

**ROLE OF AGRICULTURAL ASSISTANTS IN AGRICULTURAL
DEVELOPMENT IN THIRUVANANTHAPURAM DISTRICT**

By

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THESIS

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requirement for the degree*

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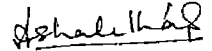
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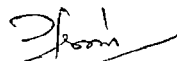
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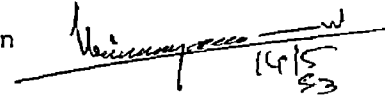
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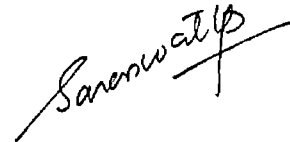


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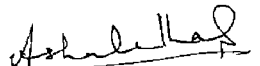
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Introduction

INTRODUCTION

The demand for food in the country is increasing rapidly along with the rapid population increase. In India there is wide gap between the actual and potential farm yields obtained by majority of the farmers. Agricultural research was re-oriented after independence to accelerate agricultural development. Research during the last two decades at national research centres has generated results which have still not been used widely by farmers. This underlines the fact that the transmission of improved technology to the farmers is inadequate in the country.

Recognising the importance of extending the available know-how to farmers many extensive efforts have been made by the Central and State Governments. The inception of Krishibhavans in 1987 by the State Government is the latest among them.

Under the Krishibhavan approach Krishibhavans were started at the rate one in each panchayat. A Krishibhavan level advisory committee was also started in each panchayat under the Chairmanship of the Panchayat President.

As the field level agricultural extension units, Krishibhavans are primarily responsible for the communication

of new agricultural technology to the farming community Agricultural Assistants in Krishibhavans are the grass root level workers in the two way process of communication between researchers and farmers They act as a link between the agricultural research system and the farmer client system

The attitude and commitment of Agricultural Assistants towards their job is very important under the present context since many development programmes like group farming in paddy group management in coconut pepper etc are being implemented through Krishibhavans

Need for the study

The ultimate success of any extension organization depends to a large extent on the level of efficiency and skill of the personnel appointed to carry out its extension programmes Employees with the perception of their roles as the role is important to the functioning of the organization remain creative and take initiative and also use their capabilities with a feeling that they enjoy performing the role

Programme Evaluation Organization (1957) reported that the Village Level Workers did not do much work and that they did not visit villagers and even did confine their contact to a few people they know well

The Expert Committee on Assessment and Evaluation (1969) observed that most of the Village Level Workers have tended to become demoralised and relatively ineffective for lack of appropriate technology and incentives

In a study conducted by Mangat and Sohal (1977) large majority of the cultivators said that the Village Level Workers never contacted them as they rated the Village Level Workers in this activity as not at all useful

However Satapathy and Ganeswar (1974) found that Village Level Worker was the most frequently contacted source for information by farmers

Further Rajagopal (1977) revealed that majority of Gramasevaks performed their educational roles in a good manner

Joseph (1983) reported that majority of the Agricultural Demonstrators in Trivandrum District of Kerala belonged to medium level of communication efficiency

The above studies revealed contradictory opinion regarding the role performance of the field level workers. Not much research information is available regarding the role perception/role performance of Agricultural Assistants in Krishibhavans. It was with this aim the present study was undertaken with the following specific objectives

- 1 To measure the role perception and role performance of Agricultural Assistants as perceived by the Agricultural Assistants Agricultural Officers and farmers
- 2 To analyse the characteristics of Agricultural Assistants in relation to their role perception and role performance
- 3 To study the constraints experienced by the Agricultural Assistants in the effective performance of their roles
- 4 To suggest suitable measures for augmenting the role of Agricultural Assistants

Scope of the study

The results of the study would help to streamline the functions of Agricultural Assistants. It would also be helpful to develop new development strategies which could be carefully planned so as to suit the needs of the farmers as well as to motivate the Agricultural Assistants who work at the grass root level. The results of the study it is hoped would throw some useful light on the constraints experienced by the Agricultural Assistants which could be advised to while designing programmes to enable their fuller participation in agricultural development efforts. Moreover standardization of measurement devices to quantify the variables in the study would contribute to the body of research in Agricultural Extension.

Limitations of the study

The study was undertaken with limited time and other resources. Therefore, it was rather impossible to cover the entire state. The generalisability of the results of the study is low. However, sincere efforts have been made to achieve the objectives of this study.

Organisation of the thesis

Organisation of the remaining chapters of the thesis is as follows:

Chapter II deals with the theoretical orientation of the thesis. The definition of concepts and review of literature are presented in this chapter.

Chapter III deals with the methodology of the thesis. In this chapter, the location of the study, sampling procedure, variables selected for the study and their measurement, development of questionnaire, details of data collection and statistical methods used for analysis are given.

In chapter IV, the results of the study are presented and in Chapter V, the results of the study are discussed.

In Chapter VI, a summary and conclusion of the thesis is presented. References and appendices are given at the end.

List of abbreviations used

AAs Agricultural Assistants

AOs Agricultural Officers

Theoretical Orientation

THEORETICAL ORIENTATION

The purpose of this chapter is to give a proper orientation to the study by linking the research findings available in the area of the study with the proposed research problem. It provides an understanding of the concepts used in this study. It also helps in understanding the present position of research works done in this area. This chapter is presented under the following headings:

- 1 Concept of role perception
- 2 Concept of role performance
- 3 Role of agricultural extension personnel in agricultural development
- 4 Relationship between role perception and role performance
- 5 Characteristics of AAs influencing their role perception and role performance
- 6 Constraints experienced by the AAs in performing their role effectively
- 7 Hypotheses formulated for testing in the study

1 Concept of role perception

1.1 Concept of role

Many authors have defined role in different ways

Davis (1959) stated 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 privileges associated with a particular position in a group. In other words, 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 a specific assignment.

Sobhana (1982) in her study on the role of Junior Agricultural Officers in implementing agricultural development programmes in Kerala defined role as a set of activities corresponding to a system of rights and duties associated with the position of Junior Agricultural Officers and carried out by them in the Department of Agriculture, Kerala.

Luthans (1983) defined role as a position that has expectations evolving from established norms.

From the above, it could be deduced that 'role' refers to the activities related to a system of rights and duties associated with a position in the field of agricultural development.

1.2 Concept of perception

Individuals are being constantly bombarded by various

kinds of sensory stimulations However they tend to process this information without involving themselves in confusion with the help of the psychological process perception

Perception according to Crow and Crow (1956) is the meaningful sensation that assumes an important role in the life of an individual

Kolsa (1970) defined perception as the selection and organization of materials which stem from the outside environment at one time or other to provide the meaningful entity one experiences

Mitchell (1978) opined that perceptions are those factors that shape and produce what one actually experiences He further stated that behaviour is a function of one's perception and that changing perception would result in changing behaviour Thus perception could be a determinant of performance

Perception is defined as the process of receiving selecting organizing interpreting, checking and reacting to sensory stimuli or data by Pestonjee et al (1981)

The foregoing reviews indicate that perception is the meaningful sensation derived from a stimulus by an individual

1 3 Concept of role perception

In a study on the Role of Leadership in Agricultural Development in Rural Areas in Kerala Manoharan (1979) defined role perception as the personal value towards leader s own activities regarding agricultural development

Sobhana (1982) defined role perception as the respondent s indication of what he feels important to do with reference to any statement presented to him with reference to his role in the organization

In this study role perception is operationally defined as the perceived degree of importance attached to the role items to be performed by the AAs of the State Department of Agriculture

2 Concept of role performance

2.1 Performance

McGregor (1960) suggested that performance of an individual is the function of certain characteristics of the individual including his knowledge, skills motivation attitude and certain aspects of the environmental situation

According to Devar (1969) performance is a function of an individual s ability knowledge and motivation depicted schematically as

$$P = M (A + K)$$

The existence of ability (A) and knowledge (K) does not by itself guarantee that the individual will put forward his best effort. There is another factor-motivation (M) which helps determine the effort which can reasonably be expected from him.

Performance implies the result of an individual's response to a stimulus object (Herman, 1973)

2.2 Concept of role performance

Role performance implies how an individual actually performs in a given position, as distinct from how he is expected to perform, according to Davis (1959)

Razvi (1967) defined job performance as the manner and extent to which different jobs are performed in practical situation

Sobhana (1982) operationally defined role performance as the role being actually performed by virtue of occupying a particular role position

Warris et al (1990) operationalised role performance as the manner in which an employee carries out or actually performs his/her roles

In this study role performance is operationally defined as the actual performance of role by the AAs by virtue of occupying the position of AAs of the State Department of Agriculture

3 Role of agricultural extension personnel in agricultural development

Many studies have been conducted to specify the various dimensions of extension workers' role

Beal (1981) provides a typology of the roles of change agents as educator consultant, facilitator, organizer administrator and researcher

Boyle (1981) suggested four major roles of an education programmer, analyst, stimulator facilitator and encourager

According to Swanson (1984), the roles that an extension worker might be expected to perform include that of an advocate teacher, organizer, enforcer of regulations planner catalyst co-ordinator, fee collector and communication specialist

Kunwar and Williams (1990) identified 91 role items of Junior Technical Assistants of Nepal under eight major roles

viz programme determination programme strategy programme implementation education, female farmers, rural youth evaluation and professional development

Since the AAs constitute an important functionary at the Krishibhavan level it was decided to study their role performance

4 Relationship between role perception and role performance

According to Goodale (1975), the assessment of an employee's job performance is important both for the worker and his superior for understanding the level of efficiency in the job

Kherde and Sahay (1972) found that the perception of job was positively related with the performance of job by gramsevaks

Mitchell (1978) reported that behaviour was a function of one's perception and that changing perceptions would result in changing behaviour

Bhatia and Sandhu (1975) reported positive relationship between the level of job perception and job effectiveness of the Village Level Workers (VLWs)

Sobhana (1982) found that a significant positive relationship exists between the role perception and role performance of Junior Agricultural Officers in Kerala

Later, Gulothungan (1986) also obtained similar results

Kalavathi (1989) reported significant association between role perception and role performance of the agricultural graduates employed in different avenues in Kerala

Rayappareddy and Jayaramaiah (1990) revealed positive relationship between role perception and role performance of Village Extension Officers (VEOs)

Kunwar and Williams (1990) observed a wide discrepancy between perceived importance of tasks and their performance of field level agricultural extension workers in Nepal

5 Characteristics of AAs influencing their role perception and role performance

An effort was made to review the earlier studies in order to arrive at a list of characteristics of Agricultural Extension Personnel which influence their role perception and role performance. The following list is the culmination of this effort

- 1 Age
- 2 Educational qualification
- 3 Rural/urban background
- 4 Achievement motivation
- 5 Attitude towards farmers
- 6 Attitude towards profession
- 7 Role ambiguity
- 8 Job supervision
- 9 Job satisfaction
- 10 Job esteem
- 11 Organizational climate
- 12 Self confidence

To develop the pattern of relationship between these characteristics and role perception/role performance of AAs, results of related studies available on this line are epitomized in the following pages

5.1 Age

Patel and Leagans (1968) found that age was significantly associated with the effectiveness of VLWs. He found that extension workers belonging to the age group of 26 to 35 years were more efficient than those of other age groups.

Kherde and Sahay (1972) reported a positive relationship between age and performance of VEOs.

and Subramanyam
Kanagasabai (1975) reported that more efficient Deputy
Agricultural Officers in Tamil Nadu were more aged

Bhatia and Sandhu (1975) found that age had no
significant relationship with the job effectiveness of VLWs
Later in 1976 Sinha et al also supported this finding in
another study of VLWs

Reddy (1976) revealed the positive influence of age on
the efficiency level of Gramsevaks

Intodia and Shaktawat (1980) reported that no
significant relationship existed among age and role
perception/role performance of Sarpanchas in Rajasthan

Nanjayan (1981) found that young age was associated
with high efficiency levels of AOs in Tamil Nadu

Somasundaram (1983) revealed that older the age more
was the perception of roles by AOs in Tamil Nadu

Perumal and Uthayakumar (1984) again reported that age
had no significant relationship with the performance of
contact farmers

Reddy (1986) reported positive relationship between
age and productivity of VEOs

Siddaramaiah and Gowda (1987) reported non-significant positive relationship between age and job performance of Extension Guides in the University Education System of Karnataka

Islan et al (1987) reported that age was significantly associated with the job performance of the Barangay Council Officials of Laguna Province in Philippines

Snarma et al (1988) also found positive relationship between age and job performance of Rural Agricultural Extension Officers of Training and Visit system in Madhya Pradesh

Hegde and Gowda (1989) reported that age had no significant association with job performance of AAs

Kalavathi (1989) also reported that age had non significant association with job perception and job performance of Agricultural graduates engaged in different avenues of employment in Kerala

From the preceding reviews it could be assumed that age would influence role perception and role performance of AAs. Hence it is necessary to test the influence of this variable further

5.2 Education

Sinha et al (1976) found that there existed no significant relationship between educational level and performance of VLWs

Rajagopal (1977) reported that education had no significant association with the role performance of extension workers in Karnataka

Patil (1978) reported significant relationship between level of education of VLWs in Kolhapur district and their role performance

Thyagarajan (1979) reported that education of the AOs in Tamil Nadu had no influence on the efficiency of their work

Intodia and Shaktawat (1980) found that education had no significant association with the role perception and role performance of Sarpanchas in Rajasthan

Dodson and Dudley (1982) reported that role performance was higher with extension agents possessing master s degree than those with bachelor s degree

Prasad (1982) reported non-significant relationship

between the level of education and the performance of seed farm managers in Karnataka

Education was reported to be negatively and non significantly associated with the role perception and role performance of Junior Agricultural Officers by Sobhana (1982)

Somasundaram (1983) found positive association between level of education and role perception of AOs in Tamil Nadu

Again, the positive association of level of education with role performance was reported by many authors like Susilkumar (1984) Sharma et al (1988) and Warris et al (1990)

As against this education was reported to have no significant relationship with job performance by Hegde and Gowda (1989) and Kalavathi (1989)

The foregoing review shows that different studies indicated varying results on the nature of association between education and role perception/role performance Hence in this study it is aimed to test the relationship once again

5 3 Rural/urban background

Mundra (1966) found that rural/urban background of Agricultural Extension Officers was significantly associated with their job effectiveness

Results on this line showing the significant influence of rural/urban background on the job effectiveness of agricultural extension workers were obtained by many researchers like Salvi and Dudhani (1967) Saigongkar and Patel (1970) Islam et al (1987) and Siddaramaiah and Gowda (1987)

But a few studies are there showing the non-significant relationship between level of education of agricultural extension workers and their performance reported by Sinha et al(1976) Rajagopal (1977) Reddy (1983) and Kalavathi (1989)

The nature of results obtained on the above studies emphasize the need for testing the kind of relationship existing between rural/urban background of the AAs and their role perception/role performance

5.4 Attitude towards profession

Gilner (1961) stated that job attitude is the feeling the employee has about his job his readiness to react in one way or another to specific factors related to a job

Porteret al(1975) reported that for effective performance favourable attitude is a pre requisite

Based on these studies it could be assumed that attitude towards profession may have some influence on the

role perception and role performance of extension workers So it will be useful to test in the present study of AAs

5 5 Attitude towards farmers

Kherde and Sahay (1972) reported that attitude of VLWs towards farmers had positive relationship with their role performance in the new strategy of agricultural production

Islam et al (1987) revealed that job performance of Barangay council officials of Laguna province in Philippines was positively influenced by their attitude towards clients

Rayappareddy and Jayaramaiah (1990) found that attitude towards farmers was positively associated with the productivity of VEOs

In view of the results of the studies listed earlier it is decided to test the kind of relationship among role perception role performance and attitude of AAs

5 6 Achievement motivation

Achievement motivation is the desire to excel in one's endeavour regardless of social rewards

McClelland (1964) regards achievement motivation as spontaneously expressed desire to do something well for its

own sake rather than to gain power or love, recognition or profit

Kelly et al (1972), in an experimental study on students found that low achievers performed best in a competitive situation and worst in the co-operative situation. Reverse was the case of high achievers.

Further, a significant association between achievement motivation and level of performance was reported by Porter et al (1974), Durand (1975), Singh and Kumar (1975), Luthans (1983), Reddy (1983) and Singh and Srivasthava (1983).

But Hosur (1977), Janardhana (1979), Jhansi (1985) and Kalavathi (1989) reported that achievement motivation had no relationship with job perception and job performance.

Hence it will be useful to test the relationship of achievement motivation of the AAs with their role perception, role performance.

5.7 Job esteem

Kalavathi (1989) defined job esteem as the recognition for good work done.

Sarkar and Patnaik (1967) found that out of the eight factors determining job satisfaction of VLWs, recognition for good work done emerged as third in importance.

