

CONSTRAINT ANALYSIS OF TRAINING AND VISIT SYSTEM IN KERALA

By

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THESIS

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DECLARATION

I hereby declare that this thesis entitled "Constraint Analysis of Training and Visit System in Kerala" is a bonafied record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title of any other University or society.

Vellayani,

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CERTIFICATE

Certified that this thesis entitled
"Constraint analysis of Training and Visit system in
Kerala" is a record of research work done independently
by Sri. N. BALAKRISHNAN under my guidance and that it
has not previously formed the basis for the award of
any degree, fellowship or associateship to him.



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ABBREVIATION

AD	-	Agricultural Demonstrator
ADO	-	Agricultural Development Officer
AEO	-	Agricultural Extension Officer
S.M.S.	-	Subject Matter Specialist
S.D.A.O.	-	Sub Divisional Agricultural Officer
JDA	-	Joint Director of Agriculture
PAO	-	Principal Agricultural Officer
T & V system-		Training and Visit system.

INTRODUCTION

CHAPTER-1

INTRODUCTION

India is predominantly an agrarian country. About half of the country's national income is derived mainly from the agriculture sector. Nearly seventy percent of the population depends on agriculture for their livelihood. Indian agriculture have secured tremendous achievements during the past few decades. Remarkable progress has been achieved through transformation of modern agricultural techniques. During the fourth and fifth five year plans, more emphasis were given to agricultural production through the dissemination of agricultural technology to grass root level and implementation of more developmental programmes.

In spite of all the glorious achievements, the production of foodgrains and economic upliftment of the ryots, who live under the poverty line is not yet reached upto the expected level. One of the main reasons attributed to these situation is the illiteracy and poor socio-economic status of the farmer. It is an admitted fact that the improved low cost technologies derived from research have not percolated down to the needy peasants uniformly in

time. Kerala State is not an exemption to this fact. About 36,955 sq. km. land produced 25.45 million tones of food grain.

However the mounting population pressure will result in the reduction of cultivable land and will also limit its productivity year by year and is standing as a stumbling block in the avenue of agricultural production in the state. Substantial level of agricultural production and income may not be possible without a powerful extension machinery which have the capability of connecting the farmer's with the improved agricultural production technology, that is relevant to the local situations and the farmers needs. A massive improvement requires professionally sound and functionally effective extension and research system. Kerala Government have implimented programme for raising farmers production and income through the Senior's Training and Visit (T and V) system of agricultural extension assisted by the world Bank.

In Kerala T and V system was introduced in three districts viz Trivandrum, Kullon and Alleppey during 1981 on a pilot basis. Better utilisation of resources and advantages of the system has encouraged its extension to the remaining districts during 1983. The T and V system

of agricultural extension aims to build a professional extension service capable of assisting the raising of farmers' production and income and of providing appropriate support for agricultural development. The main idea of the system is to have competent and well-informed VLVs who visit the contact farmers' field regularly in a fixed interval, convey relevant, up to date, and low cost technical messages suited to the locality developed by the researchers in the monthly workshop. VLVs collect farmers' problems related to the adoption of new technology and feed back to researchers for finding out suitable solutions. VLVs mainly concentrate the contact farmers. The contact farmers represent as demonstrators of introduced recommended practices for the other non contact farmers. The rate of adoption of recommended messages were adversely affected by many factors like administrative set up and functioning of the P and V system, production and dissemination of productive messages and nonavailability of infrastructural facilities of officials as well as the contact farmers under the training and visit system.

The ultimate purpose of this system is the creation of a dynamic link between the farmers, professional extension workers and researchers. The extension staff

must keep in close touch with relevant scientific development and research, in order to formulate specific useful production recommendations for farmers of different resource situation. Extension workers must identify production constraints in the field and develop appropriate measures to counter them. The effectiveness of this system depends on the production of messages and to reach many farmers quickly and regularly. This may be achieved through the fixed regular schedule of visits to farmers field by the VLWS and other extension staff. Production recommendations are formulated in the monthly workshop.

This study is intended to find out the important constraints perceived by the officials as well as the contact farmers in the successful implementation of the system. The following objectives have been formulated for the study.

1. To analyse the major administrative constraints in implementing training and visit system in Kerala as perceived by the contact farmers and extension personnel.
2. To study the constraints felt by the personnel and the mode of dissemination of messages from monthly workshop to contact farmers.

3. To identify the infrastructural constraints in the adoption of messages within the T and V system.
4. To correlate the extent of adoption of improved farm practices in rice and coconut with the constraints.

scope of the study

The Training and Visit system was introduced in Kerala in the year 1981 and since then it is functioning in the state. An effective implementation of the T and V system is possible only if an analytical study is undertaken and shortfalls if any in the system is brought to lime light. In Kerala no such studies have been reported so far. Hence a study of this kind will help to understand the important constraints faced by the personnel and contact farmers, thus increasing the effectiveness of T and V programme in the state.

Limitation of the study

This study has been undertaken only as a part requirement for the M.Sc.(Ag.) programme and so it was not possible for the student investigator to explore the area in greater depth and in a more comprehensive manner. Even then with limited time and resources available to the

student researcher, all representative districts of the agroclimatic regions in the state have been included for the study. Within the limited time and meager resources, sincere and devoted efforts have been made to make this study as objective and systematic as possible.

Presentation of the study

The study is presented in seven chapters. The introduction, objectives, importance and limitations of the study are presented in the first chapter. The second chapter deals with relevant review of literature and theoretical framework of the study. The third chapter of the study is devoted to the material and methods needed in the investigation. This is followed by the presentation of the results of the study in chapter four. The findings of the study have been discussed in chapter five followed by summary and conclusions, references, and abstracts, appendices which are included in subsequent chapters.

THEORETICAL ORIENTATION

CHAPTER II

THEORETICAL ORIENTATION

The objective of this chapter is to discuss broadly the conceptual model used in this study in order to provide a theoretical base and identification of variables as well as to arrive at a set of assumptions. The present chapter contains the following sections.

1. The conceptual frame work of the study
2. A paradigm and its explanation
3. The operationalisation of the concepts for the study.
4. Assumptions.

An attempt has been made to develop a theoretical frame work of the constraint analysis of training and visit system in Kerala. This chapter explains the theoretical perspective adopted for this study and attempts to link it with the relevant findings of other related research studies on this subject.

In accordance with the specific objectives of this study the review of past studies have been presented under the following headings.

1. Administrative constraints perceived by the officials under T and V system.
2. Constraints perceived^e by the officials in the dissemination of messages.
3. Infrastructural constraints perceived by the officials.
4. Administrative constraints perceived by the contact farmers in the adoption of improved agricultural practices.
5. Infrastructural constraints perceived by the contact farmers in adoption of improved agricultural programmes.
6. Socio-economic status of the contact farmers in the adoption of improved agricultural protein.
7. Constraints perceived by the contact farmers in the adoption of selected farm practices of paddy cultivation.
8. Constraints perceived by the contact farmers in the adoption of selected farm practices in coconut cultivation.
9. Hypothetical frame work and definition of variables.

1) Administrative constraints perceived by the officials under T and V system.

The main intention is to find out the degree of perception of the officials in the T and V system, towards the constraints faced by them in administrating the T and V programme in the state. Mitchell (1976) stated that perception is the factor that shape and produce what we actually experiences. Perception is the meaningful sensation that assumes an important role in the life of an individual.

Manonaran (1979) stated that perception as the personal value towards leader's own activities regarding agricultural development.

Administrative constraints are those problems relating to the opportunities for personal development, guidance and leadership offered to accomplish a defined objective of the programme in operation.

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

Perinbam (1981) observed that VLWS had encountered the problem of undertaking responsibilities from other ongoing developmental programmes which reduces the concentration on T and V works, lack of promotional avenue of field level workers, lack of incentives for VLWS, improper supervision and non provision for office facilities in the working areas of VLWS. Kulkari (1981) observed that the major administrative problems faced by the village extension workers under P and V system were.

1. Extensive jurisdiction of field level workers.
2. Under staffing increases the quantum of work.
3. Undertaking responsibilities from other on going developmental programmes in the department which reduces the concentration on training and Visit system.
4. Non provision of office facilities of VLWS in their working area.
5. Lack of conveyance facilities.
6. Lack of support from parallel department reduces farmers participation.
7. Absence of contact farmers in their fields during visits.

8. Poor facilities for using teaching aids during VLWS field visit.

Perumal and Menon (1981) in their study pointed out the following administrative constraints perceived by the AAOs in Training and Visit (T and V) system in Tamil Nadu.

1. More work load due to many ongoing schemes was the major problem confronted by four fifth (80.19%) of the respondents (AAOs) with regard to their nature of work.
2. Voluminous script work was the major problem as experienced by more than three-fourth (60.39%) of the respondents (AAOs).
3. Nearly half of the (47.52%) of AAOs had confronted the problem of unmanageable operational area.

Somasundaram (1983) observed that the following problems are still existing and encountered by the Agricultural officials in T and V system.

1. Too many agricultural schemes to be operated by the agricultural officers.

2. The schemes are mainly target oriented.
3. Hindrance to tour programmes due to frequent call from superiors.
4. Fuel ceiling.
5. Too many demonstrations to be conducted by the agricultural officers.
6. Inadequate subsidy facilities for conducting demonstrations.
7. Lack of promotional facilities for field level workers.
8. Lack of time to attend the urgent needs of farmers due to fixed programme of field level workers.
9. Lack of housing facilities.
10. Non realization of benefits for additional work.

Jose Joseph (1983) in his study found that lack of office facilities, lack of supply of inputs, inadequate transport facilities, absence of housing facilities of staff in their working units and heavy work load were the most important problems experienced by the officials working in the T and V system.

Susil Kumar (198-) studied that the job satisfaction of AOS in the reorganised extension T and V system and found that nearly (68.34%) of the AOS of both categories felt that lack of promotional avenues was the major administrative problem.

It was observed that the supervision and guidance by AOS and ADAS were not quite adequate. Twenty per cent of the respondents suggested that the superiors might work with service motive and thereby guide and encourage the subordinates.

The low travelling allowance was the administrative problem as perceived by more than two fifth (41.58 %) of the respondents.

Kalaichelvan (1984) studied the technology transfer through T and V system and found that the major constraints encountered by the officials are.

1. Lack of housing and conveyance facilities to the officials.
2. Larger jurisdiction to extension workers.

Betty Cnerian (1984) observed that lack of office facilities in the areas of operation of VLWS and the frequent transfers were the important problems perceived by the VLWS, whereas lack of conveyance facilities, heavy workload for the time bound projects, were the important problems perceived by the officials.

Constraints perceived by the officials in the dissemination of messages.

A message is the information package of a communicator who wishes his audience to receive, understand, accept and act upon.

Constraints in the dissemination of message is operationally defined as the difficulties experienced by an extension worker to disseminate a message to the contact farmers to the desired extent.

Bhatia and Sandu (1975) studied the determinants of job effectiveness of VLWS and found that magazine reading habit of VLWS was positively and significantly related to his job performance because recent innovations in agriculture obtained from the magazine reading is essential for a VLW to keep him abreast of the latest technology.

Rao and Reddy (1979) observed that the untimely supply of publications were one of the constraints in dissemination of messages by the extension personnel in T and V system.

Jaiswal et al (1978) observed that the recommendations given from training sections were not profitable and practicable in farmers field.

Pillai (1978) found that agricultural demonstrators seeking farm information mostly from agricultural training followed by news papers, farm broadcast, superior officials, Agri: Books and journals, agricultural exhibitions, discussion with colleagues, agricultural seminars, research stations and agricultural workers.

Panday (1980) found that the extension personnel had no regular contact or link with researchers in the command area.

Inadequate use of teaching aids by the VLWS during field visits were the important problems faced by the extension personnel in T and V system.

Arokoya (1982) found that lack of sufficient information and lack of knowledge were the main reasons for nonadoption of paddy technology.

Somasundaram (1983) observed that the important problem existing and encountered by the agricultural officers in T and V system was absence of contact farmers during VLWS visits.

Kalaichelvan (1984) observed that lack of adequate linkage between research workers and extension personnel was the major problem in dissemination of messages. Recommendations given from the monthly workshop was not profitable and practicable in farmers field.

Susilkumar (1984) found that about three-fourth (60.40%) of the AAOS felt that the messages given to them through lessons in the fortnightly training sections were more theoretical in nature rather than practical oriented. Delay in getting solution of the farmers' problems referred to subject matter specialist was ^{the} second major technical problem experienced by about two-fifth (41.71%) of the respondents.

Jose Joseph (1963) found that the communication effectiveness of V.U.S were adversely affected due to lack of office facilities, larger working area, lack of housing facilities in the working units and heavy work load.

Infrastructural constraints perceived by the officials

One of the objectives of this study is to find out the degree of perception of infrastructural constraints influence on the job performance of the officials working under T and V system. Infrastructures are those physical facilities which will help the officials to implement day to day official activities in a decisive manner.

Rajendran (1978) studied the constraints in the adoption of improved practices in the cultivation of rice practices and found that nonavailability of supply and services at the proper time and inadequate quantities of inputs were the major constraints.

Jaswal (1978) reported that the following infrastructural constraints mainly affected the officials in T and V system.

1. Lack of housing facilities
2. Absence of vehicle facilities to the ADOs
3. Inadequate supply of inputs

Qulhari (1981) observed that the problems faced by the extension functionaries in effective implementation of extension programmes in the project area were

- ✓ 1. Lack of financial assistance and absence of subsidy facilities
- ✓ 2. Nonavailability of inputs in time and inadequate quantity and quality of inputs supplied
3. Increased cost of inputs such as seeds, fertilizers and plant protection chemicals
- ✓ 4. Weak infrastructure in marketing
- ✓ 5. Inadequate irrigation facilities
- ✓ 6. Non provision of housing facilities of field level workers in their working area
- ✓ 7. Fuel ceiling
8. Lack of conveyance facilities

Palaniswami (1978) found that shortage of labour during peak season is the first problem and also inadequate irrigation facilities in the season for malli flower growers.

Sivaramakrishnan (1981) observed that non availability and high cost of inputs were the major constraints in the adoption of recommended practices of selected crops.

Perumal and Menon (1981) in their pilot study on the working of F and V system in Madurai District observed the following constraints in the implementation of F and V system.

1. Nonavailability of transport facilities
2. Inadequate housing facilities
3. High cost of inputs and labour
4. Lack of subsidy facilities
5. Nonavailability of labour for timely farm operations.

Arokoya (1982) reported that lack of credit and labour, nonavailability of inputs, lack of sufficient information and lack of knowledge were the main reasons for non adoption of paddy technology.

Somasundaram (1983) found that the following problems are still existing and encountered by the agricultural officers in I and V system.

1. Inadequate subsidy facility for conducting demonstrations
2. Inadequate and untimely supply of inputs
3. Less subsidy facilities
4. Fuel ceiling
5. Lack of housing facilities
6. Lack of vehicle and communication facilities
7. Lack of inadequate and timely supply of inputs.

Kalaichelvan (1981) in a study on farm technology transfer through I and V system found that the problems faced by the extension workers were

1. Lack of housing and conveyance facility
2. Non-availability of inputs in time
3. Lack of subsidy facilities and
4. High cost of inputs and labour

Administrative constraints as perceived by the contact farmers.

No report is available on the relationship between

administrative constraints perceived by the contact farmers and the adoption of improved farm practices. But this concept has been taken as an independent variable to study the extent of relationship with the adoption of improved farm practices of contact farmers of Kerala.

Infrastructural constraints perceived by the contact farmers.

Sundara Swamy (1971) found that lack of money and knowledge were the main reasons for non adoption of recommended farm practices of hybrid jowar cultivation in the selected taluk of Mysore District.

Ambalagan (1974) found that the major limiting factors for adoption of practices were lack of knowledge, non-availability of inputs and high cost of cultivation of HYV of paddy in Coimbatore District.

Balakrishnan (1974) reported that the non-availability of adequate transport facilities and prevalence of malpractices in the existing system as the key problems faced by the farmers.

Subramanyan et al (1976) found that high cost involved in practices was the main reason for non adoption.

Ray (1976) revealed that lack of irrigation facilities and farmers being not aware of the advantage of new technology were perceived as the most important reasons for low spread of HYV paddy in the peak Kharif season.

Vijayaraghavan (1977) stated that non adoption of all the recommended package of practices was due to inadequate irrigation facilities.

