INNOVATIONS IN TECHNICAL BACKSTOPPING FOR THE THIRUVANANTHAPURAM DISTRICT PANCHAYAT – A CRITICAL APPRAISAL OF THE 'SAMAGRA' PROJECT ON BANANA CULTIVATION

by

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(2010-11-143)

THESIS

Submitted in partial fulfillment of the

requirement for the degree of

MASTER OF SCIENCE IN AGRICULTURE

(Agricultural Extension)

Faculty of Agriculture

Kerala Agricultural University

DEPARTMENT OF AGRICULTURAL EXTENSION

COLLEGE OF AGRICULTURE

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2012

DECLARATION

I hereby declare that this thesis entitled **"Innovations in technical backstopping for the Thiruvananthapuram District Panchayat – A critical appraisal of the 'Samagra' project on banana cultivation"** is a bonafide record of research 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, fellowship or other similar title, of any other University or Society.

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ACKNOWLEDGEMENT

With a mixed feeling of thankfulness to their expectations about me and gratitude that they supported me understanding my limitations, I express my obligations to:

Dr.C.Bhaskaran, Professor, Department of Agricultural Extension, for his guidance, creative criticism and encouragement throughout the course of study and research work. I will always feel proud of being able to be his student.

Dr.R.Prakash, Professor and Head, Department of Agricultural Extension for his valuable suggestion and whole hearted support during course of the study.

Dr.S.Shilaja, Professor, Department of Agricultural Extension, for her immense help, and inspiring encouragement at every level of my dissertation.

Dr.S.Mothilal Nehru, Associate Director, Department of Agricultural Extension, for his supportive works and assurances.

Dr.G.Sobhana, Professor and Head, Training Service Scheme, Department of Agricultural Extension for her intellectual support and guidance during the entire course of research work.

Smt. Brigit Joseph, Associate Professor, Department of Agricultural Statistics for her valuable suggestions and advices in all levels of my thesis work.

Shri. C.E. Ajith Kumar, Junior Programmer, Department of Agricultural Statistics for his timely help, and unstinted interest during the statistical analysis.

I also feel happy in thanking Dr. V.B. Padmanabhan, Dr.Anil kumar, Dr.B.Seema, Dr.A.K. Sherief, Dr. N. Kishore kumar, Dr. Allen Thomas, Dr. A. Sakeer Hussain, for their constant encouragement rendered to me during the course of my investigation.

I remember with gratitude and I devote my silent prayer to Late. Dr. N.P. Kumari Sushama, Department of Agricultural Extension.

I would like to place special thanks to members and officials of Kudumbashree, Prowins, District Panchayat and Kerala State Department of Agriculture.

I also express my special thanks to Smitha, Sangeetha, Jincy, Lawrence, Chinchu, Sreeja, Shincy, Anoop, Sadam, Rahul and Sobha for their wholehearted help and his companionship during my course of study.

I avail this opportunity to thank all non-teaching members of the Department of Agriultural Extension Radhakrishnan, Rajaiyen, Ragu, Kamarutheen, Sabitha, Shimi, Nadesen and Geetha for their kind consideration on me throughout my study.

I express my sincere thanks to Kerala Agricultural University for awarding me the Junior Research Fellowship.

On a personal note I am privileged to render a deep sense of love to my father Mr. A. Manimadasamy and my dear mother Mrs. S. Soranam and my lovable brothers Karthick, Esakkipandi, Velladurai without whose eternal love, affection, personal attachment and generous sacrifice my education career could not be succeed.

M.Esakkimuthu

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INTRODUCTION

1. INTRODUCTION

India is an agricultural country. Over 70 per cent of India's population is supported by agriculture. Even while India's industrial and services sectors are growing by leaps and bounds, growth rate of agriculture is below 2 %. Industrial and services sectors are invariably entangled with the fortunes of agriculture due to various intricate forward and backward linkages.

Kerala's agriculture has its own uniqueness and peculiarities. Kerala is a land for the cultivation of variety of crops such as plantation crops, food grains, fruit crops, spices, vegetables, tubers etc. Kerala is considered as the land of spices. Homestead farming systems are mostly common in Kerala. The main problems in Kerala's agriculture are lack of land, labour and capital, high labour and input cost, lack of mechanisation, low productivity of major crops, unstable prices etc.

Kerala is a pioneering state in India in the matter of implementation of decentralized planning process. In the agricultural sector, many demand driven initiatives towards technology commercialization have been undertaking as a part of these Local Self Governments. One among them is the promotion of scientific banana cultivation, taken up by the Thiruvananthapuram District Panchayat as the nodal agency. This Project entitled 'Samagra Banana Project' was implemented in the year 2007.

Women are the backbone of agricultural workforce. 'Kudumbashree' is the women oriented programme. 'Kudumbashree' mission is a poverty eradication mission officially launched by the Government of Kerala with the objective of wiping out of poverty from the state. It plays a vital role in co-coordinating the activities of 'Samagra' Project.

'Samagra' Banana Project is for the establishment of market - oriented banana production and processing network by effectively utilizing organized 'Kudumbashree' units. Co-ordinated efforts of the State 'Kudumbashree' mission and the Thiruvananthapuram District Panchayat could effectively build up this kind of an innovative venture to improve banana cultivation utilizing high end technologies and enabling steady market.

The 'Samagra' (Comprehensive) Project on banana cultivation stands out in many ways. It is a multi-stakeholder participatory effort in agricultural development emphasising on 5 Ps- Public-Private-Panchayat-People Partnerships.The partners in the Project are the Thiruvananthapuram District Panchayat, 'Kudumbashree' Mission, the Agricultural Department, the Kerala Agricultural University ,the State Horticultural Mission, the Nationalised Banks, and the private partner 'Prowins Agri system'. All the institutions are contributing to the various aspects of the 'Samagra' Project. It includes various innovations in technical backstopping systems.

The innovations in technical backstopping consist of various innovative procedures, processes and institutions. Innovative procedures include credit linkage, full technical support given by the private agency, Public – Private – Panchayat – People – Partnership and holistic support given by the private agency. Innovative processes include assured supply of quality inputs, capacity building activities, 'Kudumbashree' giving fund for technology support, socio – economic and ecologically sustainable development. Innovative institutions include one product – one village concept, private agency linkage with governmental agencies, ensuring people's participation and 'Kudumbashree' linked with Local Self Government Institutions. A momentum has been developed to increase profitability, income generation and employment in agriculture through this Project. Adequate marketing support is important for successful implementation of 'Samagra'. The private agency associating with this project takes over the responsibility of marketing. For market strategy planning and marketing interventions the private sector participation was more effective.

'Samagra' Project was aimed at enhancing the net income of the 'Kudumbashree' activity groups through improved productivity and reduced cost of cultivation. It promoted of Good Agricultural Practices and Good Extension Practices such as NHGs formation, women empowerment, Public-Private-Panchayat-People-Partnerships, forward and backward linkages, value addition, marketing process and strengthening the linkage between various service providers.

This 'Samagra' Project banana cultivation is a pioneering agricultural extension model covering 34 Grama Panchayats and 1691 ha of area in Thiruvananthapuram District being implemented since 2007. The Project aims to cover more area in all the Grama Panchayats in the ensuing years. A comprehensive study on the innovations in technical backstopping perceived as part of the Samagra Banana Project is very much desirable to take stock of the situation. The study will also useful for scaling up of the Project in future in more areas covering more crops. Therefore, the present study has been designed with the following specific objectives.

1.1 Specific Objectives of the study

1.1.1 To study the technical backstopping for the 'Samagra' project on banana cultivation of the Thiruvananthapuram District Panchayat.

1.1.2 To identify the innovative procedures, processes and Institutions involved in the implementation of the 'Samagra' project.

1.1.3 To analyse the perception of the people's representatives and officials at various levels and Beneficiaries about the innovations in the implementation of the 'Samagra' project.

1.1.4 To suggest measures for the implementation of the 'Samagra' project more effectively in the future.

1.2 Need for the study

'Samagra' is the first multistakeholder partnership effectively implemented in the Kerala state. It is the flagship project of the public and private Institutions. It aims at enhancing economic empowerment, women empowerment, social empowerment, livelihood security of rural poor by the promotion of scientific banana cultivation. poverty and hunger is a major problem in rural areas. This study was undertaken to assess the effective utilization of 'Samagra' Banana Project with respect to innovative procedures, processes and Institutions involved in the implementation of the 'Samagra' project.. These are the different perspectives which emphasized the need of the study.

1.3 Scope of the study

This study is aimed to reveal the innovations in technical backstopping which is important in this project, and its relationship with profile characteristics of Kudumbashree activity groups. It will help to develop a strategy for enhancing scientific banana cultivation which will be of great use to the farming community particularly Kudumbashree activity groups. So the present study is highly significant and expected to have some contribution in improving the economic status of Kudumbashree activity groups.

1.4 Limitations of the study

All human effort has some limitations. This study has no exception. As this is a single researcher investigation undertaken as a part of the requirement for the fulfillment of master degree programme, The limitations of time and resources restricted the comprehensive and in depth study. The conclusions are restricted to conditions prevailing there and attempt at generalisation must be done with care. However, accomplishment of the objectives to the maximum extent possible has been earnestly tried for. In spite of all these, every effort is taken to conduct the study as systematic as possible.

1.5 Organization of the thesis

The thesis is presented in five chapters. The first chapter is 'introduction' in which the importance of the study, objectives, scope and limitations of the study are dealt. The second chapter is 'theoretical orientation' which deals with the concepts and related findings of the study. In the third chapter on 'methodology' the details on selection of the study area, sampling, data collection procedure, variables selection, empirical measures used, design of the research, statistical tools used are given. In the fourth chapter contains the Results in relation to the objectives with interpretation of the findings and discussion are presented. The fifth chapter summarizes the study highlighting the salient findings.

THEORETICAL ORIENTATION

2. THEORETICAL ORIENTATION

Concepts relating to any systematic study must be defined clearly before the conduct of the study. A comprehensive review of literature is important as it helps in better understanding and meaningful conceptualization of the study. This chapter reviews the available information from direct or related studies. For better clarity and convenience, this Chapter is organized under the following headings.

2.1 Historical perspective of 'Samagra' Projects.

2.2 Importance of 'Samagra' Project.

2.3 Concept of innovations

2.3.1. Definition of innovations

2.3.2. Types of innovations

2.3.3. Innovation systems

2.3.4. Concepts of innovations in technical backstopping

2.3.4.1 Innovative procedures

2.3.4.2 Innovative processes

2.3.4.3 Innovative Institutions

2.4 Profile characteristics of farmers

2.5 Constraints perceived by the farmers

2.1 HISTORICAL PERSPECTIVE OF 'SAMAGRA' PROJECTS

'Samagra' means comprehensive development of either an agricultural produce or an industrial product or a traditional job. This is an all inclusive programme encompassing all the components from production to marketing, helping the people involved to derive maximum possible income and thereby improving the general living standards of the people in that area (Kudumbashree, 2010).

Samagra is a novel initiative independently developed by Kudumbashree and being implemented in the state in collaboration with the three – tier Local Self Governments (LSGs) and other agencies. It is an attempt to address the entire production – supply chain holistically, by scaling up productivity both qualitatively and quantitatively and seeking viable marketing opportunities.

(Kudumbashree, 2010) Details of Samagra projects that are implemented in various Districts in Kerala as follow:

1. Nendran Banana (Thiruvananthapuram)
2. Nivedyam (Thrissur) Pooja Kadali Banana
3. Harithashree (Thiruvananthapuram) Vegetables
4. Haritham (Ernakulam) Vegetables
5. Ksheerashree (Thiruvananthapuram) Milk
6. Ksheerasagaram (Idukki) Milk
7. Nedumpana Mini Apparel Park (Kollam) Readymade Garments
8. Madhuram (Pathanamthitta) Honey

9. Ornamental fish project (Kottayam)

10. Thirumadhuram (Ernakulam) Pineapple

11. Kondattom (Palakkad) Crispy Fries

12. Manufacturing of footwear uppers (Kozhikode)

13. Goat Village (Kannur)

14. Saphalam (Kasargod) Cashew

Samagra- Nendran banana is a community based income generating / livelihood project which involves farming, application of technology, marketing and value addition. The Nendran banana project implemented in Thiruvananthapuram District aimed to bring 2,400 ha land under Nendran banana cultivation by generating employment opportunities to 30,000 women beneficiaries.

With unique partnership between public institutions, Non-Govenmental Organizations (NGOs), farmers, private sectors and innovative approach, a momentum has been developed to increase profitability, income generation and employment in agriculture (Ayyappan, 2010). A host of institutions at various levels – National, State, District and Grass root levels including the Rural Business Hub, Kerala Horticultural Mission, Kudumbashree, Kerala Agricultural University, technical and marketing agencies, Banks and Self Help Groups (SHGs) are involved in the project.

The Government, in association with the Confederation of Indian Industries (CII) has undertaken an initiative to promote Rural Business Hubs (RBH), first of its kind, based on Public-Private-Partnership (PPP) model to facilitate direct business linkage between industry and the rural community (Ministry of Panchayati Raj, 2008). The ‘samagra’ project - formulated in the model of Rural Business Hub (RBH) programme is for establishment of market oriented banana production and processing

network by effectively utilizing organized Kudumbashree units (Shilaja, and Sobhana, 2009).

2. 2 IMPORTANCE OF SAMAGRA PROJECT

'Samagra' Banana Project is for establishment of market - oriented banana production and processing network by effectively utilizing organized 'Kudumbashree' units. Co-ordinated efforts of the State 'Kudumbashree' mission, and the Thiruvananthapuram District Panchayat can effectively build up this kind of an innovative venture to improve banana farming.

Even though Thiruvananthapuram farmers are cultivating Nendran banana for years, the efforts on brand building, value addition and streamlining production process with international quality standards to get larger market access are very meager. Utilisation of advanced technologies in production is also at low rate. The emerging expectations of global market access in present scenario calls for higher productivity per unit of land, water and other inputs in an equitable and sustainable manner. Critical areas that would require pinpointed attention are quality and productivity of the farm product.

Adequate marketing support is important for successful implementation of 'Samagra'. The private agency associating with this project will take over the responsibility of marketing. For effective market strategy planning and marketing intervention private sector participation was hoped to be more effective in Samagra project, it was felt.

2.3. Concept of innovations in technical backstopping

2.3.1 Definition of innovations

Innovation is a process through which the nation creates and transforms new knowledge and technologies into useful products, services and processes for national and global markets leading to both value creation for stakeholders and higher standards of living. (Lundvall, 1992)

2.3.2 Types of innovations

The two important types of innovations are:

1. Product innovation: The introduction of a new product, or a significant qualitative change in an existing product. (Lundvall, 1992)
2. Process innovation: The introduction of a new process for making or delivering goods and services. (Lundvall, 1992)

2.3.3 Innovation systems

Freeman (1987) and Lundwall (1992) proposed that the origin of innovation systems thinking can be traced to the idea of a national system of innovation. The concept brings together thinking from a broad set of theoretical debates that view development and change in systems terms. More importantly it is based on empirical observations of 'good pratcices' in different countries and technology sectors. At its heart lies the contention that change – or innovation – results from and is shaped by the system of organizations and institutions in particular locations and points in time. This system includes organizations involved with research and the application and adaptation of research findings, as well as intermediary organization that promote knowledge transfer.

2.3.4 CONCEPTS OF INNOVATIONS IN TECHNICAL BACKSTOPPING

Innovation in technical backstopping stresses that the flow of information among people, enterprises and institutions is key to an innovative process. It contains the interaction between the actors who are needed in order to turn an idea into a process, product or service in the market. (Hall, 2010)

2.3.4.1. Innovative procedures

Hall *et al* (2010) described partnerships around mango export in India as innovative procedure.

Clark *et al* (2003) described a project-based coalition engaged in packaging innovation.

Dalohoun *el al* (2009) described self-organising networks of millers popularising the use of NERICA rice in West Africa.

Ayyappan (2010) exorted for innovative involvement of all the players and stakeholders in the production and distribution of its goods and services for attaining sustainable food and livelihoods security as well as for global competitiveness of Indian agriculture.

Hall (2010) indicated that innovations and sustainability are also reported to be positively related.

Joseph (2010) stated that the linkage between innovations and growth appears fairly straight forward.

Pawar (2010) observed that public–private partnership in agricultural R&D is increasingly emerging as an effective means of conducting research in frontline areas of science and technology, commercializing new technologies, and deploying new products for the benefit of small-scale farmers, food-insecure consumers, and other marginalized groups .

According to Thomas (2010), planning the role for public–private collaboration in agriculture research and development needs to look beyond the aspects of resource generation, and risk and benefit sharing only.

2.3.4.2 Innovative processes

According to World Bank (2006), the increasing popularity in the international agricultural development community of the heuristic of an innovation system is helping rethink research as part of the wider, complex and dynamic process of innovation.

Hall (2010) noted that innovation focuses on understanding the ways in which the process of research is used, rather than only on how research products are transferred and adopted. There is a diversity of ways of organising innovation appropriate to different market, social, technological, institutional and policy niches, he added.

2.3.4.3 Innovative institutions

Lundvall (1991) observed that the more successful economies had what is described as an effective "National System of Innovation". These systems comprised a combination of linkages or networks and institutional settings that fostered a dynamic process of interaction and learning among scientific and entrepreneurial actors in the public and private sectors in response to evolving economic and technical conditions.

Jha (2002) stated that in Bangladesh none of the micro credit institutions insisted for any form of collateral security or risk cover. Loans are collateral free with a simple agreement made between the borrower and the branch in case of large loans before loan was disbursed. Informal group gurantee was the hidden collateral in all these cases.

2.4 PROFILE CHARACTERISTICS OF FARMERS

2.5 2.4.1 Age

Manjusha (1999) reported that there is non-significant relationship between age and extent of adoption of recommended practices by the farmers in bitter gourd cultivation.

Sreedaya (2000) reported a non significant relationship of age with the extent of adoption of recommended practices among vegetable growers of both Intensive Vegetable Development Programme (IVDP) and Vegetable and Fruit Promotion Council, Keralam (VFPCK).

Thomas (2000) reported that age had positive and significant relationship with the knowledge of farmers.

Geetha (2002) reported that age had negative and significant correlation with the functioning of 'Thozhil Sena'.

2.4.2 Area under cultivation

Jha and Shaktawat (1972) found that size of holding was not significantly related to adoption behavior of farmers in their study.