Koreman (1970) Shranger (1972) Brockner and Hess (1986), Seepersad (1984) and Kalavathi (1989) revealed the positive and significant association of self esteem with job perception and performance

Dipboye et al (1979) reported that self-esteem did not appear to be a reliable moderator of the performance - satisfaction relationship

Brockner and Hulton (1978) reported negative relationship between self-esteem and job performance of employees

Usha and Sohal (1984) suggested that the organization should provide more incentive to motivate professionals in their work by giving remunerations and recognitions on the job

The review shows that contradictory results were obtained by different researchers and so it would be of use to test the kind of association that self-esteem is having with role perception/performance of AAs

5 8 Job supervision

Job supervision is a very important element in administration of extension organization It is the administration of people on day-to-day routine operations within a

working environment The success of a grass-root level extension personnel depends upon the regular guidance in technical matters, guidance and supervision in professional growth and timely advice from the high groups

Kempton (1980) reported that good supervision produced commitment to the job by 4-H agents

Sayed (1987) reported supervision as a less important factor in evaluating an organization

Kalavathi (1989) revealed that positive relationship existed between job supervision and job performance of agricultural graduates employed in banks in Alleppey district of Kerala

Rayappareddy and Jayaramaiah (1990) found positive relationship between job supervision and job performance of VEOs

Radhakrishna et al (1991) reported that staff supervision was significantly related to job performance of country extension directors

The foregoing reviews show that in many cases job supervision was found to influence job performance of employees So it will be interesting to test whether job supervision has any role in the role perception/role performance of AAs in the present investigation

5 9 Job satisfaction

Locke (1976) defined job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience

According to Davis (1984) job satisfaction is the favourableness or unfavourableness with which employees view their work. It expresses the amount of agreement between one's own expectations of the job and the rewards that the job provides

Vroom (1964) reported a weak relationship between job satisfaction and job performance of an employee

Hackman and Lawler (1971) reported that individuals with strong higher order needs demonstrated higher performance satisfaction association than the individuals with weaker higher order needs

Many researchers obtained results showing the positive association of job satisfaction with job performance (Kolte and Supe 1972 Hebertain and Black, 1976 Laharia 1978 Shivalah et al , 1979 Perumal and Uthayakumar, 1984 Talukdar 1984 and Sharma et al 1988), while some others claimed that job satisfaction had no relationship with job performance (Perumal 1975 Dipboye et al , 1979 Werther and Davis 1982 and Reddy, 1982)

Apart from this Mitra et al (1984) revealed that job satisfaction was negatively correlated with the wideness of the gap between the work perceived and that actually performed by the change agents

Thus it will be interesting to test the kind of relationship among job satisfaction role perception and role performance of AAs in this study

5.10 Role ambiguity

It is the uncertainty regarding what is expected on one's job or it is the extent to which an employee is not clear about the expectations of others on his role in the organization. Many researchers consider role ambiguity as an individual stressor which causes job stress and adversely affects employees' performance.

According to Rizzo et al (1970) it is the extent to which an individual is unclear about the role expectations of others as well as the degree of uncertainty associated with one's role performance.

Schuler (1975), Schuler et al (1977) and Breugh (1980) revealed significant association between role ambiguity and role performance of employees.

Fisher and Gitelson (1983) and Jackson and Schuler (1985) suggested that the impact of role conflict on job related attitudes and behaviour is pervasive

Heiselman et al (1989) opined that objective role ambiguity could be a predictor of subjective role ambiguity which contributed to lower levels of job satisfaction

In the present investigation it is intended to test the way in which role ambiguity influences the perception and role performance

5.11 Organizational climate ✓

Organizational climate is the human environment within a department or an entire organization where the employee works. Organizational climate affects everything that happens in an organization which in turn is affected by almost everything occurring in the organization. It can influence motivation, performance and job satisfaction.

Individual's own needs, satisfaction and goals influence his perception of organizational climate while climate in turn affects these same satisfaction, goals and behaviours (Payne and Pugh 1976 and Ganesan 1978).

Forehand and Gilmer (1964) defined organizational climate as a set of characteristics that describe an

organization as (a) distinguish the organization from other organizations (b) one relatively enduring over time and (c) influence the behaviour of people in the organization

Fredericksen (1966) reported significant relationship between organizational climate and job performance of employees

Taguri ^{and L t w n} (1968) defined organizational climate as relatively enduring quality of the internal environment that is experienced by its members Influences their behaviour and can be described in terms of the values of particular set of characteristics of the organization

Friedlander and Greenberg (1971) Schneider and Hall (1972) and Pritchard and Karasich (1973) also reported significant association between role performance and organization climate

Gavin (1975) based on many investigations, reported that climate perceptions are believed to be a function of the organization and their interaction

Koehler ['] (1976) opined that employees may experience the same climate differently at different times or different employees may perceive the same climate differently depending on seniority age or position in the hierarchy

The variation in the results obtained in previous studies indicates the importance of testing the kind of association of organizational climate with role perception, role performance of AAs in the present investigation

5.12 Self-confidence

It is the belief of an individual in his/her own abilities (Pandeyaraj 1978)

Subhalekshmi and Singh (1974) reported that effective Gramsevikas were more confident and ineffective Gramsevikas were not confident comparatively

Khare (1976) opined that confidence played an important role in the success of a creator/an innovator

It will be interesting to test the influence of self-confidence of AAs on their role performance and hence this variable was included in the present study

6 Constraints experienced by AAs in performing their role effectively

Fuzele (1980) reported that non availability of godown facilities was a major problem faced by VLWs followed by the non availability of informations, inadequate transporting facilities and non availability of timely instructions from supervisors

Sobhana (1982) identified poor chances for promotion lack of recognition for good work late sanctioning of programmes and budget by the organization reluctance of farmers towards improved farm practices more office work lack of co-ordination among agencies involved in agricultural development as the important problems felt by the Junior Agricultural Officers in Kerala

Bora (1984) reported that the main problems felt by VLWs in Assam were irregularities in the payment of salary lack of storage facilities for input insufficient implements and equipments and lack of housing facility

Kaur and Gill (1988) identified the major problem faced by Mukhya Sevikas of Punjab as too much interference from senior officers lack of freedom to take initiative work overload too much paper work, lack of transport facilities too much touring lack of opportunities to improve professional competency and frequent transfers

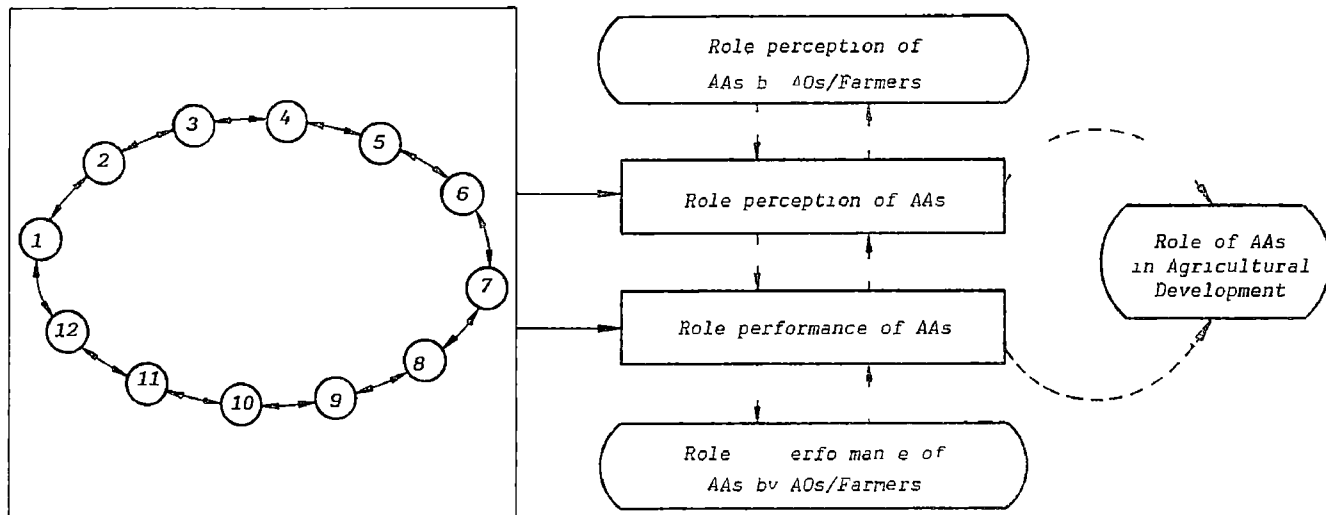
The foregoing studies show that under different situations, the extension personnel are facing different problems which affect their role performance Therefore it is decided to study the problems experienced by AAs in the effective performance of their roles under the State Department of Agriculture

7 Hypotheses formulated for testing in the study

- 1 There would be no significant association between the ratings of AAs and AOs on the perception of AAs
- 2 There would be no significant association between the rating of AAs and AOs on the role performance of AAs
- 3 There would be no significant association between the ratings of AAs and farmers on the role perception of AAs
- 4 There would be no significant association between the rating of AAs and farmers on the role performance of AAs
- 5 There would be no significant relationship between the selected characteristics of AAs and their role perception
- 6 There would be no significant relationship between the selected characteristics of AAs and their role performance
- 7 There would be no significant contribution of the selected characteristics on the role perception and role performance of AAs

A theoretical model showing the expected relationships between the role perception/role performance and the selected characteristics of AAs is shown in Fig 1

Fig 1 Theoretical model showing the expected relationship between the role perception/role performance and the selected characteristics of AAs



- X_1 Age
- X_2 Educational qualification
- X_3 Rural/Urban background
- X_4 Achievement motivation
- X_5 Attitude towards farmers
- X_6 Attitude towards profession

- X_7 Role ambiguity
- X_8 Job supervision
- X_9 Job satisfaction
- X_{10} Job esteem
- X_{11} Organizational climate
- X_{12} Self confidence

Methodology

METHODOLOGY

This chapter deals with the materials and methods employed in the study which are presented under the following sub-heads

- 1 Location of the study
- 2 Sampling procedure used in the study
- 3 Variables selected for the study and their measurement
- 4 Development of questionnaire
- 5 Data collection
- 6 Statistical methods used

1 Location of the study

Thiruvananthapuram district was purposively selected for the study for the following reasons

Thiruvananthapuram was one among the first three districts where Training and Visit system of Agricultural Extension was introduced in Kerala. It is a representative district in Kerala having a wide variety of crops being cultivated in the coastal plain and hilly tracts. Almost all the agricultural development programmes implemented by the State Department of Agriculture are implemented in this district also.

Moreover the researcher is familiar with the agricultural situation the officials and farmers of the district which it was considered would help in the collection of data without much difficulty

The map showing the location of the study is shown in Fig 2 and in Fig 3 the present administrative set up of the Kerala State Department of Agriculture is given

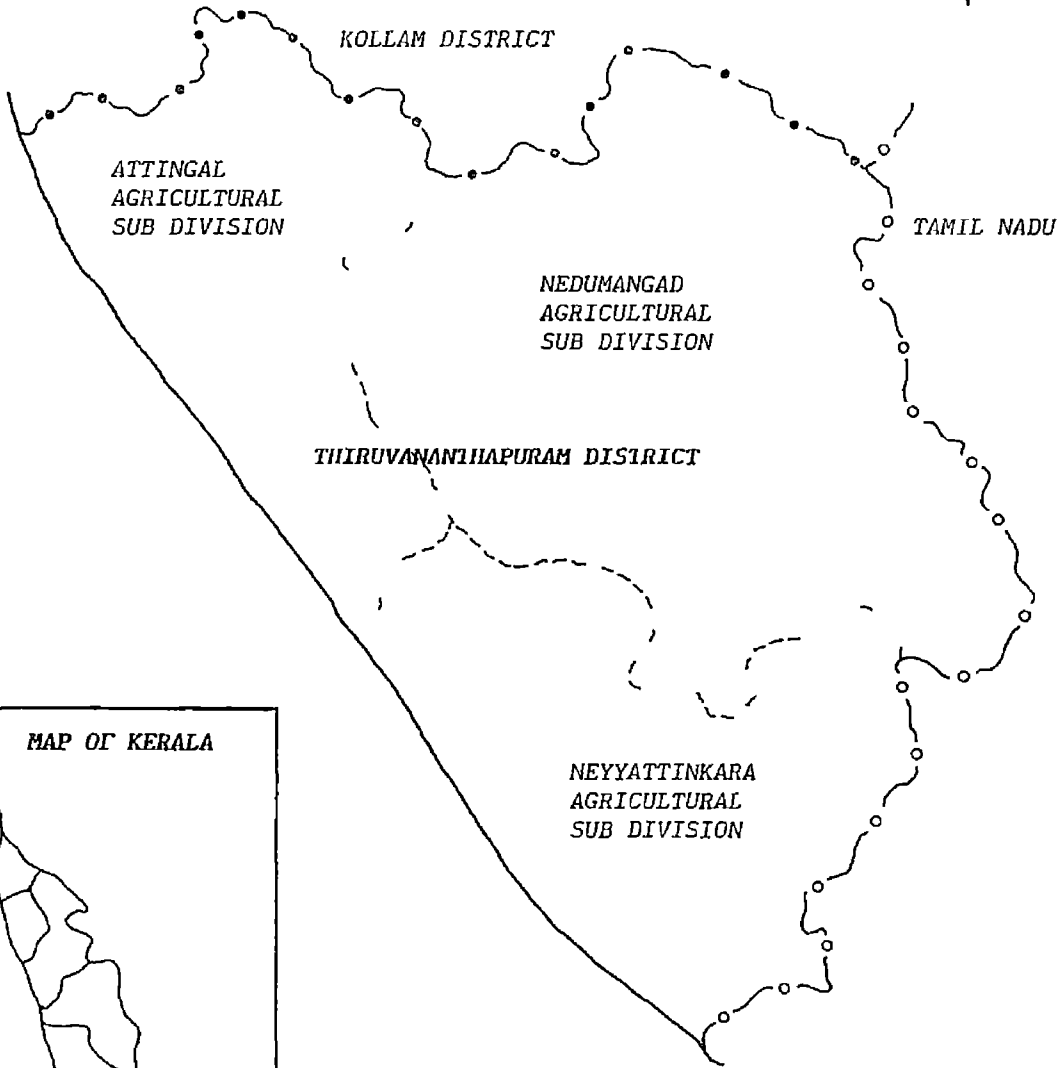
2 Sampling procedures used in the study

In this study, the role perception and role performance of AAs as perceived by AAs AOs and farmers were studied Therefore, there were three categories of respondents for the study viz AAs AOs and farmers There are 84 Krishibhavans in Thiruvananthapuram district Normally 2-3 AAs are working in each Krishbhavan The details of sampling procedure for selection of respondents for the study are as follows

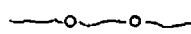
1. Selection of AAs

One AA was selected randomly from each of the 84 Krishibhavans Data regarding role perception role performance characteristics of AAs in relation to their role perception and role performance and also the constraints experienced by them were collected from the 84 AAs selected

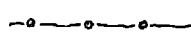
Fig 2 Map showing the location of the study



MAP OF KERALA



STATE BOUNDARY

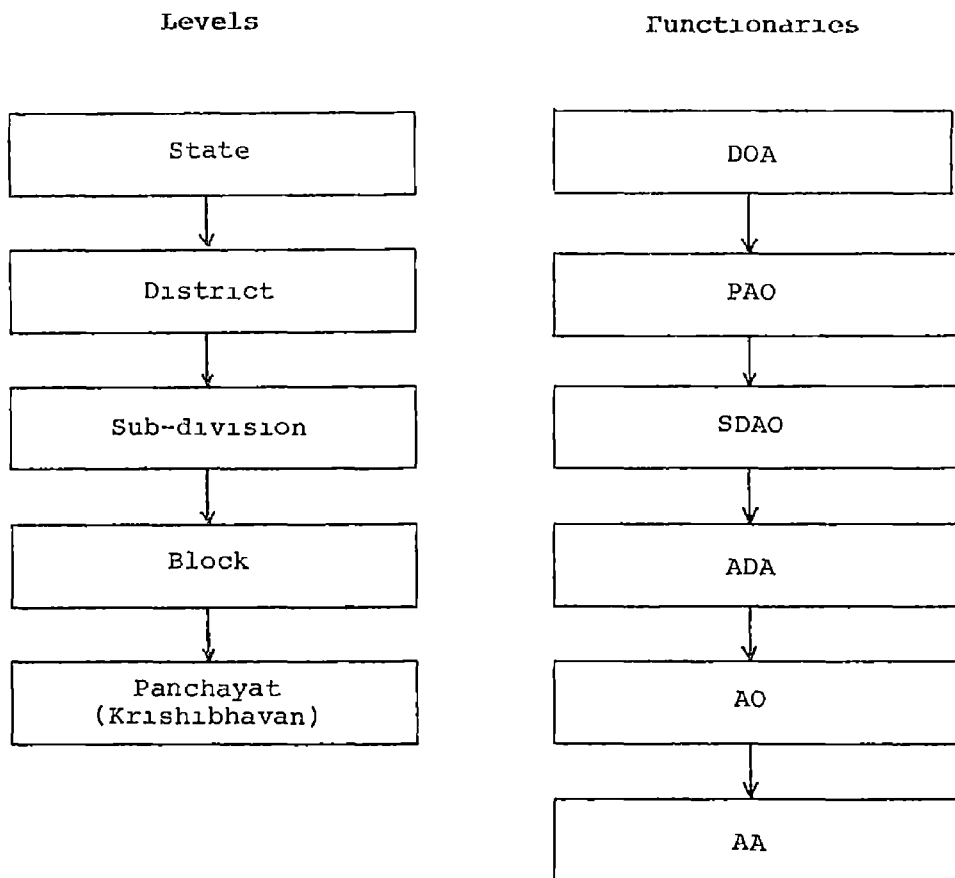


DISTRICT BOUNDARY

AGRICULTURAL SUB DIVISION

THIRUVANANTHAPURAM DISTRICT

Fig 3 Flow chart showing the administrative set-up of the State Department of Agriculture, Kerala



DOA - Director of Agriculture
PAO - Principal Agricultural Officer
SDAO - Sub-Divisional Agricultural Officer
ADA - Assistant Director of Agriculture
AO - Agricultural Officer
AA - Agricultural Assistant

2 Selection of farmers' representatives

Nine Krishibhavans were randomly selected giving equal representation to the three Agricultural sub-divisions of the district Ten farmers representatives each from the Panchayat Level Karshika Vikasana Samithi of these nine Krishibhavans were selected Thus there were 90 farmers representatives for rating the role perception and role performance of AAs

3 Selection of AOs

Forty five Krishibhavans were randomly selected @ 15 from each of the three Agricultural sub-divisions of the district and the AOs working in these Krishibhavans were selected Thus there were 45 AOs for rating the role perception and role performance of AAs

The distribution of Krishibhavans in Thiruvananthapuram district is given in Table 1 The sampling frame for the study is furnished in Table 2

Table 1 Distribution of Krishibhavans in Ithiruvananthapuram district

Sl No	Sub-divisions	ADA office	Number of Krishibhavans
1	Attingal	4	29
2	Neyyattinkara	4	30
3	Nedumangad	4	25
	Total	12	84

Table 2 Distribution of the sample respondents in the three sub divisions

Sl No	Sub-divisions	AAs	AOs	Farmers
1	Attingal	29	15	30
2	Neyyattinkara	30	15	30
3	Nedumangad	25	15	30
	Total	84	45	90

3 Variables selected for the study and their measurement

3.1 Measurement of dependent variables

The dependent variables for the study were role perception and role performance of AAs working under the State Department of Agriculture

The review of research studies in the past relating to role perception and role performance of employees revealed a variety of methods used by the researchers to measure role perception and role performance. However, majority of them used job chart for rating the perception and performance of employees (Sengupta 1966, Singh, 1967, Bhatnagar 1971, Kherde and Sahay 1972, Kolte and Supe 1972, Perumal 1975, Reddy 1982, Sobhana 1982, Siddaramaiah and Gowda 1987, Hegde and Gowda 1989, Kalavathi 1989, Kunwar and Williams 1990 and Warris et al 1990). Therefore, in the present study, also job chart of AAs was used for rating their role perception and role performance.