Palaniswamy (1978) found that lack of transport facilities to the place of sale was the important problem faced by the farmers of malli and mullai flower growers in Coimbatore district.

Nanjappan (1978) observed that transporting was the main problem expressed by the farmers of MBA project area. Lack of industrial facilities, credit facilities and inadequate supply of fertilisers were the other major problem faced by these farmers.

Kaleel (1978) found that the most important constraint experienced by the farmers in the adoption of selected practices in intensive paddy development programme were non-availability of inputs in time, lack of

proper irrigation facilities, credit facilities, absence of support price for the produce, inadequate support from agricultural extension personnel and high labour consumption.

Sinha and Sinha (1980) found that the most important reasons for non-adoption of HYV maize in Sikkim were

1. Lack of money (91.5%)
2. Non-availability of fungicide in time (81.2%)
3. Lack of knowledge of improved methods of cultivation (77.1%)
4. Lack of proper guidance (72.8 %)
5. Non-availability of seed in desired quantity
6. non-availability of P.P.chemicals in time
7. Non-availability of fertilizer in time (84.6%)

Mani (1980) observed that lack of credit facilities on pledging the produce was the most important problem in the utilisation of the regulated markets.

Manivannan (1980) reported that low seed setting, non remunerative price and damage of seeds by birds were the major problems faced by the sunflower growers. This

was followed by lack of credit facilities, lack of pest resistant variety and inadequate transport facilities.

Kulhari (1981) listed out the following problems as encountered by the contact and other farmers in T and V system in Chanoal command area.

1. Lack of financial assistance and absence of subsidy facilities
2. Non-availability of inputs in time and inadequate quantity and quality
3. Increased cost of inputs such as seeds, fertilisers and plant protection chemicals
4. Weak infrastructure in marketing.
5. Inadequency of irrigation facilities.

Perumal and Menon (1981) in their pilot study on the working of T and V system in Madurai district found that the non-availability of adequate transport facilities, high cost of inputs and labour, lack of subsidy facilities in T and V system, non-availability of labour for timely operations were the most important problems.

Arokoya (1982) in his study observed that lack of credit and labour, non-availability of inputs, lack of sufficient information and lack of knowledge about the new technology, were the main reasons for non adoption of paddy technology.

Senthil (1983) found that inadequate irrigation facilities, price fluctuation of seeds, scarcity of labour at peak time of operations were the important problems expressed by the cotton seed growers in Coimbatore.

Thyagarajan (1981) stated that majority of the summer crop cultivators expressed that high labour cost, and high cost of inputs were their major constraints in adoption. These were followed by fluctuations in price, non-availability of skilled labour and inadequate marketing facilities.

Singh and Mathur (1984) found that the major bottle necks in adoption of hybrid bajara cultivation in Delhi territory were the high incidence of pest and diseases, high cost of nitrogenous fertilisers, lack of knowledge in view of small farmers, and non co-operativeness of neighbouring farmers.

Socio-economic status of the contact farmers

Socio-economic status was operationally defined as the position occupied by contact farmers in the community with reference to occupational status, educational status, land holding, caste, material possession, socio political participation, house, and household.

Aguiditimi (1981) observed that socio-economic status of farmers showed a positive and significant relationship with their adoption behaviour.

Vasant et al (1975) found that socio-economic status was high in nearly three fifth of small farmers, while the remaining had low socio-economic status and their adoption behaviour was significantly related with their socio-economic status.

Singh and Singh (1981) found that socio-economic status of the farming couples was not significant in predicting their adoption behaviour.

Ferreira et al (1983) reported that all farmers with higher social participation tend to adopt more of the improved farm technology.

Sanoria and Sharma (1983) found a significant relationship between socio-economic status and adoption behaviour of the beneficiaries under F and V system.

Kareem (1984) found that positive and significant relationship between socio-economic status and inter-personal communication behaviour of contact farmers.

Perumal (1979) Viswanathan (1972) Chandrakandan (1973), Velupandian (1974) and Prakash (1980) had reported a positive and significant relationship of educational status with adoption of improved farm practices.

Viswanathan et al (1975), Vijayaraghavan (1976), Ferreira et al (1983) and Rajamma and Sidharamaiah (1984) found that farmers with larger farm size had positively and significantly higher adoption.

Naik (1981), Sanoria and Sharma (1983) reported that size of holding was significantly related to adoption behaviour in the case of beneficiaries of Training and Visit system.

Salunkhe et al (1975) found that adoption behaviour of farmers how ever failed to show significant relationship

with their caste, age, formal schooling, socio-economic status, value orientation and empathy.

Chandrakandan (1973), Salunke and Thorst (1975) Sundraswamy and Duraiswamy (1975), and Rajendran (1978) reported that social participation of farmers was positively and significantly related with their adoption behaviour.

sen (1972) reported that there was relationship between caste of leaders and level of adoption of agricultural innovations.

From the above review, it could be observed that socio-economic status is an important factor affecting the adoption behaviour of farmers and hence an attempt has been made in this study to know the relationship between socio-economic status of contact farmers and their adoption of the selected farm practices of rice and coconut cultivation.

Constraints perceived by the contact farmers in the adoption of selected farm practices of paddy cultivation.

Viswanathan (1972) found that high cost of cultivation expenses and lack of conviction about the merits

and demerits of high yielding varieties were the most important difficulties faced by the adopters of HYV paddy.

Anbalagan (1974) found that the major limiting factors for adoption of practices were lack of knowledge, non-availability of inputs and high cost of cultivation.

Ray (1976) revealed that lack of irrigation facilities and farmers being not aware of the advantages of using modern technology were perceived as the most important reason for low spread of H.Y.V. paddy in the peak Kharif season.

Vijayaraghavan (1977) stated that non adoption of all the recommended package of practices of paddy was due to inadequate irrigation facilities.

Rajenaran (1978) revealed that the main constraint in the adoption of improved practices in the cultivation of rice as perceived by the farmers were non-availability of supplies and services at the proper time.

Kaleel (1978) found that the most important constraints faced by the paddy growers were non-availability of inputs in time, lack of proper irrigation facilities, lack of credit facilities, absence of support price for produce and higher labour consumption.

Sivaramakrishnan (1981) observed that non-availability and high cost of inputs were the major constraints in the adoption of recommended practices of paddy cultivation.

Arokoya (1982) reported that lack of credit facilities, lack of labour at peak time of operation and non-availability of inputs were the important problems in the adoption of paddy technology.

Tripathi, et al (1982) stated that lack of knowledge, non-availability of inputs and lack of finance were the main reasons for the non adoption of recommended technology of paddy cultivation.

Choudhary and Prasad (1972) found that lack of money, high cost of fertiliser, lack of irrigation facilities, lack of credit facilities, and non-availability of fertiliser in villages in time were the major problems of fertiliser adoption by the farmers. They also observed that the problems vary according to progressiveness.

Constraints perceived by the contact farmers in the adoption of selected farm practices of coconut cultivation.

No research data is available on the relationship between adoption of selected farm practice of coconut

cultivation. This is studied as an independent variable to test its relationship with adoption.

Definition of concepts selected for the study.

The concepts of the selected independent variable were defined for the purpose of the present study and shall be used to convey meaning contained therein.

1. Training and Visit system.

Daniel Benor has introduced the Training and Visit (T and V) system of extension. T and V is a systematic programme of Training the extension staff combined with frequent and systematic visit and transfer of productive message to farmers. The system is organised to give the field level workers intensive training in those specific agricultural practices and recommendations relating directly to farm operations during a given week (or fortnight) by subject matter specialists, who in turn will be receiving training from a team of experts in the field of agriculture (Resource personnel) in every month.

2. Officials

Webster's third new international dictionary (1966) official is a belonging or relating to an office position or trust connected with holding an office duties or routine. It is operationally defined as officials were the agricultural extension personnel working in different cader under Training and Visit system; Joint Director of Agriculture, subject matter specialist both district and sub divisional level, sub divisional agricultural officer, agricultural extension officers, and agricultural demonstrators (VLWS).

Administrative constraints perceived by the officials in the T and V system.

Administrative constraints are conceptualised as those constraints relating to the opportunities for personal development, guidance and leadership offered to accomplish a defined objective of the programme in adoption.

3. Constraints perceived by the officials in the dissemination of message.

A message is the information package of a communicator who wishes his audience to receive,

understand, accept and act upon.

Constraint perceived by the officials in the dissemination of message is operationally defined as the difficulties experienced by an extension worker to disseminate the message to the contact farmers to the desired extent.

4. Infrastructural constraints perceived by the officials.

Webster's Third new International Dictionary (1966) defined infrastructure as the underlying foundation or basic framework (as of an organisation or system).

Infrastructural constraints perceived by the officials were operationally defined as the difficulties experienced by an extension worker to urge and utilise the required infrastructural facilities such as transport, office facilities getting fringe benefit in time etc to desired extent in his day to day official business.

5. Contact farmer

Operationally defined as those farmers selected among other farmers based on certain criteria. They act as a link between field level extension workers and other

farmers. The main criteria for selection of contact farmers are the interest, initiative and receptivity of the farmer.

6. Administrative constraints perceived by the contact farmers.

The administrative constraints perceived by the contact farmers were conceptualised as those administrative problems faced by the extension workers which directly or indirectly affect the adoption of improved farm practices of the contact farmers. The difficulty experienced by the contact farmers such as delay in getting subsidy, financial assistance, and improper contact with field level workers etc.

7. Infrastructural constraints perceived by contact farmers.

Infrastructure refers to the economic setting made up of components which are physical, climatic, socio-cultural and institutional in nature within the scope of which the farmer operates their farm business.

Wharton (1967) defined it as the physical capital and institutions or organisations both public and private which provide economic services to and which have a

significant effect directly or indirectly upon the economic functioning of farm firm but which are external separate individual farm firm.

In this study infrastructural constraints were conceptualised as the difficulties experienced by the contact farmers to their economic setting made up of which are physical, climatic, socio-cultural and institutional in nature with in the sale of which the farmer operate their adoption. In this study inadequate transport facilities, high cost of fertiliser and planting materials, high cost of labour, non-availability, of electricity, and marketing facilities and absence of support price of the produce etc were selected.

8. Adoption of improved farm practices of rice and coconut.

Rogers and Shoemaker (1971) defined adoption as decision to continue the full use of an innovation as the best course of section.

For this study adoption was conceptualised as the end action of adopting the selected improved farm practices of rice and coconut cultivation during last two agricultural seasons of 1986-87 of the study.

9. Constraints perceived by the contact farmers in the adoption of selected improved farm practices of rice cultivation.

It is operationally defined as the difficulties experienced by the contact farmers to adopt the selected improved farm practices to the desired extent within the prescribed period i.e. two agricultural seasons of 1986-87.

10. Constraint perceived by the contact farmers in the adoption of selected farm practices of coconut cultivation.

It is operationally defined as the difficulties experienced by the contact farmers to adopt the selected improved farm practices to the desired extent within a decided period. (two agricultural seasons of 1986-87).

11. Socio-economic status of the contact farmer.

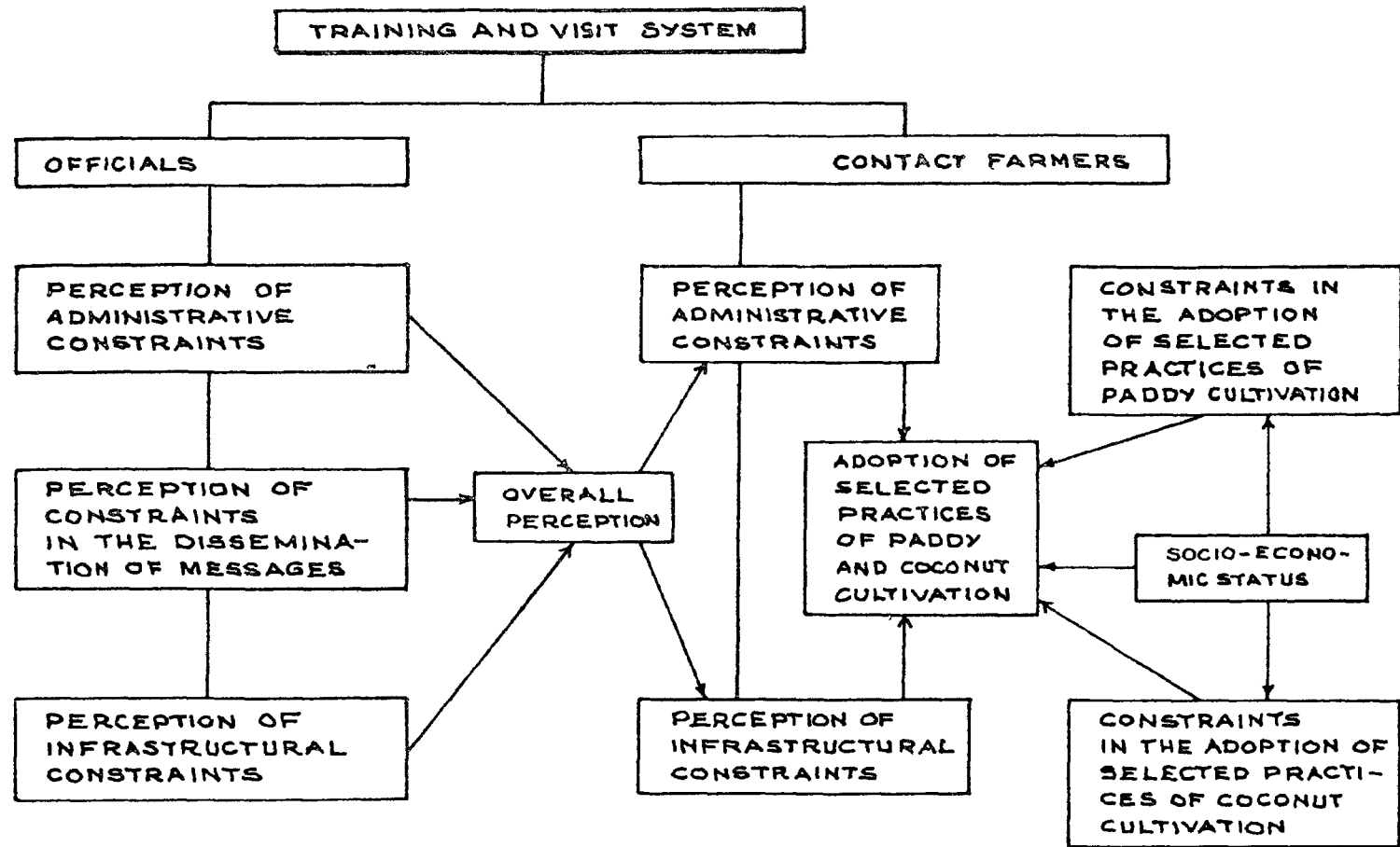
Chaplin (1928) defined socio-economic status as the position of an individual or a family occupies with reference to the prevailing average standards of cultural possession effective income, material possessions and participation in the group activities of the community.

For this study socio-economic status refers to the respondent's occupational status, educational status, socio political participation, land holding, household, caste, possession and house were concerned.

ASSUMPTION

1. It is assumed that the extension personnel working under T and V system is having number of difficulties in the area of administration, dissemination of productive messages and infrastructure facilities, and this constraints will become the main reason to minimise the successful implementation of the programme.
2. In this study it is assumed that the administrative and infrastructural constraints perceived by the extension personnel working under T and V system will indirectly become a barrier of the adoption potential of contact farmers in the adoption of improved farm practices of rice and coconut cultivation.
3. It is assumed that contact farmers is facing a good deal of problems in the adoption of improved farm practices of rice and coconut cultivation.

FIG 1 HYPOTHETICAL FRAMEWORK OF THE STUDY



METHODOLOGY

CHAPTER III

METHODOLOGY

The present investigation was undertaken among the farmers and officials of five NARP regions of Kerala state with the main objective to find out the extent of constraints perceived by the officials working under T and V system, in the areas of administration, dissemination of message and infrastructure. It is also aimed to study the extent of administrative and infrastructural constraints perceived by the contact farmers under the T and V system and their relationship with adoption of selected farm practices of rice and coconut cultivation. This study is also intended to trace out the extent of influence on the socio-economic status of the farmer with adoption, administrative constraints and infrastructural constraints. The methodology followed in the selection of samples, and the measurement of the selected variables are furnished in this chapter.

