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**SOCIAL CAPITAL FORMATION THROUGH FARM WOMEN
GROUPS IN VEGETABLE PRODUCTION IN KOLLAM
DISTRICT.**

by

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(2013-11-203)

THESIS

**Submitted in partial fulfilment of the
requirement for the degree of**

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DEPARTMENT OF AGRICULTURAL EXTENSION

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VELLAYANI, THIRUVANANTHAPURAM- 695 522

KERALA, INDIA

2015

DECLARATION

I hereby declare that the thesis entitled “SOCIAL CAPITAL FORMATION THROUGH FARM WOMEN GROUPS IN VEGETABLE PRODUCTION IN KOLLAM 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 any other similar title of any other university or society.

Vellayani
28-10-2015




REVATHY CHANDRAN

CERTIFICATE

Certified that the thesis entitled **“SOCIAL CAPITAL FORMATION THROUGH FARM WOMEN GROUPS IN VEGETABLE PRODUCTION IN KOLLAM DISTRICT”** is a record of research work done independently by Miss. REVATHY CHANDRAN under my guidance and supervision and that it has not previously formed the basis for the award of any degree , diploma, fellowship or associateship to her.

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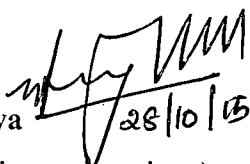
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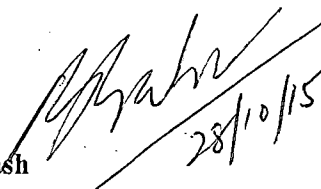
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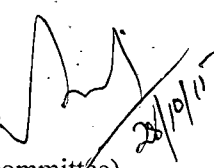
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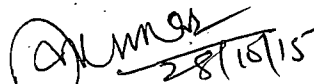
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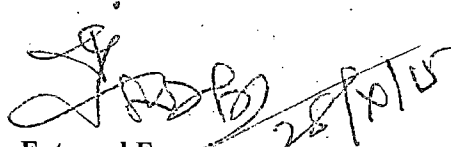
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LIST OF ABBREVIATIONS

ADS	-	Area Development Society.
ATMA	-	Agricultural Technology Management Agency.
CDS	-	Community Development Society.
FAO	-	Food And Agricultural Organization.
VFPCCK	-	Vegetable and Fruit Promotion Council Keralam.
GOK	-	Government of Kerala.
IVDP	-	Intensive Vegetable Development Programme.
KHDP	-	Kerala Horticulture Development Programme.
NABARD.	-	National Bank for Agriculture and Rural Development.
NGO	-	Non Governmental Organization.
NHG	-	Neighbourhood Groups
PRA	-	Participatory Rural Appraisal.
SEWA	-	Self Employed Women's Association.
SHG	-	Self Help Group.
SOCAT	-	Social Capital Assessment Tool.

INTRODUCTION

CHAPTER-1

INTRODUCTION

Social capital refers to the trust, mutual understanding and shared values which facilitate the collective action and social co-ordination. Social capital ponders to the characteristics of a society that stimulates co-operation among the individuals. It can create a service which can enhance the output obtainable from other inputs. Trust, co-operation, networks and norms are the important aspects of social capital. Social capital provides a common platform for strengthening women and facilitates learning through interactions. There are resources embedded within the networks, the accessibility to these resources is also made possible through the social capital formation. Bonding, bridging and linkage capitals are the three different types of social capital. Bonding capital links to people based on a common identity i.e. close friends and relatives where as bridging capital links the distant friends and relatives and linkage capital connects people at two extreme ends.

Women groups is the new strategy which enables women to achieve their needs, this overall output of the group is known as the social capital. In India, even now a good number of people suffer from poverty, illiteracy, malnutrition, unemployment, poor health etc. Women is a section which is deprived of even their basic necessities. Women are a class which is severely affected by poverty and greatly subjected to social and economic discrimination. Enhancement of women earning would have an overall impact on the family as a whole. (World Bank, 2010).

There are so many constraints which restrict the production of vegetables. The most important constraint is the average size of land holding which is subjected to fragmentation. Though the vegetable requirement is 300g/day/person, we are able to meet only 1/9th of this recommended intake. India is the largest producer of many fresh fruits and vegetables. (FAO, 2011). India is the second largest producer of vegetables in the world next to China. Until recently Kerala

was a consumer state, when the total requirement is 27 lakh tonnes we could produce only 6 lakh tonnes. (Anon., 2015). But promoting vegetable cultivation in the state coupled with suitable marketing mechanism help the state to be self reliant in vegetable production and ensure year round availability of quality vegetables. However, Kerala is a consumer state as far as vegetables are concerned. Major share of the fresh vegetable supply for the state comes from neighbouring states. Promoting vegetable cultivation in the state coupled with suitable marketing mechanism will not only help to make the state self reliant in vegetable production but also ensure year round availability of quality vegetables.

For the successful implementation of any policy there should be participation from the grass root levels, i.e. the beneficiaries should be given opportunity to be a part of the programme. Farmer producer organization is the most appropriate institutional form around which to mobilize farmers and build their capacity to collectively leverage their production and marketing strength. (Government of India, 2013). In Kerala the slight improvement in agricultural scenario is due to the impact of farmer groups and farmer producer organizations. In rural areas farmer groups are the nearest and often only institutions providing essential goods and services to the rural poor and helping them break from poverty cycle. Farmers' voice cannot be obtained without farmers' groups. To engage in any sensible dialogue with the rest of the society, farmers need their representative groups (FAO, 2012)

Similarly, women groups have emerged as a major source of inspiration for women. Groups provided a platform for women through which they can speak for their needs and work for their needs. This collective action of women through their groups, strengthened women in all spheres of life. This expected collective or economic benefits derived from the preferential treatment and cooperation between individuals and groups is known as the social capital. 'Networks', 'norms' and 'trust' can be considered as the three important attributes of Social Capital. It is very difficult to define social capital within a boundary, in short it involves everything which facilitates the collective action of women.

Kudumbashree, Vegetable and Fruit Promotion Council Keralam (VFPCCK), Agricultural Technology Management Agency (ATMA) are few of the major initiatives where programmes have been implemented encouraging women farming groups. The effort is worth rewarding because these organizations not only concentrated in women empowerment but also aimed at improving the agricultural production through programmes like vegetable farming.

Kudumbashree

The mission of Kudumbashree is “to eradicate absolute poverty in ten years through concerted community action under the leadership of local governments, by facilitating organization of the poor for combining self-help with demand-led convergence of available services and resources.

Kudumbashree is launched by the government of Kerala in the year 1998 for eradicating poverty from the state. The programme has about 41 lakh members and cover about 50% households of Kerala. Micro credit, empowerment and entrepreneurship are the core components of Kudumbashree. Poverty is considered as a deprivation of the basic right by the Kudumbashree members. They recognize that they need to have a collective voice to get uplifted.

The following are the community structures suggested for the rural side:

- Neighbourhood Group, NHG(Ayalkoottam)
- Area Development Society, ADS(Ward Samithy)
- Community Development Society, CDS(Panchayat Samithy)

The lowest unit of the three tier system of Kudumbashree is the NHG which consists of 10-15 women from neighbourhood. A community based organizational structure like kudumbashree made women self reliant, created a we- feeling and helped in the formation of social capital which in turn enabled them to secure their needs and rights.

VFPCCK

Vegetable and Fruit Promotion Council of Keralam is established in the year 2001 as a successor organization of the Kerala Horticultural Development Programme (KHDP). VFPCCK aims to introduce and implement schemes in horticulture that would benefit farmers. Self help groups are the back bone of VFPCCK. The council aims to attain the objectives through the principle of “Self Help, Participation and Prosperity”. The council is developing SHGs as the local institutions through which farmers issues are addressed as well as a platform for innovative horticultural interventions. Now, there are about 5800 SHGs under VFPCCK. The groups are voluntary with 15-20 vegetable and fruit growers.

ATMA

ATMA (Agricultural Technology Management Agency) is a registered society of key stake holders involved in agricultural activities for sustainable agricultural development in the district. ATMA at district level is responsible for all technology dissemination activities. It is linked with the activities of all allied sectors, research organizations, NGOs and other organizations associated with agricultural development. Strategic planning, network and coordination, farmer facilitation and empowerment are some of the important functions of ATMA. ATMA have women groups who are involved indifferent productive activities.

The present study aims at measuring the scale of social capital formation through farm women groups in vegetable production. The specific objectives of the study were

- To assess the scale of social capital formation through farm women groups
- To study the group efficiency,
- To study the perception of farm women and extension facilitators regarding the group processes
- To identify the constraints experienced by farm women in the group process

- To compare the efficiency of farming by individuals and by groups
- To study the involvement of farm women in the planning, production and marketing aspects of vegetables.
- To study the gender role changes and recognition

Scope of the study

Social capital enables individuals to get access to different resources and opportunities available. The strength of trust, bonding and reciprocity among individuals can help them overcome most of their constraints. The present investigation is therefore taken up to appraise the social capital formation through farm women groups involved in vegetable cultivation. The results of the study will help in eliminating the bottlenecks in the present set up of farm women groups and help the planners policy makers and administrators to further strengthen the farmer groups as a political means of sustainable development.

1.1. Limitations of the study

The present study was focussed on the farm women groups involved in vegetable production, but there were difficulties in finding groups who are real growers of vegetables. Therefore only purposefully selected women groups based on their active participation have been included in the study. For the very reason, it is not possible to generalise the study for the entire state. There were also constraints of time and money. In spite of all these limitations, every effort was taken by the researcher to carry out the research in a most systematic way.

1.2. Presentation of the study

The report of the study has been spread out under five chapters. The first chapter deals with introduction, where in the statement of the problems, the objectives, the scope and the limitations of the study are discussed. The second chapter covers the review of the studies related to the present study. The third chapter refers to the details of the methodology used in the process of investigation. The fourth chapter deals with the result of the study obtained and also the discussion of the result in detail. The fifth and final chapter presents the

summary of the study and suggestions for future research. The references, appendices and abstract of the thesis are given at the end.

REVIEW OF LITERATURE

CHAPTER II

REVIEW OF LITERATURE

Review of the existing literature about the topic helps the researcher to have a better understanding about the topic of study and analyse the broad areas in which the study has been taken up. The collected literature relevant to the topic is presented in the following order.

- 2.1 Social capital
- 2.2. Women in agriculture
- 2.3. Scenario of vegetable production in our state.
- 2.4. Planning, production and marketing aspects of vegetables.
- 2.5. Concept of Groups
- 2.6. Group efficiency
- 2.7. Profile characteristics
- 2.8. Gender role changes and recognition.
- 2.9. Perception
- 2.10. Constraints faced by the members

2.1. Social capital

Social capital is the aggregate of actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition (Bourdieu, 1986)

Social capital can be defined as the features of the social organisation, that is to say networks, norms and social trust, which facilitate connections among individuals as well as coordination and cooperation for mutual benefits (Putnam, 1995).

Social capital is a capability that arises from the prevalence of trust in a society (Fukuyama, 2001).

Social Capital can be understood as a resource available to individuals derived from their location on a structure of social relations (Adler and Kwon, 2002).

Social capital can be defined as those interactions, which can create social networks, foster trust, generate values, maintain norms, culture and traditions, and influence economic and social outcomes (Sanyal, 2009).

Social capital is defined as the norms and network that enables collective action and shapes quality and quantity of society's social interactions. (World Bank, 2009).

Social capital differs from natural and human capital as it is a broad concept which is based largely on relationships. It is therefore difficult to value the overall social capital (Hamilton and Liu, 2013)

Social capital refers to the productive value of social connections i.e. the production of a broad range of well-being outcomes. The term social capital conveys the idea that human relations and norms of behaviour (beyond the intrinsic pleasure that social connectedness brings) have an instrumental value in improving various aspects of people's life. (Scrivens and Smith, 2013).

2.1.1. Relevance of Social capital

Although many social relations and norms are not a product of instrumental behaviour, individuals can invest in social capital such as social relations to improve future outcomes. (Glaeser *et al.*, 2002).

Social capital is important because of its status within communities and, unlike human and physical capital, social capital lies as a latent (embedded) resource waiting to be mobilised and utilised, growing and developing with use. (Morris *et al.*, 2006).

Social capital has such strong community attributes that it tends to appreciate in value over time because of the deepening of trust, strength of bonding, and growth of reciprocal arrangements. (Joshi, 2006)

Notions of social capital complement both current capabilities and nurture potential new capabilities within the group (Schischka *et al.*, 2008).

