

172086

**MICRO CREDIT AND TECHNOLOGY UTILISATION IN  
VEGETABLE PRODUCTION BY SELF HELP GROUPS IN  
THIRUVANANTHAPURAM DISTRICT**

**PRIYA R. DEVI**

**Thesis submitted in partial fulfillment of the requirement  
For the degree of**

**Master of Science in Agriculture**

**Faculty of Agriculture  
Kerala Agricultural University, Thrissur**

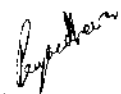
**2003**

**Department of Agricultural Extension  
COLLEGE OF AGRICULTURE  
VELLAYANI, THIRUVANANTHAPURAM - 695 522**

## DECLARATION

I hereby declare that this thesis entitled “**Micro credit and technology utilisation in vegetable production by self help groups in Thiruvananthapuram district**” is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

Vellayani,  
.03

  
**Priya R. Devi**

**CERTIFICATE**

Certified that this thesis entitled **“Micro credit and technology utilisation in vegetable production by self help groups in Thiruvananthapuram district”** is a record of research work done independently by Mrs. Priya R. Devi under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to her.

Vellayani,  
14.03.03

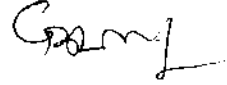


**Dr. C. BHASKARAN**  
(Chairman, Advisory Committee)  
Associate Professor and Head  
Department of Agricultural Extension  
College of Agriculture, Vellayani

Approved by

**Chairman :**

**Dr. C. BHASKARAN**  
Associate Professor and Head,  
Department of Agricultural Extension,  
College of Agriculture, Vellayani,  
Thiruvananthapuram – 695 522.



**Members**

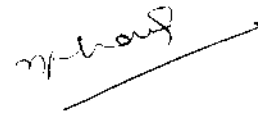
**Dr. M. M. HUSSAIN**  
Associate Professor and Head (Retd.),  
Department of Agricultural Extension,  
College of Agriculture, Vellayani,  
Thiruvananthapuram – 695 522.



**Dr. (Mrs.) ELSAMMA JOB**  
Assistant Professor and Head,  
Department of Agricultural Economics,  
College of Agriculture, Vellayani,  
Thiruvananthapuram – 695 522.



**Dr. (Mrs.) N. P. KUMARI SUSHAMA**  
Associate Professor,  
Department of Agricultural Extension,  
College of Agriculture, Vellayani,  
Thiruvananthapuram – 695 522.



**External Examiner :**

**Dr. R. NETAJI SEETHARAMAN,**  
Professor and Head,  
Department of Agricultural Extension,  
Tamil Nadu Agricultural University,  
Coimbatore – 3.



## ACKNOWLEDGEMENT

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

- Dr. C. Bhaskaran, Associate Professor, Training Service Scheme, 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. M.M. Hussain, Professor and Head, Department of Agricultural Extension for his supportive works and assurances.
- Dr. K. Ravi Raman for suggesting the title and wishing me good luck for relevant results.
- Sushama Madam who was more like a well wisher always searching me out from excuses to remind me about keeping the time.
- Elsamma Madam for providing confidence to keep standards in topics related to economics.
- Teachers of the Department of Agricultural Extension for their genuine concern and affection.
- The batch of Ph.D. scholars who were considerate elders always ready to advice in any matter.

- The non-teaching staff members of the Department of Agricultural Extension for their informal and friendly approach.
- My parents who provided security to my future and directed me to join for P.G. and not to confine myself to a job. This will always remind me to achieve more.
- My dear Shaji Chettan who encouraged to prove myself in every opportunity.
- My sister and her family whose presence near the college added a lucky and loving assurance for me.
- All of my friends to whom I am committed for reinforcing my hopes considering me as a lovable person
- Kerala Agricultural University for awarding me the Junior Research Fellowship.
- I treasure the blessings from the sacred kavu. The purchase of fresh vegetables from the VFPCCK field centres, the creative and enthusiastic farmers and officials of VFPCCK are just unforgettable. It was possible only because I belonged to this department. I thank God Almighty for everything.

**Priya R. Devi**

## CONTENTS

	<i>Page No.</i>
1. INTRODUCTION	1
2. THEORETICAL ORIENTATION	4
3. METHODOLOGY	24
4. RESULTS AND DISCUSSION	43
5. SUMMARY AND CONCLUSION	68
6. REFERENCES	73
7. ABSTRACT	84
8. APPENDICES	87

### LIST OF TABLES

Table Number	Title	Page Number
1	SHGs selected for the study from the Panchayats	26
2	Distribution of groups based on group dynamics	44
3	Distribution of groups based on attendance in meeting	45
4	Distribution of groups based on frequency of meetings	46
5	Distribution of groups based on interest rate pattern	46
6	Distribution of groups based on loan amount	47
7	Distribution of groups based on group savings per month	47
8	Distribution of groups based on no. of books of accounts maintained	48
9	Distribution of the respondents based on their profile characteristics	50
10	Micro credit needs and credit gap of the respondents	52
11	Distribution of beneficiaries based on market behaviour	53
12	Distribution of respondents based on technology adoption behaviour	54
13	Relationship of technology adoption behaviour and the profile characteristics of the beneficiaries	55
14	Cost of cultivation for panthal crops per cent	57
15	Distribution of groups and beneficiaries based on their repayment behaviour (as on October, 2002)	59



---

Table Number	Title	Page Number
16	The constraints faced in micro credit servicing as perceived by the experts	61
17	The constraints faced in micro credit repayment as perceived by the experts	62
18	The perception of experts about technology adoption vis-a-vis micro credit repayment	63
19	Perception of the beneficiary farmers about micro credit utility	65
20	Suggestions for improving micro credit supply	66

---

**LIST OF FIGURES**

---

<b>Figure Number</b>		<b>Between Pages</b>
1.	Conceptual framework of the study	22 - 23
2.	Location of the field centers of VFPCCK selected for the study	25 - 26
3.	Distribution of the respondents based on technology adoption behaviour	54 - 55
4.	Distribution of amount spent in cultivation activities	58 - 59
5.	Distribution of SHGs regarding repayment behaviour	60 - 61
6.	Empirical model of results from SECTION 1	60 - 61
7.	Empirical model of results from SECTION 2	66 - 67

---



INTRODUCTION

## 1. INTRODUCTION

*The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little*

*Franklin Delano Roosevelt*

Kerala State which has many of the 'firsts' to its credit regarding socio-economic development indices, is also facing the worst crisis in the agricultural sector. A food grain deficit State buying rice from the neighbouring States, Kerala is depending on other States for meeting its vegetable requirements to a large extent. The situation was declared alarming with the state having soil types and climate suitable for large scale and commercial cultivation but the markets being dominated by produces from other States.

The farmers faced with resource crunch needed credit at lower rates to operate their microscopic holdings. Thus shaping of rural credit system to supplement the small savings of farmers to account for cost of risk and uncertainty of farming is required. Governmental system, due to its inadequate flexibility, cannot reach out to each and every needy house hold. Also according to the plan for peoples' campaign, counting on past experiences, it is a firm conviction that only through mobilisation of masses, untapped resources can be further exploited.

Micro finance programmes extend a lot of help to the poor and near poor to cope with risks and vulnerability and to create opportunities for income generation (Ghosh, 2001). In Kerala too, micro finance, beginning with the

Community Development Societies (CDS) in Alappuzha in 1992, has become a movement. The 'Kundumbasree', a joint poverty eradication mission of government of Kerala and NABARD is also an outstanding example. Samatha groups in Ulloor panchayath of Thiruvananthapuram district are also widely appreciated.

Aided by European Union, the Kerala Horticultural Development Programme (KHDP) became the first attempt in India to establish an agricultural development scheme with farmer's initiative. It ensured farmer empowerment through Self Help Groups facilitated by a specialised official support. KHDP has evolved a credit policy, which supports the lease land cultivators (Thomas *et al.*, 1999).

Farmers are working together to add value to their products and market them effectively. In the action research on group management of rice cultivation, it was recorded that group management approach brought about favourable changes through significant increase of net income from rice cultivation and reduction in cost of cultivation (Hussain, 1992).

The study on micro credit and technology utilisation in vegetable production by Self Help Groups (SHGs) in Thiruvananthapuram district is important as enhancing vegetable production in Kerala is a declared policy of the state government. So the facts studied would be helpful in making comprehensive changes in agricultural credit policy by the State and the banking institutions. The present study, therefore, assumes practical significance.

Credit repayment is yet another casualty and most banking institutions have only complaints about this. It is worthwhile to report that under the KHDP, the micro credit utilisation and repayment by farmers organised under the SHGs have been appreciable. Group dynamics and peer pressure have also positively contributed to this.

It is felt in this context that systematic and scientific studies should be taken up to analyse the factors responsible for micro credit utilisation, micro credit repayment vis - a - vis technology adoption. Therefore the present study was designed with the following specific objectives :

1. To assess the micro credit need, credit gap and credit utilization
2. To ascertain the micro credit repayment behaviour of beneficiaries
3. To study the micro credit utilization behaviour of beneficiaries
4. To list out the constraints and suggestions to overcome them in micro credit repayment and servicing.
5. To assess and correlate with profile characteristics of beneficiaries, their adoption level of improved technologies in vegetable cultivation.
6. To study the perception of experts about technology adoption vis-a-vis micro credit repayment and that of beneficiaries about micro credit utility.

### **Limitations of the study**

The study had the limitations of time and sample size. Hence it was not possible for the researcher to explore the area in greater depth and comprehensive manner. According to cost of cultivation and market rates, the variables can show different measures. So generalisation of results to all seasons, crops or areas is not ensured. In spite of all these, every effort is taken to conduct the study as systematic as possible.



THEORETICAL  
ORIENTATION

## 2. THEORETICAL ORIENTATION

Concepts relating to any systematic study must be defined clearly before presenting the results. A comprehensive review of literature is important as it helps in better understanding and meaningful conceptualisation of the study. This chapter will review available information from similar or related studies. For better clarity and convenience, the chapter is organised under the following headings.

- 2.1 Concept of micro credit
- 2.2 Importance of micro credit
- 2.3 Group dynamics of SHGs
- 2.4 Profile characters of the farmers of SHGs
- 2.5 Knowledge of farmers about vegetable cultivation technologies
- 2.6 Micro credit need
- 2.7 Micro credit utilization behaviour
- 2.8 Extent of technology adoption by vegetable growers
- 2.9 Relationship between technology adoption and selected profile characters of vegetable growers.
- 2.10 Micro credit repayment behaviour
- 2.11 Constraints in micro credit servicing and repayment
- 2.12 Perception of experts about technology adoption viz-a-viz micro credit repayment.
- 2.13 Perception of farmers about micro credit
- 2.14 Conceptual framework of the study



## 2.1 CONCEPT OF MICRO CREDIT

The concept of credit has been defined by RBI (1971) as the amount provided by way of loan or advance, cash, credit or over draft or purchase of discount bills other than advances against security, or by the way of purchase of demand documentary bills drawn in connection with the movement of commodity.

Nagayya (2000) stated that micro credit supply is an informal arrangement for credit supply to the poor through SHG which is fast emerging as a promising tool for promoting income generating enterprises.

According to Nair (2000), micro finance essentially means provision of small credits, savings and allied services to those operating at the lower end of the income spectrum (like small and marginal farmers, landless agricultural workers, seasonal workers and the self employed in the informal sector including village artisans, hawkers and venders, fishermen, petty shop owners etc.), it has come to represent a system of decentralised financial service, delivery, where people's organisations act as facilitators or intermediaries.

Puhazhendi and Satyasai (2000) defined micro finance as the entire range of financial services rendered to the poor and includes skill upgradation and entrepreneurial development that would enable them to overcome poverty.

RBI (2001) has defined micro credit as the provision of thrift, credit and other financial services and products of small amounts to the poor in rural, semi urban areas to enable them to raise their standards of living. It may cover not only consumption and production loans for various farm and non - farm activities being pursued by the poor but also include their own credit need such as housing.

## 2.2 IMPORTANCE OF MICRO CREDIT

According to Nagayya (2000) from April 1999, six rural development programmes including DWCRA which support SHGs highly to promote income generating enterprises among poor and weaker sections with micro credit have been integrated. The present nomenclature of the programme is Swarnjayanti Gram Swarozgar Yojana (SGSY), which focuses on cluster approach for groups of poor especially women.

According to Anand (2001) the concept of micro credit is undoubtedly superior to the traditional rural credit system providing higher and stable income to households than they did before they joined the SHGs availing micro credit.

NABARD (2001) reports showcased micro finance products as profitable business for many banks in the commercial, regional, rural and cooperative banking fields firmly putting micro finance on the road to main stream banking in the country.

Naithani (2001) reported that the micro financing schemes of self employment activities in rural areas are working neither on donation/ charity nor on subsidy.

Bhatia and Bhatia (2002) reported that the formal introduction of micro credit concepts in India was at the sixth general assembly of Asian and Pacific Regional Agricultural Credit Association (APRACA) held at Kathmandu, Nepal. It considered a proposal for promotion of linkages between banking institutions and SHGs. NABARD launched a pilot project in 1992 for linking 500 SHGs with commercial banks.

According to Jha (2002), the micro finance models in Bangladesh, despite with few weaknesses demonstrated a number of strong positive attributes.

### 2.3 GROUP DYNAMICS OF SHGs

Clark (1991) observed that regularity, punctuality and attendance in all group meetings were important indicators of effective group functioning.

FAO (1999) recommended that members of the farmers group should share the responsibility to the group decisions, so as to make functioning of group more effective.

Kesavan (1999) stated that the philosophy of VFPCCK is based on organization of farmers in SHGs which are informal, voluntary and on neighbourhood basis integrating all activities of project area. They take up roles beyond cultivation and this will result in farmer empowerment. In this situation the role of developmental intervention will be that of facilitation only.

Meera (2001) found that the Samatha SHGs help members develop the habit of savings, give collateral free loans based annual savings at a low interest rate of 24% . The participation of members in social activities increased considerably.

NABARD (2001), with a view to dovetailing group dynamics and financial resources, organized capacity building programmes for SHG members and their leaders.

A SHG has been defined by RBI (2001) as a small, economically homogeneous and cohesive group of rural poor voluntarily forming a group to save small amount regularly, agree to contribute to a common fund, meet their emergency needs on mutual help basis, make collective decisions, solve conflicts through collective leadership and provide collateral free loans on terms and conditions defined by groups.

Sreekumar (2001) stated that the SHGs of VFPCCK are formed by farmers joining voluntarily with the purpose of improving the income level. They have

common concerns, common problems, common objectives and also they are willing to collaborate as permanent members of the group.

Bhatia and Bhatia (2002) reported from NABARD guidelines that while selecting groups for finance it should be seen that the group should not have come into existence solely for the purpose of obtaining loan and there should be a genuine need to help each other.

According to Deepali (2002), a SHG is normally a response to a perceived need, besides being centered around specific productive activities with potential to bring together the formal banking structure and the rural poor for mutual benefit.

## 2.4 PROFILE CHARACTERISTICS OF THE FARMERS OF THE SHGs

### 2.4.1 Age

Jayalekshmi (1996) reported that most of the Governmental programmes like TRYSEM concentrate specifically on developing employment potential of youth with in the age group of 21-30.

Manjusha (1999) reported that there is a 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 (VFPC).

Jayalekshmi (2001) reported a positive and significant relationship between age and group behaviour of members.

Geetha (2002) reported age had negative and significant correlation with the role 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 behaviour of farmers in his study.

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

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

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

#### **2.4.3 Experience in vegetable 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 VFPCCK SHGs.

#### **2.4.4 Annual Income**

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 farmer 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 ranges from Rs.15,000/- to Rs.20,000/-.

#### **2.4.5 Increase in Income**

Puhazhendhi (2000) observed that estimated average post-linkage period net family income of an SHG member was two times more than that in the pre-linkage period. The estimated net incremental income was Rs.2,424/- for all the groups and it was relatively more in good performance group (Rs.2,967/-) than average and poor performing groups (Rs.1,650 and Rs.1,299/-), respectively.

Meera (2001) reported that training improves skill of members to do any particular work, leading to employment and increase in income. Training had a positive and significant relationship with increase in income.

#### **2.4.6 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.

#### **2.4.7 Economic Motivation**

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

Nedumaran (2001) reported that in the case of SHGs, it was noticed that during the early years of group formation around 58% of loans were provided for consumption purposes whereas, in the later period of group formation, 71% of loans were provided for productive purposes.

#### **2.4.8 Cosmopolitaness**

Jayalekshmi (1996) found that rural women who had started an enterprise usually sold their produce in nearby towns to increase profit. This increases cosmopolitaness 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 cosmopolitaness behaviour as compared to others.

#### **2.4.9 Credit orientation**

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

Laxmi Kulshreshta (2000) reported that the novel innovative approach of microfinance emphasizes financial intermediation with self sustainability of institutions.

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

#### **2.4.10 Risk orientation**

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

They have small land holdings and thus cannot take risks in trying new ideas. So further motivation was needed to adopt the new ideas.

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.

#### **2.4.11 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.

#### **2.4.12 Social participation**

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

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

#### **2.4.13 Information need perception**

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



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

#### **2.4.14 Training attended**

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

Sivaprasad (1997) reported that majority of youth in sericulture and beekeeping had undergone trainings. Duration of training and the stipend given acted as incentives.

According to Ashaletha (2000), training was positively and significantly related to the awareness about 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 and on economic threshold levels. This shows that the training on IPM had positive effect on farmers.