1. Location of the study

Kerala is one of the twenty five states of Indian Republic. It is situated in the extreme corner of southern India . The position of the state nearly four degrees of

latitude from 8°- 18' to 12°- 48' north and a longitudinal spread on nearly three degrees from 74°- 52' to 77°- 22'. The geographical location of Kerala is represented by Karnataka on North, Tamilnaðu in the East, Arabian sea in the West and Kanyakumari District of Tamilnadu in the South.

Kerala covers an area of 38,855 sq. km. of the Indian Republic and this area forms only 1.03 percent of the total area of Indian republic. The length of the costal line is 580 kilometers. The population is 254.03 lakhs (as per census 1981). Out of the total population, 55 per cent are cultivators and 25 per cent are agricultural labourers. So it is evident that Kerala is predominantly an agricultural state with nearly 80 percent of the population depending upon agriculture on their livelihood.

The state is divided into 14 districts. All the 14 districts comprise 5 National Agricultural Research Project (NARP) Regions. For the purpose of the present study, all the NARP regions were included. The whole region is edged in between the Arabian sea, western ghats and enjoys an almost uniform temperature through^{out} the year. The average rainfall of the state is 3003.3 mm. per year. Among the total cropped area of 2861702⁺ ha in the state, is

cultivated an area of 740086 ha. with a production of 1207916 tonnes of food grains. Coconut was cultivated over an area of 68228 ha produced 2602 million nuts during 1983 - 84. Among the 14 districts, Erivandrum, Puzhillo, Alappay and Pathanamthitta were the first 4 districts in the state the Training and Visit system was implemented in the year 1981 under the name of Kerala Agricultural Extension Project (KALP). Subsequently, it was extended to other districts of the state in the year 1983.

This study was confined to the fourteen districts of Kerala state.

2. Sampling procedure for the study

The state of Kerala has been divided in the five agro climatic regions under the map of Kerala agricultural university. These regions are (1) Southern region (2) region of problem areas (3) high altitude region, (4) Central region and (5) Northern regions, covering all the districts of Kerala state.

A multistage stratified random sampling procedure was adopted to select the respondents (officials and contact farmers of T and V system) for the present study. The five NARP regions constituted the strata in taking the samples. (Table-1),

Table No.1

Selection of sampling units

Sl. No.	NARP Regions	Districts	No. of Sub division	No. of AE units	No. of VLWS	Name of selected subdivision
1	Northern region	Kasargode	1	10	50	
		Cannanore	3	30	160	
		Calicut	3	33	155	Manjeri
		Malappuram*	3	35	175	
2	Central region	Trichur*	3	34	155	
		Palghat	4	35	175	Wadakkancher
		Ernakulam (Parts only)	2	17	103	
		Kottayam	3	31	160	
3	High altitude region	Dyned	1	14	75	
		Idukki*	3	23	150	Adimali
4.	Region of problem areas	Alleppey*	3	30	143	
		Parts of Ernakulam	1	14	57	Alleppey
5	Southern region	Pathanamthitta	1	14	74	
		Quilon	2	23	135	Medumangad
		Trivandrum**	3	28	157	
Total		14	36	378	1954	

* Selected Districts.

One district was randomly selected from each region, which formed the first stage units. From the selected district one agricultural subdivision was selected which formed the second stage unit. From the selected subdivisions 10 per cent of the total agricultural extension units in the selected district, were taken for the study which form the third stage units. It represented the fourth stage unit. In the selected district, all the principal agricultural officers (JDA) and subject matter specialists (SMS) were included as respondents. At the sub divisional level, sub divisional agricultural officers, (SDAO) and subject matter specialists (SMS) were taken as respondents. At the agricultural extension unit level, agricultural extension officers (AOS) and agricultural development officers (ADOS) were selected. Five agricultural demonstrators (ADS) from each selected agricultural extension units were randomly selected as respondents. Among the selected agricultural extension units two contact farmers from each identified agricultural demonstrators area were selected randomly as respondents.

Table No. 2

Selection of respondents

Sl. No.	Name of Districts selected	Name of sub division selected	Dist rict level offices selected		Sub division level		Unit level			
			PAO	SMS	SDAO	SMS	AO	AD	VWS	Contact farmers
1	Malappuram	Manjeri	1	3	1	4	4	4	20	40
2	Trichur	Vadakkan-cherry	1	3	1	4	4	4	20	40
3	Idukki	Adimali	1	3	1	4	3	3	15	30
4	Alleppey	Alleppey	1	3	1	4	3	3	15	30
5	Trivandrum	Neduman-gad	1	3	1	4	3	3	15	30
Total			5	15	5	20	17	17	85	170

Total officials = 164 Total farmers = 170

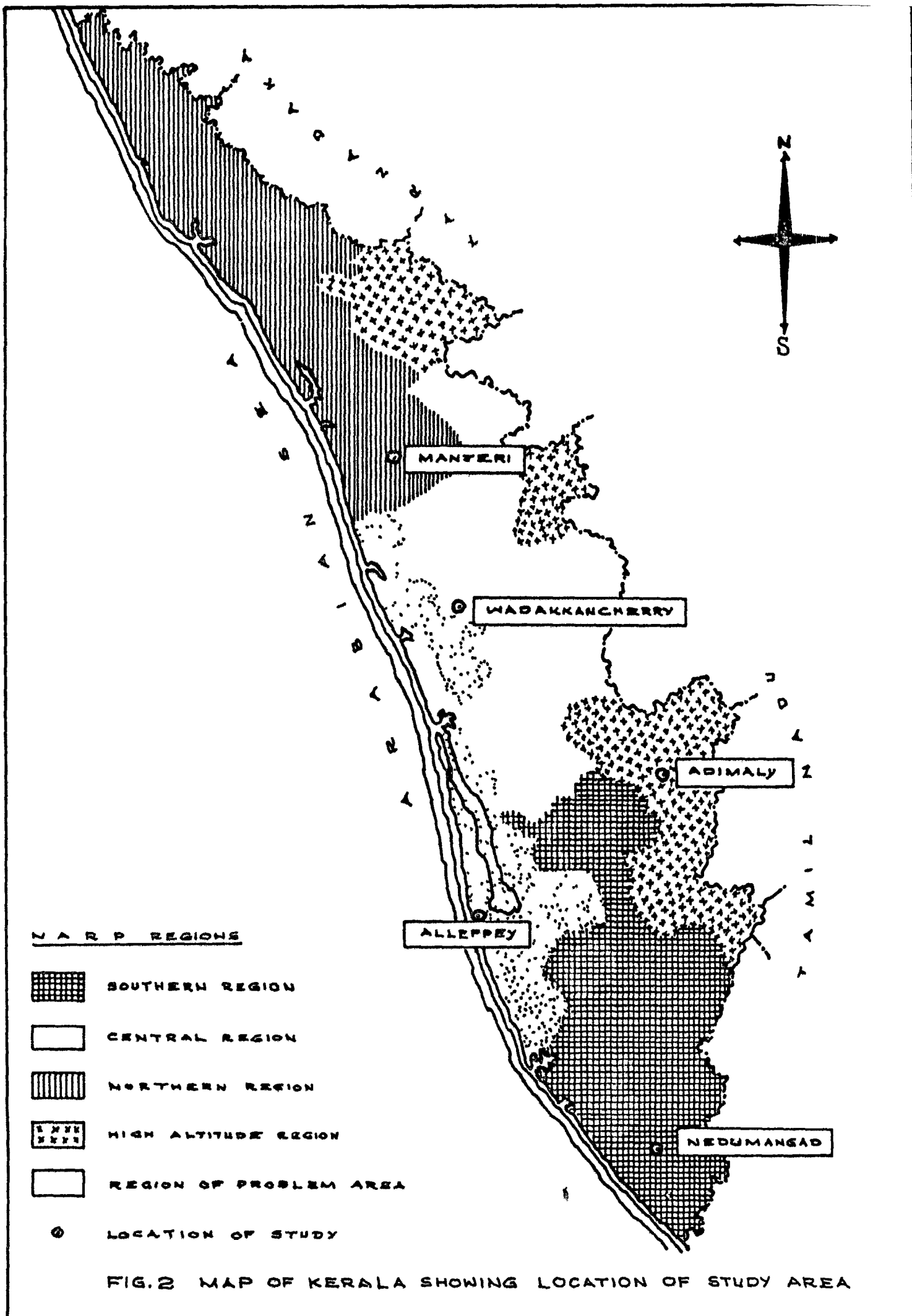


FIG.2 MAP OF KERALA SHOWING LOCATION OF STUDY AREA

3. selection of respondents

At the agricultural subdivision level, Sub Division agricultural officers and all subject matter specialists were, selected as respondents. They regularly participate district level monthly work shops and fortnightly training to Jr. Agri. Officers and agricultural demonstrators (VLNS) and holding administrative control in the Agricultural Sub Divisions. Agricultural Extension Officers and Agri. Demonstrators were selected as respondents from each selected Agri: Sub Division . Ten per cent of the total agricultural extension officers in the selected district were taken as respondents from the selected sub division. The same number of Agricultural Development Officers were also taken as respondents from each selected agricultural extension unit five agricultural demonstrators were selected as respondent, from each selected agricultural extension units, two contacts farmers from each selected agricultural demonstrators working area were selected randomly as respondents (Table No.2)

Selection of statements

In the present study "Constraint analysis of

Training and visit system in Kerala divided into three major areas and each area is further divided into several sub areas.

I. Constraints perceived by the officials working under P and V system.

The sub concepts of constraints perceived by the officials working under P and V system are given below.

1. Administrative constraints perceived by the officials
2. Constraints in the dissemination of messages perceived by the officials.
3. Infrastructural constraints perceived by the officials

II. Variables selected for the study from the areas of constraints perceived by the contact farmers.

1. Administrative constraints perceived by the contact farmers in the adoption of selected farm practice of paddy and coconut cultivation.
2. Infrastructural constraints
3. Constraints perceived by the contact farmers in the adoption of selected farm practices of paddy cultivation.
4. Constraints perceived by the contact farmers in the adoption of selected farm practices of coconut cultivation.

Selection of statements

- I. Constraints perceived by the officials working under the T and V system.

It was assumed that the cumulative effects of all the above said concepts will reflect the perception of the officials working under the T and V system.

120 statements were prepared after reviewing the available literature on T and V system and consultation with the agricultural officials working under T and V system in the agricultural department and resource persons of the College of Agriculture Vellayani who were attending the monthly workshop. These statements were prepared within the purview of above said each sub concepts. Each statement were given a three point scale, i.e most relevant, relevant and not relevant with scores or 3, 2 and 1 respectively. The 120 statements thus selected were presented to a group of 60 judges consisting of Principal Agricultural Officers (JDA) subject matter specialists in district and sub division levels, Sub divisional Agrl. Officers, agricultural extension officers, agricultural demonstrators and resource persons of monthly workshops in the College of

agriculture Vellayani. The judges were requested not to express their opinion but merely to judge the degree of relevance or irrelevance expressed by each statement with regard to administrative constraints, constraints in the dissemination of messages and infrastructural constraints perceived by the officials working under the T and V system.

The responses from judges thus collected were statistically analysed using the relevancy rating method. The statement which got 0.75 and above score were selected for the study. 36 statements were selected under three sub concepts. Appendix - I.

(I. sub concepts of constraints perceived by the contact farmers

- i) Administrative constraints perceived by the contact farmers in the adoption of selected farm practices of paddy and coconut cultivation.
- ii) Infrastructural constraints perceived by the contact farmers.

After reviewing the available literature on T and V system and ⁱⁿ consultation with contact farmers, and agricultural officials working under T and V system in the agricultural department 80 statements were prepared. Each statement was

given a three point continuum. Most relevant and not relevant scoring 3, 2 and 1 respectively. The 80 statements thus presented to 40 judges consisting of agricultural officers working in T and V system and contact farmers. The judges were requested not to express their opinion but merely to judge the degree of relevance or irrelevance expressed by them. In the case of contact farmers, an interview method was adopted.

The response from judges thus collected were statistically analysed using the relevancy rating method. The statements which were got 0.75 and above score were selected for the study. Twelve statements for each sub concepts were identified (Appendix - II).

Constraints perceived by the contact farmers in the adoption of selected farm practices of paddy and ^(and) coconut cultivation.

One hundred statements were prepared after reviewing the available literature related to training and visit (T and V) system and in consultation with the contact farmers and agricultural extension personnel working in the Training and visit (T and V) system. These statements were prepared within the perview of selected farm practices of rice and coconut cultivation. The statements so prepared reflected the constraints perceived by the contact farmers

in the adoption of selected farm practices of paddy and coconut cultivation. In the case of paddy cultivation using good quality seeds (ii) using suitable variety (iii) Manuring (iv) Transplanting and (v) Plant protection practice were taken. In the case of coconut cultivation (i) using good quality seedlings (ii) adopting proper spacing (iii) Manuring (iv) Irrigation and (v) Plant protection practices was also taken.

Each statement were given a three point continuum. Most important, important and not important scoring 3, 2 and 1 respectively. These statements were presented to a group of 40 judges consisting of contact farmers and agricultural extension officials working under the T and V system.

The judges were requested not to express their opinion, but merely to judge the degree of importance or not important expressed by each statement. The responses from judges thus collected were statistically analysed using the relevancy rating method. 0.75 and above score obtained statement were taken for the study, ie 52 statements in ten categories were selected Appendix - II.

Selection of improved farm practices of paddy coconut cultivation.

50 improved farm practices⁵ of paddy and coconut were prepared after reviewing the package of practices recommendations (1966) and other available relevant literature and in consultation with the agricultural experts of ^{the} College of Agriculture, Vellayani and agricultural extension officials working under the P and V system in the Department of Agriculture. These statements were so prepared to reflect the improved farm practices of paddy and coconut cultivation. Each practice was given a three point continuum, most important, important and not important with a score of 3, 2,^{and} 1 respectively.

These practices were presented to a group of 40 judges consisting of agricultural experts in the College of Agriculture, Vellayani and agricultural officers of Agriculture Department. The judges were requested to judge the degree of importance expressed by each statement. The responses thus collected from judges were statistically analysed by using the relevancy rating method. 0.75 and above score obtained items were selected for study. Five practices in paddy cultivation and five practices in coconut cultivation were selected/ appendix - III.

Variables selected and their measurements

I. Dependent variable

1. overall perception of administrative constraints, constraint in the dissemination of message and infrastructural constraint perceived by the officials.
2. Adoption of selected farm practices of paddy and coconut cultivation by contact farmers.

II. Measurement of independent variable

1. Perception of administrative constraint
2. Perception of constraint in the dissemination of message.
3. Perception of infrastructural constraints by the officials working under the T and V system.

All the selected constraints were presented before the respondents for rating them on a four point continuum based on importance they have attached to each statement under the administrative constraints perceived by the officials, constraints perceived in the dissemination of messages and infrastructural constraint perceived by them.

The scoring pattern followed were ^{as} given below:-

<u>Continuum</u>		<u>score</u>
Very important	-	4
Important	-	3
Least important	-	2
not important	-	1

The constraints perceived by the personnel were measured using the measuring scale followed by sobhana (1982) with slight modification.

2. Adoption of selected farm practices of paddy and coconut cultivation by contact farmers.

Adoption of selected farm practices related to paddy and coconut cultivation were measured using the scale suggested by Appa Rao and Menon (1975) which is a modification of the procedure followed by Chathopathyaya (1963). The five selected farm practices of paddy cultivation and five selected farm practices in coconut cultivation were asked to each of the respondents whether he is following each of these practices and the extent of their adoption. The adoption quotient of each respondent was calculated using the formula.

$$A_{ij} = \frac{Y_i \cdot Y_j \times 100}{W}$$

$$Y_j = \frac{E/P}{t} = e_j/p_j$$

Where

P = Potentiality

P_j = Potentiality of jth practice

E = Extent

e_j = Extent of jth practice

W_j = Weightage attached to jth practice

W = Weightage of all practices summation

t = time

It is a ratio scale designed to quantify the adoption behaviour of farmers. All the components of adoption behaviour as indicated by the past studies were included. Here the potentiality of adoption is conceived as the maximum degree to which a farmer can extend his adoption of a particular practice, if he so wishes, depending on the maximum utilisation of the resources he commands or can command. Extent of adoption is the degree to which a farmer has actually adopted a practice. When extent of adoption equals the potentiality, the adoption is maximum and when the extent is nil, adoption is nil. Extent of time, for this study adoption of selected farm practice with

respect to the two agricultural seasons of 1986 - 87 only considered for computation of adoption quotient.

weightage to be given to the different selected practices based on its difficulties of adoption was determined separately for computing the adoption quotient Appendix - V.