Social capital is also an important aspect of sustainability. Sustainability is seen as 'what we leave to future generations; whether we leave enough resources, of all kinds, to provide them with the opportunities at least as large as the ones we have had ourselves (UN, 2012).

2.1.2. Enhancing Social capital

Social capital is enhanced through people employing both functionings and capabilities in Self help groups within a framework of trust and inclusion, resulting in closer bonding and reciprocal arrangements that bring benefits to all members (Ibrahim, 2006).

The participation in community life is an indicator of social capital, since this participation facilitates the establishment of networks and the achievement of individual benefits, such as opportunities in the workplace and the availability of support networks that encourage collaboration channels to solve local problems. (Norris and Inglehart, 2006).

Microfinance organizations play a vital role in creating social capital by implementing well designed social capital strategy which emphasizes on strong commitment of field level staff to the organization's goals, continuous relations between staff and the members, implementation of credit plus policies such as training on human rights, skill up-gradation, collective actions, etc.(Kanak and Liguni ,2007).

Social capital relies on social inclusion: it cannot develop if people are unwilling (or unable) to participate.(Shortall,2008).

2.1.3. Gendering Social capital

Women and men commonly depend on different kinds of social relations or networks (Agrawal , 2000).

Contacts with men are a different form of social capital than contacts with women (Errikson and Bony, 2004).

Women are less able to mobilise social capital to get better jobs and seek promotion in organisations where they work (Timberlake and Sharon, 2005).

Gender differences, shown by the fact that women's social capital is located more so at home rather than in the public environment of the workplace, and involves exchanges of time and money as opposed to capabilities (Maxine Molyneux , 2008)

2.2. Women in agriculture

In the Indian Himalayas a pair of bullocks works 1064 hours, a man 1212 hours and a woman 3485 hours in a year on a one hectare farm, a figure that illustrates women's significant contribution to agricultural production (Shiva , 1991).

About 60 percent of agricultural operations like sowing of seeds, transportation of sapling, winnowing, storage of grain etc are handled exclusively by women, while in other jobs they share the work with women (Aggarwal, 2003).

In India, with a view to involve women in the process of decision-making in local self-governing bodies including cooperatives, a 33% representation has been instituted and in a number of states all boards of directors have women serving on them. International organizations such as the Self-Employed Women's Association (SEWA) have been working quite successfully in India with partners to form a membership of 1.24 million women in India. Fifty four percent of members are agricultural workers (SEWA, 2011).

Nearly half of the available human resource in India is women. It has been estimated that women contribute about 30% of the total working population. Studies show that when women are supported and empowered the entire society is benefited. Their families are healthier, agricultural productivity improves and income increases. (Rao, 2012).

2.3. Scenario of Vegetable production in our state.

In India fruits and vegetables occupy nearly 4.24 percent of area (Haque, 2003).

India is the second largest producer of vegetables with an annual production of 87.53 million tonnes from 5.86million hectare having a share of 14.4% of the world population. In Kerala only 36.28% of the total land owned the cultivars are used for vegetable cultivation. According to the estimates, around one thousand crore rupees worth of vegetables are imported to Kerala every year. State produces only about five lakh tonnes of vegetables out of the total annual requirement of around 25 lakh tonnes (G. O.K, 2013).

2.4. Planning, production and marketing aspects of vegetables

Wills (1973) stated that production refers to all those activities in which the firm is engaged in producing goods and services.

Samantha (1977) refer planning, production, marketing orientations as the component of management orientation.

Apart from participation in actual cultivation, women participate in various forms of processing and marketing of agricultural produce (Aggarwal 2003).

Stronger small-producer “voices” can lead policy-makers to include their concerns in policy formulation. To build this collective voice, small producers have engaged in institutional arrangements with other social and economic actors at national and regional levels (Mercoiret, 2006).

Plan is a general description of how the business will operate and market its product (Bhatia, 2007).

The important marketing channels identified for organic producer in Wayanad by Dana (2007) were, Producer-Indian organic producer ‘s company Producer-private company – Organic market and producer-local market and the first channel was found to be widely adopted by the farmers.

Organizational process allows small producers to become the primary drivers of their own development by: building self-confidence among individuals; strengthening capacities to make informed collective choices and to transform them into actions; enhancing market access and negotiating power of small producers vis-à-vis other economic actors and policy-makers. (FAO,2012)

2.5 Concept of Groups

Clusters of individuals working together toward a shared goal. “Groups of individuals bound by some common purpose to achieve objectives” (North, 1994).

NABARD (1995) defined SHG as a homogeneous group of rural poor voluntarily formed to save whatever amount they can conveniently save out of their earnings and mutually agree to contribute to a common fund from which lend to members for productive and emergent credit needs.

Krishnamoorthy (1996) defined SHG as an organization formed by people for pooling their resources to help each other.

Self-help group members acquire management experience while conducting the affairs of their organization. They learn to set priorities, to take decisions and risks, to draw up rules of behaviour, to resolve conflicts and to apply sanctions effectively for non-compliance (Fernandez, 1998).

Well connected individual in a poorly connected society is not productive as a well connected individual in a well connected society. And even a poorly connected individual may derive some of the spill over benefits from living in a well connected community (Putnam, 2000).

Self Help Groups are the small grass root groups that the members choose to join to address their common concerns and worries which provides a mutual support. (Davis *et al.*, 2010).

2.6. Group Efficiency.

Group efficiency is measured using the group efficiency index studying the five group components.

2.6.1. Group cohesion

According to Deep (1978) A cohesive group is one

1. With relatively few members'
2. Whose members have similar interest and background.
3. That has a high degree of status within the organization.

Ghosh (1995) opined that group cohesiveness refers to the ability of the group members to relate emotionally to each other for a given task so as to integrate with each other effectively for achieving the common goals.

Muller (1997) observed a positive and significant relationship between group cohesion and characters like extension participation, information source utilization, cosmopolitaness and training.

2.6.2 Group interaction

Collins and Guetzkow (1964) remarked that interaction enhance the uniformity of opinion.

Israel (1965) opined that interaction facilitate goal achievement

Larson (1989) stated that each and every member of the team should have a belief that the interactions within the group is effective and follow a high degree of integrity which can solve their problem.

Sreedaya (2000) reported that positive and significant relation exists between the variables cosmopolitaness and social participation with group interaction.

2.6.3. Accountability

The Kerala Horticulture Development Programme insists that the idea for refinement improvement and problem solving of various activities being undertaken by group shall be the responsibility of master farmers. (KHDP, 1995)

FAO (1999) observed that the group should be fully accountable to its members. There should be a system of keeping of accounts and keeping of minutes and decisions to arrive to ensure necessary transparency in group activities.

Surendran (2000) reported that there is high level of accountability in quasi governmental groups compared to governmental and NGO groups.

Sreedaya (2000) reported that only two variables educational status and experience in vegetable cultivation were significantly and positively related with accountability.

2.6.4. Teamspirit

According to Benhis (1985) for a group to be functional and useful , it must be established in such a way that individual and combined efforts always lead towards desired goal.

According to Larson (1989) the members of a competent team should collaborate effectively.

Mukherjee (1997) reported that there are some people in a community with an individualistic approach who do not get involved in community efforts.

2.6.5. Transparency

The open and transparent dealings and the ability to resolve conflicts contributed to the success of SHGs as revealed in the studies contributed by NABARD(1997).

Sreedharan (1997) maintained that transparency in business operation and overall conduct of group activities should be ensured.

FAO (1999) observed that transparency has to be built into management functions in farmers organizations, no matter whether leadership was shared or not.

Surendran (2000) reported that accountability and transparency are positively related. Higher accountability leads to higher transparency in relations.

2.7. Profile characteristics

2.7.1. Age

Prasad (1995) found that any new skill development is possible only among the younger age groups as their physical strength and their psychomotor skills are at their peaks.

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, Kerala (VFPCCK)

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

Fayas (2003) reported that majority of the vegetable growers belonged to the medium age category of 35-50 years of age.

2.7.2. Educational status

Jayalekshmi (1996) found that education was positively and significantly related to entrepreneurial behaviour of farm women

Muller (1997) stated that in effective groups the educational status of the respondent showed a positive correlation with group co-operation.

Parvathy (2000) found out that educational status of rural women was positively and significantly correlated with self confidence.

The level of education has an evident impact on network variety, since the higher the level of education, the greater the accessibility to a more diversified social network for both men and women, in accordance with previous analysis that established the crucial role of education in social capital generation (Huanga *et al.*,2009).

2.7.3. Annual income

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

Jayalekshmi (1996) reported that annual income of majority of rural women in SHGs ranges from Rs.15000/- to Rs.20,000/-

Sreedaya (2000) reported that group cohesion is significantly and negatively correlated with the annual income

2.7.4. Increase in income.

Gowda and Jayaramaiah (1990) in their study on impact of watershed development, found that the extent of increase in annual gross income of farmers was due to the implementation of watershed development programmes.

Sankaran (1997) concluded that the increased income was directly perceived impact of Integrated Watershed Development Programme.

Lakshmi (2000) reported a positive and significant relationship between economic motivation and increase in income.

The average increase in income reported by women since the start of the project, Sunhara India project, a collective action for women was 28 percent. (Anonymous, 2012).

2.7.5. Area under vegetable cultivation

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

Manoj (2000) reported that the total area under paddy was found to have significant positive correlation with adoption behaviour.

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

2.7.6. Social participation

Parvathy (2000) in her study on participation of women in agricultural development programmes under peoples plan reported a positive and significant relationship between social participation and perception of women.

Sreedaya (2000) in her study on performance analysis of self help groups in vegetable production in Thiruvananthapuram district reported a positive and significant relationship existed between social participation and group interaction.

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

Priya (2003) reported that group characteristics like social participation and cosmopolitaness were more relevant to technology adoption than individual characters like area, knowledge, experience , education etc.

2.7.7. Achievement motivation

According to achievement motivation theory (Clelland, 1958) a major factor in willingness to perform is the intensity of the individuals need for achievements.

Thomas (2000) found that achievement motivation had significant correlation with extent of adoption of watershed development programmes.

Sreedaya (2000) reported a positive and significant relationship between achievement motivation and need satisfaction of farmers.

Parvathy (2000) observed a positive and significant relation between achievement motivation and perception of rural women towards peoples plan.

2.7.8. Economic motivation

Fayas (2003) stated that majority (86%) of the respondents had medium level of economic motivation.

Suthan (2003) reported that more than half of the vegetable growers (57.33%) had high level of economic motivation.

Priya (2003) indicated that majority of the vegetable growers (92%) had medium level of economic motivation.

Rakesh (2010) reported that 45.30 per cent of the respondents had high level of economic motivation followed by medium level (32%) and little more than 20% of respondents come under low level of economic motivation.

2.8. Gender role, role changes and recognition

Gender role is operationally defined as those duties performed by a person based on his or her gender. Now-a-days these roles are changing. Earlier the duties performed by women are now taken by men and vice-versa.

When disaggregated by gender, female-headed households have benefited significantly more than male-headed households (Davis et al., 2010).

In India, SEWA's goal that women should be autonomous and self-reliant, individually and collectively, both economically and in terms of their decision-making ability embodies a set of Gandhian values as a guiding force for social change (SEWA, 2011).

Women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. (FAO, 2011).

2.9. Perception

2.9.1. Perception of beneficiaries about group process

Sudha (1987) in her study on lab to land programme found that about 55 per cent of non tribal and 75 per cent of tribals belong to the high perception category.

Shneider (1988) reported that members perception of group action will lead to fulfilment of personal objectives and is one of the conditions for the viability of farmers groups.

Meera (1995) found that two groups of farmers differed significantly with respect to mean utility perception scores for important agricultural practices.

Sreedaya (2000) opined that most of the officials of KHDP and IVDP were high perceivers of self help groups.

2.9.2. Perception of officials about the group

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

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

Meera (1995) found that two group of farmers differed significantly with respect to mean utility perception scores for important agricultural activities.

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.

2.10. Constraints faced by the members

Shaw (1971) pointed out problems of co-ordination, de individuation in groups and pressures towards uniformity as some of the constraints in group approach.

Sherwani (1983) opined that one of the most common problem faced by the women was the dual role she had to play at the domestic front and work floor.

