixth in total indirect effect on the awareness of AOs Education (X_2) and Age (X_1) were ranked first and second respectively in total indirect effect which were ranked third and seventh in that order in direct effects Training (X_3) and experience in extension work (X_5) were ranked equally in terms of their direct and total indirect effects

Further the data in terms of largest indirect effect of variables on the awareness of AOs revealed that the variables age (X_1) education (X_2) training (X_3) experience in extension work (X5) and job commitment (X_7) had their largest indirect influence through total experience (X_4) Total experience (X_4) was found to exert the largest indirect effect through education (X_2) and job satisfaction had its largest indirect effect through job commitment (X_7)

Table 19

Direct and indirect effects of selected characteristics on the awareness of Agricultural Assistants about Krishi Bhavans

(n 30)

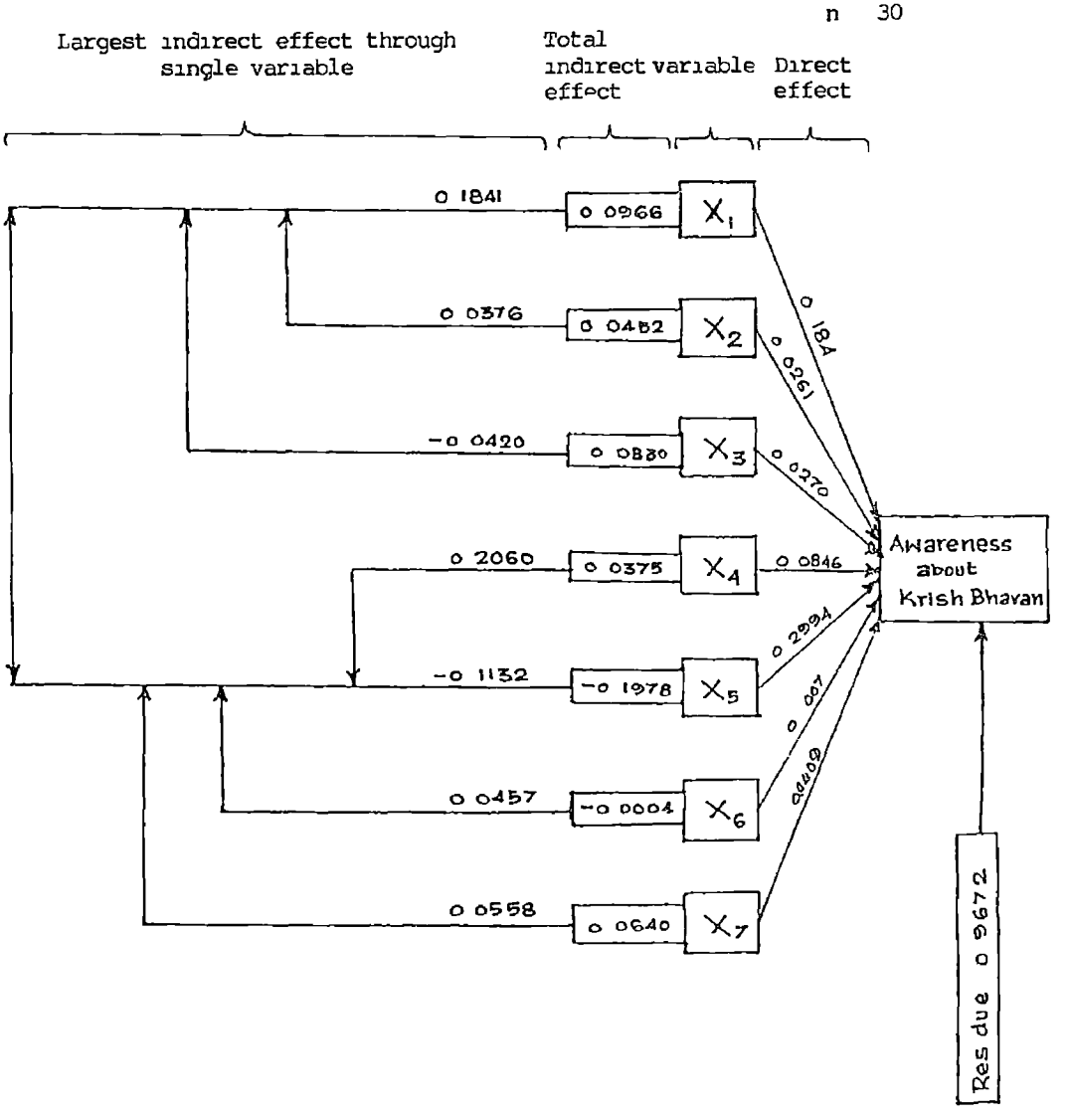
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 0875	0 1841	II	0 0966	II	0 1841	X_5
X_2	Education	0 0713	0 0261	VII	0 0452	V	0 0376	X_1
X_3	Training	0 1100	0 0270	VI	0 0830	III	0 0420	X_1
X_4	Total experience	0 0471	-0 0846	IV	0 0375	VI	0 2060	X_5
X_5	Experience in extension work	0 1016	0 2994	I	0 1978	I	0 1132	X_1
X_6	Job satisfaction	0 1011	0 1007	III	-0 0004	VII	0 0457	X_5
X_7	Job commitment	0 0231	0 0409	V	0 0640	IV	0 0558	X_5

Residue 0 9672

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISITICS

ON THE AWARENESS OF AGRICULTURAL ASSISTANTS ABOUT KRISHI BHAVANS

n 30



Fg 3

(ii) Agricultural Assistants

It was revealed through Table 19 and Figure 3 that experience in extension work had the highest direct effect on awareness followed by age job satisfaction total experience and job commitment in that order The remaining variables had comparatively smaller direct effects on awareness The table further revealed that experience in extension work age training job commitment and training bear the first five ranks in total indirect effects and the indirect effects of training and experience in extension work on awareness were in negative direction

Further the data in terms of largest indirect effect of variables on awareness revealed that age total experience job satisfaction and job commitment had their largest indirect effect through experience in extension work and the remaining variables viz education training and experience in extension work were found to have their largest indirect effect through age

Table 20

Direct and indirect effects of selected characteristics on the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans

(n 30)

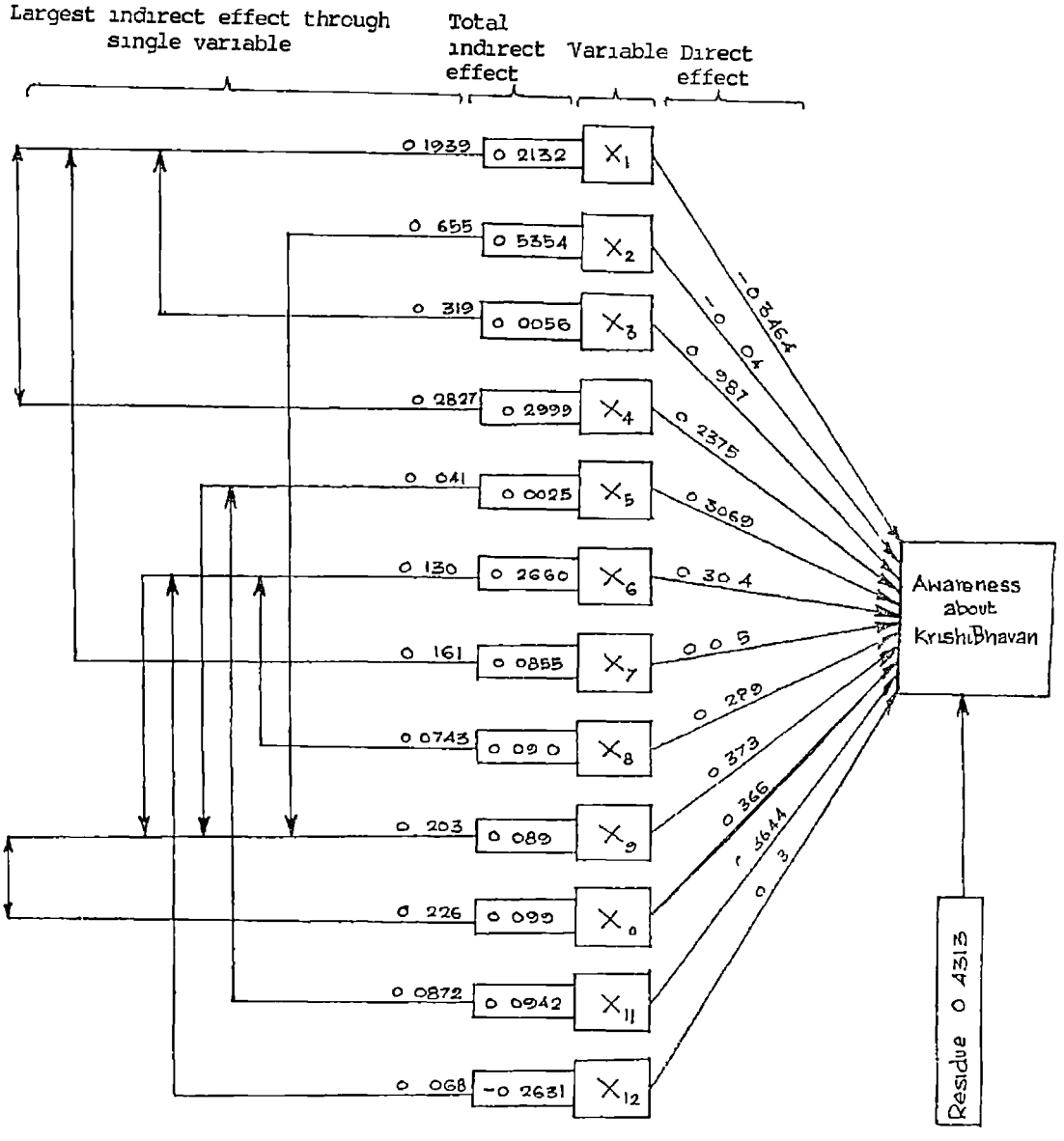
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 1332	0 3464	IV	0 2132	V	0 1939	X_4
X_2	Education	0 4250*	0 1104	XI	0 5354	I	0 1655	X_9
X_3	Farm size	0 2043	0 1987	VIII	0 0056	XI	0 1319	X_1
X_4	Farming experience	0 0624	0 2375	VII	0 2999	II	0 2827	X_1
X_5	Occupation	0 3094	-0 3069	V	0 0025	XII	0 1041	X_9
X_6	Social participation	0 5674**	0 3014	VI	0 2660	III	0 1301	X_9
X_7	Cosmopoliteness	0 0970	0 0115	XII	0 0855	X	0 1161	X_1
X_8	Information source utilisation	0 2199	0 1289	X	0 0910	VIII	0 0743	X_6
X_9	Contact with extension agency	0 4622*	0 3731	I	0 0891	IX	0 1203	X_{10}
X_{10}	Innovativeness	0 4652**	0 3661	II	0 0991	VI	0 1226	X_9
X_{11}	Scientific orientation	0 4586*	0 3644	III	0 0942	VII	0 0872	X_5
X_{12}	Economic motivation	0 1000	0 1631	IX	0 2631	IV	0 1068	X_6

** Significant at 0 01 level
* Significant at 0 05 level

Ressidue 0 4313

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE AWARENESS OF KARSHIKA VIKASANA SAMITHI MEMBERS ABOUT KRISHI BHAVANS

n 30



Fg 4

(iii) Karshika Vikasana Samithy Members

It was revealed from the results presented in Table 20 and Figure 4 that contact with extension agency had the maximum direct effect on the awareness of Karshika Vikasana Samithy Members Innovativeness stood second followed by scientific orientation age occupation social participation farming experience farm size economic motivation information source utilisation and education in that order Only cosmopoliteness showed smaller direct effect The table also revealed that education farming experience social participation economic motivation and age were the five variables having high indirect effect on awareness

Considering the largest indirect effect the variables education occupation social participation and innovativeness had their largest indirect effect through contact with extension agency while the indirect effect of contact with extension agency was through innovativeness Further farm size farming experience and cosmopoliteness had their indirect effect mainly through age while that of age was through farming experience Scientific orientation had its largest indirect effect through occupation while that of economic motivation was through social participation

Table 21

Direct and indirect effects of selected characteristics on the awareness of other farmers about Krishi Bhavans

(n 60)

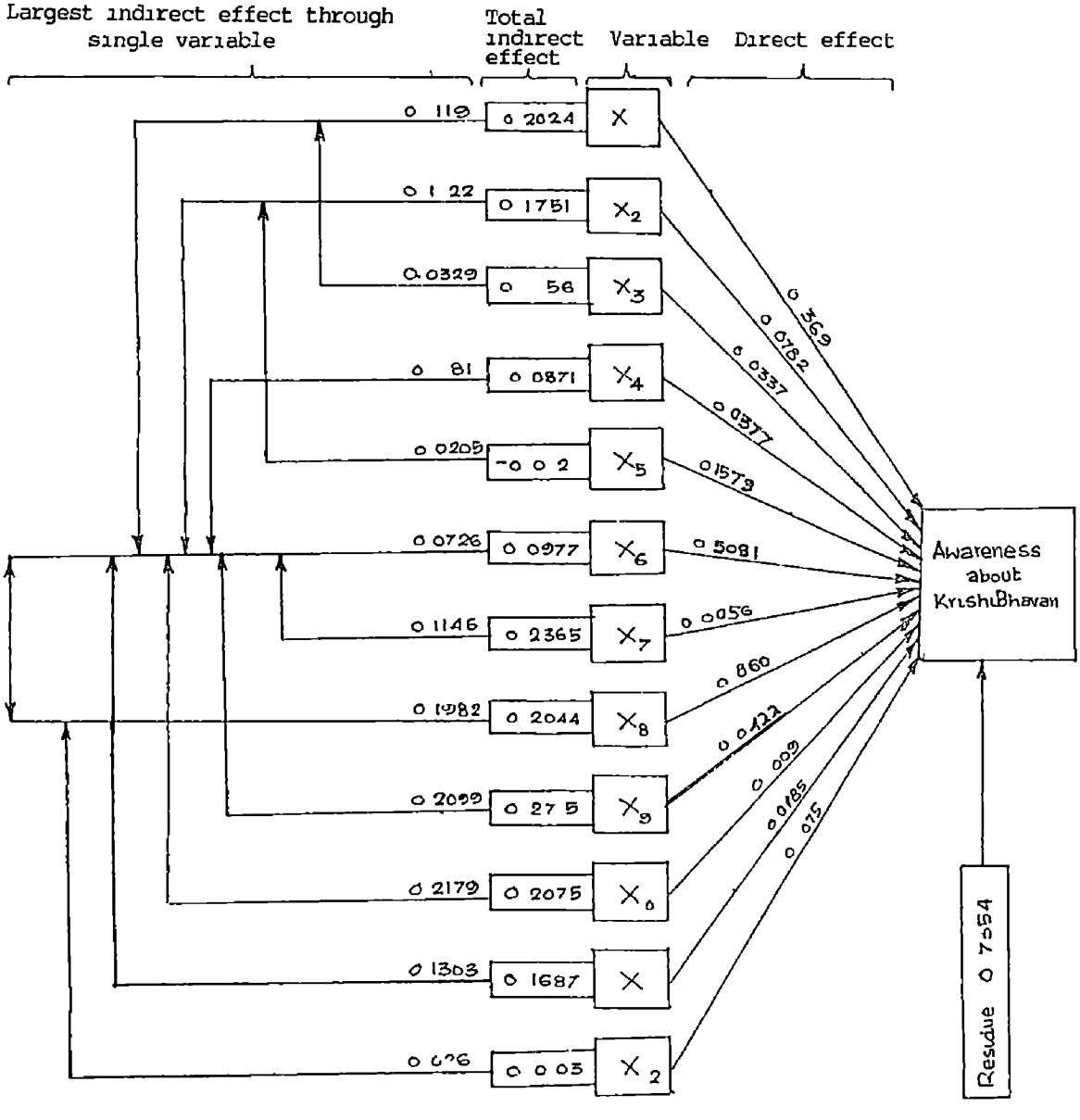
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 0655	0 1369	IV	0 2024	V	0 1119	X_6
X_2	Education	0 2533	0 0782	VII	0 1751	VI	0 1122	X_6
X_3	Farm size	0 0819	0 0337	X	0 1156	VIII	0 0329	X_1
X_4	Farming experience	0 1248	0 0377	IX	0 0871	X	0 1181	X_6
X_5	Occupation	0 1700	-0 1579	III	0 0121	XI	0 0205	X_2
X_6	Social participation	0 6058**	0 5081	I	0 0977	IX	0 0726	X_8
X_7	Cosmopoliteness	0 2421	0 0056	XII	0 2365	II	0 1146	X_6
X_8	Information source utilisation	0 3904**	0 1860	II	0 2044	IV	0 1982	X_6
X_9	Contact with extension agency	0 2293	0 0422	VIII	0 2715	I	0 2099	X_6
X_{10}	Innovativeness	0 3084*	0 1009	VI	0 2075	III	0 2179	X_6
X_{11}	Scientific orientation	0 1872	0 0185	XI	0 1687	VII	0 1303	X_6
X_{12}	Economic motivation	0 1178	0 1075	V	0 0103	XII	0 0261	X_8
						Residue	0 7354	

** Significant at 0 01 level
* Significant at 0 05 level

PATH DIAGRAM SHOWING DIRECT & INDIRDCT EFFECTS OF SELECTED CHARACTERISTICS

ON THE AWARENESS OF OTHER FARMERS ABOUT KRISHI BHAVANS

n 60



Fg 5

(iv) Other farmers

Social participation was ranked first in terms of direct effect on awareness of farmers as depicted in Table 21 and Figure 5 The table also revealed that information source utilisation stood second in direct effect followed by occupation age economic motivation and innovativeness in that order The remaining variables education contact with extension agency farming experience farm size scientific orientation and cosmopoliteness had shown very low direct effects Contact with extension agency had the maximum indirect effect followed by cosmopoliteness innovativeness information source utilisation age education scientific orientation and farm size in that order Remaining variables had comparatively low indirect effects