The respondents were grouped into two categories keeping the mean adoption quotient as a measure of check. Measurement of independent variable related to contact farmers.

1. Administrative and infrastructural constraints perceived by the contact farmers.

The rating scale followed to measure the perception on the administrative and infrastructural constraints has also similar continuum and scoring pattern of the constraints perceived by the officials.

The scoring pattern followed was as below.

Continuum	Score
Most important	4
Important	3
Less important	2
Not important	1

2. Constraints perceived by the contact farmers in the adoption of selected farm practices of paddy and coconut cultivation.

All the selected statements were presented before the respondents for rating them on a four point continuum based on the importance attached to each statement. The four stages in the continuum and the scoring pattern followed were as follows.

Continuum	Score
Most important	4
Important	3
Least important	2
Not important	1

3. Socio economic status of the contact farmers

In this study socio-economic status of the contact farmers refer to the position, a contact farmer occupies in the community with reference to his occupation, farm holding, caste, socio political participation, education, material possession, house, and house hold. In order to measure the variable a scale developed by Venkataramaiah (1983)

was used. This scale consists of eight items such as (1) occupation (2) land holding (3) caste (4) socio political participation (5) education (6) material and possession (7) house, (8) house hold. The respondent was given a score under each of these eight categories so that the final socio economic status index was the total of these scores. Only the maximum possible score was considered in each category. The score depends on the weightage of the items (See appendix-VI). Under sixth (6th) item material possession the farmer may possess a farm animal as well as a radio and no other possessions. One farm animal has weightage of one, and a radio has a weightage of three so the farmer has got a score under this category is two. Eventually the score of all the eight items were added together and this represented the socio-economic status score of an individual farmer.

D. Data collection procedure

Separate questionnaire was prepared in English and Malayalam languages for officials as well as contact farmers. The data were collected from the selected respondents by adopting the interview method.

3. Statistical analysis used

1. Correlation coefficients were worked out to find the relationship of each of the independent variables with the dependent variables. Correlation analysis was observed to find out the inter-relationship between the dependent variable perception of constraints with independent variables like administrative constraints, constraints in the dissemination of messages and infrastructural constraints perceived by the officials.
2. The dependant variable adoption of improved farm practices of paddy and coconut cultivation with administrative constraints and infrastructural constraints perceived by the contact farmers, thus the socio-economic status of the contact farmer and constraints perceived by the contact farmers in the adoption of selected farm practices of paddy and coconut cultivation.

The formula used to compute correlation coefficient was

$$r_{xy} = \frac{\sum xy}{\sum x \sum y}$$

Where $r_{x y}$ = Correlation between 'x' and 'y'
 $p_{x y}$ = Product moment of x and y
 x = Standard deviation of the distribution
of 'x'
 y = Standard deviation of the distribution
of 'y'

2. Percentage analysis

Percentage analysis was carried out in the case of administrative constraints, constraints in the dissemination of messages and infrastructural constraints perceived by the officials as well as the administrative constraints and infrastructural constraints perceived by the contact farmers in the adoption of selected farm practices of paddy and coconut cultivation.

RESULTS

CHAPTER IV

RESULTS

The results of this study are presented in the following sequence.

1. Perception score on the areas of constraints perceived by the officials of T and V system in Kerala.
2. Distribution of officials based on the mean score in the perception of different areas of constraints.
3. Percentage analysis on administrative constraints perceived by the officials of NARP regions in Kerala.
4. Percentage analysis on the constraints perceived by the officials in the dissemination of messages in the NARP regions of Kerala.
5. Percentage analysis on the infrastructural constraints perceived by the officials in the NARP regions in Kerala.
6. Correlation between the perception of selected group of constraints and overall perception of constraints by the officials.
7. The mean perception on the areas of constraints perceived by the contact farmers of Kerala.
8. Distribution of contact farmers based on the average score in the perception of different areas of constraints and socio-economic status.
9. Percentage analysis on the administrative constraints perceived by the contact farmers of NARP regions in Kerala.
10. Percentage analysis on the infrastructural constraints perceived by the contact farmers of NARP regions in Kerala.

11. The mean perception score on the areas of the constraints perceived by the contact farmers of Kerala.
12. Correlation among the perception of areas of constraints, socio-economic status and adoption of selected practices.
13. Correlation between the perception of constraints by the contact farmers in the adoption of selected practices of paddy and coconut and their adoption behaviour.

Table - 3

1. Perception score on the areas of constraints perceived by the officials of T and V system in Kerala.

Sl. No.	Area	Mean Score	SD Score	Coefficient of variation
1.	Perception of administrative constraints	35.9	4.8	13%
2.	Perception of constraints in the dissemination of messages	36.5	4.0	11%
3.	Perception of infrastructural constraints	35.9	4.72	12%

It is evident from the table 3 that the average score on perception of constraints in different areas are respectively 35.9, 36.5 and 35.9 with standard deviation of 4.8, 4.0 and 4.72 and coefficient of variation is 13 per cent 11 per cent and 12 per cent.

Table - 4

2. Distribution of officials based on the mean score in the perception of different areas of constraints.

Sl. No.	Score	Perception of administrative constraints	Perception of constraints in the dissemination of message	Perception of infrastructural constraints			
		Freq- uency	Perce- ntage	Freq- uency	Perce- ntage	Freq- uency	Perce- ntage
	Mean	36.9		36.5		36.9	
1.	Mean and above	126	76.83	113.	68.90	112	68.29
2.	Below mean score	38	23.17	51	31.10	52	31.71
	Total	164	100.00	164	100.00	164	100.00

From the table 4, it is evident that among 164 respondents having the perception of administrative constraints 126 (76.8%) officials have perceived above the average score and 38 (23.17%) below it. In the case of

perception constraint in the dissemination of messages 113 respondents (68.9%) perceived the constraint above the means score and 51 officials (31.1%) below it. But in the case of perception of infrastructural constraints 112 officials (68.29%) perceived above the means score and 52 of them (31.71%) below the mean score.

Table - 5

3. Percentage analysis on administrative constraints perceived by the officials of WAO regions in Kerala.

n = 164

Sl. No.	Statements	Southern region		Region of poor areas		High attitude region		Central region		Northern region		Total	
		n = 30		n = 30		n = 30		n = 37		n = 37		n = 164	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	The T and V administration do not provide sufficient funds to meet the travelling expense or extension workers	25	83.3	26	86.7	27	90	23	61.2	33	89.6	116	89.02
2.	The T and V administration do not provide sufficient financial assistance to conduct demonstrations	27	90	28	93.3	25	83.3	20	78.4	30	81.00	139	84.75
3.	Developmental programmes other than T and V workers allotted to extension workers will increase their work load and reduces the concentration on T and V works.	28	93.3	29	96.67	23	76.7	27	73	29	78.3	136	82.93

	F	%	F	%	F	%	F	%	F	%	F	%
4. Insufficient promotional avenues of field level workers in T and V system	21	70	27	90	20	66.7	30	81	30	83	128	78.05
5. Frequent transfer of extension workers will adversely affect their work	23	76.7	27	90	26	86.7	33	81.2	27	73	136	82.93
6. The T and V administration do not give importance in appreciating the active workers in the system	25	83.3	24	80	17	56.7	31	83.8	29	76.4	126	76.83
7. The understaffing increases quantum of work of extension workers which will adversely affect their T and V work	20	60.7	22	73.3	24	80	21	56.8	29	78.4	116	70.73
8. The field level extension workers will not get sufficient time to attend the urgent needs of the contact farmers due to fixed schedule of visit.	19	63.3	26	86.7	21	70	23	62.2	25	67.6	124	69.51

	F	%	F	%	F	%	F	%	F	%	F	%
9. Inordinate delay in granting fringe benefits to extension workers	13	43.3	25	83.3	15	50	33	89.2	27	73	113	68.9
10. The T and V administration do not give importance in posting the extension workers in places of their choice	20	66.7	19	63.3	21	70	21	56.8	23	62.2	104	63.41
11. The field level extension workers are shirking from their responsibilities due to improper supervision	15	50	17	56.7	13	43.3	18	48.6	19	51.4	82	50.00
12. The T and V administration do not give importance for proper followup action	9	30	15	50	12	40	12	32.4	27	73	75	45.73

Table - 5

It is evident from the table 5 that more than 70 per cent of the officials invariably perceived the statements from one to six as the major administrative constraints irrespective of the regions. But with reference to the statement 11 and 12 only 30 to 50 per cent of the officials perceived it as major administrative constraints. In general, more than 50 per cent of the officials perceived all the statement as major administrative constraint in all the regions.

Table - 6

4. Percentage analysis on the constraints perceived by the officials in the dissemination of messages in the NARP regions of Kerala.

		n = 164											
Sl. No.	Statement	Southern region		Region of problem area		High alti-tude region		Central region		Northern region		Total	
		n = 30		n = 30		n = 30		n = 37		n = 37		n = 164	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	Inadequate facilities for getting scientific publications and periodicals to extension workers	27	90	26	86.7	25	83.3	33	89.2	31	83.8	142	86.60
2.	Absence of contact farmers in their field during VLMS visit	24	78.7	27	90	21	70	34	92	28	73.4	134	81.70
3.	Extensive jurisdiction allotted to VLMS	23	76.7	26	86.8	27	90	26	70.3	24	64.9	126	76.83

	F	%	F	%	F	%	F	%	F	%	F	%
4. Fortnightly training sessions are more theoretical in nature rather than practical oriented.	26	96.7	22	73.3	25	83.4	26	70.3	27	74	126	76.83
5. Inadequate use of teaching aids for skill development in fortnightly trainings	17	56.7	21	70	22	73.8	32	86.5	27	74	119	72.56
6. Improper facilities to use teaching aids during VLBS field visits.	19	60	19	63.7	21	70	34	92	17	45.9	109	66.46
7. Lack of interest and response of the contact farmers.	20	66.7	15	50	17	56.7	22	59.5	30	81.0	104	63.41
8. Most of the contact farmers have poor ability to receive and transmit technical information to fellow farmers.	21	70	24	80	21	70	27	73	19	51.4	112	68.29
9. Most of the contact farmers are not adopting recommended practices due to lack of infrastructural facilities.	24	80	8	26.7	20	66.7	25	67.6	25	67.6	102	62.20

	F	%	F	%	F	%	F	%	F	%	F	%
10. Most of the message recommendations are not based on the local conditions	25	83.3	10	33.4	21	70	23	62.2	19	51.4	98	59.76
11. Low communication skill of the field level extension workers	13	43.3	16	53.4	19	63.5	30	81	13	38	91	55.49
12. Low level subject matter knowledge of field level extension workers.	11	36.7	13	43.3	20	67.4	15	40.5	16	43.2	75	45.73

From the table 6 it is found that more than 60 per cent of the officials invariably perceived the statement from one to nine, as the major constraints in the dissemination of message irrespective of the regions. With reference to the statements 10 to 12 only 36.7 to 60 per cent of the officials perceived it as major constraint in the dissemination of messages. In general more than 60 per cent of the officials perceived all the statements as major constraint in all the regions.

Table - 7

5. Percentage analysis on the infrastructural constraints perceived by the officials in the NARP regions in Kerala.

n = 164													
Sl. No.	Statements	Southern region		Region of problem areas		High altitude region		Central region		Northern region		Total	
		n = 30		n = 30		n = 30		n = 37		n = 37		n = 164	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	High cost of planting materials, manures and plant protection chemicals	29	96.7	28	93.3	29	96.7	33	89	32	86	151	92.07
2.	High Labour cost	29	96.7	29	96.7	24	80	35	94.6	31	83	148	90.24
3.	Absence of suitable support price	27	90	28	93.7	27	90	35	94.6	31	92	151	92.07
4.	Inadequate irrigation facilities	28	93.3	23	76.7	29	96.7	30	81	33	89.2	143	87.20
5.	Inadequate office facilities for field level extension workers	24	80	25	83.3	29	96.7	29	78.4	30	81	137	83.54

	F	%	F	%	F	%	F	%	F	%	F	%
6. Absence of subsidy facilities	25	86.3	24	80	25	83.3	24	78.3	29	78.3	132	80.49
7. Non-availability of experienced labourers at the peak time of agricultural operations	26	86.7	25	83.4	19	63.4	29	78.3	27	73	126	76.83
8. Inadequate financial assistance	23	76.7	24	80	19	63.3	28	75.7	25	67.6	119	72.56
9. Absence of electricity facilities	22	73.3	21	70	25	83.3	27	73	25	67.6	120	73.17
10. Inadequate marketing facilities	20	66.7	23	76.7	25	83.3	29	78.4	20	54	117	71.34
11. Inadequate transport facilities	19	63.3	23	76.7	25	83.3	23	62.2	23	62.2	113	68.90
12. Shortage of good quality planting materials, fertilisers and plant protection chemicals etc.	19	63.3	20	66.7	23	76.8	26	706	25	67.6	113	68.90

The data presented in the table 7 shows that more than 70 per cent of the officials perceived the statement from 1 to 10 as the major infrastructural constraints, irrespective of the regions. But with reference to the statements 11 and 12 only 60 per cent and above officials perceived their as major infrastructural constraints, By and large more than 70 per cent of the officials perceived all the constraints as major infrastructural constraints in all the regions.

Table - 8

6. Correlation between the perception of selected group of constraints and overall perception of constraints by the officials.

n = 164

Sl. No.	Area	'r' Value
1.	Perception of administrative constraints	0.4612**
2.	Perception of constraints in the dissemination of messages	0.3107**
3.	Perception of infrastructural constraints	0.3420**

** significant at 1% level

The correlation between perception score and administrative constraint, constraint in the dissemination of message, infrastructural constraints and overall perception of constraints, were calculated and presented the table 8. The constraints perceived by the

officials were found to be positively and significantly correlated among themselves.

In the correlation analysis it was found that perception of administrative constraints, constraints in the dissemination of messages and perception of infrastructural constraints by the officials were positively and significantly correlated with their over all perception of constraints.

Table - 9

7. The mean perception on the areas of constraints perceived by the contact farmers of Korala.

Sl. No.	Area	Mean score	SD score	Coefficient of variation
1.	Perception of administrative constraints	39.7	4.32	11%
2.	Perception of infrastructural constraints	39.6	4.10	10%
3.	socio-economic status of the contact farmers	35	2.74	7.47%

In the analysis it is found that the average score of administrative constraints perceived by the contact farmers was 39.7 and that of infrastructural constraint was 39.6 with standard deviation of 4.32 and 4.10 respectively and coefficient of variation 11 and 10 per cent of each constraint. So, there was consistency among farmers as for as their response towards constraints.

Table - 10

8. Distribution of contact farmers based on the average score in the perception of different areas of constraints and socio-economic status.

Sl. No.	Perception of administrative constraints		perception of infrastructural constraints		socio-economic status	
	F	%	F	%	F	%
Mean	39.7		39.7		35	
1. Mean and above	134	78.82	102	60	114	67.06
2. Below mean	36	21.18	68	40	56	32.94
Total	170	100	170	100	170	100

In the analysis it is found that among 170 respondents there are 36 contact farmers perceived below the average score of administrative constraint and 134 above it. Sixty eight farmers have perceived below the average score of infrastructural constraint perceived by them were as 102 respondents above it. But in the case of socio-economic status 56 farmers perceived the constraint below the mean score and 114 farmers perceived above the means score.