Parvathy (2000) reported that the major constraint perceived by the rural women was political inference in the selection of beneficiaries under the people's plan.

Meera (2001) reported that the lack of forward and backward linkage for easy marketing as the major constraint faced by Samatha group members.

Time scarcity forces many women to start-up cottage industries, such as handicrafts, which are often characterized by low returns and limited potential for expansion (Lanjouw and Lanjouw, 2001).

Women are generally less able than men to participate in economic opportunities because they face a work burden that men do not. (FAO, 2011).

The lack of supply response is largely due to a number of small-producer constraints. Dispersed and fragmented in small economic units, small producers face high transaction costs in imperfect markets. (FAO, 2012).

METHODOLOGY

CHAPTER III

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. Sampling procedure
- 3.4. Operationalisation and measurement of dependent variables.
 - 3.4.1. Scale of Social capital formation
 - 3.4.2. Group efficiency.
 - 3.4.3. Planning, production and marketing aspects of vegetables.
- 3.5. Gender role, role changes and recognition
- 3.6. Operationalisation and measurement of independent variables.
- 3.7. Comparison of farming by individuals and by groups.
- 3.8. Perception of members and officials about group process
- 3.9. Constraints faced by the members
- 3.10. Suggestions for improvement of groups
- 3.11. Methods used for data collection
- 3.12. Statistical tools for the study

3.1. Research Design

The study was conducted adopting the ex post facto research design. Ex post facto research design is a quasi-experimental study examining how an independent variable, present prior to the study, affects a dependent variable. Ex post facto study or after-the-fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the researcher. The majority of social research, in contexts in which it is not possible or acceptable to manipulate the characteristics of human participants, is based on ex post facto research designs. It is also often applied as a substitute for true experimental research to test hypotheses about cause-and-effect relationships or in situations in which it is not practical or ethically acceptable to apply the full protocol of a true experimental design. Despite studying facts that have already occurred, ex post facto research shares with experimental research design some of its basic logic of inquiry. Ex post facto research design does not include any form of manipulation or measurement before the fact occurs, as is the case in true experimental designs.

3.2. Locale of study

The study was conducted in Kollam district of Kerala. This district is purposefully selected because large scale cultivation of vegetables take place through farm women groups.

The study was conducted in six panchayats of Kollam district .They are

1. Karavallur.
2. Pavithreshwaram
3. Poruvazhy
4. Chadayamangalam
5. Chathanoor
6. Pooyappally

The study was conducted in the selected women groups of Kudumbashree, VFPCCK and ATMA

3.3 Sampling procedure

There were two categories of respondents

1. Members of farm women groups
2. Extension facilitators

Six panchayaths were identified from the District based on the number of maximum farm women groups and one group was selected from each panchayath by random sampling, Thus six groups was selected and 15 members were selected randomly from each of the selected six groups. Thirty extension facilitators from the Kollam district were selected randomly, Thus a total of 120 respondents was the sample size for this study.

3.4. Operationalisation and measurement of dependent variables

3.4.1. Scale of Social capital formation

Social capital is operationally defined as a term which includes everything that facilitates the collective action of individuals. Social capital is defined as the features of social organization, such as trust, norms and networks that can improve the efficiency of the society by facilitating coordinated actions – (Putnam, 1993). Social Capital is multidimensional in nature, so the research on social capital must be able to catch this multidimensionality. It is very essential to depend on complementary methods of data collection while studying a concept like social capital.

Scale of Social capital formation is measured using SOCAT with slight modification. The SOCAT is a multifaceted instrument designed to collect social capital data at the household, community and organizational levels. SOCAT analyse data both qualitatively and quantitatively .Qualitative techniques consisted of focus group discussions, community mapping and Participatory Rural Appraisal (PRA). The quantitative techniques involved the use of structured and

pre tested interview schedule. The Social Capital Assessment Tool seeks to operationalize emerging theories regarding the dimensions of social capital, creating validated indicators that can measure levels of social capital and its relationship to other development indicators in the areas of poverty alleviation, inequality reduction, and economic growth. The Social Capital Assessment Tool is designed to provide World Bank task managers with the most accessible and appropriate research tools to measure social capital for use in the design, implementation and evaluation of World Bank projects (World Bank, 2010). SOCAT includes the data collection techniques like pretested interview schedules, focus group discussions, community mapping, PRA etc.

3.4.1.2. PRA

PRA, Participatory Rural Appraisal is a technique which aims to include the rural people in the decision making process of projects through their active participation. PRA tools like mapping, venn diagram and timeline was administered to study the extent of social capital formation.

3.4.1.3. Focus group discussions

Focus group discussion is an interactive session where the respondents are allowed to freely communicate with each other their opinions, perceptions and attitude to a particular topic. Focus group discussion help to study about a group through natural conversation and their pattern of interaction.

3.4.1.4. Community mapping

Community mapping can be defined as a map created by the members of a group or community. Through this tool a comprehensive picture of the area that they live in are being created by the local residents of that area. This enables the researcher to assess the knowledge of the respondents about the area in which they live.

3.4.2. Group efficiency

In the present study, group efficiency can be operationally defined as the ability of the group to overcome the obstacles there by achieving their goals and earning a sustainable livelihood.

Group efficiency was measured by the group efficiency index developed by Surendran (2000) with slight modification. The weightage for each component was obtained based on the judges rating.

$$GEI = \frac{\sum \left(\frac{g_i}{G_i}\right) w_i}{\sum w_i}$$

i.e,

$$\frac{\left(\frac{g_1}{G_1}\right) w_1 + \left(\frac{g_2}{G_2}\right) w_2 + \dots + \left(\frac{g_3}{G_3}\right) w_{10}}{w_1 + w_2 + \dots + w_{10}}$$

w_1, w_2 weightage of components

g_1, g_2 extent of group efficiency score

G_1, G_2 maximum possible group efficiency score of five components

3.4.2. Operationalization and measurement of components of Group efficiency

3.4.2.1. Group cohesion

Refers to the degree to which the group member is affiliated to one another and are motivated to remain in the group

3.4.2.2. Group interaction

Refers to the tendency of individuals to mix freely with each other without inhibition.

3.4.2.3 Accountability

Refers to the extent to which members are answerable for performance of responsibility over achievement of objectives as agreed upon.

3.4.2.4 Team spirit

Refers to the extent to which joint action behaviour is exhibited by group members through co-ordinated efforts to achieve common goals

3.4.2.5 .Transparency

Refers to the extent to which activities of groups are open and clear to the members of the group.

The above five group characteristics were measured by applying schedule developed by researcher for the study. The schedules of group cohesion and group interaction consist of five statements each where as the schedules of transparency, accountability and team spirit consist of four statements each. Group cohesion, transparency and accountability are measured in a three point continuum as 'always' , 'sometime' and 'never' . Positive statements carry scores of 'two' , 'one' and 'zero' and negative statements 'zero', 'one' and 'two' respectively. Group interaction and team spirit were measured on a five point continuum ranging from 'strongly agree' to 'strongly disagree'. The scoring pattern ranged from 'four' to 'zero' for positive statements and 'zero' to 'four' for negative statements. Summation of each schedule form the score of the respective component of the respondent.

3.4.3. Planning, production and marketing aspects of vegetables

In the present study, planning is operationally defined as the respondent's ability to prioritize work in advance so that efficient utilization of resource is possible to obtain a good profit in vegetable cultivation.

Production is referred to as the process concerned with the conservation of inputs (raw materials, machinery, information, man power and other factors of

production) in to outputs with the help of certain process like planning, scheduling etc. (Varma and Agarwal, 1986).

Marketing is operationally defined as the degree to which a respondent is oriented towards the selection of marketing channels, price and profit from vegetable cultivation and marketing.

In the present study the three components were measured using the procedure developed by Sreedaya (2000).

The schedule for planning and production consisted of nine statements and measured on a five- point continuum as 'always', 'frequently', 'sometimes', 'rarely', and 'never' with scores 'five', 'four', 'three', 'two' and 'one' respectively. The schedule for marketing consisted of five statements and measured on a five- point continuum ranging from 'always', 'frequently', 'sometimes', 'rarely' and 'never' with scores 'five', 'four', 'three', 'two' and 'one' respectively. Separate score of each respondent for planning, production and marketing was found out and for each of these three variables correlation with the independent variables was found out.

3.6. Gender role, role changes and recognition.

Gender role is a theoretical construct involving a set of social and behavioural norms that, within a specific culture, are widely considered to be socially appropriate for individuals of a specific sex. The perception of gender roles includes attitudes, actions, and personality traits associated with a particular gender within that culture.

The scale consisted of six 'Yes' or 'No' statements. The scoring is as follows

Yes -1

No- 0

3.6. Operationalisation and measurement of independent variables

3.6.1. Age

It refers to the number of calendar years completed by the respondent at the time of interview. Age was operationalized as number of calendar years completed by the respondent at the time of investigation. Classification of respondents made by Sindhudevi (2004) followed by Sadam (2013).

Age	Category
Young	<or equal to35
Middle aged	36-55
Old	>Or equal to 55 years

3.6.2. Educational status

Operationalised as the highest academic qualification possessed by the farmer. Scoring followed by Sadam (2013) with slight modification.

Category	Scores
Illiterate	1
Primary school	2
High school	3
College	4
Professional	5

3.6.3. Annual income

Refers to the total earnings of all members of the family of the respondent for one year. This was obtained by adding income earned by all the adult members of the family and income from land and crops for one year. The variable was measured by directly asking the respondents. The scoring pattern is as follows.

Income(Rs)	Scores
Up to 2000	1
2001-5000	2
5001-10000	3
10001-20000	4
Above 20001	5

3.6.4. Increase in income

Refers to the increase in income after joining group. The scoring procedure used by Fayas (2003) was used to measure this variable.

Increase in income /year	Score
Up to 1000	1
1001-2000	2
2001-3000	3
>3001	4

3.6.5. Area under vegetable cultivation

Refers to the area under vegetables possessed by respondents. The classification procedure suggested by Esakkimuthu (2010) was adopted.

Category	Size of holding in cents	Score
Low	<60	1
Medium	61-70	2
High	>71	3

3.6.6. Social participation

Refers to the participation of respondent in various formal social institutions either as a member or as an office bearer. Social participation was measured using the scale adopted by Meera (2001). The score were assigned as follows.

1. For membership in organization

No membership in organization	1
Membership in each organization	2
Office bearer in each organization	3

2. Frequency of participation

Never attending any of the meeting	1
Sometimes attending meetings or activity	2
Regularly attending meeting	3

The scores obtained by the respondent on the above two dimensions were summed up across each item for all the organizations which gave her social participation score. The score ranges from 12-36.

3.6.7. Achievement motivation

Refers to the striving of farmers to 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 indicate 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 respondents achievement motivation score was obtained. Score ranges from 5-10.

3.6. 8. Economic motivation

Refers to the extent to which a farmer is oriented towards profit maximization and relative value he places on monetary gains. The scale adopted by Fayas (2003) was used to measure the economic motivation. The scale consisted of six statements of which fifth and sixth were negative. Each statement was provided with five- point response categories namely 'strongly agree', agree, undecided, disagree and strongly agree with scores of 5,4,3,2 and 1 for positive statements and 1,2,3,4 and 5 for negative statements formed the score of economic motivation. The score range is from 6-30.

3.7. Comparing the efficiency of farming by individuals and by groups.

Comparing the efficiency of faming by individuals and by groups was done by the procedure developed by the researcher for the purpose.

The respondents were asked whether they prefer farming in groups or individually and the reasons for their preference for group farming were also enquired.

3.8. 1. Perception of farmwomen about the group process

Refers to the recognition of the stimuli and interpretation about group by the respondent.

This is measured by applying the schedule developed by Sreedaya (2000). with slight modification. The schedule consisted of nine statements, out of which eight were positive and one is negative reflecting the respondent's perception about the group. The respondents were asked to give their responses in three categories as whether they agree, undecided and do not agree. The number of respondents for each category for each statement was taken and expressed as percentage. '

3.8.2. Perception of officials about the group process

Rao and Narayana (1986) defined perception as a process by which people organize and interpret , experience, process and use stimulus materials in the environment so that they satisfy their needs. This is measured by applying a schedule consisting of nine positive statements. The respondents were asked to give their responses as 'agree', 'undecided' and 'disagree' .The number of respondents for each category for each statement was taken and expressed as percentage. '

3.9.1. Constraints faced by the members

In the present study, constraint is operationalised as those difficulties faced by farm women in the process of group formation and production and marketing of vegetables. Twenty constraints faced by farm women was identified based on review and consultation with experts and reduced to 10 and the selected constraints were given for the respondents. The agreement was given a score of 'one' and disagreement was given a score of 'zero'. The total frequency of agreement for each constraint was found out and the percentage of agreement of each constraint was worked out. Based on the percentage the constraints were ranked.