An index was developed to quantify the role perception and role performance of the respondents. The details of which are furnished as follows.

3.1.1 Identification of role items

To identify the role items of AAs, the job chart

was obtained from the Directorate of Agriculture Kerala. The job chart formed the basis to identify the role items. This was supplemented by thorough discussions with AAs, their higher officials in the state department and also with the experts in the Department of Agricultural Extension College of Agriculture Vellayani. In addition, a detailed review of available literature was also done on this aspect. Thus 48 role items were identified as the roles to be performed by AAs working in the Krishibhavans.

3.1.2 Relevancy of role items

Relevancy of all the roles was tested based on relevancy rating of the items. The rating was done by 120 judges comprising of 40 AAs, 40 AOs and 40 farmers from non-sample areas. Relevancy of the items was rated on a five-point continuum, viz. most relevant, more relevant, relevant, less relevant, and least relevant, which carried weightages of 5, 4, 3, 2, and 1, respectively. Further, they were also requested to add any additional role items which they felt necessary to be included and rate each of the additional items as described previously.

For selecting the relevant items for the purpose of measuring role perception, the coefficient of variance (cv) and mean values of the scores obtained for each item were worked out. Those items with the cv less than the average

value of all the values of cv and with mean values above the average value of all the mean values were selected From the selected items 30 items which appeared common in the ratings of both the AAs and AOs were used for measuring the role perception of AAs as perceived by themselves and also by AOs

Likewise 26 items, selected from among the 48 role items, avoiding the items relating to administration and office duty were given to the farmers for rating the relevancy of the items From their ratings, 16 items were selected through the same procedure detailed earlier for measuring the role perception of AAs as perceived by the farmers

Thus separate scales were prepared for the three categories of respondents The scales for AAs and AOs consisted of 30 items and that for farmers consisted of 16 items

3 1 3 Measurement of role perception

Role perception is operationally defined as the perceived degree of importance attached to the role items by the AAs working in the Krishibhavans

The scale developed for measuring the role perception of AAs was presented before the three groups of sample respondents viz 84 AAs 45 AOs and 90 farmers To rate the

role perception of each item a five point continuum was provided on the left hand side of the items The scoring procedure is shown below

Most important	-	5
More important		4
Important	-	3
Less important	-	2
Least important	-	1

3 1 4 Measurement of role performance

Role performance is operationally defined as the roles being actually performed by an AA by virtue of occupying the position of AA at Krishibhavans level in the Department of Agriculture

The scale developed to measure the role performance of AAs consisted of the same statements included in the role perception scale The scale was presented before the sample respondents, viz 84 AAs 45 AOs and 90 farmers to rate the role performance of each item a five point continuum was provided on the right hand side of the items The scoring procedure is given below

Always	-	5
Most often	-	4
Often	-	3
Sometimes	-	2
Never	-	1

3 1.5 Reliability of the scale

A scale is said to be reliable when it consistently produces the same responses when applied to the same sample (Goode and Hatt 1952) In this study the reliability of the scale was computed by using split-half method

The scale was divided into two halves based on odd even number of items and given to the AAs (n = 30) in non sample area to rate the role performance of AAs Two sets of scores were derived on half length of the scale for the same respondents and the resulting scores were correlated The reliability coefficient was 0.83 The coefficient of correlation was highly significant at one per cent level indicating the high reliability of the scale developed

3 1.6 Validity of the scale

A scale possesses validity when it actually measures what it claims to measure (Goode and Hatt 1952) In this study the content validity and construct validity of the scale were established

The main criterion of content validity is how well the contents of the scale adequately covered the various aspects of overall role performance of the AAs. In this study the relevancy of role items was determined based on the opinion of 120 judges comprising of 40 AAs, 40 AOs and 40 farmers. Thus content validity of the scale was established.

When a performance scale is said to possess construct validity, the performance scores obtained on the scale will be in line with the scores of the same group of respondents on a performance related criterion.

To test the construct validity, the AAs (n = 30) from non sample areas were given the role performance scale and job satisfaction scale (Joseph, 1983) to rate simultaneously. The resulting two sets of scores were correlated. The coefficient of correlation was found highly significant ($r = 0.81$) at one per cent level, indicating that the scale was valid.

3.2 Measurement of independent variables

3.2.1 Age

In this study, age was measured as the number of years completed by the respondent at the time of investigation.

3.2.2 Educational level

The respondents had three levels of education, namely

Kerala Government Technical Education (K G T E) Madras Government Technical Education (M G T E) and Diploma in Agriculture The respondents possessing M G T E certificate were very few So they were clubbed with K G T E certificate holders Afterwards the AAs were classified as Diploma holders and KGTE/MGTF certificate holders

3 2 3 Rural/Urban background

It is operationalised as the background of an AA to which he belongs The background of AAs was categorised into two viz rural and urban The scoring procedure was as follows

Response	Score
Rural	2
Urban	1

3 2 4 Achievement motivation

It is operationalised as the desire for excellence in order for an AA to attain a sense of personal accomplishment

Achievement motivation was measured using TAT by Kagan (1972) Singh and Kumar (1975) and Metha (1975) Because of the practical difficulties involved in the use of TAT many other researchers used questionnaire method to measure

achievement motivation (Sinha and Prasad, 1978 Bharmappa 1981 Sundaram 1981 Achanta, 1983 and Srivastava 1985)

The scale used by Kalavathi to measure the achievement motivation of employed agricultural graduates was found suitable for the present study also. The scale contained seven statements put on a five-point rating continuum namely strongly agree, agree, 'undecided', disagree and strongly disagree. The scoring pattern is given below (Appendix-I)

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

For negative statements the scoring procedure was reversed. The sum of scores over all the items secured by an individual formed his score of achievement motivation.

3.2.5 Attitude towards profession

Sobhana (1982) made use of a likert type scale consisting of five negative and five positive statements to measure the attitude of Junior Agricultural Officers towards

their profession In order to measure the attitude of AAs towards their profession this scale was used which has ten statements expressing both positive and negative attitude (Appendix I) The statements were rated on a five-point continuum and the scoring pattern for the positive statement is shown below

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

In the case of negative statements the scoring pattern was reversed The score of a respondent was obtained on summation of his scores on all the ten statements

3 2 6 Attitude towards farmers

To measure the attitude of AAs towards farmers, a scale developed by Pandeyaraj (1978), which was modified by Joseph (1983) to measure the attitude of Agricultural Demonstrators towards farmers was used

The scale consisted of six statements comprising of

both positive and negative items and the response was collected on a five point continuum ranging from strongly agree to strongly disagree (Appendix-I) The scores assigned for positive statements were as follows

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

For negative statements, the scoring pattern was reversed The attitude score for each respondent was obtained by adding up his scores corresponding to the respective response pattern

3 2 7 Job esteem

It was operationalised in the present study as the extent to which an AA could satisfy his/her esteem needs through his/her job in Krishibhavan

In order to measure the job esteem of AAs a procedure developed by Kalavathi (1989) was used It consisted of a total number of eight items comprising of both positive and

negative statements (Appendix I) A five point continuum was provided for rating ranged from strongly agree to strongly disagree

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

In the case of negative statements the scoring pattern was reversed The sum of scores for all the items secured by an individual formed his score of job esteem

3 2 8 Job supervision

Job supervision is operationalised as the perception of an AA about the extent of counselling and advice received by him/her from the superiors in connection with the job

Guidance and supervision was measured by Reddy (1976) using a scale consisting of seven statements with scores ranging from seven to thirty five A procedure was developed by Kalavathi (1989) to measure the job supervision of employed agricultural graduates which was used in the present study

for measuring the job supervision of AAs The scale consisted of eight items consisting of both positive and negative statements put on a five point continuum (Appendix I) The scoring procedure for the positive statements was as follows

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

For negative statements the scoring pattern was reversed The score for job supervision of an individual was obtained by summing up his scores on all items

3 2 9 Job satisfaction

Job satisfaction is operationally defined as the amount of agreement between an AA s expectations of his job and the rewards that the job provides

A job satisfaction scale developed by Rathore (1974) was modified by Joseph (1983) to measure the job satisfaction of Agricultural Demonstrators Laharia (1978) developed a job satisfaction scale consisting of 14 statements with a possible

score range of 14 to 70 This scale was later used by Reddy (1986) and Kalavathi (1989)

In the present study the scale used by Joseph (1983) was adopted to measure the job satisfaction of AAs The scale consisted of ten statements reflecting different aspects of job The items were in the form of questions and the answers were rated on a five point continuum ranging from 'very much satisfied to very much dissatisfied (Appendix-I) The scores assigned were as follows

Response	Score
Very much satisfied	5
Satisfied	4
Undecided	3
Dissatisfied	2
Very much dissatisfied	1

The job satisfaction score for each respondent was obtained by summing up his scores corresponding to all the answers

3 2.10 Role ambiguity

In the present study, role ambiguity of an AA is operationalised as the degree to which he/she is unclear about

the role expectation of others as well as the degree of uncertainty associated with his/her role performance

Rizzo et al (1970) developed a scale to measure role ambiguity, consisting of six items rated on a seven-point continuum ranging from 'very true to very false Lyons (1971) used a scale containing of four items and two different five-point continuum were used (Yes-no and very clear not clear at all) Later in 1976 Beehr used a scale to measure the role ambiguity of AA consisting of four items which was adopted for the present investigation It has four items on a four-point continuum ranging from very true to not at all true (Appendix-I) The scoring procedure is given below

Response	Score
Very true	4
Somewhat true	3
A little true	2
Not at all true	1

The total score of all the four items secured by an individual formed his score of role ambiguity

3.2 11 Organizational climate

It was operationalised as the degree to which an AA

perceives about his work place facilities co workers supervision and leadership as favourable or unfavourable

The organizational climate questionnaire developed by Litwin and Stringer (1968) was modified and used by Prasannakumar (1985) to quantify the perception of organizational climate by Assistant Agricultural Officers The scale has seven items representing different dimensions of organizational climate

This scale was used to measure the perception of AAs about the organizational climate (Appendix-I)

A five point continuum was provided with a scoring pattern as shown below

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

Organizational climate measure of a respondent was computed by adding his scores on all the statements

3 2 12 Self confidence

Self confidence was operationalised as the belief of an AA in his/her own abilities

Joseph (1983) made use of a scale to measure the self confidence of Agricultural Demonstrators, modifying a scale developed by Pandyaraj (1978) to measure self confidence of Junior Agricultural Officers in Kerala This scale was used in the present study to measure self confidence of AAs

The scale consisted of eight statements both positive and negative explaining initiative and ability to achieve goals (Appendix-I) These statements were rated on a five-point continuum and the scoring pattern for positive items is shown below

Response	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

In the case of negative items the scoring pattern was reversed The total score for all the items secured by an individual gave his score of self confidence

3.3 Measurement of constraints experienced by AAs in performing their role effectively

In the light of a detailed review of the available literature and also based on a thorough discussion with AAs 15 constraints affecting the effective performance of AAs were identified. These problems were placed before the AAs to rate them based on the degree of importance they attach to each of the constraints. A three-point continuum, ranging from 'more important' to 'less important' was provided for rating (Appendix-I). The scoring pattern was as follows:

Response	Score
More important	3
Important	2
Less important	1

The constraints were ranked based on a cumulative index. The frequency of responses under each category was multiplied with the corresponding weightage and added to get a cumulative index for the particular constraint. The ratio between the cumulative index and the frequency of responses for each constraint was worked out. Based on this ratio, each of the constraint was ranked.

4 Development of questionnaire

Separate questionnaires were prepared for AAs and AOs in English. For the farmer-respondents an interview schedule was prepared in Malayalam. Before the final administration the questionnaires were pre-tested.

4.1 Pre-testing of the questionnaire

Oppenheim (1966) opined that it is preferable to have the judgements made by people who are similar to those to whom the finished scale shall be applicable. Accordingly the questionnaire was pre-tested based on the ratings of AAs (n = 30) from non-sample area. Results of correlation analysis indicated that among the twelve independent variables, the variables namely 'rural/urban background', 'attitude towards profession' and 'self-confidence' were found to have no significant association with role performance and role perception of AAs. Besides this, the variable 'level of education' was also found insignificant as the respondents did not differ significantly in their educational qualification. Most of them possessed K G T E or M G T E (Agriculture) as their qualification for the post of AA. The number of diploma holders were discarded from the questionnaire for main study. Besides this other necessary modifications were also made in the questionnaire.

5 Data collection

Questionnaires for AAs and AOs were sent to them by mail. The response sheets were collected by personally contacting them. From the farmers the responses were collected through interviewing them.

The data collection was done during June July, 1992.

6 Statistical analysis

6.1 Simple correlations

To study the relationship between each independent variable and the dependent variables, simple correlations were worked out.

6.2 Multiple correlation and regression analysis

The multiple correlation coefficient (R) represented zero-order correlation between the actual dependent variable scores and the predicted dependent variable score obtained from the independent variables under consideration. When the predicted dependent variable scores exactly corresponds to the actual dependent variable score of the respondents the multiple correlation coefficient would be one (1.00).

The square of the multiple correlation coefficient i.e. the coefficient of determination (R^2) defined the

proportion of the total variation explained by the independent variables as per the fitted regression relationships

The partial regression coefficients or partial b's were obtained for the variables. The following prediction equation was used in the study to determine the multiple regression

$$Y_1 = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 \text{ for the role perception of AAs}$$

$$Y_2 = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 \text{ for the role performance of AAs}$$

b_1 coefficient showing the rate of change in y that can be caused by unit change in x the remaining independent variables held fixed (i = 1, 2, 3, ..., 8)

Y_1 = Role perception of AAs

Y_2 = Role performance of AAs

x_1 = Age

x_2 - Achievement motivation

x_3 = Attitude towards profession

x_4 - Role ambiguity

x_5 = Job supervision

x_6 - Job satisfaction

x_7 - Job esteem

x_8 - Organizational climate

A correction was made to bring the measurements of the independent variables to a single unit. The correction was effected by standardising each partial b value using the standard deviation of the respective variables. A standard b called the beta weight of the partial coefficient, was computed by the following formula

$$\text{Beta weight} = \frac{\text{S D of independent variable}}{\text{S D of dependent variable}} \times \text{partial } b$$

The absolute values of beta weight indicated the relative importance of the independent variables in the regression equation.

6.3 Path analysis

Path analysis was done to know the direct and indirect influence of the independent variables on the dependent variables and to know the extent of determination of these variables on the dependent variables.

6.4 Mann-Whitney U test

This test was used to test whether there was significant difference between the perceptions of the groups of respondents i.e. between AAs and AOs with respect to the role perception and role performance of AAs.

The difference between the two groups along the various dimensions of dependent variables was tested

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

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

$$W = n_1 n_2 + \{[n_1(n_1+1)]/2\} - T_1$$

where

n_1 = number of observations in group 1

n_2 = number of observations in group 2

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

For large n_1 and n_2 the normal test of significance was applied with the test criterion

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

6.5 Kruskal-Wallis one way analysis of variance by ranks

The Kruskal-Wallis one way analysis of variance by ranks is a useful test for deciding whether K independent samples are from different populations. Sample values almost invariably differ somewhat, and the question is whether the difference among the samples signify genuine population difference or whether it is due to sample fluctuations.

Here the technique was applied to test whether any significant difference exists among the three groups of respondents with respect to the various dimensions of dependent variables: role perception and role performance. The test criterion is given by,

$$KW = \left[\frac{12}{n(n+1)} \sum_{j=1}^K \frac{R_j^2}{n_j} \right] - 3(n+1)$$

where,

K - number of groups/classes

n_j = j^{th} sample size

n - sum of the n_j s

R_j = rank total of the j^{th} group/class

KW is distributed as a chi-square with K-1 degrees of freedom.