## **2.5 KNOWLEDGE OF FARMERS ABOUT VEGETABLE GROWING TECHNOLOGIES**

Waghmare *et al.* (1988) observed that 19.33% of the fruit and vegetable growers were found to be in the low knowledge category. Sixty percent were located in medium knowledge category and one fifth of the respondents possessed adequate knowledge about the horticultural development programmes.

located in medium knowledge category and one fifth of the respondents possessed adequate knowledge about the horticultural development programmes.

Shylaja (1981) found that knowledge of crops of the farm women in progressive village was positively and significantly related with mixed farming productivity.

Kanakasabhapathi (1998) found significant relationship between knowledge in the cultivation of important crops and training need of 'Iruilas' of Attapadi.

Surendran (2000) reported that high level of knowledge in farming is an important requirement to undertake profitable farming and also to participate in group activities.

## 2.6 MICRO CREDIT NEEDS

Bansil (1971) concluded that there was no need to provide 100% credit for all the items. The recent survey indicated that even the farmers who were cultivating the high yielding varieties were financing from their own resources practically 100 % of their requirement.

Sharma and Prasad (1971) conceptualized credit need as farmer's need for cash for buying annual inputs and carrying out operations on their farms. Improved technology production credit needs on the medium size farms work out to be the highest followed by the large farms and lowest on the small farms.

Singh and Kahlon (1971) observed that small farmers obtained more short term credit because it was easy for them to obtain short term rather than medium term loan and their owned funds were not sufficient to meet the operational expenses. The medium and large group farmers could meet most of their working expenses more as medium term bank loans.

Bhaskaran (1978) reported that less progressive high adapters were found to require the highest credit as compared to other farmer groups.

Bhagyalakshmi (2001) reported that SHGs started by women in India have begun a silent socio-economic revolution to make a significant reduction in rural and urban poverty.

Chistabell (2001) opined that cheap rural credit policies in India did not reach all the needy. So in order to reach the poorest of-the poor, micro finance institutions are formed.

NABARD (2001) reported that micro finance showed high expansion rates in India during recent years including tribal and marginal areas. It is probably the world's largest and most successful micro finance programme for the rural poor - outstanding in its emphasis on self reliance and local autonomy of the very poor.

Santhosh and Narwade (2001) reported that for bringing change through organization of community approach, one has to set agenda for qualitative change in current practices through significant alterations to existing problems and practices. Now economic and marketing components are to stressed.

## 2.7 MICRO CREDIT UTILIZATION BEHAVIOUR

With regard to utilization of credit, Agarwal (1971) found that 87% is utilized for productive purposes and 13% for unproductive expenditure.

Sharma and Prasad (1971) stated that farmers are using more cash input for high yielding variety seeds, fertilizers, irrigation machinery and land development.

Bhaskaran (1978) reported that no significant relationship has been evidenced between age, extent of holding, education, risk perception, perception of cost of innovation, perception of profitability, social participation, occupation and caste and their extent of adoption as well as their utilization of credit.

Kesavan (1999) opined that the farmer SHGs in VFPCCK have lived upto the expectations of farmers. Many of them have taken roles beyond farming including social, cultural and other spheres of life. Some of the additional activities taken up by the farmer groups include scholarships, farm exhibition awards, farmer magazines etc.

Birdar and Jayasheela (2000) reported that in the case of agricultural credit many farmers do not get adequate loans for the intended purposes. This has resulted in misutilizing the sanctioned loans other than the intended purpose. Proper supervision over the end use of the credit and personal reminders through frequent field visits can be effective devices for checking the mounting overdues.

## 2.8 EXTENT OF TECHNOLOGY ADOPTION BY VEGETABLE GROWERS

Rahman *et al.* (1986) reported that seed rates used by the vegetable growers were quite high compared to the package of practices. In contrast to package of practices recommendations of specific chemicals for protecting vegetable crops from insect pests, the growers applied chemicals of their own choice.

Nehru *et al.* (1988) stated that 64% of the lab to land beneficiary farmers adopted the recommended dose of Nitrogen and 72% adopted the recommended dose of Potash for vegetable cultivation.

Santhosh and Narwade (2001) opined that though improved varieties are adopted by farmers, other components like Integrated Nutrient Management and

Integrated Pest Management are not given due consideration by the farmers due to lack of awareness and confidence.

## 2.9 RELATIONSHIP BETWEEN TECHNOLOGY ADOPTION AND SELECTED PROFILE CHARACTERISTICS OF FARMERS.

Choudhary (1965) found that middle age, higher education and big size of holding was favourable factors for adoption of package practices.

Salunkhe and Thorat (1975) found that the adoption behaviour of farmers failed to show significant relationship with their caste, age, formal schooling, socio-economic status, value orientation and empathy.

Hussain (1992) reported that change brought in the adoption of package of practices through group management approach was significant.

## 2.10 MICRO CREDIT REPAYMENT BEHAVIOUR

Bhaskaran (1978) in his study reported that Co-operative Bank has been preferred by the farmers for the adequate lending capacity, easier repayment as well as accommodative recovery procedures.

Desai (1982) stated that the data collected from sample farmers showed that the group guarantee scheme has a potential to demonstrate its demand advantage and also the supply advantage arising from the lower default risk.

Birdar and Jayasheela (2000) stated that many empirical studies in agricultural credit revealed that loans are being utilized for other than specific purposes. This misutilization of loans increase burden on the borrowers because

they are not in a position to generate enough income to repay the loans which they have availed from the banks.

NABARD (2001) reported that the on time repayment performance of SHG loan continued to be above 95%. The coverage of SHG banking is increasing as it is highly profitable for banks.

Naithani (2001) reported that many studies mention about the Grameen Bank micro financing strategy claiming the repayment rate of 99%, which is a matter of great surprise for commercial banks having clientele of well-to-do compared to beggars, illiterates, widows etc. in case of Grameen.

Bhatia and Bhatia (2002) reported that Oriental Bank of Commerce launched the Grameen Project in 1995 in two districts of North India with one of the districts reporting incredible recovery rate. Cauvery Grameen Bank showed 100% recovery for the promoted SHGs. Branches of Tungabhadra Grameen Bank involved with SHGs and recovered many of its overdues.

Jha (2002) reported that the repayment ethics among the borrower members of micro finance was invariably of higher order, as recovery performance in the case of selected micro finance institutions was observed to exceed 95-98% for all types of credit products.

## 2.11 CONSTRAINTS IN MICRO CREDIT SERVICING AND REPAYMENT

According to the studies on Working and impact of rural SHGs the following constraints were reported.

Sl. No.	Researcher	Constraints identified
1	Anjugam,M and Alagamani,T. (Tamil Nadu) 2001	The major purpose of loans advanced was repayment of old debts from the money lenders
2	Das,R. Barman,R.N. and Baruah,P.K (Assam) 2001	The study revealed the need for more grants and aids to help to build adequate infrastructure which would eventually streamline the various activities of the SHGs. This can result in economic prosperity and social stability to members.
3	Gupta,S.K. and Shrivastava.A (U.P) 2001	It was reported that the state Government wanted to fix targets of forming SHGs to all the Mahila Bal Vikas officials and wanted to add an element of subsidy on loans from banks which should be avoided.
4	Jairath,M.S. (Rajasthan) 2001	The study suggests urgency to expand activities of the SHGs. The people in resource poor region should be motivated and imparted with intensive training in various production activities.
5	Kallur,M.S. (Karnataka) 2001	Since it is micro credit, income generation is small. Attention must be given to keep the savings in an account with the bank, which is operated by the leader and one member selected by the group.

Sl. No.	Researcher	Constraints identified
6	Kamal and Singh,P. (Punjab) 2001	Undue delays in the sanctioning of loans need to be eliminated. This can only help to get the objective of economic uplift of the poor. Undue delay in advancement of loans raises doubt regarding the benefits of group formation.
7	Manimekalai,M. and Rajeshwari,G. (Tamil Nadu) 2001	Among the problems faced by SHGs lack of finance was reported as serious also non availability of raw material, lack of infrastructure facilities including marketing, lack of family support etc.
8	Puhazhendi,V. and Satyasai,K.J.S (NABARD) 2001	Lack of efforts to encourage the NGOs in different regions and motivate them to actively participate in micro credit programme. An effective networking of NGOs and a rating system of NGOs must be developed. This would help in eliminating the ineffective NGOs in the system.
9	Sharma,K.C (Lucknow) 2001	The challenges of micro credit programme are real and change agents will have to struggle for keeping the SHG movement away from subsidy oriented programmes like Swarnajayanthi Gram Swarojgar Yojana
10	Singh (U.P) 2001	The commercial banks are not so prompt in linking with SHGs. The NABARD and NGOs have to make solid efforts to educate and train women groups for keeping and maintaining records properly for achieving better success in future.



## 2.12 PERCEPTION OF EXPERTS ABOUT TECHNOLOGY ADOPTION VIS-A-VIS MICRO CREDIT REPAYMENT

Farrington and Martin (1987) observed that in problem identification scientists usually gave emphasis on the answer of the farmers to their own questions, which might be relevant to a given crop or technology.

Gupta (1987) opined that in order to derive scientific value out of the indigenous practices, crucial observation was essential. They had to be put into proper scientific testing thereby the very frontier of science could be extended.

Titilosa (1990) proposed a method to evaluate the incorporation of indigenous/traditional knowledge in agriculture to development projects in less developed countries, so that the benefits of the traditional farmers' resource management techniques, as dictated by the environment and other social conditions can be harnessed and improved upon.

Andrews (1999) reported that no element of the subsidy or interest concession is provided in the VFPCCK credit package ensuring that all concerned beneficiaries and banks should operate on viable lines.

Kesavan (1999) stated that all agencies supporting the agricultural development have to facilitate farmer to solve his problems rather than trying to solve problems themselves.

Meera (2001) reported that perception of officials was high for Samatha Groups about introduction of credit systems for the rural women who formerly had no access to credit.

### 2.13 PERCEPTION OF FARMERS ABOUT MICRO CREDIT

Mitchel (1978) stated that perception is that factor which shapes and produces what we actually experience.

Sudha (1987) conducted a study on Lab to Land programme and found that about 55% of the non tribals and 75% of the tribals belonged to high perception groups.

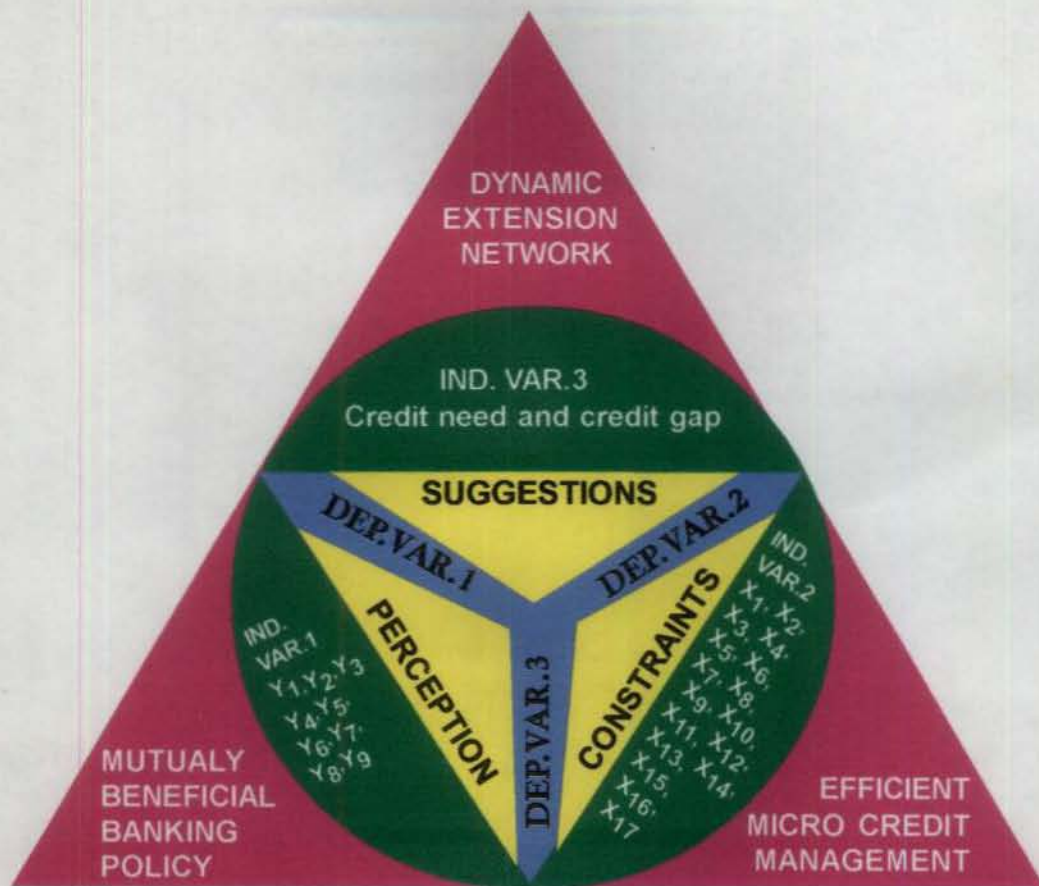
Pickering (1989) concluded that the linkage mechanism largely depends upon four key enabling factors viz. macropolicy climate, government commitment to agriculture, target group identification and recognition of physical production potential and constraints.

Pushpa *et al.* (1993) reported a satisfactory level of linkage in respect of research, extension-client system as perceived by all the three sub systems.

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

Beena (2002) found that lack of active group discussion was perceived as the most important constraint in Grama Sabha functioning by the farmers, officials and peoples' representatives.

Charjan and Hajare (2002) stated that development and dissemination of environmentally friendly farm technologies through appropriate scientific research and public policy support can alone lead to lasting improvement in the living and working conditions of the poor.



DEP.VAR.1 - Micro credit utilization behaviour  
 DEP.VAR.2 - Technology adoption behaviour  
 DEP.VAR.3 - Micro credit repayment behaviour  
 IND.VAR.1 - Group dynamics  
 IND.VAR.2 - Profile characteristics  
 IND.VAR.3 - Micro Credit need and credit gap

Y1 - Attendance  
 Y2 - Frequency of meeting  
 Y3 - Interest rate on SHG loan  
 Y4 - Loan amount  
 Y5 - Group savings per month  
 Y6 - Composition of group  
 Y7 - Record maintained by  
 Y8 - Book of accounts  
 Y9 - Training given by

X1 - Age  
 X2 - Area cultivated  
 X3 - Experience in farming  
 X4 - Annual Income  
 X5 - Increase in income  
 X6 - Educational status  
 X7 - Achievement motivation  
 X8 - Economic motivation  
 X9 - Cosmopolitaness  
 X10 - Credit orientation  
 X11 - Risk orientation  
 X12 - Innovativeness  
 X13 - Social participation  
 X14 - Information need perception  
 X15 - Trainings attended  
 X16 - Market behaviour  
 X17 - Knowledge about vegetable cultivation

**Fig. 1. Conceptual framework of the study**

Jha (2002) stated that in Bangladesh none of micro credit institutions insisted for any form of collateral or security and 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 guarantee was the hidden collateral in all these cases.

#### 2.14. CONCEPTUAL FRAME WORK OF THE STUDY

Abstract idea about the relation between various variables in the study and the aims of the study are presented in the Fig. 1.

In the central position, connecting the corners of inverted triangle are the dependent variables in the study. These will be measured scientifically and they form the main results of the study. The next position is given to intervening variables constraints, perceptions and suggestions which theoretically exist and tend to influence the behavioural measure of independent variables and the dependent variables.

Following this, inside the circle, independent variables are arranged. Inside the external triangle, the three ultimate aims of the study are given.



METHODOLOGY

### 3. METHODOLOGY

The methodology followed in the study is presented under the following heads.

- 3.1 Research design
- 3.2 Locale of the study
- 3.3 Selection of sample
- 3.4 Operationalisation and measurement of dependent variables
- 3.5 Operationalisation and measurement of independent variables
- 3.6 Operationalisation and measurement of intervening variables
- 3.7 Suggestions of beneficiaries and officials for improving SHGs
- 3.8 Methods used for data collection
- 3.9 Statistical tools used for the study

#### 3.1 RESEARCH DESIGN

The credit insurance package under VFPCCK was introduced from the year 1992 among the vegetable and fruit farmers in Thiruvananthapuram district. Suiting this condition, the study was conducted adopting an *ex-post facto* research design. *Ex-post facto* research is 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 (Kerlinger, 1973).

Proper documentation through computerized system was present in VFPCCK to aid correct inferences about variables.