The table also revealed that out of twelve variables eight namely age education farming experience cosmopoliteness information source utilisation contact with extension agency innovativeness and scientific orientation exerted the largest indirect influence through the variable social participation (X_6) while social participation exerted its largest indirect influence through information source utilisation

4 4 2 2 Direct and indirect effects of selected characteristics on the attitude of respondents towards Krishi Bhavans

The direct and indirect effects of the selected characteristics on the attitude of AOs AAS Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavans are presented in Tables 22 to 25

Table 22

Direct and indirect effects of selected characteristics on the attitude of Agricultural Officers towards Krishi Bhavans

(n 30)

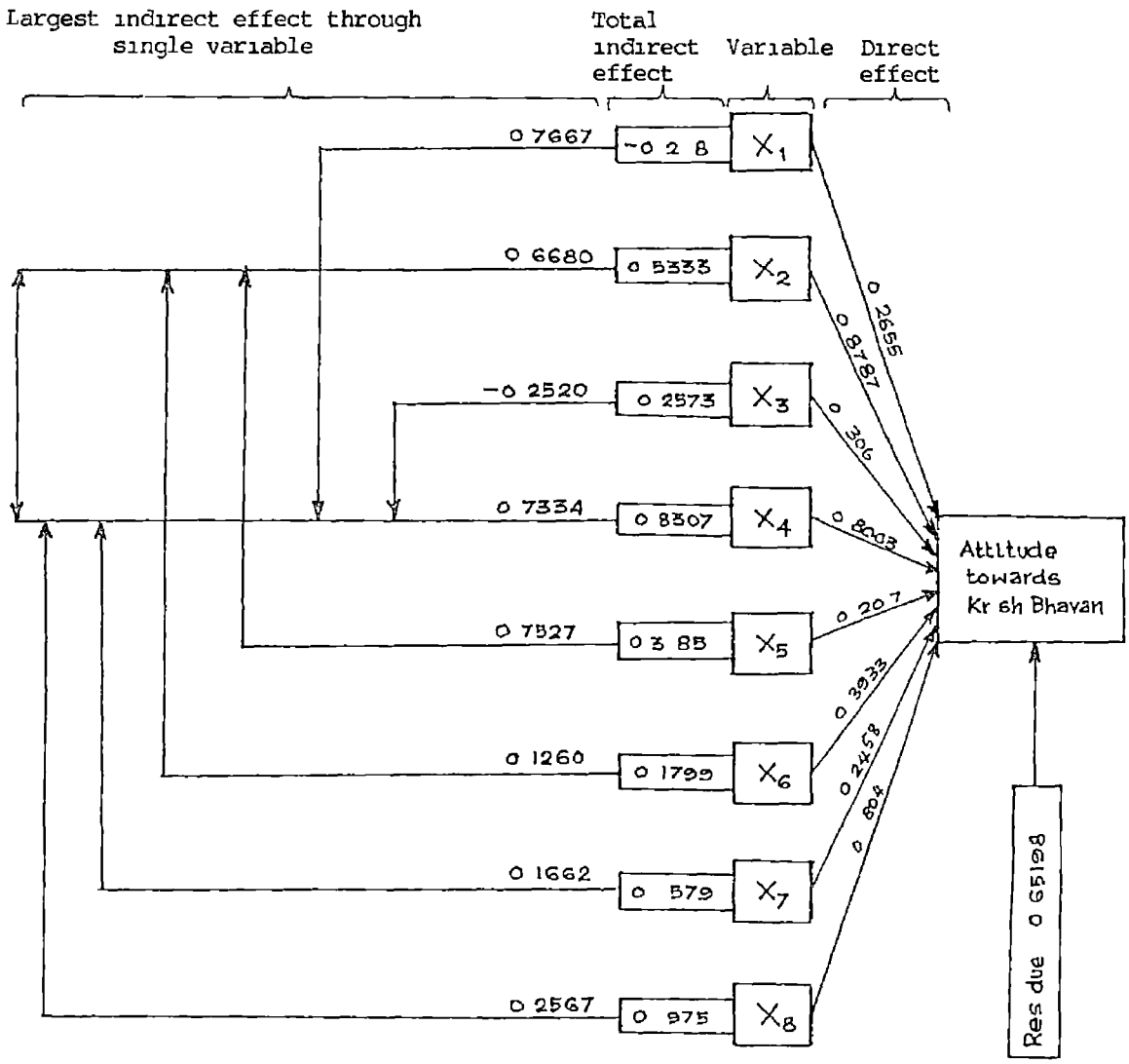
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 0537	0 2655	IV	0 2118	V	0 7667	X_4
X_2	Education	0 3454	0 8787	I	0 5333	II	0 6680	X_4
X_3	Training	0 1267	0 1306	VIII	0 2573	IV	0 2520	X_4
X_4	Total experience	0 0304	0 8003	II	0 8307	I	0 7334	X_2
X_5	Experience in extension work	0 1168	0 2017	VI	0 3185	III	0 7527	X_2
X_6	Job satisfaction	0 5732**	0 3933	III	0 1799	VII	0 1260	X_2
X_7	Job commitment	0 4037*	0 2458	V	0 1579	VIII	0 1662	X_4
X_8	Awareness	0 0171	0 1804	VII	0 1975	VI	0 2567	X_4

** Significant at 0 01 level
* Significant at 0 05 level

Residue 0 65198

PATH DIAGRAM SEOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE ATTITUDE OF AGRICULTURAL OFFICERS TOWARDS KRISHI BHAVANS

n 30



Fg 6

(1) Agricultural Officers

Table 22 revealed that education had the maximum direct effect on the attitude of Agricultural Officers but in the negative direction Education was ranked second in indirect effect Total experience stood second in direct effect followed by job satisfaction age and job commitment Awareness was ranked seventh in direct effect and sixth in indirect effect Total experience education experience in extension work and training bear the four largest total indirect effects The remaining variables had comparatively low total indirect effects

The table also shows that five variables viz age education training job commitment and awareness exerted their largest indirect influence through total experience The remaining variables total experience experience in extension work and job satisfaction exerted their largest indirect effect through education

Table -

Direct and indirect effects of selected characteristics on the attitude of Agricultural Assistants towards Krishi Bhavans

(n = 30)

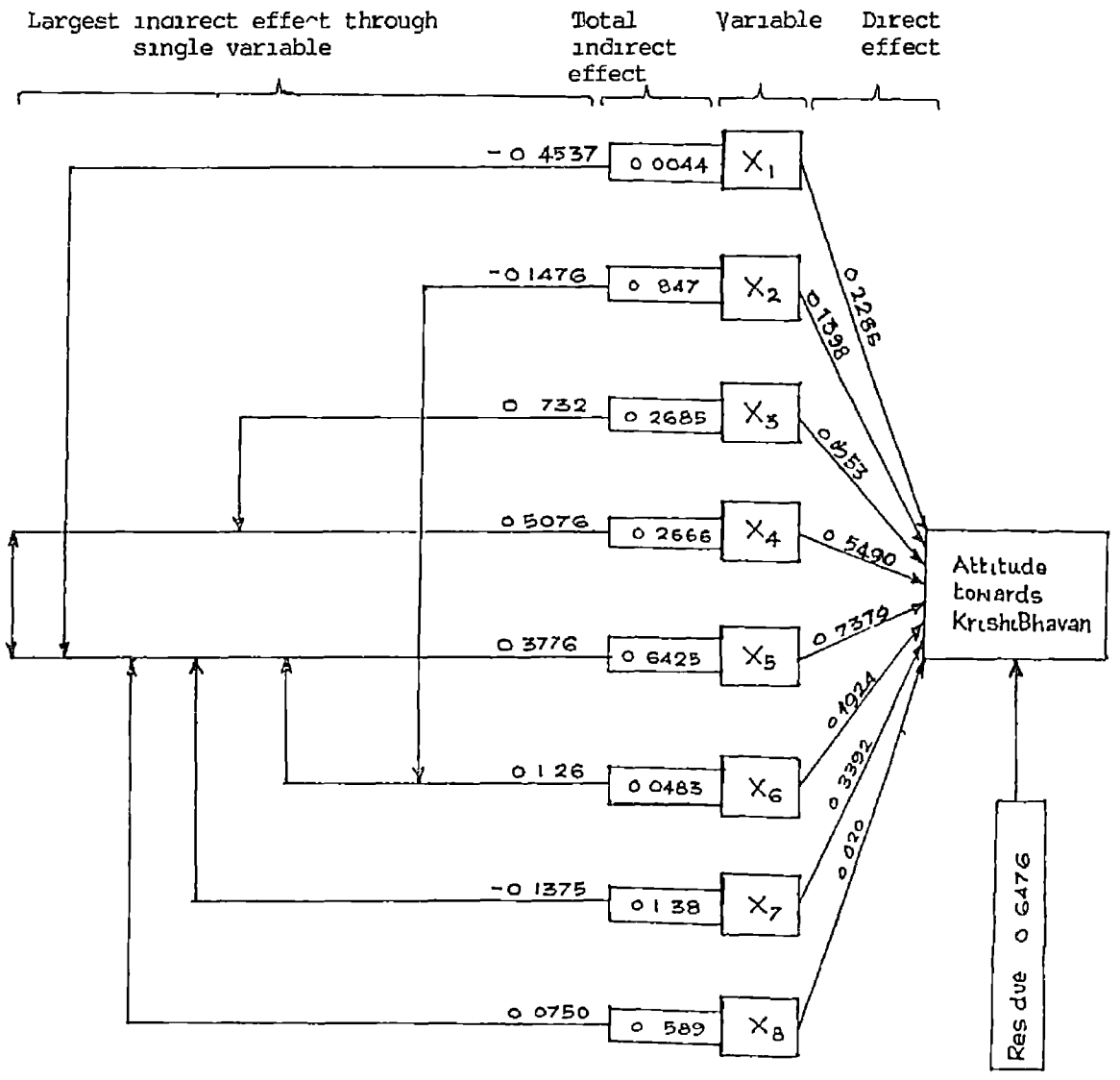
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 2242	0 2286	V	0 0044	VIII	0 4537	X_5
X_2	Education	0 0449	0 1398	VI	0 1847	IV	0 1476	X_6
X_3	Training	0 3238	0 0553	VII	0 2685	II	0 1752	X_4
X_4	Total experience	0 2824	0 5490	II	0 2666	III	0 5076	X_5
X_5	Experience in extension work	0 0954	-0 7379	I	0 6425	I	0 3776	X_4
X_6	Job satisfaction	0 4441*	0 4924	III	-0 0483	VII	0 1126	X_5
X_7	Job commitment	0 2254	0 3392	IV	0 1138	VI	-0 1375	X_5
X_8	Awareness	-0 1388	0 0201	VIII	0 1589	V	0 0750	X_5

* Significant at 0 05 level

Residue 0 6476

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE ATTITUDE OF AGRICULTURAL ASSISTANTS TOWARDS KRISHI BHAVANS

n 30



Fg 7

(ii) Agricultural Assistants

It was revealed from Table 23 and Figure 7 that experience in extension work was the most important factor in determining the attitude of Agricultural Assistants The variable experience in extension work stood first both in direct effect and total indirect effect and also five variables namely age total experience job satisfaction job commitment and awareness exerted their largest indirect effect through experience in extension work Total experience stood second in direct effect followed by job satisfaction job commitment and age in that order In the case of total indirect effect training stood second followed by total experience education awareness and job commitment Experience in extension work and training had their largest indirect influence through total experience and that of education through job satisfaction as projected by table 23 Awareness was ranked last in terms of its direct effect

Table 24

Direct and indirect effects of selected characteristics on the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans

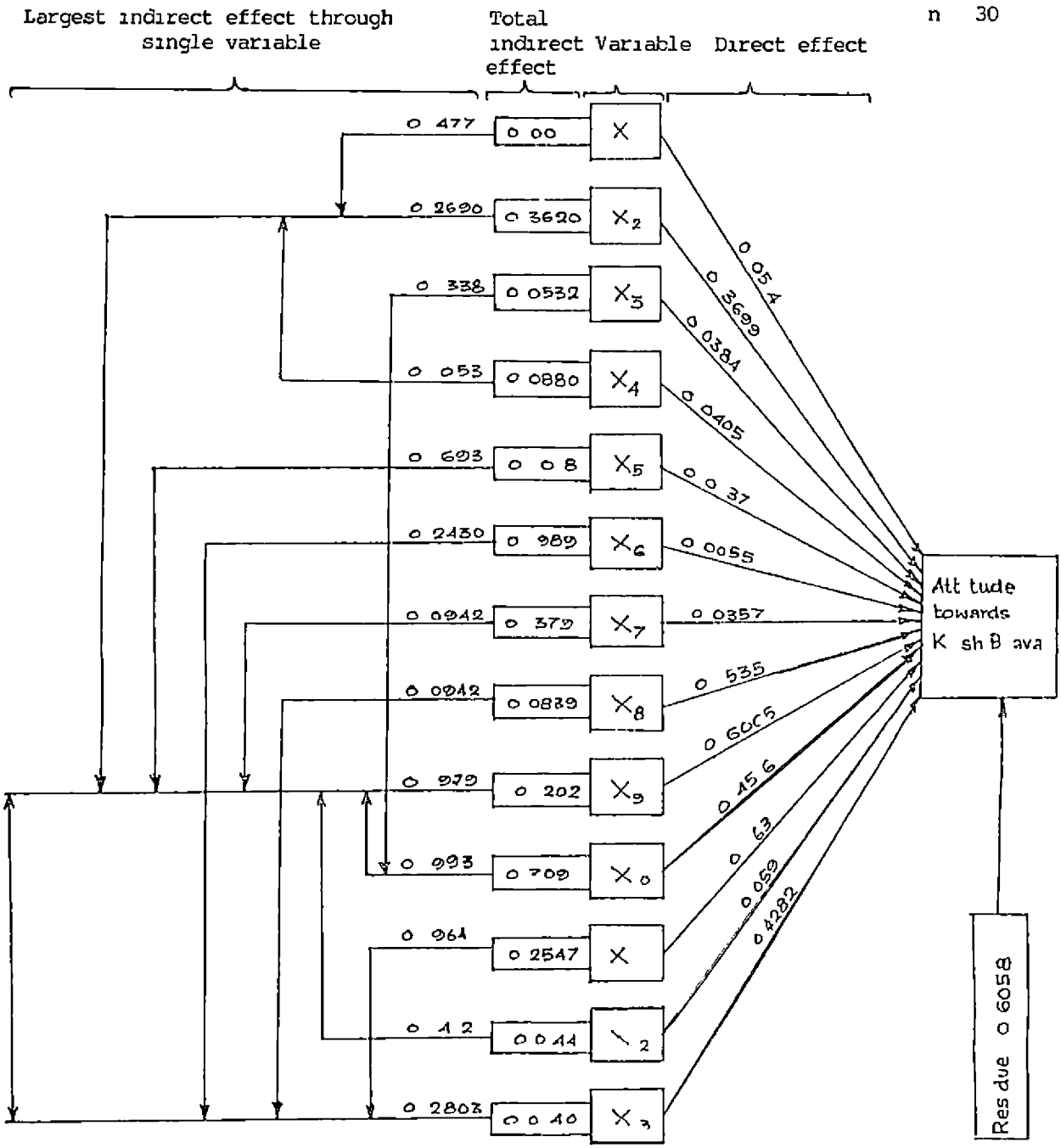
(n 30)

Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 0525	0 0514	IX	0 0011	XIII	0 1477	X_2
X_2	Education	-0 0079	0 3699	IV	0 3620	I	0 2690	X_9
X_3	Farm size	0 0916	0 0384	XI	0 0532	X	0 1338	X_{10}
X_4	Farming experience	0 0475	0 0405	X	0 0880	VIII	0 1053	X_2
X_5	Occupation	0 0481	0 0537	VIII	0 1018	VII	0 1693	X_9
X_6	Social participation	0 2044	0 0055	XIII	0 1989	IV	0 2430	X_{13}
X_7	Cosmopoliteness	0 1022	0 0357	XII	0 1379	V	0 0942	X_9
X_8	Information source utilisation	0 2374	0 1535	V	0 0839	IX	0 0942	X_{13}
X_9	Contact with extension agency	0 4863**	0 6065	I	0 1202	VI	0 1979	X_{13}
X_{10}	Innovativeness	0 1425	-0 4516	II	0 3091	II	0 1993	X_9
X_{11}	Scientific orientation	0 3710*	0 1163	VI	0 2547	III	0 1964	X_{13}
X_{12}	Economic motivation	0 0447	0 0591	VII	-0 0144	XI	0 1412	X_9
X_{13}	Awareness	0 4422*	0 4282	III	0 0140	XII	0 2803	X_9

** Significant at 0 01 level
* Significant at 0 05 level

Residue 0 6058

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE ATTITUDE OF KARSHIKA VIKASANA SAMITHY MEMBERS TOWARDS KRISHI BHAVANS



Fg 8

(iii) Karshika Vikasana Samithy Members

The path analysis results presented in Table 24 and Figure 8 revealed that contact with extension agency had the highest direct effect on the attitude of Karshika Vikasana Samithy Members followed by innovativeness awareness education information source utilisation and scientific orientation in that order The remaining variables had comparatively low direct effect The table also revealed that education innovativeness scientific orientation social participation and cosmopoliteness bear the first five ranks in total indirect effects

Six variables namley education occupation cosmpolitieness innovativeness economic motivation and awareness exerted their largest indirect effect through contact with extension agency Social participation information source utilisation contact with extension agency and scientific orientation had their largest indirect effect through awareness Thus awareness was found to have played a role in shaping the attitude of Karshika Vikasana Samithy Members

Table 25

Direct and indirect effects of selected characteristics on the attitude of other farmers towards Krishi Bhavans

(n 60)