The method of multiple comparisons was also worked out to determine whether the differences among the individual

pairs were significant This was obtained by using the following inequality

$$|R_i - R_j| \geq z_{0.05} \sqrt{\frac{n(n+1)}{12} \left(\frac{1}{n_i} + \frac{1}{n_j} \right)}$$

where $z_{0.05}$ is the critical value of multiple comparison at 5 per cent level of significance (Ref Table A II of Non Parametric Statistics for Behavioural Sciences by Siegel and Castellan Jr 1988)

The statistical analysis was done at College of Agriculture Vellayani with the help of Computer PC AT/386 (Busy Bee of HCL)

Results

RESULTS

In this chapter, the results of the study are presented in the following sequence

- 1 Analysis of the role of AAs
 - 1 1 Ranking of roles based on the mean score of AAs on role perception and role performance
 - 1 2 Relationship between the role perception and role performance of AAs
 - 1 3 Comparison of the AAs and AOs with respect to the scores on their perception of the role of AAs
 - 1 4 Comparison of the AAs and AOs with respect to the scores on their perception of the role performance of AAs
 - 1 5 Comparison of AAs AOs and farmers with respect to the scores on their perception of the role of AAs
 - 1 6 Comparison of AAs AOs and farmers with respect to the scores on their perception of the role performance of AAs
- 2 Relationship of the selected characteristics with the role perception and role performance of AAs
- 3 Results of multiple regression analysis

- 4 Results of path analysis
- 5 Constraints experienced by the AAs in the effective performance of their roles

1 Analysis of the role of AAs

1.2 Ranking of roles based on the mean score of AAs on role perception and role performance

Ranking of roles as per the perception and performance of AAs is shown in Table 3

Table 3 shows that the role like attending Agroclinics , maintaining work diary' reporting the pest and disease incidence in crops reporting the loss due to natural calamity to the officer arranging the supply of inputs through Krishabhavans , conducting field visits to provide technical guidance to farmers and arranging for the repair of agricultural machinery through Krishabhavans are perceived to be most important by AAs

Likewise attending Agro-clinics maintain work-diary reporting the loss due to natural calamity reporting the stock and sale of inputs from depots , conducting field visits to provide technical guidance to farmers , 'assisting farmers in taking soil samples and

Table 3 Mean scores of AAs on their role perception and role performance

(n - 84)

Role perception		Roles	Role performance	
Mean score	Rank		Mean score	Rank
4 12	14 5	Collect informations regarding major crops (R_1)	4 06	14 5
3 96	24 5	Gather informations about progressive farmers (R_2)	3 94	23 0
3 96	24 5	Assess the input requirements of farmers (R_3)	3 93	24 0
4 06	21 0	Motivate people to practice group effect for agricultural development (R_4)	4 00	21 00
3 89	26 5	Organize voluntary groups for agricultural development (R_5)	3 92	25 0
3 80	30 0	Encourage people for co-operative marketing of their produces (R_6)	3 61	29 0
3 88	28 0	Arrange for the supply of inputs at the Elas itself in group farming areas (R_7)	3 08	30 0
4 12	14 5	Gain technical knowledge about modern agricultural practices suitable to the area (R_8)	3 96	22 0 ⁺

Contd

Table 3 (Contd)

Role perception		Roles	Role performance	
Mean score	Rank		Mean score	Rank
4 04	22 0	Distribute leaflets on improved agricultural practices among farmers (R ₉)	4 02	17 5
3 89	26 5	Give feedback informations on the programmes implemented to the authorities (R ₁₀)	3 81	28 0
4 08	18 5	Highlight results of demonstrations to make farmers understand its beneficial aspects (R ₁₁)	4 03	16 0
3 89	29 0	Discuss with farmers representatives to ensure people s participation (R ₁₂)	4 01	19 5
3 97	23 0	Educate farmers to adopt soil test recommendations (R ₁₃)	3 88	27 0
4 22	8 0	Update knowledge by attending trainings (R ₁₄)	4 07	13 0
4 21	9 0	Report the field situation based on periodical field visits (R ₁₅)	4 12	10 5
4 40	3 0	Report the pest and disease incidence in crops n time (R ₁₆)	4 30	4 0

Contd

Table 3 (Contd)

Role perception		Role	Role performance	
Mean score	Rank		Mean score	Rank
4 07	20 0	Report the stock and sale of inputs from the depots to the officer (R ₁₇)	4 02	17 5
4 36	4 0	Report the loss due to natural calamity to the officer (R ₁₈)	4 39	13 0
4 09	17 0	Assist officer in preparing location specific projects (R ₁₉)	4 01	19 5
4 45	1 5	Maintain work diary (R ₂₀)	4 51	2 0
4 08	18 5	Assist officer in preparing various reports (R ₂₁)	4 06	14 5
4 19	10 0	Assist officer in distributing subsidy and other benefits to farmers (R ₂₂)	4 12	10 5
4 13	13 0	Assist officer in the successful implementation of various schemes (R ₂₃)	4 09	12 0
4 24	7 0	Arrange for the repairing of agricultural machinery through Krishibhavans (R ₂₄)	3 90	26 0

Contd

Table 3 (Contd)

Role perception		Role	Role performance	
Mean score	Rank		Mean score	Rank
4 26	5 5	Arrange the supply of inputs through Krishnavans (R ₂₅)	4 18	8 0
4 26	5 5	Conduct field visits to provide technical guidance to farmers (R ₂₆)	4 24	5 0
4 16	11 0	Assist officer in conducting method demonstrations (R ₂₇)	4 19	7 0
4 15	12 0	Assist farmers in taking soil samples scientifically (R ₂₈)	4 20	6 0
4 11	16 0	Assist farmers in establishing bio-gas plants (R ₂₉)	4 15	9 0
4 45	1 5	Attend Agro clinics (R ₃₀)	4 55	1 0

assisting officer in conducting method demonstrations are the roles performed well by the AAs

Roles like encourage people for co-operative marketing discuss with farmers representatives arrange for the supply of inputs at the El as itself organize voluntary groups give feed back informations to the authorities gather informations about progressive farmers of the area and assess the input requirements of farmers were given minimum importance and the roles performed very poor are encourage people for co-operative marketing give feed back informations to the authorities educate farmers to adopt soil test recommendations' arrange for the repairing of agricultural machinery organize volantar groups and assess input requirements of farmers

1 2 Relationship between the role perception and role performance of AAs

Result of correlation analysis showing the relationship between the role perception and role performance of AAs is shown in Table 4

Data in Table 4 revealed that role perception of AA was highly correlated with their role performance Insignificant correlation was observed only in the case of two roles namely arrange for the supply of inputs at the El as itself

J No of roles	Role creation a score	Role performance mea score	Correla on
1	4 12	4 06	0 4112 *
2	3 96	3 94	0 4863**
R ₃	3 96	3 93	0 5700**
4	4 05	4 00	0 3788
5	3 89	3 92	0 3451
R ₆	3 80	3 61	0 408
R ₇	3 88	3 08	0 199
R ₈	4 12	3 96	0 4087
9	4 04	4 02	0 3 ?
R ₁₀	3 89	3 81	0 1241
R ₁₁	4 08	4 3	0 33
R ₁₂	3 89	1	
13	3 97	3 8	0 39 0
R ₁₄	4 22	4 0	0 0 8
R ₁₅	4 21	12	0 47
R ₁₆	4 40	1 30	0 43
R ₁₇	1 08	1 02	0 7
18	36	4 39	0 43 0
R ₁₉	4 09	01	0 47
R ₂₀	4 45	52	0 411
R ₂₁	1 08	1 08	0 5364
R ₂₂	4 19	1 12	0 4 3
R ₂₃	4 13	1 08	0 3789
R ₂₄	4 24	3 90	0 0123
R ₂₅	4 26	4 18	0 5174**
R ₂₆	4 26	4 24	0 5674**
R ₂₇	4 16	4 19	0 5172**
R ₂₈	4 16	4 20	0 5650**
R ₂₉	4 11	4 15	0 6182**
30	4 45	4 55	0 5306**

Sign ficant at 0 01 per cent level

ns

Not significant

in group farming areas and arrange for the repair of agricultural machinery through Krishibhavans

1 3 Comparison of the AAs and AOs with respect to the scores on their perception of the role of AAs

Results of Mann Whitney test giving a comparison between AAs and AOs regarding their perception of the 30 role items of AAs are shown in Table 5

The data in Table 5 indicated that the AAs and AOs differed significantly with respect to their perceptions about the role of AAs in almost all the role items. Similarity in perception was observed only in the case of roles viz collect informations regarding major crops gather informations about progressive farmers assess input requirements of farmers motivate people to practice group effort gain technical knowledge about modern agricultural practices , assist officer in distributing subsidy and other benefits and 'assist officer in the successful implementation of various schemes

1 4 Comparison of the AAs and AOs with respect to the scores on their perception of the role performance of AAs

Results of Mann-Whitney test giving a comparison of AAs and AOs with respect to the scores on their perception of the role performance of AAs are given in Table 6

l No f roles	Mean scores of AAs (n 84)	Mean scores of AOs (n 45)	Z value
R ₁	4 12	4 02	0 5559 ^s
R ₂	3 96	3 87	0 3957 ^{ns}
R ₃	3 96	3 89	0 2968 ^{ns}
R ₄	4 06	3 69	1 5712 ^{ns}
R ₅	3 89	3 44	2 2802*
R ₆	3 80	3 02	3 9338*
R ₇	3 88	3 49	2 1577*
R ₈	4 12	3 73	1 9056 ^{ns}
R ₉	4 04	3 18	5 0267*
I ₁₀	3 89	3 42	2 7183*
R ₁₁	4 08	3 69	2 0964*
R ₁₂	3 89	3 49	2 2095*
R ₁₃	3 97	3 42	2 8078
I ₁₄	4 22	3 62	3 0787*
I ₁₅	4 21	3 51	3 6487
I ₁₆	4 40	3 68	3 8160*
I ₁₇	4 07	3 13	4 9090
I ₁₈	4 36	3 87	2 9307
R ₁₉	4 08	3 62	2 5840
I ₂₀	4 44	3 67	4 307
I ₂₁	4 08	3 67	2 120
R ₂₂	4 19	3 93	1 5109 ^s
R ₂₃	4 13	3 97	9187 ^s
I ₂₄	4 24	3 5	3 728
I ₅	26	3 40	4 477J
R ₂₆	4 26	3 27	5 02 4
I ₂₇	4 16	3 36	4 3012
R ₂₈	4 16	3 24	4 11
R ₂₉	4 11	3 53	2 9256
R ₃₀	4 45	3 24	4 72

* Significant at 5 per cent level

ns Not significant

The data in Table 6 indicated that the AOs differed significantly from AAs in their perception about the role performance of AAs

Similar opinions were given by both the groups of respondents only in the case of performance of roles like arranging the supply of inputs in the Elms itself assist the officer in preparing various reports assist officer in distributing subsidy and other benefits and assist the officer in the successful implementation of schemes

1 5 Comparison of AAs, AOs and farmers with respect to the scores on their perception of the role of AAs

Perception of farmers about the role of AAs was compared with that of AAs and AOs with respect to 16 items which were administered to farmers Those 16 items were selected from the 30 role items given to AAs and AOs as they were found relevant to farmer respondents

Kruskal Wallis test was employed to test whether there was any significant difference among the three groups of respondents Rank means of all the three groups of respondents on the role perception of AAs were worked out and the difference in rank means were compared with critical values to see whether the difference was significant or not Moreover chi-square values were also obtained which gave a comparison among the three groups

Result of Kruskal Wallis test showing a comparison among AAs AOs and farmers on the role of AAs is given in Table 7

7 Comparison of AAs AOs and farmers with respect to the scores on their perception of the 16 role items of AAs

Number roles	Rank mean of AAs Z_1 (n 84)	Rank mean of AOs Z_2 (n 45)	Rank mean of farmers Z_3 (n 90)	Difference in rank means		
				Z_1 Z_2	$Z_1 - Z_3$	Z_2 Z_3
	105 20	80 0	1 5 97	25 0 ^{ns}	30 77*	55 0 _b
	108 7	90 80	127 53	17 47 ^{ns}	19 26 ^{ns}	36 73
	111 40	68 47	135 60	42 93*	20 40*	67 13*
	121 40	67 53	126 18	53 87*	4 78 ^{ns}	58 57
	148 42	128 74	68 86	19 68 ^{ns}	79 56*	59 88*
	129 48	67 79	118 06	61 69*	11 42 ^{ns}	50 2 *
	155 92	120 56	65 53	35 36*	90 39*	55 03*
	101 02	75 77	142 22	25 25 ^{ns}	41 20*	66 45*
	112 31	68 86	134 51	43 45*	22 20 ^{ns}	65 65*
0	115 52	1 3	130 09	44 10*	14 57 ^{ns}	58 76
1	126 43	60 69	119 73	57 1 *	7 10 ^{ns}	50 04
2	113 38	80 91	2 42	32 4 *	14 04 ^{ns}	46 51
3	111 80	92 77	23 06	19 03 ^{ns}	11 26 ^{ns}	30 29*
4	112 17	78 39	129 88	83 78*	17 71 ^{ns}	51 49*
5	115 01	79 17	126 69	35 84*	11 68 ^{ns}	47 52*
6	1 0 65	53 02	35 17	66 63*	15 52 ^{ns}	82 15

Significant at 5 per cent level of significance n 0 significant

It was clearly indicated by the results of Table 7 that AOs were having significantly different opinion regarding the role of AAs from that of AAs. In the case of perception of all the roles except collect informations regarding major crops, organize voluntary groups, gain technical knowledge about modern agriculture practices and educate farmers to adopt soil test recommendation, AOs and AAs gave different opinion.

But the perception of farmers was similar to that of AAs. In almost all the roles except the roles like collect information regarding major crops, assess the input requirements of farmers, organize voluntary groups for agricultural development, arrange the supply of inputs at the 'Elas' itself in group farming areas' and gain technical knowledge in modern agricultural practices, farmers and AAs gave similar response.

When the perception of farmers was compared with that of AOs, it was found that the farmers had significantly different perception from that of the AOs in the case of all the 16 role items.

1.6 Comparison of AAs, AOs and farmers with respect to the scores on their perception of the role performance of AA.

Perception of farmers about the role performance of

AAs was compared with that of AAs and AOs with respect to the 16 items with the help of the Kruskal-Wallis test and the results of this test are presented in Table 8

Data on Table 8 show that AOs were having different perception regarding the performance of role items by AAs from that of AAs. In the case of roles arranging for the supply of inputs in the Elsas itself in group farming areas discuss with farmers representatives and assist officer in distributing the subsidy and other benefits to farmers only both the groups gave similar opinion.

Farmers and AAs were having almost similar opinion regarding the performance of roles by AAs in Krishabhavans. They gave different opinion in the case of the roles encourage farmers for co-operative marketing arrange for the supply of inputs in the Elsas make arrangements for repairing the agricultural machinery discuss with farmers representatives and 'conduct periodical field visits to understand the field situation'.

The response of farmers and AOs were significantly different regarding the performance of roles by AAs. Similar opinions were given only in the performance of roles like assist farmers in taking soil samples scientifically and assist officer in timely distribution of subsidy and other benefits to farmers.

Results of Kruskal Wallis test giving a comparison among AAs AOs and farmers on the role performance of AAs is given in Table 8

Table 8 Comparison of AAs AOs and farmers with respect to the scores on their perception of the role performance of AAs on the 16 role items

Code number of roles	Rank mean of AAs Z_1 (n 84)	Rank mean of AOs Z_2 (n 45)	Rank mean of farmers Z_3 (n 90)	Difference in rank means						
				Z_1	Z_2	Z_1	Z_3	Z_2	Z_3	
	<u>1</u>									
R ₁	117 78	65 51	4 75	48	27*	20	95 ^{ns}	69	22*	
R ₂	113 20	72 40	131 86	40	80*	18	66 ^{ns}	59	46*	
R ₃	111 28	53 30	143 26	57	89*	31	98*	89	87*	
R ₄	116 89	69 78	129 52	47	11*	12	63 ^{ns}	59	74*	
R ₅	125 55	126 86	92 42	1	31 ^{ns}	33	13*	34	44*	
R ₆	123 19	76 27	120 05	46	92*	3	14 ^{ns}	43	78*	
R ₇	143 28	114 70	80 96	28	58*	62	32*	33	74*	
R ₈	103 82	79 96	13 36	23	86 ^{ns}	33	54*	57	40*	
R ₉	111 43	62 49	138 57	48	94*	27	14*	76	08*	
R ₁₀	117 33	61 22	151 86	53	11*	14	53 ^{ns}	67	04*	
R ₁₁	127 94	84 71	11 13	43	23*	16	81 ^{ns}	26	42*	
R ₁₂	112 59	71 46	3 9	41	13*	20	34 ^{ns}	61	47*	
R ₁₃	102 87	117 81	119 87	14	94 ^{ns}	16	50 ^{ns}	1	56 ^{ns}	
R ₁₄	115 74	60 30	135 39	55	44*	19	65 ^{ns}	75	09*	
R ₁₅	114 10	83 2	124 54	30	83*	10	44 ^{ns}	41	27*	
R ₁₆	122 93	68 23	124 32	54	70*	1	39 ^{ns}	56	09*	

* Significant at 5 per cent level of significance ns not significant

Critical values Z_1 Z_2 28 28 2 28 3 Z_1 3 5

Fig 4 Comparison of mean scores of AAs, AOs and farmers on role perception of AAs

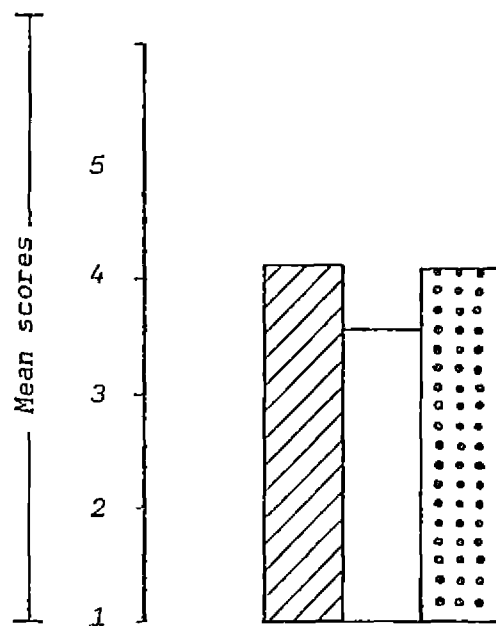


Fig 5 Comparison of mean scores of AAs, AOs and farmers on role performance of AAs