### 3.2 LOCALE OF THE STUDY

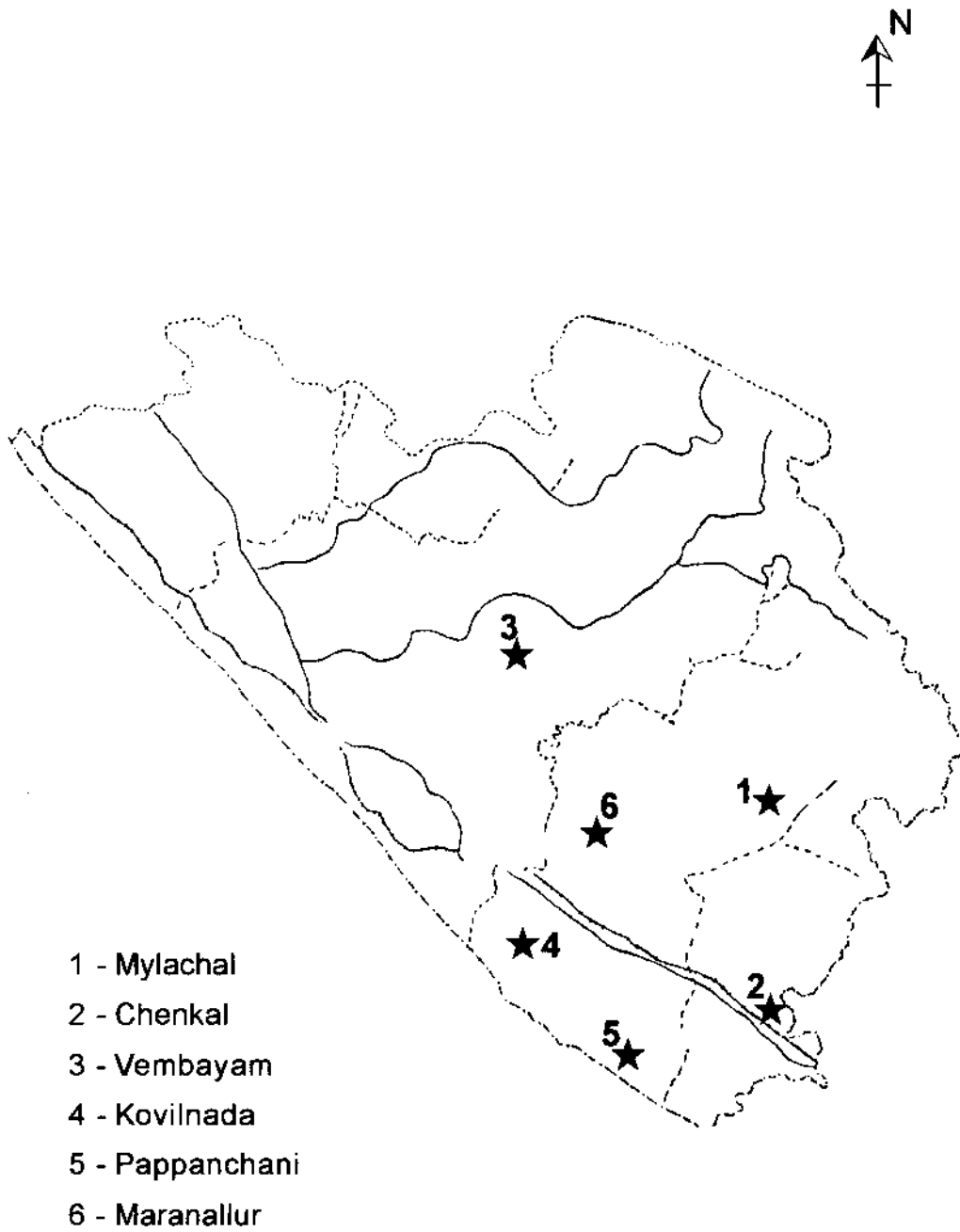
The study was conducted in Thiruvananthapuram District of Kerala. Among the nine project areas of VFPCCK, Thiruvananthapuram District was selected as locale of the study for the following reasons :

1. It is one of the districts with high vegetable cultivation under VFPCCK. Mostly leased cultivation of panthal crops like bitterguard, snake guard etc. are undertaken.
2. With an International Air port with vegetable exporting facilities and other trading centres, marketing system is well developed.
3. It is one of the project areas of VFPCCK where it firstly started its work in 1992. The study was conducted among the randomly selected SHGs of the VFPCCK.

Among the SHGs involved in vegetable cultivation in Thiruvananthapuram district scattered over 18 field centers given in Appendix II, six field centres were selected at random. They were from the Panchayats of Kalliyoor, Vembayam, Maranalloor, Mylachal and Chenkal. In the case of Kalliyoor Panchayat, as it was located near Air port, export oriented vegetable cultivation was prominent. So it was given more representation to get a clear idea about the variables. The SHGs selected from the six field centres are given in Table 1.

### 3.3 SELECTION OF RESPONDENTS

The VFPCCK organises vegetable cultivation in the Thiruvananthapuram district through 18 field centres. From the Panchayats involved in the programme of the VFPCCK in Thiruvananthapuram district, five Panchayats were selected randomly with varying levels of vegetable cultivation. Twelve SHGs were randomly selected from the six field centres as indicated in Table 1 and Fig. 2.



**Fig. 2. Location of the field centres of VFPCCK selected for the study**



Table 1. SHGs selected for the study from the Panchayats

Sl. No	Name of SHG	Panchayat	Bank issuing loan
1	Kaliyavila	Kalliyoor	SBT, Vellayani
2	Pappanchani	Kalliyoor	SBT, Vellayani
3	Rasalpuram	Maranellur	SBT, Ooruttambalam
4	Cheenivila	Maranellur	SBT, Ooruttambalam
5	Kovilnada	Kalliyoor	SBT, Vellayani
6	Erayancode	Kalliyoor	SBT, Vellayani
7	Edavai	Mylachal	SBT, Ottashekaramangalam
8	Kovilvila II	Mylachal	SBT, Ottashekaramangalam
9	Koonoor	Vembayam	SBT, Vembayam
10	Karamkode	Vembayam	SBT, Vembayam
11	Arayoor B	Chenkai	SBT, Udiyankulangara
12	Punchakkari	Kalliyoor	SBT, Vellayani

There were two categories of respondents

1. Beneficiaries of VFPCCK
2. Expert group including scientists of Kerala Agricultural University, extension personnel of VFPCCK and Nationalised Banks. To represent the first category of ten beneficiaries who are actively associated with vegetable production were selected at random from each of the twelve SHGs thus constituting a total of 120 beneficiary - respondents for the study. To represent the second category, 30 experts including scientists, extension personnel and bank officials were selected.

Panthal crops (cucurbitaceous climbers and cowpea) which are usually considered credit worthy were included in the study.

### 3.4 OPERATIONALISATION AND MEASUREMENT OF VARIABLES INCLUDED IN THE STUDY

The dependent variables are operationalised as:

#### **3.4.1. Micro credit utilization behaviour**

It denotes the level of utilization or how much of amount availed through micro credit facility is actually spent for the total field practices. Simple check method using a frequency table was given to the respondents. The frequency table had details of total credit availed by the beneficiary through SHG and the total amount he spent on the different practices identified in scientific cultivation. If the beneficiary utilises the whole amount or more than that of his credit availed for cultivation, utilization was full and if not utilization was partial. Considering the specifications by VFPCCK credit package and also as most vegetable farmers cultivate the economically remunerative panthal crops (cucurbitaceous and cowpea), it is used in the study on utilisation.

#### **3.4.2. Technology adoption behaviour of beneficiaries.**

Adoption behaviour regarding vegetable cultivation technologies is operationalised as the extent to which the recommended technologies that are popularised through Participatory Technology Development in VFPCCK were practised by the respondent in vegetable cultivation.

In the present study, the extent of adoption was measured by using the method adopted by Ramachandran (1992) with slight modification. Here the extent of adoption means the degree to which the respondent had actually adopted the selected practices. Based on discussion with VFPCCK field officers in charge of PTD, nine practices were identified and the respondents were asked whether

partial or improper adoption and zero for non adoption. The summing of scores in each practice gave the technology adoption score of the respondent.

### 3.4.3. Micro credit repayment behaviour

#### a) At SHG Level

It indicates how much the SHGs consider micro credit as beneficial to the linked bank and also the borrower. Three factors were calculated and compared for each SHG.

$$1. \quad \text{Recovery Index} = \frac{\text{Total Recovery}}{\text{Total Lending}}$$

$$2. \quad \text{Thrift Credit Ratio} = \frac{\text{Total Renewal}}{\text{Total Lending}}$$

$$3. \quad \text{Outstanding Credit Ratio} = \frac{\text{Total Default}}{\text{Total Lending}}$$

#### b) At respondent level

At farmers level, repayment behaviour of micro credit refers to the timely and complete repayment of the amount of the micro credit availed. It is measured as complete repayment, partial repayment or non repayment with a score of three, two and one respectively. If the complete amount is paid back by beneficiary, based on the VFPCCK records, then the repayment is complete. If the repayment amount is less than the actual amount taken, it refers to partial repayment at completion of one year. If the beneficiary failed to repay any amount then it is referred as non repayment or the respondent as a defaulter at the end of one year from issue of loan.

### 3.5 OPERATIONALISATION AND MEASUREMENT OF INDEPENDENT VARIABLES

#### 3.5.1 Profile characteristics of the beneficiaries

##### 3.5.1.1. Age

Age was operationalised as the number of calendar years the respondent had completed at the time of investigation since his or her birth. Scoring pattern suggested by Sreedaya (2000) was adopted in the study as given below.

Sl. No.	Age	Score
1	Upto 35 Years	1
2	36-50 Years	2
3	Above 50 Years	3

##### 3.5.1.2. Area under cultivation

It was measured as the extent of area under vegetable cultivation in cents. The following scoring pattern was employed in this case as done by Sreedaya (2000).

Sl. No.	Size of holding	Score
1	Upto 25 cents	1
2	26 to 50 cents	2
3	51 cents to 1 acre	3
4	1.01 to 2 acre	4
5	Above 2 acre	5

### 3.5.1.3. *Experience in vegetable cultivation*

Refers to the total number of years the respondent has been engaged in vegetable cultivation. The method adopted by Sreedaya (2000) was used in this study with slight modification. The scoring procedure was:

Sl. No.	Experience	Score
1	Upto 5 years	1
2	6 to 10 years	2
3	11 to 25 years	3
4	Above 25 years	4

### 3.5.1.4. *Annual income*

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

It was obtained by adding the income earned by all the adult members of the family and income from the land and crops for one year.

The scoring pattern followed in this case is given below.

Sl. No.	Income (Rs.)	Score
1	Upto 2000	1
2	2001 to 5000	2
3	5001 to 10,000	3
4	10,001 to 20,001	4
5	Above 20,001	5

### 3.5.1.5. Increase in Income

Refers to the increase in income after joining SHGs for availing micro credit for one year.

The scoring procedure developed by Meera (2001) was used to measure this variable.

Sl. No.	Increase in Income (Rupees/Annum)	Score
1	Upto Rs.1000/-	1
2	Rs. 1001/- to Rs. 2000/-	2
3	Rs. 2001/- to Rs. 3000/-	3
4	> Rs. 3000/-	4

### 3.5.1.6. Educational status

Refers to the extent of formal learning achieved by the respondent. Educational status was measured by using scoring pattern suggested by Sreedaya (2000) with slight modification.

The scoring pattern is as follows:

Sl. No.	Items	Score
1	Illiterate	1
2	Can read and write	2
3	Primary School	3
4	Middle School	4
5	High School	5
6	College	6
7	Professional degree and above	7

### ***3.5.1.7. Achievement motivation***

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.

### ***3.5.1.8. Economic motivation***

Refers to the extent to which a farmer is oriented towards profit maximisation and relative value he places on monetary benefits.

The scale developed by Sreedaya (2000) was used to measure economic motivation. The scale consisted of six statements of which the fifth and the sixth were negative. Each statement was provided with five-point response categories namely 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with scores of 5, 4, 3, 2 and 1 for positive statements and 1, 2, 3, 4 and 5 for negative statements respectively. The summation of the scores for all the statements formed the score for economic motivation.

### ***3.5.1.9. Cosmopolitaness***

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 own village.

The scoring pattern suggested by Desai (1981) and adopted by Nelson (1992) with suitable modifications was used to measure cosmopolitaness

The scoring pattern is as given below.

Sl. No.	Items	Score
A	Frequency of visit to nearest town	
1	Twice or more in a week	5
2	Once in a week	4
3	Once in a month	3
4	Seldom	2
5	Never	1
B	Purpose of visit	
1	All visits related to his farming	4
2	Some visits related to his farming	3
3	Other purpose	2
4	No purpose	1
C	Membership in organization outside village	
1	Office bearer	3
2	Member	2
3	No membership	1

#### **3.5.1.10. Credit Orientation**

Refers to the 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 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 third item was measured on a four point continuum as 'verybadly', 'badly', 'farely', and 'very farely' with scores 'one', 'two', 'three' and 'four' respectively. The fourth item was measured on a four-point continuum 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.

#### **3.5.1.11. Risk Orientation**

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

It was measured using the scale developed by Sreedaya (2000). The scale consisted of six statements of which one statement was negative. The scoring was on a five-point continuum as 'strongly agree' (5), 'agree' (4), 'undecided' (3), 'disagree' (2) and 'strongly disagree' (1) for positive statements and was reversed in the case of negative statements. The sum of the scorces of each statement was the score for risk orientation of the respondent.

#### **3.5.1.12. Innovativeness**

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 innovativeness with slight modification. 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.

Sl. No.	Response	Score
1	As soon as it is brought to my knowledge	4
2	After I had seen other farmers tried successfully in the farm	3
3	I prefer to wait and take my own time	2
4	I am not interested in adopting improved practices	1

### 3.5.1.13. 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

No membership in organization	0
Membership in each organization	1
Office bearer in each organization	2

#### 2. Frequency of participation

Never attending any of the meeting	0
Some times attending meetings/activities	1
Regularly attending meetings	2

The scores obtained by a respondent on the above two dimensions were summed up across each item for all the organisations which gave his social participation score.

#### **3.5.1.14. Information need perception**

It refers to the perception of respondents about the degree of information respondent wanted to know about the micro credit facilities before availing it. It was measured using the scale developed by Kailasam (1980). The scale consisted of 8 items. The scoring was on a five point continuum as 'Most needed' (4), 'Needed' (3), 'Some what needed' (2), 'Less needed'(1) and 'not needed' (0). Mean score was calculated and arranged according to ranks for each respondent.

#### **3.5.1.15. Trainings undergone**

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.

Sl. No.	Trainings undergone in production activity	Score
1	No training	0
2	One training	1
3	Two trainings	2
4	Three or more trainings	3

#### **3.5.1.16. Marketing Behaviour**

Marketing Behaviour of micro credit beneficiaries is operationalised with the help of the response from the beneficiaries to the questions given under five items namely, where they sell their products, how they transport them, to whom they sell, under what terms and conditions they sell and finally their opinion about existing market facilities. The scale followed by Sirajudeen (1980) was used with slight modifications. Percentage analysis was used to find out the distribution of beneficiaries.

### 3.5.1.17. Knowledge level in vegetable cultivation

The knowledge of farmers was tested using a simple Teacher made test developed by Sreedaya (2000) for the purpose. The list contained six questions about vegetable cultivation which the respondent had to answer. A score of 'three' was given to the correct answer, 'two' for partially correct answer and 'one' for wrong answer. The sum of the scores obtained for all the items indicated the knowledge score of the respondent.

### 3.5.2. Group Dynamics

Considering the factors influencing the group performance, the sample groups were post stratified. Different indicators of group dynamics levels selected were attendance, frequency of meeting, interest rate for group-lending, amount of loan disbursed in the group in one year, group saving per month, composition of group, records maintenance, book of accounts in the group and trainings given for the group. The scoring system followed was according to Nedumaran (2001). The summation of individual scores of the variable obtained by SHG gives the total score of the group as given below.

Sl. No.	Variables/Indicators	Criteria	Scores
1.	Attendance	a) more than 90%	10
		b) between 70 - 90%	5
		c) less than 70%	3
2.	Frequency of meeting	a) Weekly	10
		b) Fortnightly	5
		c) Monthly	3
3.	Interest rate on SHG loan	a) interest rate vary according to purpose of loan	10
		b) uniform interest rate for all purposes	5

4. Loan amount (Rs.)	a) upto 40,000	3
	b) 40,001 - 80,000	5
	c) above 80,000	10
5. Group saving per month (Rs.)	a) upto 500	3
	b) 501 - 1000	5
	c) above 1000	10
6. Composition of group	a) Membership is homogeneous	10
	b) No-homogeneity in membership	5
7. Records maintained by	a) Literate member in the group	10
	b) Animator from NGO	5
8. Books of accounts	a) up to 4 books	3
	b) 5-8 books	5
	c) above 8 books	10
9. Trainings given by	a) Bank + NGO + govt. authority	10
	b) Any two	5
	c) Any one	3

---

### 3.5.3. Micro credit need and credit gap of the vegetable growers

For the assesment of the micro credit need of the farmer, the procedure explained by Johl and Kapur (1976) was employed for the study. The credit need was calculated was as follows.

Credit need = Total cost of cultivation for the crop he has grown - (minus) capital availability to him or owned fund he is incurring for cultivation.

For this a standard package of practice questions comprising all practices for vegetable cultivation with the cost actually incurred were collected. The respondent reported the owned fund he spent on the vegetable cultivation for each practice. The difference gave the credit need.

Credit gap was calculated as difference between micro credit availed by the farmer and the credit need. This indicated the amount farmer had to avail from other lending sources.

Credit gap = Credit need - amount farmer has availed as micro credit for the vegetable cultivation undertaken.

### 3.6. OPERATIONALISATION OF THE INTERVENING VARIABLES

#### 3.6.1. Constraints in micro credit servicing

It is operationalised as those main difficulties or problems faced by beneficiaries of micro credit which hinder the effective servicing of micro credit facilities by them.

Based on the review of literature and discussion with extension personnel of VFPCCK, a list of constraints was prepared with 10 main constraints. The respondents were asked to record their extent of agreement or disagreement regarding the relevancy of these constraints as hindering the micro credit servicing effectively. The scoring was done on a five-point continuum as 'strongly agree' to 'strongly disagree' and score of five to one were given. The total score for each of the statements was calculated and ranking of constraints was done.

#### 3.6.2. Constraints faced by the farmers in micro credit repayment

It is operationalised as those main difficulties or problems faced by the beneficiaries of micro credit which hinder the timely repayment of credit availed by them.

Based on the review of literature and discussion with extension personnel of VFPCCK, a list of constraints was prepared with 10 main constraints. The respondents were asked to record their extent of agreement or disagreement regarding the relevancy of these constraints as hindering the micro credit

repayment effectively. The scoring was done on a five-point continuum as 'strongly agree' to 'strongly disagree' with scores of five to one were given. The total score for each of the statements was calculated and ranking of constraints was done.