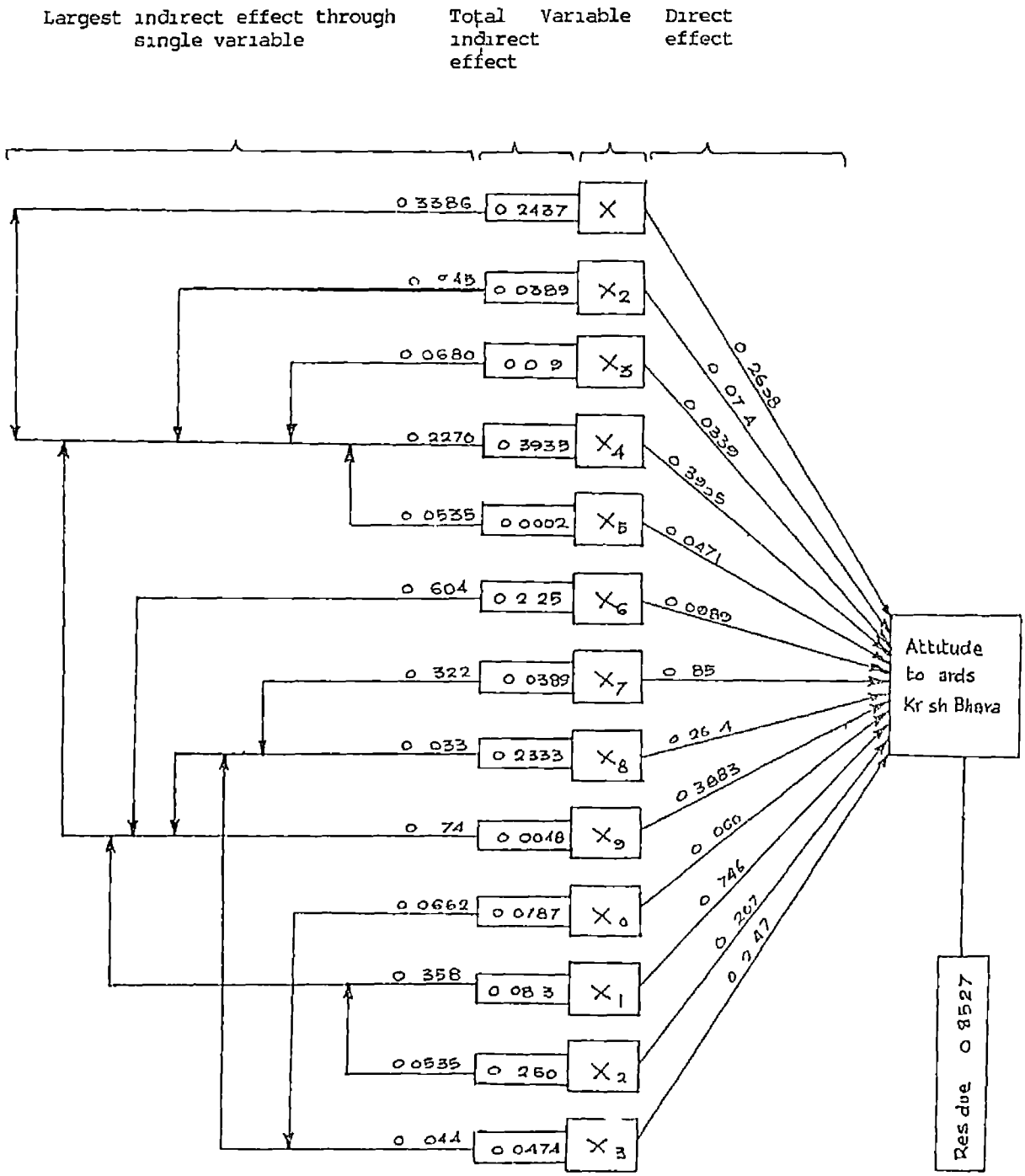
Code	Variable	Total correlation	Direct effect		Total indirect effect		Largest indirect effect	
			Effect	Rank	Effect	Rank	Effect	Through variable number
X_1	Age	0 0201	0 2638	IV	0 ∠437	II	0 3386	X_4
X_2	Education	0 1103	0 0714	XI	0 0389	IX	0 1945	X_4
X_3	Farm size	0 0220	0 0339	XIII	0 0119	XI	0 0680	X_4
X_4	Farming experience	-0 0000	0 3935	I	0 3935	I	0 ∠270	X_1
X_5	Occupation	0 0473	-0 0471	XII	0 000∠	XIII	0 0535	X_4
X_6	Social participation	0 1136	0 0989	X	0 ∠1∠5	IV	0 1604	X_9
X_7	Cosmopoliteness	0 1462	0 1851	VI	0 0389	X	0 1322	X_8
X_8	Information source utilisation	0 0341	-0 2674	III	0 2333	III	0 1033	X_9
X_9	Contact with extension agency	0 3835**	0 3883	II	0 0048	XII	0 1174	X_4
X_{10}	Innovativeness	0 0273	-0 1060	IX	0 0787	VII	0 0662	X_{13}
X_{11}	Scientific orientation	0 2559	0 1746	VII	0 0813	VI	0 1358	X_9
X_{12}	Economic motivation	0 0053	0 1207	VIII	0 1260	V	0 0535	X_{11}
X_{13}	Awareness	0 1673	0 2147	V	0 0474	VIII	0 1044	X_8

** Significant at 0 01 level

Residue 0 8527

PATH DIAGRAM SHOWING DIRECT & INDIRECT EFFECTS OF SELECTED CHARACTERISTICS ON THE ATTITUDE OF OTHER FARMERS TOWARDS KRISHI BHAVANS

n 30



Fg 9

(iv) Other farmers

A perusal of results of path analysis presented in Table 25 and Figure 9 revealed that farming experience had the highest direct effect on the attitude of farmers followed by contact with extension agency information source utilisation awareness cosmopolitiness scientific orientation and economic motivation Remaining variables had shown very small direct effect Farming experience also stood first in total indirect effects Age stood second here followed by information source utilisation social participation and economic motivation in that order

Further the data in terms of largest indirect effect of variables on attitude revealed that age education farmsize occupation and contact with extension agency had their largest indirect effect through farming experience Social participation information source utilisation and scientific orientation had their largest indirect effect through contact with extension agency Awareness and cosmpoliteness had exerted their largest indirect effect through information source utilisation as evident from the above table

4 5 Constraints perceived by Agricultural Extension Personnel and farmers in the effective functioning of Krishi Bhavans

An attempt was made in the present study to identify the constraints perceived by the four categories of respondents viz AOs AAs Karshika Vikasana Samithy Members and other farmers in

the effective functioning of Krishi Bhavans The constraints were ranked on the basis of the mean score on the intensity of each constraint as perceived by the four categories of respondents The constraints were presented in Tables 26 to 28 in the descending order of mean score obtained by each constraint

4 5 1 Constraints perceived by Agricultural Officers

Table 26

Constraints perceived by Agricultural Officers in the effective functioning of Krishi Bhavans

Rank	Constraints	Mean Score
1	Lack of clerical support in office work	4 00
2	Lack of conveyance facilities	3 83
3	Lack of funds to meet travelling expenses	3 83
4	Lack of facilities in Krishi Bhavans	3 77
5	Inadequate and untimely supply of inputs	3 37
6	Difficulty in selection of beneficiaries for various schemes to satisfy all the Karshika Vikasana Samithy Members	2 87
7	Lack of interest among farmers in agro clinics	2 50
8	Lack of co operation among the members of Karshika Vikasana Samithy	2 47
9	Inadequate training facilities for Agricultural Officers	1 87
10	Lack of freedom of work for Agricultural Officers	1 53

A perusal of Table 26 reveals that Lack of clerical support in office work was the most important constraint perceived by Agricultural Officers in the effective functioning of Krishi Bhavans followed by Lack of conveyance facilities lack of funds to meet travelling expenses and lack of facilities in Krishi Bhavans in that order Inadequate and untimely supply of input was the fifth important constraint Inadequate training facilities for Agricultural Officers and Lack of freedom of work for—Agricultural ~~Officers'~~ were the least important constraints as perceived by the Agricultural Officers

4 5 2 Constraints perceived by Agricultural Assistants

From Table 27 it was clear that lack of facilities in Krishi Bhavans was the most important constraint felt by Agricultural Assistants in the effective functioning of Krishi Bhavans programme followed by non availability of seeds and seedlings to farmers taste and in time lack of clerical support in Krishi Bhavans and overlapping of priced supply and free supply of inputs Lack of fixed schedule of field visits and lack of support from AO in the field work were the less important constraints in the order as perceived by the Agricultural Assistants

Table 27

Constraints perceived by Agricultural Assistants in the effective functioning of Krishi Bhavans

Rank	Constraints	Mean Score
1	Lack of facilities in Krishi Bhavans	3 77
2	Non availability of seeds and seedlings to farmers taste and in time	3 73
3	Lack of clerical support in Krishi Bhavans	3 70
4	Overlapping of priced supply and free supply of inputs create problems	3 20
5	Most of the subsidy is given to group farming ela farmers only	2 63
6	Inadequate training facilities for Agricultural Assistants	2 40
7	Lack of interest among farmers in agro-clinics	2 27
8	Lack of knowledge and training about new schemes being implemented	2 20
9	Lack of fixed schedule of field visits	1 13
10	Lack of support from Agricultural Officers in field work	0 97

4 5 3 Constraints perceived by Karshika Vikasana Samithy Members and other farmers

The constraints percieved by Karshika Vikasana Samithy Members and other farmers were ranked based on the mean score obtained by each constraint and given in Table 28

Table 28

Constraints perceived by Karshika Vikasana Samithy Members and other farmers in adopting the technologies transfered through Krishi Bhavans

Sl No	Constraints	KVS Members		Other farmers	
		Mean Score	Rank	Mean Score	Rank
1	High labour cost	2 97	1	2 80	1
2	Less availability of labour during peak season	1 83	9	1 75	9
3	Inadequate and untimely supply of inputs	2 40	4	2 18	5
4	High cost of cultivation	2 40	5	2 43	2
5	Lack of co-cperation among farmers	1 9	8	1 93	8
6	Low market price for farm produce	2 17	7	2 03	7
7	Subsidies are not given in right time	2 20	6	2 12	6
8	Lack of irrigation water in time	2 53	3	2 38	3
9	Conversion of paddy field into coconut and banana gardens make tiller ploughing difficult	2 57	2	2 27	4
10	Non availability of power tillers in time	1 30	11	1 43	12
11	Seminars and meetings have no practical utility	1 57	10	1 43	10
12	Untimely release of water make harvest difficult	1 27	12	1 43	11

A perusal of Table 28 reveals that High labour cost was the most important constraint perceived by Karshika Vikasana Samithy Members closely followed by conversion of paddy fields into coconut and banana gardens making tiller ploughing difficult lack of irrigation water in time and inadequate and untimely supply of inputs in the order of importance High cost of cultivation was ranked fifth by them

From the above table it is also obvious that high labour cost was the most important constraint perceived by both categories of farmers High cost of cultivation lack of irrigation water in time conversion of paddy fields into coconut and banana gardens making tiller ploughing difficult and inadequate and untimely supply of inputs were ranked 2 to 5 respectively by the other farmers

Though slight variations are there in the rankings same set of constraints were perceived as the first five serious constraints by both categories of farmers

Chapter V

DISCUSSION

The results obtained in the present study are discussed in this chapter under the following main heads

5 1 Role of Krishi Bhavans in agricultural development

5 2 Distribution of Agricultural Extension Personnel and farmers based on their selected characteristics

5 3 Awareness about Krishi Bhavans

5 4 Attitude towards Krishi Bhavans

5 5 Constraints in the effective functioning of Krishi Bhavans

5 1 Role of Krishi Bhavans in agricultural development

The roles of Krishi Bhavans in agricultural develcpr ent were analysed in terms of perceived importance and performance of each role by AOs AAs Karshika Vikasana Samithy Members and other farmers The results of the analysis were presented as mean scores and coefficient of variation for each selected role based on the perception of the four categories of respondents about the importance and performance of the roles in Table 1 The roles which are more important and which are adequately performed were identified based on high mean score (above the average mean score) and low coefficient of variation (below the average coefficient of variation)

The results are discussed in this chapter under three headings as follows

5 1 1 Roles perceived as important by both Agricultural Officers and Agricultural Assistants and the performance of those roles

5 1 2 Roles perceived as important by both Karshika Vikasana Samithy Members and other farmers and the performance of those roles

5 1 3 Roles perceived as important by Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers and the performance of those roles

5 1 1 Roles of Krishi Bhavans perceived as important by both Agricultural Officers and Agricultural Assistants

Out of the thirty five identified roles the following thirteen roles were perceived by both AOs and AAs as important (The numbers R_1 R_2 etc represents code numbers used as in Table 1)

R_1 Planning and implementing need based location specific programmes for each Panchayat

R_2 Involving the farmers in the planning and implementation of agricultural programmes

R_8 Conducting farmers group discussion to convince them about new technologies

R_9 Conducting agricultural seminars and training camps for farmers benefit

R_{11} Implementing group farming programme in paddy

R_{12} Implementing group management programme in coconut pepper etc

R_{14} Supply of seeds seedlings fertilizers pesticides and other inputs at subsidised rate

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{18} Conducting weekly agroclinics to solve the problems of farmers regarding crop cultivation

R_{19} Providing sprayers at low hire rate

R_{21} Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results

R_{26} Giving subsidy for development of infrastructure for irrigation like digging wells ponds construction of channel etc

R_{28} Arranging loans from Banks and Societies to farmers for agricultural purposes

Of the above thirteen roles both AOs and AAs were of the view that nine roles viz R_8 R_9 R_{11} R_{12} R_{14} R_{18} R_{19} R_{21} & R_{26} are being adequately performed The role R_{15} was perceived as being performed well by AAs only Therefore according to the perception of AOs and AAs the performance of the following four roles are not adequate and need more attention and measures are to be taken to improve their performance

R_1 Planning and implementing need based location specific programmes for each Panchayat

R_2 Involving the farmers in the planning and implementation of agricultural programmes

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{18} Arranging loans from Banks and Societies to farmers for agricultural purposes

Planning and implementing location specific programmes is the responsibility of Karshika Vikasana Samithy through which pecples participation is also expected to be achieved But in many Krishi Bhavans, lack of co-operation among the members acts as an obstacle in planning and implementing location specific programmes Due to political interference the farmers representatives of the Samithy in many Krishi Bhavans are not practicing farmers So they may not be well aware of the actual field problems and thus they cannot actively participate in proper planning and implementation of location specific agricultural programmes In the case of conducting demonstrations many farmers are only part time farmers and they will not find time to attend demonstrations Therefore method demonstrations are conducted during training camps only Result demonstrations are hardly being conducted Minikit trials are moderately performed But it lack proper follow-up works and also

difficulty lies in the selection of beneficiaries The non availability of agricultural loans from Banks and Societies is another problem Loans are available for digging wells bio gas plant etc But farmers are not given loans for meeting their cost of field cultivation

Therefore according to AOs and AAs adequate steps are to be taken to make the performance of the above four roles adequate

5 1 2 Roles of Krishi Bhavans perceived as important by both Karshika Vikasana Samithy Members and other farmers

The Karshika Vikasana Samithy Members and other farmers perceived the following roles of Krishi Bhavans as very important

R_4 Giving special attention in the case of minor crops like tuber crops vegetables flowering plants etc

R_7 Promoting co operative marketing among farmers

R_8 Conducting farmers group discussion to convince them about new technologies

R_9 Conducting agricultural seminars and training camps for farmers benefit

R_{10} Increasing the coverage under high yielding varieties

R_{14} Supply of seeds seedlings fertilizers pesticides and other inputs at subsidised rate

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{17} Implementing integrated programmes for the development of species like pepper clove etc

R_{19} Providing sprayers at low hire rate

R_{21} Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results

R_{27} Giving subsidy for buying agricultural implements and equipments

R_{28} Arranging loans from Banks and Societies to farmers for agricultural purposes

R_{29} Arranging crop insurance to farmers those who avail loans from Banks and Societies

R_{35} Encouraging the efforts of farmers producing maximum output from unit area

Of the above fourteen roles both the farmer respondent categories are of the view that 9 roles viz R_4 R_8 R_9 R_{10} R_{14} R_{17}, R_{19} R_{21} and R_{27} are being adequately performed Hence based on their perception the following roles are to be paid more attention and measures need to be taken to enhance their performance

R_7 Promoting co-operative marketing among farmers

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{28} Arranging loans from Banks and Societies to farmers for agricultural purposes

R_{29} Arranging crop insurance to farmers those who avail loans from Banks and Societies

R_{35} Encouraging the efforts of farmers producing maximum output from unit area

Co-operative marketing will help the farmers to secure remunerative prices for their farm produce Therefore farmers attached much importance to co-operative marketing But in many Panchayats there is no facility for co-operative marketing except for coconut in a few places Therefore it is more important to introduce co-operative markets for the benefit of farmers As discussed earlier demonstrations were also not properly being conducted in farmers fields to which farmers attach more importance Arrangement of loans was also not adequately performed and crop insurance scheme is available for plantation crops like rubber in some areas and such schemes have not been implemented for field crops so far But farmers are very much interested in crop insurance scheme Moreover the role encouraging the efforts of farmers producing maximum output from unit area is not being performed by the Department In some selected Krishi Bhavan areas competitions are conducted by FACT The Department of Agriculture also should take initiative in conducting such competitions with prizes for winners which will motivate the farmers to accept new technologies and to produce more output from their land

5 1 3 Roles of Krishi Bhavans perceived as important by Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers

Out of the thirtyfive identified roles of Krishi Bhavans the following seven roles were perceived as very important by all the four categories of respondents viz AOs AAs Karshika Vikasana Samithy Members and other farmers

R_8 Conducting farmers group discussion to convince them about new technologies

R_9 Conducting agricultural seminars and training camps for farmers benefit

R_{14} Supply of seeds seedlings fertilizers pesticides and other inputs at subsidised rate

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{19} Providing sprayers at low hire rate

R_{21} Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results

R_{28} Arranging loans from Banks and Societies to farmers for agricultural purposes

Of the above seven roles five were perceived by all the respondents as performed well The roles which were not adequately performed according to them were

R_{15} Conducting method demonstrations result demonstrations and minikit trials in farmers fields

R_{28} Arranging loans from Banks and Societies to farmers for agricultural purposes