Muller (1997) reported non significant relationship between farm size and group relationship of women.

According to the study conducted by Manoj (2000), total area under paddy was found to have positive relationship and significant correlation with adoption behavior.

Surendran (2000) reported that large farm size resulted in more returns from farming which was conductive for higher group participation.

2.4.3 Experience in banana cultivation

Manjusha (1999) found a non significant relationship between experience in bitter gourd cultivation and extent of adoption.

Sreedaya (2000) reported that experience in vegetable cultivation was positively and significantly correlated with need satisfaction among VFPCK SHGs.

2.4.4 Annual income

Vehra (1971) reported that those who had greater economic resources participated more and higher levels of income were conducive for higher participation.

Kailasam (1980) found that income had positive and significant association with extent of participation.

Rao (1989) said that there are many resources at the farm level that can be used more effectively on group basis. Technologies which are very costly and uneconomic for individual farmers can be used more economically at group level.

NABARD (1995) identified that majority of the farmers of SHGs were possessing low level of annual income.

Jayalekshmi (1996) reported that the annual income of majority of rural women in SHGs range from Rs.15, 000/- to Rs. 20,000/-.

2.4.5 Educational status

Rathinasabapathi (1987) reported education had positive and non-significant association between education and adoption of improved paddy cultivation practices.

Sanjeev (1987) reported that there was no significant relationship between education and adoption of improved paddy cultivation practices.

Agarwal and Arora (1989) opined that the educational level was significantly associated with adoption of biogas plant.

Quazi and Iqbal (1991) reported that education was an important determinant of innovation adoption.

2.4.6 Cosmopoliteness

Murthy and Singh (1974) reported positive and significant correlation between cosmopoliteness and information input and output ideas of farmers

Jayalekshmi (1996) found that women who had started an enterprise usually sold their produce in nearby towns to increase profit. This increase cosmopoliteness ensuring discussion of problems with similar enterprise owners and their trainers and marketing institutions.

Surendran (2000) reported that farmers in NGO groups had shown high levels of cosmopoliteness behaviour as compared to others.

2.4.7 Social participation

Govind (1984) reported that social participation of farm women had significant and negative association with the extent of involvement in farm activities.

Hussain (1992) indicated that group management approach had brought in favourable changes in the character of the social participation of rice farmers.

Sindhu (2002) reported that the old farmers are likely to loose interest in active participation within and outside the social system.

Narayanasamy *et al.* (2010) observed that around 93 per cent of the respondents reported to have participated in the Gram Sabha meeting convened specially to discuss the matters related to MGNREGS.

2.4.8 Training attended

Vashistha (1987) reported positive relationship of training with adoption behaviour.

Sivaprasad (1997) reported that majority of youth in sericulture and bee keeping had undergone training duration of training and stipend given acted as incentives.

According to Ashaletha (2000), training was positively and significantly related to the awareness about the NARP.

Parthasarathi and Govind (2002) reported that the knowledge level of trained farmers was much higher on biological and physical methods of IPM, identification of pests and predators on economic threshold levels. This shows that the training on IPM had positive effect on farmers.

2.4.9 Information need perception

Rao and Sathyanarayanan (1992) reported that the majority of the respondents required much information on banking procedures to secure the loans followed by mode of disbursement of the loan

Ranganathan (2001) reported that beneficiaries of nationalized banks needed maximum information about the mode of repayment at first position followed by banking procedures to be followed to secure loans and interested prevailing in the bank on second and third position.

2.4.10 Credit orientation

Nizamudeen (1996) observed that credit orientation behaviour of Kuttymulla growers had prompted them towards the successful adoption of cultivation practices.

Jayalekshmi (2001) reported negative and significant relationship brtween credit orientation and empowerment.

2.4.11 Risk orientation

Basram (1966) found that farmers, after using old varieties of seeds and traditional implements for years, feel insecure in the outcome of latest techniques.

Bhaskaran (1978) found out that there was no relationship between farmers' perception of risk and their extent of adoption and credit utilization.

Sivaprasad (1997) reported that by imparting proper training orientation, the risk bearing ability of the individual can be increased.

2.4.12 Economic motivation

Chandran (1989) found positive and significant relationship between economic development and attitude of pepper growers in Pepper Development Programme.

Sivaprasad (1997) found that economic motivation was an important character that prompted people to adopt improved practices that are proven worthy.

Thomas (1998) reported that the more one is motivated by economic ends, the more he/she will try to adopt the practices which are aimed at increasing sustainable returns.

2.4.13 Innovativeness

Momi and Sohal (1975) found that cost was least important factor in the adoption of the innovation.

Bhaskaran (1978) reported there was no relationship between farmers perception of cost of innovation and their extent of adoption and credit utilization.

2.4.14 Achievement motivation

Sivaprasad (1997) reported positive and significant relationship between achievement motivation and extent of adoption of scientific practices in sericulture and in beekeeping.

Thomas (1998) found that achievement motivation had significant correlation with extent of adoption of watershed development programmes.

2.4.15 Attitude of respondents

Allport (1935) stated that attitude is a mental and neutral state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.

Thrustone (1946) defined attitude as the degree of positive or negative effect associated with some psychological objects towards which people can differ in varying degrees.

Katz and Scotland (1959) stated that attitude is a tendency or disposition to evaluate an object or the symbol of that object in a certain way.

Rai (1965) revealed that adopters of new ideas had favourable attitude towards government programmes.

Singh *et al.* (1966) found that farmer's attitude towards the package programme had positive and significant influence on the level of adoption of package of practices.

Singh (1978) showed that high scores on attitude towards farming and continuous decision making were associated with progressive farm behaviour.

Sajeevchandran (1989) found significant difference in the level of attitude among beneficiaries towards pepper development programmes.

Shilaja (1990) reported that majority of the farm women possessed favourable attitude towards mixed farming.

According to Rajendralal (1997) any development programme aimed at the welfare of the people, calls for maximum participation of people to achieve this participation the beneficiaries should have a positive attitude towards the development programmes he added.

The views of the above authors revealed that the attitude of human beings towards an object, programmes etc., varied with situation. It can be calculated from the above studies that favourable attitude towards a development programme, technology or innovation is a prime requirement for the effective implementation and success of the project.

2.5 CONSTRAINTS PERCEIVED BY FARMERS

Norman (1982) identified the problem in vegetable cultivation as the high attack of pests and diseases and high input cost. Farmers also stated that they experienced serious transportation problems in marketing their produce.

Prasad *et al.* (1987) classified those factors influencing the development of agricultural sector in India to common basic constraints, technological constraints, organisational and administration constraints, extension constraints and social constraints.

Menon and Bhaskaran (1988) found that lack of sufficient land and fragmented land holding were the major constraints to agricultural technology transfer in Kerala.

Nelson (1992) reported that lack of clerical support in office work was the most important constraint perceived by Agricultural officers in the effective

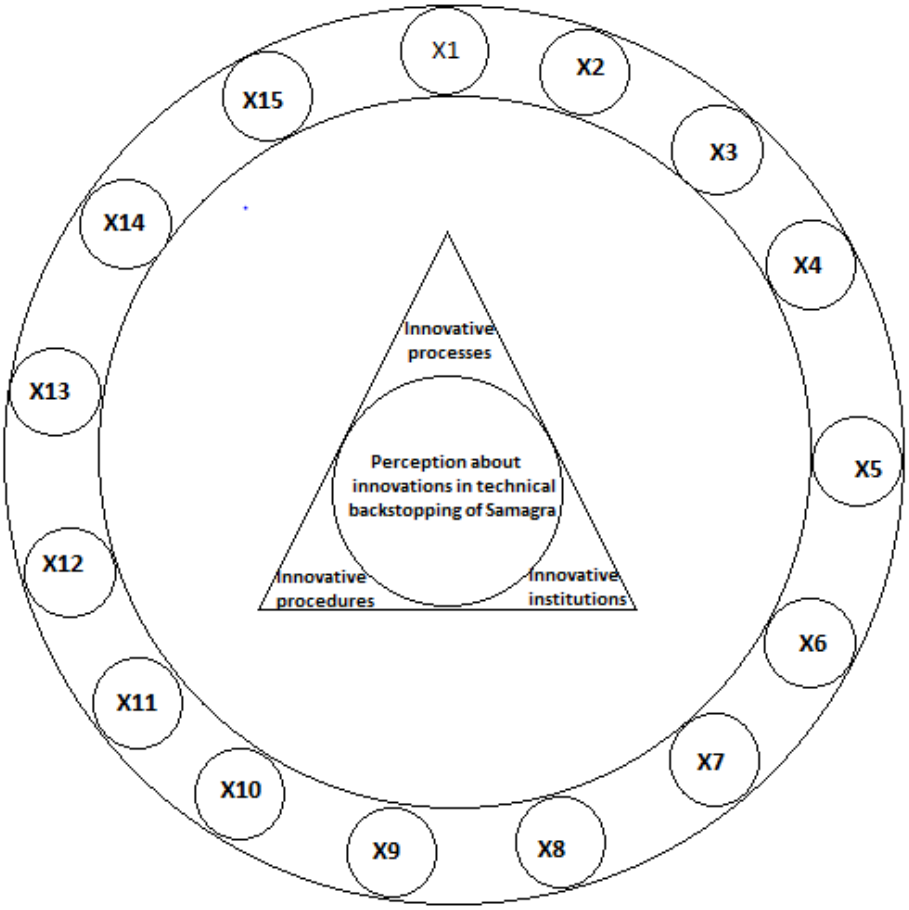
functioning of Kishi bhavan followed by lack of conveyance facilities, lack of funds to meet traveling expenses and lack of office facilities.

Rajendran (1992) while analysing the feasibility and utilisation of selected agricultural enterprises among Schedule Caste farmers observed that lack of technical knowledge, lack of necessary supporting services and unavailability of raw materials as the major constraints in the utilization of agricultural technologies in general.

Bhaskaran and Sushama (1994) cited lack of infrastructural facilities, absence of technology evaluations and up gradation efforts, inadequate training for farmers, extension personnel's and researchers, lack of functional linkages among the research, extension, input and farmer sub-systems as some constraints in technology transfer in Kerala agriculture.

Conceptual framework of the study

The conceptual model gives a holistic view of the research undertaken. It is based on the assumption that the profile characteristics of the Samagra beneficiaries will have positive and significant relationship with the dependent variables selected for the study.



X1 -Age

X2 - Area under cultivation

X3 - Experience in banana cultivation

X4 - Annual income

X5 - Educational status

X6 - Cosmopoliteness

X7 - Social participation

X8 - Training attended

X9 - Information need perception

X10 - Credit orientation

X11 - Risk orientation

X12 - Economic motivation

X13- Innovativeness

X14 - Achievement motivation

X15- Attitude towards 'Samagra'

Conceptual framework of the study

METHODOLOGY

3. METHODOLOGY

This chapter describes the research methods and techniques adopted in conducting the present research study. The various aspects are furnished in this chapter under the following subheadings.

3.1 Locale of the study

3.2 Selection of respondents

3.3 Design of the study

3.4 Variables selected for studying the innovations in technical backstopping of 'Samagra'

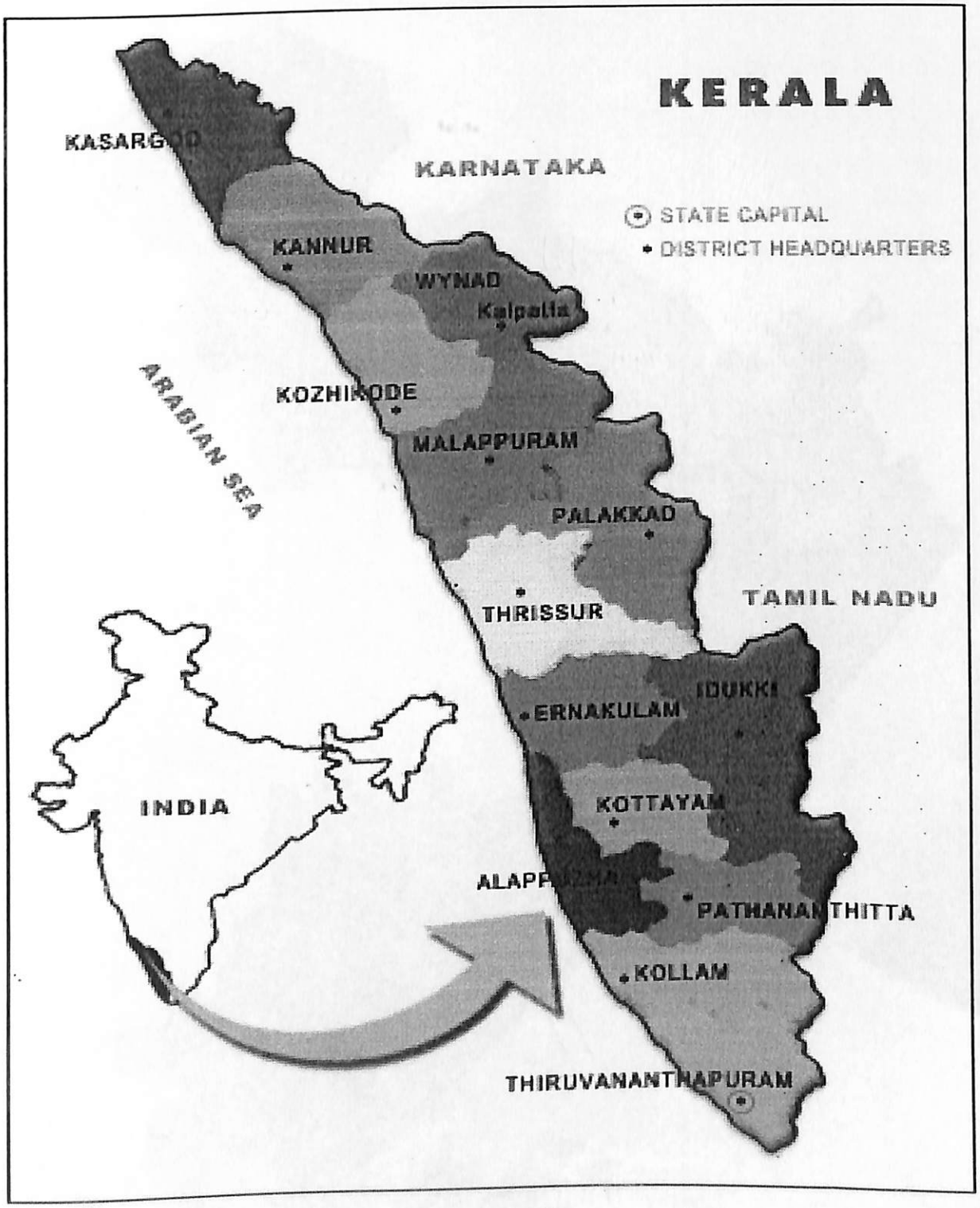
3.5 Operationalisation and measurement of variables

3.6 Tools and techniques of data collection

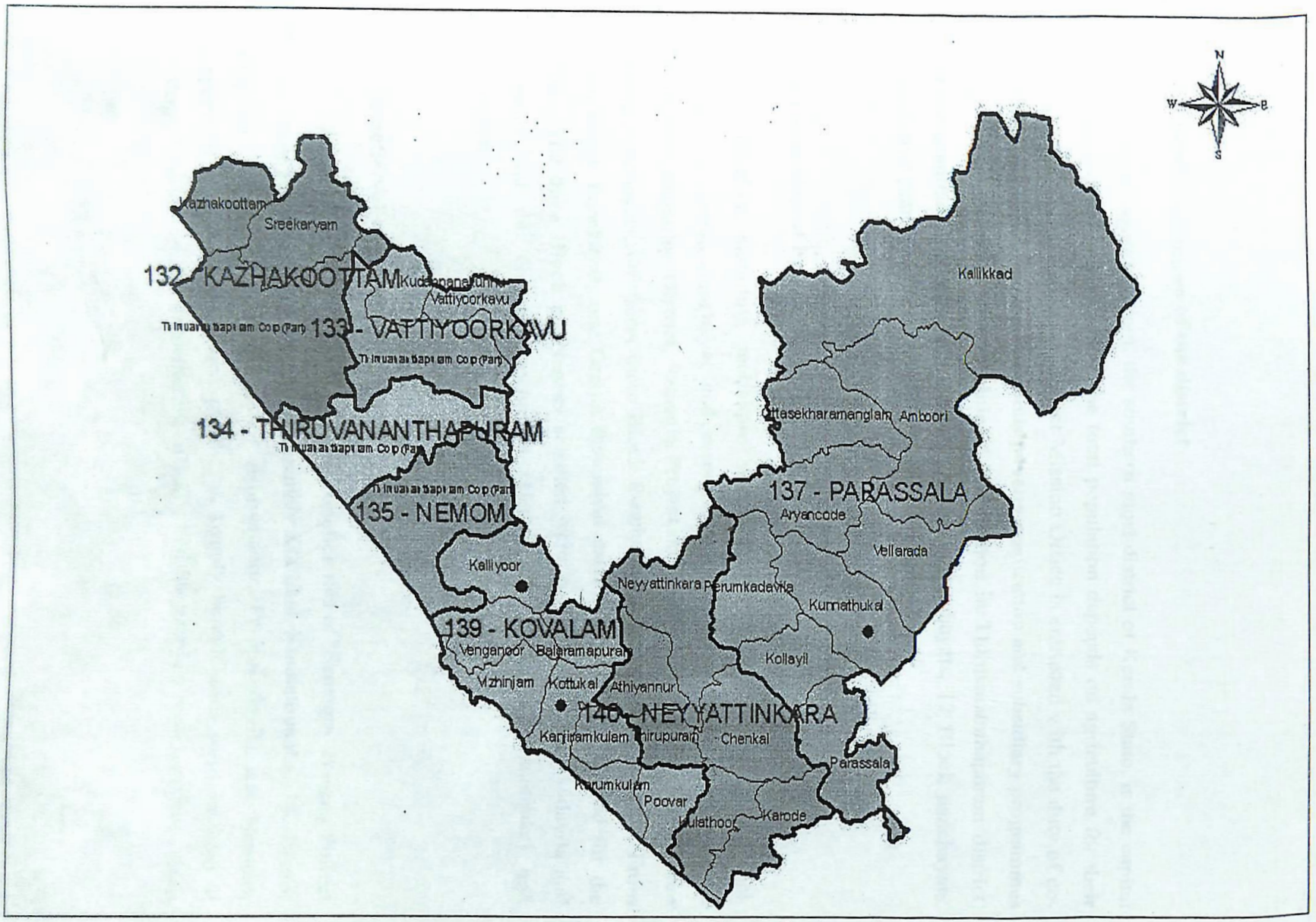
3.7 Statistical tools used

3.1 Locale of the study

'Kudumbashree' is a state wide programme. Thiruvananthapuram district has been purposively selected for conducting the present research study because 'Samagra' Banana Project is being effectively implemented only in the district since 2007.