### **3.6.3. Perception of the experts about technology adoption vis-a-vis micro credit repayment**

Perception is defined as a process by which people organize, interpret, experience, process and use stimulus materials in the environment so that they satisfy their needs.

In the present case, this variable was measured by applying the schedule developed by the researcher for the purpose. The schedule consisted of 10 questions reflecting the respondents' perception about the technology adoption vis a vis micro credit repayment. The respondents were asked to give their responses in a five-point continuum as 'strongly agree' to 'strongly disagree' and the scoring pattern was 'five' to 'one' for positive statements and the scoring was reversed in the case of negative statements. The total score of each of these statements was the expert - respondent's score on the perception about technology adoption vis-a-vis micro credit repayment. For each statement, median was calculated. The respondent with score value more than median was rated as having high level of perception.

### **3.6.4. Perception of the beneficiary farmers about micro credit utility**

It was measured by applying the schedule developed by the researcher for the purpose. The research reports from journals were referred to list down the benefits realised by the beneficiaries of micro credit in all regions. Relevant benefits for the farmer in vegetable cultivation was finalised as ten factors. Perception of farmers about the utility of micro credit in these factors was

measured on a five-point continuum ranging from 'strongly favourable' to 'strongly unfavourable' with scoring pattern of a 'five' to 'one'. The total score on each of these statements was the respondent's score on the perception about micro credit utility. For each statement, median score was calculated. The respondents with score value higher than median was rated as having high perception.

### 3.7 SUGGESTIONS OF THE FARMERS AND THE EXPERTS FOR IMPROVING MICRO CREDIT UTILISATION

The suggestions of the respondents based on their field experiences was measured by applying the schedule and questionnaire developed by the researcher for the purpose. The respondents were asked to give their responses in a five-point continuum as 'strongly agree' to 'strongly disagree' and the scoring pattern was 'five' to 'one' for positive statements and the scoring was reversed in the case of negative statements. The total score for each of the statements was calculated and ranking of suggestions was done.

### 3.8 METHODS USED FOR DATA COLLECTION

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

To study the constraints and perception of experts, separate questionnaires were prepared.

### 3.9 STATISTICAL TOOLS USED FOR THE STUDY

The collected data were analysed using the following statistical tools.



### **3.9.1 Mean**

The respondents were classified into categories based on scoring pattern into Low, Medium and High groups for the variables selected based on the mean scores after statistical analysis.

### **3.9.2 Percentage**

Percentage analysis is done to aid in easy comparison.

### **3.9.3 Correlation analysis**

Extent of variation and relationship between variations of variables studied were determined by correlation analysis.

•

A decorative banner with a wavy, ribbon-like shape. The banner is white with a black outline and contains the text "RESULTS AND DISCUSSION" in a bold, black, sans-serif font. The banner is positioned horizontally and has a slight 3D effect with black shading on the inner curves.

**RESULTS AND  
DISCUSSION**

## **4. RESULTS AND DISCUSSION**

This chapter deals with the results obtained and the discussion of these results of the study .

The highlights of study conducted among 120 beneficiaries and 30 experts are discussed under the following sections. Two sections are formed in the light of the objectives set forth.

### **SECTION 1**

- 4.1.1 Distribution of the groups based on group dynamics indicators
- 4.1.2 Distribution of the beneficiaries based on their profile characteristics
- 4.1.3 Micro credit need and credit gap of the respondents
- 4.1.4 Distribution of the beneficiaries based on their market behaviour
- 4.1.5 Distribution of the beneficiaries based on their technology adoption behaviour and its relationship with the profile characteristics
- 4.1.6 Micro credit utilization behaviour of the beneficiaries
- 4.1.7 Distribution of the groups and the beneficiaries based on their repayment behaviour
- 4.1.8 Empirical model of the results from SECTION 1

### **SECTION 2**

- 4.2.1 Constraints faced in micro credit servicing
- 4.2.2 Constraints faced in micro credit repayment
- 4.2.3 Perception of the experts about technology adoption viz-a-viz micro credit repayment.
- 4.2.4 Perception of the beneficiaries about micro credit utility
- 4.2.5 Suggestion for improving micro credit utilisation
- 4.2.6 Empirical model of the results from SECTION 2

## SECTION I

**4.1.1.1 Distribution of the groups based on group dynamics indicators**

According to Hepple (1959), outlines for describing groups in general regarding the ideal model for studying groups is specific for each condition. The VFPCCK groups can be considered as on their "carrying on" phase of Sandersons' life cycle of groups.

Table 2. Distribution of groups based on group dynamics (n=12)

Sl. No.	Variable	Category	Score	Frequency	%
1	Group Dynamics	Low	< 35	0	
		Medium	35-71	12	100%
		High	> 71	0	

All the 12 groups studied had a medium level of scores as given in Table 2. The newness is over and the 'Swashraya Sanghoms' (Self Help Groups) have now become synonym for overall empowerment of beneficiaries regarding income generated, area cultivated and social status attained.

It is the time to think about inadequacies and future prospects. Certain adjustments are necessary and methods of establishing working relations with more meaningful outcomes are to be devised and executed.

**4.1.1.2 Distribution of the groups regarding discipline in group functioning**

Out of the twelve SHGs only three had an attendance of more than 90 per cent and others were having an attendance between 70-90 per cent.

Table 3. Distribution of groups based on attendance in meeting (n=12)

Sl. No.	Attendance in meeting	No. of SHGs	%
1	More than 90%	3	25
2	between 70-90	8	67
3	less than 70%	1	8

In these groups, most members reported their inability to attend the meeting early or sent family members as representatives. All were made to write their names in the attendance register. Puhazhendi and Jayaraman (1999) also reported that regular attendance was a major factor contributing to good group participation. Thus the direction of response of members about the group functioning is reflected in the attendance level.

One SHG had less than 70 per cent attendance. The members of this group complained about the inconvenience in the time fixed. If attendance is made a pre-requisite to avail loan, meetings can be held with enhanced participation. Also leaders and the facilitator must make members realise that this group is 'doing things' and more important the members must feel proud that they are part of it.

#### *4.1.1.3 Distribution of the groups based on frequency of meetings*

The group members had met once in a month in all groups except one. The group which met fortnightly was dealing with marketing aspects and so had to take more decisions and evaluate it. Members felt it sufficient for money transactions and to take decisions on group functioning. Similar social status of members, more informal and less interference of politics in group decision making and existence of flexible rules and regulations in implementing group decisions will create less conflict situations as reported by Surendran (2000). Hence less frequent group meetings were reported.

Table 4. Distribution of groups based on frequency of meetings (n=12)

Sl. No.	Particulars	No. of SHGs	%
1	Weekly	0	
2	Fortnightly	1	8
3	Monthly	11	92

#### 4.1.1.4 *Distribution of the groups based on interest rate pattern*

All loans were based on cultivated land area with uniform interest level fixed by the Banks. Beneficiaries were expected to use their loan amounts for profitable farming. Sustainable income generation was given importance than supply of consumption loans. VFPCCK acted as a link agency to avail timely credit which was unreachable for many beneficiaries especially the leased in farmers. Studies have shown that high interest rates becomes a burden mainly in case of consumption loans. (Pallavi and Ramakumar, 2002).

Table 5. Distribution of groups based on interest rate pattern (n=12)

Sl. No.	Particulars	No. of SHGs	%
1	Interest rates vary according to purpose of loan	0	
2	Interest rate uniform fixed by bank for all purpose	12	100

#### 4.1.1.5 *Distribution of the groups based on loan amount*

Nine groups preferred amount upto Rs.40,000/- while three groups preferred amount between Rs.40,000 to Rs.80,000 as loan. As the amounts were given collateral free, leased cultivation was made possible profitably for landless beneficiaries which attracted more unemployed youngsters to farming.

Table 6. Distribution of groups based on loan amount (n=12)

Sl. No.	Particulars	No. of SHGs	%
1	Upto Rs.40,000/-	9	75
2	Rs.40,001 – Rs.80,000	3	25
3	Above Rs.80,000	0	0
Total		12	100

The farm size on an average was 75 cents to 100 cents. So the amount at the rate of Rs.300/- per cent accounted for the utilization in field and repayment was facilitated. In India a ceiling of Rs.25,000/- has been fixed as loan amount for defining micro credit (NABARD, 2001).

#### *4.1.1.6 Distribution of the groups based on group savings per month (Rs.)*

It is seen from the Table 7 that three SHGs each were having savings amount Rs. 500 and Rs. 500 - 1,000. The remaining six SHGs had savings of above Rs.1,000. This formed the 'common fund' pooled by the SHG members which was collected at the meeting. It was used as 'rolling fund' or for functioning expenses. Six groups had above Rs.1,000 which was kept in an account in the bank. All the members were convinced about the utility of savings for the groups and had interest to increase the savings.

Table 7. Distribution of groups based on group savings per month (n=12)

Sl. No.	Particulars	No. of SHGs	%
1	Upto Rs.500	3	25
2	Rs.501 - 1,000	3	25
3	Above Rs.1,000	6	50
Total		12	100

#### ***4.1.1.7 Distribution of the groups based on number of books of accounts maintained***

The number of books of account denotes the orderly functioning of groups with records of their activities. This helps in evaluation, accounting, auditing and also the facilitator from VFPCCK can ensure smooth transfer of orders. Registers can be attendance register harvest register, savings register, bank pass books etc. It is seen that upto four books were maintained in six SHGs and the remaining six had 5 - 8 books.

Table 8. Distribution of groups based on no. of books of accounts maintained  
(n=12)

Sl. No.	No. of books	No. of SHGs	%
1	Upto 4 books	6	50
2	5 - 8 books	6	50
3	Above 8 books	0	0
Total		12	100

#### ***4.1.1.8 Distribution of the SHGs regarding Composition of the group***

The basic requisite for SHG membership is owning five cents of land and being a farmer. All the groups were homogeneous. The members were mutually agreeing to compromise differences and co-operate. The master farmer or leadership positions were transferred ensuring that all members get the training facility and are able to participate with equal responsibility.

#### ***4.1.1.9 Distribution of the groups based on record maintenance***

To ensure participation, the records had to be maintained by the group members themselves. Mostly one literate member kept the record duly



completed. No group had to depend upon the facilitator from VFPCCK to fill the entries of registers maintained.

#### ***4.1.1.10 Distribution of the groups regarding trainings received***

All the members had opined that VFPCCK conducted training on the topics selected by the group members regarding field problems which were unsolved before. The banks and government authorities were inactive or not satisfactorily functioning to train them. Surendran (2000) in his study has also recommended that there is a need to promote effective participatory group approach in government and NGO sector of agricultural development in Kerala.

#### **4.1.2. Distribution of the beneficiaries based on their profile characteristics**

The details in Table 9 reveal that the majority of the beneficiaries were in medium category for age, annual income, farm size, educational status, achievement motivation, economic motivation, cosmopolitaness, credit orientation, information need perception, risk orientation and knowledge in vegetable cultivation. Majority vegetable cultivation, innovativeness, social participation, training, and increase in income after joining group. The details in Table 9 reveal that the majority of the beneficiaries were in medium category for age, of the beneficiaries were in high category regarding experience activity.

The result that the majority of the beneficiaries belonged to the 'High' category in respect of all the vital profile characteristics can be considered as a positive effect of group formation for micro credit supply on technology adoption. Homogenous nature of group enabled efficient interaction bringing out the best of the success stories. This could have motivated the members to rise above individual limitations. Thus transparency of activities resulted in efficient group character mobilisation making group characters more important.

Maximum number of the respondents in high category was observed for the variables viz. innovativeness (97.5%) followed by trainings (94.2%), social participation (90%) and experience in vegetable cultivation (80%). Highest percentage in medium category was observed in economic motivation (92%) followed by credit orientation (85.8%).

Table 9. Distribution of the respondents based on their profile characteristics  
(n=120)

Sl. No.	Characteristic	Category (mean $\pm$ SD)	Score	f	%
1	Age	Low	< 33	15	12.5
		Medium	33 - 52	96	80
		High	> 52	09	7.5
2	Annual Income (Rs.)	Low	< 6400	33	27.5
		Medium	6400 - 63900	71	59.2
		High	> 63900	16	13.3
3	Farm size (cents)	Low	< 9	0	0
		Medium	9 - 194	102	85
		High	> 194	18	15
4	Experience in vegetable cultivation (years)	Low	< 2	0	0
		Medium	2 - 25	20	20
		High	> 25	100	80
5	Educational status	Low	< 3	12	10
		Medium	3 - 6	104	87
		High	> 6	04	03
6	Achievement motivation	Low	< 6	05	04
		Medium	6 - 8	104	87
		High	> 8	11	09
7	Economic motivation	Low	< 20	06	05
		Medium	20 - 26	110	92
		High	> 26	04	03
8	Cosmopolitaness	Low	< 6	12	10.2
		Medium	6 - 10	95	79
		High	> 10	13	10.8
9	Credit orientation	Low	< 12	11	9.2
		Medium	12 - 15	103	85.8
		High	> 15	06	05



Table 9 (Continued)

Sl. No.	Characteristic	Category (mean $\pm$ SD)	Score	f	%
10	Innovativeness	Low	< 2	03	2.5
		High	2 - 4	117	97.5
11	Social Participation	Low	< 2	0	0
		Medium	2 - 10	12	10
		High	> 10	108	90
12	Information need perception	Low	< 25	13	10.8
		Medium	25 - 33	98	82.7
		High	> 33	09	7.5
13	Training	Low	< 2	07	5.8
		High	2 - 3	113	94.2
14	Risk orientation	Low	< 21	13	10.8
		Medium	21 - 26	98	82.7
		High	> 26	09	7.5
15	Knowledge in vegetable cultivation	Low	< 10	35	29
		Medium	10 - 18	75	62.5
		High	> 18	10	8.5
16	Increase in Income	Low	< 2	29	24.2
		High	2 - 4	91	75.8

#### 4.1.3. Micro credit needs and credit gap of respondents

With reports of grave unemployment in Kerala, the majority of rural youth is left with an inadequate resource base for any production purpose especially farming. Micro credit is based on the basic principles of social banking. Bank credit largely remain concentrated among landed population. Also lending of consumption loan resulted in the creation of non profit making assets on account of poor repayment of loans. By making the bank amount small and laying down conditions of SHG formation for social pressure, in micro-credit non collateral loans are provided to needy and mostly leased farmers.

Table 10. Micro credit needs and credit gap of the respondents (n = 120)

Sl. No.	Particulars (for one cent)	Amount Rs.
1	Credit need of vegetable cultivation in leased land for panthal crop	538
2	Amount supplied as loan for vegetable cultivation in leased land for panthal crop	300
3	Credit gap for vegetable cultivation in leased land for panthal crop	238

Salin (1999) reported that area and production of vegetables and banana increased as result of VFPCCK activity in Thiruvananthapuram project area. Here the crops considered were bittergourd, snakegourd, coccinia and cowpea which are climbers raised in panthals.

Many respondents reported if not supported by the VFPCCK loan, they would not have taken to vegetable farming. So total amount of difference between amount spent and loan amount can be considered as credit gap. As the cost of cultivation of the respondents is Rs.538 and loan amount per cent is Rs.300 for the panthal crop on leased land, the credit gap is Rs. 238 which is the difference between amount spent and loan amount.

#### 4.1.4 Distribution of the beneficiaries based on Marketing Behaviour

The marketing behaviour of the beneficiaries included aspects like where they sell their produce, to whom they sell their produce, what is their mode of transport, under what terms and conditions they sell their produce and their opinion about existing market facilities. The findings are presented in Table 11.

Though all the beneficiaries were expected to market their produce at the field centre itself, only 69 per cent followed the rule. The local market was given second preference (20 per cent) and the nearby market had got third preference (11 per cent).

Table 11. Distribution of beneficiaries based on market behaviour

(n 120)

Sl. No.	Item	f	%
1	Place of Marketing		
	At the field centre	83	69
	Locally	24	20
	Nearby market	13	11
	Distant market	0	0
	Total	120	100
2	Mode of transport		
	Bicycle	58	48
	Bullock cart	0	0
	Lorry	9	7.5
	Other automobiles	53	44.5
	Total	120	100
3	Source of marketing		
	Selling at the field center	70	58
	To the shopkeeper	9	7.5
	Through brokers	19	15.8
	Directly to the mandies	22	38.7
	Total	120	100
4	Terms and conditions of marketing		
	On ready cash	80	66.7
	On contract	0	0
	On tender	27	22.5
	On credit	13	10.8
	Total	120	100
5	Opinion about existing marketing facilities		
	Quite sufficient	55	46
	Sufficient	41	34
	Insufficient	24	20
	Total	120	100

Bicycle was used by 48 per cent of beneficiaries and autorickshaws by 44.5 per cent as mode of transport of harvested produces. Lorry was hired especially in case of transport to export locations and district level markets (7.5 per cent).

Majority of beneficiaries (59 per cent) sold their produce at field centers. Remaining 7.5 per cent sold their produce to the shop keepers and 15.8 per cent of farmers exported their produce through brokers monitored by field centers.

Sitting and selling directly to customers was the source of marketing for 38.7 per cent of beneficiaries.

With regard to the terms and conditions of marketing, about 67 per cent received ready cash on sales, 22.5 per cent as tender and the rest 10.8 per cent sold as credit. Existing marketing facilities were found to be quite sufficient to 46 per cent of beneficiaries. The rest 34 per cent opined it as sufficient while 20 per cent reported it to be insufficient.