Role R_{15} is perceived as adequately performed by AAs alone and R_{28} is perceived by all categories as inadequately performed Hence these two roles are to be paid maximum attention to enhance their performance as they were perceived as not adequately performed eventhough perceived as very important by all the four categories of respondent viz ACs AAs Karshika Vikasana Samithy members and other farmers

5 2 Distribution of Agricultural Extension Personnel and farmers based on their selected characteristics

Data on categorisation of respondents and the percentage distribution under each group are presented in Tables 6 7 8 and 9

5 2 1 Agricultural Officers

From the Table 6 it could be seen that with respect to variables age education training total experience experience in extension work and job commitment majority of AOs fell under low category while in the case of job satisfaction equal number of respondents were there in both high and low groups. Sixty per cent

of AOs were of low age group which indicate that majority of AOs may be capable of doing extensive field work Less than half (43 33 per cent) of AOs had higher level of education In the case of training 73 33 per cent of AOs fell under low training category This indicate the need for providing more training facilities to AOs More than three fifth (63 33 per cent) of them had less than ten years of total service and 66 67 per cent of them had less than eight years of experience in extension work Half of the AOs had more job satisfaction and half of them were of less job satisfaction More than half of them (53 33 per cent) had low job commitment and remaining were having high job commitment This showed that job satisfaction and job commitment had almost equal number of respondents in both high and low groups

5 2 2 Agricultural Assistants

Distribution of AAs based on their selected characteristics given in Table 7 shows that 56 67 per cent of AAs were more than 44 years of age Therefore it may be hard for them to undertake extensive field work Majority of respondents (86 67 per cent) had low educational status Nearly three fourth of respondents (73 33 per cent) had less training which envisages the need for providing more training facilities The AAs had an average of 19 years of total experience and 16 years of experience in extension work Thus it is imperative that AAs were generally more

experienced than AOs as far as Thiruvananthapuram district is concerned Surprisingly equal percentage of respondents were in high and low categories (50 00 per cent each) with respect to job satisfaction as in the case of AOs AOs and AAs were also equally distributed in the case of job commitment with 46 67 per cent in high category and 53 33 per cent in low category Therefore among AAs also job satisfaction and job commitment had almost equal number of respondents in both high and low groups

5 2 3 Karshika Vikasana Samithy Members

From Table 8 it could be seen that 53 33 per cent of Karshika Vikasana Samithy Members were more than 53 years of age and 76 67 per cent of them were having high educational status One third of them (33 33 per cent) were having more than 2 4 acres of land Nearly half of the members were having more than 26 years of farm experience Seventy per cent of the members were having agriculture as their main occupation More than half of them (53 33 per cent) had less social participation In the case of the variables cosmopoliteness information source utilization contact with extension agency innovativeness and scientifc orientation majority of the Karshika Vikasana Samithy Members fell under high group Only less than half of them (43 33 per cent) were having high economic motivation Therefore it could be concluded that majority of the Karshika Vikasana Samithy Members were with higher

level of education cosmopoliteness information source utilization contact with extension agency innovativeness scientific orientation and also were more agriculturally occupied All these characteristics may equip them to function effectively in the formulation and implementation of viable agricultural programmes in their Panchayat and thereby facilitating agricultural development

5 2 4 Other farmers

A cursory view of Table 9 revealed that 55 per cent of other farmers were of low age group i e below 50 years of age and 45 per cent of them were above 50 years of age Nearly half of the respondent farmers (48 33 per cent) were with high educational status Regarding farm size 43 33 per cent of the farmers were having more than 2 6 acres of land Equal number of respondents fell under low and high group with respect to farming experience Majority of the respondents (51 67 per cent) were having agriculture as their sole occupation Although 51 67 per cent of farmers fell under high social participation group their social participation is much lower than the Vikasana Samithy Members In the case of cosmopoliteness majority of the respondents (60 00 per cent) were under low category More than half of the respondents (51 67 per cent) were having less information source utilization Majority of the other famers also have high contact with extension agency which might be due to easy accessibility of extension personnel as there

are Krishi Bhavans in each Panchayat In the case of innovativeness scientific orientation and economic motivation also most of the farmers were in high group It is also seen that education farming experience occupation social participation information source utilization and economic motivation had almost equal number of respondents in both high and low categories

5 3.1 Awareness about Krishi Bhavans

5 3 1 1 Extent of awareness of Agricultural Officers about Krishi Bhavans

From Table 2 it can be seen that majority of the Agricultural Officers (56 67 per cent) had high awareness about Krishi Bhavans and 43 33 per cent of them had low awareness about Krishi Bhavans Though the number of AOs having high awareness was more than those with low awareness a much higher percentage of AOs under high awareness category is expected The low awareness of AOs must be due to their lack of familiarity of basic concepts and principles of Krishi Bhavan Programme and may also be due to the fact that there was much difference between the expected and actual functioning of Karshika Vikasana Samithy The results indicate that there is necessity for developing more awareness regarding the concept and functioning of Krishi Bhavans among AOs

5 3 1 2 Extent of awareness of Agricultural Assistants about Krishi Bhavans

From Table 2 it can be seen that majority of the AAs (53 33 per cent) had high awareness about Krishi Bhavans A relatively high percentage of AAs (46 67 per cent) had low awareness about Krishi Bhavans The low awareness of AAs must be due to their lack of familiarity of basic concepts and functtioning of Krishi Bhavan Programme It may also be due to the fact that the AAs those who are field staff may not be fully aware of the responsibilities of Karshika Vikasana Samithy which is a vital body in Krishi Bhavan Programme The results have shown that there is necessity for creating more awareness among AAs regarding the concept and functioning of Krishi Bhavans

5 3 1 3 Comparison of awareness of Agricultural Officers and Agricultural Assistants

There was no significant difference between Agricultural Officers and Agricultural Assistants with regard to their awareness about Krishi Bhavans as revealed by the Mann Whitney test (Z 0 2292) Therefore it is imperative that Agricultural Officers and Agricultural Assistants working in Krishi Bhavans were having same level of awareness about the concept and functioning of Krishi Bhavans

Hence the hypothesis formulated for the study that there would be no significant difference in the awareness of Agricultural Officers and Agricultural Assistants about Krishi Bhavans stands accepted

5 3 1 4 Extent of awareness of Karshika Vikasana Samithy Members about Krishi Bhavans

The results presented in Table 3 shows that majority of the Karshika Vikasana Samithy Members (56 67 per cent) had high awareness about Krishi Bhavans and 43 33 per cent of them were in low awareness category The low awareness among the Karshika Vikasana Samithy Members may be due to lack of familiarity about certain concepts and functions of Krishi Bhavans Though 43 33 per cent of the respondents were in low awareness category in general the awareness of Karshika Vikasana Samithy Members was quite good as evident from the mean awareness index of 87 97 The high mean awareness index may be due to their frequent contact with extension personnel and participating in various activities of Krishi Bhavans as the members of the advisory committee Eventhough they were having high awareness there is need for developing more awareness among those who come under low awareness category

5 3 1 5 Awareness of other farmers about Krishi Bhavans

An appraisal of the Table 3 shows that majority of the other farmers (53 33 per cent) had high awareness about Krishi Bhavans Thought 46 67 per cent of the farmers fell under low awareness category the mean awareness index of farmers was found to be 72 27 which is fairly high The high awareness index among farmers must be due to the presence of Krishi Bhavans in each

Panchayat which facilitate easy accessibility And also almost all the selected farmers were knowing their AO and AA personally which might have enabled them to have more knowledge about all the activities being carried out through Krishi Bhavans Still their is need for developing better awareness among those who had low awareness by way of contacting as many farmers as possible in each area by the Agricultural Extension Personnel and making them aware of the facilities being made available to them through Krishi Bhavans

5 3 1 6 Comparison of awareness of Karshika Vikasana Samithy Members and other farmers

The Mann Whitney test employed to compare the awareness of Karshika Vikasana Samithy Members and other farmers revealed that there was significant difference between the their awareness about Krishi Bhavans Therefore it could be concluded that the mean awareness index of Karshika Vikasana Samithy Members (87 97) is significantly higher than that of other farmers (75 27) The higher awareness of Karshika Vikasana Samithy Members may be due to their frequent contact with extension personnel working in Krishi Bhavans and also due to their higher level of participation in various activities being carried out through Krishi Bhavans for agricultural development

The hypothesis that there would be no significant difference in the awareness of Karshika Vikasana Samithy Members and other farmers about Krishi Bhavans is therefore rejected

5 3 2 Relationship between awareness of respondents about Krishi Bhavans and their selected characteristics

5 3 2 1 Relationship betweeen awareness of Agricultural Officers about Krishi Bhavans and their selected characteristics

The results of correlation analysis presented in Table 10 revealed that job commitment of AOs was positively and significantly related to their awareness about Krishi Bhavans The remaining variables viz age education training total experience experience in extension work and job satisfaction were found to have no significant relationship with awareness The result that age had no relationship with awareness of AOs was previously reported by Rao & Reddy (1979) Naik (1981) and Cherian (1984) The results of Naik (1981) and Cherian (1984) were also in conformity with the present finding that the education of AOs had no relationship with their awareness Rao & Reddy (1979) and Naik (1981) have reported a non significant relationship between the experience of AOs and their awareness

Job commitment the only variable having significant relationship with awareness was ranked first in terms of direct effect (Table 18) Total experience was ranked second interms of direct effect followed by education training and experience in extension work It is also seen that except job commitment all the other characteristics had negative direct effect

The maximum total indirect effect on awareness was exterted by education followed by age job satisfaction training and experience in extension work in that order

Further more the data in terms of largest indirect effect revealed that out of the seven characteristics selected five viz age education training experience in extension work and job commitment exerted their largest indirect effect through total experience while the largest indirect effect of total experience was through education and that of job satisfaction was through job commitment

Hence job commitment education and total experience were the vital components that affect the extent of awareness of AOs about Krishi Bhavans The positive and significant relationship between the awareness and job commitment must be due to the fact that those AOs with more commitment in their job will definitely have a desire to accomplish their responsibilities more effectively for which they will try to acquire more information about the concept and functioning of Krishi Bhavans thereby enhancing their awareness Though education had the maximum total indirect effect its direct effect in the negative direction has reduced the effect on awareness and thus became insignificant in correlation analysis Total experience has also become important with substantially high

direct effect and with the largest indirect effect of majority of the variables passing through it The direct effect and majority of the indirect effects of total experience was in negative direction which indicates that the awareness of AOs declines with increase in their total experience

The residual effect of path analysis was as high as 87 57 per cent which indicated that the awareness of AOs is decided mainly by factors other than the selected characteristics

On the basis of the above discussion the hypothesis formulated for the study that there would be no significant relationship between awareness of AOs and their selected characteristics is accepted except for job commitment which has significant positive relationship with awareness of AOs

5 3 2 2 Relationship between the awareness of Agricultural Assistants about Krishi Bhavans and their selected characteristics

Table 11 has shown that none of the selected characteristics of AAs had significant relationship with their awareness about Krishi Bhavans This result is in conformity with the findings of Cherian (1984) in respect of the characteristics age education and experience

Among the selected seven characteristics of AAs experience in extension work exerted the maximum direct effect (0 2994) on awareness followed by age and job satisfaction (Table 19) The remaining variables education training total experience and job commitment were found to have negligible direct effect on awareness In the case of total indirect effect experience in extension work only has substantial effect and all others were having very low indirect effects Considering the largest indirect effect age total experience job satisfaction and job commitment had their largest indirect effect through experience in extension work and that of education training and experience in extension work through age

Though experience in extension work was ranked first in both direct effect and total indirect effect and the largest indirect effects of four characteristics passing through it the direct and indirect effects are in opposite direction which resulted in insignificant relationship with awareness of AAs

Here the residual effect of path analysis was 0 9672 which was very high indicating that the variation in awareness of AAs is not much explained by the seven selected characteristics But among the selected factors experience in extension work and education are the vital variables as evidenced by the results of path analysis

The above discussion leads to the acceptance of the hypothesis that there would be no significant relationship between the awareness of AAs and their selected characteristics

5 3 2 3 Relationshipship between the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans and their selected characteristics

The correlation analysis results presented in Table 12 depicted positive and significant relationship of education social participation contact with extension agency innovativeness and scientific orientation with the awareness of Karshika Vikasana Samithy Memebers about Krishi Bhavans Positive and significant association between education and awareness was reported by previous researchers like Naik (1981) and Selvakumar (1988) Cherian (1984) reported positive and significant association between awareness and social participation The positive and significant relationship between contact with extension agency and awareness supports the results of Selvakumar (1988) The obtained relationship between the scientific orientation and awareness is on par with the findings of Theodore (1988) Sajeevchandran (1989) had reported non significant relationship between age and awareness Theodore (1988) and Naik (1981) reported non significant relationship of awareness with farm size The result of no relationship between farming experience and awareness was previously reported by Selvakumar (1988)

The correlation analysis results are very well explained by the path analysis results in Table 20 Though education had low direct effect it stood first in total indirect effect (0 5354) More than three fourth of the members (76 67 per cent) were having more educational status of secondary education or more and only 23 33 per cent of them were with low education (Table 8) Though the higher education had no significant direct effect it had substantial indirect effect in increasing their awareness about Krishi Bhavans

Social participation was ranked sixth in direct effect and third in total indirect effect and both effects were in the positive direction resulting in significant relationship with their awareness Those farmers who participate in different organisations will have the chance of gaining more information about the concept and functioning of Krishi Bhavans through their interaction with other farmers and Agricultural Extension Personnel This can be well understood by the largest indirect effect of social participation passing through contact with extension agency

Contact with extension agency which had positive and significant relationship with awareness was ranked first in direct effects and the largest indirect effects of education social participation occupation and innovativeness were found to be routed through this variabe (Table 20) Majority of the Karshika Vikasana Samithy Members were found to have higher educational status more

social participation more innovativeness and more agriculturally occupied (Table 8) The above four characters indirectly enhanced their contact with extension agency It is therefore quite natural that the farmers who are frequently contacting the extension personnel will have better awareness about all the activities being carried out through Krishi Bhavans

Innovativeness was ranked third in terms of direct effect on awareness about Krishi Bhavans The innovative farmers would try to get latest information regarding new concepts in agricultural programmes new cultivation practices etc by frequently contacting extension personnel This must be the reason for their higher degree of awareness about Krishi Bhavans The largest indirect effect of innovativeness was thorugh contact with extension agency and that of contact with extension agency was through innovativeness as evidenced from Table 20 will sufficiently substantiate the above discussion

Majority of the Karshika Vikasana Samithy Members (63 33 per cent) were more scientifically oriented (Table 8) and such farmers would have more eagerness to know about the recent developments in the field of agriculture That eagerness might have forced them to contact extension personnel more frequently which in turn might have enhanced their awareness about Krishi Bhavans This

must be the reasons for positive and significant relationship of scientific orientation with the awareness Scientific orientation also stood third with considerable direct effect (0 3644) in the path analysis (Table 20)

The residual effect of the path analysis here is 0 4313 which indicated that the effect of selected characteristics on the awareness of Karshika Vikasana Samithy Members is as high as 56 87 per cent and the remaining 43 13 per cent variation in awareness is due to other unexplored factors

The above discussion lead to the rejection of the hypothesis set for the study that there would be no significant relationship between the awareness of Karshika Vikasana Samithy Members and their selected characteristics for education social participation contact with extension agency innovativeness and scientific orientation The same hypothesis was accepted for the remaining characteristics viz age farm size farming experience occupation cosmopoliteness information sources utilization and economic motivation

5 3 2 4 Relationship between the awareness of other farmers about Krishi Bhavans and their selected characteristics

Table 13 revealed that social participation information source utilization and innovativeness of other farmers were positively and significantly related with their awareness about Krishi Bhavans

and the remaining nine characteristics of farmers had no signficiant relationship with awareness Vijayaraghavan (1979) Mani(1980) Nandakumar (1980) and Haraprasad (1982) have reported positive and significant relationship between awareness and social participation of farmers Positive and significant relationship between awareness and information source utilization was previously reported by researchers like Cherian (1984) and Sajeevchandran (1989) The results of Balasubramani (1981) provide support to the present finding that there is positive and significant relationship between awareness and innovativeness of farmers

The results of Rao & Reddy (1879) Sarkar and Reddy (1980) Vijaya (1982) and Sajeevchandran (1989) were on par with the present finding that age had no relationship with awareness Nandakumar (1980) had reported non significant relationship between education and awareness The findings of Nandakumar (1980) and Sajeevchandran (1989) supports the non significant relationship of farm size with awareness The finding that farming experience had non relationship with awareness was supported by researchers like Mani (1980) Balasubramani (1981) and Selvakumar (1988) Balasubramani (1981) had reported that there was no relationship between awareness of farmers and their occupation and economic motivation The result of the present study that cosmopoliteness is unrelated to awareness is in line with the finding of Kamarudeen (1981) The findings of Rao & Reddy (1979) is on par with the

present finding that the awareness of farmers is not related to their extent of contact with extension agency Theodore (1988) had reported previously about the non significant relationship of awareness with scientific orientation

The path analysis results presented in Table 21 projects the top rank of social participation in terms of its direct effect Out of the twelve characteristics selected eight characteristics namely age education farming experience cosmopoliteness information source utilization contact with extension agency innovativeness and scientific orientation were found to have exerted their largest indirect effect through social participation and six of them were in the positive direction The farmers who are participating in various social organisations will have the chance of interacting with extension personnel and other farmers which intrun will help them to acquire more information about Krishi Bhavans That may be the reason for substantial direct and indirect effects of social participation and its significant relationship with the awareness of farmers about Krishi Bhavans

Information source utilisation stood second in terms of direct effect and fourth in terms of total indirect effect It was found to exert its largest indirect effect through social participation

while the largest indirect effect of social participation was through information source utilisation Therefore those farmers with high social participation might have got the chances of utilising more information sources to get sufficient information regarding Krishi Bhavans and that may be the reason for the significant correlation between awareness and information source utilisation

Innovative farmers are likely to derive more information regarding various agricultural programes from different sources by involving themselves in social organisations which might be the reason for significant relationship of innovativeness with awareness

The residual effect of the path analysis revealed that 73 54 per cent of the variation in awareness of farmers was from extraneous factors other than those under study