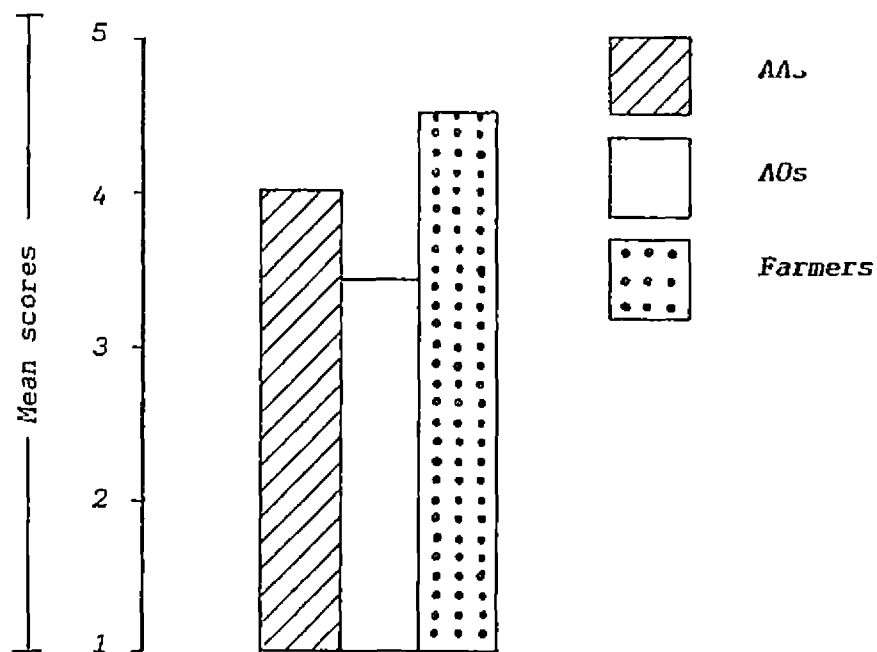


Table 9 Comparison of AAs AOs and farmers with respect to the scores on their perception of the roles and role performance of AAs

Code number	Roles	χ^2 value for role perception	χ^2 value for role performance
R ₁	Encouraged voluntary organizations for agricultural development	26 92**	38 02**
R ₂	Organize farmers' groups	11 62**	27 95**
R ₃	Encourage farmers to market agricultural produce on a co-operative basis	34 93**	62 18**
R ₄	Make arrangements for the supply of inputs like seeds fertilizers and pesticides through Krishibhavans	31 61**	29 91**
R ₅	Arrange for the supply of inputs in the Elas itself in group farming areas	74 53**	15 66**
R ₆	Conduct field visits to provide technical guidance to farmers in farming operations	31 32**	20 0**
R ₇	Make arrangements for repairing the agricultural machinery (sprayers etc) through Krishibhavans	93 18**	44 37**
R ₈	Discuss with farmers' representatives to ensure people s participation	40 49**	30 11**
R ₉	Conduct periodical field visits to understand the field situation of all crops	36 04**	47 19**
R ₁₀	Note the disease and pest incidence in crops and helps in their timely control	30 64**	38 74**

Contd

Table 9 (Contd)

Code number	Roles	χ^2 value for role perception	χ^2 value for role performance
R ₁₁	Assist farmers in taking soil samples scientifically	27 84**	15 30**
R ₁₂	Assist farmers in adopting agricultural practices based on soil test recommendations	17 11**	30 49**
R ₁₃	Assist officer in the timely distribution of subsidy and other benefits to farmers	7 63	3 79
R ₁₄	Make necessary arrangements for distributing relief for natural calamity loss	23 32**	48 74**
R ₁₅	Assist farmers in establishing bio gas plants	18 54**	12 79**
R ₁₆	Attend agro-clinics regularly	66 12**	32 54**

** Significant at one per cent level

The χ^2 values obtained in the Kruskal-Wallis test giving the significance of difference among the three groups of respondents is shown in Table 9

Data on Table 9 reveals that the AAs AOs and farmers gave significantly different opinions regarding the roles and role performance of AAs with respect to almost all the role items given for rating. Similarity in opinions was noticed only in the case of the role, 'assisting officer in distributing subsidy and other benefits to the farmers

2 Relationship of the selected characteristics of AAs with their role perception and role performance

The results of correlation analysis showing the relationship of AAs characteristics with their role perception are shown in Table 10 and Fig 6

Data in Table 10 showed that there was significant relationship for five characteristics namely, achievement motivation role ambiguity, job supervision job esteem and organizational climate, with the role perception of AAs. Role ambiguity was negatively associated with role perception of AAs

The results of correlation analysis showing the relationship of the selected characteristics with their role performance are shown in Table 11 and in Fig 6

Table 10 Correlation between respondents characteristics and their role perception

(n 84)

Variable number	Name of characteristics	Correlation coefficient r
X ₁	Age	-0.0591 ^{ns}
X ₂	Achievement motivation	0.4824**
X ₃	Attitude towards profession	0.1083 ^{ns}
X ₄	Role ambiguity	-0.3698**
X ₅	Job supervision	0.3954**
X ₆	Job satisfaction	0.1946 ^{ns}
X ₇	Job esteem	0.5302**
X ₈	Organizational climate	0.4484**

** Significant at 1 per cent level of significance

* Significant at 5 per cent level of significance

ns Not significant

Table 11 Correlation between respondents characteristics and their role performance

(n = 84)

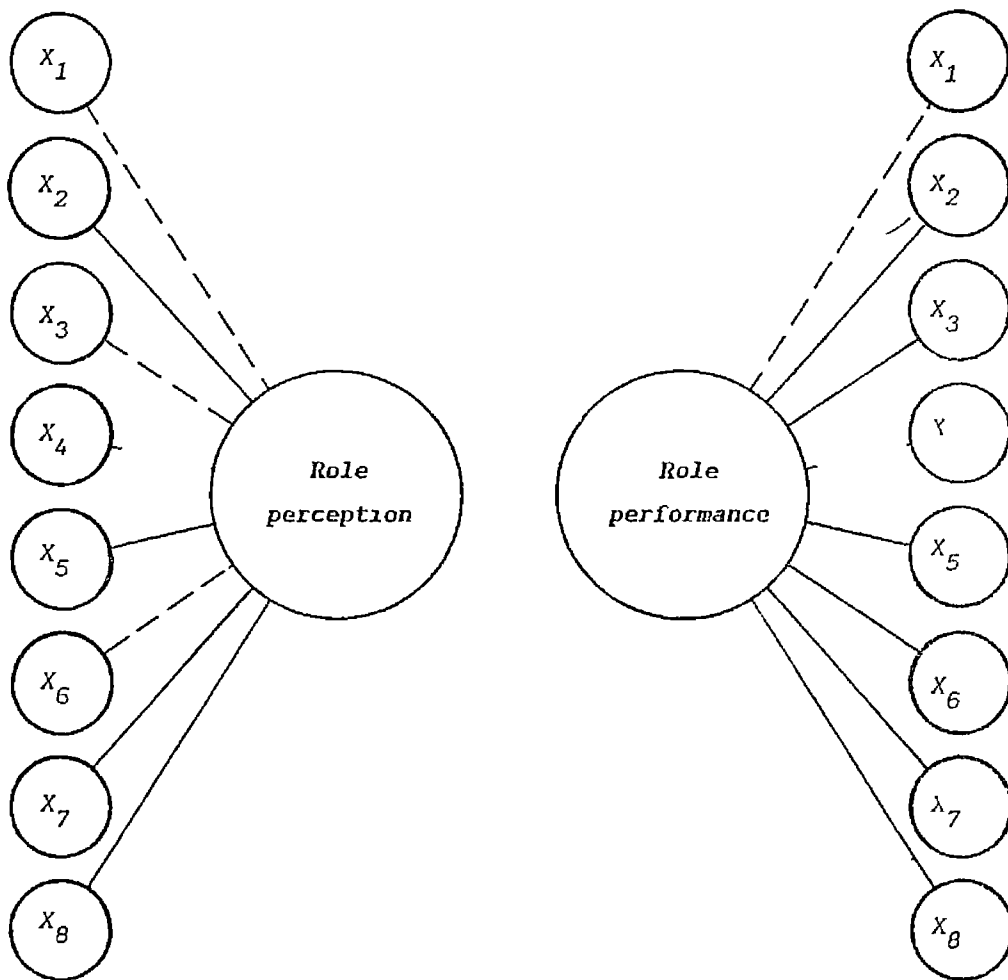
Variable number	Name of characteristics	Correlation coefficient r
X ₁	Age	0.1085 ^{ns}
X ₂	Achievement motivation	0.4729**
X ₃	Attitude towards profession	0.2300*
X ₄	Role ambiguity	0.3436**
X ₅	Job supervision	0.4323**
X ₆	Job satisfaction	0.3640**
X ₇	Job esteem	0.6017**
X ₈	Organizational climate	0.3788**

** Significant at 1 per cent level

* Significant at 5 per cent level

ns Not significant

Fig 6 Correlation between role perception/role performance and the selected characteristics of AAs



X₁ Age
 X₂ Achievement motivation
 X₃ Attitude towards profession
 X₄ Role ambiguity

X₅ Job supervision
 X₆ Job satisfaction
 X₇ Job esteem
 X₈ Organizational climate

----- Not significant
 _____ Positive and significant
 - Negative and significant

Table 12 Inter-correlation of the eight selected characteristics of AAs

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈
X ₂	0 1065							
X ₃	0 0548	0 1490						
X ₄	-0 0661	0 3658**	-0 4679**					
X ₅	-0 0762	0 3554**	0 4308**	0 3138**				
X ₆	-0 0926	0 3364**	0 3609**	0 2677**	0 6565**			
X ₇	0 0049	0 4727**	0 3347**	0 2639*	0 5541**	0 4904**		
X ₈	0 1546	0 4405**	0 2121*	-0 2050*	0 6049**	0 4194**	0 4697**	

** Significant at 0 01 per cent level
 * Significant at 0 05 per cent level

- X₁ - Age
- X₂ - Achievement motivation
- X₃ - Attitude towards profession
- X₄ - Role ambiguity
- X₅ - Job supervision
- X₆ - Job satisfaction
- X₇ - Job esteem
- X₈ - Organizational climate

It can be understood from the table that all the characteristics except age were having significant relationship with role performance of AAs. Among the seven variables having significant association with role performance, role ambiguity had negative relationship with role performance.

Age was negatively but not significantly related with both role perception and role performance. Inter-correlation values of the eight selected characteristics are given in Table 12.

3 Results of multiple regression analysis

In order to find out the extent of variation in the role perception and role performance explained by the respondent's characteristics, multiple regression analysis was done.

The results of multiple regression analysis showing the variations in role perception of the AAs caused by the selected eight characteristics acting together are given in Table 13.

The regression equation was $Y = 108.03 + 0.1751x_1 + 0.5816x_2 + 0.5515x_3 + 1.5820x_4 + 0.5921x_5 + 0.9346x_6 + 1.2901x_7 + 0.5780x_8$ which was significant ($F = 8.898$). It was found that 47 per cent of variation in role perception of

Table 13 Results of multiple regression analysis showing the contribution of the eight characteristics of the AAs towards their role perception

Sl No	Characteristics	Beta weights	t value
1	Age	-0.0847	0.880
2	Achievement motivation	0.1741	1.844 ¹
3	Attitude towards profession	0.2054	1.896 ⁿ
4	Role ambiguity	0.2600	2.781*
5	Job supervision	0.1846	1.339 ^{ns}
6	Job satisfaction	-0.2868	2.236*
7	Job esteem	0.4499	3.576**
8	Organizational climate	0.1618	1.412 ^{ns}
	F (regression)	8.898**	
	R ²	0.4708	

R² Coefficient of determination

** Significant at 1 per cent level of probability

* Significant at 5 per cent level of probability

ns Non significant

AAs was contributed by the eight selected characteristics as indicated by the coefficient of determination (R^2)

The table indicated that role ambiguity job satisfaction and job esteem were having significant effects on the role perception of AAs while age achievement motivation attitude towards profession job supervision and organizational climate had only non-significant effects

The results indicated that a unit change in role ambiguity, job satisfaction and job esteem ceteris paribus caused change in role perception of AAs by 0.26 0.29 and 0.45 units respectively

The results of the multiple regression analysis showing the variation in the role performance of AAs attributed to the characteristics acting together are given in Table 14

The regression equation was $Y = 86.452 + 0.2766x_1 + 0.5384x_2 + 0.1189x_3 + 0.8059x_4 + 0.2669x_5 + 0.0484x_6 + 1.2731x_7 + 0.0376x_8$, which was significant ($F = 8.222$). It was found that 45 per cent of the variation in role performance of AAs was attributed to the eight characteristics as indicated by the coefficient of determination (R^2)

As the table shows, job esteem was found to have

Table 14 Results of multiple regression analysis showing the contribution of the eight characteristics of the AAs towards their role performance

(n - 84)

Sl No	Characteristics	Beta weights	t value
1	Age	-.01363	1.586 ^{ns}
2	Achievement motivation	0.1642	1.947 ^{ns}
3	Attitude towards profession	-.00451	0.466 ^{ns}
4	Role ambiguity	-.01350	0.616 ^{ns}
5	Job supervision	0.0848	0.689 ^{ns}
6	Job satisfaction	0.0151	0.132 ^{ns}
7	Job esteem	0.4501	4.026**
8	Organizational climate	-.00107	0.105 ^{ns}
	F (regression)	8.222**	
	R ²	0.4512	

R² Coefficient of determination

** Significant at 1 per cent level of probability

* Significant at 5 per cent level of probability

ns Non significant

significant effect on role performance of the AAs. All the other seven characteristics were found to have non-significant effect on role performance.

The results indicated that for unit change in job esteem of AAs ceteris paribus there occurred an increase of 0.45 unit of their role performance.

In order to get a clear idea about the way in which the characteristics influence the role perception and role performance of the AAs, path analysis was done.

The results of path analysis showing the direct and indirect effects of the characteristics on the role perception of the AAs are furnished in Table 15 and Fig 7.

4 Results of path analysis

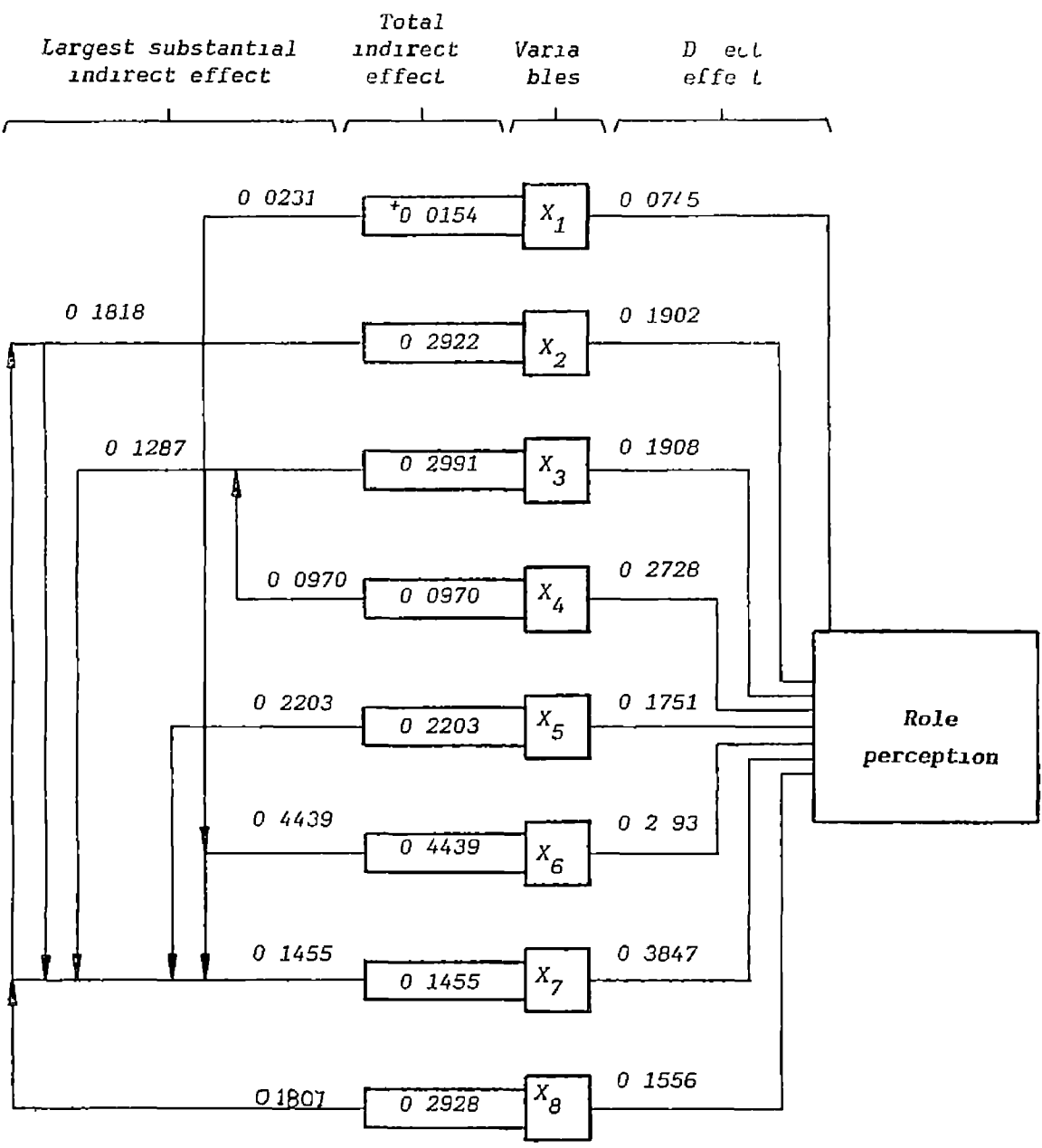
Table 15 Direct and indirect effects of the characteristics of the AAs on their role perception