#### 4.1.5 Distribution of the respondents based on technology adoption behaviour and its relationship with the profile characteristics

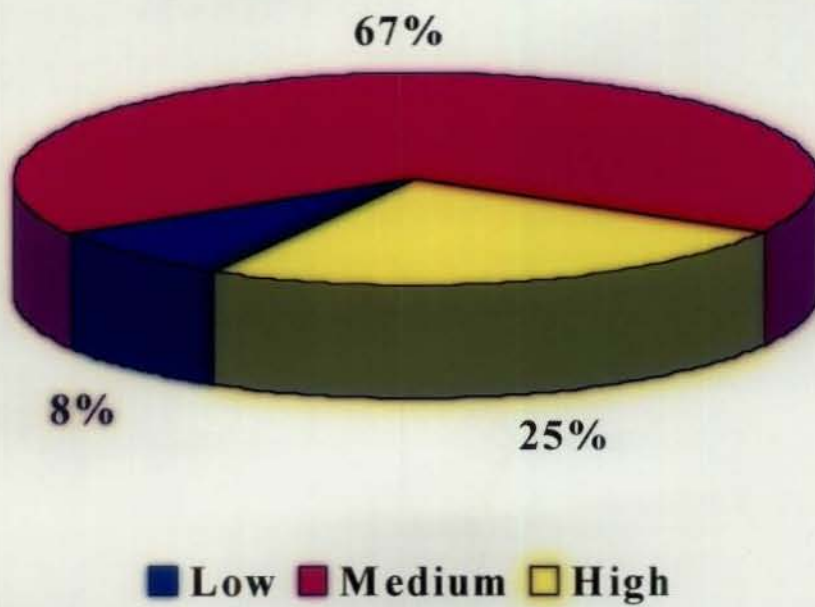
It is seen from the Table 12 that the majority of the beneficiaries (67 per cent) belonged to the medium category with regard to adoption of the recommended technology. It is also presented in Fig. 3. Beneficiaries were very much interested in the organic pest management measures. The participatory technology development measures undertaken were well accepted by the beneficiaries.

Table 12. Distribution of respondents based on technology adoption behaviour

(n=120)

Sl. No.	Character	Category (mean $\pm$ SD)	Score	f	%
1	Technology adoption	Low	10	10	08
		Medium	10 - 16	80	67
		High	16	30	25
	Total			120	100

A perusal of Table 13 revealed that age (0.1820), cosmopolitaness (0.1839), social participation (0.1773) and risk orientation (0.2403) had got positive and significant relationship with technology adoption.



**Fig. 3. Distribution of the respondents based on technology adoption behaviour**

Table 13. Relationship of technology adoption behaviour and the profile characteristics of the beneficiaries

(n=120)

Sl. No.	Profile characteristics	Correlation coefficient
1	Age	0.1820*
2	Annual Income	0.1074
3	Farm size	0.0171
4	Experience in vegetable cultivation	0.1368
5	Education status	0.0553
6	Achievement motivation	0.0099
7	Economic motivation	0.0868
8	Cosmopolitaness	0.1839*
9	Credit orientation	0.0101
10	Innovativeness	-0.1191
11	Social participation	0.1773*
12	Information need perception	-0.1189
13	Training	0.0451
14	Risk orientation	0.2403**
15	Knowledge in vegetable cultivation	0.1501
16	Increase in income	0.1090

\*\* - significant at 5% level

\* - significant at 1% level

The members of SHGs over a period of time are expected to graduate to the stage of micro entrepreneurs with the active support of the banks. With repetition of farming activities each year, beneficiaries got more specialised helping in skill improvement. With increasing age beneficiaries gathers more confidence to adopt technology. So the significant and positive correlation of age with technology adoption. Also in the study of Muller (1997), regarding correlation of age and group characteristics a significant and positive correlation was reported.

The cosmopolitaness is indicated by wider contact with influential and authoritative agencies and more communication with successful farmers and frequent field visits. These convince and persuade beneficiaries to adopt new technologies more. This is supported by reports of study by Thomas (1998).



Social participation is the variable with 90% respondents in high category. Group participation increases technology adoption. Also the Panchayats and Haritha Sanghoms are helping to increase social participation. This finding derives support from the studies of Manoj (2000).

Risk orientation is directly related to technology adoption. Risk regarding large number of crops, financial risks, seasonal risks, innovative risks and worthiness risk were the ideas included in the statements for risk orientation analysis. This finding of the present study is supported by the findings of Momi and Sohal (1975).

All other individual characteristics were not significantly related to technology adoption. The present trend could be explained in the light of the results relating to distribution based on profile characteristics furnished elsewhere. It is only natural that as group characteristics were having majority of respondents in 'High' category, it became more relevant in technology adoption level.

#### **4.1.6 Micro credit utilization behaviour of beneficiaries**

The main objective of micro credit provision is for facilitating production and economic activities for profitable farming. If there is a common problem that upsets the beneficiaries, it is the ever increasing cost of production, which needs group measures for its reduction.

It can be seen from the Table 14 that total cost of cultivation is Rs.538/- for one cent. For one acre, more than 50,000 rupees are required. The labour cost required for land preparation followed by labour cost for panthal raising makes it most costly cultivation practices. Labour cost is also rated as main constraint in timely repayment as given in Table 17. The beneficiaries use their family labour at their disposal in the most beneficial manner.

Table 14. Cost of cultivation for panthal crops per cent

Sl. No.	Activity	Amount spent (Rs.)	%
1	Seed purchase	12	2.0
2	Seed treatment	5	0.9
3	Land preparation	150	27.8
4	Soil amendments	13	2.4
5	Panthal raising	135	25.0
6	Chemical fertilizer	40	7.4
7	Organic manures	65	12.0
8	Plant protection	13	2.4
9	Harvesting	30	5.6
10	Transporting	21	3.9
11	Rent amount	54	10.6
Total		538	100.0

Seed treatment and organic farming are widely followed by the effects of campaigns undertaken at SHG level. With the broadening awareness about deleterious effects of pesticides and chemical fertilizers on human health and environment, more importance is given to organic farming. Also pesticides including Neem oil suspension were also popular in vegetable cultivation.

Purchase of seeds, other inputs and transportation of harvested produce at group basis will help to reduce the cost of cultivation. Policies at government level must be formulated to reduce the rent amount and availability of land must also be ensured at suitable seasons.

The micro credit utilization can be considered as complete as the credit availed was 238 rupees less than the reported cost of cultivation incurred by

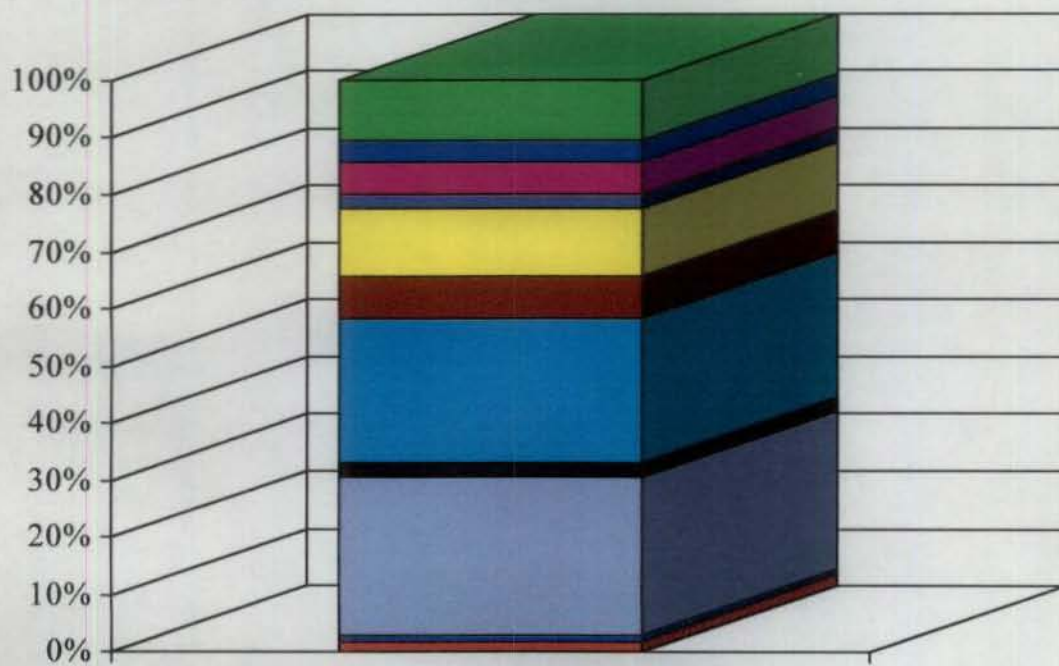
beneficiaries at the field level as given in Table 10. As utilization is complete no correlation analysis with profile characteristics were done. The facts are presented in Fig. 4 also.

Many empirical studies have revealed that loans are misutilised leading to non generation of farm income for proper repayment of loans (Patel, 2000). This is contradictory to presented result. This can be explained as due to increased scientific orientation and experience sharing to make use of practical reasoning for decision making in farming. This could be the result of trainings provided as a support for skill upgradation. The high perception of beneficiaries about micro credit is also presented else where which leads to proper utilization.

#### **4.1.7. Distribution of groups and beneficiaries based on their repayment behaviour**

The SHGs contribute towards improving the quality of lending by offering loans in a prompt and simple manner, ensuring need based loans to only productive purposes and keeping the loans within the repayment capacity of the borrowers as intimate knowledge about the members are possible.

The credit recovery data are given as on October 2002 in the Table 15. The repayment pattern was analysed using the indices given in Appendix - 1. Of these total lending, total recovery and total renewal data was used to get the Recovery Index, Thrift credit ratio and outstanding credit ratio. Number of defaulters is of the range one to four in all SHGs except one. In the SHG Kovilvila II which reported 13 defaulters, wide measures were planned at the group level. The next meeting would have a special session with bank officials to persuade the defaulters to repay. The field officer was hopeful as the group repayed completely during last season.



- Seed purchase      ■ Seed treatment      ■ Land preparation      ■ Soil amendments
- Panthal raising      ■ Chemical fertilizer      ■ Organic manures      ■ Plant protection
- Harvesting      ■ Transporting      ■ Rent amount

**Fig. 4. Distribution of amount spent in cultivation activities**

Table 15. Distribution of groups and beneficiaries based on their repayment behaviour (as on October, 2002)

Sl. No.	Name of SHG	Total Lending	Total Recovery or Total Renewal	Total defaulters	Recovery Index	Thrift Credit Ratio	Outstanding Credit Ratio
1	Kaliyalvila	8	7	1	0.88	0.88	0.13
2	Pappanchani	18	14	4	0.77	0.77	0.22
3	Rasalpuram	25	24	1	0.96	0.96	0.04
4	Cheenivila	17	17	0	1	1	0
5	Kovilnada	11	11	0	1	1	0
6	Erayancode	20	18	2	0.9	0.9	0.10
7	Edaval	24	21	3	0.88	0.88	0.13
8	Kovilvila II	25	13	12	0.52	0.52	0.48
9	Koonoor	14	14	0	1	1	0
10	Karamkode	24	23	1	0.96	0.96	0.04
11	Kumbhamvila	16	14	2	0.88	0.88	0.13
12	Punchakkari	14	11	3	0.79	0.79	0.21

It is seen that the total renewals is same as total repayment. Beneficiaries are convinced about the utility of credit and are availing it repeatedly so that income generated can ensure timely repayment. At the beneficiaries level, all the respondents had completely repaid. The few defaulters were intentionally avoiding meetings. So the repayment is considered as complete for all respondents. Hence the correlation analysis with profile characters was not done.

The outstanding credit ratio is below 0.5 as seen from Table 15. Except for Kovilvila II SHG having 0.48, the others have it between 0.21 and 0.04. This clearly supports the studies showing high repayment levels of micro credit. Sharma and Shankariah (1999) observed that group lending has been found to be successful with rural poor people in many developing countries. Groups not only

manage the credit and saving but also ensure proper use and repayment of loans they added. The results are also illustrated in Fig. 5 to enable comparison of outstanding amount and recovered amount which are inversely related.

The results reveal that micro financing is not only more popular but also productive in terms of savings generated and further disbursement of credit.

#### **4.1.8 Empirical model of results from SECTION 1**

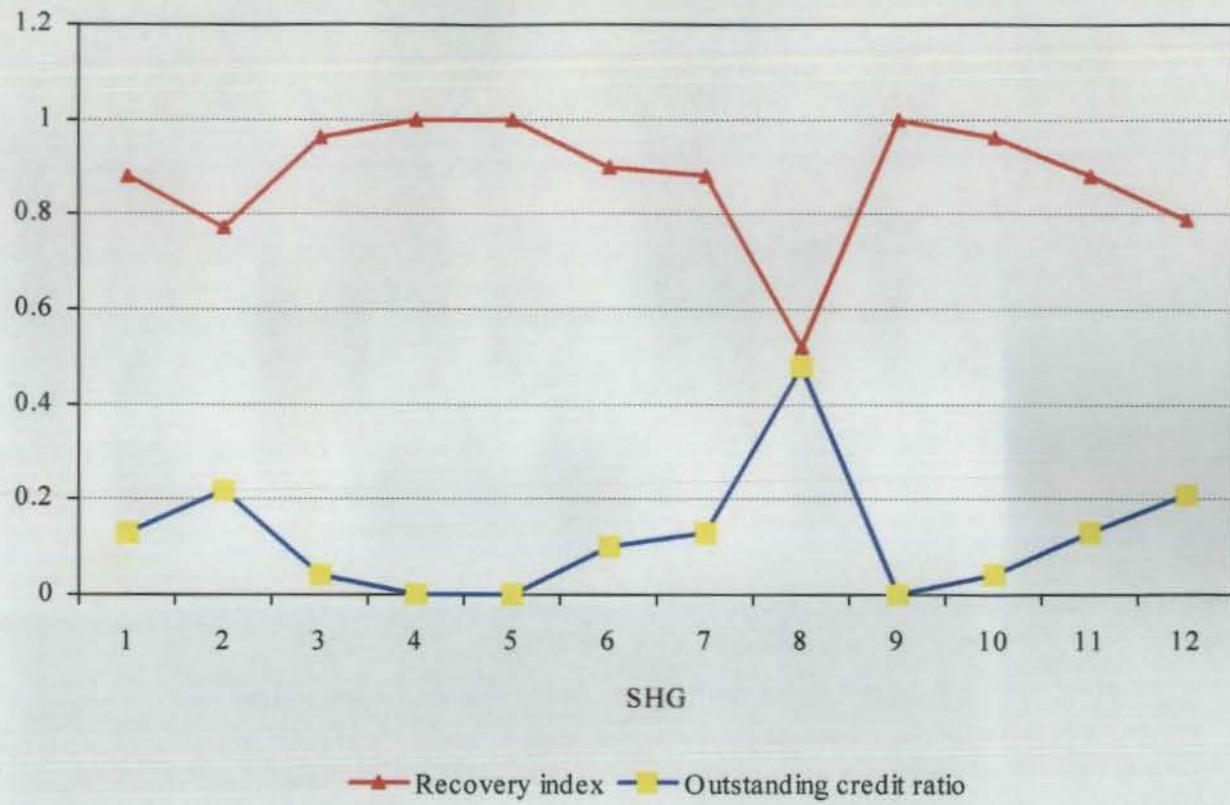
The results discussed in section 1 are given in an empirical form in Fig. 6. The basic social behaviour in group activities of a homogenous group is illustrated in top. Any deviation from expected performance standards of a group member will be frowned upon by remaining members. The realization of this idea among the beneficiaries of micro credit in each SHG resulted in generation of better group dynamics indicators as given in the left side. Also profile characteristics were having majority of group members in high category.

In such a favourable group activity condition as the illustration at bottom reveals, many basic desires are best satisfied. This generated the performance of the dependent variable as given in the right side. Further this will generate a sense of need for sustaining the group activities. Thus a cycle is repeated.