3.9.2. Constraints as perceived by the extension facilitators.

Open ended questions were included in the schedule and questionnaire for extension functionaries to indicate the various constraints faced in group process

3.10. Suggestions for improvement of groups

Open ended questions were included in the schedule and questionnaire for farm women and officials respectively to indicate their suggestions for improving the group.

3.11. Methods used for data collection

The data was collected using pre-tested interview schedule, focus group discussions and PRA. The interview schedule prepared in English was translated to Malayalam before administering to the respondents. To study the perception of officials about the group separate questionnaire was prepared.

3.12. Statistical tools for the study

3.12.1. Mean

The respondents were classified into low, medium and high groups for the variables based on the mean scores ie, categorization was done in to low ,medium and higher groups using Mean-SD, Mean, mean + SD.

3.12.2. Quartiles

The respondents were classified into low, medium and high groups for the variables planning, production and marketing aspects of vegetables based on the quartiles.

3.12.3 Percentage

To make simple comparisons percentage analysis was used

3.12.4. Correlation analysis

To find out the relationship between variables correlation analysis was used

3.13. Hypothesis

The hypothesis for the study states that there exists no significant relationship between the profile characteristics of the respondents with the variables like the scale of Social capital formation, planning, production and marketing aspects of vegetables and the group characteristics.

RESULT AND DISCUSSION

Chapter IV

RESULTS AND DISCUSSION

This chapter deals with the results obtained in the study and the discussion based on the results. Keeping the objectives in view, the findings as well as the discussion on them are presented under the following sub headings.

4.1. SOCIAL CAPITAL MEASURED USING SOCAT-QUALITATIVE

4.1.1. . Social Capital measured using SOCAT-quantitative

4.1.2. Distribution of respondents based on the scale of social capital formation

4.1.3 Scale of social capital formation

4.2. DISTRIBUTION OF RESPONDENTS BASED ON THEIR PROFILE CHARACTERISTICS.

4.2.1. Relationship of social capital formation with profile characteristics.

4.3. PLANNING, PRODUCTION AND MARKETING ASPECTS OF VEGETABLES

4.3. 1.Relationship of Planning, production and marketing aspects of vegetables with profile characteristics.

4.4. GROUP EFFICIENCY OF THE RESPONDENTS

4.4.1. Distribution of respondents based on group characteristics.

4.4.2. Relationship of group variables with independent variables.

4.5. ANALYSIS OF GENDER ROLE CHANGES AND RECOGNITION

4.6. COMPARING THE EFFICIENCY OF FARMING BY INDIVIDUALS AND BY GROUPS

4.7. PERCEPTION OF FARM WOMEN ABOUT GROUP PROCESS

4.7.1 Perception of extension facilitators about group process

4.8. CONSTRAINTS FACED BY THE FARM WOMEN IN GROUP PROCESS AND PRODUCTION AND MARKETING OF VEGETABLES.

4.8.1. Constraints as perceived by the extension facilitators.

4.9. SUGGESTIONS FOR IMPROVING THE GROUPS

4.1. SOCIAL CAPITAL MEASURED USING SOCAT-QUALITATIVE.

- Due to exposure to the group meetings respondents are well aware of their resources, institutions and marketing channels both within and outside the Panchayath.
- All the respondents are aware of the support services received from VFPC, KUDUMBASHREE, KRISHIBHAVAN and they frequently visit these organizations.
- Membership in the group enhanced individual soft skills like communication skill, leadership, team building, and conflict management etc of the respondents.
- Group meetings enhanced connections, co-ordinations and co-operations among individuals.
- Also exposure to the trainings and acquaintance with staff of various organizations helped the respondents to improve their evaluation ability.
- Members also exhibited improved risk taking ability because of the feeling of 'togetherness'.
- Enhanced trust, bonding and reciprocal arrangements among group members created more socialization even between the family members of the respondents.



Plate 2 Members of Kudumbashree group participating for drawing the time line



Plate 3- Members of VFPCK actively involved in venn diagram presentation



Plate 4. Community mapping



Plate 5 visiting the field of VFPCCK women group



Plate 6. visiting the terrace cultivation of women group of Poruvazhy

4.1.1. Social Capital measured using SOCAT-qualitative

4.1.1.1. Distribution of respondents based on the scale of social capital formation.

It can be inferred from the table 1 that majority of respondents belongs to the medium category in their social capital formation. I.e. 82 per cent of the respondents belong to the medium category whereas only 10 per cent belongs to the high category. Eight per cent of the respondents fall under the low social capital formation groups. Majority of the people in the society have a neutral attitude towards co-operation, helping others and volunteership. It is Obvious that continuous efforts of State department of agriculture, VFPC, Kudumbasree Mission and other NGOs, has created a wave in farming community especially vegetable scenario. A lot of groups were promoted by these organization many of them are women group and this might be the reason as majority of the respondents fall under medium category and for a considerable reduction of respondents who fall in the low category.

4.1.1.2. Scale of social capital formation

The maximum social capital was observed in the Karavalloor panchayath with 71%, followed by Pavithreshwaram and the minimum social capital was obtained in Pooyapally panchayath securing 48%.

Table 1-Distribution Of respondents based on the scale of social capital formation.
(n=90)

Sl no.	Category	Score range	Frequency	Percentage
1	Low	<7	7	8
2	Medium	7-11	74	82
3	High	>11	9	10

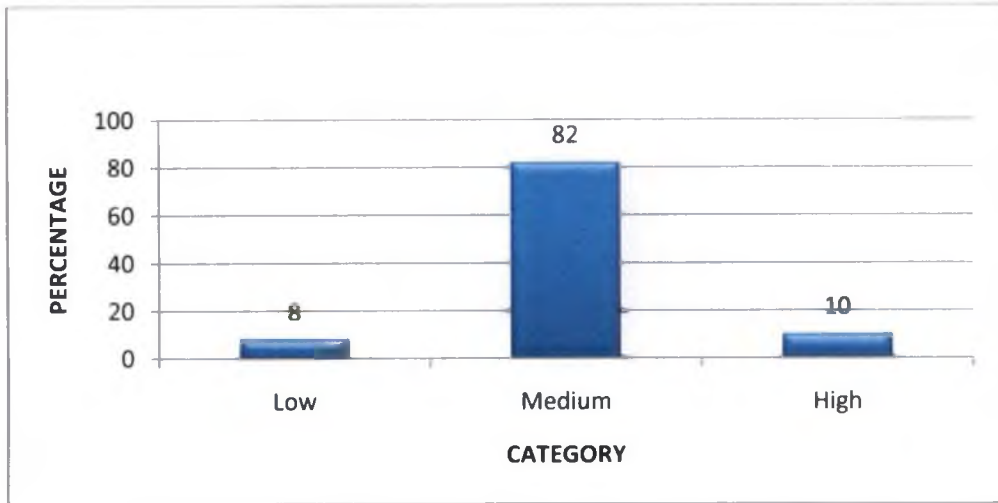


Fig 1. Distribution of respondents based on the scale of social capital formation.

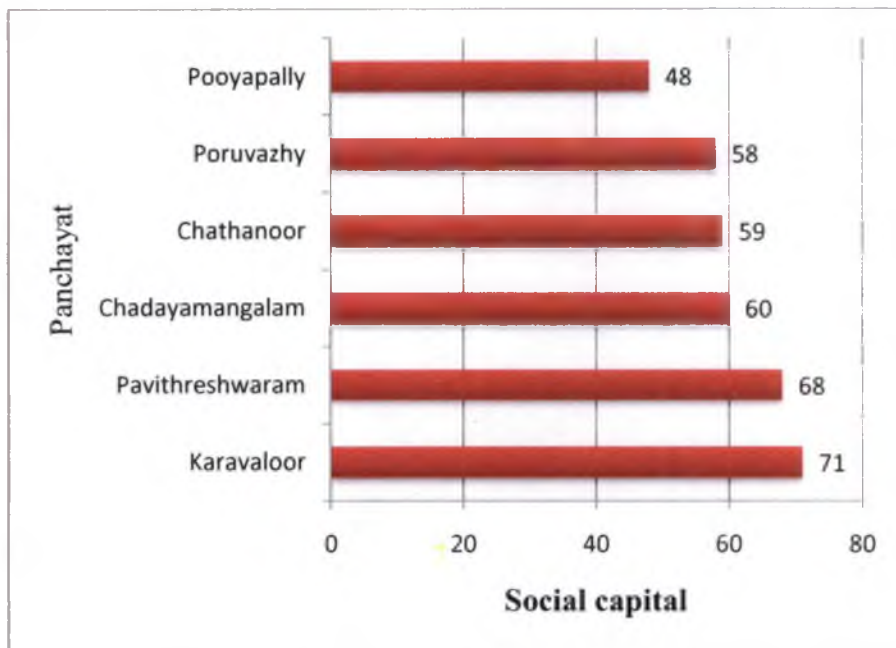


Fig 2. Scale of social capital formation in different panchayats

Table 2 Scale of social capital formation in different panchayaths

SI No	Panchayath	Percentage (%)
1	Karavaloor	71
2	Pavithreshwaram	68
3	Chadayamangalam	60
4	Chathanoor	59
5	Poruvazhy	58
6	Pooyapally	48

From the PRA conducted and discussions with the women groups, it was evident that there was good social capital formation among the members of the group under study. Karavaloor panchayath where the maximum social capital formation was achieved have very active women members who are looking forward for more opportunities. The activities of kudumbashree over the last few years might have increased the level of trust and solidarity among the group members in Karavaloor panchayath. Kudumbashree, ATMA and VFPCCK have enabled women to organize into groups and thereby increase their social capital formation through interaction, entrepreneurship and creative activities as well.

4.2. DISTRIBUTION OF RESPONDENTS BASED ON THEIR PROFILE CHARACTERISTICS.

4.2.1.1. Distribution of respondents based on their age

Majority of the respondents i.e. 63 per cent belong to the middle aged category. Only 13% respondents belong to the young age group. Middle aged people have more interest in farming and tend to show more interactive behavior with others, so they are more involved in group activities. People at young age show reluctance towards farming and due to other jobs they may not get time to involve in group activities. This may be the reason for low participation of younger people in groups.

Table 3 Distribution of respondents based on their age (n=90)

SI No.	Category	Age (in years)	frequency	Percentage
1	Young	≤35	12	13
2	Middle	36-55	57	63
3	Old	≥55	21	24

4.2.1.2. Educational status.

From the Table 4 it is very clear that 63 per cent of the respondents have high school education, 17 per cent of the respondents have college level education. There is no one who is illiterate. The result indicated that unlike earlier days educated women including professionals come forward for farming and socialization resulting from it. It also indicated that as the age progresses from young to middle aged the aversion to agriculture decreases even for educated category. This may be due to the continuous efforts by all the stakeholders in this sector including media for the popularization of safe vegetables.