Map of Kerala



• Selected Panchayats for the study

3.1.1 Brief description of the district

Thiruvananthapuram, the southern most district of Kerala State, is the capital city. More than 50 per cent of the total population depends on agriculture for their living. Thiruvananthapuram District Mission Office is entrusted with the duty of co-ordination and monitoring of various poverty eradication and subsidiary programmes implemented through Municipalities / Corporation in Thiruvananthapuram district. Thiruvananthapuram district includes 73 Grama panchayats, 12 Block panchayats, one district panchayat, 4 municipalities and 1 corporation.

3.1.2 Selection of Panchayats

Random sampling technique was followed in the selection of block panchayats, grama panchayat and respondents. Of the 12 block panchayats in Thiruvananthapuram District, Samagra Project on Banana was implemented in seven Block Panchayats. Of these, three Block Panchayats were randomly selected. From each Block Panchayat, one Grama Panchayat each was randomly selected for the study. The three Block panchayats selected were Athiyannoor, Perumkadavila and Nemom and the Grama Panchayats selected are Kottukal, Kunnathukal and Kalliyoor.

3.2 Selection of respondents

Respondents in this study were the beneficiaries of 'Samagra' Banana Project in the three selected grama panchayats, namely Kottukal, Kunnathukal and Kalliyoor from the three blocks panchayats of Athiyannoor, Perumkadavila and Nemom, respectively. From each grama panchayat, twenty beneficiaries were selected at random. In addition, 30 implemeting officials and 30 people's representatives from

the State Poverty Eradication Mission, District Kudumbashree Mission, Thiruvananthapuram District Panchayat, Kerala Agricultural University, Kerala State Department of Agriculture, Prowins Agri System were selected by simple random sampling method. Accordingly, the total number of respondents for the study was 120 comprising of 60 beneficiary - respondents, 30 implementing officials and 30 people's representatives.

3.3 Design of the study

Ex-post facto design was employed in the present study. According to Kerlinger (1973), ex-post facto research is the systematic empirical enquiry in which the scientist does not have direct control over the independent variables because their manifestations have already occurred or because they are inherently not manipulated.

3.4 Variables selected for studying the innovations in technical backstopping of 'Samagra'

Based on the objectives, review of literature, discussion with experts and observation made by the researcher, the following dependent and independent variables were selected for the study.

Dependent variables

1. Perception about innovative procedures
2. Perception about innovative processes
3. Perception about innovative institutions

Independent variables

1. Age
2. Area under cultivation:
3. Experience in banana cultivation
4. Annual income
5. Educational status
6. Cosmopoliteness
7. Social participation
8. Training attended
9. Information need perception
10. Credit orientation
11. Risk orientation
12. Economic motivation
13. Innovativeness
14. Achievement motivation
15. Attitude towards 'Samagra'

3.5 Operationalisation and measurement of variables

The dependent variables

To measure the innovations in technical backstopping of the 'Samagra' project three dependent variables viz., perception about innovative procedures, perception about innovative processes, perception about the innovative Institutions were selected.

The operational definition and methods of measurement of these variables are as follow:

3.5.1 Perception about innovative procedures

It is operationally defined as the fixed step - by - step sequence of activities or course of action that must be followed in the same order to correctly perform a task envisaged in the 'Samagra' Project.

Based on the review of literature and discussion with experts, various key of innovative procedures of Samagra Project were identified. Of which four important items were selected. These items were:

1. Credit linkage
2. Full technical support given by private agency
3. Public – Private – Panchayat – People – Partnership
4. Holistic support given by private agency

The responses of respondents were collected on three point continuum viz., Excellent, Good and Bad with scoring of 3, 2, 1, respectively. The possible score ranged from 4 to 12.

3.5.2 Perception about innovative processes

It is operationally defined as the sequence of interdependent and linked procedures which constitute a process.

Based on the review of literature and discussion with experts various key innovative processes of Samagra Project were identified. Of these, four important items were selected. These items were:

1. Assured supply of quality inputs

2. Capacity building activities

3. Kudumbashree giving fund for technology support

4. Socio – economic – ecologically sustainable development

The responses of respondents were collected on three point continuum viz., Excellent, Good and Bad with scoring of 3, 2, and 1 respectively. The possible score ranged from 12 – 4.

3.5.3 Perception about innovative institutions

It is operationally defined as the newly established organisations, ways and means in the implementation of Samagra Project.

Based on the review of literature and discussion with experts various key innovative institutions of Samagra Project were identified. Of these four important items were selected. These items were:

1. One product – one village concept

2. Private agency linkage with governmental agencies

3. Ensures people's participation

4. Kudumbashree linked with LSGIs

The responses of the respondents were collected on three point continuum viz., Excellent, Good and Bad with scoring of 3, 2, 1 respectively. The possible score ranged from 12 – 4.

3.5.4 Operationalisation and measurement of independent variables

Profile characteristics of the beneficiaries

3.5.4.1 Age

It refers to the number of calendar years completed by the respondents at the time of interview. This variable was measured directly by asking the respondent the number of years he/she has completed at the time of investigation. Then the responses were categorized as below for the purpose of statistical analysis. The classification procedure suggested by Sindhudevi (1994) was adopted in the present study with slight modification.

Category	**Age in years**	**Score**
Young	$\leq$ 35	1
Middle	36 – 50	2
Old	> 50	3

3.5.4.2 Area under cultivation

It was measured as the extent of area under banana cultivation in cents. The classification procedure suggested by Sreedaya (2000) was adopted in the present study with slight modification.

Category	**Size of holding in cents**	**Score**
Low	≤ 60	1
Medium	61 – 70	2
High	> 70	3

3.5.4.3 Experience in banana cultivation

It refers to the total number of years the respondent has been engaged in banana cultivation. The scale developed by Ramanathan (1995) was used in this study with slight modification. The scoring procedures was

Category	**Experience in** years	**Score**
Low	≤ 3	1
High	> 3	2

3.5.4.4 Annual income

It refers to the total earning of all the members of the family of the respondent for one year.

This was obtained by adding the income earned by all the members of the family including income from the land crops for one year.

The classification procedure suggested by Sreedaya (2000) was adopted in the present study with slight modification.

Category	**Income (Rs)**	**Score**
Low	< 50,000	1
Medium	50,000 – 1,00,000	2
High	> 1,00,000	3

3.5.4.5 Educational status

It refers to the extent of formal learning achieved by the respondent. Educational status was measured by using scoring pattern suggested by Trivedi (1963) with slight modification. The scores were assigned as follows.

Level of Education	**Score**
Illiterate	1
Can read and write	2
Primary school level	3
Middle school level	4
High school level	5
College	6
Professional college level	7

3.5.4.6 Cosmopoliteness

It refers to the tendency of the farmers to be in contact with outside village on the belief that all the needs of an individual cannot be satisfied within his/her own village.

The scoring pattern suggested by Desai (1981) was adopted with suitable modifications was used to measure cosmopoliteness in the present study.

a) Frequency of visit to nearest town	**Score**
Twice or more in a week	5
Once in a week	4
Once in a month	3
Seldom	2
Never	1
b) Purpose of visit	
All visits related to farming	4
Some visits related to farming	3
Other purposes	2
No purposes	1
c) Membership in organization, outside the village	
Office bearer	3
Member	2
No membership	1

The classification procedure employed in cosmopoliteness was upto 12 low group, 13 – 24 medium group, 25 and above high group.

3.5.4.7 Social participation

In this study social participation was measured using the scale used by Sreedaya (2000). This scale was having two dimensions namely membership in organizations and participation in organizational activities. The scores were assigned as follows.

1. For membership in organization	**Score**
No membership in organization	0
Membership in each organization	1
Office bearer in each organizaion	2
2. Frequency of participation	
Never attending any of the meeting	0
Some times attending meetings/activities	1
Regularly attending meetings	2

The classification procedure employed in social participation was the score of 1 low group, 2 – 3 medium group, 4 and above high group.

3.5.4.8 Training attended

It is defined as the number of trainings in various production activities undergone by the respondent during the last three years. The scoring procedure followed by Meera (2001) was used with slight modification.

Training undergone in production activity	**Score**
No training	0
One training	1
Two trainings	2
Three or more trainings	3

The classification procedure employed in training attended was the score of upto 1 low group, score of 2 medium group, 3 and above high group.

3.5.4.9 Information need perception

It refers to the perception of respondents about the degree of information they wanted to know about the Samagra Project. It was measured using the scale developed by Kailasam (1980). The scale consisted of 8 items. The scoring was on a three point continuum as 'Most needed' (3), 'Some what needed' (2) and 'Not needed' (1).

The classification procedure employed in information need perception was upto 19 low group, 20 and above high group.

3.5.4.10 Credit orientation

It refers to orientation to avail credit by the respondent. It was measured using the scale developed by Beal and Sibley (1967). The scale consisted of five items. The first and the last items were measured in 'Yes' or 'No' response with scores 'two' and 'one', respectively. The second and third item was measured on a four point continuum as 'very difficult', 'difficult', 'easy' and ' very easy', with scores of 'one'. 'two','three' and 'four', respectively. The fourth item was measured on a four-point continum of 'strongly agree','agree','disagree' and 'strongly disagree' with scores of 'four','three','two' and 'one', respectively. Summation of these scores on all these items was the credit orientation score of the respondent.

The classification procedure employed in credit orientation was upto 11 low group, 12 – 15 medium group, 16 and above high group.

3.5.4.11 Risk orientation

It refers to the degree to which the farmer is oriented towards encountering risks and uncertainty in adopting new ideas in farming.

The scale developed by Supe (1969) was adopted for the study and the scoring procedure adopted was as follows. The scale consisted of six statements of which fifth statement was negative. The scoring was on a five-point continuum as 'strongly agree'(5) 'agree'(4) 'Undecided' (3)'disagree'(2) and 'strongly disagree' for positive statements. The sum of the scores of each statement was the score for risk orientation of the respondent.

The classification procedure employed in risk orientation was strongly agree and agree clubbed into high group, undecided was medium group and disagree and strongly disagree clubbed into low group.

3.5.4.12 Economic motivation

It refers to the extent to which a farmer is oriented towards achievement of the maximum economic ends.

The scale developed by Supe (1969) was used to measure economic motivation. The scale consisted of six statements of which the third statement was negative. Each statement was provided with five point response categories namely 'strongly agree'(5) 'agree'(4) 'Undecided' (3)'disagree'(2) and 'strongly disagree' (1) for positive statements and 1,2,3,4,5 for negative statements formed the score for economic motivation.

The classification procedure employed in economic motivation was strongly agree and agree clubbed into high group, undecided was medium group and disagree and strongly disagree clubbed into low group.

3.5.4.13 Innovativeness

It refers to the degree to which the respondent was relatively earlier in adopting new ideas.

The procedure followed by Sreedaya (2000) was used to measure innovatieness with slight modifications. In this procedure a question was asked as to when the farmer would like to adopt an improved practice in farming. The response was scored as follows.

Response	Score
As soon as it is brought to my knowledge	4
After I had seen other farmers tried successfully in the farm	3
I prefer to wait and take my own time	2
I am not interested in adopting improved practices	1

The classification procedure employed in innovativeness was upto 2 low group, 3 and above high group.

3.5.4.14 Achievement motivation

It refers to the striving of farmers to do good work and attain a sense of accomplishment.

It was measured by applying the achievement motivation scale of Desai (1981).The scale consisted of five incomplete sentences each having three choices and the respondents have to choose answers felt appropriate. One of the choices indicated high achievement motivation. Farmers who responded with proper choice for each of the five sentences were given a score of 'two' and for other choices 'one' each. Summing up the scores obtained for all the five sentences, the respondent's achievement motivation score was obtained.

The classification procedure employed in achievement motivation was upto 7 low group, 8 and above low group.

3.5.4.15 Attitude of beneficiaries towards 'Samagra'

An attitude scale was constructed for the present study. Likert's (1932) method of summated rating was used for measuring attitude of beneficiary-farmers towards 'Samagra'. The procedure followed in the construction of attitude scale is described in the pages that follow.

Collection of items:

The 25 items to be included in the attitude scale were obtained through review of literature related to Samagra and discussion with experts of the College of Agriculture, Vellayani, and few implementing officials of Prowins.

Editing of the statements:

The 20 statements selected have been carefully edited in accordance with the criteria suggested by Edwards (1957) so as to indicate both favourable and unfavourable attitude towards Samagra.

Item analysis:

These 20 selected statements were later translated into Malayalam, the regional language of Kerala and administered to 30 respondents in a purposively selected village in a non- sample area in Vellanad panchayat. The responses were collected on a five point continuum viz., 'Strongly Agree' 'Agree' Undecided' ' Disagree' and ' Strongly Disagree'.

Method of Scoring:

After obtaining the responses from the 30 respondents the scoring was done in the order of 5,4,3,2, and 1 for 'Strongly Agree' 'Agree' Undecided' ' Disagree' and ' Strongly Disagree' responses, respectively in the case of positive statements and the reverse in the case of negative statements. By summing up the scores obtained for each of the statements in the scale, the total score for each of the respondents was obtained.

Computing 't' value:

Considering the total score of each respondent, they were arranged in the descending order. Twenty five per cent of the subjects with the high score and twenty five per cent of the subjects with low total scores were used for the selection items. The responses of the middle fifty per cent were not considered. To evaluate if each statement differentiate between high and low group 't' values were computed using the formula given by Edwards (1957)

$$t = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{SH^2}{nH} + \frac{SL^2}{nL}}}$$

Where,

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

$\bar{X}_L$ = the mean score on a given statement for the low group

SL^2 = the variance of the distribution of responses of the low groups to the statement

nH = the number of subjects in the high group

nL = the number of subjects in the low group

n = total number of respondents.

Thus the 't' values for each of the 20 statements were worked out and six statements which had 't' values greater than 1.75 were selected and the remaining 14 were rejected. Out of the selected statements, 3 were positive and 3were negative.

Validity of the scale

To ensure that the obtained test measured the variable it was supposed to, validity of the scale has to be established. Content validity and construct validity are the methods generally followed to know the validity of the scale.

Content validity, according to Kerlinger (1973) is the representativeness or sampling adequacy of the contents, the substance, the matter and topics of a measuring instrument.

In this study, the content validity of the attitude scale was established in two ways. First, the items selected for inclusion in scale were based on extensive rivew of literature. Secondly, the opinion of the panel of judges was obtained to find out whether the items suggested were suitable for inclusion in the scale or not.

Reliability of the scale

A scale is said to be reliable when it produces results with high degree of consistency when administered to the same respondents at different times. In this study, reliability of the scale was determined by split-half method. The scale administered to the 30 respondents was divided into two halves based on odd-even numbers of statements. The scores on the odd numbered items as well as the scores of the even numbered items of same respondents were correlated using the Pearson's product moment correlation coefficient. The coefficient of internal consistency was worked out using the following formula:

$$roe = \frac{N\sum XY - (\sum X)\ (\sum Y)}{\sqrt{[N\sum X^2) - (\sum X)^2]\ [N\sum Y^2) - (\sum Y)^2}}$$

Where N = Number of respondents

X = value of odd numbered items score

Y = Value of even numbered items score

The roe value obtained was again correlated by using Spearman Brown formula and thus obtained the reliability. r_{tt} of the original test. The formula used was

$$rtt = \frac{2\ roe}{1 + roe}$$

The obtained r_{tt} value was 0.5367, which indicated a high reliability of the scale.

Administering the scale

The final scale with 3 positive and 3 negative statements was administered to 60 beneficiary respondents and the responses were collected on a five point continuum viz., 'Strongly Agree' 'Agree' Undecided' 'Disagree' and 'Strongly Disagree' with the scoring 5, 4, 3, 2, and 1, respectively in the case of positive statements and the reverse in the case of negative statements. The individual scores of each respondent were obtained by summing up the responses for all items. The maximum score possible was 30 and minimum 6.

The same Likert's method of summated rating was used for measuring attitude of rest of the rerspondents (implementing officials and people's representatives) towards 'Samagra'. Thus, eight statements for officials and seven statements for people's representatives were finally included for the main study. The obtained reliability value was 0.4300 for implementing officials and 0.5273 for people's representatives which indicated a high reliability of the scale

3.5.4.16 Constraints faced by the beneficiaries of 'Samagra' Project

In the present study, constraint is operationalised as the difficulties or problem faced by the beneficiaries of the 'Samagra' project which hinders the successful implementation of the 'Samagra' project.

Based on the review of literature and discussion with 'Samagra' personnel and beneficiaries of 'Samagra' in non sampling area, the list of constraints was prepared. The procedure used for ranking the constraints is as follows.

The response of each constraint was obtained on a four point continuum viz., 'most important' 'important' 'less important' and 'least important with weightage of 4, 3, 2 and 1, respectively.

For each constraint, the frequency of this response under each category was multiplied with the respective scores and added up to get the total score for that particular constraint. Then the mean scores were worked out and constraints were ranked based on the mean scores in the descending order of importance for the 'Samagra' beneciary - respondents.

3.6 Tools and techniques of data collection

The preliminary survey conducted by the researcher gave the first hand information about the aspects to be studied and pattern of questions to be included. The interview schedule was prepared in conformity with the objective of the study. Great care was taken to see the questions in the interview schedule were pre tested and standardized for final administration.

The data was collected using the pre tested interview schedule developed for the study. The interview schedule prepared in English and was translated into Malayalam before administering to the respondents.

3.7 Statistical tools used

The following statistical methods were employed in the analysis and interpretation of the data.

1. **Percentage analysis**

Percentage analysis was done to aid in easy comparison.

2. **Correlation analysis**

Extent of relationship between the variables studied using correlation analysis.

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

This chapter deals with the results obtained and the discussion of the results of the study. The highlights of the study conducted among 60 beneficiaries of 'Samagra' Banana Project, 30 officials and 30 people's representatives are discussed under the following titles.