Table - 11

9. Percentage analysis on the administrative constraints perceived by the contact farmers of NARP regions in Kerala.

n = 170

Sl. No.	Statement	southern region		Region of problem area		High attitude region		Central region		Northern region		Total	
		n = 30		n = 30		n = 30		n = 40		n = 40		n = 170	
		F	%	F	%	F	%	F	%	F	%	F	%
1.	Lack of providing sufficient inputs in time for adopting message recommendations	28	93.3	26	86.6	29	96.6	33	82.5	39	97.5	155	91.2
2.	Field level workers are given extensive jurisdiction	28	93.3	28	93.3	27	90	36	90	36	90	155	91.2
3.	Good quality inputs are not supplied in time	27	90	28	93.3	29	26.6	34	85	37	92.5	155	91.2
4.	The T and V administration do not provide support price for the agricultural produce of contact farmers	26	86.6	29	96.6	27	90	36	90	33	82.5	151	88.82

	F	%	F	%	F	%	F	%	F	%	F	%
5. Lack of sufficient allotment of funds for conducting demonstrations	25	83.3	28	93.3	28	93.3	36	90	33	82.5	150	88.2
6. Frequent transfer of extension worker in T and V system	28	93.3	26	86.6	24	80	35	87.5	28	70	141	82.94
7. Absence of proper office facilities to field level extension workers	24	80	29	96.6	24	80	32	80	28	70	137	80.37
8. Plant protection equipments are not made available to contact farmers in time	25	83.3	20	66.6	28	93.3	28	70	35	87.5	136	80
9. Lack of proper follow up actions of implemented programmes in the T and V system	19	63.3	25	83.3	24	80	33	82.5	27	67.5	128	75.29
10. Allotment of duties other than T and V works to VLWS	24	80	24	80	15	50	31	77.5	26	65	120	70.59

	F	%	F	%	F	%	F	%	F	%	F	%
11. Lack Of proper facilities for noting down the messages for contact farmers	15	50	17	56.66	13	43.3	22	55	17	42.5	84	49.41
12. Shirking from responsibilities by the field level workers due to improper supervision	15	50	12	40	14	46.66	17	42.5	23	57.5	81	47.64

It is evident from the table 11 that more than 80 percent of the officials invariably perceived the statements 1 to 8 as the major administrative constraints perceived by the contact farmers irrespective of the regions. With reference to the statements 9 and 10, 70 percent and above respondents perceived them as major constraints and statements 11 and 12 forty seven and above per cent respondents perceived as major constraints. In general, more than 70 percent of the respondents perceived all the statements as major administrative constraints in all the regions.

Table - 12

10. Percentage analysis on the infrastructural constraints perceived by the contact farmers of NARP regions in Kerala.

	n = 170											
	Southern region		region of problem area		High attitude		Central region		Northern region		Total	
	n = 30		n = 30		n = 30		n = 40		n = 40		n = 170	
	F	%	F	%	F	%	F	%	F	%	F	%
1. High labour cost (high wage rate)	29	96.66	27	90	27	90	37	92.5	39	97.5	159	93.53
2. Absence of support price for agricultural produce	29	96.66	28	93.31	29	96.66	36	90	36	90	158	92.94
3. Absence of subsidy facilities	28	93.33	27	90	28	93.33	36	90	36	90	155	91.18
4. High cost of planting materials fertilisers and plant protection chemicals	29	96.66	29	96.66	29	96.66	28	93.3	39	97.5	154	90.59

	F	%	F	%	F	%	F	%	F	%	F	%
5. Inadequate irrigation facilities	26	86.66	16	53.33	29	96.66	35	87.5	32	80	138	81.18
6. Non-availability of inputs in time	27	90	19	63.33	24	80	26	65.00	31	77.5	127	74.70
7. Non-availability of electricity facility	27	90	14	46.66	25	83.33	33	82.50	23	67.50	126	74.11
8. Absence of getting sufficient financial assistance in time	21	70	22	73.33	26	86.66	31	77.5	26	63	126	74.11
9. Non-availability of experienced labourers at the peak time of agricultural operation	26	86.66	19	63.33	15	50	38	95	20	50	118	69.41
10. Improper marketing facilities	10	33.33	22	73.33	29	96.66	30	75	24	60	115	67.64
11. Non-availability of good quality planting materials and other inputs in time	20	66.66	15	50	23	76.66	26	65	27	67.5	111	65.29
12. Inadequate transport facilities	18	60	16	53.33	28	93.33	24	60	18	45	104	61.17

It is evident from the table 12 that more than 74 percent of the contact farmers invariably perceived the statements from 1 to 8 as the major infrastructural constraints irrespective of the regions. But with reference to the statements 9 to 12 only 61 percent and above of the respondents perceived it as the major constraints. In general more than 70 percent of the respondents perceived all the statements as major infrastructural constraints in all the regions.

Table - 13

11. The mean perception score on the areas of the constraints perceived by the contact farmers of Kerala.

n = 170

Sl. No.	Areas	Mean score	Mean and above		below mean	
			F	%	F	%
1.	Constraints in the adoption of selected practices of paddy cultivation	70	102	60	60	40
2.	Constraints in the adoption of selected practices of coconut cultivation.	54.8	104	61.18	66	38.82

The data presented in the table 13 indicate that out of 170 samples analysed, 102 respondents perceived the constraints above the mean score of constraints in the adoption of selected practices of paddy cultivation. But in the case of perception of constraints in the adoption of selected practices of coconut cultivation only 104 respondents have perceived above mean score among 170 respondents studied.

Table - 14

12. Correlation among the perception of areas of constraints, socio-economic status and adoption of selected practices.

Sl. No.	Area	r value	
		Adoption of selected perception of paddy cultivation	Adoption of selected practice of coconut cultivation
1.	Perception of administrative constraints	0.0899 NS	0.0929 NS
2.	Perception of infrastructural constraints	0.0267 NS	0.0432 NS
3.	socio-economic status	0.2470*	0.1147 NS

NS. Non significant * Significant at 5% level

In the statistical analysis it is found that no significant association, or correlation was observed, between the administrative and infrastructural constraints and adoption of selected practices of paddy and coconut cultivation.

In the case of socio-economic status it is found that it has a significant correlation with adoption of paddy but not with coconut.

Table - 15

13. Correlation between the perception of constraints by the contact farmers in the adoption of selected practices of paddy and coconut and their adoption behaviour.

n = 170

Sl. No.	Areas	'r' Value
1.	Constraints in the adoption of selected practices of paddy cultivation	0.2602 [*]
2.	Constraints in the adoption of selected practices of coconut cultivation	0.3021 [*]

In the statistical analysis it is found that there is significant correlation between the perception of constraints and the adoption of selected practices of paddy and coconut cultivation.

DISCUSSION

CHAPTER V
DISCUSSION

The results obtained in this study are discussed and interpreted in this chapter under the following heads.

1. Constraints perceived by the officials under different areas based on the average score.
2. Administrative constraints perceived officials working under T and V system in Kerala.
3. Constraints in the dissemination of messages as perceived by the officials working under T and V system in Kerala.
4. Infrastructural constraints perceived by the officials working under T and V system in Kerala.
5. Comparison of administrative constraints perceived by the officials working in the selected regions in Kerala.
6. Comparison of constraints in the dissemination of messages perceived by the officials working in the selected regions in Kerala.
7. Comparison of infrastructural constraints perceived by the officials working in the selected region in Kerala.

8. Relationship between administrative constraints perceived by the officials working under T and V system in Kerala and their overall perception.
9. Relationship between constraints in the dissemination of messages perceived by the official working under T and V system in Kerala and their overall perception.
10. Relationship between infrastructural constraints perceived by the officials working under T and V system in Kerala and their overall perception.
11. Perception of administrative constraints by the contact farmers in the T and V system in Kerala.
12. Perception of infrastructural constraints by the contact farmers in the T and V system in Kerala.
13. Comparison of administrative constraints perceived by the contact farmers of NARP regions in Kerala.
14. Comparison of infrastructural constraints perceived by the contact farmers of NARP regions in Kerala.
15. Relationship between the perception of administrative constraints and the adoption behaviour of contact farmers in Kerala.

16. Relationship between the perception of infrastructural constraints and the adoption behaviour of contact farmers in Kerala.
17. Relationship between socio-economic status of contact farmers and their adoption behaviour.
18. Relationship between the perception of constraints by the contact farmers and the adoption of selected practices of paddy and coconut and their adoption behaviour.

1. Percentage of constraints perceived by the officials under different areas based on the average score.

A close perusal of the tables 3 and 4 reveals that a good majority of the respondents are of the opinion that their work is seriously affected by the three sets of constraints such as administrative constraints, constraints in the dissemination of messages and infrastructural constraints. More than three fourth of the respondents confirmed this view regarding administrative constraints. Sixty eight per cent of respondents experienced the constraints in the dissemination of messages and 68.9 per cent of the respondents expressed infrastructural constraints are affecting their work. This view is supported by Perumal and Menon (1981) and Somasundaram (1983). On the basis of the result it is suggested that action may be initiated by the authorities to minimise the problems experienced by the officials so that the efficiency and achievement of target can be enhanced.

2. Perception of administrative constraints by the officials working under T and V system in Kerala.

The percentage analysis of administrative

constraints as depicted in table 5 shows that 89 per cent of the respondents agreed with the problem of inadequate allotment of travelling allowances. In T and V system field level extension workers have to travel a lot as a part of their fixed schedule of work. This constraint is affecting to a greater extent in their day to day job performance. This view is supported by Susil kumar (1984). He observed that low travelling allowance was the major administrative problem as perceived by two fifth of the AAOS in T and V system.

The improper financial assistance to conduct demonstrations is the administrative constraint as perceived by 84.76 per cent of the officials. It is observed that target was fixed to VLWS to lay out a number of demonstration plots for each agricultural season without providing sufficient financial assistance. Farmers are generally not interested to take any additional risk by doing demonstration without getting any benefit. This finding is supported by Somasundaram (1983). He observed that inadequate subsidy for demonstration plots and too many demonstrations to be conducted by the agricultural officers are the major administrative problems encountered by the agricultural officers in T and V system.

Other ongoing developmental programmes allotted to field level extension workers will reduce the efficiency of T and V work as perceived by 83.93 per cent of the respondents. Most of the ongoing developmental works were entrusted to VLWS in T and V system. This will become a main barrier in the successful implementation of the system. This view is supported by Perinbam (1981). He observed that VLWS had encountered the problem of undertaking responsibilities from other ongoing developmental programmes which reduces the concentration of T and V work.

It is found that 79 per cent of respondents are of the opinion that there is insufficient promotional avenue for VLWS. This problem is much relevant. This view is supported by Somasundaram (1983). He observed that lack of promotional avenue is existing and encountered by the agricultural officers in T and V system. Perumal and Menon (1981) also supported this view. It is suggested here that increased promotional chances may increase their work efficiency. Seventy eight per cent of the respondents agreed that frequent transfer of extension workers is an important constraint faced by them. This view is supported by Betty Cherian (1984). She observed that frequent transfer of AEOs in T and V system was the

important problem faced by them. A good majority (76.83%) of respondents are of the opinion that their work is not recognised properly in T and V system. This problem may affect their attitude towards effective work. It is suggested that some incentives may be awarded to active workers for additional works in the system.

It is also observed that 70.73 per cent of the respondents felt that under staffing in the system increases quantum of work. This may become one of the major problems in the smooth functioning of T and V system. This view is supported by the findings of Kulhari (1981), that understaffing was one of the major problems encountered by the extension personnel in T and V system. This constraint can be rectified by posting required number of personnel in the system. It is observed that (69.92%) of respondents in having the opinion that they are not getting sufficient time to attend the urgent needs of the farmers due to fixed schedule of work. This finding is supported by Somasundaram (1983). He observed that the VLWS of T and V system were facing the problem of lack of time to attend the urgent needs of the farmers due to fixed programme of work. This is a policy matter and

hence may be tackled by the authorities. Sixty eight per cent of the respondents are of the opinion that they are not getting fringe benefits in time, under T and V system. This difficulty is mostly experienced by VLWS and AEGS in T and V system. This indicates that higher authorities are not giving due importance to make suitable working environment to subordinate officers.

Sixty three per cent of the respondents have expressed that the extension workers are not getting posting in places of their choice. It is an important problem expressed by them. It is observed that transfers and postings are carried out without considering any basic norms and conditions. This is affecting mostly the field level extension workers in T and V system. This view is supported by Betty Cherian (1984). She observed that frequent transfer of VLWS was one of the important problems perceived by them.

It is found that 50.21 per cent of respondents are of the opinion that field level extension workers are shirking from their responsibilities due to improper supervision. This view is supported by Jaiswal et al (1978). He observed that one of the important

problems encountered by the T and V officials was improper supervision. It is suggested here that the implementing authority may take proper steps to minimise the problem.

This study reveals that 45.73 per cent of the respondents have expressed that no follow up action is undertaken on the programmes implemented through T and V system. It is suggested that this matter may be brought to the notice of the authorities who are formulating and implementing the programme.

3. Perception of constraints in the dissemination of message by the officials working under T and V system in Kerala.

The data presented in table 6 reveals that 86.6 per cent of the respondents are of the opinion that there is very limited facilities for getting scientific publications. This denote that the VLNS and AEOS are facing difficulties in gaining upto date technical knowhow. This constraint may negatively affect their job performance. Rao et al (1979) observed that untimely supply of publications was one of the major constraint in dissemination of messages by extension personnels. Bhatia et al (1975) also supported this view. It is suggested

here that regular supply of agricultural publications should be arranged for extension workers. It is seen that 81.70 per cent of respondents is of the opinion that contact farmers are not seen during the field visits of VLWS. This is perhaps due to the negative attitude of the farmers, or the inability of VLWS to convince the farmers about the use of their visits. In this respect it is suggested here that maximum care should be taken to follow the norms and conditions in the selection of contact farmers. This view is supported by Somasundaram (1983). In a study he observed that one of the important problems existing in T and V system was absence of contact farmers during the VLWS visits.

It is observed that 76.83 percent of the respondents opined, that one of the constraints is that of allotment of extensive jurisdiction to VLWS in T and V system. It is suggested here that since it is a policy matter and hence authorities may look in to this matter and the area may be fixed according to the norms of the system. This finding is supported by Kalaichelvan (1984). In a study he observed that one of the important problems faced

by the extension workers was allotment of larger jurisdiction to extension workers. Fortnightly training sections are more theoretical in nature rather than practical oriented. It is suggested here that this may be tackled by giving more emphasis on practical aspects in fortnightly training section. This is supported by the finding of Susilkumar (1984). Sixty six per cent of the respondents opined that improper facilities to use teaching aids during VLWS visits. In this connection it is suggested that infrastructural facilities may be increased. Panday (1980) observed that inadequate use of audio visual aids are the main problem experienced by the AEOS in T and V system.

It is observed that 68.29 per cent of the respondents expressed the view that contact farmers were not showing any interest to receive and adopt messages. This factor may be investigated and reasons may be analysed. Perumal and Manon (1981) also observed that lack of interest and response from the contact farmers was one of the problems confronted by more than two fifth (11.58 %) of AAO's faced in T and V system. It is also observed that 59.76 per cent of the respondents are of the

Opinion that most of the message recommendations are not based on the local conditions of the areas. The messages formulated on the monthly workshop were of a general nature. So farmers of a particular locality may experienced difficulty to adopt it. This view is supported by Jaiswal et al (1978). He found that field staff projected the problem, that the recommendations under training sections, were not profitable and practicable in farmer's fields.

It is observed that 55.5 per cent of the respondents expressed the problem of low communication skills of VLWS. It is observed that VLWS working under T and V system are not in reach of any reading materials having innovations. Library facilities in all subdivisions may be provided, and this may help to solve this problems. This view is supported by the findings of Rao et al (1979). They observed that untimely supply of publications was one of the constraints in the dissemination of messages by the extension personnel. From the table it is found that 45.7 per cent of respondents confronted the problem of low level subject matter knowledge of extension workers in T and V system. It is suggested that this problem can over

come by giving periodical training, and enhancing communication skills of these workers.

4. Perception of infrastructural constraints perceived by the officials working under T and V system in Kerala.

The data presented in table 7 indicate that high cost of agricultural inputs, high labour cost, absence of support price and non-availability of irrigation facilities are the major infrastructural constraints experienced by more than 90 per cent of the respondents. It is suggested that this may be the main reason for non adoption of message recommendations. In the T and V system there is no arrangement to supply inputs or provide infrastructural facilities to farmers for strengthening the adoption of messages. This finding is supported by Kulhari (1981). In a study he found that high cost of agricultural inputs, high cost of labour and non-availability of irrigation facilities were the important problems for non adoption of messages in T and V system. Inadequate office facilities of VLWS and absence of subsidy facilities were the major problems as encountered by more than 80 per cent of the respondents. This problem may adversely affect the job

performance of VLWS and hence facilities may be provided to overcome this constraint. This view is also agree with the findings of Perumal et al (1981). They ^{4/1} found that problems faced by the extension functionaries were lack of financial assistance, subsidy facilities, and non provision of office facilities for VLWS.