(n 84)

Variable number	Name of characteristics	Direct effect	Total indirect effect	Substantial indirect effect through	
				I	II
x ₁	Age	0 0745	0 0154	0 0231 (x ₆)	0 0203 (x ₂)
x ₂	Achievement motivation	0 1902	0 2922	0 1818 (x ₇)	0 0998 (x ₄)
x ₃	Attitude towards profession	0 1908	0 2991	0 1287 (x ₇)	0 1276 (x ₄)
x ₄	Role ambiguity	0 2728	0 0970	0 0893 (x ₃)	0 0667 (x ₆)
x ₅	Job supervision	0 1751	0 2203	0 2131 (x ₇)	0 0941 (x ₈)
x ₆	Job satisfaction	0 2493	0 4439	0 1886 (x ₇)	0 1150 (x ₅)
x ₇	Job esteem	0 3847	0 1455	0 0899 (x ₂)	0 0731 (x ₈)
x ₈	Organizational climate	0 1556	0 2928	0 1807 (x ₇)	0 1059 (x ₅)

Residue 0 7274

Fig 7 Path diagram showing direct and indirect effects of the characteristics on the role perception of AAs



It is evident from the table that the characteristic with highest direct effect on role perception was job esteem (0.3847)

This was followed by achievement motivation (0.1902) job supervision (0.1751) and organizational climate (0.1556) The lowest direct effect was due to role ambiguity (0.2728) The residue of 0.7274 indicate that only 27 per cent of the variation in role perception was explained by the above eight variables

Results of path analysis showing the direct and indirect effects of the selected characteristics on the role performance of AAs are furnished in Table 16 and Fig 8 The effect of role perception on role performance was also studied

The highest direct effect on the role performance of AAs was due to role perception (0.5209) The characteristic job esteem showed the highest direct effect among the selected characteristics (0.2408) followed by job satisfaction (0.1148) and achievement motivation (0.1056)

The least direct effect on the role performance of AAs was due to the characteristic, age (0.0979) The residue 0.6365 indicate that, 36 per cent of the variation in role performance was caused by the characteristics

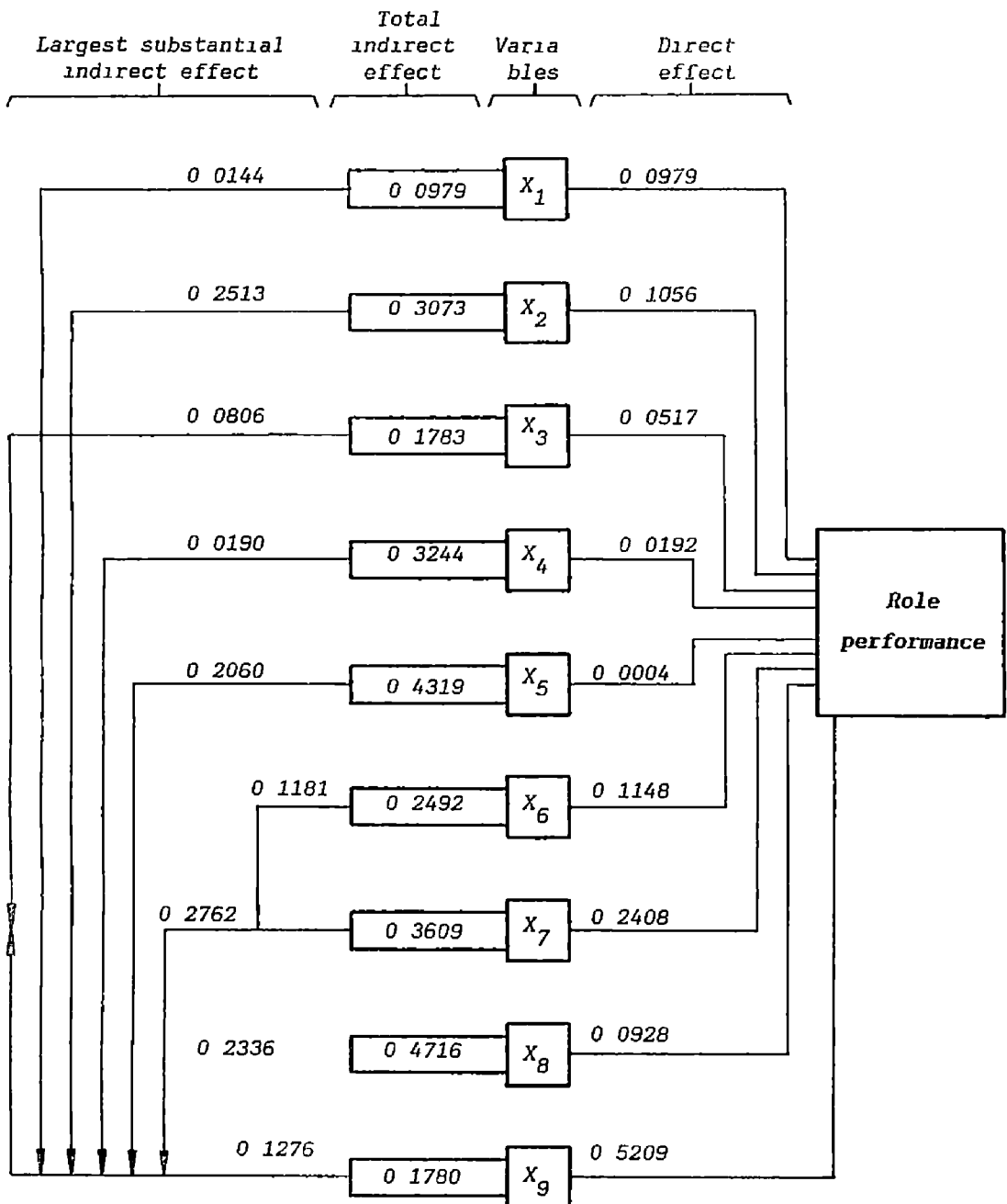
Table 16 Direct and indirect effect of the characteristics of the AAs on their role performance

(n 84)

Variable number	Name of characteristics	Direct effect	Total indirect effect	Substantial indirect effect through I	Substantial indirect effect through II
X ₁	Age	-0 0979	-0 0106	0 0144 (x ₈)	0 0112 (x ₂)
X ₂	Achievement motivation	0 1056	0 3673	0 2513 (x ₉)	0 1138 (x ₇)
X ₃	Attitude towards profession	0 0517	0 1783	0 0806 (x ₄)	0 0564 (x ₉)
X ₄	Role ambiguity	-0 0192	-0 3244	0 0190 (x ₈)	0 0065 (x ₁)
X ₅	Job supervision	0 004	0 4319	0 2060 (x ₉)	0 1334 (x ₇)
X ₆	Job satisfaction	0 1148	0 2492	0 1181 (x ₄)	0 1014 (x ₉)
X ₇	Job esteem	0 2408	0 3609	0 2762 (x ₉)	0 0563 (x ₆)
X ₈	Organizational climate	-0 0928	0 4716	0 2336 (x ₉)	0 1131 (x ₇)
X ₉	Role perception	0 5209	0 1780	0 1276 (x ₇)	0 0509 (x ₂)

Residue 0 6365

Fig 8 Path diagram showing the direct and indirect effects of the characteristics on the role performance of FAs



The characteristic wise results of path analysis presented below

1 Age

1 a Role perception

The direct effect of this variable on role perception was 0.0745. Its substantial indirect effects on role perception were routed through job satisfaction (x_6) (0.0231) and achievement motivation (x_2) (0.0203). The total indirect effect being 0.0154 was higher than the direct effect.

1 b Role performance

The direct effect of age on role performance of AAs was -0.0979. Its substantial indirect effects were through organizational climate (x_8) (0.0144) and achievement motivation (x_2) (0.0112). The total indirect effect was -0.0106 which was higher than the direct effect.

2 Achievement motivation

2 a Role perception

The direct effect of this variable on the role perception of AAs was 0.1902. Its substantial indirect effects were coming through job esteem (x_4) (0.1818) and role ambiguity (x_4) (0.0998). Total indirect effect of achievement

motivation on role perception was 0.2922 which was higher than direct effect

2 b Role performance

Direct effect of achievement motivation on role performance was 0.1056. Its substantial indirect effects were routed mainly through role perception (x_9) (0.2513) and job esteem (x_7) (0.1138). Total indirect effect of achievement motivation was 0.3673 which was higher than direct effect.

3 Attitude towards profession

3 a Role perception

The direct effect of this variable was 0.1908. Its substantial effects were routed through job esteem (x_7) (0.1287) and role ambiguity (x_4) (0.1276). Total indirect effect was 0.2991 which was higher than the direct effect.

3 b Role performance

The direct effect of this variable on role performance was 0.0517. Its substantial effect were coming mainly through job esteem (x_7) (0.0806) and role perception (x_9) (0.0564). The total indirect effect of this variables was 0.1783 which was higher than direct effect.

4 Role ambiguity

4 a Role perception

The direct effect of role ambiguity on role perception was 0.2728. Its substantial indirect effects were coming mainly through attitude towards profession (x_3) (0.0893) and job satisfaction (x_6) (0.0667). Its total indirect effect was -0.0970 which was higher than the direct effect.

4 b Role performance

The direct effect of this variables was -0.0192. Its substantial indirect effects were routed through organizational climate (x_8) (0.0190) and age (x_1) (0.0065). The total indirect effect was -0.3244 which was less than its direct effect.

5 Job supervision

5 a Role perception

Total direct effect of job supervision was 0.1751 which was less than its indirect effect 0.2203. Its substantial indirect effects were routed through job esteem (x_7) (0.2131) and organizational climate (x_8) (0.0941).

5 b Role performance

Total direct effect of job supervision was very less

(0 0004) compared to its total indirect effect on role performance (0 4319) Its substantial indirect effects were routed through role perception (x_9) (0 2060) and job esteem (x_7) (0 1334)

6 Job satisfaction

6 a Role perception

The total direct effect of job satisfaction was 0 2493 which was lesser compared to its total indirect effect (0 4439) Substantial indirect effect of job satisfaction was routed through job esteem (x_7) (0 1886) and job supervision (x_5) (0 1150)

6.b Role performance

The total direct effect of job satisfaction was 0 1148, which was lesser compared to its total indirect effect (0 2492) Its substantial indirect effects were routed through job esteem (x_7) (0 1181) and role perception (x_9) (0 1014)

7 Job esteem

7 a Role perception

The total direct effect of job esteem was 0 3847 It substantial indirect effects were routed mainly through achievement motivation (x_2) (0 0899) and organizational climate

(x_8) (0 0731) Its total indirect effect was 0 1455 which was less compared to its total direct effect

7.b Role performance

The total direct effect of job esteem on role performance was 0 2408 which was less than its total indirect effect (0 3609) Its substantial indirect effects were coming through role perception (x_9) (0 2762) and job satisfaction (x_6) (0 0563)

8 Organizational climate

8 a Role perception

Total direct effect of organizational climate was 0 1556, which was less than the total indirect effect (0 2928) The substantial indirect effects were routed through job esteem (x_7) (0 1807) and job supervision (x_5) (0 1059)

8 b Role performance

Total direct effect of organizational climate was 0 1556 which was less than the total indirect effect (0 2928) Its substantial indirect effects were routed through job esteem (x_7) (0 1807) and job supervision (x_5) (0 1059)

9 Role perception

Role perception was also taken as one independent variable while doing path analysis to find out its nature of influence on role performance

The total direct effect of role perception was 0.5209 which was higher than its total indirect effect (0.1780). Its substantial indirect effects were routed through the characteristics job esteem (x_7) (0.1276) and achievement motivation (x_2) (0.0509).

5 Constraints experienced by the AAs in the effective performance of their roles

The major constraints experienced by the AAs in the effective performance of their roles at Krishibhavan level are given in Table 17. These constraints were ranked on the basis of importance assigned to them by the AAs. The constraint perception index was worked out by dividing the cumulative index of each of the constraint with the total frequency of responses.

It was found that the most important constraint experienced by AAs was frequent transfers.

The constraints next in the order of importance were too much office work, lack of promotion opportunities, and

Table 17 Constraints experienced by the AAs in the effective performance of their roles

Sl No	Constraints	Constraint perception index	Rank
1	Frequent transfers	2 55	1
2	Too much work	2 51	2
3	Lack of promotion opportunities	2 49	3
4	Lack of conveyance facilities	2 42	4
5	Salary is poor when compared to work load	2 33	5
6	Poor facilities for storage of agricultural inputs	2 29	6
7	Lack of proper supply and services	2 19	7
8	Area of operation is too large	2 18	8
9	Unnecessary delay in sanctioning programmes and financial allotment	2 12	9
10	Supply of spurious inputs like damaged seeds, adulterated fertilizers and pesticides	2 10	10
11	Lack of incentives and rewards for good work	2 09	11
12	Lack of transporting facilities for inputs	2 03	12
13	Lack of training to improve the technical knowhow	1 94	13
14	Lack of proper guidance and supervision	1 92	14
15	Lack of people's participation in the implementation of development programme	1 87	15

lack of conveyance facilities These were followed by the constraints like poor salary , they are getting compared to work load, 'poor facilities for storage of agricultural inputs', 'lack of proper supply and services etc

Other constraints like 'large area of operation unnecessary delay in sanctioning programmes and in financial allotment supply of spurious inputs , lack of incentives and rewards for good work', 'lack of transporting facilities for inputs , 'lack of trainings', etc were perceived to be next important constraints by the AAs

Lack of proper guidance and supervision and lack of people's participation in implementing development programmes' were felt as the least important constraints by AAs at Krishibhavan level

Discussion

DISCUSSION

The important results of this study are discussed in this chapter under the following sub-heads

- 1 Analysis of the role of AAs
 - 1 1 Ranking of roles based on role perception of AAs
 - 1 2 Ranking of roles based on role performance of AAs
 - 1 3 Relationship between role perception and role performance of AAs
 - 1 4 Comparison of AAs AOs and farmers with respect to the scores on their perception of the roles and role performance of AAs
 - 1 5 Role of AAs in agricultural development
- 2 Association of the characteristics of the AAs with their role perception and role performance
- 3 Constraints experienced by the AAs in the effective performance of their roles
 - 1 Analysis of the role of AAs
 - 1 1 Ranking of roles of AAs based on their role perception

Thirty role items were ranked in the order of importance attached to them by the AAs

Among the thirty role items maximum and equal importance was attached to two roles viz attending Agro clinics and maintenance of work diary. Considering the importance of Agro clinics in which farmers problems and doubts are discussed superior officers insist on conducting Agro clinics regularly. Each AA has to follow a fixed time schedule for attending Agro-clinics in the area allotted to them. Maintenance of work diary being an item of their office duty it can be assumed that the AAs perceived both the items i.e., item of office duty and item relevant at farmers level as equally important.

The role which came next in the order of importance was reporting to the officer about the pest and disease incidence in crops in time. If the AAs are not perceiving the importance of this role and show neglect towards field problems it may cause severe consequences. For example if an AA fails to identify symptoms of blast disease in a field in the initial stage itself that will lead to the complete loss of the crop in the field. It will be considered as a major fault on the part of the AA both by the superiors and by the farmers in that area. It could be due to this the AA attached higher importance to that role.

The next important role according to the AAs was reporting the loss due to natural calamity which was very

much important as far as farmers are concerned After conducting a visit to the affected area the AAs have to give a clear picture of the losses occurred in the area to the officer to facilitate the distribution of financial assistance to the affected farmers Being aware of these facts the AAs gave sufficient importance to this role

'Arranging the supply of inputs through Krishibhavans and conducting field visits to provide technical guidance to farmers came next in the order of importance These were followed by the role of making arrangements for repairing the agricultural machinery through Krishibhavans' But many of them complained that there were no sufficient staff in Krishibhavans under the present set up for that purpose Only in those Krishibhavans which are attached to the Assistant Director s office the repairs are done punctually since the mechanic is available only at the Assistant Director s office

The AAs gave least importance to the roles viz making arrangements for the supply of inputs in the Elas itself in group farming areas and encouraging people to market their produce on a co-operative basis In the AAs opinion, it is practically not easy to supply the inputs in the Elas' in all the group farming areas Similarly lack of co-operative societies in all the panchayats makes it difficult to arrange for the co-operative marketing of the



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agricultural produce This might be the reason for the lesser degree of importance attached to these roles by AAs

Comparatively lesser importance was attached to the role of discussing with farmers representatives about the implementation of development programmes which is a major role as far as field level extension workers are concerned (Table 3)

1.2 Ranking of roles of AAs based on their role performance

Almost all the roles which were perceived to be important by the AAs were also performed well by them Attending Agro clinics , maintenance of work diary reporting the loss due to natural calamity etc come under this Eventhough the first and third items were directly related with farmers benefit the second role was an item of their office duty which shows the relatively higher importance attached to the office duty by the AAs

'Giving timely report on the pest and disease incidence in crops and reporting the stock and sale of inputs from the fertilizer depots to the officer were the next two roles performed well by the AAs

Similarly the roles like 'assisting farmers to take soil samples scientifically' and conducting field visits to

provide technical guidance to farmers in farming operations were also performed fairly well by the AAs

The roles which were poorly performed by the AAs were 'encouraging people to market their produce on a co-operative basis , 'arranging for the supply of inputs in the Elas' in the group farming areas' 'giving feedback information on the programmes implemented to the concerned authorities', etc The first two roles were considered by the AAs as practically not possible for reasons listed elsewhere This might be the reason for the poor performance of these roles by the AAs Giving feedback information to the authorities, which is a very important role in an extension agency, is given only little importance under the present set up

1.3 Relationship between role perception and role performance of AAs

Role perception of AAs was highly correlated with their role performance except in the case of two roles viz arrange for the supply of inputs at the Elas itself in group farming areas and make arrangement for repair of agricultural machinery through Krishibhavans

When an employee perceives his roles in the right way giving sufficient importance to them, his performance will be naturally good Regarding the two roles mentioned earlier

where perception had no significant relationship with the performance, the AAs opined that eventhough they perceive them as two important roles, it is not possible to perform those roles satisfactorily under the present set up. On the part of the AAs, there might be some ambiguity regarding the roles. They are not in a position to solve the problems they felt on this aspect i.e. lack of transporting facilities for inputs to the field, unavailability of the mechanic as well as spare parts for the repair of agricultural machinery. This might have created a discrepancy between the perception and performance in respect of these roles.