4.1 Innovations in technical backstopping of 'Samagra' Project

4.2 Perception of beneficiaries about innovations in technical backstopping

4.3 Profile characteristics of the beneficiaries

4.4 Relationship between independent and dependent variables of beneficiaries

4.5 Perception of officials about innovations in technical backstopping

4.6 Perception of people's representatives about innovations in technical backstopping

4.7 Constraints faced in 'Samagra' as perceived by the beneficiaries

4.1. Innovations in technical backstopping of 'Samagra' project

The variable 'Innovations in technical backstopping of 'Samagra' project' was measured in terms of innovative procedures, innovative processes and innovative institutions. These three variables viz., innovative procedures, innovative processes, innovative institutions were the dependent variables chosen for this study, through which the innovations in technical backstopping was measured.

4.2 Perception about beneficiaries about innovations in technical backstopping

Perception about innovative procedures, processes and institutions involved in the 'Samagra' project was evaluated on the basis of their effective utilization in "Samagra' project. The innovative procedures are; credit linkage, full technical support given by private agency, Public – Private – Panchayat – People – Partnership, Holistic support given by private agency. Based on the response of the respondents three categories of perception as Bad, Good, Excellent were formed and the results are presented in Table 1.

Table 1. Distribution of the 'Samagra' beneficiaries on their perceptions about innovations in technical backstopping

The distribution of the beneficiaries of 'Samagra' project with regard to their perception about innovations in technical backstopping is presented in Table 1.

(n = 60)

Perception category	Score	Perception about					
		innovative procedures		innovative processes		innovative institutions	
		f	%	f	%	f	%
Bad	Upto 3	0	0	0	0	0	0
Good	4 – 8	18	30	21	35	23	38.33
Excellent	9 and above	42	70	39	65	37	61.67
Total		60	100	60	100	60	100

From the data in Table 1, it could be inferred that majority (70 %) of the beneficiaries had the opinion that innovative procedures in the 'Samagra' project were excellent. Thirty per cent of the beneficiaries opined that innovative procedures in the 'Samagra' project were good and none of them had bad remark about innovative procedures in the 'Samagra' project.

Sixty five per cent of the beneficiaries opined that innovative processes in the 'Samagra' project were excellent. Thirty five per cent of the beneficiaries opined that innovative processes in the 'Samagra' project were good and none of them had bad remark about innovative processes in the 'Samagra' project.

Majority (61.67 %) of the beneficiaries opined that innovative institutions of the 'Samagra' project were excellent. Over 38 per cent (38.33 %) of the beneficiaries opined that innovative institutions formed in the 'Samagra' project were good. None of the respondents perceived the innovative institutions in 'Samagra' project as bad.

This may be due to fact that 'Samagra' is the only project providing assured market to the banana produced by the beneficiaries. This could also be attributed to the good technical backstopping provided in the project by the private agency 'Prowins'.

4.3. Profile characteristics of the beneficiaries

This section relates to the distribution of beneficiaries of 'Samagra' with respect to the selected profile features of the beneficiaries and it includes the discussion relevant to those characteristics. The variables studied under the profile characteristics were brought under different sub heads viz., age, area under cultivation, experience in banana cultivation, annual income, educational status, cosmopoliteness, social participation, trainings attended, information need perception, credit orientation, risk orientation, economic motivation, innovativeness, achievement motivation and attitude towards 'Samagra'are as follows.

Innovations in technical backstopping of 'Samagra' project consists of various innovative procedures, processes and institutions. The innovative procedures includes credit linkage, full technical support given by private agency, Public – Private – Panchayat – People – Partnership, holistic support given by private agency. The innovative processes includes assured supply of quality inputs, capacity building activities, Kudumbashree giving fund for technology support, socio – economic – ecologically sustainable development. The innovative institutions includes one product – one village concept, private agency linkage with governmental agencies, ensures people's participation, Kudumbashree linked with Local Self Government Institutions. The above mentioned all the innovations in technical backstopping of 'Samagra' project were perceived as excellent by the beneficiaries.

4.3.1 Age

The results with reference to age are presented in Table 2.

Table 2. Distribution of the 'Samagra' beneficiaries on age (n = 60)

Category	**f**	**%**
Upto 35 (Young age)	15	**25**
36 – 50 (Middle age)	30	50
51 and above (Old age)	15	25
Total	60	100

From the results presented in Table 2, it is understood that twenty five per cent of the respondents belonged to young age group, fifty per cent of the respondents belonged to middle age group and twenty five per cent of the respondents belonged to old age group. In Kerala situation, where in the participation of youth in agriculture is quite low, this result is within reason as most of the farmers belong to either middle or old age group.

This result is in line with the findings of Geetha (2002).

4.3.2 Area under cultivation

The results with reference to area under cultivation are presented in Table 3.

Table 3. Distribution of the 'Samagra' beneficiaries on area under cultivation

(n = 60)

Category	**f**	**%**
Upto 60 (Low)	42	**70**
61 – 70 (Medium)	7	11.67
71 and above (High)	11	18.33
Total	60	100

From the results presented in Table 3 it could be seen that majority (70 per cent) of the respondents possessed land holding below 60 cents (70%) and over 18 per cent (18.33 %) of the respondents had area above 70 cents. Over 11 per cent (11.67 %) of the respondents were having area between 61 – 70 cents. The results that majority were marginal farmers is reflective of the very low land holding size in Kerala. In general most of the Kudumbashree SHGs are cultivating banana in leased in lands paying very high land rent and naturally the cultivated area was also be small.

4.3.3 Experience in banana cultivation

The results with reference to experience in banana cultivation are presented in Table 4.

Table 4. Distribution of the 'Samagra' beneficiaries on experience in banana cultivation (n = 60)

Category	**f**	**%**
Upto 3 (Low)	29	48.33
4 and above (High)	31	51.67
Total	60	100

From the results presented in Table 4 it is understood that over 48 per cent (48.33 %) of the respondents had less than three years of experience and over 51 per cent (51.67%) of the respondents had more than three years of experience in banana farming.

4.3.4 Annual income

The results with reference to annual income are presented in Table 5.

Table 5. Distribution of the 'Samagra' beneficiaries on annual income in Indian Rupees (n = 60)

Category	f	%
Upto 50,000 (Low)	13	21.67
50,001 – 1,00,000 (Medium)	46	76.67
1,00,001 and above (High)	1	1.66
Total	60	100

A cursory view of the result presented in the Table 5, shows that majority (76.6 per cent) of the respondents had annual income between Rs. 50,001 – 1,00,000 and over twenty one per cent (21 %) of the respondents had it upto Rs 50,000 and only one farmer was having income above Rs. 1,00,000 (High category). The results presented also indicate the relatively poor economic status of the respondent farmers.

This result is in line with the findings of Geetha (2002).

4.3.5 Educational status

The results with reference to educational status are presented in Table 6.

Table 6. Distribution of the 'Samagra' beneficiaries on their educational status

(n = 60)

Level of Education	**f**	**%**
Illiterate	1	1.67
Can read and write only	1	1.67
Primary school level	17	28.33
Middle school level	16	26.67
High school level	18	30
College level	7	11.66
Professional colleges status	0	0
Total	60	100

A bird's eye view of the results presented in the Table 6 indicate that thirty per cent of the respondents had education upto high school level. over 28 per cent (28.33 %) of the respondents had upto primary school level, and over 26 per cent (26.67 %) had, upto middle school level. It is also interesting to find that over 11 per cent (11.66 %) of the respondents possessed college level education. The result is a reflection of the higher literacy rate prevailing the people in Kerala.

4.3.6 Cosmopoliteness

The results with reference to cosmopoliteness are presented in Table 7.

Table 7. Distribution of the 'Samagra' beneficiaries on their cosmopoliteness (n = 60)

Category	**Score**	**f**	**%**
Low	Upto 12	14	**23.33**
Medium	13 - 24	38	63.33
High	25 and above	8	13.34
Total		60	100

The data presented in the Table 7 indicate that majority of the farmers (63.33 %) exhibited medium level of cosmopoliteness. Over 23 per cent (23.33 %) of the beneficiaries exhibited low level of cosmopoliteness and over 13 per cent (13.34 %) of the beneficiaries had high level of cosmopoliteness. Since most of the farmers had agriculture as the main occupation, they had to visit the neighboring towns for agricultural purpose. Moreover, exposure to both print and electronic media, which is a unique feature of even the villagers of Kerala, keeps them abreast of the changing trends of the time. This might have resulted in an appreciable high degree of cosmopoliteness as observed in the study.

This result is in line with the findings of Beena (2002).

4.3.7 Social participation

The results of the study with reference to social participation are presented in Table 8.

Table 8. Distribution of the 'Samagra' beneficiaries on their social participation

(n = 60)

Category	**Score**	**f**	**%**
Low	1	16	**26.6**
Medium	2 - 3	38	63.3
High	4 and above	6	10.1
Total		60	100

The results presented in the Table 8 depict that majority (63.3 per cent) of the beneficiaries had medium level of social participation. Over 26 per cent (26.6 %)of the beneficiaries belonged to low level of social participation and over 10 per cent (10.1 %) of the beneficiaries belonged to high level of social participation. The high literacy rate and cosmopoliteness observed might have contributed to the overall high level of social participation among the beneficiaries.

4.3.8 Trainings attended

The results with reference to training attended by the respondentsare presented in Table 9.

Table 9. Distribution of the 'Samagra' beneficiaries on trainings attended

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 1	1	1.67
Medium	2	19	31.7
High	3 and above	40	66.63
Total		60	100

From the results in Table 9, it is understood that majority (66.63 %) of beneficiaries had attended 3 - 4 trainings. Over 31 per cent (31.7 %) had medium level of training attended and only one farmer had low level of training attended. This may be due to the involvement of private partner in the 'Samagra'project, giving training to the beneficiaries free of cost.

4.3.9 Information need perception

The results with reference to information need perception are presented in Table 10.

Table 10. Distribution of the 'Samagra' beneficiaries on information need perception

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 19	36	60
High	20 and above	24	40
Total		60	100

Finindings in Table 10 indicated that majority (60 %) of the beneficiaries had only low level of information need perception and fourty per cent had high level of information need perception. It is a fact that the beneficiaries are getting all the information on banana cultivation through the regional consultant of Prowins Agri System and thus could have been satisfied with their information needs.

4.3.10 Credit orientation

The results with reference to credit orientation are presented in Table 11.

Table 11. Distribution of the 'Samagra' beneficiaries on their credit orientation

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 11	20	**33.33**
Medium	12 – 15	25	41.67
High	16 and above	15	25
Total		60	100

From the results in Table 11, it is obvious that majority (41.67 %) of the beneficiaries belonged to medium level of credit orientation and over 33 per cent (33.33%) had low level of credit orientation. Twenty five per cent of the respondent-beneficiaries had high credit orientation.

The appreciable level of cosmopoliteness which was found earlier in the study might have led to increased awareness about credit facilities available which prompted the beneficiaries to avail credit for practising scientific banana cultivation.

This result is in line with the findings of Sreedaya (2000)

4.3.11 Risk orientation

The results with reference to risk orientation are presented in Table 12.

Table 12. Distribution of the 'Samagra' beneficiaries on risk orientation

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 18	1	**1.66**
Medium	19 – 25	37	61.67
High	26 and above	22	36.67
Total		60	100

It is clear from the data in the Table 12 that 41.67 % per cent of the beneficiaries had medium level of risk orientation and over 20 per cent (20.67 %) of beneficiaries had low level of risk orientation. In the high category, 37.66 per cent of beneficiaries had congregated.

Majority of the farmers did not possess their own land for cultivation. They are utilizing leased in land for one or two years for cultivation of Nendran banana which was found to be profitable. So, those farmers who had relatively high risk taking capacity took up commercial banana cultivation under the 'Samagra'project.

4.3.12 Economic motivation

The results with reference to economic motivation are presented in Table 13.

Table 13. Distribution of the 'Samagra' beneficiaries on their economic motivation

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 20	30	**50**
Medium	21-23	27	45
High	24 and above	3	5
Total		60	100

From the result in Table 13, it is evident that 50 per cent of the beneficiaries had low level of economic motivation and 45 per cent of beneficiaries had medium level of economic motivation. Only five per cent of the beneficiaries had high level of economic motivation. Economic motivation is important in prompting a person to perform more effectively to improve his/her economic status. The general decline in Kerala's agricultural sector might have demotivated the farmers and this could be the probable reason for the present finding.

4.3.13 Innovativeness

The results with reference to innovativeness of the respondents are presented in Table 14.

Table 14 Distribution of the 'Samagra' beneficiaries on innovativeness

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 2	4	**6.67**
High	3 and above	56	93.33
Total		60	100

The results presented in the Table 14 depict that majority (93.33 %) of the beneficiaries had high level of innovativeness and over 6 per cent (6.67 %) of the beneficiaries had low level of innovativeness. High educational status and familiarity with latest projects concepts like 'Samagra' would have created positive attitude to experiment with the new technology in farming. This may be the reason for high innovativeness observed among the beneficiaries in the study.

This result is in line with the findings of Geetha (2002)

4.3.14 Achievement motivation

The results with reference to achievement motivation are presented in Table 15.

Table 15. Distribution of the 'Samagra' beneficiaries on their achievement motivation

(n = 60)

Category	**Score**	**f**	**%**
Low	Upto 7	46	**76.67**
High	8 and above	14	23.33
Total		60	100

From the results presented in Table 15 it is clear that, over 76 per cent (76.67 %) of beneficiaries had low level of achievement motivation and rest of the beneficiaries (23.33 %) belonged to high level of achievement motivation.

This result is in line with Sreedaya (2000)

4.3.15. Attitude of beneficiaries towards 'Samagra' Project

Results on attitude of beneficiaries towards 'Samagra' project are presented in Table 16.

Table 16. Distribution of the 'Samagra' beneficiaries based on their attitude towards 'Samagra' project (n = 60)

Category	Score	f	%
Unfavourable	Upto 12	0	**0**
Neutral	13 – 18	24	40
Favourable	19 and above	36	60
Total		60	100

A cursory view of the Table 16 shows that 40 per cent of the beneficiaries had neutral attitude towards 'Samagra' and 60 per cent of the beneficiaries had favorable attitude towards Samagra'. None of them had unfavorable attitude towards Samagra'. Since the farmers had better level cosmopoliteness they were very much interested to know about the new happenings and their good level of exposure to various information sources spearheaded them to know more about the 'Samagra' and this would have been the reason for the present findings. The identified innovative procedures, processes and institutions were new to the 'Samagra' beneficiaries. Because, previously implemented projects were not having these types of innovations. It could one of the reasons for favourable attitude of beneficiaries towards 'Samagra'Project.

4.4 Relationship between independent and dependent variables of beneficiaries

In order to study the relationship between the independent and dependent variables, correlation analysis was done. The results of the analysis are furnished in the Table 17.

Table 17. Relationship between independent and dependent variables of beneficiaries of 'Samagra' project

(n = 60)

SI. No	Name of the independent variable	Correlation coefficient (Y1- Perception about innovative procedures)	Correlation coefficient (Y2- Perception about innovative processes)	Correlation coefficient (Y3- Perception about innovative institutions)
1	Age	-0.1006	-0.0962	-0.0736
2	Area under cultivation:	0.0661	0.2166	0.1320
3	Experience in banana cultivation	0.4778**	0.5846**	0.5390**
4	Annual Income	0.1580	0.1775	0.1703
5	Educational status	0.3708**	0.4110 **	0.3370**
6	Cosmopoliteness	0.2309	0.0574	0.1580
7	Social participation	0.0165	0.1572	0.1215

8	Training attended	0.0433	0.0532	0.1335
9	Information need perception	0.1300	0.1263	0.1987
10	Credit orientation	0.6524**	0.7443 **	0.5983 **
11	Risk orientation	0.0379	0.1763	0.0019
12	Economic motivation	0.4617**	0.2402	0.4165 **
13	Innovativeness	0.1309	- 0.2507*	- 0.1592
14	Achievement motivation	0.3451**	0.4074**	0.3423 **
15	Attitude	- 0.1320	0.2285	0.0873

** Significant at 0.01 level

*Significant at 0.05 level

The results presented in Table 17 revealed that among the selected fifteen independent variables, experience in banana cultivation, educational status, credit orientation, achievement motivation had positive and significant relationship with innovative procedures, innovative processes and innovative institutions. Economic motivation had positive and significant relationship with innovative procedures and innovative institutions where as it had no significant relationship with innovative processes. Innovativeness had negative significant relationship with innovative processes where as it had no significant relationship with innovative procedures and innovative institutions.

Majority of the respondents were literate and high educational status. This may be the reason for positive significant relationship of education with perception about innovative procedures, processes and institutions. This is because of the farmers are adopting the scientific banana cultivation farming practices and also the literate farmers familiar with innovations in 'Samagra' project.

Majority of the respondents in the study were literate. The relatively better literacy status as a result of the availability of educational facilities even in rural Kerala predisposes increased awareness which may be the reason for the positive and significant relationship of education with perception about innovative procedures, processes and institutions as observed in the study.

Majority of the beneficiaries were traditionally banana growers with more experience in the indicates of banana cultivation. This could be attributed as the reason for positive and significant relationship of experience in banana cultivation with perception about innovative procedures, processes and institutions.

Most of the farmers are having medium level of credit orientation. Their positive mindset about increased use of capital through credit borrowing for banana cultivation in the 'Samagra' Project would have led to the positive and significant relationship of credit orientation with perception about innovative procedures, processes and institutions.

Economic motivation is important in promoting a person to perform more effectively to improve his/her economic status. This is a favorable psycho physical disposition which could cultivate in the positive significant relationship of economic motivation with perception about innovative procedures, processes and institutions.

A person with high need for achievement would be viewing innovations in any sphere of activity with a positive frame of mind. This could be cited as a reason for the positive and significant relationship of achievement motivation in banana

cultivation with perception about innovative procedures, processes and institutions as evidenced in the present study.

4.5 Perception of officials about innovations in technical backstopping Perception of officials about innovative procedures, processes and institutions of the 'Samagra' project was evaluated on the basis of their effective utilization in "Samagra' project. The innovative processes are; Assured supply of quality inputs, Capacity building activities, Kudumbashree giving fund for technology support and Socio – economic – ecologically sustainable development. Based on the response of the respondents they were grouped into three categories of perception as Bad, Good, Excellent were formed and the results are presented in Table 18

The results on the perception of officials about innovations in technical backstopping are presented in Table 18.