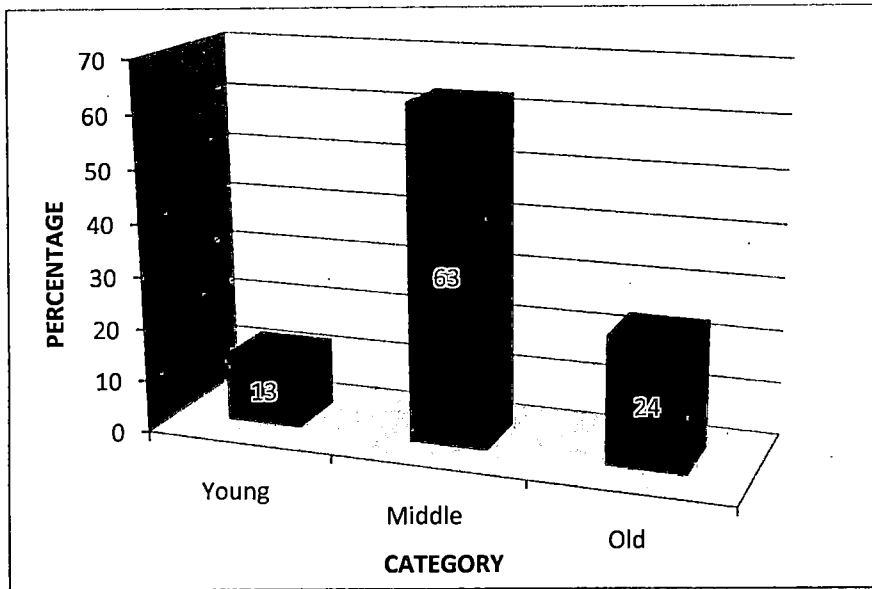


Fig 3. Distribution of respondents based on the age

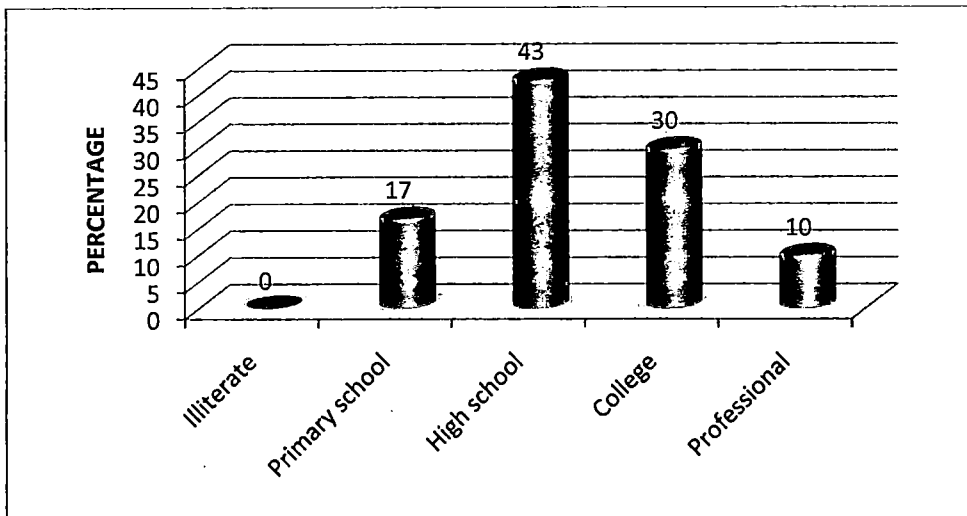


Fig 4. Distribution of respondents based on their educational status.

Table 4. Distribution of respondents based on their educational status. (n=90)

SI No.	Category	Frequency	Percentage
1	Illiterate	0	0
2	Primary school	15	17
3	High school	57	63
4	College	15	17
5	Professional	03	03

4.2.1.3 Annual income

Most of the respondents i.e. 24% in the group have income between Rs 10,000 and 20,000 and 18% have income more than Rs 20,001. Only few people have low income, this may be because of the livelihood security provided by the women groups. Also number of income generating activities were taken up the groups which might have enabled the group members to have a stable income.

Table -5 Distribution of respondents based on their Annual income. (n=90)

SI No.	Annual income (Rs)	Frequency	Percentage
1	<2000	1	1
2	2001-5000	17	19
3	5001-10000	22	24
4	10001-20000	34	38
5	>20001	16	18

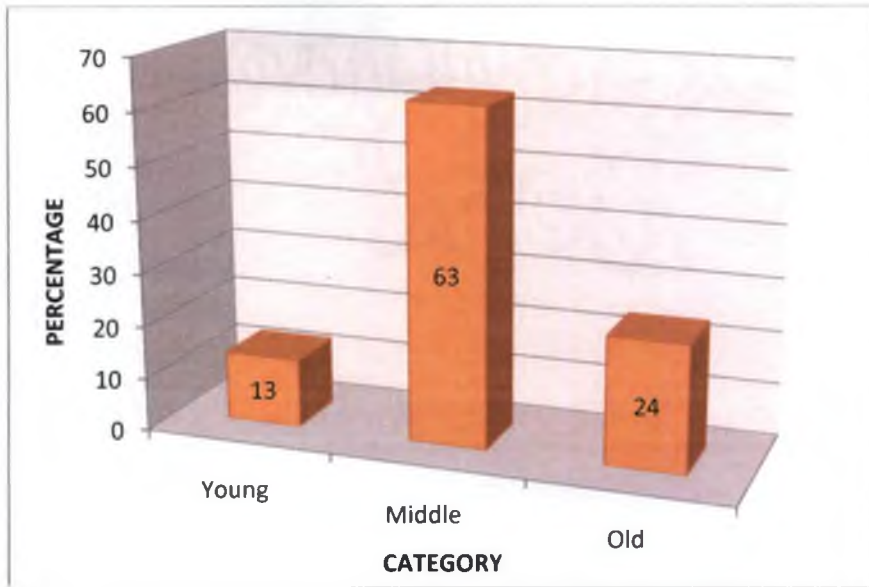


Fig 3. Distribution of respondents based on the age

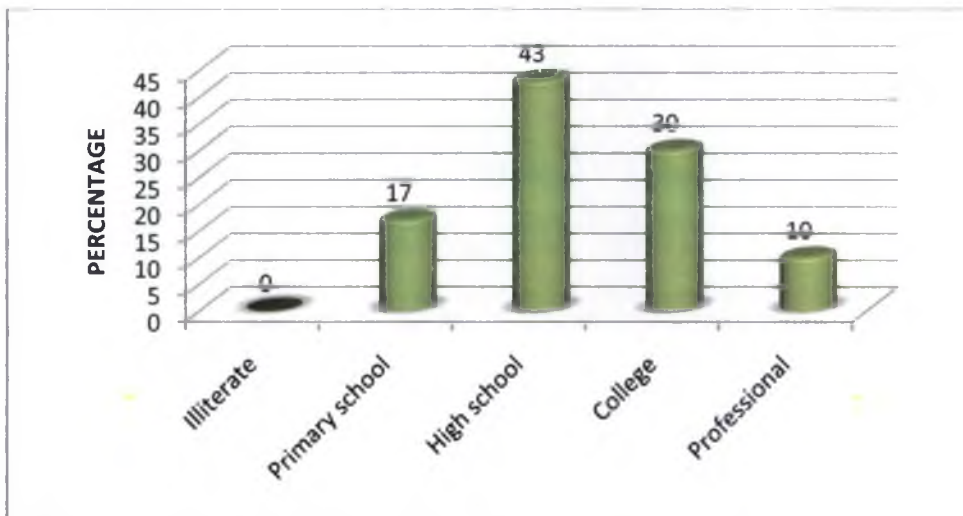


Fig 4. Distribution of respondents based on their educational status.

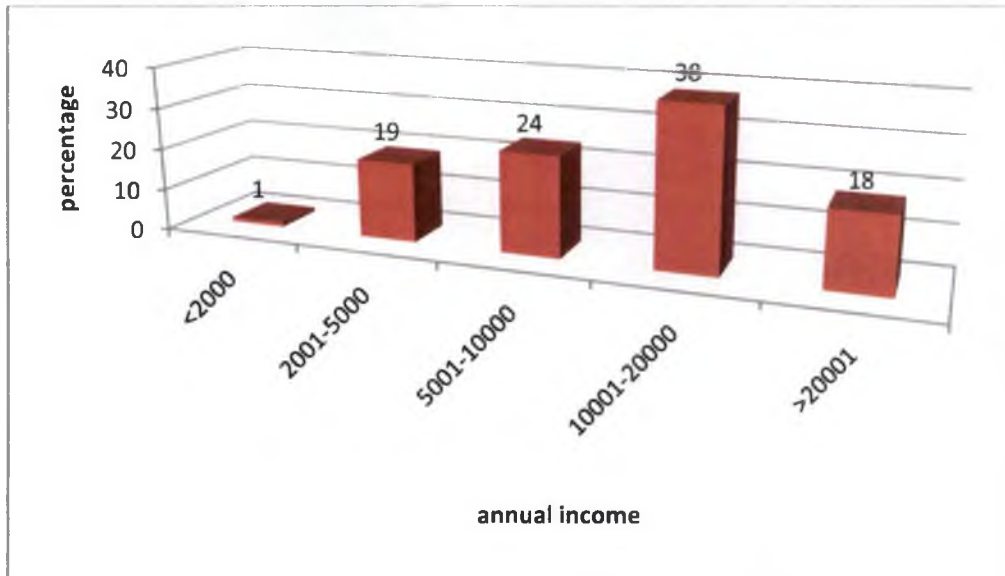


Fig 5. Distribution of respondents based on their annual income

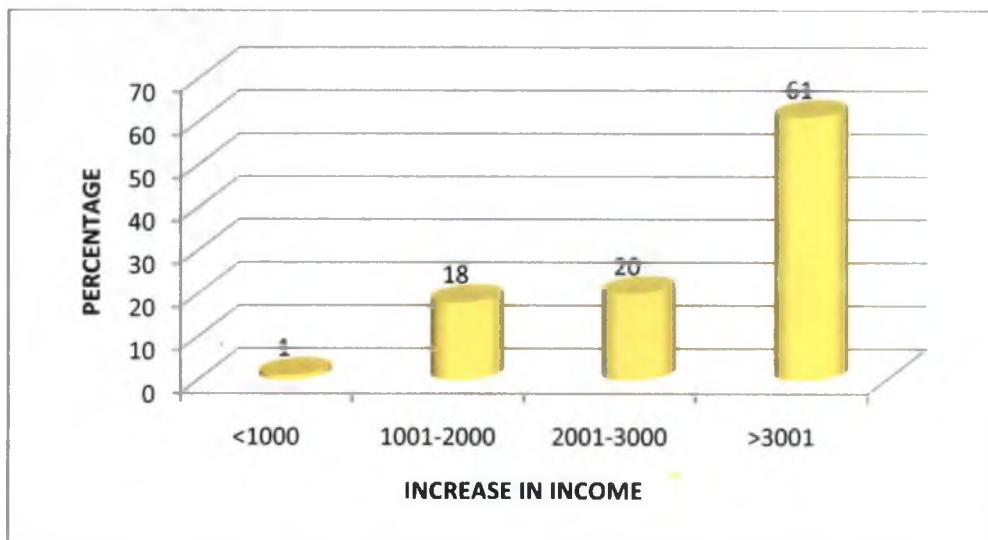


Fig 6. Distribution of respondents based on their increase in income

4.2.1.4. Increase in income

It can be inferred from Table 6 that 61 per cent of the farm women have an increase in annual income of more than Rs 3001 after joining the groups. Also only one percent of the respondents had less than an increase of Rs 1000. Twenty per cent of the respondents recorded an increase in income between Rs 1001 and Rs 2000 whereas 20 per cent of the respondents recorded an increase in income of Rs 2001 and Rs 3000. Increase in income reflects many other factors like the standard of living, stability of the group etc.

Table 6 Distribution of respondents based on their increase in income/year.