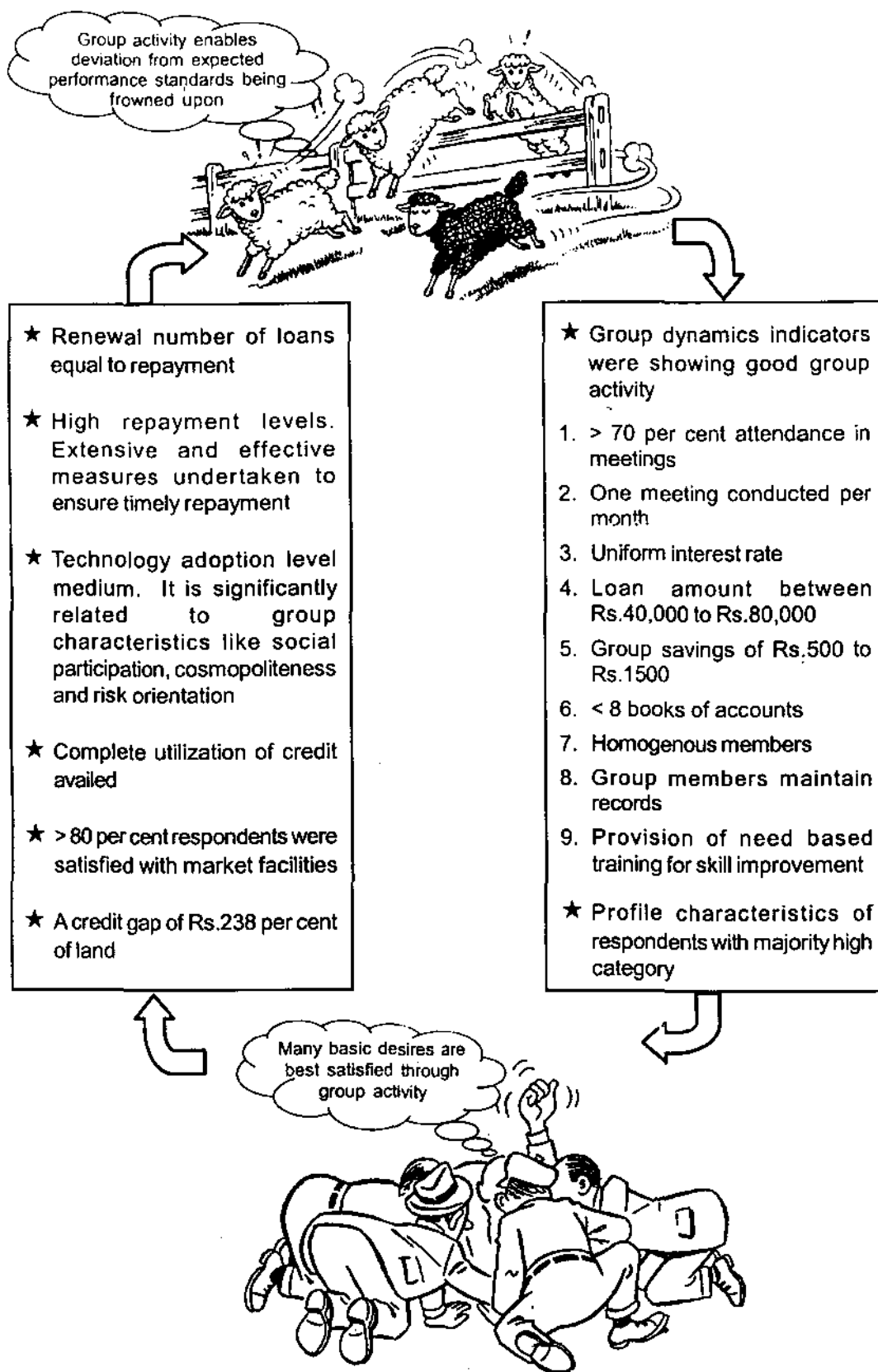
## **SECTION 2**

### **4.2.1 Constraints faced in micro credit servicing**

The constraints faced in micro credit servicing as ranked by respondents are given in the Table 16. The following aspects were revealed from the ranking. The most important constraint was formal book keeping procedures which had to be updated. It has been revealed in many studies that NABARD and NGOs supporting micro credit had to make solid efforts to educate and train SHG members for keeping and maintaining records properly for achieving better success in future. Subsidy was an important and attractive benefits for many



**Fig. 5. Distribution of SHGs regarding repayment behaviour**



**Fig. 6. Empirical model of results from SECTION 1**



governmental development programmes in farming sector. But in the case of micro credit, subsidy is absent which is a main constraint. As revealed by many studies in Indian economy, repayment of other debts limits productive utilization of micro credit supplied. Constraints with less relevance were short term nature of micro credit followed by fixing of season of loan allotment and finally time of meetings fixed. The number of field staff present, support of bank officials and presence of office building along with presence of non farming members in SHGs were having medium importance as constraints.

Table 16. The constraints faced in micro credit servicing as perceived by the experts (n=30)

Sl. No.	Statement	Score	Rank
1	Maintaining registers require guidance to ensure timely documentation of micro credit provided	129	I
2	Compared to other development programmes benefits are less as subsidy is absent in micro credit programmes	116	II
3	Repayment of other debts limits productive utilization of micro credit provided	115	III
4	The number of field staff must be increased to ensure timely micro credit servicing	98	IV
5	Support of bank officials are not satisfactory in availing micro credit servicing	89	V
6	Office buildings for meetings and marketing are not available which limits micro credit servicing efficiency	86	VI
7	Presence of non farming members in the SHGs limits the availability of micro credit to needy farmers	83	VII
8	Short term credit is more promoted than long term credit in micro credit programmes	82	VIII
9	Micro credit provision period are not fixed according to convenience of seasonal cultivation of vegetables	80	IX
10	Meeting time not convenient to attend due to farming operations which delays credit plan preparation.	70	X

#### 4.2.2 Constraints faced in micro credit repayment

As noticed from the Table 17 constraints in micro credit repayment with decreasing relevance are discussed below. Labour cost is a major constraint increasing the cost of cultivation and reducing profit. Also market glut resulted as a constraint in adequate marketing facilities enabling low cost for product. Presence of wilful defaulters who are reluctant to pay act as a negative force further reducing repayment levels. Other interesting factors are that political influence is not rated as a major constraint. Also as loans are productive and not consumptive, interest rates is not treated as a constraints. Overdues are also not expected to be written off.

Table 17. The constraints faced in micro credit repayment as perceived by the experts (n=30)

Sl. No.	Statement	Score	Rank
1.	Labour cost is a major constraint in profitable farming and income generation leading to more defaulters	156	I
2.	More produce and acreage leads to market glut which reduces the cost of produce leading to more defaulters	106	II
3.	Wilful defaulters are more leading to revenue recoveries and further reduction in repayment levels	106	III
4.	Moneylenders are used as credit source for repayment which makes the farmer more debited	92	IV
5.	Importance of savings for productive use not stressed which reduces repayment levels	88	V
6.	Existence of other competing groups leads to more drop-out levels which limits group pressure to ensure repayment	85	VI
7.	Special encouragement service for correct repayment absent to support further timely repayment	52	VII
8.	High political influence limits repayment levels by influential members	71	VIII
9.	Interest rate high compared to other source of credit for farming operations	70	IX
10.	Over dues are expected to be written off and hence repayment levels are low	66	X

#### 4.2.3 Perception of the experts about technology adoption vis-a-vis micro credit repayment

Most of the statements given in the Table 18 to measure the perception of officials about technology adoption vis-a-vis Micro credit repayment recorded majority of respondents in high category. The score coming above mean score was categorized as high and the score equivalent and below mean score was categorized as low.

Importance of regular field visits, experience sharing among farmers and monitoring through group meeting recorded 100% of respondents in high category. Low adopted technologies as perceived by experts were vermicomposting and straight fertilizer usage. More motivation are needed because these are technologies which are cost reducing and easy to adopt.

Table 18. The perception of experts about technology adoption vis-a-vis micro credit repayment (n=30)

Sl.No	Statement	Category	Frequency
1.	Regular field visits through SHGs functioning help in participatory technology development and hence sustained income increase	Low	0
		High	30
2.	Experience sharing among farmers helps in spreading effective ideas to neighboring farmer to increase the income levels	Low	0
		High	30
3.	Compulsion & strictness by group pressure ensure group input purchase, credit utilization and repayment	Low	2
		High	28
4.	Monitoring and recording of adopted technologies is possible through SHGs ensuring income increase	Low	0
		High	30
5.	Design & conduct of need based training programmes in technology adoption and ensuring timely repayment credit compaigns are effective through SHGs	Low	3
		High	27
6.	Intercropping helped in risk management with regard to market glut and crop loss leading to timely credit repayment	Low	3
		High	27

(Table 18. Contd...)

Sl.No	Statement	Category	Frequency
7.	Market informations are better communicated through the marketing centers ensuring better price levels	Low	3
		High	27
8.	Adopted technologies are too risky and complex to result in sustained income and correct repayment	Low	9
		High	21
9.	Organic farming compaigns like vermicomposting were successful in ensuring sustainable vegetable cultivation using the micro credit supplied	Low	10
		High	20
10.	Straight fertilizer usage increased and so reduction in cost of cultivation resulted helping in timely credit repayment	Low	12
		High	18

#### 4.2.4 Perception of the beneficiaries about micro credit utility

It is seen from the Table 19 that only one statement had below 50 per cent for high rating scores. Thus except for the amount supplied, beneficiaries are having high perception for the benefits of micro credit supplied. The most attractive benefits identified were renewal chances and easy repayment instalments. Also absence of collateral security, reduction in cost of borrowing, reduction in time spent and presence of experts in fields were added benefits. 75 per cent of respondents had high rating for the statement that micro credit made farming profitable.

#### 4.2.5. Suggestions of beneficiaries and experts for improving micro credit supply

Based on the field experiences, the beneficiaries of micro credit programme identified that major changes can be done to help in sustaining group action, improving repayment level, role of banks and incentives for timely repayment. They are further discussed below.

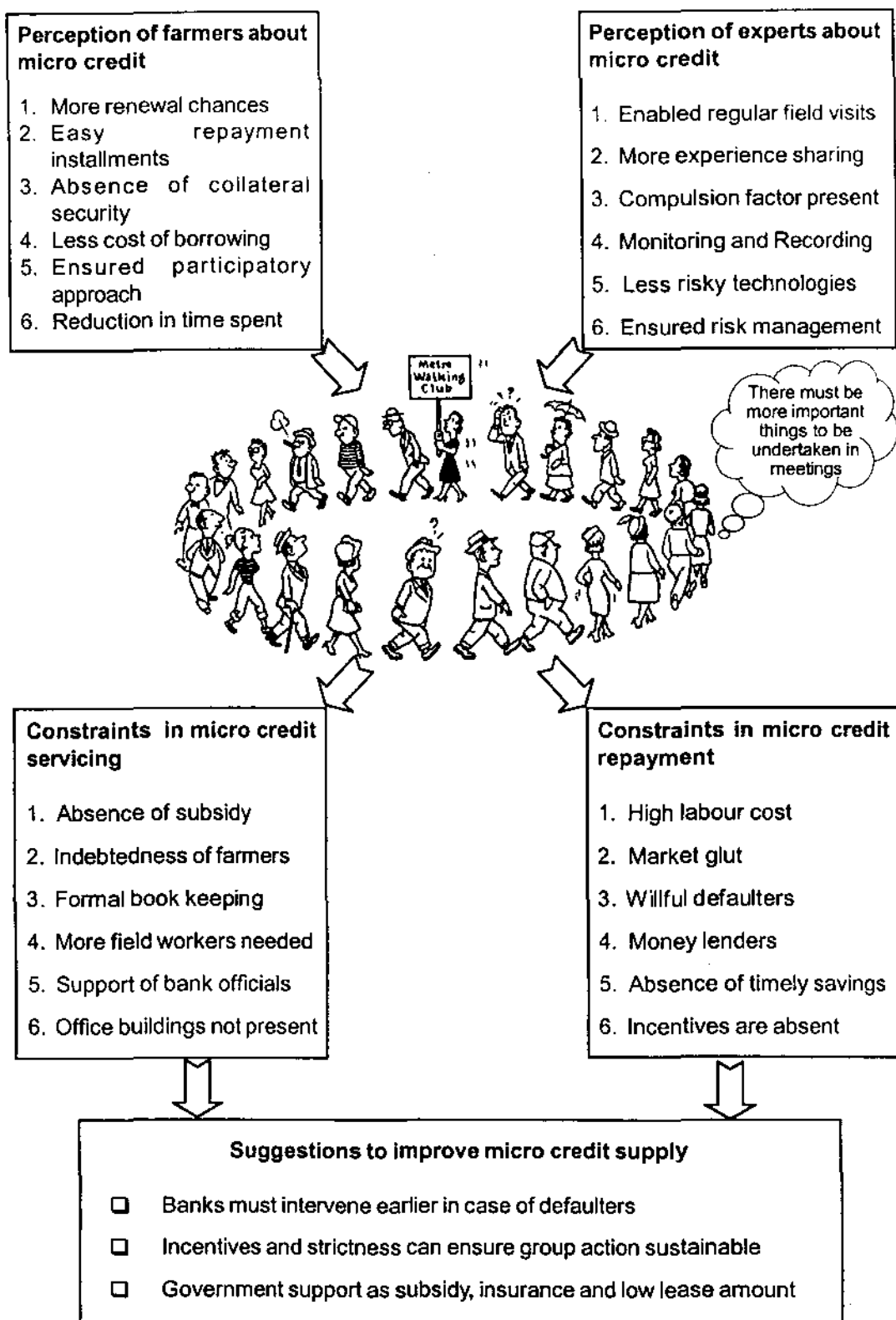
Table 19. Perception of the beneficiary farmers about micro credit utility  
(n=120)

Sl.No.	Statements	Category	f	%
1.	More renewal chances	Low	0	0
		High	120	100
2.	Easy repayment installments	Low	0	0
		High	120	100
3.	Absence of collateral security	Low	10	8
		High	110	92
4.	Reduction in cost of borrowing	Low	12	10
		High	108	90
5.	Ensured participatory approach	Low	15	12
		High	105	88
6.	Reduction in time spent	Low	20	17
		High	100	83
7.	Made farming profitable	Low	30	25
		High	90	75
8.	Experts are going to field levels	Low	40	33
		High	80	67
9.	Convenient interest levels	Low	50	42
		High	70	58
10.	Satisfactory amount supplied	Low	100	83
		High	20	17

It is seen from Table 20 that the suggestion which was ranked first was regarding more active role from the part of the bank. Once a defaulter is identified, banks must share equal responsibility with the field officers to avoid revenue recovery. If needed revenue recovery must be the earliest so that group functioning is least affected. Proper training of bank officials regarding how beneficiaries are oriented in their perception about micro credit must be undertaken.

Table 20. Suggestions for improving micro credit supply (n=150)

Sl. No.	Statements	Score	Rank
1.	Once a defaulter is identified, banks must share equal responsibility to avoid revenue recovery	120	I
2.	If needed revenue recovery must be the earliest so that group is least affected by defaulters	105	II
3.	Meetings should be arranged after 5 p.m. if attendance is low	90	III
4.	Incentives like interest reduction are needed for prompt repayment	88	IV
5.	Make provision to remove the non farming members from SHGs	83	V
6.	Proper identification of beneficiaries with least political influence	81	VI
7.	Close monitoring of beneficiaries is needed at harvesting time	79	VII
8.	Insurance for crop loss in vegetable crops with practical conditions	75	VIII
9.	The marketing centres can make provision of transport facilities at harvest so that members will not sell products by other ways	72	IX
10.	Governmental support must be increased in policy measures and monetary aspects	60	X
11.	Group measures to reduce the lease amount must be undertaken	58	XI
12.	Proper training of bank officials regarding how beneficiaries are oriented in their perception about micro credit	54	XII
13.	Attendance must be made strict and necessary for loan sanction	52	XIII
14.	The social role of 'Swashraya Sanghoms' must be extended and made self sustaining	50	XIV
15.	Loan amount must be increased if repayment is timely for last season	46	XV



**Fig. 7. Empirical model of results from SECTION 2**

Regarding improvement in the repayment levels further incentives are needed. It can be as interest reduction, monetary support or an increase in the loan amount supplied. Also group measures to reduce the lease amount must be undertaken.

Effective suggestions for better group function include meetings to be arranged after 5 p.m. and removal of non farming members from SHGs and proper identification of beneficiaries of loan. Close monitoring of beneficiaries is needed at harvesting time also. Transport facilities can be undertaken by marketing centres to ensure that the members will not sell their products by other ways. Attendance must be made strict and necessary for loan sanction. Governmental support must be increased in policy measures and also in monetary aspects like insurance for vegetable crops and reduction in lease amount.

#### **4.2.6. Empirical model of results from SECTION 2**

The main idea of group activity realised by members in a meeting is given in the illustration. Creative members will have a feeling that there must be more meaningful and important things to be undertaken in meetings. Wasting time by just going in a circle one behind another is futile. Perception about the activities which are going on will influence this thought. Based on perception, the constraints are evaluated. Suggestions for further action perspectives are finally listed down in Fig. 7.



## 5. SUMMARY AND CONCLUSION

Micro credit supply is an effective and financially viable alternative to the existing methods of rural credit supply. It has got multidimensional resource utilization networks. Linkage between credit source and beneficiaries through experts is ensuring better repayment levels, better utilization levels and better technology adoption levels.

The study is an enquiry into the reported increase in area of vegetable cultivation and financial viability due to provision of micro credit among beneficiaries of SHGs of VFPCCK in Thiruvananthapuram district.

The specific objectives of the study were:

1. To assess the micro credit need, credit gap and credit utilization
2. To ascertain the micro credit repayment behaviour of beneficiaries
3. To study the micro credit utilization behaviour of beneficiaries
4. To list out the constraints and suggestions to overcome them in micro credit repayment and servicing.
5. To assess and correlate with profile characteristics of beneficiaries, their adoption level of improved technologies in vegetable cultivation.
6. To study the perception of experts about technology adoption viz-a-viz micro credit repayment and that of beneficiaries about micro credit utility.

The study was conducted in Thiruvananthapuram district during the months of June, July and August 2002. From the Panchayats having SHGs organised by the VFPCCK in Thiruvananthapuram district, five Panchayats were selected randomly with varying levels of vegetable cultivation. Again from the Panchayats, 12 SHGs were randomly selected. There were two categories of respondents.

1. Beneficiaries of VFPCCK
2. Expert group including scientists of Kerala Agricultural University, extension personnel of VFPCCK and Nationalised Banks. To represent the first category of ten beneficiaries who were actively associated with vegetable production were selected at random from each of twelve SHGs thus constituting a total of 120 beneficiary - respondents availing credit package of VFPCCK.

To represent the second category, 30 experts including scientists, extension personnel and bank officials were selected. Panthal crops ( bittergourd, snakegourd, coccinia and cowpea) were the vegetable crops considered.

The dependent variables for the study were micro credit utilization behaviour of beneficiaries, technology adoption behaviour of beneficiaries and micro credit repayment behaviour of beneficiaries. The independent variables for the study were the profile characteristics of beneficiaries, group dynamics of SHGs and micro credit need and credit gap of beneficiaries.

The independent variables and group dynamics indicators/variables were selected based on past studies and discussions with experts in the field.