Table 18. Distribution of the 'Samagra' officials on their perception about innovations in technical backstopping (n = 30)

Perception category	**Score**	**Perception about**					
		innovative procedures		**innovative processes**		**innovative institutions**	
		F	%	f	%	f	%
Bad	Upto 3	0	0	0	0	0	0
Good	4 – 8	0	0	8	26.7	0	0
Excellent	9 and above	30	100	22	73.3	30	100
Total		60	100	60	100	60	100

The results presented Table 18 indicate that all the officials opined that innovative procedures adopted in the 'Samagra' project were excellent and that none of them had bad remark about innovative procedures adopted in the 'Samagra' project.

Over 73 per cent (73.3 %) of officials had opined that the innovative processes adopted in the 'Samagra' project were excellent. More than a quarter of the respondent - officials (26.7 %) opined that inovative processes in the 'Samagra' project were good. Nobody expressed bad remark about innovative processes in the 'Samagra' project.

All the officials opined that innovative institutions observed in the 'Samagra' project were excellent. None had bad remark about innovative institutions in the 'Samagra' project.

The officials are responsible to implement the programme at field level. For the first time, these officials were exposed to the innovations in technical backstopping for the Samagra Banana Project and they were possibly impressed by these innovations. This could be the probable reason for the present finding.

4.5.1 Attitude of officials towards 'Samagra'

The distribution with regard to the attitude of officials towards Samagra Project is presented in Table 19.

Table 19 Distribution of the 'Samagra' Officials based on their attitude towards 'Samagra'

(n = 30)

Category	**Score**	**f**	**%**
Unfavourable	Upto 16	0	**0**
Neutral	17 - 24	2	6.7
Favourable	25 and above	28	93.3
Total		30	100

A cursory view of the Table 19 shows that 6.7 per cent of the officials had neutral attitude towards 'Samagra' and 93.3 per cent of the beneficiaries had favorable attitude towards 'Samagra'. There is none with unfavorable attitude towards 'Samagra'. Majority of the officers opined that 'Samagra' really helps the small farmers without any discrimination and helps to strengthen the Public–Private–Partnerships. This might be the reason for their favourable attitude towards 'Samagra' project.

4.6 Perception of the people's representatives about innovations in technical backstopping

Perception of the people's representatives about innovative procedures, processes and institutions involved in the 'Samagra' project was evaluated on the basis of their effective utilization in "Samagra' project. The innovative Institutions are; One product – one village concept, Private agency linkage with governmental agencies, ensures people's participation and Kudumbashree linked with LSGIs. Based on the response of the respondents they were grouped into three categories of perception as Bad, Good, Excellent and the results are presented in Table 20

Perception of the people's representatives about innovations in technical backstopping is presented in Table 20.

Table 20. Distribution of the people's representatives on their perception about innovations in technical backstopping for the 'Samagra' Project

(n = 30)

Perception category	**Score**	**Perception about**					
		innovative procedures		**innovative processes**		**innovative institutions**	
		f	%	f	%	F	%
Bad	Upto 3	0	0	0	0	0	0
Good	4 – 8	0	0	3	10	3	10
Excellent	9 and above	30	100	27	90	27	90
Total		60	100	60	100	60	100

The results presented in Table 20 indicate that all the people's representatives included in the study had the opinion that the innovative procedures in the 'Samagra' project were excellent. None of them had bad opinion about these innovative procedures

Ninety per cent of the people's representatives opined that the innovative processes in the 'Samagra' project were excellent. Ten per cent of the people's representatives felt that innovative processes in the 'Samagra' project were good. None of them had bad opinion about innovative processes adopted in the 'Samagra' project. Similar trend was observed in the case of perception about innovative institutions too.

4.6.1. Attitude of people's representatives towards 'Samagra'

The distribution with regard to the attitude of people's representatives towards innovations in technical backstopping is presented in Table 21.

Table 21. Distribution of the 'Samagra' people's representatives based on their attitude towards 'Samagra'

(n = 30)

Category	**Score**	**f**	**%**
Unfavourable	Upto 12	0	**0**
Neutral	13 – 18	14	46.67
Favourable	19 and above	16	53.33
Total		30	100

A cursory view of the Table 21 shows that 46.67 per cent of the people's representatives had neutral attitude towards 'Samagra' and 53.33 per cent of the people's representatives had favourable attitude towards 'Samagra'. There is none who had unfavourable attitude towards 'Samagra'. Majority of the people's representatives opined that 'Samagra'created district level integration among the different stakeholders. This might be the reason for the favourable attitude towards 'Samagra' as observed in the present study.

4.7 Constraints faced in 'Samagra'as perceived by the beneficiaries

The constraints perceived by the beneficiaries with reference to the Samagra Project are presented in Table 22.

Table 22. Constraints perceived by the 'Samagra' beneficiaries (n = 60)

SI. No	Item	Score	Rank
1	Lack of land for cultivation	3.65	I
2	Lack of Village Knowledge Centers	3.55	II
3	Lack of Video conferencing facilities	3.3	III
4	Lack of technical know how	3.27	IV
5	Lack of transportation facilities	3.2	V
6	Lack of processing facilities	3.17	VI
7	Lack of assured quality planting materials	2.93	VII
8	Lack of diagnostic services	2.88	VIII
9	Lack of timely credit supply	2.62	IX

10	Lack of assured quality Manures / fertilizers	2.58	X
11	Lack of marketing facilities	2.57	XI
12	Lack of assured quality Bio pesticides	2.57	XII
13	Lack of technical trainings	2.53	XIII
14	Lack of proper guidance from the Regional consultant	2.5	XIV

Lack of land for cultivation, Lack of Village Knowledge Centers and Lack of Video conferencing facilities were the major constraints perceived by the beneficiaries.

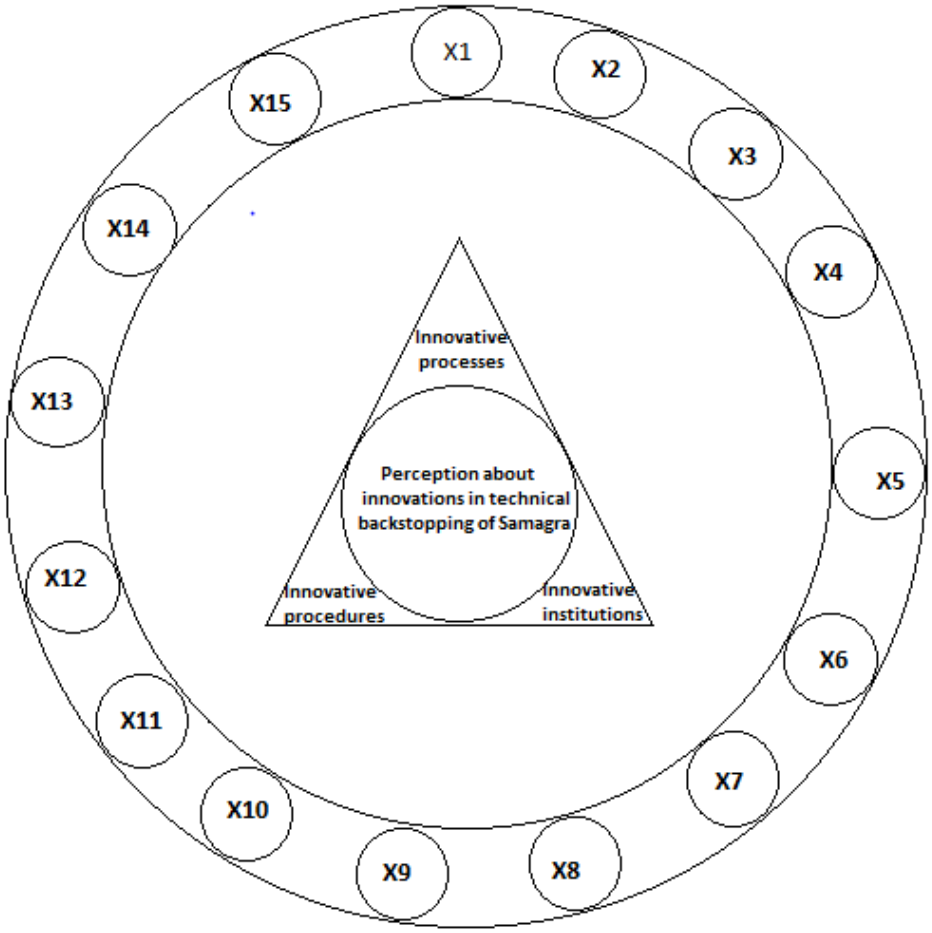
Eventhough beneficiaries are more interested in banana cultivation, there is great dearth in Kerala for cultivativable land. In leased land farming also heavy land rent for cultivable land is a serious constraint. Sometimes, beneficiaries are not getting the leased land also to a sufficient extent.

In each Grama Panchayat it was proposed in the Project document that Village Knowledge Centres will become functional so that farmers easily clarify their doubts regarding banana cultivation aspects. But this promise could not be kept by the implementing agencies and therefore the respondents had indicated this as an important felt constraints of the 'Samagra' Project.

Similarly, in the 'Samagra' Project proposal Video conferencing facilities were contemplated. But it could not be implemented at field level resulting in the disappointment among the beneficiaries.

Empirical model of the study

Empirical model of the study with respect to innovations in technical backstopping of the 'Samagra' project on banana cultivation is given as follows.



XI - Age

X9 - Information need perception

X2 - Area under cultivation

X3 - Experience in banana cultivation

X4 - Annual income

X5 - Educational status

X6 - Cosmopoliteness

X7 - Social participation

X8 - Training attended

X10 – Credit orientation

X11 - Risk orientation

X12 - Economic motivation

X13- Innovativeness

X14 - Achievement motivation

X15- Attitude towards 'Samagra'

Empirical model of the study

SUMMARY

5. SUMMARY

The present study on "Innovations in technical backstopping for the Thiruvananthapuram District Panchayat – A critical appraisal of the 'Samagra' project on banana cultivation" was conducted in three Grama Panchayats of Thiruvananthapuram district namely, Kottukal, Kunnathukal and Kalliyoor panchayats. Random sampling technique was followed in the selection of block, panchayat and beneficiaries. In this study there are three categories of respondents namely beneficiary-respondents, implementing officials and people's representatives involved in the implementation of 'Samagra' project. Twenty beneficiary respondents from each of the three Grama Panchayats, thirty implementing officials thirty people's representatives were selected. Thus, total total number of respondents for the study was 120.

Based on the detailed review of literature, discussions with experts and scientists in the Department of Agricultural Extension and the pilot study, the variables of the study were selected. The dependent variable innovations in technical backstopping was measured in terms of perception about the innovative procedures, perception about the innovative processes and perception about the innovative institutions**.** The profile characteristics of the beneficiary - respondents such as age, area under cultivation, experience in banana cultivation, annual income, educational status, cosmopoliteness, social participation, trainings attended, information need perception, credit orientation, risk orientation, economic motivation, **i**nnovativeness, achievement motivation and attitude towards 'Samagra'were studied. The constraints in 'Samagra' Project also were studied. The data were collected using a pre-tested and structured interview schedule for the beneficiary-respondents and for the officials and people's representatives Questionnaires were used. The statistical tools used were frequency, simple percentage analysis, t-test and simple correlation analysis.

The salient findings are summarised below:

1. The major findings of the study regarding the perception of innovative procedures revealed that 70 per cent of the beneficiary - respondents opined that innovative procedures adopted in the 'Samagra' project such as 1) credit linkage; 2) full technical support given by private agency; 3) holistic support given by private agency and 4) Public – Private – Panchayat – People – Partnership were excellent.
2. The results regarding the perception of innovative processes brought to focus that majority (65 per cent) of the beneficiary respondents opined that innovative procedures adopted in the 'Samagra' project such as 1) assured supply of quality inputs; 2) Kudumbashree giving fund for technology support; 3) capacity building activities and 4) socio – economic – ecologically sustainable development were excellent
3. The perception about innovative institutions such as 1) private agency linkage with governmental agencies; 2) Kudumbashree linked with LSGIs; 3) ensures people's participation and 4) one product – one village concept was appreciable in that 61.67 per cent of the beneficiary respondents opined that innovative institutions in the 'Samagra' project were excellent
4. The frequency distribution on the profile characteristics of the beneficiary respondents revealed that 50 per cent of them belonged to middle age group and 25 per cent in the old age group.
5. With respect to area under cultivation, majority (70 %) of the respondents were having the area of below 60 cents.
6. Majority (51.67 %) of the respondents had more than three years of experience in banana farming.

7. Regarding the annual income, 76.67 per cent of the respondents earned income ranging between Rs.50, 001 to Rs.1, 00,000 followed by 21.67 per cent in the income range of less than Rs.50, 000.
8. Regarding the educational status, 30 per cent of the respondents had upto high school level education followed by 28.33 per cent with primary level.
9. It was found that majority (63.33 %) of the respondents had medium level of cosmopoliteness and only 23.33 per cent had low level of cosmopoliteness.
10. Over 63 per cent of the respondents had medium level of social participation.
11. With regard to training, majority (66.63 %) of beneficiaries had high level of trainings attended.
12. Regarding the information need perception, majority (60 %) of the beneficiaries belonged to low level and forty per cent had high level of information need perception.
13. Over 41 per cent of the beneficiaries belonged to medium level of credit orientation.
14. Majority (61.67 %) of the respondents had medium level of risk orientation.
15. Fifty per cent of the respondents had low level of economic motivation.
16. Majority (93.33 %) of the beneficiaries had high level of innovativeness
17. Over 76 per cent of the respondents had low level of achievement motivation.
18. The findings regarding the attitude of beneficiary-respondents revealed that 60 per cent of the respondents had favourable attitude towards 'Samgara' Project and 40 per cent were having neutral attitude.

19. Results of the correlation analysis between the independent and dependent variables of respondents revealed that among the selected fifteen independent variables only experience, education, credit orientation, achievement motivation, innovativeness showed positive and significant relationship with innovative procedures, processes and institutions. Economic motivation showed positive and significant relationship only with innovative procedures and institutions.
20. The major findings of the study regarding the perception of innovative procedures revealed that all the officials - respondents opined that innovative procedures adopted in the 'Samagra' project such as 1) credit linkage; 2) full technical support given by private agency; 3) holistic support given by private agency and 4) Public – Private – Panchayat – People – Partnership were excellent.
21. The results regarding the perception of innovative processes brought to focus that majority 73.3 per cent of the officials respondents opined that innovative processes adopted in the 'Samagra' project such as 1) assured supply of quality inputs; 2) Kudumbashree giving fund for technology support; 3) capacity building activities and 4) socio – economic – ecologically sustainable development were excellent.
22. The perception about innovative institutions such as 1) private agency linkage with governmental agencies; 2) Kudumbashree linked with LSGIs; 3) ensures people's participation and 4) one product – one village concept was appreciable in that all the officials respondents opined that innovative institutions in the 'Samagra' project were excellent.
23. The results of the study revealed that a preponderant majority (93.3 %) of the implementing officials had favourable attitude and 6.7 per cent had neutral attitude towards 'Samgara'.

24. The major findings of the study regarding the perception of innovative procedures revealed that all the people's representatives - respondents opined that innovative procedures adopted in the 'Samagra' project such as 1) credit linkage; 2) full technical support given by private agency; 3) holistic support given by private agency and 4) Public – Private – Panchayat – People – Partnership were excellent.
25. The results regarding the perception of innovative processes brought to focus that majority 90 per cent of the people's representatives respondents opined that innovative processes adopted in the 'Samagra' project such as 1) assured supply of quality inputs; 2) Kudumbashree giving fund for technology support; 3) capacity building activities and 4) socio – economic – ecologically sustainable development were excellent.
26. The perception about innovative institutions such as 1) private agency linkage with governmental agencies; 2) Kudumbashree linked with LSGIs; 3) ensures people's participation and 4) one product – one village concept was appreciable in that 90 per cent of the people's representatives respondents opined that innovative institutions in the 'Samagra' project were excellent.
27. Majority (53.33 %) of the people's representatives had favourable attitude and 46.67 per cent had neutral attitude towards 'Samgara' Project.
28. Regarding constraints perceived by the beneficiary - respondents, lack of land, lack of village knowledge centers, lack of video conferencing, problems in transportation and lack of processing facilities were ranked as the most important constraints.

Recommendations

The perception about innovations in technical backstopping of 'Samagra' Banana Project among the beneficiary farmers, implementing officials and people's representatives was studied in terms of innovative procedures, innovative processes and innovative institutions. More than 80 percent of all the three types of respondents had perceived 'Samagra' as an excellent project. The following recommendations are made to ensure more effective implementation of the 'Samagra' Project in future:

1. Lack of land for cultivation was the major constraint identified in the study of Samagra Banana Project. In order to overcome the land constraint the utilization of waste land and utilization of Government land could be considered.
2. More awareness must be created among the farmers about the benefits of grading, marketing, value addition and processing of their produce through campaigns and trainings so that banana cultivation becomes economically more viable.
3. Export of agricultural produce must be promoted by increasing the area under commercial crops, and by providing necessary post-harvest, management and other infrastructure required. Information on prices prevailing at international markets must be furnished to the farmers' groups regularly.
4. Modern cold storage facilities must be set up to enable the farmers to store and sell their produce at favourable price and to help consumers to get quality banana products at affordable price.
5. Production centered banana processing industries are to be promoted to minimise wastage of agricultural products.
6. The model 'Samagra' Banana Project of Thiruvananthapuram District Panchayat must be scaled up to benefit farmers in other districts also for which the Government of Kerala should ensure policy support.

Suggestions for future research

The innovations in technical backstopping of 'Samagra' Banana Project studied have been rated well by the respondents but the sustainability of these innovations must be studied further. Studies are required to explore the role of Public-Private partnerships and rules and regulations must be formed on the basis of such studies. Increasing the efficiency of the group leadership through action researches must be another priority in the land - locked Kerala State.

REFERENCE

6. REFERENCES

Agarwal, A. and Arora, D.R. 1989. Factors affecting adoption of gober gas plants in Ludhiana. *Social Change* 19: 69-71.

Allport, G. 1935. Attitudes. In Murchison, G. (E.d.). *A Handbook of Social Psychology*, Mass Clark Univ. Press, Worcester, 798-844p.

Ashaletha, S. 2000. Impact of NARP on Agricultural Development in the Southern Agro Climatic Zone of Kerala. Ph.D. thesis, Kerala Agricultural University, Vellanikkara, 14p.

Ayyappan,S. 2010. Agricultural innovations leading to enhanced profitability and rural employment. ICAR Reporter, Series No. 7, New Delhi.4p.