Non-availability of experienced labour at peak time of agricultural operations, and financial assistance in time, absence of electricity facilities and inadequate transport facility are the important problems experienced by 70 per cent and more respondents. It is suggested here that the authorities may review the situation and proper steps may be taken to overcome these constraints. This finding is also supported by Kalaichelvan (1984). In his study of farm technology transfer through T and V system, he found that non-availability of experienced labour, financial assistance, and electricity were the important problems experienced by the extension workers in T and V system.

It is found that 68.9 per cent respondents are of the opinion that non-availability of good quality planting materials, fertilisers and plant protection chemicals are the important constraints faced by them.

5. Comparison of administrative constraints perceived by the officials working under NARP regions in Kerala.

Table 5 indicates ^spercentage score of administrative constraints, experienced by the officials of different NARP regions of Kerala. In the region of problem area above undertaking responsibilities of other ongoing developmental programmes to extension workers will reduce the concentration of T and V work. VLWS and AEOS are generally experiencing this constraints. This opinion is also supported by the respondents of other regions more or less, to the same extent. This may be due implementation of area base schemes by the department. It is suggested here that scheme work may not be entrusted to field level extension workers of T and V system, which will adversely affect the efficiency of the system.

It is also observed that a good majority (above 80%) of the officials in the five regions are of the opinion that there is inadequate financial assistance to conduct demonstrations. This constraint is more or less uniformly expressed in all the regions. It is also found that field level workers were not getting enough funds to meet their travel expenses. This constraint is

very dominant in northern region (94%) and high altitude region (94%). This may be due to understaffing, uneven terrain, lack of transport facilities and officials having extensive jurisdiction. It is also observed that more than 78 per cent of the officials of all the regions except region of high altitude (56.7%) have expressed that the active workers are not appreciated for their work in T and V system by the higher officials. The officials of high altitude region are not in much favour of this constraint probably because either they are not doing any active work or they may have a different attitude in this regard.

It is also found that officers of all the regions (more than 73%) is supporting the view that frequent transfer of extension workers will adversely affect their work and so the authorities have to look into the matter. It is suggested that since this constraint is uniformly expressed in all the regions, it has to be taken into consideration. Also there is inadequate promotional avenue to field level workers. This view is strongly supported by the officials in the region of problem area (90%) and least support was given by officials in the high altitude region (66.7%). It is quite strange that officials of this region are not giving much importance

to these problems. This phenomena is probably due to the fact that they might have developed a different attitude in this regard and it require further investigation. It was observed that understaffing increases quantum of work. This constraint is expressed uniformly from all the regions except central region (56.8%). Acute shortage of staff is observed in the region of high altitude. This may be due to the peculiar geographical and unfavourable climatic conditions. From the experience of the researcher it is observed that most of the officials posted in this region used to take leave or get transfered. The officials working in high altitude region expressed (70%) that they are not getting posting in places of their choice. Respondents of other regions are more or less uniform in their opinion about this problem. Majority (62.2%) of the respondents of all the regions are of the opinion that they are not getting sufficient time to attend the urgent needs of the farmers due to fixed programme. This problem is highly experienced in region of problem areas (86.7%) and lowest in central region (62.3%).

It is observed that majority of officials (50%) of all the regions have expressed their view that field level workers are shirking from their responsibilities due to lack of

supervision. It is also found that there is delay in getting fringe benefits to field level workers. This view is assuming top priority in central region (82.2%). This indicate, lack of enthusiasm of superior officers, in this respect. It is also found that in all the regions follow up action is lacking in the programmes implemented through T and V system. This phenomena is highest in Northern region (73%) and lowest in (30%) southern region.

6. Comparison of constraints in the dissemination of message perceived by the officials working under NARP regions in Kerala.

The results given in table 6 reveal that a good majority of officials (83%) have expressed, inadequate facility, for getting scientific publications. This constraint is viewed more or less equally in all the regions. It is found that fortnightly training is more theoretical in nature. Officials of Southern region (86.7%) and central region (70.5%) expressed this constraint. It is found that officials of all the NARP regions expressed that message recommendations given from monthly workshop, are not based on local conditions. This opinion is lowest in problem region (33.4%) and

highest in southern region (83.3%). This may be due to variations of field conditions in southern region. In problem area, the field conditions, is more or less homogeneous in nature and hence the recommendation is more applicable in this region.

It is also found that the message recommendations are not taking into consideration the availability of infrastructural facility of the farmers. This opinion is expressed by (76.7%) in southern region where as in region of problem areas it is 36.7%. In southern region local situation and availability of infrastructure facilities vary, from place to place whereas this problem is more or less uniform in other regions. From the result it is observed that one of the major problems experienced is that, of the absence of contact farmers in their field, during VLWS visits. Highest score (92%) obtained in central region and lowest in high attitude region (70%). It is also observed that extensive jurisdiction is allotted to extension workers. This is experienced mostly in high attitude region and lowest in northern region (64.9%). It is observed that most of the contact farmers have poor ability to receive and transmit message recommendations to fellow farmers. This opinion is very high in region of

problem area (80%) and lowest in northern region (51.4). It is suggested here that this problem can be tackled by careful selection of contact farmers in these regions. Another important finding is that of "Lack of interest and response of contact farmers". This constraint is expressed by more than (50%) of the officials in all the regions. It is found that there are improper facilities to use teaching aids during visits of VLW's. The highest score (92%) obtained in central region and lowest score in Northern region (45.9%). Other regions scored more or less 70%. It is found that there are inadequate usage of teaching aids in fortnightly training section. In all the five NARP regions, this constraint is viewed uniformly (70%). It is observed that teaching aids for skill development is not properly used in fortnightly training sections. It is also found in this study that the communication skill of field level extension workers is very low. The maximum score obtained is from central region (81%) and lowest from Northern region (35%). It is suggested that an intensive periodical training should be given to VLWS to enhance their communication efficiency. Field level workers of central region need some special training in this aspect. It is observed that there is low

level subject matter knowledge among field level workers. The maximum score obtained was (66.7%) from high attitude region and lowest from southern region (36.7%). It is suggested that special attention may be given to VLW's to enhance the subject matter knowledge.

7. Comparison of Infrastructural constraints perceived by the officials of NARP regions of Kerala.

Table 7 indicates that more than (83%) of officials expressed the view that high labour cost is the major problem. This constraint is uniformly prevalent in all the regions. It is observed that high cost of inputs (86.5%) is also a major constraint expressed by the officials in all the regions. Majority (above 90%) of officials in all the regions agreed that absence of support price is one of the most important constraint.

More than 81 per cent of respondents of all the regions agreed that inadequate irrigation facility is the important constraint. It is also observed that more than 73.2 per cent of officials of all regions is of the view that non-availability of experienced labour is one of the major constraint. Officials of high attitude region (63%) is of the opinion that labour shortage is not a problem;

Majority of officials of all the regions observed that 78 % absence of subsidy facility is an important constraint. Results indicate that there is inadequate housing facilities for VLWS in their working area (above 78%). A good majority of the farmers is of the opinion that they are not getting assistance in time. In the case of high altitude region the perception score is less than 63.3 percent. When compared to other regions, this deviation is due to the fact that major portion of the land is utilised for cultivating cash crops like pepper, Ginger, Rubber etc. It is explained that they are not facing much financial stringency when compared to the farmers of other regions. The officials of all the regions, uniformly expressed (67%) that they are experiencing lack of electricity facility.

With regard to the constraint of inadequate marketing facilities, a good majority of the respondents (64.5%) have expressed that they are not having enough marketing facilities. It is expressed that quality planting materials, fertilisers and plant protection chemicals, are also not getting in time.

This constraint is prevalent in all the regions. It is observed that majority of the respondent (62.8) of all the regions expressed that inadequate transport is one of the major constraint experienced by them.

8. Relationship between administrative constraints perceived by the officials working under T and V system in Kerala and their over all perception.

The data presented in the table 8 revealed that the administrative constraints are significantly correlated with the overall perception of constraints by the officials. This indicate the attitude of respondents and which may affect to a greater extent in the successful implementation of the T and V system.

9. Relationship between constraint in the dissemination of messages perceived by the official working under T and V system in Kerala and their overall perception.

A close perusal of table 8 highlights one of the important points in this study, ^{is} that the constraints in the dissemination of messages are significantly correlated with the overall perception of constraints by the officials. This shows that all the respondents are highly conscious about the constraints and this may affect in the dissemination of messages.

10. Relationship between infrastructural constraints perceived by the officials working under T and V system in Kerala and their overall perception.

Table 8 reveals that the infrastructural constraints are significantly correlated with the overall perception of constraints by officials. This shows that these constraints are influencing the respondents to a certain extent.

In the analysis of these three sets of constraints with perception, it is found that all these constraints are significantly correlated with overall perception and among themselves. This indicate that each set of constraints are more or less uniform and inter related in its own area. More Over all the respondents have a clear cut perception about each set of constraints. The result shows that all the respondents are highly conscious about the constraints that are influencing in their work.

11. Perception of administrative constraints by the contact farmers in the T and V system in Kerala.

The results obtained with regard to administrative constraints perceived by the contact farmers are presented in the table 11 is discussed in the following pages. In

this connection it is relevant here, to mention a few points with regard to the administrative problems perceived by the contact farmers in T and V system. Eventhough it may appear that the contact farmers have no direct connection with administrative constraints in T and V system, but in the final analysis, it is felt that farmers are directly or indirectly influenced by the administrative problems which arises from time to time in the administrative set up of T and V system. To clarify this an example is given here. Government is implementing a scheme, that the civil supply department have to purchase vegetables from farmers directly at a reasonable price to eleminate middle men and thus help the vegetable growers to get a good price. This scheme is implemented through agricultural department. Field level workers encourage farmers to cultivate more vegetables. Farmers in turn have taken loans from cooperative Banks and produces good quality vegetable. The government didnot allot sufficient funds to the civil supply department to purchase the vegetables in time, due to administrative delay and the flow of funds to civil supply department is delayed. The net result is that the civil supply department become helpless to purchase the vegetable produced by the farmers under this scheme. The cultivators in turn may experience

much hardship to repay the loan as do not get better price to their product. In the first appearance it may look that the farmers are in no way connected with the administrative problems of the department. But if we analyse critically it will appear that farmers are directly or indirectly affected by day to day administrative problems^a raising from time to time in the Agriculture department. From the experience of the researcher it is observed that this type of administrative problems used to affect most of the schemes implimented by the Agriculture department.

From the results it is found that a good majority (93.23%) of the farmers is of the opinion that T and V administration is not initiating action to provide sufficient quantity of inputs in time. It is also found that contact farmers perceive (82%) that T and V administration do not allot sufficient financial assistance to conduct demonstrations. It is also found that 91.2% of the respondent experienced the problem that T and V administration did not take proper steps to supply inputs in time. Eighty nine percent^{of the} contact farmers expressed that the T and V administration did not take action to allot support price for the agricultural produce. It is seen from the table that the respondents are also of the opinion (91.2%) that

the T and V administration allotted extensive jurisdiction to VLWS and hence effective contact is not possible with field level workers.

In this connection it is suggested here, that this aspect putforth by the farmers is to be reviewed by the implementing authorities and extensive area should be limited. Farmers also expressed that (82.94%) frequent transfer of field level workers is also seriously affecting the contact farmers. From the table it is seen that 57 per cent of the respondents are of the opinion that T and V administration do not provide office facilities for field level workers in their working area. It is found that 80 per cent of the respondents are of the opinion that authorities do not give any help for proper maintenance of the plant protection equipments possessed by the contact farmers. It is also observed that the majority (91.2%) of the respondents have expressed their view that T and V administration do not initiate action to supply quality inputs. The farmers are of the opinion that T and V administrators allot other on going programmes to VLWS and hence their visits are much limited. Forty nine percent expressed that administrators in T and V system are not taking steps to provide facilities for recording the message recommendations. In this connection, it is to be

noted that this is also observed by the researcher that it is an important constraint experienced by the contact farmers. It is seen that the verbal messages are not much retained by the contact farmers. Most of the messages are remembered from memory and during the process most of the key points are left out. In addition to this, the names and quantity of plant protection chemicals are left out and hence it is very important that some arrangements may be given to record the messages in a book. This fact may be considered in the light, that most of the contact farmers are literate. Forty seven percent contact farmers also expressed the view, that improper supervision of authorities may be the reason for shirking from the responsibilities by VLWS. This may be the reason for limiting the frequency of visit.

12. Perception of infrastructural constraints by the contact farmers in the T and V system in Kerala.

It is observed from the data presented in table 12 that more than 98 percent of respondents expressed this constraints as most important. They also expressed that high cost of plant protection chemicals, fertilisers and planting materials are the other constraints. This view was supported by Perumal and Menon (1981). They observed

that high cost of inputs was the important problem faced by the contact farmers in T and V system and was the main reason for nonadoption. Ninety percent of the respondents expressed high cost of labour, absence of subsidy facilities, absence of irrigation facilities and absence of support price for the agricultural produce as the major constraints for non adoption. This is in line with the finding of Thyagarajan (1981) that high labour cost and high cost of inputs were the major constraints in adoption. This is also supported by the findings of Kulhari (1981). More than 72 percent of the contact farmers expressed that the constraints experienced by them are inadequate marketing facilities, non-availability of experienced labours at peak time of agricultural operations, non-availability of adequate quantity of agricultural inputs in time, and absence of adequate transport facilities. This findings agree with the findings of Senthil (1983) and Perumal and Menon (1971).

13. Comparison of administrative constraints perceived by the contact farmers of NARP region in Kerala.

The data presented in table 2 indicate that all the respondents in the five regions are of the opinion that they are not getting inputs in time under T and V system.

It is also noted that the majority of the contact farmers in all the regions are of the opinion that T and V administration has allotted an extensive jurisdiction to VLs and hence the respondents are facing difficulties. This view is also expressed by the officials in the T and V system. More than 70 percent of the respondents of all the regions are of the opinion that frequent transfer of VLs will reduce their regular contact with farmers. It is also observed that supply of inputs may be strengthened. More than 80 percent respondents in all the regions have also expressed that they should be given support price for their agricultural produce. Eighty five percent and more respondents of all the regions also expressed that they should be given ^{with} financial assistance. It is also noted that more than 66 per cent of the farmers of all the region are of the opinion that repairing of plant protection equipment may be arranged in time. They are of the opinion that T and V administration should not give additional works other than T and V works. It is also observed that more than 70.5 per cent respondents of all the regions are of the opinion that T and V workers may be given office facilities in their working areas. More than 63 per cent respondents of all the regions are of the opinion that follow up action is not strictly followed. More than 50 percent of contact farmers

of all the region is of the opinion that T and V administration is not providing infrastructure facilities for implementing message recommendations. It is also observed that the respondents of southern region (50%) and Northern region (57.4%) is of the opinion that there should be proper supervision with regard to the proper implementation of T and V system.

14. Comparison of infrastructural constraints perceived by the contact farmers of NARP regions in Kerala.

The data presented in the table 12 indicate that all the respondents in five regions except central region (70%) have expressed that high cost of planting materials and other agricultural inputs, as one of the major constraint. It is observed by the researcher that socio-economic status of the farmers of central region is higher when compared to other regions. Perhaps this may be the reason why this particular constraint is not much affected. It is also noted that majority of the respondents of all the regions are of the opinion (90% and above) that they are not getting support price for their agricultural produce, and at the same time the labour cost is high. It is found that respondent of all the regions are of the opinion (90% above) that they are not getting subsidy facilities. Majority of the respondents

in all the regions (63% and above) expressed that non-availability of inputs in time, absence of electricity facilities, non availability of labour at the peak time of agricultural operations, as the major constraints. It is noted that (80% and above) respondents of all the regions except respondents of problem area, expressed lack of irrigation facilities. Most of the area of this region is of a low lying terrain. So irrigation is not a problem in this area. Respondents of all the region uniformly expressed (65% and above) that they are not getting financial assistance in time.

Contact farmers of all the regions except region of problem area, expressed the view that they are not getting sufficient quantity of good quality planting materials in time. It is observed that planting materials produced by the agricultural department is largely shifted to region of problem area for implementing special schemes at subsidised rate.

inadequate

It is also observed in the table that, transport facility is one of the important constraints felt by most of the respondents (53%) in the region of problem area. All the farmers except those of Southern region expressed their view (59.5%) that inadequate marketing facilities is one of the

major constraints. Only 33 percent of contact farmers of Southern region are of this opinion. It is explained here that with regard to marketing facilities, Southern region is having comparative better developed infrastructural facility when compared to other regions.