The variables were measured with the help of various statistical measurement procedures. The VFPCCK recommended technology and cost of cultivation were used as standards to measure technology adoption and credit

cultivation were used as standards to measure technology adoption and credit utilization. Regarding level of repayment, details maintained at the computer system in VFPCCK were referred to.

The data were collected using pre-tested and structured interview schedule and questionnaire prepared for the purpose. The statistical tools used were frequency method, simple percentage analysis and correlation analysis.

### **Findings**

1. Eighty per cent of the respondents were in the age group of 33 - 52 years and 15 per cent below 33 years. Thus youngsters were being attracted to vegetable farming on leased lands and they were sustaining the income generated as a profitable business.
2. In the case of training, 95 per cent of respondents are in the high category. But in the case of technology adoption only 25 per cent are in the high category. So enthusiasm shown in attending trainings was not seen at field level technology adoption rate.
3. In the case of defaulters, bank intervention must be more early and strict to avoid possible revenue recovery.
4. The VFPCCK credit package had got special and effective steps to reduce defaulter rate through credit campaigns, follow up meetings, which are very effective in maintaining high repayment levels.
5. Organic farming was being adopted at an increased level and organic fertilizers are considered as key for quality maintenance of products than chemical fertilizers.

6. Inter cropping and multiple cropping are very effective against market glut which must be further supplemented by storage facilities.
7. The export potential of vegetables was widely exploited and it is helping in profitable farming in potential areas near air port.
8. Group characters such as social participation and cosmopolitaness were more relevant to technology adoption than individual characters like area, knowledge, experience, education etc.
9. Political influence in group functioning was rated as one of the least important constraints.
10. The marketing facilities were reported as sufficient or more than sufficient by eighty per cent of beneficiaries. This is a clear indication of reason behind group marketing through 'Swashraya Vipanyies' widely accepted by beneficiaries.
11. The perception of micro credit supply by beneficiaries was high. In many sites the group members protested strongly against transfer of existing field officers. They relate the benefits to the sincere work of agriculture graduates appointed as assistant managers.
12. The group dynamics scores indicate that majority of groups was on 'carrying on' phase of group functioning.
13. Utilization of micro credit was complete as the reported cost of cultivation was more than the loan amount.
14. The credit need was almost completely met by the loan amount. Most of the beneficiaries reported that if the micro credit supply was absent, they would not have undertaken such extensive farming especially in leased in lands.

15. Own fund spent for cultivation was minimum.
16. Main constraints identified in micro credit servicing were correct maintenance of registers and absence of the subsidy. Least felt constraints were inconvenient meeting time and timely availability of micro credit.
17. Main constraints identified in micro credit repayment were high labour cost and market glut which limit profit levels. The least felt constraints were political influence and interest rate.

### **Suggestions for future research**

The performance of SHGs studied has been rated as at medium level only and sustainability of established position effectively must be studied further. The role and changes needed in the existing policies of government and funding agencies must be specified in detail by further studies. Increasing the efficiency of group leadership is a very scopeful factor for action research as a wide network of 'master farmers' have been established in the SHGs.

A decorative banner with a wavy, ribbon-like shape. The banner is white with a black outline and features the word "REFERENCES" in a bold, black, sans-serif font centered on it. The banner has a slight 3D effect with black shading on the inner curves of the folds.

REFERENCES

## 6. REFERENCES

- Agarwal, D.C. 1971. Institutional credit for agriculture in Malwa. *Indian J. Agric. Econ.* **26** : 565
- Anand, Jaya. 2000. Micro Finance in Kerala. *Kurukshetra* **48** : 16-21
- Andrews, Sajan. 1999. Participatory Credit Planning – An innovation in rural credit delivery system : *Proceedings of National Seminar HORTINDIA 99*, Kerala Horticultural Development Programme, Cochin : 145-147
- Anjugam, M. and Alagamani, T. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Ashaletha, S. 2000. Impact of NARP on Agricultural Development in the Southern Agro Climatic Zone of Kerala. Ph.D. thesis, Kerala Agricultural University, Vellanikkara, p. 14
- Bansil, P.C. 1971. Short-term credit requirement at the end of the Fourth Plan, 1973-74. *Indian J. Agric. Econ.* **26** : 467-473
- Basram, G.S. 1966. 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 KVK. *Indian J. Ext. Edn.* **33** : 64
- Beena, S. 2002. Performance and potential of gramasabhas in crop production in Athiyanoor block of Thiruvananthapuram district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 82

- Bhagyalakshmi, J. 2001. New Initiatives for Poverty Alleviation. *Yojana* **45** : 12-13
- 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, p. 108
- Bhatia, Navin and Bhatia, Anju . 2002. Lending to Groups : Is It Worthwhile ? *Yojana* **46** : 20-22
- Birdar, R.R. and Jayasheela. 2000. Rural Finance A village study. *Kurukshetra*. **43** : 19-25
- Charjan, Y.D. and Hajare, T.N. 2002. Ecological Agriculture solves the Problems of Indian Agriculture. *Kisan World* **29** : 43-45
- Chirstabell, P.J. 2001. Role of Micro Finance Institutions in Development Process. Department of Economics, University of Kerala, Kariavattom, p. 3
- Choudhary, K.P. 1965. Farmers' Response to Farm Planning Programme in an I.A.D.P. block. *Ind. J. of Extension*, **1** : 143
- Clark, G.C. 1991. An effective strategy for securing sustainable participation of small farmers in rainfed areas. *Extension Strategies for Rainfed Agriculture*. (eds. Prasad, C. and Das, P.) ISEE and ICAR, New Delhi, p. 192-197
- Das, R., Barman, R.N. and Baruah, P.K. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Deepali, P.J. 2002. Rural Credit. *Yojana* **46** : 38-44



- Desai, B.M. 1982. Group lending innovation for rural areas : a pilot study. Oxford and IBH publishing Co., New Delhi, p. 14
- 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, p. 133
- FAO. 1999. UN rural institutions and participation services. *Proc. FAO Email Conf. Small farm Group Associations : Bringing the poor together 1998*. Rome, p. 10-22
- Farrington, J. and Martin, A. 1987. Farmer participation in agricultural research : a review of concepts and practices. *Agricultural Administration Unit Occasional Paper 9*, ODI, London, p. 10
- 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, p. 102
- Ghosh, D.K. 2001. Population Policy : Role of Panchayats. *Yojana* 45 : 36-39
- Gupta, A.K. 1987. Scientific perception of farmers innovation in dry regions barriers to scientific curiosity. Working paper No. 699, India Institute of Management, Ahemadabad, p. 72
- Gupta, S.K. and Shrivastava, A. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* 56 : 449-490
- Hepple, L.M. 1959. Group organisation and leadership in rural life. Lucas. Bros. Columbia. p. 29-70

- Hussain, M.M. 1992. Group Management in rice production : an action research. Ph.D. thesis. Kerala Agricultural University, Vellanikkara, p.283
- Jairath, M.S. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* 56 : 449-490
- Jayalekshmi, G. 1996. Entrepreneurial behaviour of rural women in Thiruvananthapuram District. M.Sc. thesis, Kerala Agricultural University, Vellanikkara, p. 115
- Jayalekshmi, G. 2001. Empowerment of Rural Women through self help groups - An Action Research. Ph.D. thesis, Kerala Agricultural University, Vellayanikkara, p. 144
- 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 : Lessons for India. *Yojana* 46 : 23-30
- Johl, S.S. and Kapur, T.R. 1976. Fundamentals of Farm Business Management. Kalyani Publishers, Delhi, p. 335
- Kailasam, S. 1980. The Credit Seeking, Repayment, Utilization Pattern and Information Need Perception of Borrowers. M.Sc. (Ag.) thesis. Tamil Nadu Agricultural University, Coimbatore, p. 28
- Kallur, M.S. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* 56 : 449-490

- Kamal and Singh, P. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Kanagasabapathi, K. 1998. Traditional practices in dry land agriculture. International Conference on extension strategy for minimising risk in rainfed agriculture - abstracts. *Ind. Soc. Extn. Edn.* New Delhi, p. 78
- Kerlinger, F.N. 1973. Foundations of Behavioural Research. Holt, Renhart and Winston, New York, p. 102
- Kesavan, P.K. 1999. Farmer Empowerment Through Participation. *Proceedings of National Seminar HORTINDIA 99*, Kerala Horticultural Development Programme, Cochin, 59-64
- Laxmi Kulshrestha, R. 2000. Micro-Finance the new development paradigm for poor rural women. *Kurukshetra* **49** : 22-25
- Manimekalai, M. and Rajeshwari, G. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Manjusha, J. 1999. Techno-economic assessment of farming practices in the cultivation of bittergourd (*Momordica charantia* L.) in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 106
- Manoj, S. 2000. Techno-socio-economic assessment of farmer's practices in rice cultivation in Thiruvananthapuram district. M.Sc. thesis, Kerala Agricultural University, Vellanikkara, p. 102
- Meera, M.J. 2001. Performance of Samata Self Help Groups in the Empowerment of Rural Women in Ulloor Panchayat. M.Sc. thesis, Kerala Agricultural University, p. 100, 99

- Mitchel, B. 1978. An analysis of perception of the role of subordinates with respect to authority, responsibility and delegation in community schools at the attendance centre level. Ph.D. thesis, Michigan State University, p. 70-90
- Momi, G.S. and Sohal, T.S. 1975. Significance of characteristics of innovations for adopters and non-adopters. *Indian 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. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 96
- NABARD. 1995. *As the Darkness Fades Away*. National Bank for Agricultural and Rural Development, Thiruvananthapuram, p. 8
- NABARD. 2001. NABARD and Micro Finance. Micro Credit Innovations Department, NABARD, Mumbai, p. 3, 6
- Nagayya, D. 2000. Micro Finance For Self Help Groups. *Kurukshetra*. 48 : 10-12
- Nair. S. Tara. 2000. Rural Financial Intermediation and Commercial Bank - Review of Recent Trends, *Econ. and Pol. weekly*, 25 : 299-306
- Naithani Pankaj. 2001. Micro Financing the Self Employment Activities – A See Saw of Ideas. *Kurukshetra* 49 : 12-13
- Nedumaran, S. 2001. A study on the performance and socio-economic impact of the Self Help Groups. M.Sc. (Ag.) thesis, Tamil Nadu Agricultural University, p. 25, 64
- Nehru, S.M., Thampi, A.M. and Hussain, M.M. 1988. *Group Management in Vegetable Farming – An Innovative Extension Approach*. Directorate of Extension, Kerala Agricultural University, Vellanikkara, p. 12-17

- Nelson, S. 1992. Role of Krishi Bhavan in Agricultural Development in Thiruvananthapuram District. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 46
- Nizamudeen, A. 1996. A multidimensional analysis of Kuttimulla cultivation in Alappuzha district. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 102
- Pallavi, Chavan and Ramakumar. 2002. Micro Credit and Rural Poverty - An Analysis of empirical evidence. *National Bank News Review*. **18** : 17-36
- Parthasarathi and Santha, Govind. 2002. Knowledge of Trained and Untrained Farmers on IPM practices. *J. of Extn. Edn.* **13** : 3293-3297
- Patel, A. R. 2000. Rural Credit. Need for Bank Initiatives. *Kurukshetra*, **48**: 2-7
- Pickering, D.C. 1989. Farmer – Extension – Research : A two way continuum for Agricultural and Rural Development. *J. Ext. Systems*. p. 1-12
- Puhazhendi, V. and Satyasai, K.J.S. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Puhazhendi, V. 2000. Evaluation study of self help groups in Tami Nadu, NABARD, Mumbai, p. 10
- Puhazhendi, V. and Jayaraman, B. 1999. Increasing Women's Participation and Employment Generation among Rural Poor. An Approach through Informal Groups. *National Bank News Review* **15** (4) : 41-45
- Puhazhendi, V. and Satyasai 2000. Evaluation study of Self Help Groups in Tamil Nadu. National Bank for Agricultural and Rural Development, Mumbai, p. 60

- Pushpa, R., Chandrakandan, K., Sujatha, J. and Annamalai, R. 1993. Perception on the Existing Research – Extension – Clientele Linkage and Feed Back – A Study. *J. Ext. Edn.* 1 : 624-628
- Rahman, O.A., Reghunath, P. and Prasad, R.M. 1986. Prospects and problems of commercial vegetable growing in rural areas. *Rural Development Review* 5: 494-498
- Rajendralal, T.V. 1997. Multidimensional study on special component plan schemes for the Scheduled caste farm families. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 136
- Ramachandran, C. 1992. Impact on minikit trials on the adoption behaviour of farmers. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p. 102
- Ranganathan, S. 2001. Role of nationalized banks for self employment amongst youth. M.Sc. (Ag.) thesis, Tamil Nadu Agricultural University, Coimbatore, p. 73
- Rao, A. Appa. 1989. Group farming as a basis for efficient resource utilisation for small and marginal farmers. *Regional workshop on group farming.* National Institute of Rural Development, Hyderabad, p. 55
- Rao, P. Punna and Satyanarayana, C.H. 1992. Information Sources and Borrower's opinion about Regional Rural Bank Credit. *Agricultural Banker:* 13-15
- RBI. 1971. Report of Credit Guarantee Corporation of India. Reserve Bank of India, Bombay, p. 65

- RBI. 2001. Budget for the year 2000-2001 : Role of banks and government. *Financing Agriculture*. **32** : 12-13
- Salin, T. 1999. End user retailing of vegetables and fruits in Trivandrum city. *Proceedings of National Seminar HORTINDIA 99*, Kerala Horticultural Development Programme, Cochin : 151-154
- Salunkhe, V.C. and Thorat, S.S. 1975. Adoption behaviour of small farmers in relation to their personal characteristics. *Ind. J. Extn. Edn.* **11** : 67-69
- Santhoshkumar and Shahaji Narwade. 2001. Sustainable agricultural practices and PP : A case study. *Yojana* **45** : 29-33
- Sharma, J.S. and Prasad, B. 1971. An assessment of production credit needs in developing agriculture. *Indian J. agric. Econ.* **26** : 503-511.
- Sharma, Shishir and Shankariah, Chamala. 1999. Ensuring Sustainable Rural Financing by Commercial Banks. *Ind. J. Extn. Educ.* **35**: 79-89
- Sharma, K.C. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* **56** : 449-490
- Shylaja, S. 1981. Influence of leaders in the development of rural areas. M.Sc. thesis, KAU, Vellanikkara, p. 203
- Sindhu, S. 2002. Social Cost-Benefit Analysis in Vegetable Production Programmes in Kerala Through Participatory Approach. Ph.D. thesis, Kerala Agricultural University, p. 145
- Singh Harwant and Kahlon, A.S. 1971. A study of credit requirements and advances to farmers in Patiala District. *Indian J. agric. Econ.* **26** : 496-502

- Singh. 2001. Working and Impact of Self Help Groups. *Ind. J. Agrl. Eco.* 56 : 449-490
- Sirajudeen, C.H. 1980. Credit and Marketing Behaviour of Sugarcane Growers. M.Sc. (Ag.) thesis, Tamil Nadu Agricultural University, p. 60
- Sivaprasad, S. 1997. Problems and prospects of self employment of trained rural youth in agriculture. M.Sc. (Ag.) thesis, Kerala Agricultural University, Vellanikkara, p.120
- Sreedaya, G.S. 2000. Performance Analysis of the Self Help Groups in Vegetable Production in Thiruvananthapuram district. M.Sc. thesis, Kerala Agricultural University, p. 60-70, 93 and 150
- Sreekumar, K. 2001. SHG approach for Rural Development – A case of KHDP – Seminar Report, Tamil Nadu Agricultural University, Coimbatore, p. 5
- Sudha,V.K. 1987. A study of the impact of Lab to Land programme of tribal and non-tribal participants in Kerala Agricultural University. M.Sc. (Ag.) thesis, Kerala Agricultural University, p. 68
- Surendran, G. 2000. Participatory group approach for sustainable development of agriculture in Kerala. Ph.D. thesis, Kerala Agricultural University, p. 268,176,156
- 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, p. 16-26



- Thomas, S. 1998. Role of farm women in planning and management of watershed. M.Sc. (Ag.) thesis, Kerala Agricultural University, p. 145
- Thomas, T., Sam, B.J. and Joseph, M. 1999. KHDP Credit Package - Reaching the unreached. *Proceedings of National Seminar HORTINDIA 99*, Kerala Horticultural Development Programme, Cochin : 141-144.
- Titilosa, S.O. 1990. The economics of incorporating indigenous knowledge systems into agricultural development : a model and analytical framework. *Studies in Technology and Social Changes* 17 : 54
- Vashistha, P.B. 1987. *Farmer's Training and Rural Development in India*. Deep and Deep Publications, New Delhi, p. 30
- Waghmare, R.R., Kulkarni, R.R. and Thombre, B.M. 1988. A study of the awareness of Horticultural Development Programme among the fruit and vegetable growers. *Maharashtra J. Ext. Edn.* 7 : 144-111

**MICRO CREDIT AND TECHNOLOGY UTILISATION IN  
VEGETABLE PRODUCTION BY SELF HELP GROUPS IN  
THIRUVANANTHAPURAM DISTRICT**

**PRIYA R. DEVI**

**Abstract of the  
Thesis submitted in partial fulfillment of the requirement  
For the degree of**

**Master of Science in Agriculture**

**Faculty of Agriculture  
Kerala Agricultural University, Thrissur**

**2003**

**Department of Agricultural Extension  
COLLEGE OF AGRICULTURE  
VELLAYANI, THIRUVANANTHAPURAM - 695 522**

## ABSTRACT

Kerala is depending upon other states for meeting its vegetable requirements though the soil types and climate are suitable for large scale and commercial cultivation. To meet the resource crunch among farmers a supplementing rural credit system to the existing ones is needed. This research study was an enquiry into the reported increase in area of vegetable cultivation and financial viability due to micro credit provision among beneficiaries of Self Help Groups of Vegetable and Fruit Promotion Council Keralam (VFPCCK), Thiruvananthapuram project area.