On the basis of the above discussion the hypothesis set up for the study that there would be no significant relationship between the awareness of farmers and their selected characteristics was rejected for social participation information source utilization and innovativeness and accepted for the remaining nine variables

5 4 Attitude towards Krishi Bhavans

5 4 1 1 Attitude of Agricultural Officers towards Krishi Bhavans

It is seen from Table 4 that majority of the AOs (53 33 per cent) had unfavourable attitude towards Krishi Bhavans Less than half of them (46 67 per cent) only had favourable attitude The success of any agricultural extension programme depends partly on the attitude of people who implement it AOs are the persons responsible for all the activities of Krishi Bhavans The result of the study thus emphasises the need for the development of better attitude among the AOs towards Krishi Bhavans by way of providing more working facilities for AOs and also by providing them with all needed facilities to help the farmers in a better way

5 4 1 2 Attitude of Agricultural Assistants towards Krishi Bhavans

The results presented in Table 4 revealed that more than half of the AAs (53 33 per cent) had unfavourable attitude towards Krishi Bhavans Only less percentage (46 67 per cent) of AAs had favourable attitude towards the programme The AAs are the grass roots level workers in Krishi Bhavans They are in constant touch with farmers for transfer of technology Therefore they need to have a better attitude towards Krishi Bhavans for its successful functioning The low attitude among AAs must be due to poor working facilities they have and improper supply of agricultural inputs for farmers The results of the study indicate the need for developing better attitude towards Krishi Bhavans among AAs by providing them with more facilities for the efficient accomplishment of their assigned duties

5 4 1 3 Comparison of attitude of Agricultural Officers and Agricultural Assistants

There was no significant difference between the attitude of AOs and AAs as evident from Mann Whitney test (Z 0 0296) Therefore it is clear that AOs and AAs were on par with regard to their attitude towards Krishi Bhavans

Therefore the hypothesis formulated for the study that there would be no significant difference in the attitude AOs and AAs towards Krishi Bhavans is accepted

5 4 1 4 Attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans

A perusal of Table 5 revealed that 60 per cent of the Karshika Vikasana Samithy Members had favourable attitude towards Krishi Bhavans and the remaining 40 per cent belonged to the unfavourable attitude category The high attitude among the members of Karshika Vikasana Samithy must be due to the fact that the farmers who are the members of the advisory committee will be in constant touch with Krishi Bhavans and they will have good knowledge about all the agricultural development programmes being implemented through Krishi Bhavans for the benefit of farmers This might have built in them a favourable attitude towards Krishi Bhavans But the results emphasis the need for developing better attitude among those having unfavourable attitude which inturn will lead to better efficiency in the functioning of Karshika Vikasana Samithy and also Krishi Bhavans

5 4 1 5 Attitude of other farmers towards Krishi Bhavans

The results presented in Table 5 show that majority of the other farmers (56 67 per cent) had favourable attitude towards Krishi Bhavans and 43 33 per cent of them had unfavourable attitude The attitude of farmers who are the ultimate beneficiaries of the Krishi Bhavan programme mainly depends on the facilites provided to them in the field of cultivation through Krishi Bhavans The obtained result that 43 33 per cent of the farmers had low attitude emphasises the need for the development of better attitude among them by way of providing more facilities and technical know how through Krishi Bhavans

5 4 1 6 Comparison of attitude of Karshika Vikasana Samithy Members and other farmers

There was no significant difference among the farmer respondent categories Karshika Vikasana Samithy members and other farmers in their attitude towards Krishi Bhavans as evidenced by the Mann Whitney test (z I 2496)

This result leads to the acceptance of the hypothesis that there would be no significant difference in the attitude of Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavans

5 4 1 7 Comparison of attitude of Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers

Kruskal Wallis test was employed to test the significance of the difference in the attitude of four categories of respondents viz AOs AAs Karshika vikasana Samithy Members and other farmers towards Krishi Bhavans The result of the test revealed that the four categories of respondents differ significantly in their attitude towards Krishi Bhavans From the mean attitude scores of the four categorties of respondents it could be noticed that the Karshika Vikasana Samithy Members had better attitude (52 6) towards Krishi Bhavans than other farmers (52 07) Agricultural Assistants (49 97) and Agricultural Officers (49 33)

Therefore the hypothesis formulated for the study that there would be no significant difference in the attitude of Agricultural Officers Agricultural Assistants Karshika Vikasana Samithy Members and other farmers towards Krishi Bhavans stands rejected

5 4 2 Relationship between the attitude of respondents about Krishi Bhavans and their selected characteristics

5 4 2 1 Relationship between the attitude of Agricultural Officers towards Krishi Bhavans and their selected characteristics

Out of the eight factors considered two namely job satisfaction and job commitment of AOs were found to have positive and significant relationship with their attitude and the remaining factors namely age education training total experience experience in extension work and awareness about Krishi Bhavans had no significant relationship with the attitude of AOs towards Krishi Bhavans (Table 14) The result of Cherian (1984) support the present finding of non significant relationship of age and education with attitude Rehiman & Menon (1980) had reported that there was no significant relationship between training and attitude The result of non significant relationship between experience and attitude is in conformity with the findings of Rao and Reddy (1979) and Cherian (1984) Positive and significant relationship of job satisfaction with job attitude was previously reported by researchers like Dakhore & Bhilegaonkar(1987) and Kalavathy (1989)

Education had the maximum direct effect on attitude of AOs and stood second in terms of total indirect effect as evidenced by the results of path analysis depicted in Table 22 But as both the effects were in the opposite direction it was found to have insignificant relationship with attitude

In the case of total experience and experience in extension work also though having high direct and total indirect effects as the direct and indirect effects were in the opposite direction no significant relationship was established with the attitude of AOs in the correlation analysis But total experience had a significant influence on the attitude of AOs with high direct (0 8003) and indirect (0 8307) effects and also the largest indirect effects of age education training job commitment and awareness passing through it

Job satisfaction had considerably high direct and total indirect effect and both effects were positive thus resulting in significant relationship with the attitude of AOs The larget indirect effect of job satisfaction was through education In addition to job satisfaction total experience and experience in extension work were also found to have exerted their largest indirect effect through education (Table 22) Education had maximum direct effect on attitude in the negative direction (-0 8787) which indicate that those AOs with less education will have better attitude towards Krishi Bhavans The AOs with less educational qualification are mostly promoted from AA cadre to AO cadre and as such they will have more total experience and experience in extension work As they are enjoying the promotion benefits they might have got more job satisfaction and this in turn might have developed positive attitude towards the Krishi Bhavan programme which has provided them with the promotional opportunity

Job commitment also had considerably high direct and indirect effects and the largest indirect effect was through total experience Therefore those AOs with more experience will have more commitment to their job Generally those AOs with more experience will be more involved in their job as an extension workers and will have more commitment in their job More over these AOs might have worked in the previous extension systems also and they might realised the need for grass roots level planning This in turn might have resulted in better attitude of these AOs towards Krishi Bhavan Programme that has given more emphasis on grass roots level planning

The residual effect of the path analysis in this case depicts that 65 20 per cent of the variation in the attitude of AOs was due to the characteristics of AOs unexplored in the study

Thus the hypothesis that there would be no significant relationship between the attitude of AOs and their characteristics is rejected in respect of job satisfaction and job commitment and accepted in the case of remaining six characteristics viz age education training total experience experience in extension work and awareness about Krishi Bhavans

5 4 2 2 Relationship between the attitude of Agricultural Assistants towards Krishi Bhavans and their selected characteristics

The relationship of job satisfaction of AAs with their attitude towards Krishi Bhavans was found to be positive and significant as evidenced by Table 15 The remaining selected characteristics namely age education training total experience experience in extension work job commitment and awareness about Krishi Bhavans had no significant relationship with the attitude of AAs towards Krishi Bhavans The results obtained by cherian (1984) support the present finding that attitude had no significant relationship with age education and experience The result that training had no influence on the attitude of Agricultural Assistants is in line with the findings of Basha et al (1975)

Though job satisfaction was significant in correlation analysis it was ranked only third in terms of direct effect (Table 23) It was also ranked last in total indirect effect The education of AAs was found to exert its largest indirect effect through job satisfaction in the negative direction It implies that those AAs with low educational qualification will have more satisfaction in their job and it is quite natural that these AAs will develop favourable attitude towards the Krishi Bhavan Programme which gave them more job satisfaction That must be the reason for positive and significant relationship of job satisfaction of AAs with their attitude towards Krishi Bhavans

Experience in extension work stood first in both direct and total indirect effect and also the largest indirect effect of five characteristics namely age total experience job satisfaction job commitment and awareness were passing through it Though experience in extension work had a significant effect on the attitude the direct and indirect effects are in the opposite direction which made it insignificant in correlation analysis

Total experience also was found to have considerably high direct effect and total indirect effect (Table 22) But both the effects were in the opposite direction thus making it insignificant in the correlation analysis

Thus in addition to job satisfaction total experience and experience in extension work also have vital role in determining the attitude of AAs The residual effect of path analysis (0 6476) indicated that 35 24 per cent of the total effects on the attitude of AAs was from the eight selected characteristics

The above discussion leads to the acceptance of the hypothesis set up for the study that there would be no significant relationship between the attitude of AAs and their characteristics except for job satisfaction for which the hypothesis was rejected

5 4 2 3 Relationship between the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans and their selected characteristics

The results presented in Table 16 revealed that the attitude of Karshika Vikasana Samithy Members towards Krishi Bhavans had positive and significant relationship with contact with extension agency and scientific orientation and also had significant positive relationship with their awareness about Krishi Bhavans The remaining characteristics of Karshika Vikasana Samithy Members were found insignificant in their relationship with attitude

Positive and significant relationship between attitude and contact with extension agency was reported by previous researchers like Rao & Reddy (1979) Ravichandran (1980) Kamarudeen (981) and Sinha et al (1984) Similar relationship between attitude and scientific orientation was obtained by Subburaj (1980) Reddy (1987) and Sajeevchandran (1989) The in significant relationship of attitude with the characteristics obtained in the study is on par with the findings of Cherian (1984) and Perinbam (1981) in the case of age Swamy (1988) in the case of education Naik (1981) Vagoya et al (1983) and Cherian (1984) for farm size Swamy (1988) in respect of farming experience Ravichandran (1980) in the case of occupation Thangavelu (1979) for social participation Kamarudeen (1981) for cosmopoliteness Sushama (1979) and Prakash (1980) in

respect of information source utilization Ravidchandran (1980) in the case of innovativeness and Thangavelu (1979) and Balasubramani (1981) in the case of economic motivation

Contact with extension agency was having the maximum direct effect (0 6065) on the attitude of Karshika Vikasana Samithy Members (Table 24) In addition the largest indirect effects of six characteristics namely education occupation cosmopoliteness innovativeness economic motivation and awareness were routed through contact with extension agency and except economic motivation all the other effects were in positive direction Thus those farmers with more education cosmopoliteness innovativeness and those who are more agriculturally occupied would contact the extension personnel frequently which in turn would help them to have better awareness and knowledge about various activities being carried out through Krishi Bhavans That awareness and knowledge might have influenced the development of favourable attitude among them towards Krishi Bhavans which was exhibited as positive and significant relationship between contact with extension agency and attitude in correlation analysis

Scientific orientation was ranked fourth in direct effect and third in total indirect effect and the largest indirect effect was through awareness (Table 24) The Krishi Bhavans through its ambitious group management programme provides chances for adopting scientific management in farmers fields That may be the reasons for the higher attitude of scientifically oriented members towards Krishi Bhavans

The awareness of members about Krishi Bhavans played a significant role in shaping their attitude towards Krishi Bhavans Awareness was ranked third in terms of direct effect and the largest indirect effects of social participation information source utilization contact with extension agency and scientific orientation were routed through awareness A farmer who is well aware of the concept and functioning of Krishi Bhavans is likely to utilise the services of Krishi Bhavans to the maximum extent In addition the Karshika Vikasana Samithy Members who are scientifically oriented are likely to contact extension personnel more frequently and utilize different information sources which will help in acquiring more information about the Krishi Bhavans The awareness thus gained might have built in them a favourable attitude towards Krishi Bhavans This must be the reason for the positive and significant relationship between the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans and their attitude towards the same This result is in conformity with the finding of Gosh & Reddy (1978)

Hence it could be inferred that contact with extension agency scientific orientation and awareness in association with other characteristics like social participation information source utilisation and innovativeness played a vital role in shaping the attitude of Karshika Vikasana Samithy Members The residual effect of path analysis (0 6058) indicated that 60 58 per cent variation in attitude was due to factors other than the thirteen factors selected for the study

On the basis of the above discussion the hypothesis set up for the study that there would be no significant relationship between the attitude of Karshika Vikasana Samithy Members and their selected characteristics is rejected for contact with extension agency scientific orientation and awareness and accepted for the remaining ten characteristics

5 4 2 4 Relationship between the attitude of other farmers about Krishi Bhavans and their selected characteristics

In the case of attitude of other farmers only one variable namely contact with extension agency had positive and significant relationship All the remaining twelve variables including awareness were found to have insignificant relationship with the attitude of other farmers (Table 17) Researchers like Rao & Reddy (1979) Ravichandran (1980) Kamarudeen (1981) and Sinha et al (1984) have reported positive and significant relationship between attitude and contact with extension agency

The results of many previous researchers are in conformity with the present finding that the attitude of farmers had no significant relationship with age education farm size farming experience occupation social participation cosmopoliteness information source utilisation innovativeness scientific orientation and economic motivation Cherian (1984) Krishnakumar (1987) and

Sajeevchandran (1989) have reported non significant relationship between attitude and age Kher and Jha (1978) and Rao and Reddy (1979) reported that attitude was unrelated to education The results of Ravichandran (1980) Naik (1981) Cherian (1984) and Sajeevchandran (1989) depict no relationship between attitude and farm size Swamy (1988) obtained non significant relationship between attitude and farming experience Occupation of farmers was reported to be unrelated to their attitude by Ravichandran (1980) and Balasubramani (1981) Attitude and social participation were independent according to Thangavelu (1979) Kamarudeen (1981) reported non significant relationship between attitude and cosmopoliteness The relationship of attitude with information source utilisation was not significant according to Sushama (1979) and Prakash (1980) Innovativeness and attitude were found to be unrelated by Ravichandran (1980) and Sajeevchandran (1989) Sinha et al (1984) and Cherian (1984) have reported non significant relationship of attitude with scientific orientation Thangavelu (1979) and Balasubramani (1981) obtained no relationship between attitude and economic motivation

The results of path analysis presented in Table 25 revealed that farming experience had maximum direct and total indirect effect (0 3935 and 0 3935 respectively) But since both the effects are in the opposite direction it resulted in zero correlation with attitude

Information source utilisation also had substantial direct and total indirect effects But here also the effects were in the opposite direction and thus resulted in non significant relationship with attitude

Contact with extension agency the only significant variable was ranked second in terms of direct effect on attitude (0 3883) The largest indirect effects of social participation information source utilisation and scientific orientaion were routed through this variable On the other hand the largest indirect effect of contact with extension agency was routed through farming experience in the negative direction which indicated that those farmers with less farming expereince had more contact with extension agency than those with more farming experience Thus the farmers who entered in agricultrural profession recently are more scientifically oriented participating in various organisations and contacting the extension personnel more frequently to get information regarding cultivation practices and various agricultural programmes from the extension personnel and also from other sources of information Therefore these farmers who are in constant touch with Krishi Bhavans and extension personnel will have sufficient knowledge about the activities being carried out through Krishi Bhavans This knowledge in turn might have developed better attitude towards Krishi Bhavans among those farmers having more contact with extension agnecy

Hence it could be concluded that those farmers with less farming experience more scientific orientation more social participation more information source utilisation and with more contact with extension agency will possess favourable attitude towards Krishi Bhavans The residual effect of the path analysis was 0 8527 which indicated that only 14 73 per cent of the effect on the attitude of farmers was from the selected 13 factors and the remaining is from unexplored factors

The above finding leads to the acceptance of the hypothesis set up for the study that there would be no significant relationship between the attitude of farmers towards Krishi Bhavans and their selected characteristics in the case of 12 selected characteristics other than contact with extension agency for which the above hypothesis was rejected

5 5 Constraints in the effective functioning of Krishi Bhavans

5 5 1 Constraints perceived by Agricultural Officers

Table 26 depicts the constraints perceived by Agricultural Officers in the effective functioning of Krishi Bhavans in the order of importance as expressed by the AOs themselves Lack of clerical support in office work was the most important constraint felt by them Lack of conveyance facilities lack of funds to meet travelling expenses lack of facilities in Krishi Bhavans and

inadequate and untimely supply of inputs were the constraints ranked 2 to 5 respectively based on the intensity of constraints experienced by them 'Inadequate training facilites for AOs and lack of freedom of work for AOs were the less important constraints according to the AOs

Lack of conveyance facilites was reported by Kalaichelvan (1984) and Cherian (1984) as identified by the officials working under Training and Visit system Inadequate and untimely supply of inputs is a constraint generally found in any extension system Lack of clerical support in office work and lack of facilities in Krishi Bhavans are the important constraints unique to Krishi Bhavan Programme More physical facilities like chairs tables cubboards and stores should be provided in each Krishi Bhavan Appointment of clerks in Krishi Bhavans will also facilitate smooth functioning of Krishi Bhavans as the extension personnel will get more time for extension work

5 5 2 Constraints perceived by Agricultural Assistants

A perusal of Table 27 indicates that lack of facilities in Krishi Bhavans was the most important constraint experienced by AAs in the effective functioning of Krishi Bhavans followed by non availability of seeds and seelings to farmers taste and in time lack of clerical support in Krishi Bhavans and overlapping of

priced supply and free supply of inputs in that order Based on the mean values lack of fixed schedule of field visits and lack of support from AOs in field work could be considered as the least significant problems

Non availability of seeds and seedlings in time was identified by Puttaswamy (1986) as a constraint perceived by AAs in T&V system Overlapping of priced supply and free supply of inputs create confusion among farmers and also will lead to reduced credibility of extension personnel among farmers Hence the supply of inputs should be regularised properly Agricultural Assistants also experienced the two important probelms lack of clerical support in Krishi Bhavans and lack of facilities in Krishi Bhavans Adequate measures should be taken by the Department of Agriculture to wipe out these constraints so that the Krishi Bhavan programme may become more success in future