Basram, G.S. 1996. Motivational and resistance forces related to the acceptance of new ideas in farming. *Ind. J. Extn. Edn.* 2: 107-115.

Beal, M. and Sibley, W. 1967. Knowledge and adoption level of farmers trained in training programme. *Indian J. Ext. Edn.33:64*

Beena, S. 2002. Performance and potential of grama sabhas in crop production in Athiyanoor block of Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 115p.

Bhaskaran, C. and Kumari Sushama, N.P. 1994. Problems of technology transfer in Kerala agriculture. Abstract of International Congress on Kerala Studies, AKG Centre for Research and Studies. Thiruvananthapuram, 82-83p.

Bhaskaran,S. 1978. To study the impact of institutional credit and its influence in the behaviour of farmers in adopting high yielding varieties of paddy cultivation. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara,108p.

Chandran, S.A. 1989. Impact of development programme of promoting pepper production in Kerala, M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 141p.

Dalohoun. S. 2009. Research Into Use: Investigating the Relationship between Agricultural Research and Innovation. UNU – MERIT working paper series. #2009-44. Available: http://www.merit.unu.edu/publications/wppdf/2010/wp2010-044.pdf

Desai, G.R. 1981. A critical analysis of contribution of education and extension guidance to economic performance of cotton farmers of Karnataka state. Ph.D thesis, University of Agricultural Sciences, Dharwad, 133p.

Edwards, A.L. 1957. Teciques of Attitude Scale Construction. Vakils, Feffer and simons private Ltd., Bombay.151p.

Freeman, C .1987.Technology and Economic Performance; Lessons from Japan, Pinter Publications. London, 342p.

Geetha G. Nath. 2002. Role of labour force (*Thozhil sena)* in agricultural development implemented through people's plan in Kerala. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 102p.

Govind, S. 1984.Participation of farm women in farm and home activities. M.Sc.(Ag.) thesis, Tamil Nadu Agricultural University, Coimbatore, 140p.

Hall, A.J. 2010. "Institutional Developments in Indian Agricultural R&D Systems: The Emerging Patterns of Public and Private Sector Activity". *Science, Technology and Development, Vol. 16, No. 3, 51-76p.*

Hall, A.J. Dijthman, J. and Sulaiman, R.V. 2010 Research into use: Investigating the relationship between agricultural research and innovation, UNU MERIT working paper.28p.

Hussain, M.M. 1992. Group Management in rice production: an action research. Ph. D. thesis, Kerala Agricultural University, Vellanikkara, 283p.

Jayalekshmi, G. 1996. Entrepreneurial behaviour of rural women in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 144p.

Jayalekshmi, G. 2001. Empowerment of rural women through SHGs – an action research. Ph. D. thesis, Kerala Agricultural University, Vellanikkara, 144p.

Jha, P.N. and Shaktawat, G.S. 1972. Adoption behaviour of farmers towards hybrid bajra cultivation. *Indian J. Ext. Edn.*8: 24-31

Jha, T.N. 2002. Micro Credit Finance Models in Bangladesh: Lesson for India. *Yojana* 46: 23-30

Joseph, K.J 2010 Towards replanting plantation development in India-An analysis of the innovation and production system from inclusive growth perspective, Centre for Development Studies, Thiruvananthapuram.8p.

Kailasam, S. 1980. The Credit Seeking, Repayment, Utilization Pattern and Information Need Perception of Borrowers. M.Sc. (Ag.) thesis. Tamil Nadu Agricultural University, Coimbatore, 28p.

Katz, D. and Scotland, E. 1959. A preliminary statement to a Theory of Attitude Structure and Change. In Koch, S. (Ed.) Psychology. *A study of Science*. Mc Grew Hill Book, New York, 200 -205p.

Kerlinger, F.N. 1973. Foundations of Behavioural Research. Holt, Renhart and Winston, New York, 120p.

Kudumbashree. 2010. Kudumbashree Documentation. Samagra – Nendran Banana Project. Available: http: //Kudumbashree.org [23.12.2010]

Likert, R. 1932. A technique for the measurement of attitudes. *Arch. Psychol.* 140: 30-40

Lundvall. 1992. *National Systems of Innovation: Towards a Theory of Innovationand Interactive Learning*. Pinter Publications. London,123p.

Manjusha, J. 1999. Techno-economic assessment of farmers' practices in the cultivation of bittergourd (*Momordica charntia L.)* in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 106p.

Manoj, S. 2000. Techno-economic assessment of farming practices in rice cultivation in Thiruvananthapuram district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 102p.

Meera, M.J. 2001. Performance of Samata Self Help Groups in the Empowerment of Rural Women in Ulloor Pancayat. M.Sc. thesis, Kerala Agricultural University, 100p.

Menon, A.G.G. and Bhaskaran, C. 1988.Technology alters traditional attitudes-*Indian Farming, 28(8): 45-47.*

Ministry of Panchayat raj Documentation. Government Initiates Rural Business Hub on PPP Model. Available: http: //msme.gov.in/msme_news.htm [23.12.2010]

Momi, G.S. and Sohal, T.S. 1975. Significance of characteristics of innovation for adopters and non- adopters. *Ind. J. Ext. Edn. 11:74-75*

Muller, Sherin. 1997. An analysis of the characteristics of women's groups and their role in rural development. M.Sc. thesis, Kerala Agricultural University, Vellanikkara, 14p.

Murthy, A.S. and Singh, S.N. 1974. Communication Behaviour of farmers. New Heights. New Delhi, 17p.

NABARD. 1995. *As the Darkness Fades Away*. National Bank for Agricultural and Rural Development, *Thiruvananthapuram*, 8p.

Narayanasamy, N., Boraian, M.P., Manivel, S., Saji, M.P., Sebastian, P., Dhavamani, R., Lalan,A.,Geethanjali and Pandian, M. 2010. A Study on the Performance of NREGS in Kerala, Available at http://www.crd.kerala.gov.in/2010/sept/consolidaton, Pdf. 175p.

Nelson, S. 1992. Role of Krishi Bhavan in Agricultural Development in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 46p.

Nizamudeen, A. 1996. A multidimensional analysis of *Kuttimulla* cultivation in Alappuzha district. M.Sc.. thesis, Kerala Agricultural University, Vellanikkara, 102 p.

Norman, S.J.T. 1982. Production and marketing of vegetables in Malappuram Dstrict. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 163 p.

Parthasarathi. S and, Govind, Santha. 2002. Knowledge of Trained and Untrained farmers on IPM practices. *J. Ext. Edn. 13:3293-3297*

Pawar, S. 2010. Agriculture Minister calls for Leveraging Private Sector Resources for Commercialization of Technology. ICAR News Letter. Available: http://www.icar.org.in/en/node/1795

Prasad, R.1987. Farmer's knowledge of sodic soil reclamation technology and the extent of adoption of amendments. *Indian J. Ext.Edu.* 23 (3 & 4):38-42.

Quazi, A.R. and Iqbal, M. 1991. The relationship between personnel characteristics and adoption of recommended farm practices. *J.Rural Dev. Admn. 23:126-129*

Rai, H.N. 1965. Diffusion of innovation and farmers response in relation to an improved farm practices. *Indian J. Ext.Edu.* 1:40

Rajendralal, T.V. 1997. Multidimensional study on specil component plan schemes for the Scheduled caste farm families. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 136p.

Rajendran, P.1992.Feasibility and Utilization of agricultural technologies among Scheduled Caste farmers. Ph.D. thesis, Kerala Agricultural University, Vellanikkara, 239 p.

Ramanathan, S.1995. Farmer – Labour relationship in rice production systems – A case study. Ph.D thesis, Kerala Agricultural University, Vellanikkara, 216p.

Ranganathan, S. 2001. Role of nationalized banks for self employment amongst youth. M.Sc. (Ag.) thesis, Tamil Nadu Agricultural University, Coimbatore, 73 p.

Rao, A. Appa. 1989. Group farming as a basis for efficient resource utilization for small and marginal farmers. *Regional workshop on group farming*. National Institute of Rural Development, Hyderabad. 55p.

Rao, P. Punna and Satyanarayan, C.H. 1992. Information source and borrower's opinion about Regional Rural Bank credit. *Agricultural Banker. 13-15p.*

Rathinasabapathi, S. 1978. A study on knowledge and extent of adoption ofintegrated pest management for cotton. M.Sc (Ag.). thesis, Tamil Nadu Agricultural University, Coimbatore, 155 p

Sajeevchandran, A. 1989. Impact development programmes in promoting pepper products in Kerala.M.Sc (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 76p.

Sanjeev, K.V. 1987.Training programme of KAU Krishi Vigyan Kendras – an analysis. M.Sc (Ag.). thesis, Kerala Agricultural University, Vellanikkara, 155p.

Shilaja, S. 1990. Role of women in mixed farming. Ph.D thesis, University of Agricultural Sciences, Bangalore, 121 p.

Shilaja, S. and Sobhana, G.2009. Rural Business Hub – An Innovative Approach for Rural Upliftment [Lecture notes]. College of Agriculture, Vellayani, 78p.

Sindhudevi, P. 1994. Differential preference of work by agricultural labourers and their employment and wage pattern in Thiruvananthapuram District. M.Sc (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 216p.

Sindu, S. 2002. Social Cost-Benefit Analysis in Vegetable Development Programmes in Kerala Through Participatory approach. Ph.D thesis, Kerala Agricultural University,Vellanikkara,145 p.

Singh, B.N., Jaiswal, N.K. and Thakur, R.S. (1966). Attitude of farmers towards Intensive Agricultural District Programme. *Ind. J. Extn. Edu.* 2(3&4): 150-162p.

Singh, R. 1978. Achievement motivation among agricultural and business entrepreneurs of Delhi. *J. Social Psychology. 81: 146: 149*

Sivaprasad, S. 1997. Problems and prospects of self employment of trained rural youth in agriculture. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 120 p.

Sreedaya, G.S. 2000. Performance Analysis of the Self Help Groups in Vegetable Production in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, 150 p.

* Supe, S.V. 1969. Factor selected to direct degree of responsibility in decision making among farmers. Ph.D. thesis, Indian Agricultural Research Institute, New Delhi, 175p.

Surendran, G. 2000. Participatory group approach for sustainable dvelopment of agriculture in Kerala. Ph.D thesis, Kerala Agricultural University, Vellanikkara 268p.

Thomas, K.V. 2010. Agriculture Minister calls for Leveraging Private Sector Resources for Commercialization of Technology. ICAR News Letter. Available: http://www.icar.org.in/en/node/1795

Thomas, P. 1998. Fisherman development through thrift and credit. Indo-German Reservoir Fisherman Development Project, Malampuzha, Palakkad. College of Cooperation, Banking and Management, Kerala Agricultural University, Vellanikkara, 16-26p.

Thomas.A.2000.Problems and prospects of medicinal plant cultivation in Thiruvananhapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University,Vellanikkara, 112 p.

* Thurstone, L.L. (1946). Comment. *Amer. J. Sociology*. 52: 39-50.

* Trivedi, G. 1963. Measurement and analysis of socio economic status of rural families in Kanjhawala block. Ph.D thesis, Indian Agricultural Research Institute, New Delhi, 167p.

Vashistha, P.B. 1987. *Farmer's Training and Rural Development in India.* Deep and Deep Publications, New Delhi, 30p.

Vehra, S. 1971. Caste, class and politics: A comparative study in India and United States. Sage Publications. London, 25-26p.

World Bank. 2006. *Enhancing Agricultural Innovation: How to go beyond the Strengthening of Research Systems*. Economic sector work report. The World Bank: Washington DC.149p

* Original not seen

APPENDICES

APPENDIX – I

KERALA AGRICULTURAL UNIVERSITY

Dr. C. Bhaskaran

Professor

Department of Agricultural Extension

College of Agriculture, Vellayani

Thiruvananthapuram – 695 522

Date:29.07.2011

Dear Sir/Madam,

Sri. M. Esakkimuthu, M.Sc. (Ag) Student of this department, has taken up a research study on "Innovations in technical backstopping for the Thiruvananthapuram District Panchayat – A critical appraisal of the "Samagra Project" on banana cultivation" under my guidance. He has identified twenty innovative procedures, processes and institutions involved in the implementation of the "Samagra Project" based on review of literature, discussion with experts and pilot study.

Considering your rich experience, I request you to offer your valuable rating about the extent of relevance of the statements given. Please put a tick mark in the appropriate column. Kindly give suggestions also to make the study more meaningful and effective.

Thanking You

Yours faithfully,

(C. Bhaskaran)

Please check (√) in the appropriate column

Sl. No	Innovative procedures, processes and institutions in the Samagra project	Very relevan (4)	Some what relevant (3)	Not relevant (2)	Not at all relevant(1)
1	Full technical support given by private agency only				
2	Buy - back mechanism.				
3	Public - Private - Panchayat – People – Partnership.				
4	One product - one village concept.				
5	Market linked banana production.				
6	Processing network for value addition.				
7	Credit linkage				
8	Capacity building activities with emphasis on improving the productivity and quality of the banana products.				
9	Socio-economic and ecologically sustainable development orientation.				
10	Holistic support given by private agency (Land preparation, Land development, Planting, Crop management).				

11	Private agency linkage with governmental agencies.				
12	Exclusive soil testing facilities.				
13	Over 13000 people are directly involved in banana production, marketing and processing activities on an activity group basis.				
14	Thiruvananthapuram District Panchayat providing infrastructure and lab facilities.				
15	Kudumbashree Mission giving fund for technology support and capacity building programmes.				
16	Average income per beneficiary around Rs.64000 annually.				
17	State Poverty Eradication Mission (Kudumbashree) linked with Local Self Government Institutions.				
18	Ensures people's participation right from production to marketing.				
19	Value of a banana product can be increased 500 % through product diversification.				
20	Assured supply of quality inputs, providing technical backstopping through training, timely instructions.				
21	Any other (Please specify)				

APPENDIX - II

INNOVATIONS IN TECHNICAL BACKSTOPPING FOR THE THIRUVANANTHAPURAM DISTRICT PANCHAYAT – A CRITICAL APPRAISAL OF THE 'SAMAGRA' PROJECT ON BANANA CULTIVATION

INTERVIEW SCHEDULE FOR BENEFICIARIES

Date:

Grama Panchayat:

Block Panchayat:

Respondent Number:

1. Name and Address:
2. Age:
3. Area under cultivation:
    a. Area owned
    b. Leased in
4. Experience in banana cultivation (Number of years)
5. Annual Income (Rs):
    a. Agriculture
    b. Non-Agriculture

6. Educational status:

SI.No	Level of Education	(√)
1.	Illiterate	
2.	Can read and write	
3.	Primary school level	
4.	Middle school level	
5.	High school level	
6.	College	
7.	Professional colleges status	

7. Cosmopoliteness

SI. No	d) Frequency of visit to nearest town	(√)
1.	Twice or more in a week	
2.	Once in a week	
3.	Once in a month	
4.	Seldom	
5.	Never	
	e) Purpose of visit	
1.	All visits related to his farming	
2.	Some visits related to his farming	
3.	Other purposes	
4.	No purpose	
	f) Membership in organization outside the village	
1.	Office bearer	
2.	Member	
3.	No membership	

8. Social participation

Please indicate whether you are a member or office bearer in any of the following organization. If so, indicate the frequency of participation.

SI. No	Organization	Nature of participation		Frequency of participation in meetings / activities		
		Member	Office Bearer	Regular	Sometimes	Never
1.	Panchayat					
2.	Co-operative society					
3.	Farmers club					
4.	Youth club					
5.	Socio-cultural organization					
6.	Political organization					
7.	Any other (specify)					

9. Training attended

SI. No	Name of training	Place	Duration	Total number of trainings attended
1.				
2.				
3.				

10. Information need perception

As a farmer you may need information on several items related to banana farming. Please give your opinion about the degree of information need on the following items.

SI. No	Items	Most needed	Some what needed	Not needed
1.	Banking procedures to be followed to secure loan			
2.	Interest rate prevailing in the bank			
3.	Mode of disbursement of loan			
4.	Mode of repayment			
5.	Different types of loan available			
6.	Mode of action to be taken by banks for non-repayment of loan			
7.	Technical know-how a) Planting materials b) Cultivation aspects c) Plant protection aspects d) Irrigation			

	aspects e) Post harvest aspects f) Market aspects			
8.	Any other (specify)			

11. Credit orientation

Sl. No	**Items**				
1.	Do you think farmer like you should borrow from banks for agricultural purposes	Yes	No		
2.	In your opinion how difficult it is to secure credit for agriculture purpose	Very difficult	Difficult	Easy	Very easy
3.	How a farmer is treated when he goes to secure credit from banks / Co-operative societies	Very badly	Badly	Fair	Very fair
4.	There is nothing wrong in taking credit from institutional sources for increasing production	SA	A	DA	SDA
5.	Have you taken credit in the last two years for crop production	Yes	No		

12. Risk orientation

Please give your degree of agreement or disagreement about the each of the following statements (SA-strongly agree, A-agree, UD-undecided, DA-disagree, SDA-strongly disagree)

SI. No	Statement	SA	A	UD	DA	SDA
1.	A farmer should grow a large number of crops to avoid greater risks involved in growing one or two crops					
2.	A farmer should take more of a change in making a big profit than to be content with smaller but less risky profit					
3.	A farmer who is willing to take grater risk than the average farmer usually does it better financially					
4.	It is good for a farmer to take risk when he knows his chance of success is fairly high					
5.	It is better for a farmer not to try a new farming, methods unless most other have used it with success					
6.	Trying an entirely new method for a farmer involves greater risks but it worths					

13. Economic motivation

Please give your degree of agreement or disagreement about the each of the following statements.

(SA-strongly agree, A-agree, UD-undecided, DA-disagree, SDA-strongly disagree)

SI. No	Statement	SA	A	UD	DA	SDA
1.	A farmer should work towards higher yield and economic returns					
2.	The most successful farmer is one who makes the most profit					
3.	A farmer must earn his living but the most important thing in life cannot be identified in economic terms					
4.	A farmer should try any new farming idea which may help him to earn more money.					
5.	A farmer should grow more food crops for home consumption and to increase monetary profits.					
6.	It is difficult for the farmers' children to make good start unless he provides them with economic assistance.					

14. Innovativeness

When would you like to adopt an improved practice in farming?