(n=90)

SI No.	Increase in income (Rs)	Frequency	Percentage
1	<1000	1	1
2	1001-2000	16	18
3	2001-3000	18	20
4	>3001	55	61

4.2.1.5. Area under vegetable cultivation

It is clear from the Table 7 that 70% of the respondents have less than 60cents of vegetable cultivation and only 22% have an area more than 71 cents under vegetables. Similar result was also reported by (Esakkimuthu, 2010). The major problem faced with agriculture scenario is the shrinkage of land due to rapid urbanization and industrialization. To solve this problem it is high time to

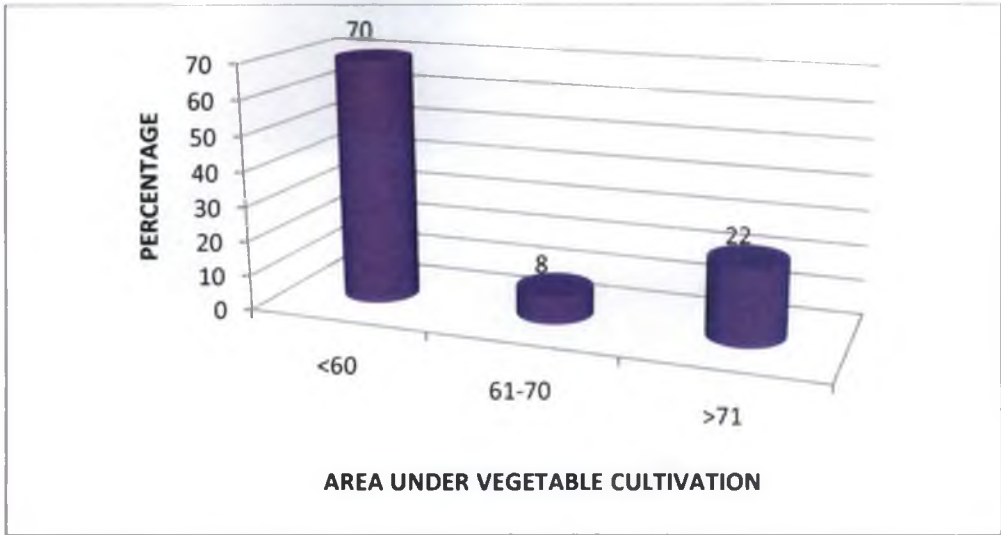


Fig 7. Distribution of respondents based on the area under vegetable cultivation

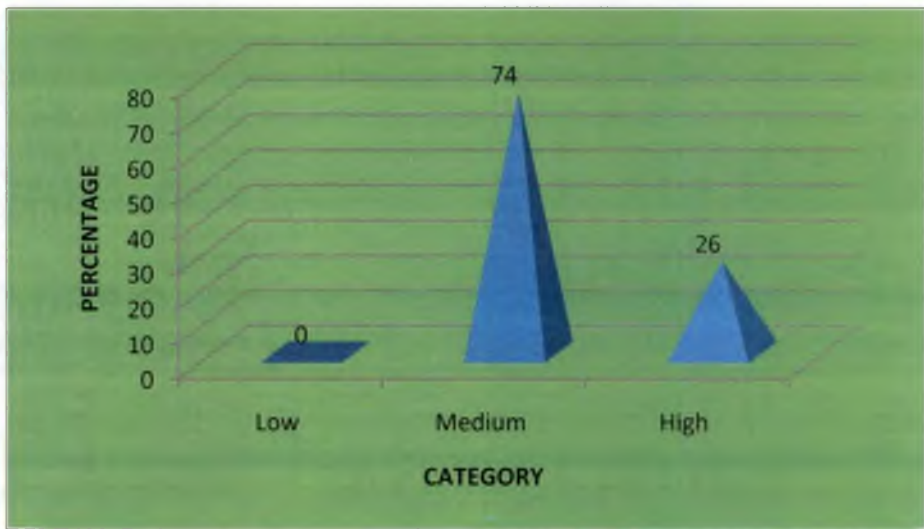


Fig 8. Distribution of respondents based on their social participation

turn to terrace farming and vertical farming. Also the efforts to pool the fallow land and convert it into cultivable land should be more promoted.

Table 7 Distribution of respondents based on area under vegetable cultivation

(n=90)

Sl No.	Area under vegetable cultivation(cents)	Frequency	Percentage
1	<60	63	70
2	61-70	7	8
3	>71	20	22

4.2.1.6. Social participation

As per Table 8 74 per cent of the respondents fall in medium category of social participation. It is good to see that there are no respondents under the low category. But only 26 per cent of the women farmers have shown high level of social participation. Women in spite of their domestic duties actively come forward for social participation is obvious from the results. But it is still alarming that only small portion is very actively participating may be due the restriction imposed by men for the free interactions and interventions.

Table 8 Distribution of respondents based on social participation (n=90)

Sl No	Category	Score range	Frequency	Percentage
1	Low	<12	0	0
2	Medium	12-16	67	74
3	High	>16	23	26

4.2.1.7. Achievement motivation

Table 9 reveals that about three fourth of the respondents i.e. (72%) have medium achievement motivation whereas 28 per cent have high achievement motivation. This achievement motivation might have persuaded them to become the members of the group.

Table 9 Distribution of respondents based on their Achievement motivation

(n=90)

SI No.	Category	Score range	Frequency	Percentage
1	Low	<5	0	0
2	Medium	5-7	65	72
3	High	>7	25	28

4.2.1.8. Economic motivation

It is clear from table 10 that 68 per cent of the respondents have medium economic motivation, 23 per cent of the respondents have high economic motivation and only 9% of the respondents fall under low category. It is clear from result that to earn more income for their livelihood, the people have joined the group and start the vegetable cultivation as an entrepreneurial activity. So any effort to promote group activity should be encouraged to the maximum extent and the members must be trained on entrepreneurial mode as most of these members aspire for more income.

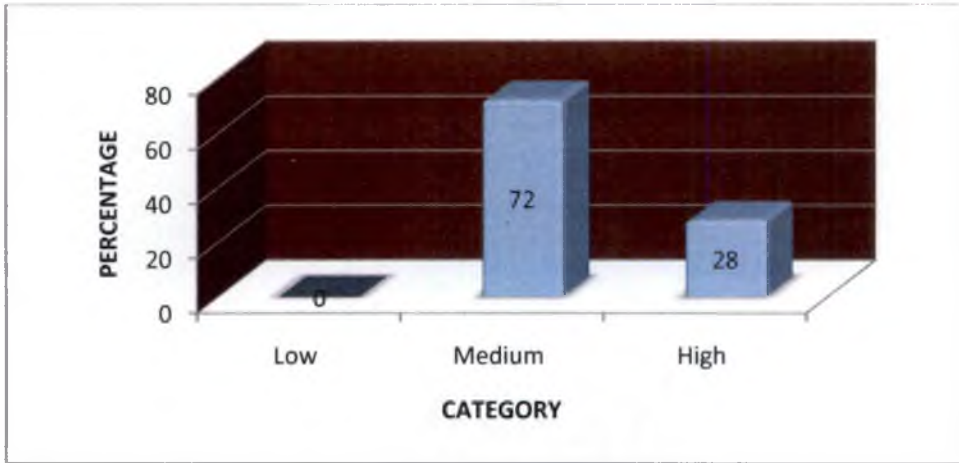


Fig 9. Distribution of respondents based on achievement motivation

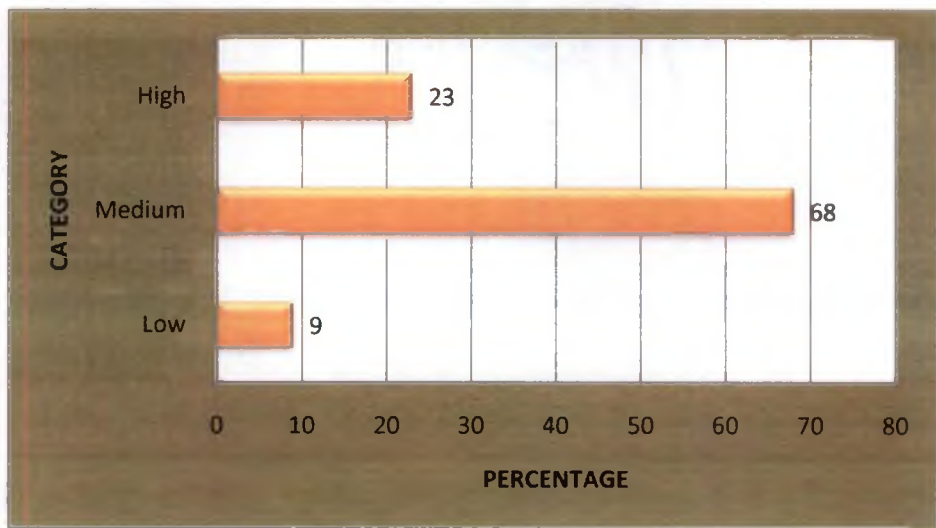


Fig 10. Distribution of respondents based on their economic motivation.

Table 10 Distribution of respondents based on their economic motivation

(n=90)

SI No.	Category	Score range	Frequency	Percentage
1	Low	<24	8	9
2	Medium	24-28	61	68
3	High	>28	21	23

4.2.2. Relationship of social capital formation with independent variables

Table 11 shows the results of correlation analysis of social capital formation with the independent variables. Here, from the table it is clear that annual income (0.216) exhibit a significant positive relation with social capital formation whereas area under vegetable cultivation (0.218) exhibit a significant negative correlation and all other variables exhibit a non-significant relation with social capital formation. The variables like social participation, achievement motivation and economic motivation have a positive relation with the social capital formation.

Individuals work for money, ie to earn a good living. So naturally when there is more annual income, they feel optimistic, they think positive and will engage in activities so as to earn good reputation in a society where they live. Hence, they engage in group activities, and would like to share among the members their success and experiences. As annual income increases people consider membership in groups and social capital formation as an inevitable component in their life.

A negative and significant relationship was obtained between social capital formation and area under vegetable cultivation. When individuals have large areas of vegetable cultivation, they feel confident and satisfied that they can stand alone without others help. But this is not the case of farm women with

marginal land areas, they cannot go ahead if they stand alone and hence lack confidence and will power. But they gain more if they stand together, this may be the reason for negative and significant relationship. When the area under cultivation is large there are time constraints for the farm women which wont permit them to take part actively in group activities.

Table 11 Correlation between scale of social capital formation and independent variables

SI no.	Independent variables	Correlation coefficient (r)
1.	Age	-0.149
2.	Education	-0.171
3.	Annual income	0.216*
4.	Increase in income	-0.043
5.	Area under vegetable cultivation	-0.218*
6.	Social participation	0.049
7.	Achievement motivation	0.086
8.	Economic motivation	0.051

4.3. DISTRIBUTION OF RESPONDENTS BASED ON THEIR INVOLVEMENT IN PLANNING, PRODUCTION AND MARKETING ASPECTS OF VEGETABLES.

4.3.1 Distribution of respondents based on their involvement in planning

For a curve to be normal, here 22% of the respondents should fall under first quartile, 45% of the respondents should come under the second quartile and

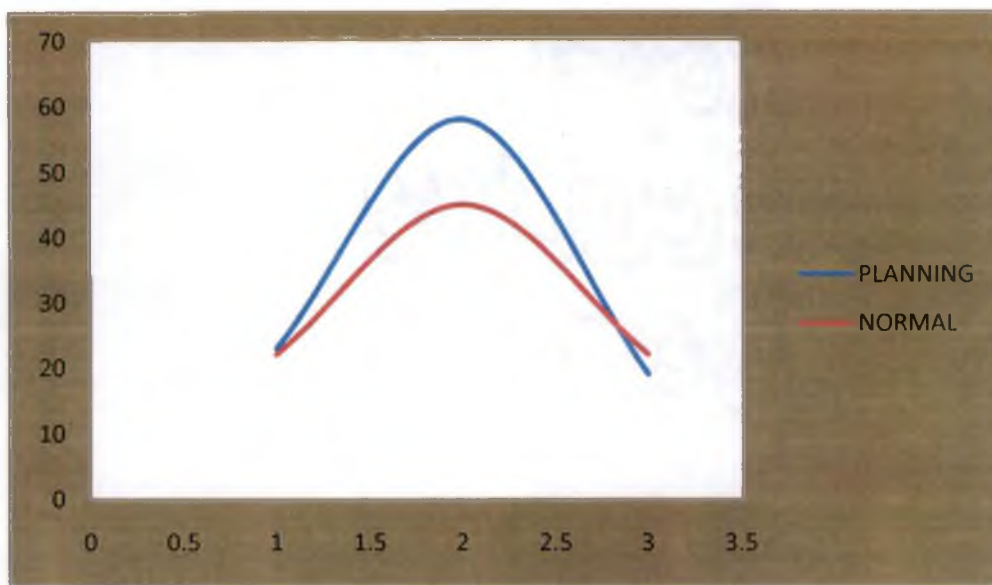


Fig 11. Distribution of respondents based on their involvement in planning aspects of vegetable cultivation

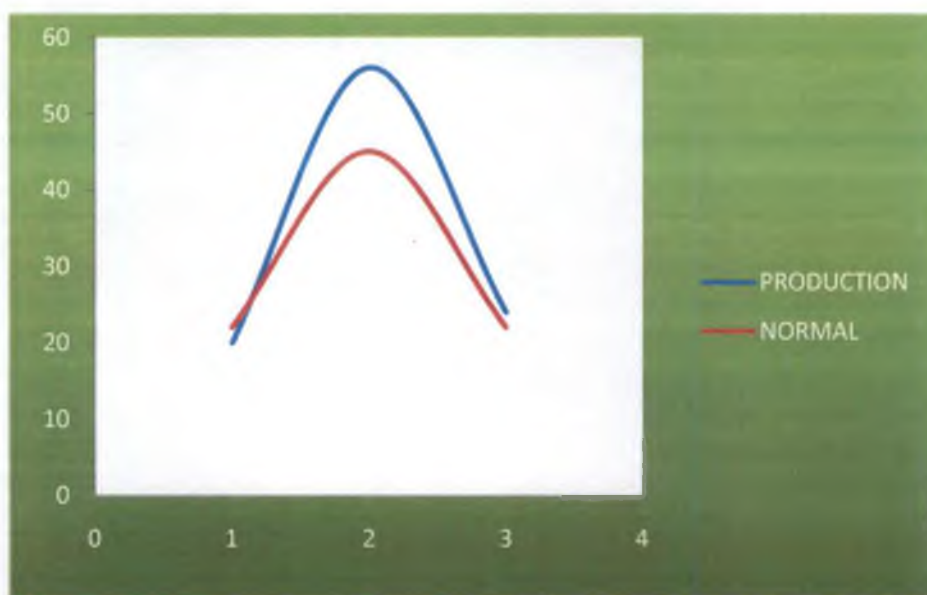


Fig.12. Distribution of respondents based on their involvement in the production aspects of vegetables

the remaining 22% should be in the third quartile. From the fig. it is clear that the curve obtained in planning is a normal curve.