15. Relationship between the perception of administrative constraints and the adoption behaviour of contact farmers in Kerala.

Table 14 reveals that there is significant relationship between administrative constraints perceived by the contact farmers and adoption of selected practices of paddy and coconut cultivation. In other words this denotes that adoption is influenced by the administrative constraints perceived by the farmers. From the experience of the researcher it is also found that adoption of improved practices of coconut and paddy is influenced by administrative constraints. In the absence of any previous research studies in this line it is suggested here that these areas require further exploration.

16. Relationship between the perception of infrastructural constraints and the adoption behaviour of contact farmers in Kerala.

The data presented in the table 14 indicate that

there is significant correlation between infrastructural constraints perceived by the contact farmers and adoption of recommended practices of paddy and coconut cultivation. The supply of inputs like seed fertilizer, etc. might induce the farmers to adopt improved practices. Hence the result indicate positive significant relationship between perception of infrastructural constraints and adoption behaviour.

17. Relationship between socio-economic status of contact farmers and their adoption behaviour.

Table 14 reveals that socio-economic status of the contact farmers have a positive and significant relationship with adoption behaviour. This may be due to the peculiar situation existing in Kerala that paddy cultivation is not so remunerative when compared to coconut. Only affluent farmers with high socio-economic status undertake improved methods of paddy cultivation. On the contrary almost all coconut cultivators irrespective of their socio-economic status adopt improved practices of coconut cultivation.

18. Relationship between the perception of constraints by the contact farmers in the adoption of selected practices of paddy and coconut and their adoption behaviour.

The data presented in table 15 shows that the perception of constraints in the adoption of selected practices of paddy and coconut and their adoption behaviour are having a positive and significant relationship. In general a person who knows the problems and prospect of technology can adopt it. The proper perception of constraint in the right perspective is one of the major factors influencing adoption of any practice. Hence in this study also, a significant and positive relationship is seen between the perception of constraints and adoption of selected practices of paddy and coconut.

SUMMARY

CHAPTER VI

SUMMARY

This study was under taken to find out the constraints in the functioning of Training and Visit system and to bring out short falls if any, to the lime light. In order to achive this an analytical approach was under taken to study the important constraints perceived by the personnels working under the Training and Visit systems and the major constraints felt by the contact farmers in the adoption of selected farm practices of paddy and coconut cultivation with the following objectives.

- a) To analyse the major administrative constraints in implementing Training and Visit system in Kerale as perceived by the extension personnel and contact farmers.
- b) To study the constraints felt by the personnel in the dissemination of messages from monthly workshop to contact farmers.
- c) To identify the infrastructural constraints in the adoption of messages within the Training and Visit system.
- d) To correlate the extent of adoption of improved farm practices in paddy and coconut with the constraints perceived by the contact farmers.

This thesis is divided under seven chapters viz introduction, Theoretical orientation, Methodology, results, discussion, summary and reference etc. The introduction chapter is dealing with the general outlook of the study. The theoretical orientation chapter consists of the specific objectives as per the programme of research, review of literature of past studies for supporting the important variables selected theoretical concepts and definition of variables and the hypothesis were included. The materials and methods employed and statistical analysis used in the study was included in methodology chapter.

In this study samples were selected from the five N.A.R.P. region of Kerala. From one region one district and one agricultural sub division was selected and included all the district level and sub divisional level extension officials. Ten percent of the total agricultural extension unit in the selected district was selected randomly from the identified sub divisions. All the agricultural extension officers of the selected unit and five agricultural demonstrators from each agricultural extension units were also randomly identified. Two contact farmers were identified randomly from each selected agricultural demonstrator's area and thus making the sample of 164 officials and 170 contact farmers for the study.

The preparation of the statements regarding the important constraints perceived by the officials as well as the contact farmers was undertaken on the basis of a pilot study. Regarding the constraints perceived by the officials in the areas of administration, dissemination of messages and infrastructure, 120 numbers of constraint statements were prepared in consultation with the agricultural extension officers working under T and V system, resource personnel and other agricultural experts in the College of agriculture, Vellayani on the basis of a pilot study. It was found that twelve constraint statements were most relevant in each areas, and these relevant statements were utilised for further study.

The statements for constraints perceived by the contact farmers in the areas of administration infrastructure, adoption of selected farm practices of paddy and coconut were also identified in the light of a pilot study. The most relevant statements were identified and taken for further study.

Socio-economic status of the contact farmers was measured using a scale developed by Venkataramayah (1983). There are eight independent characters in this scale.

Sum of these eight characters were taken together for computing the socio-economic status of an individual ryot. The adoption quotient of improved farm practices of paddy and coconut cultivation was measured using a scale developed by Apparao (1975). Correlation and percentage analysis method was used in this study to analyse the variance.

On the bases of the programme of research work, three independent variables viz. administrative constraints, constraints in the dissemination of messages and infrastructural constraints with respect to officials were taken. With regard to the contact farmers administrative constraints, infrastructural constraints, constraint in the adoption of selected improved farm practices of paddy and coconut, and socio-economic status were taken as independent variables. In data collection two sets of questionnaire were formulated for officials as well as for contact farmers. The data collected by interview method.

Salient findings of the study

The study revealed that with regard to officials administrative constraints was positively correlated in their perception of constraints among twelve constraints.

More than (85%) of the respondents perceived that insufficient grant of travelling expense to field level workers, insufficient finance allotment to conduct demonstrations in farmers field, and allotment of additional work other than T and V to extension workers are the most-important constraints they felt.

It was also found that constraints in the dissemination of messages were positively correlated in their perception. Among the twelve constraints studied, eighty seven percent ^{of the} respondents perceived that inadequate facilities for getting scientific publications is the major constraint. Eighty percent and above respondent perceived that extensive jurisdiction of field level workers, fortnightly training sections are more theoretical in nature rather than practical oriented, and absence of contact farmers in their fields during VLWS visits are also the major constraints they experienced.

The study also found that the infrastructural constraints perceived by the officials was positively correlated with their perception. Among the twelve relevant constraints studied, it was found that 95% of the respondents perceived that the high cost of inputs,

high labour wage rate are the major constraints. More than (92%) of the respondents felt that absence of suitable support price, absence irrigation facilities, inadequate transport facilities, are the major constraints while above (80%) respondents perceived that inadequate subsidy facilities is also important.

In the case of adoption administrative constraints perceived by the contact farmers were positively correlated, ninety two percent of the respondents perceived that T and V administrators do not provide the required inputs and financial assistance to conduct demonstration. Eighty nine percent of the respondents perceived that absence of suitable support price is one of the major constraint.

The infrastructural constraints perceived by the contact farmers were positively correlated to adoption of improved practices of paddy and coconut. It was observed that out of twelve important constraints studied (98) percent respondents perceived that high cost of planting materials and inputs, high wage rate of labours, ^{and} lack of subsidy facilities as the major constraints. Socio-economic status of the contact farmers was positively correlated with adoption. It was also found that the constraints perceived by the contact farmers in the adoption of improved practices of paddy and coconut were positively correlated with adoption.

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A P P E N D I C E S

APPENDIX - I

Constraints analysis of Training and Visit system in Kerala
(Interview schedule for officials)

GENERAL INFORMATION

(The data collected will be used only for research purpose)

- A.
1. Designation of the officer
 2. District
 3. Name of sub division
 4. Name of AE/AD Unit
 5. Age
 6. Experience in the present post
 7. Experience in the other post held

B Educational qualifications

1. Intermediate/Diploma in Agr./KGT Agri.
2. Graduation other than agriculture
3. Graduation in agriculture
4. Post graduate

- C Training acquired Duration No. of training
1. Pre service training
 2. Orientation training
 3. In service training

Appendix I (continued)

Interview Schedule for Officials

The officials working in the Training and Visit system are faced a number of constraints in the successful implementation of the programme. Among the constraints the most important constraints felt by the officials in the areas of Administration, dissemination of message and infrastructure were identified and given below. Please give your response by making a tick () mark against each statement in the appropriate column.

Sl. No.	A administrative constraints	Most important	impo-rtant	least impo-rtant	not impo-rtant
1.	The T and V administration do not provide sufficient funds to meet the Travelling expence or extension workers.				
2.	The T and V administration do not provide sufficient financial assistance to conduct demonstrations				
3.	Developmental programmes other than T and V workers allotted to extension workers will increase their work load and reduces the concentration on T and V works				
4.	Insufficient promotional avenues of field level workers in T and V system.				

Sl. No.	A administrative constraints	Most important	important	least important	not important
		A	B	C	D
5.	Frequent transfer of extension workers will adversely affect their work				
6.	The T and V administration do not give importance in appreciating the active workers in the system				
7.	The understaffing increases quantum of work of extension workers which will adversely affect their T and V work				
8.	The field level extension workers will not get sufficient time to attend the urgent needs of the contact farmers due to fixed schedule of visit.				
9.	Inordinate delay in granting fringe benefits to extension workers				
10.	The T and V administration do not give importance in posting the extension workers in places of their choice.				
11.	The field level extension workers are shirking from their responsibilities due to improper supervision.				
12.	The T and V administration do not give importance for proper followup action.				

B. Dissemination of messages

1. Inadequate facilities for getting scientific publications and periodicals to extension workers
2. Absence of contact farmers in their field during VLWS visit
3. Extensive jurisdiction allotted to VLWS
4. Fortnightly training sessions are more theoretical in nature rather than practical oriented.
5. Inadequate use of teaching aids for skill development in fortnightly trainings
6. Improper facilities to use teaching aids during VLWS field visits
7. Lack of interest and response of the contact farmers
8. Most of the contact farmers have poor ability to receive and transmit technical information to fellow farmers.
9. Most of the contact farmers are not adopting recommended practices due to lack of infrastructural facilities.

A B C D

10. Most of the message recommendations are not based on the local conditions
11. Low communication skill of the field level extension workers
12. Low level subject matter knowledge of field level extension workers.

C. Infrastructural constraints

1. High cost of planting materials, manures and plant protection chemicals
2. High labour cost
3. Absence of suitable support price
4. Inadequate irrigation facilities
5. Inadequate office facilities for field level extension workers
6. Absence of subsidy facilities
7. Non-availability of experienced labourers at the peak time of agricultural operations
8. Inadequate financial assistance
9. Absence of electricity facilities

A B C D

10. Inadequate marketing facilities
11. Inadequate transport facilities
12. Shortage of good quality planting materials, fertilisers and plant protection chemicals etc.

ചൊതു വിവരം

(ഈ ചൊതു വിവരം പഠന സാമഗ്രിയുടെ വേർതിരിച്ച മാതൃകയിൽ)

1. കൃഷിക്കാരുടെ പേരും വയസ്സും
2. കൃഷി വിഭാഗം അഥവാ
3. കൃഷി സമീപിതർ
4. പഞ്ചായത്ത്, വിലാസം
5. ജില്ല, താലൂക്ക്
6. കൃഷിയുടെ പ്രധാന
വരുമാന മാർഗ്ഗം
7. കൃഷിയുടെ സംരംഭനം
8. കൃഷിയുടെ വിവിധ ഭാഗങ്ങളുടെ
അവസ്ഥ
9. കൃഷിയുടെ പ്രയോജനങ്ങൾ
ദൃഷ്ടിയിൽ മുന്നോട്ടു വരുത്താൻ
വേണ്ടുന്ന മാർഗ്ഗം
10. സർക്കാർ സഹായത്തിൽ
അവസരം ഉണ്ടോ?
11. കൃഷിയുടെ കടമ പരിഹാരം
12. കൃഷിയുടെ സാമ്പത്തിക
അവസ്ഥ
13. കൃഷിയുടെ വിവിധ ഭാഗങ്ങളുടെ
അവസ്ഥ.

എ) കർഷകർ

ബി) വയസ്സ്

13. കൃഷി ചെയ്യാൻ പ്രധാന വിൽപന കർഷകർക്കും സെ.

നെല്ല്

നെല്ല്

കുറഞ്ഞത്

വാഴ

മറ്റു വിവിധ

14. കൃഷിയിൽ നിന്നും കൂടുതൽ വാർഷിക വരുമാനം

ജന്യ ഖനനം ഉരുട്ടൽ

ജന്യദ്രവ്യം പരിശോധന പരിപാടിയിൽ ഭരണപരമായ കാര്യങ്ങളായി സംപർക്ക കൃഷിക്കാർക്കു സഹായകരമായ പ്രധാനപ്പെട്ട പ്രധാനപ്പെട്ട ചട്ടങ്ങൾ ഉണ്ടാക്കുന്നു. താഴെ പറയുന്ന ഉറവിടങ്ങളിൽ പ്രധാനപ്പെട്ട ഉള്ളിലെ സെക്ഷൻ () ഭരണ ഉപയോഗിക്കുക.

ക്രമ നമ്പർ	പ്രസ്തുത വന വിഭാഗം	പ്രധാനപ്പെട്ട	പ്രധാനപ്പെട്ട	പ്രധാനപ്പെട്ട
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1. കൃത്യമായ വിളവ് ഉല്പാദിപ്പിക്കുന്ന സംപർക്ക കൃഷിക്കാർക്കു പ്രോത്സാഹനമായി സംപർക്ക സഹായം ജന്യ വർദ്ധിപ്പിക്കുന്നു.
2. ജന്യദ്രവ്യപരിശോധനപരിപാടി പ്രകാരം പ്രദേശങ്ങളിൽ നടത്തുന്ന സംപർക്ക കൃഷിക്കാർക്കു ജന്യദ്രവ്യമായ സഹായം ജന്യ വർദ്ധിപ്പിക്കുന്നു.
3. ജന്യദ്രവ്യപരിശോധന പരിപാടിയിലെ ഉദ്യോഗസ്ഥന്മാരെ കൃത്യമായ സഹായം മറ്റുള്ളവർക്കും സംപർക്ക കൃഷിക്കാർക്കും വേണ്ടി സഹായങ്ങളും നിർദ്ദേശങ്ങളും തക്ക സമയത്ത് കിട്ടുന്നു.
4. സംപർക്ക കൃഷിക്കാർക്ക് കൊടുക്കുന്ന സൗകര്യം നിർദ്ദേശങ്ങൾ നടപ്പിലാക്കുന്നതിന് വേണ്ടി കർഷകോപാധികരമായ സമയത്ത് ജന്യദ്രവ്യമായ സഹായം നൽകുന്നു.
5. വിജ്ഞാന വ്യവസ്ഥ പ്രവർത്തകർക്കു കൃഷി പദ്ധതിയിലെ മറ്റുള്ളവർക്കും കൃഷി കൊടുക്കുന്നവർക്കും സംപർക്ക കൃഷിക്കാർക്കും തക്ക സമയത്ത് വേണ്ടി നിർദ്ദേശങ്ങൾ ഉണ്ടാക്കുന്നു.

- 6 . ഗ്രാമരൂപപ്രവർത്തകർക്ക് കൂടുതൽ ജോലി സമയം കൊടുക്കേണ്ടതും തിനാശ സംഭവകൃഷിക്കാരന്മാർക്ക് സമയം നിർദ്ദേശങ്ങൾ കിട്ടേണ്ടതുമാണ് .
- 7 . ഗ്രാമരൂപപ്രവർത്തകർക്ക് ജവരൂടെ പ്രവർത്തന സമയങ്ങളിൽ അധീനത അനുവദിക്കാതെ തിനാശ സംഭവകൃഷിക്കാർക്ക് ജവരൂ മാറ്റി വേർതിരിക്കേണ്ടതുമാണ് .
- 8 . ശാസ്ത്രീയ നിർദ്ദേശങ്ങൾ നടപ്പിലാക്കാനും കഴിയുന്നതും കാര്യങ്ങൾ മനസ്സിലാക്കി ജവരൂ പരിഹരിക്കാനും നടപടി കൈക്കൊള്ളേണ്ടതുമാണ് .
- 9 . സംഭവകൃഷിക്കാർക്ക് നൽകുന്ന ശാസ്ത്രീയ നിർദ്ദേശങ്ങൾ രേഖപ്പെടുത്തിയതിനുശേഷം ജവരൂ പരിഹാരം ചെയ്യേണ്ടതുമാണ് .
- 10 . ശരിയായ മേൽനോട്ടം ഇല്ലാതെ തിനാശ വർദ്ധിപ്പിച്ചുവെന്നു വരുമ്പോൾ പല ഉദ്യോഗസ്ഥന്മാരും ജവരൂടെ ജോലിയിൽ താല്പര്യം കാണുകയാണുണ്ടാവേണ്ടതുമാണ് .
- 11 . സസ്യസംരക്ഷണ ഉപകരണങ്ങൾ തുക സമയത്ത് നന്നായി കിട്ടേണ്ടതുമാണ് .
- 12 . നിർദ്ദേശങ്ങൾ ചെയ്യേണ്ടതുണ്ടെന്ന് എന്തു കൃത്യമായി പറയാനാകുന്നതുമാണ് .