The respondents were 30 experts and 120 beneficiaries from twelve SHGs of five Panchayats of Thiruvananthapuram district. The data were collected using pre-tested and structured interview schedule and questionnaire prepared for the purpose. Micro credit utilisation and technology adoption levels in vegetable production by Self Help Groups were analysed. Also micro credit need and gap were ascertained and constraints and suggestions listed down.

Based on group dynamics indicators it was inferred that the SHGs were functioning at medium level. Further inadequacies and future prospects are needed to be managed effectively.

The SHGs had > 70 per cent attendance level in meetings, one meeting was arranged per month and had homogenous membership. The loan amount availed was between Rs.40,000 to Rs.80,000 with uniform interest rate. Group savings of Rs.500 to Rs.1500 was reported. Usually < 8 books of account are kept which are maintained by a group member. Members of group had trainings conducted based on their felt needs facilitated by field officers.

Majority of the beneficiaries were in the 'high' category in respect of all vital profile characteristics like experience, innovativeness, social participation, training and increase in income after joining group activity. This is a positive effect of group formation. Also regarding technology adoption rate group characteristics were significantly related and individual characters were not significant.

The credit need and credit gap was Rs.238 per cent of land. Regarding market behaviour, field centres were preferred to market the produce, bicycle or autorickshaws were mostly used for transport of produce. It was seen that 67 per cent of respondents got their money as ready cash at the time of sales and 80 per cent were satisfied with marketing support provided. Export potential must be more facilitated.

Total cost of cultivation for one cent of panthal crop was reported as Rs.538 per cent. The credit utilisation was complete. All the respondents had repaid completely the loan amount and hence repayment was complete.

Constraints faced in micro credit servicing were absence of subsidy, indebtedness of beneficiaries and formal book keeping difficulties. The short term nature, allotment season and meeting time were reported as less relevant constraints.

Constraints faced in timely repayment of micro credit were high labour cost, market glut leading to low cost of produce and wilful defaulters. Political influence was not rated as major constraint. Interest rates were low and overdues were not expected to be written off by beneficiaries.

Perception of experts was high about regular field visits by experts, experience sharing and compulsion by group pressure in repayment and utilisation

of loan amount. Also monitoring and recording of adopted technologies which were not perceived as risky was enabled by micro credit.

Perception of beneficiaries about micro credit was high with respect to benefit of more renewal chances, easy repayment installments, absence of collateral security, reduction in cost of borrowing and ensuring participatory approach. Also reduction in time spent, making farming profitable, experts visiting fields, convenient interest levels and satisfactory amount supplied was enabled by micro credit.

Suggestions of beneficiaries and experts for improving micro credit supply relates to role of banks, government support and sustained group action. In the case of defaulters, bank intervention must be more easily and strict to avoid possible revenue recovery and smooth group functioning. Regarding improvement in repayment and sustained group action, more incentives must be provided. Government support in the form of subsidy, insurance and reduction in lease amount are needed.



APPENDICES

## **APPENDIX - I**

### **PARAMETERS AT FIELD CENTRE LEVEL WHICH ARE USED TO ASSESS THE REPAYMENT PATTERN**

1. New loan number
2. New loan amount
3. Renewal loan number
4. Renewal loan amount
5. Per farmer off take of credit
6. Time delay in credit delivery
7. Recovery pattern of newly induced farmers
8. Current year overdue loans
9. Total number of overdue loans
10. Overall repayment

**APPENDIX - II****LIST OF FIELD CENTRES OF VFPC IN THIRUVANANTHAPURAM  
PROJECT AREA (AS ON OCTOBER, 2002)**

1. Mylachal
2. Parassala
3. Kunnathukal
4. Kovilnada
5. Venganoor
6. Neyyattinkara
7. Balaramapuram
8. Nedumangad
9. Perumkadavila
10. Sreekariyam
11. Chenkal
12. Udiyankulangara
13. Vembayam
14. Pappanchani
15. Kollayil
16. Maranalloor
17. Kazhakkootam



**APPENDIX - III**  
**INTERVIEW SCHEDULE FOR BENEFICIARIES**

- Date :
- Panchayath :
- SHG :
- Respondent Number
1. Name and Address :
2. Age :
3. Area Under cultivation
- a. Area owned :
- b. Leased in :
- c. Leased out :
4. Experience in vegetable cultivation : Years
5. (1) Annual Income (Rs.)
- a. On farm
- b. Off farm
- (2) Increase in income after joining SHG (Rupees/annum)
- upto Rs. 1000/-
- Rs. 1001/- to Rs. 2000/-
- Rs. 2001/- to Rs. 3000/-
- > Rs. 3001/-

## 6. Education status

Sl. No. Level of Education

- |    |                              |   |
|----|------------------------------|---|
| 1. | Illiterate                   | : |
| 2. | Can read and write           | : |
| 3. | Primary school level         | : |
| 4. | Middle school                | : |
| 5. | High school                  | : |
| 6. | College                      | : |
| 7. | Professional colleges status | : |

## 7. 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 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
- Others regard as a quality of leadership

## 8. Economic Motivation

Please indicate your agreement or disagreement to the following statement  
SA - Strongly agree, A - Agree, UD - Undecided, DA - Disagree, SDE - Strongly disagree

Sl.No.	Statement	SA	A	UD	DA	SDA
1.	The farmer should work towards larger yield and Economic returns					
2.	The most successful farmer is one who makes the most profit					
3.	A farmer should try new farming areas which may give more money					
4.	A farmer should grow each crop to increase a monetary profit in comparison to growing to food crops for home consumption					
5.	It is difficult for farmers children to make good start unless he provides them with economic assistance					
6.	A farmer must earn his living but the most important thing in life can not be defined in economic terms					

## 9. Cosmopolitaness

Sl.No.	a) 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
	b) Purpose of visit
1.	All visits related to his farming
2.	Some visits related to his farming
3.	Other purposes
4.	No purposes
	c) Membership in organization outside the village
1.	Office bearer
2.	Member
3.	No Membership

## 10. Credit orientation

Sl.No.	Items				
1.	Do you think farmer like you should borrow from banks for agricultural proposal	Yes		No	
2.	In your opinion how difficult it is to secure credit for agricultural purpose ?	VD	D	E	VE
3.	How a farmer is treated when he goes to secure credit from banks/Co-operative societies ?	VB	B	F	VF
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	

## 11. 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

Sl.No.	Statement	SA	A	UD	DA	SDA
1.	A farmer should grow 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 greater risk than the average farmer usually does better financially					
4.	It is good for a farmer to take risk when he knows his change of success is fairly high					
5.	It is better for a farmer not to try a new farming method unless, most others in the locality have used it with success					
6.	Trying entirely a new method in farming by a farmer involves risk but is worth					

## 12. 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

## 13. 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

R - Regularly    ST - Sometime    N - Never

Sl.No.	Organization	Nature of participation	Frequency of participation in meetings / activities			
			Member; Office bearer	R	S	T
1.	Panchayath					
2.	Co-operative Society					
3.	Farmers club					
4.	Youth club					
5.	Socio-cultural organization					
6.	Any other (specify)					

## 14. Information need perception

As an entrepreneur you may need information on several items relating to business finance. Please give your opinion about the degree of information needed on the following items.

Sl. No.	Items	Most needed	Needed	Somewhat needed	Less 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 payment					
5.	Different types of loan available					
6.	Technical know-how					
7.	Mode of action to be taken by banks for non-repayment of loan					
8.	Any other (specify)					

## 15. Trainings attended

Training	1	2	3	> 3
----------	---	---	---	-----

## 16. Market behaviour

1. Where do you sell your produce
  - a) At the field center
  - b) Local market
  - c) Near by market
  - d) Distant market
2. How do you transport your produce ?
  - a) Cycle
  - b) Bullock cart
  - c) Lorry
  - d) Other automobiles
3. To whom do you sell your produce ?
  - a) Selling at the marketing center
  - b) To the merchant / Shop keeper
  - c) Through brokers
  - d) Directly to the market
4. Under what terms and conditions you are selling your produce ?
  - a) Ready cash
  - b) On contract
  - c) On tender
  - d) On credit
  - e) Any other (specify)
5. Your opinion about existing marketing facilities.  
What do you feel about the existing marketing facility ?
  - a) Quite sufficient
  - b) Sufficient
  - c) Insufficient

## 16.b. Knowledge in vegetable cultivation

- Q. Name the major vegetables you are cultivating ?
1. Name 1 HYV in each.
  2. Best planting season
  3. Seed rate
  4. NPK recommendation
  5. Major pest
  6. Major disease
  7. Most effective control

## 17. Micro credit utilization behaviour

Sl. No.	Activity	Borrowing (amount)	Utilization (amount)		Percentage of total cost of cultivation
			Qty	Cost	
1.	Seed purchase				
2.	Seed treatment				
3.	Land preparation				
4.	Soil amendments				
5.	Panthal raising				
6.	Chemical fertilizers				
7.	Organic manures				
8.	Plant protection				
9.	Harvesting				
10.	Transporting				

## 18. Technology adoption behaviour

1. Do you apply vermicompost in the field ?      Yes / No  
If yes, give dosage per pit
2. Do you apply organic pesticides in the field ?      Yes / No  
If yes, Name it and give dilution
3. Do you adopt intercropping in your field ?      Yes / No  
If yes, is it according to market demands ?      Yes / No
4. Do you use yellow sticky traps for aphid control in cucurbits ?      Yes/No  
If yes, give the number
5. Do you use fruit fly traps against melon fly in cucurbits ?      Yes/No  
If yes, give the number
6. Do you use cows urine + chilli for pod and flower borer of cowpea ?  
If yes, give the dosage
7. Do you apply Trichoderma culture in cowpea cultivation ?  
If yes, give the dosage ?
8. Do you apply any weedicide in your field ?  
If yes, name it ?
9. Do you use Bavistin for seed treatment in cowpea ?  
If yes give dosage ?

## 19. Beneficiaries perception about micro credit

Please indicate your opinion about extent of favorableness of credit availed for farming through groups regarding following factors ?

HF - Highly Favourable, F - Favourable, N - Neutral, UF - Unfavourable,  
SUF - Strongly unfavourable

Sl.No.	Factors	HF	F	N	UF	SUF
1.	Reduction in cost borrowing					
2.	Easy repayment installments					
3.	Absence of collateral security					
4.	Reduction in time spent					
5.	Convenient interest levels					
6.	Satisfactory amount supplied					
7.	Made farming profitable					
8.	Ensured participatory approach					
9.	Experts are going to field levels					
10.	More renewal chances					

**INTERVIEW SCHEDULE (AT SHG LEVEL)**

**Micro Credit needs and Credit gap of Vegetables Growers**

Sl. No.	Activity	Amount (quantity)	Required cost	Amount borrowed	Credit gap
1.	Seed purchase				
2.	Seed treatments				
3.	Land preparation				
4.	Soil amendments				
5.	Panthal raising				
6.	Chemical fertilizers				
7.	Organic fertilizers				
8.	Plant protection				
9.	Harvesting				
10.	Transporting				

**Micro credit preference pattern at SHG level**

Name of SHG

Name of bank to which the group is linked

Current interest rate

Repayment period

No. of loans availed

Amount of loan availed

Name of member	Amount of loan	Repayment	No. of defaulters



### Group Dynamics

Please indicate which choice is correct by marking ✓ (tick mark)

Sl. No.	Variables / Indicators	Criteria
1.	Attendance	a) more than 90 % b) between 70-90 % c) less than 70 %
2.	Frequency of meeting	a) Weekly b) Fortnightly c) Monthly
3.	Interest rate on SHG loan	a) interest rate vary according to purpose of loan b) uniform interest rate for all
4.	Loam amount (Rs.)	a) upto 40,000 b) 40,001-80,000 c) above 80,000
5.	Group saving per month (Rs.)	a) upto 500 b) 501-1000 c) above 1000
6.	Composition of group	a) Membership is homogenous b) No-homogeneity membership
7.	Records maintained by	a) literate member in the group b) animator from NGO
8.	Books of accounts	a) upto 4 books b) 5-8 books c) above 8 books
9.	Training given by	a) Bank + NGO + Govt. authority b) Any two c) Any one

**INTERVIEW SCHEDULE FOR EXPERTS****KERALA AGRICULTURAL UNIVERSITY**

Dr. C. Bhaskaran  
Associate Professor  
Training Service Scheme

Department Agricultural Extension  
College of Agriculture  
Vellayani. P.O. Thiruvananthapuram  
Pin - 695 522

Dated : 10.07.2002

Dear Sir,

Smt. Priya R. Devi, M.Sc. (Ag.) student of this department has taken up a research study on "Micro Credit and technology utilisation in vegetable production by Self Help Groups in Thiruvananthapuram district" under my guidance. She has identified ten main constraints in micro credit servicing and repayment based on review of literature, discussion with experts and pilot study. Ten statements related to perception of experts about technology utilisation vis-a-vis micro credit repayment are also given. Please consider also the statements regarding suggestions for improving micro credit supply.

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

With regards,

Yours sincerely

(C. BHASKARAN)

### 1. The constraints faced in micro credit service

Sl. No.	Statement	SA	A	UD	DA	SDA
1	Maintaining registers require guidance to ensure timely documentation of micro credit provided					
2	Compared to other development programmes benefits are less as subsidy is absent in micro credit programmes					
3	Repayment of other debts limits productive utilization of micro credit provided					
4	The number of field staff must be increased to ensure timely micro credit servicing					
5	Support of bank officials are not satisfactory in availing micro credit servicing.					
6	Office buildings for meetings and marketing are not available which limits micro credit servicing efficiency					
7	Presence of non farming members in the SHGs limits the availability of micro credit to needy farmers					
8	Short term credit is more promoted than long term credit in micro credit programmes.					
9	Micro credit provision period are not fixed according to convenience of seasonal cultivation of vegetables.					
10	Meeting time not convenient to attend due to farming operations which delays credit plan preparation.					

SA - Strongly Agree, A - Agree, UD - Undecided, DA - Disagree, SDA - Strongly disagree

## 2. The constraints faced in micro credit repayment

S1. Statement No.	SA	A	UD	DA	SDA
1. Labour cost is a major constraint in profitable farming and income generation leading to more defaulters.					
2. More produce and acreage leads to market glut which reduces the cost of produce leading to more defaulters.					
3. Wilful defaulters are more leading to revenue recoveries and further reduction in repayment levels					
4. Moneylenders are used as credit source for repayment which makes the farmer more debted					
5. Importance of savings for productive use not stressed which reduces repayment levels					
6. Existence of other competing groups lead to more drop-out levels which limits group pressure to ensure repayment					
7. Special encouragement service for correct repayment absent to support further timely repayment.					
8. High political influence limits repayment levels by influential members					
9. Interest rate high compared to other source of credit for farming operations.					
10. Over dues are expected to be written off and hence repayment levels are low.					

SA - Strongly Agree, A - Agree, UD - Undecided, DA - Disagree, SDA - Strongly disagree.

### 3. The perception of experts about technology adoption vis-a-vis micro credit repayment

S1. Statement No.	SA	A	UD	DA	SDA
1. Regular field visits through SHGs functioning help in participatory technology development and hence sustained income increase					
2. Experience sharing among farmers help in spreading effective ideas to neighboring farms increasing the income levels.					
3. Compulsion & strictness by group pressure ensure group input purchase, credit utilization and repayment					
4. Monitoring and recording of adopted technologies is possible through SHGs ensuring income increase					
5. Design & conduct of need based training programmes in technology adoption and credit campaigns are effective through SHGs ensuring timely repayment					
6. Intercropping helped in risk management with regard to market glut and crop loss leading to timely credit repayment					
7. Market information are better communicated through the marketing centers ensuring better price levels					
8. Adopted technologies are too risky and complex to result in sustained income and correct repayment.					
9. Organic farming campaigns like vermicomposting were successful in ensuring sustainable vegetable cultivation using the micro credit supplied.					
10. Straight fertilizer usage increased and so reduction in cost of cultivation resulted helping in timely credit repayment					

SA - Strongly Agree, A - Agree, UD - Undecided, DA - Disagree, SDA - Strongly disagree.

#### 4. Suggestions for improving micro credit supply

S1. Statement No.	SA	A	UD	DA	SDA
1. Once a defaulter is identified, banks must share equal responsibility to avoid revenue recovery.					
2. If needed revenue recovery must be the earliest so that group is least affected by defaulters					
3. Meetings should be arranged after 5 p.m. if attendance is low.					
4. Incentives like interest reduction is needed for prompt repayment.					
5. Make provision to remove the non farming members from SHGs.)					
6. Proper identification of beneficiaries with least political influence.					
7. Close monitoring of beneficiaries are need at harvesting time.					
8. Insurance for crop loss in vegetable crops with practical conditions.					
9. The marketing centres can make provision of transport facilities at harvest so that members will not sell products by other ways.					
10. Governmental support must be increased in policy measures and monetary aspects.					
11. Group measures to reduce the lease amount must be done.					
12. Proper training of bank officials regarding how beneficiaries are oriented in their perception about micro credit.					
13. Attendance must be made strict and necessary for loan sanction.					
14. The social role of 'Swashraya Sanghoms' must be extended and made self sustaining					
15. Loan amount must be increased if repayment is timely for last season					

SA - Strongly Agree, A - Agree, UD - Undecided, DA - Disagree, SDA - Strongly disagree.