5 5 3 Constraints perceived by farmers

Though there was slight variation in ranks both categories of farmer-respondents viz. Karshika Vikasana Samithy Members and other farmers perceived the same set of constraints as the first five serious constraints (Table 28) The five serious constraints identified were high labour cost' conversion of paddy fields into coconut

and banana gardens making tiller ploughing difficult lack of irrigation water in time inadequate and untimely supply of inputs and high cost of cultivation

The constraint high labour cost was previously reported by Prasannan (1987) Lack of irrigation facilities was reported by Kaleel (1987) Inadequate and untimely supply of inputs was reported by researchers like Kaleel (1978) Cherian (1984) Prasannan (1987) and Sajeevchandran (1989) High cost of cultivation was also previously reported by Cherian (1984) The serious constraint encountered in recent times is the conversion of paddy fields into coconut and banana gardens This act not only make tiller ploughing difficult but also reduce considerably the area under paddy cultivation Kerala already depends on neighbouring States to meet its foodgrain requirement If this conversion continues the situation will become more worse So it is highly essential to prevent such conversion through strict enforcement of appropriate legal restrictions The Department of Agriculture should also take necessary steps to ensure timely and adequate supply of inputs The constraints high labour cost and high cost of cultivation can be reduced to some extent by making the farmers to adopt labour saving and low cost agricultural technology Implementing group management programmes in a more extensive manner will also help in reduction of labour cost and in turn the cost of cultivation

SUMMARY

Chapter VI

SUMMARY

Decentralised planning and implementation of agricultural development programmes at the grassroots level is of absolute necessity for the prosperity of agricultural sector in India Taking this into consideration the Kerala State Department of Agriculture initiated an innovative approach for agricultural development called Krishi Bhavan Programme in 1987 Under this programme there is one Krishi Bhavan for each Panchayat of the State At the base level Panchayat has been accepted as the basic unit for development administration and all the agricultural development programmes are conceived developed and implemented through the Panchayat level units In the Krishi Bhavan set up the field units devote their entire time and attention in extension and development of agriculture so as to create an impact to increase the production and productivity of agricultural crops in each unit

If the Krishi Bhavan programme is to succeed the farmers and Agricultural Extension Personnel should have a clear understanding of the concept of Krishi Bhavans and their role in agricultural development A research investigation into the awareness and attitude of Farmers and Agricultural Extension personnel towards Krishi Bhavans and their perceptions about the

role of Krishi Bhavans in agricultural development will throw some useful light on the problems involved and thereby will enable initiation of suitable measures to ensure the effective functioning of Krishi Bhavans Hence the present study was undertaken with the following specific objectives

6 1 Objectives

6 1 1 To analyse the role of Krishi Bhavans in agricultural development as perceived by farmers and Agricultural Extension Personnel

6 1 2 To study the awareness of farmers and Agricultural Extension Personnel about the concept and functioning of Krishi Bhavans

6 1 3 To study the attitude of farmers and Agricultural Extension Personnel towards Krishi Bhavans

6 1 4 To identify the constraints if any perceived by farmers and Agricultural Extension Personnel in the functioning of Krishi Bhavans

6.2 Methodology

The study was conducted in Thiruvananthapuram district of Kerala A random sample of 30 Krishi Bhavans were selected with 10 Krishi Bhavans each from the three Sub divisions of the district viz Neyyattinkara Nedumangad and Attingal The Agricultural Officer

in charge of each Krishi Bhavan one Agricultural Assistant or Karshika Vikasana Samithy Member and two other farmers were selected randomly from each of the selected Krishi Bhavans Thus there were 150 respondents for the study including 30 AOs 30 AAs 30 Karshika Vikasana Samithy Members and 60 other farmers

The roles of Krishi Bhavans were analysed in terms of the perception of the respondents about the importance and performance of each of the identified role The awareness of farmers and Agricultural Extension Personnel was measured by using the schedule developed for the study separately for farmers and Agricultural Extension Personnel The attitude of the farmers and Agricultural Extension Personnel was measured by the attitude scale developed for the study using the method of summated rating as described by Likert (1932) The selected characteristics of Agricultural Extension Personnel and farmers were measured by using either adopted scales or schedules developed for the study Constraints perceived by the farmers and Agricultural Extension Personnel in the effective functioning of Krishi Bhavans were also identified

The data were collected from extension personnel by using a structrured questionnaire and the data from farmer respondents were collected with the help of a structured interview schedule The collected data were analysed using appropriate statistical tests like

mean coefficient of variation frequencies percentages correlation analysis path analysis Mann Whitney test and Kruskal Wallis test The salient findings of the study are presented below

6.3 Findings

1 (a) Out of the thirty five identified roles of Krishi Bhavans seventeen eighteen seventeen and nineteen roles were perceived as important by AOs, AAs Karshika Vikasana Samithy Members and other farmers respectively of which ten twelve ten and eleven roles respectively were perceived by the respective respondent category as being adequately performed

(b) Out of the thirty five roles the following seven roles were perceived as important by all the four categories of respondents

(i) Conducting farmers' group discussion to convince them about new technologies

(ii) Conducting agricultural seminars and training camps for farmers' benefit

(iii) Supply of seeds, seedlings fertilizers pesticides and other inputs at subsidised rate

(iv) Conducting method demonstrations result demonstrations and minikit trials in farmers fields

(v) Providing sprayers at low hire rate

(vi) Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results

(vii) Arranging loans from Banks and Societies to farmers for agricultural purpose

Of the above seven roles five were perceived by all the respondents as being performed well The roles which were not adequately performed according to them were

(iv) Conducting method demonstrations result demonstrations and minikit trials in farmers fields

(vii) Arranging loans from Banks and Societies to farmers for agricultural purpose

2 Majority of the respondents (56 67 per cent of AOs 53 33 per cent of AAs 56 67 per cent of Karshika Vikasana Samithy Members and 53 33 per cent of other farmers) were found to possess high level of awareness about Krishi Bhavans

3 There was no significant difference between AOs and AAs with regard to their awareness about Krishi Bhavans But the awareness of Karshika Vikasana Samithy Members was found to be significantly higher than that of other farmers

4 Less than half of both AOs and AAs (46 67 per cent each) were found to have high level of attitude towards Krishi Bhavans Majority of the farmer respondents (60 per cent

of Karshika Vikasana Samithy Members and 56 67 per cent of other farmers) were having high level of attitude towards Krishi Bhavans

5 The four categories of respondents differ significantly in their attitude towards Krishi Bhavans The Karshika Vikasana Samithy Members were having better attitude towards Krishi Bhavans than other farmers AOs and AAs

6 Job commitment was positively and significantly related with the awareness of AOs about Krishi Bhavans

7 All the selected characteristics of AAs were found to be statistically not related with their awareness about Krishi Bhavans

8 Education social participation contact with extension agency innovativeness and scientific orientation were found significantly and positively related with the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans

9 Social participation information source utilisation and innovativeness were found to have positive and significant relationship with the other farmers awareness about Krishi Bhavans

10 Job satisfaction and job commitment of AOs had positive and significant relationship with their attitude towards Krishi Bhavans

11 Job satisfaction of AAs was found to be significantly and positively related with their attitude towards Krishi Bhavans

12 Contact with extension agency scientific orientation and awareness were the characteristics of Karshika Vikasana Samithy Members which have positive and significant association with their attitude towards Krishi Bhavans

13 Contact with extension agency was the only variable which had positive and significant relationship with the attitude of other farmers towards Krishi Bhavans

14 Job commitment total experience and education were the factors with maximum direct effect on the awareness of AOs Education age and job satisfaction were found to have maximum total indirect effect Five out of seven variables were found to have exerted their largest indirect effect on awareness through total experience

15 Experience in extension work had the maximum direct effect and maximum total indirect effect on the awareness of AAs Age total experience job satisfaction and job commitment were exerting their largest indirect effect through experience in extension work

16 Contact with extension agency innovativeness and scientific orientation were having high direct effect on the awareness of Karshika Vikasana Samithy Members about Krishi Bhavans The factors with high total indirect effects were age farming experience social participation economic motivation and age Education occupation social

participation and innovativeness exerted their largest indirect effect through contact with extension agency

17 The factors with maximum direct effect on the awareness of other farmers were social participation information source utilisation and occupation Contact with extension agency cosmopolitiness and innovativeness were the factors with high total indirect effects Eight out of twelve variables were found to have exerted their largest indirect effect through social participation

18 Education and total experience of AOs were ranked first and second in their direct effect and in the reverse order in total indirect effect on their attitude towards Krishi Bhavans Age training education job satisfaction and awareness were exerting their largest indirect effect through total experience

19 The factor experience in extension work was having maximum direct and total indirect effect on the attitude of AAs towards Krishi Bhavans but the direct effect was it negative direction Age total experience job satisfaction job commitment and awareness about Krishi Bhavans were exerting their largest indirect effect through experience in extension work and all the five were also in the negative direction

20 Contact with extension agency innovativeness and awareness were found to have maximum direct effect on the attitude

of Karshika Vikasana Samithy Members towards Krishi Bhavans while education innovativeness and scientific orientation were with maximum total indirect effect Education occupation innovativeness economic motivation and awareness were found to have exerted their largest indirect effect through contact with extension agency

21 Farming experience of farmers was ranked first in both direct and total indirect effect on their attitude towards Krish Bhavans The magnitude of both effects were same but in opposite direction thus resulting in zero correlation Age education farm size occupation and contact with extension agency were found to have their largest indirect effect passing through farming experience

22 Lack of clerical support in office work was the most important constraint perceived by AOs followed by lack of conveyance facilities 'lack of funds to meet travelling expenses and lack of facilities in Krishi Bhavans in that order

23 Lack of facilities in Krishi Bhavans was identified as the most important problem encountered by AAs followed by non availability of seeds and seedlings to farmers taste and in time lack of clerical support in Krishi Bhavans and overlapping of priced supply and free supply of inputs in that order

24 High labour cost was the most serious constraint ecountered by both Karshika Vikasana Samithy Members and other farmers Though slight variations are their in the ranking of constraints based on the perception of both categories of farmers the other serious constraints felt by them were conversion of paddy fields into coconut and banana gardens lack of irrigation water in time inadequate and untimely supply of inputs and high cost of cultivation

6 4 Implications of the findings of the study

Adequate steps are to be taken to give more emphasis to the roles which are perceived as important by all the four categories of respondents in order to enhance the performance of those roles

Planning and implementing location specific programmes is the major concept of Krishi Bhavans and the study revealed that the the farmers respondents do not attach importance to that Therefore steps should be taken to create awareness among farmers about the importance of location specific planning Efforts are to be taken to strengthen the location specific planning through carefully selected and well organised Karshika Vikasana Samithies

The findings of the study indicate that the awareness of Agricultural Extension Personnel about Krishi Bhavans was not

adequate So there is need to develop more awareness among them regarding the concept and functioning of Krishi Bhavans

The awareness of Karshika Vikasana Samithy Members was significantly higher than that of other farmers and this higher awareness was due to their higher social participation contact with extension agency innovativeness and scientific orientation This results pinpoint to the need for well planned efforts to develop these characteristics among other farmers also

The significant relationship of attitude of extension personnel with their characteristics like job satisfaction and job commitment indicate the need for developing these characteristics among them to develop favourable attitude in them about Krishi Bhavans which is a pre requisite for their better job performance

Contact with extension agency was found to be the important factor in shaping the attitude of farmers towards Krishi Bhavans Quality of extension should be improved so that the farmers will naturally come forward to contact the extension agency ie motivate the farmers to take advantage of the extension efforts for agricultural development

The constraints perceived by the extension personnel indicated the need for more physical facilities and clerical support in Krishi Bhavans The farmers and extension personnel felt the need for timely and adequate supply of agricultural inputs The extension

administrators and planners should take all these into consideration to take corrective measures for the effective functioning of Krishi Bhavans

Suggestions for future research

This study was limited to only one district with a restricted sample size and therefore generalization of results for the whole state is not possible So the study can be extended to other parts of the state to facilitate generalization

Many of the factors included in the study were found to have no significant relationship with awareness and attitude and in general, they have very low influence on awareness and attitude as evidenced by path analysis Therefore many more variables are to be studied in this connection to identify the determinants of awareness and attitude of the respondents about Krishi Bhavan

The relationship of characteristics of respondents with their perception about the role of Krishi Bhavans can also be studied

A detailed investigation can be made into the group management programmes being implemented through Krishi Bhavans

There is also need to study the functioning of Panchayat level Karshika Vikasana Samithy and the problems involved in the effective functioning of Karshika Vikasana Samithy

REFERENCE

REFERENCES

*Allport G 1935 Attitudes In Murchison G (Ed) A hand book of Social Psychology Mass Clark University Press Worcester pp 798 844

Amalraj V A and Prasad M S 1984 Role of fertilizer dealers in the transfer of new farm technology Indian J Extn Edn 20 (3&4) 69

Anastasi A 1979 Fields of Applied Psychology Mc Graw Hill Book Co New York pp 128 138

Anpalagan S 1976 A study of factors influencing adoption of pakcage of practices for high yielding varieties of paddy In John Knight A and Subramaniam V S (Eds) Post Graduate research in Extension TNAU Coimbatore

Anitha Kumari P 1989 Trasfer of technology on pulses and oilseeds in the Onattukara tract of Kerala Unpublished M Sc(Ag) thesis College of Agriculture Vellayani

Aristotle D 1981 Impact of Village Adoption Scheme of a Nationalised Bank Unpublished M Sc(Ag) thesis TNAU Coimbatore

Balasubramani V 1981 Farmers Service Co operative Society A participative analysis Unpublished M Sc(Ag) thesis TNAU Coimbatore

Balu S R A 1980 A study on the functioning of Integrated Dryland Agriculture Development Project Unpublished M Sc (Ag) thesis TNAU Coimbatore

Basha M J A W 1972 A study on the imapct of Adaptive Research as an extension promotion programme in Tanjavur District Tamil Nadu Unpublished M Sc(Ag) thesis TNAU Coimbatore

Basha M J A W Radhakrishna Menon K and Chandrakandan K 1975 A study on the attitude of Deputy Agricultural Officers towards Adaptive Research Programme The Madras Agric J ,62 (10 12) 799 803

Behera C and Sahoo M S 1975 Impact of National Demonstration on adoption of agricultural practices Indian J Extn Edn 11 (1&2) 32 35

Bhatnagar Suman and Singhal Asha 1984 Attitude of women participants towards Integrated Child Development Services (ICDS) Indian J Extn Edn 20 (3&4) 67 68

Chandrasekaran G 1979 A study on the consequences of registered sugarcane cultivation Unpublished M Sc(Ag) thesis TNAU Coimbatore

Cherian Betty K 1984 Awareness and attitude of farmers agricultural extension workers and officials towards Training and Visit system Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

*Clegg D 1963 Work as a motivator J of Co op Extn 1 (2) 147 153

*Clifford T Morgan and Richard A King 1971 Introduction to Psychology Tata Mc Graw Hill Publication Company Bombay pp 509 544

Cottrel L S Jr 1942 The adjustment of the individual to his age and sex roles Amer Sociol Rev J 7 617

Dahama O P 1970 Extension and Rural Welfare Ramprasad and sons Agra

Dakhore K M and Bhilegaonkar M G 1987 Levels of job satisfaction of Veterinary Extension Personnel Indian J Extn Edn 23 (1&2) 65 67

Davis K 1960 Human Society The Mac millan Company New York

Desai G R 1981 A critical analysis of the contribution of education and extension guidance to economic performance of cotton farmers of Karnataka State Unpublished Ph D thesis College of Agriculture Dharwad

Dudhani C M and Salvi P V 1977 Role behaviour of effective Gram Sevaks with reference to extension education Indian J Extn Edn 13 (1&2) 79 80

*Edwards A L and Kilpatrick F P 1948 A technique for the construction of attitude scales J. appl. Psychol. 32 374 384

Feaster J C 1968 Measurement and determinants of innovativeness among primitve agriculturists Rural Sociology 33 339 348

*Gaikwad V R 1971 Small farmers State policy and programme implementation National institute of community development Hyderabad

Gosh Hardhan and Venku Reddy S 1978 Attitude of farmers and Agricultural Extension Workers towards Intensive Agricultural Extension System (T&V system) in West Bengal Research Studies in Extension Education Andhra Pradesh Agricultural University

Guilford J P 1954 Psychometric methods Mc Graw Hill Book Company Tokyo

Haraprasad D 1982 Study on the impact of the agricultural programmes implemented by the Small Farmers Development Agency among farmers in Trivandrum District Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Hodge B J and Johnson H J 1970 Management and organisational behaviour A multi dimentional approach John Wiley and Sons Inc New York

Holder Courtroy Alphones 1984 Principal leadership behaviour and teachers job satisfaction in public elementary schools in Columbo Dissertation Abstrats International ISSN 45 4019 - 4209

Jaiswal N K Kolte N V and Arya H P S 1978 Management of Agricultural Extension A study of T & V system in Rajasthan and Madhya Pradesh Behavioural Sciences and Rural Development Journal 1 (2) 75 105

Jayavelu N 1980 An analysis of factors responsible for the participation and non participation of cotton growers in regulated market Unpublished M Sc (Ag) thesis TNAU Coimbatore

Kalaichelvan K 1984 Farm technology transfer through Training and Visit system Unpublished M Sc(Ag) thesis TNAU Coimbatore

Kalavathy S 1989 Job satisfaction of agricultural graduates engaged in selected avenues of employment in Alleppy District Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Kaleel H F M 1978 A study on the impact of Intensive Paddy Development Programme in Kerala Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Kamarudeen M 1981 A study on the impact of National Demonstration Programme on paddy cultivation in Trichur District Unpublished M Sc(Ag) thesis College of Agriculture Vellayani

*Kanter R M 1968 Commitment and social organisation A study of commitment mechanism in Utopian communities Amer Soc Rev 33 499 517

*Katzell R A 1964 Personal values job satisfaction and job behaviur In Man in a world at work Borrow H (ed) Boston Massachnsetts Houghton Mifflin Company