A perusal of Table12 showed that slightly higher than half of the women farmers (58%) showed medium level of involvement in the planning and 23% of the farm women exhibited low involvement in planning, whereas only 19% of the farm women showed high level of involvement in the planning

Table 12 Distribution of respondents based on their involvement in planning

(n=90)

SI No.	Category	Score range	Frequency	Percentage
1	Low	<96	21	23
2	Medium	96-105	52	58
3	High	>105	17	19

4.3.2. Distribution of respondents based on their involvement in production of vegetables

According to Table 13 56% of the farm women had medium involvement in production aspects of vegetables. Only 24% of the farm women showed higher involvement.20% of the farm women showed a low involvement. The production curve is a normal curve.

Table 13 Distribution of respondents based on their involvement in production of vegetables (n=90)

Sl no.	Category	Score range	Frequency	Percentage
1	Low	<37	18	20
2	Medium	37-44	50	56
3	High	>44	22	24

4.3.3. Distribution of respondents based on their involvement in marketing aspects of vegetables

Slightly more than half of the respondents (58%) showed medium involvement in the marketing aspects of vegetables. On the contrary 24% showed high involvement in marketing and an 18% showed low involvement in the marketing of vegetables. The curve obtained in marketing is also a normal curve.

Table 14 Distribution of respondents based on their involvement in marketing aspects of vegetables (n=90)

Sl no.	category	Score range	Frequency	Percentage
1	Low	<19	16	18
2	Medium	19-24	52	58
3	High	>24	22	24

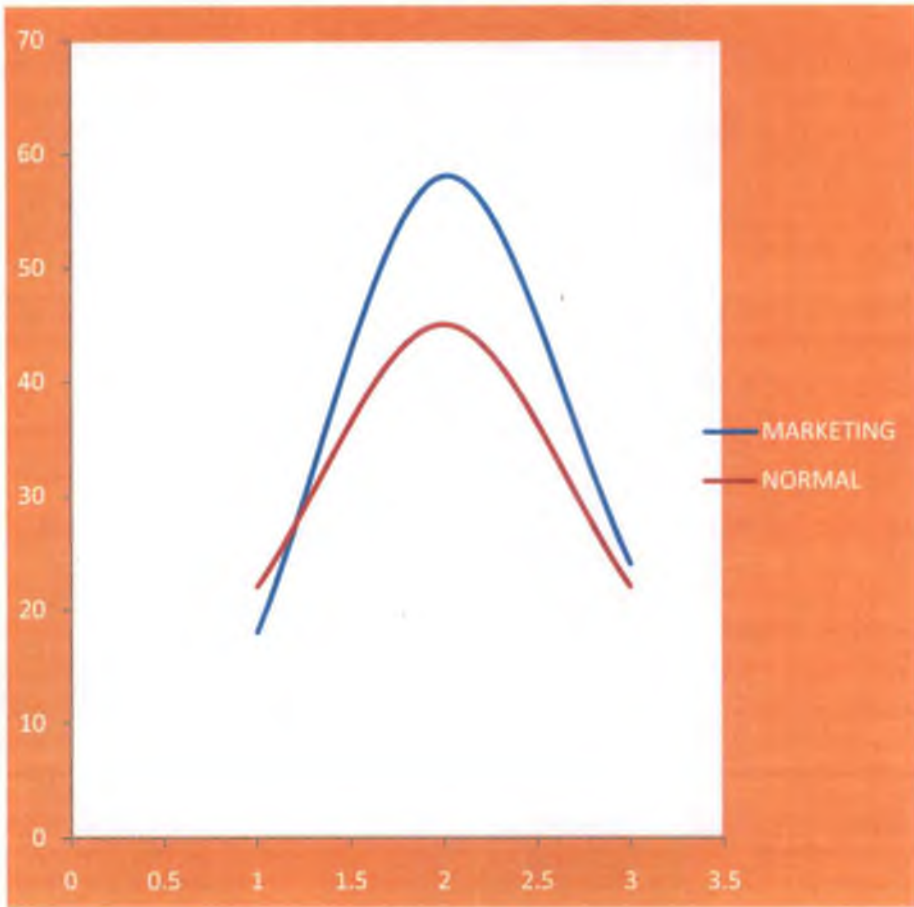


Fig 13. Distribution of respondents based on their involvement in the marketing aspects of vegetables.

4.3.3. Relationship of planning, production and marketing aspects of vegetables with independent variables.

From Table 15 it can be inferred that the variable 'increase in income' showed a positive and significant relationship with planning (0.236), production (0.446) and marketing aspects of vegetables (0.301). 'Achievement motivation' also showed a significant positive relationship with production (0.212). Rest of the variables possessed a non significant relationship with planning, production and marketing aspects of vegetables. Increase in income motivates the farmers to have a systematic and scientific approach towards farming. An increase in income would make the farm women realize the importance of planning and knowing the market for the production of vegetables. So this may be the reason for the positive and significant relationship between increase in income and planning, production and marketing aspects of vegetables. The urge to achieve something is a motivating factor that raises the energy of the group members and hence it helps in enhancing the productivity. The people with achievement motivation have a high positive energy which helps to overcome the different barriers in production and thereby improves the productivity.

Table 15 Correlation between planning, production and marketing aspects of vegetables with independent variables (n=90)

Sl no.	Independent variables	Planning	Production	Marketing
1	Age	-0.005	0.073	0.203
2	Education	0.155	0.173	0.122
3	Annual income	-0.037	-0.019	-0.052
4	Increase in income	0.236*	0.446*	0.301*
5	Area under vegetable cultivation	-0.091	0.198	-0.043
6	Social participation	-0.108	0.133	-0.089
7	Achievement motivation	0.015	0.212*	-0.050
8	Economic motivation	0.002	-0.035	0.083

*-Significant at 5% level.

4.4. GROUP EFFICIENCY OF THE RESPONDENTS

4.4.1 Distribution of respondents based on group characteristics

From Table 16 it is clear that majority of the respondents were in medium category for the components like group cohesion, group interaction, team spirit and transparency but in the case of accountability majority of the respondents were in high category.

Maximum respondents were seen in the medium category in the component team spirit (98%), which is followed by transparency (96%), accountability (87%), cohesion (82%). Majority of the respondents, i.e. 83% of the respondents were in high category for group interaction. Similar result was also obtained by Meera (2001).

Table 16 Distribution of respondents based on group characteristics (n=90)

Sl.No.	Characteristics	Category	Score	Frequency	%
1.	Group cohesion	Low	<7	9	10
		Medium	7-9	74	82
		High	>9	7	8
2.	Group interaction	Low	<8	1	1
		Medium	8-12	14	16
		High	>12	75	83
3.	Accountability	Low	<4	5	6
		Medium	4-7	78	87
		High	>7	7	7
4.	Team spirit	Low	<12	2	2
		Medium	12-16	88	98
		High	>16	0	0
5.	Transparency	Low	<6	4	4
		Medium	6-12	86	96
		High	>12	0	0

4.4.2. Relationship of group variables with independent variables.

Table 17 Correlation coefficient (r) between group characteristics and independent variables. n=90

SL No.	Variables	Group cohesion	Group interaction	Accountability	Team spirit	Transparency
1	Age	-0.079	-0.049	0.190	-0.056	-0.094
2	Education	-0.275*	-0.281*	-0.048	-0.089	0.204
3	Annual income	-0.093	0.225*	-0.078	-0.112	-0.088
4	Increase in income	-0.134	0.262*	0.181	-0.195	0.136
5	Area under vegetable cultivation	-0.094	-0.016	0.086	-0.022	-0.240*
6	social participation	0.272*	0.277*	0.012	0.079	-0.148
7	Achievement Motivation	0.278*	0.049	0.178	0.084	0.109
8	Economic Motivation	0.056	-0.019	-0.018	0.021	0.198

**-significant at 5% level.



4.4.2.1. Group cohesion

Three variables education, social participation and achievement motivation showed a significant relationship with group cohesion. Education showed a negative significant relationship whereas social participation and achievement motivation showed a positive significant relationship. Rest of the variables exhibited a non significant relation with group cohesion.

People with high achievement motivation are goal oriented and they realise the fact that the strength of unity helps in achieving their goals. Hence, group cohesion will be more in groups with people having high achievement motivation.

When the people are more educated they develop confidence and feel that they can stand alone. Educated members of a group have their own opinions and many times they wont compromise for any others decisions, this may be the reason for the negative and significant relationship between education and cohesion.

Similar result was also obtained by Sreedaya (2000) who found out that as the people are more educated and economically oriented, they tend to be more selfish and try to become independent. The results revealed that majority of the respondents have medium social participation and there is no one with low social participation, which means they have more tendency for togetherness and they respect each other.

4.4.2.2 Group interaction

Inferring Table 17 education (-0.281) have a negative and significant relationship with group interaction, annual income (0.225) and increase in income (0.262) and social participation (0.277) have a positive and significant relationship with group interaction. All the other variables exhibit non-significant relationship with group interaction. Usually people with high educational status, show a social distance with others, hence when the educational status is more their interaction with other members in the group with a different status comes down. As annual

income increases and there is an increase in income people have a tendency to maintain the increase in income, they find more ways to reach for their goals for which they have more interactions with in the group.

The interaction among the group members increases as they get more income they share with each other and work with each other to maintain their income. As there is more social participation there are more opportunities for the members to see each other hence there interaction also increases, this is in line with the findings of Sreedaya (2000).

4.4.2.3. Accountability

Table 17 revealed that none of the variables showed any significant relationship with accountability.

4.4.2.4 Team spirit

Table 17 clearly showed that none of the variables have exhibited a significant relationship with team spirit.

4.4.2.5. Transparency

As it is evident from Table 17 that area under vegetable cultivation (0.240) is the only variable that showed a negative and significant relationship with transparency. All other variables exhibited non-significant relationship with transparency. As the area under vegetable cultivation decreases the transparency in the group increases. Majority of the people have less area under vegetable cultivation, ie less than 60 cents, so they may pool their land and it becomes joined group activity and there the transparency increases. People with large area under cultivation also have time constraints, to attend for the group activities this in turn reduces the transparency.

4.4.3 Group efficiency

From Table 18 it is clear that majority of the respondents i.e. (53%) had medium group efficiency and 28% of the respondents had low group efficiency and 19% of the respondents had high group efficiency. Majority of the

respondents. The group characteristics were not at a high level in a good number of respondents. This may be the reason why majority of the respondents could not attain high group efficiency. But it is appreciable to note that majority of the respondents have more than 50% of group efficiency.

Table-18 Distribution of respondents based on their group efficiency

SI No.	Category	Score range	Frequency	Percentage
1	Low	<0.78	25	28
2	Medium	0.78-0.85	48	53
3	High	>0.85	17	19

4.5. ANALYSIS OF GENDER ROLE, ROLE CHANGES AND RECOGNITION

Table-19 Distribution of farm women based on their gender role, role changes and recognition.