ബന്ധു വന്ധം - 2 തൃക്കടവ്വ

1. സംപന്ന കൃഷിക്കാർ കൃത്യമായി ഉൽപ്പാദിപ്പിക്കുന്ന കർഷകോല്പന്നങ്ങൾക്ക് താഴെ വിലകുടി നൽകും.
2. വളം കിടന്നിനീ, നദീതടങ്ങൾ മുൻപുവെച്ചു വർദ്ധിപ്പിച്ചു വില
3. കൃഷി ഇറക്കുമതി മത്സരങ്ങളിൽ പ്രയോജനകരമായ മത്സരങ്ങളിൽ തൊഴിലാളികളെ കിടന്നിനീ
4. വർദ്ധിപ്പിച്ചു കൃഷി നിലകൾ
5. ജലസേചന സൗകര്യം ഉപയോഗിച്ച്
6. കൃഷി ചിലവ് വർദ്ധിച്ചു മത്സര സൗകര്യം സൗകര്യം കിടന്നിനീ
7. നദീതട വസ്തുക്കൾ, വളം കിടന്നിനീ മത്സരങ്ങൾ ഉപയോഗിച്ച് മത്സരങ്ങൾ കിടന്നിനീ
8. ഉൽപ്പന്നങ്ങളുടെ വിലയ്ക്കു സൗകര്യം നൽകും
9. ഉൽപ്പന്നങ്ങളും മറ്റും കിടന്നിനീ കിടന്നിനീ പാലകളും മുൻപുവെച്ചു മത്സരങ്ങൾ സൗകര്യം നൽകും
10. ഗുണമേന്മയുള്ള നദീതട വസ്തുക്കളുടെ ചെറുതുകൾ നൽകും
11. പംപ്റ്റ് സൗകര്യം പ്രവർത്തിപ്പിച്ചു മത്സരങ്ങൾ വർദ്ധിച്ചു വിലകുടി കിടന്നിനീ
12. കർഷികാ വസ്തുക്കൾ പംപ്റ്റ് കിടന്നിനീ

എ വി സി ഡി

- 3. നല്പിച്ചിനും വീതത്ത് കർകൂട്ട് കൂട്ടുതര വില കൊടു കേടടി വര്യ ന്യ .
- 4. ഒരോ പ്രദേശത്തെയും മണ്ണിനും കിലു വസ്തുക്കും പററിയ ഇനം വീതത്ത് കടന്നില്പ .
- 5. നല്പ ഇനം വീതത്ത് ഉപയോഗി കുന്നത്യ കൊണ്ടുള്ള പ്രയോജന ത്തിൽ വിശ്വാസമില്ല .

സി. വളപ്രയോഗം

- 1. ശുപാർശ ചെയ്യുന്ന വളങ്ങൾ തക്ക സമയത്ത് കിട്ടി നില്പ .
- 2. വളങ്ങൾക്ക് വലിയ വില കൊടു കേടടി വര്യ ന്യ .
- 3. ജലസേചനസൗകര്യം ഇല്ലാത്തതുകൊണ്ടു
- 4. ശുപാർശചെയ്യുന്ന ജളവിൽ മാത്രം വളം ഉപയോഗിച്ചാൽ രോഗം കിടം എന്നിവയുടെ ഉപദ്രവം വർദ്ധിച്ചു വള നശിച്ചു പോകും
- 5. ശുപാർശചെയ്യുന്ന ജളവിൽ വളം ചെയ്താൽ മണ്ണിൻറെ ഗുണം നഷ്ടപ്പെടു പോകും

ഡി. പറിച്ചു നടിൻ

- 1. ശുപാർശ ചെയ്യുന്ന രീതിയിൽ തിടടി തടയാനാകി പറിച്ചു നട്ടു നന്നു കൂട്ടുതര കൂലി ചിലവു വേടിവര്യ ന്യ .

- 2. കൃഷിയിറക്കേണ്ട സമയക്രമം പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 3. ജോലിക്കാരെക്കുറിച്ച് ഗുണമേന്മയുള്ള പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 4. പരിചയപ്പെടുത്തുന്നതിനുള്ള കൃത്യമായ വിവരങ്ങൾ നേരപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 5. ജലസേചന സൗകര്യം ഉപയോഗിക്കുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.

2. സത്യസന്ദർഭങ്ങൾ

- 1. സത്യസന്ദർഭത്തിന്മേലുള്ള പേരുകളെക്കുറിച്ച് പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 2. രോഗിന്റെ, കുടുംബത്തിന്റെയും സാമ്പത്തിക സാഹചര്യം മൂലമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 3. സത്യസന്ദർഭത്തിന്മേലുള്ള പേരുകളെക്കുറിച്ച് പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 4. സത്യസന്ദർഭത്തിന്മേലുള്ള പേരുകളെക്കുറിച്ച് പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.
- 5. മരുന്നുകളെക്കുറിച്ച് പരിചയപ്പെടുത്തുന്നതിനു പരിചയമുള്ള ജോലിക്കാരെ കിടന്നിപ്പ.

2. തെളിവുകൾ

എ. ഗവൺമെന്റിലുള്ള നിയമപരിഷ്കരണങ്ങൾ

- 1. ഗവൺമെന്റിലുള്ള നിയമപരിഷ്കരണങ്ങൾ കിടന്നിപ്പ.

- 2 . ഗൃ ബമേന്മയുള്ള് തൈകർകു കൂട്ടതര വില നഡകസം
- 3 . ഗൃ ബമേന്മയുള്ള് തൈകർ ഉപയോഗി കൃ നത്യ കെ ട്ടുള്ള് പ്രയോഗനത്തിർ വിശ്വാസമല്ല് .
- 4 . ഗൃ ബമേന്മയുള്ള് തൈകർ തിരഞ്ഞെടു ക്കുന്നുള്ള് ജറവിലല്ല് മ
- 5 . വളരെ കൂട്ടതർ വില കൃ റത്ത വിലയ്ക് ഗൃ ബമേന്മയല്ല് ത യാ റാളം തൈകിടുന്നു .

ഖ). ശൃപാർശചെയ്ത ജകപത്തിർ തൈ നടിയ

- 1 . ശൃപാർശചെയ്ത ജകപത്തിർ തൈ നടുന്ന ത്യ കെ ട്ടുള്ള് പ്രയോഗനത്തിർ വിശ്വാസ മല്ല് .
- 2 . കുലി ഭൂമിയുടെ വർദ്ധിക്യ റവ്യ്
- 3 . തൈകർ ജട് ത്ത് നട്ടുന്നത്യ കെ ട്ടു കൂട്ടതർ ജാദിയ് കിടും
- 4 . തൈകർ നടുന്ന മവസരത്തുൾ കൃ റത്ത വിലയ്ക് യാ റാളം തൈ കിടുന്നു .

സി). വളപ്രയോഗം

- 1 . ജലസേചനസൗകര്യമല്ല്
- 2 . വളത്തുളുടെ വർദ്ധിച്യ വില
- 3 . ശൃപാർശചെയ്ത വളം ജാവശ്യതന്മ്യ് തകി സമയത്ത് കിടന്നല്ല്
- 4 . തെങ്ങിന്മ്യ് വളം ചെയ്താല പെടുന്ന യാദിയവര ഭയനവ്യ ട്ടു കൃ നിലല്ല് .

5. തെങ്ങിന്യ് തുടർച്ചയായി എല്പി
വരലുവയും വളം ചെലുതല്പണകിൻ ജവ
നശിച്ചു പോകും

ഡി. സത്യസൗകുഷ്ണം

- 1. സത്യസൗകുഷ്ണ ഉപകരണങ്ങൾ പോവുക
തെങ്ങിന്യ് തക്ക സമയത്ത് കട്ടി നിലവ.
- 2. സത്യസൗകുഷ്ണതെങ്ങിന്യ് വേണ്ട മരുന്നൂ
കളുടെ വർദ്ധിച്ചു വില
- 3. സത്യസൗകുഷ്ണതെങ്ങിന്യ് വേണ്ട മരുന്നൂ
കൾ തക്കസമയത്ത് കട്ടി നിലവ.
- 4. രോഗം കൂടും എന്നിവയുടെ ഉപദ്രവം
തെങ്ങിൻ തടവു ഏല്പിച്ചു പോയി
പ്രയോഗിക്കുന്ന ഉള്ള ജനലിലെല്ലാമ.
- 5. മരുന്നൂ തള്ളിൻ പരിചയമുള്ള
ജോലിക്കാരെ കട്ടി നിലവ.
- 6. വർദ്ധിച്ചു കൂടി നിരക്കൂ.

നെയ്യ് കൃഷി - 3 തൃതീയ ചുരുക്കം

നെയ്യ്, തെങ്ങിൻ തൂണി വളങ്ങളിലെ പ്രധാന കൃഷി മൂലകം നിർമ്മിതം എന്നത് മാത്രം നടപടിപ്രകാരം സാധിക്കുന്ന വിവരം ചുവടെ കൊടുത്തിട്ടുള്ള പട്ടികയിൽ രേഖപ്പെടുത്തിയിരിക്കുന്നു.

ക്രമ നമ്പരം	പ്രധാന കൃഷി മൂലകം	സംയോജിതം	സംയോജിതം	എത്ര സമയം	എത്ര സമയം
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നെയ്യ് കൃഷി

1. ഗുണമേന്മയുള്ള വിത്തു തിരഞ്ഞെടുക്കുക
2. നെയ്യ് നിലം വിത്തു ഉപയോഗിക്കുക
3. പരിചര്യം നൽകുക
4. വളപ്രയോഗം
5. സസ്യസംരക്ഷണം

തെങ്ങിൻ തൂണി കൃഷി

1. ഗുണമേന്മയുള്ള വിത്തു തിരഞ്ഞെടുക്കുക
2. നിലം വിത്തു ഉപയോഗിക്കുക
3. വളപ്രയോഗം
4. ജലസേചനം
5. സസ്യസംരക്ഷണം

Appendix IV

Check list for calculating the weightage for different selected improved farm practices recommended for cultivation of paddy and coconut.

In order to study the adoption of selected improved farm practices of paddy and coconut were planning to measure the extent of adoption. As you know there are many practice that are to be followed by a farmer if he wants to cultivate this crops scientifically. But these practices vary in their difficulty of adoption. Please you rate the following practices an a view point rating scale keeping in view its intrinsic difficulty for adoption by the farmer. While checking the practices given below for the case of adoption please do put consider factors like economic conditions of the farmer, facilities available to him etc. Assume that all these conditions are favourable please consider only the difficulty in the adoption of these practices. Decide the difficulty for each of the following practices and put a tick () mark in the appropriate column.

Appendix IV continued

Checklist for calculating the weightage for different practices recommended for cultivation of paddy and coconut.

Sl. NO.	Improved Agrl. Practices	very easy to adopt	easy to adopt	neither nor difficult to adopt	difficult to adopt	very difficult to adopt

A - Coconut

1. Using good quality seedlings
2. spacing
3. Fertiliser application
4. Irrigation
5. Plant protection

B - Paddy crop

1. Using of good quality seed
2. Using suitable variety
3. Fertiliser application
4. Transplanting
5. Plant protection

Appendix V

Selected improved agricultural operations for paddy and coconut cultivation and weightage attached to each practices.

Sl. No.	Selected improved agri. operations	Weightage
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A - Paddy cultivation

1.	Using good quality seed	2.40
2.	Using good variety suited to locality soil and climate	2.20
3.	Fertiliser application	3.10
4.	Transplanting of seedlings	2.73
5.	Plant protection	3.63

B - Coconut cultivation

1.	Using good quality seedlings	2.00
2.	Fertiliser application	2.83
3.	Using suitable variety	2.90
4.	Irrigation	3.53
5.	Plant protection	4.23

Appendix VI

Socio economic status scale

Items	Score
1. <u>Occupation</u>	
No Occupation	0
Un skilled	1
Semiskilled	2
Skilled	3
Farming	4
Professional	5
2. <u>Landholding</u>	
No land	0
Less than one acre	1
1 - 5 acre	2
Above 5 acre	3
3. <u>Caste</u>	
Scheduled caste	1
Most backward	2
Backward	3
Forward	4
Dominant	5

4. Education

No schooling illiterate	0
Functionally literate	1
Primary school	2
Middle school	3
High school	4
College	5

5. Socio political participation

1. without any official position in socio political organisation	0
2. Official position in one or more/organisation	1
3. Official position in school and political committees	2
4. Financial contribution or raising fund for common work	3
5. Active office bearer	4
6. Involment in community work	5

6. Possession

1. Name	0
2. One farm animal (Bullock, Buffallow and cow)/cycle	
3. Two farm animals/Bullock cart/Radio	2

- | | | |
|----|--|---|
| 4. | Three to four farm animal/
improved farm impliments/Newspaper/
electricity | 3 |
| 5. | Five to Ten farm animals/Gobar gass
plant/pump set | 4 |
| 6. | More than ten farm animals/Tractor/
automobiles | 5 |

House

- | | | |
|--|-------------------------|---|
| | Shed thatched | 1 |
| | Mud wall and thatched | 2 |
| | Blck wall and tiled | 3 |
| | Concrete house | 4 |
| | Concrete double storied | 5 |

8 House hold

- | | | |
|--|-----------------|---|
| | Small | 1 |
| | Medium | 2 |
| | Large | 3 |
| | Very large | 4 |
| | Special feature | 5 |

CONSTRAINT ANALYSIS OF TRAINING AND VISIT SYSTEM IN KERALA

By

N. BALAKRISHNAN

ABSTRACT OF THE THESIS

Submitted in partiel fulfilment of the requirement for the degree

MASTER OF SCIENCE IN AGRICULTURE

(Agricultural Extension)

Faculty of Agriculture

Kerala Agricultural University

DEPARTMENT OF AGRICULTURAL EXTENSION

COLLEGE OF AGRICULTURE

VELLAYANI-TRIVANDRUM.

1987

ABSTRACT

With an objective to analyse the constraints of training and visit system in Kerala a study was conducted in the selected districts of five NARP regions of Kerala State namely, Trivandrum, Alleppey, Idukki, Trichur and Malappuram. In the study it was aimed to identify the important constraints perceived by the officials, in the areas of administration, dissemination of message and infrastructure, and also the important constraints perceived by the contact farmers in the adoption of selected farm practices in paddy and coconut cultivation. The study revealed that the administrative constraints perceived by the officials were positively correlated with their overall perception of constraints. This shows that the administrative constraints felt by the officials has a greater influence on their day to day official work. Among the twelve administrative constraints studied, it was found that 70% and above respondents perceived as important of seven administrative constraints. The constraints in the dissemination of message also found positively correlated with perception. Among the twelve constraints in the dissemination of message it was found that 70% and above respondents perceived as important in six statements

and this indicate that these are the very important constraint in the dissemination of messages. In the analysis six infrastructural constraints scored most-important by 70% of the respondents out of twelve constraints analysed. This indicate that infrastructure constraints has a greater influence in the perception of officials on their official duties. In the case of contact farmers administrative constraints correlated in the adoption of selected farm practices of paddy and coconut. This constraint has an influence in the adoption of improved farm practices of paddy and coconut cultivation. It was also found that infrastructural constraints positively correlated with adoption of selected practices in paddy and coconut cultivation. All the other variables viz. socio-economic status, constraints falt by the contact farmers in the adoption of selected farm practices of paddy and coconut were also found significantly correlated. It was also observed that constraints perceived by the contact farmers in the areas of administration, infrastructure and dissemination of message was positively correlated with adoption.