Khan M A 1978 Sociological analysis of the working of Small Farmers Development Agency Indian Institute of Advanced Study Rashtrapathi Nivas Simla

Kher A O and Jha P J 1978 Factors associated with farmer s attitude towards Primary Agricultural Credit Society in Gujarat Indian J Extn Edn 14 (1 & 2) 3 5

Krishna kumar V 1987 Farmers knowledge level and attitude towards soil conservation practices An analysis Unpublished M Sc(Ag) thesis TNAU Coimbatore

Kumar Susil P V 1984 Job performance and job satisfaction of Assistant Agricultural Officers in the reorganised extension system Unpublished M Sc (Ag) thesis TNAU Coimbatore

Kuppuswamy B 1964 An Introduction to Social Psychology Asia Publishing House Bombay

Lakshminarayan G 1978 A study on the influence of agricultural courses on rural youth at secondary school level Unpublished M Sc(Ag) thesis TNAU Coimbatore

*Likert R 1932 A technique for the measurement of attitudes Arch Psychol No 140

*Linton R 1945 The cultural background of personality Appleton Century Co New York

*Lionberger H R 1960 Adoption of new ideas and practices Iowa University Press America

Lundberg G A Schrag C C Larsen and Otto N 1958 Sociology Harper and Brothers New York

Makkar S L and Sohal T S 1974 Association of certain personal characteristics of farmers with their attitude towards soil testing Indian J Extn Edn 10 (3 & 4) 50 51

Manandhar M K 1987 Communication behaviour of Agricultural Extension Personnel under Training and Visit system in Nepal Unpublished Ph D thesis University of Agricultural Sciences Bangalore

Mani K C 1980 Critical analysis of factors associated with participation and non participation of turmeric growers in regulated market Unpublished M Sc (Ag) thesis TNAU Coimbatore

Menon A G G and Prema L 1976 A study on the attitude of rural women in Kerala towards Kitchen gardening Indian Journal of Home Science 10 (4) 130 133

Mohanty Girishbala 1988 Textbook of Industrial and Organisational Psychology Oxford & IBH Publishing Co Pvt Ltd New Delhi

Monitoring and evaluation unit (1989) Report on Monitoring cum Evaluation Survey conducted in Kerala State during Rabi 1988 89 Directorate of Agriculture Sasthamangalam Thiruvananthapuram

*Mowday R T Porter L W and Busin R 1974 Unit performance situational factors and employee attitude in separated work units Organl Behav Hum Perform 12 213 248

Naik Balram K 1981 Awareness and attitude of farmers and extension workers towards Intensive Agricultural Extension System (T&V system) in Andhra Pradesh Unpublished M Sc Thesis Dept of Extension Education S V Agricultural College Thirupathi

Nair G T 1964 A study of the role of Panchayat Samithi in Agricultural Development Programmes in the blocks in Delhi Territory Unpublished M Sc thesis IARI New Delhi

Nandakumar A C 1980 Critical analysis of the functioning of Drought Prone Area Programme Unpublished M Sc (Ag) thesis TNAU Coimbatore

Ogburn W F and Nimkoff M F 1964 A handbook of Sociology Eurasia Publishing House Pvt Ltd New Delhi

Parameswaran K A 1973 A study on the impact of cotton package programme on the adoption of improved farm practices by the farmers of Madukkarai Block Coimbatore Unpublished M Sc (Ag) thesis TNAU Coimbatore

Pathak S 1981 A multiple regression analysis of factors related with attitude of farmers Indian J Extn Edn 17 (3&4) 73 80

Paul Leedy D 1980 Practical research planning and designing Mac Millan Publishing Co Inc London

Perinbam P 1981 Transfer of farm technology in Training and Visit system Unpublished M Sc (Ag) thesis TNAU Coimbatore

Perumal G and G C Rai 1979 Job satisfaction and job performance of Agricultural Extension Officers working in Rural Development Blocks of Tamil Nadu Madras Agric J 65 (2) 96 99

Pillai G B 1978 A study on the adoption of soil conservation measures by farmers in scheme areas of Trivandrum District Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Prabnu Krishna Raj M K 1988 Soil conservation programme Impact and its consequences on the Nilgris Unpublised M Sc (Ag) thesis TNAU Coimbaotre

Prajapathi M R and Ashok A Patel 1984 Attitude of Extension Workers towards some selected components of Training and Visit programme Indian J Extn Edn 20 (3&4) 55 56

Prakash R 1980 A study on the imapct of Agricultural Development Programmes among the tribals of Kerala Unpublished M Sc(Ag) thesis College of Agriculture Vellayani

Prasad R M 1983 Comparitive analysis of achievement motivation of rice growers in the three States of India Unpublished Ph D thesis University of Agricultural Sciences Bangalore

Prasannan K M 1987 Extent of adoption of messages by contact farmers in T&V system Unpublished M Sc(Ag) thesis College of Agriculture Vellayani

Puttaswamy B E 1986 An analysis of the job of Agricultural Assistants and their attitude towards Training and Visit system Unpublished M Sc (Ag) thesis University of Agricultural Sciences Bangalore

Rahiman O A and Menon A G G 1980 Gain in knowledge and attitude towards training of supervisors of Primary Land Mortage Banks Agricultural Research Journal of Kerala 18 (1)

Ranganathan E 1984 Aspirations of farm youths and their attitude towards farming Unpublished M Sc (Ag) theis TNAU Coimbatore

Rao Rajender M and Venku Reddy S 1980 A study on the interpersonal communication behaviour of contact farmers in Sriram Ssgar Command area of Andhra Pradesh Research Studies in Extension Education Andhra Pradesh Agricultural University

Rao V K and Reddy V S 1979 An evaluative study on the impact of Intensive Agricultural Extnesion System (T&V system) in Andhra Pradesh Research studies in Extension Education Andhra Pradesh Agricultural University

Ravichandran V 1980 A study on attitude extent of adoption and problems encountered by registered sugarcane growers Unpublished M Sc (Ag) thesis TNAU Coimbatore

Reddy M V 1972 A study of the status and the role of extension agency and local organisations in promoting development in Srinivasapur Taluk of Kolar district as perceived by the elected local leaders Unpublished M Sc (Ag) thesis University of Agricultural Sciences Bangalore

*Reddy S K 1965 A study of leadership pattern and roles in the adoption of improved farm practices Unpublished Ph D thesis IARI New Delhi

Reddy V H C 1987 Attitude and adoption behaviour of farmers relating to Watershed Development Programme in Bangalore district Unpublished M Sc (Ag) thesis University of Agricultural Sciences Bangalore

Reddy M S and Reddy S V 1977 Personal and socio economic characteristics associated with the attitude of farmers towards crop loan system Indian J Extn Edn 13 (3&4) 68 70

Rogers E M and Shoemaker F F 1971 Communication of Innovations A cross cultural approach The Free Press New York

Sabarathnam V E 1977 Extension role of an Agricultural University as viewed by extension workers Indian J Extn Edn 13 (1&2) 65 69

Sajeevchandran A 1989 Impact of Development Programmes in promoting pepper production in Kerala Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

*Salunkhe V G 1977 A critical analysis of the functioning of Small Farmers Development Agency Unpublished Ph D thesis Division of Agricultural Extension IARI New Delhi

Samad Abdul K 1979 Response of special package programme for agricultural development in Kerala Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Sarkar A B and Reddy V S 1980 A study on the impact of Intensive Agricultural Extension System (T&V system) in West Bengal Research Studies in Extension Education Andhra Pradesh Agricultural University

Sekar V and Perumal G 1988 Awareness and participation of extension personnel in Farm Broadcast Progrmmes Indian J Extn Edn 24 (1&2) 52 54

Selvakumar B 1988 Information support utilization for awareness conviction and adoption of cotton white fly control measures by contact and non contact farmers Unpublished M Sc (Ag) thesis TNAU Coimbatore

Sheela L 1989 Awareness and training needs of officers of the Department of Agriculture in watershed planning Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Singh M and Mathur P N 1984 Constraint analysis in adoption of fertilizers and plant protection measures in bajra cultivation Indian J Extn Edn 20 (3&4) 53 54

Sinha H S P Sinha A K and Sinha K 1984 A study of attitude of farmers of Chotanagpur towards soil conservation programme Indian J Extn Edn 20 (3&4) 9 18

Sinha P R R Kolte N V and Arya H P S 1976 Communication in Development Administration NIRD Hyderabad

Sirajudeen C H 1980 Credit and marketing behaviour of sugarcane growers Unpublished M Sc (Ag) thesis TNAU Coimbatore

*Somasundaram D 1976 A diagnostic study of small farmers with respect to new agricultural technology and its effective communication for adoption Unpublished Ph D thesis IARI New Delhi

Somasundaram S 1983 Role perception of the Agricultural Officers in the past and present agricultural extension system Unpublished M Sc (Ag) thesis TNAU Coimbatore

Somasundaram D and Duraiswamy K N 1975 A study on the awareness of the farmers about demonstrations in Coimbatore district Madras Agricultural Journal 62 (11 12) 626 628

Srinath Krishna 1988 Awareness and attitude of prawn farmers towards scientifc prawn farming Indian J Extn Edn 24 (1&2) 74 76

Subalekshmı N and Sıngh R D 1974 Job satısfactıon of Gramsevıkas Kurukshetra 22 (11) 12

Subburaj V K 1980 An analysıs of credıt repayment behavıour of farmers Unpublıshed M Sc (Ag) thesıs TNAU Coımbatore

Sundaraswamy B and Duraıswamy K N 1975 Characterıstıcs of farmers ın relatıon to adoptıon of recommended practıces of Hybrıd Sorghum Madras Agrıcultural Journal 62 (11 12) 721 725

*Supe S V 1969 Factors related to dıfferent degrees of ratıonalıty ın decısıon makıng among farmers Unpublıshed M Sc (Ag) thesıs Dıvısıon of Agrıcultural Extensıon IARI New Delhı

Sushama N P K 1979 A study on the ımpact of selected development programmes among the trıbals of Kerala Unpublıshed M Sc (Ag) thesıs College of Agrıculture Vellayanı

Swamy B N 1988 A crıtıcal analysıs of the achıevement motıvatıon attıtude towards Natıonal Agrıcultural Extensıon Project and communıcatıon pattern of contact farmers ın Bangalore dıstrıct Unpublıshed M Sc (Ag) thesıs Unıversıty of Agrıcultural Scıences Bangalore

Thangavelu A 1979 A multı dımentıonal study on farm credıt of a Natıoalısed Bank Unpublıshed M Sc (Ag) thesıs TNAU Coımbatore

Theodore R K 1988 Awareness convıctıon and adoptıon of technologıcal unıts of contıngency farmıng practıces for rıce by contact and other farmers of Tanjavur dıstrıct Unpublıshed M Sc (Ag) theıs TNAU Coımbatore

*Trıvedı G 1963 Measurement analysıs of socıo economıc status of rural famılıes Unpublıshed Ph D thesıs IARI New Delhı

Vasoya B P Halyal K G and Popat M N 1983 Attıtude of contact farmers towards T&V system Maharashtra Journal of Extensıon Educatıon 2 9 11

Vasudeva Promila 1976 Social change Analysis of attitudes and personality Sterling Publishers Pvt Ltd New Delhi

Vekaria R S Pandya D N and Padheria M M 1989 Role played by co operative sugar factories in sugarcane development Maharashtra Journal of Extension Eduction 8 63 67

Vijaya K 1982 An evaluative study on the impact of Intensive Agricultural Extension System (T&V system) in Tungabadhra Command Area in Anatpur district of Andhra Pradesh Unpublished M Sc (Ag) thesis S V Agricultural College Tirupathy

Vijayakumar P 1983 Impact of Special Agricultural Development Units on the agricultural development of rural areas of Kerala Unpublished M Sc (Ag) thesis College of Agriculture Vellayani

Vijayaraghavan R 1979 A study on the factors affecting knowledge and adoption of high yielding varieties of paddy by small and marginal farmers Unpublished M Sc (Ag) Thesis College of Agriculture Vellayani

Waghmare S K and Pandit V K 1982 Constraints in adoption of wheat technology by the tribal farmers of Madhya Pradesh Indian J Extn Edn 18 (1&2) 95 98

*Werkmeister W H 1967 Man and his values University of Nebraska Press Lincoln

*Wilson L and Kolb W L 1949 Sociological analysis Harcourt Brace and Co New York

Wolman B B 1973 Dictionary of Behavioural Sciences Van Nortrand Rainhold Company New York p 38

* Original not seen

APPENDICES

APPENDIX I

KERALA AGRICULTURAL UNIVERSITY

COLLEGE OF AGRICULTURE VELLAYANI

Role of Krishi Bhavans in Agricultural Development in Thiruvananthapuram District

Questionnaire

(Agricultural Extension Personnel)

Name

Designation

Krishi Bhavan/Panchayat

Nature of Employment Permanent/Temporary

(i) Age years

(ii) Please tick mark (✓) your educational qualification in the appropriate item given below

Basic Qualification		Technical Qualification	
		6 Months Training	( )
S S L C	( )	KGTE (Lower)	( )
P D C	( )	KGTE (Higher)	( )

Basic Qualification		Technical Qualification	
Graduate	( )	Diploma in Agriculture	( )
Post Graduate	( )	B Sc (Ag)	( )
		M Sc (Ag)	( )
		Any other specify	

(iii) Please indicate your special training if any after the implementation of Krishi Bhavans

Name of Training	Duration	
	Months	Days
1		
2		
3		

(iv) Please mention the particulars of your working experience

Total experience years Months

Experience in extension work years Months

(v) Job satisfaction

Please indicate the degree of your satisfaction or dissatisfaction using tick mark (✓) against each of the following statements relating to your job on five point scales Very much satisfied (VMS) Satisfied (S) Partially satisfied (PS) Dissatisfied (DS) and Very much dissatisfied (VMDS)

Statements	VMS	S	PS	DS	VMDS
1 What is the extent of your satis faction with your present remune ration to maintain your basic need?					

	Statements	VMS	S	PS	DS	VMDS
2	What is the degree of your satis faction with the nature of your work?					
3	How is the magnitude of your satis faction in terms of your job security?					
4	What is the intensity of your satisfa ction with your promotional opportunity?					
5	What is the span of your satisfaction with relationship among internal and external public?					
6	To what extent are you satisfied with the working facilities you have?					
7	How is the degree of your satisfaction in obtaining farmers recognition towards your job?					
8	What is the range of your satis-faction with techinical guidance and support of higher ups to perform your job?					
9	What is the extent of your satisfaction with the communication infrastructure to disseminate agricultural information?					
10	What is the magnitude of your satisfaction with the opportunity for future education?					

(vi) Job Commitment

Please indicate the degree of your agreement or disagreement using a tick mark (✓) against each statement in the appropriate coloumn of the five point continuum strongly agree (SA) agree (A) undecided (UD) disagree (DA) and strongly disagree (SDA)

Statements	SA	A	VD	DA	SDA
1 The job of extension worker to change the behaviour of the farmers is very much prestigious					
2 It is better to be an extension worker to serve the rural people					
3 If an extension worker gets a similar remuneration in some other organisation it will be better for him to join					
4 An extension worker shoud not care much for his job responsibilities					
5 An extension worker should be dedicated to his work					
6 An extension worker should be happy with his job in comparison to other equivalent					
7 An honest extension worker hardly gets satisfaction in his job					
8 An extension worker gets a lot of freedom in his own organisation					

(vii) Awareness about Krishi Bhavan

Please choose the correct answer from the three choices given for each of the questions given below by putting a (✓) mark against the correct answer

1 Krishi Bhavan set up is the reorganisation of Department of Agriculture right from

a) Distsrict level
b) Sub division level
c) Block level

2 The basic concept in Krishi Bhavan set up is
a) Micro level planning
b) People s partipation
c) Group management

3 Krishi Bhavans are expected to devote their entire time and attention on
a) agricultural extension work
b) agricultural extension and development work
c) research and extension work

4 In the Krishi Bhavan concept emphasis is given to
a) selected important crops only
b) all the crops in the area
c) selected crops so far neglected

5 Conduct of agricultural seminars exhibitions festivals etc is the responsibility of
a) Extension workers in Krishi Bhavan
b) Karshika Vikasana Samithy
c) Farmers

6 Production and distribution of seeds and seedlings required for the Panchayat is the responsibility of
a) Karshika Vikasana Samithy
b) Extension workers assisted by Karshika Vikasana Samithy
c) Extension workers themselves

7 Arranging and distributing fertilisers pesticides and other inputs is done by

a) Extension workers
b) Karshika Vikasana Samithy
c) Extension workers assisted by Karshika Vikasana Samithy

8 Distribution and recovery of Agricultural loans is the responsibility of

a) extension workers
b) karshika vikasana Samithy
c) extension workers and Karshika Vikasana Samithy

9 In the Krishi Bhavan set up the extension personnel are expected to contact

a) selected farmers only
b) all the farmers
c) those farmers who seek help from Krishi Bhavans

10 Which of the following acts as a link between farmers and input agencies?

a) krishi Bhavans
b) karshika vikasana Samithy
c) extension workers

(viii) Attitude towards Krishi Bhavans

Please indicate your degree of agreement or disagreement to the following statements by putting a ( ) mark in the appropriate coloumn of the given 5 point continuum against each item

SA Strongly agree A Agree UD-Undecided DA Disagree SDA Strongly Disagree

	Statement	SA	A	UD	DA	SDA
1	It is after the introduction of Krishi Bhavans people are widely participating in agricultural programmes					
2	Krishi Bhavan set up is the best extension system ever implemented in Kerala					
3	Facilities in Krishi Bhavans are not at all sufficient to meet the requirement of the farmers					
4	Krishi Bhavans paved way for reducing the cost of cultivation to a great extent					
5	By the introduction of Krishi Bhavans the requisite inputs for farmers are available in time					
6	The Karshika Vikasana Samithy is an eye wash in the name of peoples participation					
7	Due to the introduction of Krishi Bhavans there has been an upliftment of rural economy					
8	Agricultural production will increase even if Krishi Bhavans are not established in Kerala					