1. As soon as it is brought to my knowledge
2. After I had seen other farmers tried successfully in the farm
3. I prefer to wait and take my own time
4. I am not interested in adopting improved practices

15. Achievement motivation

Please respond to the following sentences by choosing the appropriate answers.

a) In whatever work I undertake on my farm

1. I like to make my advance plan
2. I like to do my best
3. I do not assume full responsibility for it

b) I am always keen

1. To maintain social status
2. To remove social evils
3. To develop my qualifications

c) I feel happy when

1. I tell others of my personal experience
2. I am assigned a different job
3. I am required to advice to others

d) My secret ambition in life is

1. To lead a happy married life
2. To establish a glorious record of achievement
3. To own a large farm unit

e) I like to venture something which

1. Others can hardly do
2. Will make one wealthy
3. Others regard as quality of leadership

16. Innovations in technical backstopping

Innovative procedures, processes and institutions in the 'Samagra' project

Please indicate your perception about use of the following in the 'Samagra' Project

SI.No	Items	Excellent	Good	Bad
I.	**Innovative procedures**			
1	Credit linkage.			
2	Full technical support given by exclusive staff of private agency.			
3	Public – Private – Panchayat – People – Partnership.			
4	Holistic support given by private agency.			
II.	**Innovative processes**			
1	Assured supply of quality inputs.			
2	Capacity building activities.			
3	Kudumbashree giving fund for technology support.			
4	Socio – economic – ecologically sustainable development.			
III.	**Innovative Institutions**			
1	One product – one village concept.			
2	Private agency linkage with governmental agencies.			
3	Ensures people's participation.			
4	Kudumbashree linked with LSGIs.			

17. Attitude of beneficiary-farmers towards 'Samagra' Project

SI. No	Item	SA	A	UD	DA	SDA
1	I like 'Samagra' because full technical support is given by private agency.					
2	I do not like 'Samagra' because technical support given by private agency is an eyewash.					
3	I like 'Samagra' because there is transparency in account maintenance.					
4	I do not like 'Samagra' because 5Ps concept is an eyewash.					
5	I like 'Samagra' because it brings economic empowerment to the women .					
6	I do not like 'Samagra' because Public – private linkage is not in the interest of farmers.					

18.Constraints perceived by farmers

SI. No	Item	Most Important	Importat	Less Importnt	Least Importnt
1	Lack of land for cultivation				
2	Lack of assured quality planting materials				
3	Lack of assured quality manures / fertilizers				
4	Lack of assured quality Bio pesticides				
5	Lack of marketing facilities				
6	Lack of timely credit supply				
7	Lack of technical trainings				
8	Lack of processing facilities				
9	Lack of technical know how				
10	Lack of transportation facilities				
11	Lack of Village Knowledge Centers				
12	Lack of Video conferencing facilities				
13	Lack of diagnostic services				
14	Lack of proper guidance from the Regional consultant.				

APPENDIX - III

INNOVATIONS IN TECHNICAL BACKSTOPPING FOR THE THIRUVANANTHAPURAM DISTRICT PANCHAYAT – A CRITICAL APPRAISAL OF THE 'SAMAGRA' PROJECT ON BANANA CULTIVATION

QUESTIONNAIRE FOR IMPLEMENTING OFFICIALS

1. Name and Address:

2. Age:

3. Education:

4. Occupation:

5. Experience in 'Samagra' in years:

6. Total experience in years:

Innovations in technical backstopping

Innovative procedures, processes and institutions in the 'Samagra' project

Please indicate your perception about use of the following in the 'Samagra' Project

SI. No	Items	Excellent	Good	Bad
I.	**Innovative procedures**			
1	Credit linkage.			
2	Full technical support given by private agency.			
3	Public – Private – Panchayat – People – Partnership.			
4	Holistic support given by private agency.			
II.	**Innovative processes**			
1	Assured supply of quality inputs.			
2	Capacity building activities.			
3	Kudumbashree giving fund for technology support.			
4	Socio – economic – ecologically sustainable development.			
III.	**Innovative institutions**			
1	One product – one village concept.			
2	Private agency linkage with governmental agencies.			
3	Ensures people's participation.			
4	Kudumbashree linked with LSGIs.			

Attitude of implementing officials towards 'Samagra' Project

SI. No	Item	SA	A	UD	DA	SDA
1.	I like 'Samagra' because it brings welfare to the poor.					
2	I like 'Samagra' because it produces quality banana.					
3.	I do not like 'Samagra' because integration of 5Ps is not effectively achieved.					
4	I like 'Samagra' because there is full involvement of people.					
5	I do not like 'Samagra' because involvement of government agency is less.					
6.	I like 'Samagra' because there is an improvement in the livelihood of people.					
7	I do not like 'Samagra' because other agricultural crops are affected.					
8.	I do not like 'Samagra' because of high share of administrative cost.					

APPENDIX - IV

INNOVATIONS IN TECHNICAL BACKSTOPPING FOR THE THIRUVANANTHAPURAM DISTRICT PANCHAYAT – A CRITICAL APPRAISAL OF THE 'SAMAGRA' PROJECT ON BANANA CULTIVATION

INTERVIEW SCHEDULE FOR PEOPLE'S REPRESENTATIVES

1. Name and Address:

2. Age:

3. Education:

4. Occupation:

5. Experience in 'Samagra' in years:

Innovations in technical backstopping

Innovative procedures, processes and institutions in the 'Samagra' project

Please indicate your perception about use of the following in the Samagra Project

SI. No	Items	Excellent	Good	Bad
I.	**Innovative procedures**			
1	Credit linkage.			
2	Full technical support given by private agency.			
3	Public – Private – Panchayat – People – Partnership.			
4	Holistic support given by private agency.			
II.	**Innovative processes**			
1	Assured supply of quality inputs.			
2	Capacity building activities.			
3	Kudumbashree giving fund for technology support.			
4	Socio – economic – ecologically sustainable development.			
III.	**Innovative institutions**			
1	One product – one village concept.			
2	Private agency linkage with governmental agencies.			
3	Ensures people's participation.			
4	Kudumbashree linked with LSGIs.			

Attitude of people's representatives towards 'Samagra' Project

SI. No	Item	SA	A	UD	DA	SDA
1	I like 'Samagra' because it is a stepping stone for Organic farming.					
2	I like 'Samagra' because it brings welfare to the poor.					
3	I do not like 'Samagra' because of the involvement of private agency.					
4	I like 'Samagra' because of its Buy – back mechanism.					
5	I do not like 'Samagra' because it does not promote gender mainstreaming.					
6	I do not like 'Samagra' because there is no involvement of People's representatives					
7	I do not like 'Samagra' because it does not promote district level integration of all development agencies.					

തിരുവനന്തപുരം ജില്ലാപഞ്ചായത്തിന്റെ 'സമഗ്ര' വാഴകൃഷി പദ്ധതിയിലെ നൂതന സാങ്കേതിക പിൻതുണകൾ ഒരു വിമർശനാത്മക വിലയിരുത്തൽ

ഗുണഭോക്താക്കൾക്കുള്ള ചോദ്യാവലി

തീയതി :

ഗ്രാമ പഞ്ചായത്ത് :

ബ്ലോക്ക് പഞ്ചായത്ത് :

1. പേരും മേൽവിലാസവും :
2. വയസ്സ് :
3. കൃഷി ഭൂമിയുടെ വിസ്തൃതി :
   (എ) സ്വന്തം ഭൂമിയോ
   (ബി) പാട്ടമോ
4. ഏത്തവാഴ കൃഷിയിലുള്ള പരിചയം (എത്ര വർഷം) :
5. വാർഷിക വരുമാനം (രൂപ) :
   (എ) കൃഷി :
   (ബി) കാർഷികേതരം :
6. വിദ്യാഭ്യാസ നിലവാരം :

ക്രമ നമ്പർ	വിദ്യാഭ്യാസം	
1.	നിരക്ഷരൻ	
2.	എഴുതാനും വായിക്കാനുമുള്ള കഴിവ്	
3.	പ്രാഥമിക വിദ്യാഭ്യാസം	
4.	യു.പി.സ്കൂൾ വിദ്യാഭ്യാസം	
5.	ഹൈസ്കൂൾ തലം	
6.	കോളേജ് തലം	
7.	പ്രൊഫഷണൽ വിദ്യാഭ്യാസം (ഉന്നതവിദ്യാഭ്യാസം)	

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7. നാഗരികത (നഗരവുമായുള്ള ബന്ധം)

ക്രമ നമ്പർ (എ)	സമീപനഗരങ്ങളിലേക്ക് കൂടെക്കൂടെയുള്ള സന്ദർശനം	
1.	ഒരാഴ്ചയിൽ രണ്ടോ അതിലധികമോ	
2.	ഒരാഴ്ചയിൽ ഒരു പ്രാവശ്യം	
3.	ഒരു മാസത്തിൽ ഒരു പ്രാവശ്യം	
4.	അപൂർവ്വം	
5.	ഒരിക്കലുമില്ല	
(ബി)	സന്ദർശനത്തിന്റെ ഉദ്ദേശ്യം	
1.	എല്ലാ സന്ദർശനവും കൃഷിയുമായി ബന്ധപ്പെട്ടവ	
2.	ചില സന്ദർശനങ്ങൾ കൃഷിയുമായി ബന്ധപ്പെട്ടത്	
3.	മറ്റ് ഉദ്ദേശ്യങ്ങൾ	
(സി)	വില്ലേജിന് പുറത്തുള്ള സംഘടനകളിലെ അംഗത്വം	
1.	ഭാരവാഹി	
2.	അംഗം	
3.	അംഗത്വമില്ല	

8. സാമൂഹ്യ പങ്കാളിത്തം

താഴെ കൊടുത്തിരിക്കുന്ന ഏതെങ്കിലും സംഘടനയിലെ ഭാരവാഹിയോ മെമ്പറോ ആണെങ്കിൽ ആ വിവരം രേഖപ്പെടുത്തുക. ഭാരവാഹിയോ മെമ്പറോ ആണെങ്കിൽ കൂടെക്കൂടെയുള്ള പങ്കാളിത്തത്തെക്കുറിച്ച് രേഖപ്പെടുത്തുക.

ക്രമ നംബർ	സംഘടന	പങ്കാളിത്ത രീതി		കൂടിച്ചേരൽ, പ്രവൃത്തികൾ എന്നിവയിലെ പങ്കാളിത്തം		
		മെമ്പർ	ഭാരവാഹി	ക്രമമായി	വല്ലപ്പോഴും	ഒരിക്കലുമില്ല
1.	പഞ്ചായത്ത്					
2.	സഹകരണ സംഘം					
3.	കർഷക സമാജം					
4.	യുവജന സമാജം					
5.	സാമൂഹ്യ സാംസ്കാരിക സംഘടന					
6.	രാഷ്ട്രീയ സംഘടന					
7.	മറ്റുള്ളവ (വിശദമാക്കുക)					

9. പങ്കെടുത്ത പരിശീലനങ്ങൾ

1.	പരിശീലനത്തിന്റെ പേര്	സ്ഥലം	കാലാവധി	പങ്കെടുത്ത പരിശീലനങ്ങളുടെ ആകെ എണ്ണം
2.				
3.				
4.				

10. അറിവ് നേടുന്നതിനുള്ള ആവശ്യകത. കൃഷിക്കാരനെന്ന നിലയിൽ വാഴകൃഷിയുമായി ബന്ധപ്പെട്ട ധാരാളം കാര്യങ്ങളെക്കുറിച്ച് അറിവ് നേടേണ്ട ആവശ്യം വരാം. താഴെ കൊടുത്തിരിക്കുന്ന കാര്യങ്ങളെക്കുറിച്ച് നേടേണ്ട അറിവിന്റെ ആവശ്യകത സംബന്ധിച്ച് നിങ്ങളുടെ അഭിപ്രായം നൽകുക.

ക്രമ നമ്പർ	ഇന വിവരം	കൂടുതൽ ആവശ്യമുള്ളവ	ആവശ്യമുള്ളവ	ആവശ്യമില്ലാത്തവ
1.	ലോൺ കിട്ടാൻ പിന്തുടരേണ്ട ബാങ്കിലെ നടപടി ക്രമങ്ങൾ			
2.	ബാങ്കിൽ പ്രചാരത്തിലിരിക്കുന്ന പലിശ നിരക്ക്			
3.	ലോൺ വിതരണ രീതി			
4.	തിരിച്ചടവിന്റെ രീതി			
5.	ലഭ്യമായ വിവിധ തരം വായ്പകൾ			
6.	തിരിച്ചടയ്ക്കാത്ത വായ്പകളിന്മേൽ ബാങ്കുകൾ എടുക്കാവുന്ന നടപടികളുടെ രീതി			
7.	സാങ്കേതിക ജ്ഞാനം (എ) നടീൽ വസ്തുക്കൾ (ബി) കൃഷിയെക്കുറിച്ചുള്ള വീക്ഷണം (സി) സസ്യ സംരക്ഷണത്തെക്കുറിച്ചുള്ള വീക്ഷണം (ഡി) ജലസേചനത്തെക്കുറിച്ചുള്ള വീക്ഷണം (ഇ) വിളവെടുപ്പിനുശേഷമുള്ള കാര്യങ്ങളെക്കുറിച്ചുള്ള വീക്ഷണം (എഫ്)വിപണിയെക്കുറിച്ചുള്ള വീക്ഷണം			

11. വായ്പാനുബന്ധ കാര്യങ്ങൾ/വായ്പ ശരിയാക്കൽ:

ക്രമ നംബർ	ഇന വിവരം				
1.	നിങ്ങളെപ്പോലുള്ള കർഷകർ കാർഷികാവശ്യങ്ങൾക്കായി ബാങ്കിൽ നിന്നും വായ്പയെടുക്കണമോ	ശരി	അല്ല		
2.	കൃഷി ആവശ്യത്തിന് കടം വാങ്ങുന്നത് എത്ര പ്രയാസമാണെന്നാണ് നിങ്ങളുടെ അഭിപ്രായം	വളരെ പ്രയാസം	പ്രയാസം	എളുപ്പം	വളരെ എളുപ്പം
3.	കൃഷിക്കാരൻ ബാങ്കിലോ സഹകരണ സംഘങ്ങളിലോ വായ്പയെടുക്കാൻ പോകുമ്പോൾ അയാൾ എങ്ങനെ പരിഗണിക്കപ്പെടുന്നു.	വളരെ മോശം	മോശം	നല്ല രീതിയിൽ	വളരെ നല്ല രീതിയിൽ
4.	ഉൽപ്പാദനം കൂട്ടാൻ വേണ്ടി സ്ഥാപനങ്ങളിൽ നിന്നും വായ്പയെടുക്കുന്നതിൽ ഒരു തെറ്റുമില്ല.				
5.	കൃഷിക്കുവേണ്ടി കഴിഞ്ഞരണ്ടുവർഷത്തിനിടയിൽ കടമെടുത്തിട്ടുണ്ടോ ?	ഉണ്ട്	ഇല്ല		

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12. നഷ്ടസാദ്ധ്യതാവബോധം

ക്രമ നം ബർ	പ്രസ്താവന	ശക്തമായി സമ്മതിക്കുന്നു	സമ്മതിക്കുന്നു	അഭിപ്രായമില്ല	വിസമ്മതി ക്കുന്നു	ശക്തമായി വിസമ്മതി ക്കുന്നു
1.	ഒന്നോ രണ്ടോ വിളകൾ കൃഷി ചെയ്യുമ്പോഴുള്ള അപകടം ഒഴിവാക്കു ന്നതിനായി കർഷകൻ കൂടുതൽ വിളകൾ കൃഷി ചെയ്യണം					
2.	നഷ്ടസാധ്യതകുറഞ്ഞ തും കുറച്ചു ലഭിക്കുന്ന തുമായ ലാഭത്തിനു പകരമായി കർഷകർ കൂടുതൽ മാറ്റത്തിനു തയ്യാറാ യാൽ കൂടുതൽ ലാഭം നേടാം.		,,,			
3.	കൂടുതൽ വെല്ലുവിളി കൾ ഏറ്റെടുക്കാൻ തയ്യാറുള്ള കർഷകന് ഒരു ശരാശരികർഷകനേ ക്കാൾ കൂടുതൽ സാമ്പത്തിക നേട്ടം ഉണ്ടാക്കാൻ സാധിക്കും.					
4.	വിജയസാധ്യത ഉറപ്പു ണ്ടെങ്കിൽ കർഷകർ വെല്ലുവിളികൾഏറ്റെടു ക്കുന്നത് നല്ലതാണ്.					
5.	പ്രാദേശികമായിപരീക്ഷി ച്ചുവിജയിക്കാത്ത ഒരു കൃഷിരീതിയുംകർഷകർ പരീക്ഷിക്കാതിരിക്കുന്ന താണ് നല്ലത്.					
6.	നൂതനമായ ഒരു കൃഷി രീതി പരീക്ഷിക്കുന്ന തിൽ നഷ്ട സാദ്ധ്യത യുണ്ടെങ്കിലുംലാഭകര മാണ്.					

13. സാമ്പത്തിക പ്രചോദനം

ക്രമ നംബർ	പ്രസ്താവന	ശക്തമായി സമ്മതി ക്കുന്നു	സമ്മതി ക്കുന്നു	അഭിപ്രായമില്ല	വിസമ്മതി ക്കുന്നു	ശക്തമായി വിസമ്മതി ക്കുന്നു
1.	കൂടുതൽ ഉൽപ്പാദനത്തിനും സാമ്പത്തികനേട്ടത്തിനുമായി കർഷകൻപ്രയത്നിക്കണം					
2.	ഏറ്റവും കൂടുതൽ ലാഭമുണ്ടാ ക്കുന്നകർഷകനാണ് ഏറ്റവും വിജയിയായകർഷകൻ					
3.	ഒരു കർഷകൻ ജീവിക്കാനു ള്ളത്നിശ്ചയമായും സമ്പാദി ക്കണം, എന്നാൽ ജീവിതത്തിലെ ഏറ്റവുംപ്രധാനപ്പെട്ട സാമ്പ ത്തികവാക്യങ്ങളിൽവിവക്ഷിക്കാ നാവില്ല.					
4.	ഒരു കർഷകൻ പുതിയ കാര്യങ്ങൾ പരീക്ഷിക്കണം; അദ്ദേഹത്തിന് കൂടുതൽ ലാഭം നേടാൻ സഹായിക്കും.					
5.	ഒരുകൃഷിക്കാരൻ ഗാർഹികാ വശ്യങ്ങൾക്കായും കൂടുതൽ ലാഭത്തിനായും ഭക്ഷ്യ വിളകൾ കൂടുതലായി കൃഷി ചെയ്യണം.					