1.4 Comparison of AAs, AOs and farmers with respect to the scores on their perception of the roles and role performance of AAs

A comparison was made between the AAs and AOs with respect to the scores on their perception of the roles and role performance of AAs on the 30 role items.

Significant difference was observed in their perception of both role perception and role performance of AAs in almost all the roles. In the case of the roles like 'collecting information regarding major crops grown and progressive farmers of the area', 'assessment of input requirement of people', 'motivating people to take group

effort for agricultural development' etc the AOs also agreed that the AAs perceived these roles with deserving importance. But they do not agree that the performance of the AAs on these roles is not so good as the AAs claimed. Likewise in the case of the remaining roles also the ratings of AOs were different from that of the AAs except in the case of the roles like assisting AOs in distributing subsidy and other benefits to farmers assist the officer in the successful implementation of various schemes through Krishibhavans etc. But in these roles the AAs had only to assist their officers.

Disparity in ratings was observed in the perception and performance of the remaining roles in which the active involvement of AAs was needed. This disparity in ratings on role perception might be due to the difference in their understanding of the roles listed out. Moreover the superior officers generally expect a little more than what their sub-ordinates are performing.

In role performance also there was difference in opinion between AOs and AAs. Lack of proper reporting procedure and absence of effective feedback process in Krishibhavans might be the reason behind the difference in opinion of AOs and AAs regarding the performance of AAs (Tables 5 and 6). These findings led to the acceptance of the hypotheses that there would be no significant association

between the AAs and AOs on the role perception and role performance of the AAs

A comparison of the ratings of AAs and AOs was made with that of farmers also with respect to the 16 roles given commonly for the three groups

The ratings of farmers differed significantly from that of the AOs regarding the role perception and role performance of AAs on the 16 role items. But difference was observed in the case of only five roles when farmers ratings were compared with that of the AAs viz encouraging voluntary organizations for agricultural development promoting the marketing of agricultural produce on co-operative basis making the inputs available in the Elas in the group farming areas, arranging for the repair of agricultural machinery through Krishibhavans and discussing with farmers representatives about implementing the developmental programmes. In performing these roles, the AAs could not rise to the level of expectation of farmers. Many practical difficulties were pointed out by AAs for their poor performance of these roles like lack of sufficient staff in the department, lack of co-operative societies, reluctance of people to co-operate with their efforts etc.

'Arranging the supply of inputs through Krishibhavans and 'making field visits to provide technical guidance to

farmers were performed well by the AAs in AOs perception while the farmers were not satisfied in this respect. In all other roles, the ratings of farmers were in line with the self rating of AAs which was significantly different from that of AOs.

The similarity in opinion of farmers and AAs was interesting. Now-a days farmers are getting service from Krishibhavans mostly through the different crop committees like group farming committee for paddy coconut etc. They act as a link between the Krishibhavans and ordinary farmers in getting subsidy and other benefits. Since most of the committees in the study area were working satisfactorily in co-operation with the Krishibhavans the farmers were having comparatively good opinion regarding the Krishibhavan officials. This might be the reason behind the positive response of farmers regarding the performance of AAs (Tables 7 and 8 Fig 4 and 5). Based on the results of this analysis the hypotheses that there would be no significant association between the ratings of AAs and farmers on the role perception and role performance of AAs were rejected.

Data in Table 3 revealed that in the case of certain roles eventhough the AAs attached higher importance, their performance of these roles was poor. It was observed in the case of roles like 'gain technical knowledge about modern

agricultural practices update knowledge by attending training and make arrangements for repairing the agricultural machinery through Krishibhavans Among these three roles the first two are required for increasing the technical knowhow of AAs As field level workers of the state Department of Agriculture, the AAs perceived the importance of gaining technical knowledge But the poor performance of these roles revealed that the opportunities provided for the AAs to improve their knowledge level are not sufficient to meet their requirement

In the case of making arrangements for the repair of agricultural machinery, most of the AAs complained that they were not able to perform the role satisfactorily due to the lack of sufficient staff in the Department for this purpose The mechanic is available only at the Assistant Director s office at the block level and so the repair work at — Krishibhavan level often gets delayed

It is suggested, therefore, that services of the mechanics attached to the Assistant Director s office at block level must be made available to each Krishibhavan at least on a day in a week

The roles like distribution of leaflets on improved agricultural practices among farmers and 'discussion with farmers representatives to ensure people's participation

were performed by the AAs fairly well. But they did not consider them as two important roles. From this it could be assumed that the AAs were not convinced about the importance of these roles. Since they are the field level functionaries who work among the ordinary farmers, they have to discuss with the farmers representatives for implementing the development programmes effectively.

It is also logical to reason out that the participation of farmers representatives in the agricultural development activities of an area is a relatively recent proposition introduced along with the concept of decentralised decision making aimed through the panchayat level Krishibhavans. Therefore, it is hoped that this role will be perceived as equally important by the AAs as time passes by.

Distribution of leaflets among the farmers is also a very important role. For example, when cultivation of a new variety is to be spread among the farmers, the package of practice recommendations of that variety is also to be spread, for which the distribution of leaflets is essential. This role is also considered as unimportant by the AAs. The probable reasons could be the inappropriate nature of the leaflets and their untimely supply to the Krishibhavans. These aspects have to be considered by the higher authorities in order to improve the 'information back stopping' function at the Krishibhavan level.

The AAs attached lesser importance to the administrative duties like assisting officer to prepare various reports' Eventhen they performed these roles satisfactorily taking it as a part of their office duty

2 Association of the characteristics of AAs with their role perception and role performance

Among the eight selected characteristics five showed significant relationship with the role perception of AAs namely achievement motivation role ambiguity job supervision, job esteem and organizational climate (Table 10 and Fig 6) Therefore the hypothesis that there would be no significant relationship between the eight selected characteristics of AAs and their role perception was rejected

In the case of role performance all the characteristics of AAs save age were found to be significantly associated which led to the rejection of the hypothesis that there would be no relationship between these selected characteristics and role performance of AAs (Table 11 and Fig 6)

The relationship of each of these characteristics with the role perception and role performance of the respondents is discussed in the following pages

Achievement motivation was positively and significantly associated with both role perception and role performance of AAs. Achievement oriented people are by and large those with a high drive and activity level constantly struggling to achieve something which they could call their accomplishment. They strive to accomplish apparently difficult things. Those AAs with high achievement motivation perceived their roles perfectly so that they could perform their roles effectively. This finding was in conformity with the findings of Durand (1975), Luthans (1983), Singh and Srivasthava (1983) and Warris et al (1990).

Attitude of AAs towards profession was found to have positive association with the role perception and role performance of AAs. Its association with role perception was not significant while that with role performance was significant. An employee having a favourable attitude towards his profession will show interest in performing his roles in an excellent manner. This finding was in line with that of Steers and Porter (1975).

Role ambiguity had negative and significant relationship with role perception and role performance of AAs. Since role ambiguity is one's uncertainty associated with his role performance, when role ambiguity increases on the part of the employees they failed in perceiving their roles correctly.

and therefore in performing them effectively (Schuler 1975) Schuler et al (1977) and Breugh (1980) also reported similar results

Job supervision was found to have positive and significant association with the role perception and role performance of AAs. When the employees in an organization feel satisfaction about the system of job supervision in the organization, they will be receiving proper guidance and working instructions regarding their duty in the organization. Employees under such supervision can understand the roles in the right way and attach deserving importance to each of them which facilitates the effective performance of these roles. This finding was in line with the results obtained by Kempton (1980) and Kalavathi (1989).

Job satisfaction had positive association with the role perception and role performance of AAs. But the association was not significant in the case of role perception. One's mental satisfaction in the job experience is positively and significantly associated with his performance in the organization. This result was in conformity with the results of Kolte and Supe (1972), Hebertain and Black (1976), Norris and Robert (1984), Susilkumar (1984), Perumal and Uthayakumar (1984) and Sharma et al (1988).

Job esteem showed positive and significant association with both the role perception and role performance of AAs. When the employees in an organization get recognition for their good work they attain a pleasurable state of mind which leads to a better perception of their roles and effective performance of the roles. Koreman (1970), Shranger (1972), Hess (1980), Seepersad (1984) and Kalavathi (1989) also revealed results showing the same trend.

Organizational climate was found to possess significant and positive association with role perception and role performance of AAs. The employees' satisfaction in the human environment in a department is a very important factor which influences almost everything that happens in the organization. Therefore, when the employees are satisfied, their role perception and role performance will be very much effective. This result is in agreement with those reported by Frederickson (1966), Friedlander and Greenberg (1971), Schneider and Hall (1972) and Pritchard and Karasich (1973).

Multiple regression analysis was done to find out the extent of variation in the role perception and role performance of AAs explained by the selected characteristics of AAs.

Table 13 indicated that role ambiguity, job satisfaction and job esteem produced significant variations in

role perception of AAs In the case of role performance job esteem had significant effect (Table 14)

Results of path analysis indicated that the highest direct effect towards role perception of AAs was due to job esteem (Table 15 and Fig 7) Other characteristics of the respondents viz , achievement motivation organizational climate, attitude towards profession, job supervision and job satisfaction also had substantial indirect effects through this characteristic

In the case of role performance the highest indirect effect was due to role perception Here also other characteristics, except age, had substantial indirect effect through this characteristic Role ambiguity was also having substantial indirect effect on role performance of AAs (Table 16 and Fig 8)

Job esteem plays a very important role in the productivity of an employee From the above discussion, it is evident that the recognition obtained for good work done helps to improve one s perceptions of roles in the right manner

The way in which an employee perceives his roles exerts influence on the role performance of the employee

which is indirectly influenced by other factors like job esteem and achievement motivation

Thus it can be concluded that while chalking out new development programmes to be implemented through the grass root level extension workers provision should be made for giving the employees recognition for their sincere efforts Professionals should be motivated by giving promotions and sufficient opportunities for career development

It was interesting to note that age had no contribution on the role perception/role performance of the AAs

Job satisfaction had the maximum indirect effect on the role perception of AAs This points out that only if the employees have satisfaction in the different aspects of their job, they will be ready to perceive their roles with the importance they deserve This facilitates the effective performance of the employees Hence it is quite natural to find that job satisfaction had the maximum indirect effect on role perception of the employees

In the case of role performance organizational climate was the factor having maximum indirect influence Organizational climate is the sum of individual's perception regarding the organizational procedures policies and

practices Since it represents the psychological environment of the organization it frames the employee s organizational behaviour and thereby his overall performance

Based on the above discussion the hypothesis that there would be so significant contribution of the selected set of characteristics on the role perception and role performance of AAs was rejected in the case of role ambiguity, job satisfaction and job esteem The same hypothesis was accepted in the case of the rest of the characteristics namely age achievement motivation, attitude towards profession, job supervision and organizational climate

3 Constraints experienced by the AAs in the effective performance of their roles

An analysis of the data in Table 17 revealed that the AAs experienced certain constraints at Krishibhavan level which affected their effective performance

Frequent transfers was highlighted to be a major constraint by the AAs When they are getting transferred frequently, at every place it will take time to establish rapport with the farmers in the locality This is of utmost importance as far as grass-root level extension workers are concerned

Too much office work and lack of promotion opportunities were the next major constraints pointed out by the AAs. In Krishabhavans there is no provision for clerical staff under the present set up. To be an efficient functionary at field level an AA should be a mono purpose worker. But at present, the AAs have to perform both the administrative function and file works without receiving any training for doing the administrative functions.

'Lack of conveyance facilities' and 'poor salary' were rated to be two important constraints. Most of them demanded two wheelers for their field visits. Complaint about poor salary is not at all a new one as far as Government employees are concerned. This shows the petty-bourgeois tendency in our country which played a major role in creating inflation and other financial crisis in our country.

In Krishabhavans the inputs from the State Department of Agriculture are supplied in off-seasons. This necessitates the facilities for storage of inputs like seeds, fertilizers etc. The AAs complained about the neglect of the Government in this aspect. This underlines the need for local mobilization of infrastructure facilities.

Lack of proper supply and services also puts the AAs into difficulty. Off-season supply and insufficient quantities were pointed out as two major problems regarding

supply of inputs This can be solved to a greater extent by adopting cost sharing extension approach

The next important constraints were too large area of operation which makes it difficult for the AAs to visit the fields and organize meetings in time resulting in unnecessary delay in sanctioning programmes and financial allotment This puts the farmers in difficulty for which the AAs are often criticized

'Supply of spurious inputs was also pointed out as a constraint which led to the loss of farmers credibility in AAs

Lack of incentives and rewards for good work and lack of transporting facilities for inputs were put forward by the respondents as two other constraints Lack of transporting facilities makes them unable to supply the inputs in the farmers field according to their demand These aspects have to be considered seriously by the higher authorities

Comparatively lesser number of AAs complained about lack of people s participation in development programmes Now a days different crop committees are organized in every panchayat These crop committees liaise between Krishibhavans and farmers They assist the Krishibhavan officials in

organizing farmers and getting their co operation in development programmes Moreover the Karshika Vikasana Samithi also has a role in ensuring people s participation in agricultural development activities at the panchayat level

Summary & Conclusion

SUMMARY AND CONCLUSION

AAs working in the Krishibhavans of the State Department of Agriculture are the kingpins of the extension set up in the field of agricultural development. So far no research study has been conducted in Kerala to analyse the role of AAs in Agricultural Development.

The present study was directed to this end. The specific objectives of the study were

- 1 To measure the role perception and role performance of AAs as perceived by the AAs, AOs and farmers
- 2 To analyse the characteristics of AAs in relation to their role perception and role performance
- 3 To study the constraints experienced by the AAs in the effective performance of their roles
- 4 To suggest suitable measures for augmenting the role of AAs

The investigation was carried out in Thiruvananthapuram district which was one among the three districts namely Thiruvananthapuram, Kollam and Alappuzha where Training and Visit system was introduced in Kerala. Three categories of respondents were selected for the study viz 84 AAs @ one

from each of the 84 Krishibhavans in Thiruvananthapuram 90 farmers' representatives @ ten from each of the nine panchayat level Karshika Vikasana Samithis giving equal representation to the three Agricultural Sub-divisions of the district and 45 AOs @ 15 AOs from the 15 randomly selected Krishibhavans in each of the three agricultural sub-divisions of the district Thus the study had a total sample size of 219 respondents The characteristics of AAs such as age, achievement motivation, attitude towards profession, role ambiguity, job supervision, job satisfaction, job esteem, and organizational climate were selected as independent variables based on the review of literature and opinion of experts Role perception and role performance of AAs formed the dependent variables In the study, an attempt was made to measure the role perception and role performance of AAs as perceived by the AAs, AOs and farmers and to study the different characteristics of AAs influencing their role perception and performance The constraints experienced by the AAs in the effective performance of their roles were also studied

Regarding the measurement of the variables age was measured in terms of the number of chronological years completed by the respondent at the time of investigation Achievement motivation was measured using a scale developed by Singh (1969) The scale used by Sobhana (1982) was used to

measure the respondents' attitude towards profession Role ambiguity was quantified using the scale developed by Beehr (1976) Job supervision and job esteem were measured using the scales used by Kalavathi (1989) while job satisfaction was quantified with the help of a scale used by Joseph (1983) The scale used by Prasannakumar (1985) was used in measuring the organizational climate

To measure the role perception and role performance of AAs, measuring devices were developed separately for the three categories of respondents, i e , AAs AOs and farmers For farmers an interview schedule was prepared in Malayalam and for AAs and AOs questionnaires were prepared in English

The data was subjected to simple correlation analysis multiple correlation and regression analysis Path analysis Mann-Whitney s U test and Kruskal-Wallis test

The salient findings of the study are summarised and presented below

- 1 Ranking of roles based on the role perception and role performance of AAs revealed that the roles like 'reporting pest and disease incidence in crops reporting the loss due to natural calamity , maintenance of work-diary 'arrangement for supply of inputs through

Krishibhavs and conducting field visits were perceived to be the most important roles by the AAs while gathering information regarding major crops and progressive farmers of the area , organizing voluntary groups for agricultural development', 'encouraging co-operative marketing of agricultural produce', 'arranging the supply of inputs in Elsas' and 'giving feedback information were perceived as unimportant roles

2 The roles performed excellently by the AAs include 'reporting the stock and sale of inputs from depots 'reporting loss due to natural calamity maintain work diary' conduct field visits and giving assistance in conducting method demonstrations Most of the AAs performed poorly in the case of the roles like assessment of input requirement of farmers organize voluntary groups for agricultural development 'encouraging co-operative marketing of agricultural produces , arrange supply of input in Elsas and giving feedback information'

3 Correlation studies revealed that the role perception of AAs was significantly associated with their role performance

- 4 Results of Mann-Whitney U test showed that the AAs and AOs differed significantly with respect to their perceptions about the role perception and role performance of AAs
- 5 Results of Kruskal-Wallis test showed that the AOs and farmers differed significantly in their perceptions about the role perception and role performance of AAs. But the AAs and farmers had almost similar opinion in both the role perception and role performance of AAs
- 6 When the three groups viz , AAs AOs and farmers were compared using Kruskal-Wallis test, significant difference was observed in their perceptions about the role perception and role performance of AAs
- 7 Correlation studies revealed that achievement motivation , job supervision job esteem and 'organizational climate were positively and significantly associated with the role perception of AAs. In addition to these five characteristics, attitude towards profession and job satisfaction also showed positive and significant association with role performance of AAs. Role ambiguity was negatively and significantly associated with both role perception and role performance of AAs

- 8 Multiple regression analysis indicated that 47 per cent and 45 per cent variations in the role perception and role performance, respectively were due to the selected eight characteristics
- 9 Results of Path analysis showed that among the eight selected characteristics, 'job esteem showed the maximum direct effect on the role perception and role performance of AAs. Its substantial indirect effects were routed through achievement motivation and organizational climate while they were role perception and job satisfaction in the case of role performance
- 10 The major constraints experienced by the AAs were frequent transfers too much office work lack of promotion opportunities lack of conveyance facilities 'poor salary , poor facilities for storage of inputs 'lack of proper supply and services too much area of operation unnecessary delay in sanctioning programmes and financial allotment' and supply of spurious inputs
- 11 Some suggestions for augmenting the role of AAs are given below
- 1 Frequent transfers of the AAs, which is done mainly under political pressure must be avoided

- 2 Clerical assistance must be provided in the Krishibhavans so as to reduce the administrative work of AAs
- 3 Necessary actions must be taken to avoid the delay in giving the promotions to the AAs which they deserve
- 4 Infrastructure facilities in the Krishibhavans should be improved by local mobilization of infrastructure with the help of the farmers
- 5 In order to make the inputs like seeds and fertilizers available in time the concerned authorities may take necessary steps
- 6 The area of operation for each AA may be reduced by entrusting the different crop committee leaders in the area with the duties like organizing meetings informing farmers about development programmes etc
- 7 Due consideration must be given for supplying good quality inputs through Krishibhavans
- 8 AAs must be encouraged by providing them with incentives and rewards for good work done

To conclude, the performance of AAs, though not excellent on all role times was generally good More sincere

efforts from the part of the Government and higher officials of the State Department of Agriculture will be helpful to augment the role of AAs. Steps in this direction must be taken while chalking out new development programmes to be implemented by making use of these grass root level workers for which, it is hoped that the results of the present study would help to a greater extent.