(Contd)

	Statement	SA	A	UD	DA	SDA
9	Farmers are freed from pest and disease threat due to the effective service of Krishi Bhavans					
10	Adoption of improved technology has been increased with the advent of Krishi Bhavans					
11	Individually no farmer is is getting benefit through Krishi Bhavans					
12	It is after the introduction of Krishi Bhavans farmers are practicing scientific management in their fields					
13	The technology transfered through Krishi Bhavans are not low cost technology					
14	Introduction of Krishi Bhavans through out India is the only way for agricultural prosperity in the country					

(IX) Role of Krishi Bhavans in Agricultural Development

THE VARIOUS ROLES PLAYED BY KRISHI BHAVANS IN AGRICULTURAL DEVELOPMENT ARE GIVEN BELOW IN COLOUMN NO 2 PLEASE INDICATE YOUR PERCEPTION ABOUT THEIR IMPORTANCE IN COLOUM NO 1 AND YOUR PERCEPTION ABOUT THEIR PERFORMANCE IN COLOUM NO 3 IN THE RESPECTIVE 5 POINT SALES

VI very Important
I important
UD undecided
LI less important
NI not important

AP-adequately performed
FP fairly performed
MP moderately performed
PP poorly performed
IAP-inadequately performed

1 Importance					2 Roles	3 Performance				
VI	I	UD	LI	NI		AP	FP	MP	PP	IAP
					1 Planning and implementing need based location specific programmes for each Panchayat					
					2 Involving the farmers in the planning and implementation of agricultural programmes					
					3 Planning optimum use of available land water and solar energy					
					4 Giving special attention in the case of minor crops like tuber crops vegetables flowering plants etc					

(Conta)

5 Organising Karshika Vikasana Samithy in each Panchayat

6 Promoting collection storage and processing of farmer s produce in Co-operative basis

7 Promoting Co operative marketing among farmers

8 Conducting farmers group discussion to convince them about new technologies

9 Conducting Agricultural Seminars and training camps for farmers benefit

10 Increasing the coverage under high yielding varieties

11 Implementing group farming programme in paddy

12 Implementing group management programme in coconut pepper etc

13 Raising community nursery for paddy by providing incentive subsidy

14 Supply of seeds seedlings fertilizers pesticides and other inputs at subsidised rate

15 Conducting method demonstrations result demonstrations and minikit trials in farmers fields

(Contd)

16 Establishing model gardens for coconut pepper cashew etc

17 Implementing Integrated programmes for the development of spices like pepper clove etc

18 Conducting weekly agro clinics to solve the problems of farmers regarding crop cultivation

19 To provide sorayers at low hire rate

20 Implementing special Component Schemes for the benefit of SC & ST farmers

21 Helping the farmers to collect soil samples getting them tested and to give fertilizer recommendations based on soil test results

22 Taking adequate steps for the eradication of pest and deseases in endemic areas

23 Quality control of various agricultural inputs

24 Arranging for agriculturlal magazines and supply of extension bullettin to interested farmers

25 Publishing the success stories of farmers in the Panchayat through various mass media

(Contd)

26 Giving subsidy for development of infrastructure for irrigation like digging wells ponds construction of channel etc

27 Giving subsidy for buying agricultural implements and equipments

28 Arranging loans from Banks and Societies to farmers for agrl purposes

29 Arranging for crop insurance to farmers who avail loans from Banks and Societies

30 Giving subsidy for land development works

31 Encouraging registered seed growers in the area by providing incentive subsidy

32 Conducting crop cutting experiments regularly in farmers fields

33 Conducting harvest festivals

34 Monitoring the progress of agricultural development based on physical achievement on a regular basis

35 Encouraging the efforts of farmers producing maximum output from unit area

(X)a (For Agricultural Officers only)

Certain problems which may or may not be affecting your work as an Agricultural Officer are given below Please indicate to what extent you experience these problems by placing each item within the appropriate step of the ladder provided Put only the step number against each item

6

5

4

3

2

1

0

1 Lack of conveyance facilities

2 Lack of funds to meet travelling expenses

3 Lack of facilities in Krishi Bhavans

4 Inadequate training facilities for AOs

5 Inadequate and untimely supply of inputs

6 Lack of co-operation among the members of Karshika Vikasana Samithy

7 Lack of clerical support in office work

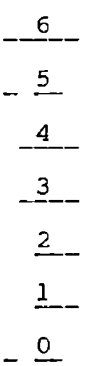
8 Lack of freedom of work for AOs

9 Difficulty in selection of beneficiaries for various schemes to satisfy all the Karshika Vikasana Samithy Members

10 Lack of interest among farmers in agro-clinics

(X)b For Agricultural Assistants only

Certain problems which may or may not be affecting your work as an Agricultural Assistant area given below Please indicate to what extent you experience these prolbems by placing each item within the appropriate step of the ladder provided Put only the step number against each item



1 Lack of support from A O in field work

2 Lack of clerical support in Krishi Bhavan

3 Non availability of seeds and seedlings to farmers taste and in time

4 Overlapping of priced supply and free supply of inputs create problems

5 Most of the subsidy is given to group farming ela farmers only

6 Lack of fixed schedule of field visits

7 Inadequate training facilities for AAs

8 lack of facilities in Krishi Bhavans

9 Lack of interest among farmers in agro-clinic

10 Lack of knowledge and training about new schemes being implemented

APPENDIX II

KERALA AGRICULTURAL UNIVERSITY

COLLEGE OF AGRICULTURE VELLAYANI

Role of Krishi Bhavans in Agricultural Development in Thiruvananthapuram district

INTERVIEW SCHEDULE (Farmers)

Name of Respondent

Village Block

Panchayat Sub division

(i) Age Years

(ii) Education Illeterate/can read only/can read and write/primary school/middle school/ secondary/collegiate

(iii) Farm Size

Wet land	Acres	Cents
Graden land	Acres	Cents

(iv) Farming experience Years

(v) Occupation

a) Agriculture as the sole occupation
b) Agriculture as main occupation with some non agricultural occupation as subsidary
c) Non agricultural occupation as main occupation

(vi) Social participation

a) Participation in any organisation
b) Member in one organisation
c) Member in more than one organisation
d) Office holder
e) Wider public leader

(vii) Cosmopoliteness

a) Frequency of visit to nearby town
Never/once in a month/once in a fortnight/once in a week/two or three times in a week

b Purpose of visit

All relating to agriculture/some relating to agriculture/personal domestic/Entertainment/others/ No response

c Membership in organisation outside the village
Non member/member

(viii) Information source utilisation

How frequently the following information sources are utilised for obtaining agricultural news?

Sources	Frequency of use Regularly/Occassionally/Never
1 Radio	
2 News paper	
3 Television	
4 Films	
5 Agricultural publications/ magazine	
6 Exhibitions	
7 Training	
8 Demonstrations	
9 Agricultural Officer	
10 Agricultural Assistant	
11 Other officers of Agrl Dept	
12 Fertilizer/pesticide dealers	
13 Agricultural scientists	
14 Other farmers	
15 Friends/relatives/family members	

(ix) Contact with extension agency

a) Awareness Aware of extension agents/not aware

b) Frequency of contact
Once in a while or beyond 3 months/once in three months/once in a month/once in 15 days/once in a week

c) Purpose of contact
Non agriculture/to avail input assistance/to avail subsidies and agricultural implements/to get technical guidance

(x) Innovativeness

Please give your answers as Yes Undecided or No

	Yes/Undecided/No
a) Do you want to learn new ways of farming?	
b) If the Agricultural Extension Worker gives a talk on improved cultivation aspects would you attend?	
c) If the government would help you to establish a farm elsewhere would you move?	
d) Do you want a change in your life?	
e) A farmer should try to farm the way his parents did	
f) Do you want your sons to be farmers?	
g) It is better to enjoy today and let tomorrow take care of it self	
h) The future of man lies in the hand of god	

xi) Scientific orientation

Please give your degree of agreement or disagreement to the following statements in the five point continuum SA/A/UD/DA/SDA

(SA Strongly agree A Agree UD Undecided DA Disagree SDA Strongly Disagree

	SA A UD DA SDA
a) New methods of farming gives better results to a farmer than the older methods	
b) The way of farming by our forefathers is still the best way to farm today	

c) Even a farmer with a lot of experience should use new methods of farming

d) Thouoh it takes time for a farmer to learn new methods in farming it is worth the efforts

e) A good farmer experiments with new ideas in farming

f) Traditional methods of farming have to be changed inorder to raise the level of living of a farmer

(xii) Economic motivation SA A UD DA SDA

a) A farmer should work towards target yield and economic profits

b) The most successful farmer is one who makes the most profit

c) A farmer should try any new farming idea which may earn him more money

d) A farmer should grow cash crops to increase monitary profits in comparison to growing of food crops for home consumption

e) It is difficult for the farmer s children to make good start unless he provide them with economic assistance

f) A farmer must earn his living but the most important thing in life cannot be defined in economic terms

(xiii) Awareness about Krishi Bhavans
(Accurate answer AA Nearly accurate answer NAA
Irrelavant answer IRA)

1 When Krishi Bhavan Programme was started? AA/NAA/IRA

2 How many Krishi Bhavans are there in your Panchayat? AA/NAA/IRA

3	Do you know your Agricultural Assistant?	Yes/No
	If yes a) Know him by name b) Know him in person c) Know him by name and person	
4	Do you know your Agricultural Officer?	Yes/No
	If yes a) Know him by name b) Know him in person c) Know him by name and person	
5	Have you heard of Karshika Vikasana Samithy?	Yes/No
	If yes what is its purpose?	AA/NAA/IRA
6	Have you heard of Agro clinics?	Yes/No
	If yes what is its purpose?	AA/NAA/IRA
7	Do you get plant protection equipments? from Krishi Bhavans?	Yes/No
	If yes how?	AA/NAA/IRA
8	Do you get relief funds for losses due to natural calamities?	Yes/No
	If yes who is arranging for it?	AA/NAA/IRA
9	Do you get subsidy for agricultural purposes from Krishi Bhavans?	Yes/No
	If yes what are all the subsidies you receive?	AA/NAA/IRA
10	Do you attend agricultural seminars and training camps?	Yes/No
	If yes who conduct them?	AA/NAA/IRA
11	Have you heard of the following	
	a) Locations specific programme	Yes/No
	If yes what is it?	AA/NAA/IRA

b) Group farming programme — Yes/No

If yes what is it? — AA/NAA/IRA

c) Kera Samrakshana Samithy — Yes/No

If yes what is it? — AA/NAA/IRA

d) SC/ST programme — Yes/No

If yes what is it — AA/NAA/IRA

e) Samll & Marginal Farmers programme — Yes/No

If yes what is it? — AA/NAA/IRA

f) Special employment generation programme — Yes/No

If yes what is it? — AA/NAA/IRA

d) Bio-energy Programme — Yes/No

If yes what is it? — AA/NAA/IRA

(xiv) Attitude towards Krishi Bhavans

Please indicate your degree of agreement or disagreement to following statements by putting a (✓) mark in the appropriate coloumn of the given 5 point continuum against each Item
SA Strongly agree A Agree UD Undecided DA Disagree SDA Strongly Disagree

	Statements	SA	A	UD	DA	SDA
1	It is after the introduction of Krishi Bhavans people are widely participating in agricultural programmeS					
2	Krishi Bhavan set up is the best extension system ever implemented in Kerala					

3	Facilities in Krishi Bhavans are not at all sufficient to meet the requirment of the farmers
4	Krishi Bhavans paved way for reducing the cost of cultivation to a great extent
5	By the introduction of Krishi Bhavans the requisite inputs for farmers are available in time
6	The Karshika Vikasana Samithy is an eye wash in the name of people s participation
7	Due to the introduction of Krishi Bhavans there has been an upliftment of rural economy
8	Agricultural production will increase even if Krishi Bhavans are not established in Kerala
9	Farmers are freed from pest and disease threat due to the effective service of Krishi Bhavans
10	Adoption of improved technology has been increased with the advent of krishi Bhavans
11	Individually no farmers is getting benefit through Krishi Bhavans
12	It is after the introduction of Krishi Bhavans farmers are practicing Scientific management in their fields
13	The Technology transferred through Krishi Bhavans are not low cost technology
14	The introduction of Krishi Bhavans through out India is the only way for agricultural prosperity in the country

(xv) Role of Krishi Bhavans in Agricultural Development

[See appendix I (ix)]

(xvi) Constraints

Please indicate the degree of intensity of the following constraints experienced by you in adopting the technologies transferred through Krishi Bhavans by marking (tick) in the appropriate columns against each constraint

MSC Most Serious Constraint
SC Serious Constraint
NC Not a constraint

		MSC	SC	NC
1	High Labour cost			
2	Less availability of labour during peak season			
3	Inadequate and untimely supply of inputs			
4	High cost of cultivation			
5	Lack of co operation among farmers			
6	Low market price for paddy			
7	Subsidies are not given in right time			
8	Lack of irrigation water in time			
9	Conversion of paddy fields into coconut and banana gardens make tiller ploughing difficult			
10	Non availability of power tillers in time			
11	Seminars and meetings have no practical utility			
12	Untimely release of water make harvest difficult			

APPENDIX III

ATTITUDE SCALE

The statement selected for the attitude scale with their respective t values

No	Statements	t value
1	It is after the introduction of Krishi Bhavans people are widely participating in agricultural programmes	4 58
2	Krishi Bhavan set up is the best extension system ever implemented in Kerala	4 76
3	Facilities in Krishi Bhavans arenot at all sufficient to meet the requirement of the farmers	5 70
4	Krishi Bhavans paved way for reducing the cost of cultivation to a great extent	5 62
5	By the introduction of Krishi Bhavans the requisite inputs for farmers are available in time	7 50
6	The Karshika Vikasana Samithy is an eye wash in the name of people's participation	3 57
7	Due to the introduction of Krishi Bhavans there has been an upliftment of rural economy	7 28

8	Agricultural production will increase even if Krishi Bhavans are not established in Kerala	6 35
9	Farmers are freed from pest and disease threatdue to the effective service of Krishi Bhavans	4 78
10	Adoption of improved technology has been increased with the advent of Krishi Bhavans	7 56
11	Individually no farmer is getting benefit through Krishi Bhavans	2 55
12	It is after the introduction of Krishi Bhavans farmers are practicing scientific management in their fields	5 89
13	The technology transferred through Krishi Bhavans are not low cost technology	6 62
14	The introduction of Krishi Bhavans throughout India is the only way for agricultural prosperity in the country	4 93

ROLE OF KRISHI BHAVANS IN AGRICULTURAL DEVELOPMENT IN THIRUVANANTHAPURAM DISTRICT

BY

A SURESH NELSON

ABSTRACT OF THE THESIS
SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE DEGREE
MASTER OF SCIENCE IN AGRICULTURE
[AGRICULTURAL EXTENSION]
FACULTY OF AGRICULTURE
KERALA AGRICULTURAL UNIVERSITY

DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
VELLAYANI
THIRUVANANTHAPURAM

1992

ABSTRACT

The study Role of Krishi Bhavans in Agricultural Development in Thiruvananthapuram District was conducted among Agricultural Extension Personnel and farmers in the three agricultural sub divisions of the district viz Neyyattinkara Nedumangad and Attingal with the following specific objectives

1. To analyse the role of Krishi Bhavans in agricultural development as perceived by farmers and Agricultural Extension Personnel
2. To study the awareness of farmers and Agricultural Extension Personnel about the concept and functioning of Krishi Bhavans
3. To study the attitude of farmers and Agricultural Extension Personnel towards Krishi Bhavans
4. To identify the constraints if any perceived by farmers and Agricultural Extension Personnel in the functioning of Krishi Bhavans

The study was conducted among 30 AOs 30 AAs 30 Karshika Vikasana Samithy Members and 60 other farmers randomly selected from 30 Krishi Bhavans of the district

The roles of Krishi Bhavans were analysed in terms of perceived importance and performance of the roles by the

Agricultural Extension Personnel and farmers Awareness was measured using the schedule developed for the study Attitude towards Krishi Bhavans was measured using the attitude scale developed for the purpose The characteristics of respondents were quantified using either adopted scales or schedules developed for the study Constraints in the functioning of Krishi Bhavans were also identified as perceived by Agricultural Extension Personnel and farmers

Out of the thirty five identified roles seven roles were perceived as important by all the four categories of respondents viz AOs AAs Karshika Vikasana Samithy Members and other farmers Of the seven roles five were perceived by all of them as being adequately performed The roles which were not adequately performed according to them were

i) Conducting method demonstrations result demonstrations and minikit trials in farmers fields

ii) Arranging loans from Banks and Societies to farmers for agricultural purposes

Majority of the respondents ie 56 67 per cent of AOs 53 33 per cent of AAs 56 67 per cent of Karshika Vikasana Samithy Members and 53 33 per cent of other farmers were having higher level of awareness about Krishi Bhavans

Job commitment of AOs was positively and significantly related to their awareness None of the selected characteristics of AAs had significant relationship with their awareness Education social participation contact with extension agency innovativeness and scientific orientation of Karshika Vikasana Samithy Members and social participation information source utilisation and innovativeness of other farmers were positively and significantly related with their awareness about Krishi Bavans

Less than half of AOs and AAs (46 67 per cent each) and majority of Karshika Vikasana Samithy Members (60 per cent) and other farmers (56 67 per cent) were found to have high degree of attitude towards Krishi Bhavans

Job satisfaction and job commitment of AOs and job satisfaction of AAs were found to have positive and significant relationship with their attitude towards Krishi Bhavans Contact with extension agency Scientific orientation and awareness about Krishi Bhavans of Karshika Vikasana Samithy Members and contact with extension agency of other farmers were found to have positive and significant relationship with their attitude towards Krishi Bhavans

Lack of clerical support in Krishi Bhavan was the most important constraint perceived by AOs while Lack of facilities in Krishi Bhavans was perceived as the most important constraint by AAs The five serious constraints identified by Karshika Vikasana Samithy Members and other farmers were high labour cost conversion of paddy fields into coconut and banana gardens making tiller ploughing difficult lack of irrigation water in time inadequate and untimely supply of inputs and high cost of cultivation

***