14. നൂതനാശയങ്ങൾ

കൃഷിയിൽ ആധുനിക പരിശീലനം സ്വീകരിക്കുവാൻ എപ്പോഴാണ് ആഗ്രഹിച്ചത് ?

1. ഞാനതിനെപ്പറ്റി അറിയാനിടയായ ഉടനെ തന്നെ.
2. കൃഷിയിടത്തിൽ പരിശ്രമിച്ച് വിജയിച്ച മറ്റ് കൃഷിക്കാരെ കണ്ടതിനുശേഷം.
3. കാത്തിരുന്ന് എന്റെ തന്നെ സമയം എടുക്കാൻ താൽപര്യപ്പെടുന്നു.
4. ആധുനിക പരിശീലനം നേടുന്നതിൽ ഞാൻ തൽപ്പരനല്ല.

15. നേട്ടമുണ്ടാക്കണമെന്ന ലക്ഷ്യം

താഴെ കൊടുത്തിട്ടുള്ള വാചകങ്ങൾക്ക് ശരിയായ ഉത്തരമെഴുതുക.

(എ) ഞാനെന്റെ കൃഷിയിടത്തിൽ ചെയ്യുന്ന ഏതു കാര്യത്തിലും

1. ആദ്യം ചെയ്യാനുള്ള കാര്യങ്ങൾ തയ്യാറാക്കുന്നു.
2. ഞാൻ ഏറ്റവും നന്നായി ചെയ്യാൻ ഇഷ്ടപ്പെടുന്നു.
3. ഇതിനുവേണ്ടി മൊത്തം ഉത്തരവാദിത്വം എടുക്കുന്നില്ല.

(ബി) ഞാൻ എപ്പോഴും സൂക്ഷ്മതയുള്ളയാളാണ്.

1. സാമൂഹ്യമായ അന്തസ്സ് നിലനിർത്തുവാൻ
2. സാമൂഹ്യ തിന്മകളെ ഒഴിവാക്കാൻ
3. എന്റെ വിദ്യാഭ്യാസ യോഗ്യത ഉയർത്താൻ

(സി) ഞാൻ സന്തോഷിക്കുന്നതെപ്പോൾ

1. എന്റെ വ്യക്തിപരമായ അനുഭവങ്ങൾ മറ്റുള്ളവരോട് പറയുമ്പോൾ
2. വ്യത്യസ്തമായ ഒരു ജോലി കിട്ടുമ്പോൾ
3. മറ്റുള്ളവരെ ഉപദേശിക്കേണ്ടി വരുമ്പോൾ

(ഡി) എന്റെ ജീവിതത്തിലെ രഹസ്യമായ ആഗ്രഹം

1. സന്തോഷപ്രദമായ വിവാഹജീവിതം നയിക്കാൻ
2. നേട്ടങ്ങളുടെ കീർത്തിമുദ്ര പതിപ്പിക്കാൻ
3. ഒരു വലിയ കൃഷിസ്ഥലം സ്വന്തമാക്കാൻ

(ഇ) സാഹസിക സംരംഭം ഇഷ്ടപ്പെടുന്നത്

1. മറ്റുള്ളവർക്ക് കഠിനമായി ചെയ്യാൻ കഴിയും
2. ഒരാളെ ധനവാനാക്കുന്നു.
3. നേതൃത്വഗുണത്തോട് മതിപ്പ് തോന്നും.

16. സാങ്കേതിക സഹായം സംബന്ധിച്ച നൂതനാശയങ്ങൾ

നവീകരണ നടപടികൾ, സമഗ്ര പ്രോജക്ടിലെ സ്ഥാപനങ്ങളും പ്രവർത്തനങ്ങളും

ക്രമ നംബർ	ഇനവിവരം	ഉത്കൃഷ്ടം	നല്ലത്	മോശം
I.	നൂതന നടപടിക്രമം			
1.	വായ്പാബന്ധങ്ങൾ			
2.	സ്വകാര്യ ഏജൻസിയിലെ ജീവനക്കാരുടെ മൊത്തം സാങ്കേതിക സഹായം	,,,		
3.	പൊതു-സ്വകാര്യ- പഞ്ചായത്ത് -ജനങ്ങളുടെ പങ്കാളിത്തം			
4.	സ്വകാര്യ ഏജൻസികളുടെ പൂർണ്ണ സഹായം			
II.	നൂതനപ്രവർത്തനങ്ങൾ			
1.	ഗുണമേന്മയുള്ള ഉൽപ്പാദനോപാധികളുടെ ലഭ്യത			
2.	കഴിവ്വർദ്ധിത പ്രവർത്തനങ്ങൾ			
3.	സാങ്കേതിക സഹായത്തിന് കുടുംബശ്രീ നൽകുന്ന ഫണ്ട്			
4.	സാമൂഹിക, സാമ്പത്തിക, പാരിസ്ഥിതിക, സുസ്ഥിര പുരോഗതി			
III.	നൂതന സ്ഥാപനങ്ങൾ			
1.	ഒരു ഉൽപ്പന്നം-ഒരു വില്ലേജ് സങ്കൽപ്പം			
2.	സർക്കാർ ഏജൻസിയുമായുള്ള സ്വകാര്യഏജൻസികളുടെ ബന്ധം			
3.	ജനപങ്കാളിത്തംഉറപ്പ് വരുത്തൽ.			
4.	തദ്ദേശ ഭരണ സ്ഥാപനങ്ങളുമായുള്ള കുടുംബശ്രീ ബന്ധം			

17. ഗുണഭോക്താക്കൾക്ക് സമഗ്ര വാഴകൃഷി പദ്ധതിയോടുള്ള മനോഭാവം

ക്രമ നംബർ	ഇനവിവരം	SA	A	UD	DA	SDA
1.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നു, എന്തുകൊണ്ടെന്നാൽ മൊത്തം സാങ്കേതിക സഹായം സ്വകാര്യ ഏജൻസി നൽകുന്നു.					
2.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നില്ല, കാരണം സ്വകാര്യ ഏജൻസികൾ നൽകുന്ന സാങ്കേതിക സഹായം കണ്ണിൽ പൊടിയിടലാണ്.					
3.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നു, എന്തുകൊണ്ടെന്നാൽ കണക്കുകാര്യങ്ങൾപരിപാലിക്കുന്നതിൽ അവിടെ സുതാര്യത ഉണ്ട്.					
4.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നില്ല, കാരണം 5Ps സങ്കൽപ്പം കണ്ണിൽ പൊടിയിടലാണ്.					
5.	ഞാൻ സമഗ്ര ഇഷ്ടപ്പെടുന്നു, എന്തുകൊണ്ടെന്നാൽ ഇത് സ്ത്രീകളെ സാമ്പത്തികമായി ശാക്തീകരിക്കുന്നു.					
6.	ഞാൻ സമഗ്ര ഇഷ്ടപ്പെടുന്നില്ല. എന്തുകൊണ്ടെന്നാൽ പൊതുമേഖലയും സ്വകാര്യ മേഖലയുമായുള്ള ബന്ധം കൃഷിക്കാരുടെ താൽപര്യ പ്രകാരമല്ല.					

18. കാർഷിക പ്രശ്നങ്ങൾ - കർഷകരുടെ കാഴ്ചപ്പാടിൽ

ക്രമ നംബർ	ഇനവിവരം	കൂടുതൽ പ്രധാനപ്പെട്ടത്	പ്രധാനപ്പെട്ടത്	പ്രാധാന്യം കുറഞ്ഞ	പ്രാധാന്യം തീരെ കുറഞ്ഞ
1.	കൃഷിക്കുള്ള ഭൂമിയുടെ കുറവ്				
2.	ഗുണനിലവാരമുള്ള നടീൽ വസ്തുക്കളുടെ കുറവ്				
3.	ഗുണനിലവാരമുള്ള വളം/രാസവളം എന്നിവയുടെ കുറവ്				
4.	ഗുണമേന്മയുള്ളജൈവ കീടനാശിനികളുടെ കുറവ്				
5.	വിപണന സൗകര്യക്കുറവ്				
6.	സമയ ബന്ധിതമായി വായ്പാ ലഭ്യതക്കുറവ്				
7.	സാങ്കേതിക പരിശീലനങ്ങളുടെ കുറവ്				
8.	സംസ്കരണ സൗകര്യങ്ങളുടെ കുറവ്				
9.	സാങ്കേതിക ജ്ഞാനത്തിന്റെ കുറവ്				
10.	ഗതാഗത സൗകര്യത്തിന്റെ കുറവ്				
11.	വില്ലേജിലെ അറിവിടങ്ങളുടെ കുറവ്				
12.	വീഡിയോ കോൺഫറൻസിംഗ് സൗകര്യങ്ങളുടെ കുറവ്				
13.	കീടരോഗസാദ്ധ്യതാ നിർണ്ണയ സൗകര്യങ്ങളുടെ കുറവ്				
14.	പ്രാദേശിക വിദഗ്ദ്ധോപദേശക സേവനത്തിന്റെ കുറവ്.				

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തിരുവനന്തപുരം ജില്ലാപഞ്ചായത്തിന്റെ 'സമഗ്ര' വാഴകൃഷി പദ്ധതിയിലെ നൂതന സാങ്കേതിക പിൻതുണകൾ ഒരു വിമർശനാത്മക വിലയിരുത്തൽ

ജനപ്രതിനിധികൾക്കുള്ള ചോദ്യാവലി

1. പേരും മേൽവിലാസവും :
2. വയസ്സ് :
3. വിദ്യാഭ്യാസം :
4. തൊഴിൽ :
5. 'സമഗ്ര' യിലുള്ള പരിചയം (വർഷത്തിൽ) :
6. സാങ്കേതിക സഹായം സംബന്ധിച്ച നൂതന സമ്പ്രദായങ്ങൾ, നൂതന നടപടികൾ, സമഗ്ര പ്രോജക്ടിലെ നൂതന പ്രക്രിയകൾ, സ്ഥാപനങ്ങളുടെ പ്രവർത്തനങ്ങൾ ഇവയെപ്പറ്റിയുള്ള ഗ്രാഹ്യം/ അവബോധം :

ക്രമ നംബർ	ഇനവിവരം	ഉത്കൃഷ്ടം	നല്ലത്	മോശം
I.	നൂതന നടപടിക്രമം			
1.	വായ്പാബന്ധങ്ങൾ			
2.	സ്വകാര്യ ഏജൻസിയിലെ ജീവനക്കാരുടെ മൊത്തം സാങ്കേതിക സഹായം			
3.	പൊതു-സ്വകാര്യ- പഞ്ചായത്ത് -ജനങ്ങളുടെ പങ്കാളിത്തം			
4.	സ്വകാര്യ ഏജൻസികളുടെ പൂർണ്ണ സഹായം			
II.	നൂതനപ്രവർത്തനങ്ങൾ			
1.	ഗുണമേന്മയുള്ള ഉൽപ്പാദനോപാധികളുടെ ലഭ്യത			
2.	കഴിവ്വർദ്ധിത പ്രവർത്തനങ്ങൾ			
3.	സാങ്കേതിക സഹായത്തിന് കുടുംബശ്രീ നൽകുന്ന ഫണ്ട്			
4.	സാമൂഹിക, സാമ്പത്തിക, പാരിസ്ഥിതിക, സുസ്ഥിര പുരോഗതി			
III.	നൂതന സ്ഥാപനങ്ങൾ			
1.	ഒരു ഉൽപ്പന്നം-ഒരു വില്ലേജ് സങ്കൽപ്പം			
2.	സർക്കാർ ഏജൻസിയുമായുള്ള സ്വകാര്യഏജൻസികളുടെ ബന്ധം			
3.	ജനപങ്കാളിത്തംഉറപ്പ് വരുത്തൽ.			
4.	തദ്ദേശ ഭരണ സ്ഥാപനങ്ങളുമായുള്ള കുടുംബശ്രീ ബന്ധം			

7. സമഗ്രയോടുള്ള ജനപ്രതിനിധികളുടെ മനോഭാവം

ക്രമ നമ്പർ	ഇന വിവരം	ശക്തമായി സമ്മതി ക്കുന്നു.	സമ്മതി ക്കുന്നു	അഭിപ്രായ മില്ല	വിസമ്മതി ക്കുന്നു	ശക്തമായി വിസമ്മതി ക്കുന്നു
1.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നു. എന്തുകൊണ്ടെന്നാൽ ഇത് ജൈവ കൃഷിയിലേയ്ക്കുള്ള കാൽ വയ്പാണ്.					
2.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നു, എന്തുകൊണ്ടെന്നാൽ ഇത് പാവപ്പെട്ടവരുടെ ക്ഷേമത്തിനു വേണ്ടിയുള്ളതാണ്.					
3.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടു ന്നില്ല., എന്തുകൊണ്ടെന്നാൽ ഇതിൽ സ്വകാര്യ ഏജൻസി കളുടെ പങ്കാളിത്തമുണ്ട്					
4.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടുന്നു. എന്തുകൊണ്ടെന്നാൽ ഇതിൽ ഉൽപ്പന്നങ്ങൾ വാങ്ങൽ സംവിധാനം ഉണ്ട്.	,,,				
5.	ഞാൻ'സമഗ്ര'ഇഷ്ടപ്പെടുന്നില്ല, എന്തുകൊണ്ടെന്നാൽ ഇത് സ്ത്രീകളെ മുഖ്യ ധാരയിലേ യ്ക്ക് കൊണ്ടു വരുന്നില്ല					
6.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടു ന്നില്ല, എന്തുകൊണ്ടെന്നാൽ ഇതിൽ ജനപ്രതിനിധികളുടെ പങ്കാളിത്തമില്ല.					
7.	ഞാൻ 'സമഗ്ര' ഇഷ്ടപ്പെടു ന്നില്ല, എന്തുകൊണ്ടെന്നാൽ ഇത് ജില്ലാതല വികസന ഏജൻസികളുമായുള്ള സംയോജനം പ്രോത്സാഹിപ്പി ക്കുന്നില്ല.					

ABSTRACT

INNOVATIONS IN TECHNICAL BACKSTOPPING FOR THE THIRUVANANTHAPURAM DISTRICT PANCHAYAT – A CRITICAL APPRAISAL OF THE 'SAMAGRA' PROJECT ON BANANA CULTIVATION

by

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(2010-11-143)

Abstract of the thesis submitted in partial fulfillment of the requirement for the degree of

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2012

ABSTRACT

Poverty eradication is a long term goal of India. Since independence a number of poverty alleviation programmes including agricultural developmet programmes were launched. It would be incorrect to say that all the poverty alleviation programmes had shown the results much expected. In this way, the 'Samagra' project on Banana cultivation is a flagship project with multistakeholer partnerships in Kerala. It was launched in 2007 by the Thiruvananthapuram District Panchayat and Kudumbashree Mission, with the aim of enhancing banana productivity through the promotion of innovations in technical backstopping. The study entitled "Innovations in technical backstopping for the Thiruvananthapuram District Panchayat – A critical appraisal of the 'Samagra' project on banana cultivation" is an attempt to explore the innovations in technical backstopping measured in terms of perception about the innovative procedures, processes and institutions of the 'Samagra' Project.

The study was conducted in three Grama Panchayats of Thiruvananthapuram district namely ., Kottukal, Kunnathukal and Kalliyoor. Simple random sampling technique was followed in the selection of Block Panchayats, Grama Panchayats beneficiaries. Three categories of respondents namely beneficiary respondents, implementing officials and people's representatives were involved in the study. Sixty beneficiary respondents, thirty implementing officials and thirty people's representatives were selected. Thus, the total number of respondents for the study was 120.

The dependent variable innovations in technical backstopping was measured in terms of perception about the innovative procedures, processes and institutions. The profile characteristics of the respondents such as age, area under cultivation, experience in banana cultivation, annual income, educational status, cosmopoliteness, social participation, trainings attended, information need perception, credit orientation, risk orientation, economic motivation. Innovativeness, achievement motivation and attitude towards 'Samagra', and the constraints were studied using scientific procedures.

The major findings of the study indicate that majority of the beneficiary respondents rated that innovative procedures adopted in the 'Samagra' project were excellent and all the officials and people's representatives also had excellent appreciation of the innovative procedures

adopted in the 'Samagra' project. Regarding the perception of innovative processes, majority of the beneficiary- respondents, implementing officials and people's represenatives opined that innovative procedures adopted in the 'Samagra' project were excellent. The perception about the innovative institutions was also appreciable in respect of all the three groups of respondents.

The findings regarding the attitude of beneficiary respondents revealed that, 60 per cent of the respondents had favourable attitude towards 'Samagra' of which 40 per cent were having neutral attitude. 93.3 per cent of the implementing officials had favourable attitude and 6.7 per cent had neutral attitude towards 'Samagra'. 60 per cent of the people's representatives had favourable attitude and 40 per cent had neutral attitude towards 'Samagra'.

Results of the correlation between the independent and dependent variables of respondents revealed that among the selected thirteen independent variables namely experience, education, credit orientation, economic motivation and achievement motivation showed positive significant relationship with innovative procedures, processes and institutions.

The profile characteristics of the beneficiary respondents were also studied in detailed with a view to work out the correlation between the selected dependent and independent variables. The independent variables namely age, area under cultivation, experience in banana cultivation, annual income, educational status, cosmopoliteness, social participation, training attended, information need perception, credit orientation, risk orientation, economic motivation, innovativeness, achievement motivation and attitude had significant relationship with the dependent variables innovative procedures, processes and institutions.

The constraints such as lack of land, lack of village knowledge centers, lack of video conferencing, problems in transportation, lack of processing facilities were ranked as the most important constraints in the implementation of 'Samagra' Project.

The following recommendations are made to ensure effective implementation of the 'Samagra' Project in future: More awareness must be created among the farmers about the

benefits of grading, marketing, value addition and processing of their produce through campaigns and trainings so that banana cultivation becomes economically more sustainable. Export of agricultural produce must be promoted by increasing the area under commercial crops, and by providing necessary post harvest management and other infrastructure required. Information on prices prevailing at international markets must be furnished to the farmers' groups regularly. Modern cold storage facilities must be set up to enable the farmers to store and sell their produce at favourable price and to help consumers to get quality banana products at affordable price. Production centered banana processing industries are to be promoted to minimise wastage of agricultural products. The model 'Samagra' Banana Project of Thiruvananthapuram District Panchayat must be scaled up to benefit farmers in other districts also for which the Government of Kerala should ensure the policy support.