Suggested future lines of work

The present investigation can be elaborated along the following lines of research work in future

Conduct similar studies in other districts also so as to cover the entire state. More number of variables should be included. For measuring the role performance of officials develop genuine methods and test these methods in longitudinal studies. Experimental studies may be conducted to study the impact of training on role perception and role performance of extension workers.

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* Originals not seen

Appendices

Appendix 1

QUESTIONNAIRE (FOR AGRICULTURAL ASSISTANTS)

Date

- 1 a Name of the respondent
 b Official address
 c Sub division

Serial No

2 Age (in years)

3 Achievement motivation

Please indicate your degree of agreement/disagreement with the following statements by putting (✓) mark in the appropriate column against each statement (SA - Strongly agree A - Agree UD = Undecided DA Disagree SDA Strongly disagree)

Sl No	Statements	Response pattern				
		SA	A	UD	DA	SDA
1	One should enjoy work as much as play					
2	One should work like a slave at everything one undertakes to get a result					
3	One should succeed in his occupation even if one has been neglectful of his family					
4	One should have determination and driving ambition to achieve certain things in life even if these qualities make one unpopular					
5	Work should come first even if one cannot get rest					
6	Even when one's interests are in danger he should concentrate on his job and forget his obligation to others					
7	One should set difficult goals for oneself and try to reach them					

4 Attitude towards farmers

Below are given some statements regarding our farmers Give yo
opinion on the statements

Sl No	Statements	Response pattern				
		SA	A	UD	DA	SDA
1	The farmers of our state can be compared with progressive farmers of the world					
2	Even if God wants to improve the life of our farmers they will not be able to do so					
3	If given a chance, our farmers will also show their ability for economic improvement					
4	The Agricultural Assistants are the most unfortunate group as they have to work with farmers					
5	I am proud that I am working with farmers					
6	Our farmers will not change from their traditional ways even if they are shown the advantages of the new technology					

5 Role ambiguity

To what extent the following statements are true in your job
Please put tick (✓) mark in appropriate columns (VT Very true,
SWT = Somewhat true, LT = a little true NTA - Not true at all)

Sl No	Statements	Degree of agreement			
		VT	SWT	LT	NIA
1	I can predict what others will expect of me tomorrow				
2	I am clear on what others will expect on my job				

Sl No	Statements	Degree of agreement			
		VI	SWI	LI	NIA
3	On my job whatever situation arises there are procedures for handling it				
4	I get enough facts and informations to work by best				

Job supervision

Please give your opinion on the following statements by putting tick (✓) mark in the appropriate columns (SA = Strongly agree, A = Agree, UD = Undecided, DA - Disagree, SDA - Strongly disagree)

Sl No	Statements	Response				
		SA	A	UD	DA	SDA
1	Superiors in my organization are concerned with the growth and development of junior staff					
2	My superiors are trying to find out fault of subordinate than their achievements					
3	My superiors are friendly with subordinates than stressing duties and responsibilities					
4	Communication here is always one-way from top to bottom					
5	Most communications here are informal and friendly					
6	Most of the decisions related to my work are made without consulting co-workers					
7	My superiors help juniors to solve our problems related to job					
8	My superiors used to invite suggestions from us					

7 Job satisfaction

Please give your opinion on the following items (VS - Very much satisfied, S - satisfied, UD = Undecided D Dissatisfied VD Very much dissatisfied)

Sl No	Statements	Response				
		VS	S	UD	D	VD
1	Are you satisfied that you are given enough authority to do your job					
2	Are you satisfied with the progress you are making towards the goals which you had set for yourself in your present position					
3	How satisfied are you with your present position when you compare it with similar positions elsewhere					
4	Are you satisfied that the people in the area give you proper recognition to your work as a specialist in your subject					
5	How satisfied are you with your supervisors?					
6	How satisfied are you with your salary?					
7	How satisfied are you with your professional and clerical staff in your department or in your area?					
8	How satisfied are you with your present position in the light of your career expectations					

8 Job esteem

Please give your opinion on the following statements by marking (✓) in the appropriate columns

Sl No	Statements	Response				
		SA	A	UD	DA	SDA
1	My job provides opportunities to get praise and recognition from others					
2	My job helps me to attain status respect and prestige as a person					
3	I am enjoying full freedom and independance in my job					
4	The experience in my job created in me a sense of self-confidence					
5	My job doesn t provide oppor- tunities for self-expression					
6	My job helps me to utilize my abilities fully					
7	My job doesn t provide oppor- tunities to develop additional capacities or skills					
8	All the achievements in my life are from my job					

9 Organizational climate

Please indicate your opinion by tick (✓) marking in the appropriate column (SA Strongly agree A - Agree UD - Undecided DA = Disagree and SDA Strongly disagree)

Sl No	Statements	Response				
		SA	A	UD	DA	SDA
	Do you agree that					
1	There are many rules procedures policies and practices to which you have to confirm rather than being able to do your work as you see fit					
2	You can make decisions and solve problems without checking with superiors each step of the work					
3	The organization places on quality performance and outstanding production including the degree to which you feel that the organization is setting challenging goals for itself and communicating these goal commitment to its members					
4	Organization recognise and reward good work of members rather than being ignored, criticized or punished when something goes wrong					
5	Things are well-organized and goals clearly defined rather than being disorderly, confused or chaotic					
6	Friendliness is a valued norm in the organization that you trust one another and offer support one another					
7	As needs for leadership arise members feel free to take leadership roles and are rewarded for successful leadership					

PART II

The roles of Agricultural Assistants at Krishibhavar level are given. Please go through each item and mention the degree of importance you attach to these roles by putting (✓) mark in the appropriate column on the left side of the items under 'Role perception'.

Then say how far you are able to perform each role by putting (✓) mark in the appropriate column on the right under 'Role performance'.

Response pattern		Instructions		Response pattern	
Most Imp	Most important	1	Please answer all the items	A	Always
More Imp	= More important			MO	Most often
Imp	= Important	2	Please do not forget to respond to each statement simultaneously within the two categories ie , Role perception and Role performance	O	= Often
Less Imp	= Less important			S	Sometimes
Least Imp	= Least important			N	- Never

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least			A	MO	O	S	N

- 1 Collect informations regarding major crops grown in the area
- 2 Gather informations about progressive farmers in the area
- 3 Assess the input requirements (seeds seedlings fertilizer etc) of farmers in the area
- 4 Motivate people to practice group effort for agricultural development
- 5 Organize voluntary groups for agricultural development
- 6 Encourage people to market their produce on a co-operative basis

Role perception					Roles of Agricultural Assistants at Krishibhavan level					Role performance						
Most Imp	More Imp	Imp	Less Imp	Least	No						A	MO	O	S	N	
						7	Make arrangements for supplying the inputs at the Elas itself in group farming areas									
						8	Gain technical knowledge about modern agricultural practices suitable to the area									
						9	Distribute leaflets on improved agricultural practices among farmers									
						10	Give feedback informations on the programmes implemented to the concerned authorities									
						11	Highlight the results of demonstrations to make farmers understand its beneficial aspects									
						12	Discuss with farmers representatives to ensure people s participation									
						13	Educate farmers to adopt the recommendations based on soil test results									
						14	Update knowledge by attending trainings									

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least Imp			A	MO	O	S	N
					15	Give real reports on field situations based on periodical field visits					
					16	Report to the officer about pest and disease incidence in crops in time					
					17	Report the stock and sale of inputs from the depots to the officer					
					18	Report the loss due to natural calamity to the Officer					
					19	Assist Officer in preparing location specific projects					
					20	Maintain work diary					
					21	Assist officer in preparing various reports					
					22	Assist officer in distributing subsidy and other benefits to farmers					
					23	Assist officer in the successful implementation of various schemes through Krishibhavan					

Contd

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least Imp			A	MO	O	S	N
					24	Make arrangements for repairing the agricultural machinery (sprayers etc) through Krishibhavan					
					25	Arrange the supply of inputs through Krishibhavans					
					26	Conduct field visits to provide technical guidance to farmers in farming operations					
					27	Assist officer in conducting method demonstrations					
					28	Assist farmers in taking soil samples scientifically					
					29	Assist farmers in establishing bio-gas plants					
					30	Attend Agro-clinics					

Certain problems which may or may not affect your performance at Krishibhavan level are given below. Please indicate to what extent you experience them by putting (✓) mark in appropriate column (Most Imp Most important, Imp = Important Less imp Less important)

Sl No	Problems	Most Imp	Imp	Less Imp
1	Area of operation is too large			
2	Lack of proper supply and services			
3	Too much office work			
4	Salary is poor when compared to workload			
5	Lack of promotion opportunities			
6	Lack of people's participation in the implementation of development programmes			
7	Frequent transfers			
8	Lack of transporting facilities for inputs			
9	Lack of training to improve the technical know-how			
10	Lack of proper guidance and supervision			
11	Lack of incentives and rewards for good work			
12	Lack of conveyance facilities			
13	Supply of spurious inputs like damaged seeds adulterated fertilizers and pesticides			
14	Unnecessary delay in sanctioning programmes and financial allotment			
15	Poor facilities for storage of agricultural inputs			
16	Others, if any (Please specify with their degree of importance)			

Appendix II

QUESTIONNAIRE (FOR AGRICULTURAL OFFICERS)

Date

Serial No

- 1 a Name of respondent
- b Official address
- c Sub-division

The roles of Agricultural Assistants at Krishibhavan level are given. Please go through each item and mention the Degree of importance you attach to these roles by putting (✓) mark in the appropriate column on the left side of the items under 'Role perception'

Then say how far you are able to perform each role by putting (✓) mark in the appropriate column in the right under 'Role performance'

Response pattern		Instructions		Response pattern	
Most Imp	= Most important	1	Please answer all the items	A	= Always
More Imp	- More important			MO	= Most often
Imp	= Important	2	Please do not forget to respond to each statement simultaneously within the two categories ie , Role perception and Role performance	O	= Often
Less Imp	- Less important			S	= Sometimes
Least Imp	= Least important			N	= Never

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least			A	MO	O	S	N

- 1 Collect informations regarding major crops grown in the area
- 2 Gather informations about progressive farmers in the area
- 3 Assess the input requirements (seeds, seedlings, fertilizer, etc) of farmers in the area
- 4 Motivate people to practice group effort for agricultural development
- 5 Organize voluntary groups for agricultural development
- 6 Encourage people to market their produce on a co-operative basis

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least			A	MO	O	S	N
					7	Make arrangements for supplying the inputs at the 'Elas' itself in group farming areas					
					8	Gain technical knowledge about modern agricultural practices suitable to the area					
					9	Distribute leaflets on improved agricultural practices among farmers					
					10	Give feedback informations on the programmes implemented to the concerned authorities					
					11	Highlight the results of demonstrations to make farmers understand its beneficial aspects					
					12	Discuss with farmers representatives to ensure people s participation					
					13	Educate farmers to adopt the recommendations based on soil test results					
					14	Update knowledge by attending trainings					

Contd

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least Imp			A	MO	O	S	N
					15	Give real reports on field situations based on periodical field visits					
					16	Report to the officer about pest and disease incidence in crops in time					
					17	Report the stock and sale of inputs from the depots to the officer					
					18	Report the loss due to natural calamity to the Officer					
					19	Assist Officer in preparing location specific projects					
					20	Maintain work diary					
					21	Assist officer in preparing various reports					
					22	Assist officer in distributing subsidy and other benefits to farmers					
					23	Assist officer in the successful implementation of various schemes through Krishibhavan					

Role perception					No	Roles of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least Imp			A	MO	O	S	N
					24	Make arrangements for repairing the agricultural machinery (sprayers etc) through Krishibhavan					
					25	Arrange the supply of inputs through Krishibhavans					
					26	Conduct field visits to provide technical guidance to farmers in farming operations					
					27	Assist officer in conducting method demonstrations					
					28	Assist farmers in taking soil samples scientifically					
					29	Assist farmers in establishing bio-gas plants					
					30	Attend Agro-clinics					

Appendix-III

INTERVIEW SCHEDULE (FOR FARMER RESPONDENTS)

Date
Serial No

Role perception

Role performance

Most Imp - Most important
More Imp - More important
Imp - Important
Less Imp - Less important
Least Imp - Least important

Name of farmer
Address
Name of Krishibhavan

A - Always
MO - Most often
O - Often
S - Sometimes
N - Never

Role perception

Roles of Agricultural Assistants at
Krishibhavan level

Role performance

Most Imp More Imp Imp Less Imp Least Imp
Imp Imp Imp Imp Imp

No

A MO O S N

- 1 Organize voluntary groups for agricultural development
- 2 Organize farmers groups
- 3 Encourage people to market their produce on co-operative basis
- 4 Arrange for the supply of inputs through Krishibhavans
- 5 Arrange for the supply of inputs in the Elsas itself in group farming areas

Contd

Role perception					No	Role of Agricultural Assistants at Krishibhavan level	Role performance				
Most Imp	More Imp	Imp	Less Imp	Least Imp			A	MO	O	S	N
					6	Conduct field visits to provide technical guidance to farmers in farming operations					
					7	Arrange for the repair of agricultural machinery through Krishibhavans					
					8	Discuss with farmers representatives					
					9	Make periodical field visits to analyse the field situation					
					10	Assist farmers in controlling the pest and disease incidence in crops in time					
					11	Assist farmers in taking soil samples scientifically					
					12	Educate farmers to adopt the recommendations based on soil test results					
					13	Arrange for the distribution of subsidy and other benefits to farmers in time					
					14	Report the loss due to natural calamity to the officer in time					
					15	Assist farmers in establishing bio-gas plants					
					16	Attend Agro-clinics regularly					

**ROLE OF AGRICULTURAL ASSISTANTS IN AGRICULTURAL
DEVELOPMENT IN THIRUVANANTHAPURAM DISTRICT**

By

ASHA LETHA, S

ABSTRACT OF THE THESIS

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COLLEGE OF AGRICULTURE

Vellayani-Thiruvananthapuram

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ABSTRACT

A research study entitled Role of Agricultural Assistants in Agricultural Development in Thiruvananthapuram District was undertaken with a view to study the role of Agricultural Assistants in agricultural development. Role was measured by studying the role perception and role performance of Agricultural Assistants as perceived by the selected Agricultural Assistants, Agricultural Officers and farmers. Characteristics of Agricultural Assistants in relation to their role perception and role performance and the constraints experienced by the Agricultural Assistants in the effective performance of their roles were also analysed.

The study was conducted in Thiruvananthapuram district. The sample consisted of 84 Agricultural Assistants, 45 Agricultural Officers and 90 farmers. Data were collected from the Agricultural Assistants and Agricultural Officers using questionnaires and an interview schedule was prepared for collecting information from the farmers. Suitable statistical techniques were employed in the analysis of the data.

The results of the study indicated that the performance of Agricultural Assistants, though not excellent on all role items, was generally good. The perception of Agricultural Officers differed significantly from that of

Agricultural Assistants and farmers about the role perception and role performance of Agricultural Assistants. But the Agricultural Assistants and farmers had almost similar opinion in both the role perception and role performance of Agricultural Assistants.

The selected independent variables together contributed significantly to the variation in the role perception and role performance of the Agricultural Assistants.

The results of constraint analysis revealed that frequent transfers, too much office work and lack of promotion opportunities and conveyance facilities were considered as the major constraints by the Agricultural Assistants in their effective performance. More sincere efforts must be taken by the State Government and higher officials of the State Department of Agriculture while chalking out new development programmes to be implemented through these grass root level workers.