SI No.	Category	Score range	Frequency	Percentage
1	Low	<2	19	21
2	Medium	2-4	58	64
3	High	>4	13	15

From Table 19 it is clear that about two third of the farm women (64%) comes under the medium category in gender role, role changes and recognition. But only a 15% of the farm women falls into highest category. On the contrary 21% of the respondents are in low category. 64% of farm women in medium category itself explains that role changes and recognition are occurring in the farm women community in an appreciable manner. Women empowerment and

Distribution of respondents based on the group efficiency index

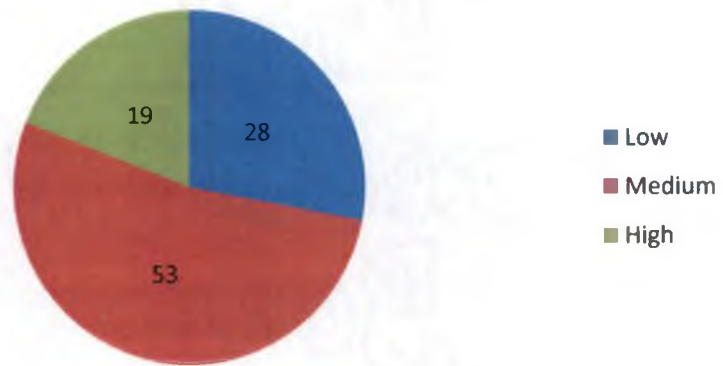


Fig 14. Distribution of respondents based on the Group Efficiency Index

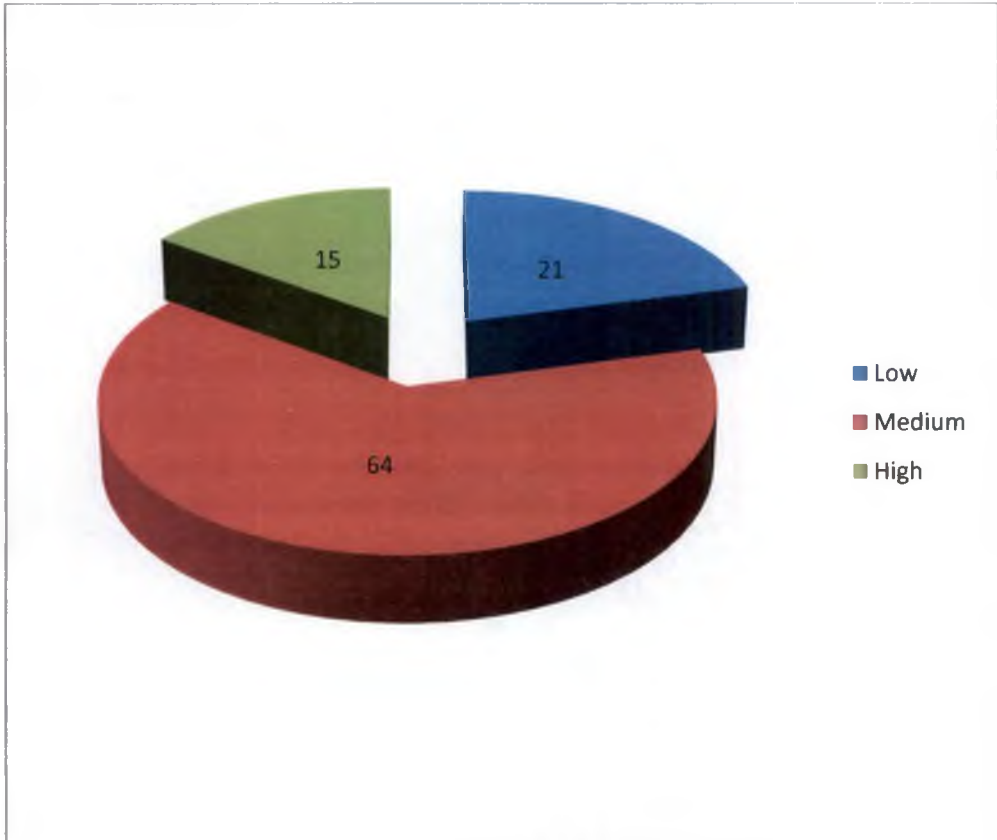


Fig 15. Distribution of respondents based on the gender role changes

awareness programmes over the last few years may have lead to this drastic change

4.6. COMPARING THE EFFICIENCY OF FARMING BY INDIVIDUALS AND BY GROUPS

100% of the respondents agree that group farming is more efficient than individual farming. There are so many limitations for individual farming, more effort is required, more risk is needed, above all this they have to face many problems as they are women when they are alone. But all these difficulties can be wiped out to some extent when 'I' turn to 'WE'. This may be the reason for the preference of group farming by individuals. The concept of social capital can come to reality through working in groups. Women from poor families usually hesitate taking new ventures and responsibilities fearing their accountability. But group farming helped in solving this problem where the accountability and risk is spread among the members of the group. The respondents are also of the opinion that the groups helped in boosting their talents and confidence, so that now they can now interact with others and find remedies to their problems. Co-operation and trust are other important aspects of group farming, timing can be properly maintained through group farming than in individual farming. It is interesting to note that the groups consist of all sections of women in a society, the educated members of the groups knowingly or unknowingly let the other members of the groups to know about the improved agricultural practices . The members thus get motivated and there had been situations where the group together decide to practice this new practice in their area.ie, here the productive ideas have been generated through loose talks. The quality planting material that is possessed by one member of a group is shared among the members. In individual farming, there is hardly any interaction between two women living next door. So obviously there is no chance for any of the above mentioned situations. In the study, it was surprising to note that the farm women from VFPC, ATMA and Kudumbashree have admitted that most of them have got to know each other only because of these groups.

4.7. PERCEPTION OF FARM WOMEN ABOUT GROUP PROCESS

From Table 20 it can be inferred that most of the farm women agree that groups are one of the best programmes implemented for vegetable cultivation and that plant protection can be effectively done through groups, also groups helped to achieve a sustainable income for the farm families. A sustained livelihood to women and that the maximum use of resources is possible through these groups. It should be also noted that 51% of the members agree that groups encouraged corruption. But despite of all these Farm women (98-99%) agreed that the groups have benefited them in one way or other.

Table 20 Perception of farm women about group process (n=90)

Sl.No	Statements	Category	Frequency	%	Rank
1	Groups in vegetable cultivation helps to achieve sustained livelihood to women	Agree	85	94	6
		disagree	05	06	
2	Maximum utilization of available resource of women farmers is possible through groups	Agree	85	94	6
		disagree	05	06	
3	Groups in vegetable cultivation help to reduce heavy crop losses	Agree	80	88	8
		disagree	10	12	
4	Implementation of groups encourages corruption	Agree	46	51	9
		disagree	44	49	
5	Groups in vegetable cultivation is a blessing to small and marginal women farmers	Agree	87	97	5
		disagree	03	03	

6	Groups in vegetable cultivation is one of the best programmes implemented for the development of agriculture in the state	Agree	89	99	1
		disagree	01	01	
7	Group approach in vegetable cultivation promote opportunities for income and employment generation to farm families	Agree	88	98	4
		disagree	02	02	
8	Cost of cultivation can be reduced by group approach in vegetable cultivation	Agree	89	99	1
		disagree	01	01	
9	Plant protection could be more efficiently followed through groups	Agree	89	99	1
		disagree	01	01	

4.7.1. Perception of extension facilitators about group process

Cent of the extension facilitators agreed with the statements that women groups boosted the self confidence and helped to achieve a sustained livelihood for women

Table 21 Perception of extension facilitators about group process (n=30)

Sl.No.	Statements	Category	Frequency	%	Rank
1.	Women groups boost the self confidence of rural women.	Agree	30	100	1
		disagree	00	00	
2	Groups helped to achieve sustained livelihood for women.	Agree	30	100	1
		disagree	00	00	
3	Self employment through groups cannot be taken up due to lack of literacy and skill.	Agree	13	43	8
		disagree	17	57	

4	The groups enhance the income of women on a sustainable and profitable basis by starting income generating activities.	Agree disagree	13 17	43 57	8
5	Groups develop interdependence and mutual trust among its members.	Agree disagree	24 06	80 20	6
6	In the group, the group members are involved in decision making.	Agree disagree	23 07	77 23	7
7	The group develop a 'we feeling' among the members.	Agree disagree	28 02	93 07	3
8	The group approach is one of best programmes implemented for the development of rural women.	Agree disagree	28 02	93 07	3
9	Women groups help in developing the overall capacity of women	Agree disagree	26 04	86 14	5

4.8.1. Constraints faced by the farm women in group process and production and marketing of vegetables

The constraints faced by farm women were identified and presented in Table 22 From the table it is very evident that the most important constraint faced by farm women is the lack of working capital at the field centre.84% of the respondents faces difficulty because of the lack of working capital. Yet another major constraint of the farm women in vegetable cultivation is the perishable nature of the commodities and inadequate storage facility. This has been reported as a major limitation for 70% of the respondents. Strength and unity of the

merchants as reported as a constraint by 64% of the farmers whereas lack of incentives was a great problem for 63% of the respondents. 59% of the respondents are of the opinion that labour cost is a major problem for profitable farming and income generation. Lack of vehicle facility at the field centre was observed as an important constraint by 57% of the farmers. Lack of attendance of all members for the meeting, time delay in giving back the price of sold commodities, political influence and lack of dedicated and effective leadership were the other constraints felt with the following percentage of respondents respectively 52%, 49%, 38% and 34%.

Table 22 Constraints faced by farm women in the group process and production and marketing of vegetables

Sl.No.	Constraints	f	%	Rank
1.	Lack of working capital at the field centre	76	84	1
2.	Perishable nature of vegetables and lack of storage facilities at the field centre	63	70	2
3.	Strength and unity of merchants.	58	64	3
4.	Lack of incentives	57	63	4
5.	Labour cost is a major constraint in profitable farming and income generation leading to more defaulters	53	59	5
6.	Lack of vehicle facility at the field centre	51	57	6
7.	Lack of attendance of all members in the meeting.	47	52	7
8.	The time delay in giving back the price of sold produce to the members	44	49	8
9.	High political influence limits repayment level by influential members	34	38	9
10.	Lack of dedicated and effective leadership	31	34	10

4.8.2. Constraints as perceived by the extension facilitators in the group process and production and marketing of vegetables

1. Though there are many women groups listed out under various schemes, the number of existence of active women groups are comparatively less.
2. Lack of availability of fund ruins the plan of activities in many groups.
3. Monitoring and feedback system is not up to the level
4. Insufficient storage and marketing facilities.
5. Lack of interest of women in agriculture due to other jobs in cashew factory and textiles.
6. Time constraints of housewives
7. Hesitation to move out from the traditional farming practices.
8. Communication gap between the extension functionaries and farm women
9. Limited exposure to farm women in areas where they can excel.
10. Improper selection of members in the group.
11. Majority of the farm women are unaware of the benefits of working together .

4.9.1. Suggestions of farm women

- Authorities should ensure that the training programmes and trips arranged for the group are regularly attended by all the members of the groups (75%)
- Activities should be time bound (98%)
- Encourage healthy competitions like melas and exhibitions to encourage women groups. (82%)
- Group meetings should be conducted at least once in two weeks and attendance should be compulsory so that the members get updated about the functioning of the group. (94%)

4.9.2. Suggestions of extension facilitators

- Working capital should be made available at the right time, since vegetable cultivation is time bound the lack of capital can ruin the entire production activities.(95%)
- Vegetables are highly perishable in nature so as to obtain maximum profit through vegetable cultivation it is inevitable to maintain good storage, marketing and processing facilities. (90%)
- Approaches like market led extension should be followed, i.e. production should be based on market demand, so that earning can be enhanced. (85%)
- Quality seeds and planting materials should be made available to the groups through institutions like Krishibhavans and VFPCs.(88%)
- Awareness programmes should be encouraged since there are a good number of women who are still unaware of the benefits of women groups. (96%)

Suggestions for improving the efficiency of farm women groups

Women groups should be trained to engage in vegetable production with the improved techniques so that the productivity can be enhanced and thus the production can be brought up to a commercial level which in turn will raise their level of income. Group meetings should be regularly conducted and the different production and protection techniques should be imparted to the groups. Assign responsibilities to the group members in rotation so that each member will be trained to take up new responsibilities of groups which can later improve their accountability and leadership qualities. Achievement target should be given for each of these groups according to their capability and group should be evaluated and appraised accordingly.

SUMMARY AND CONCLUSION

CHAPTER V

SUMMARY AND CONCLUSION

Social capital is the features which facilitates collective action. Social capital formation empowers women in all aspects of life including their physical well being as well as emotional well being. Social capital formation through though farm women in vegetable production is an important development in agriculture also.

The objectives of the study were

1. To assess the scale of social capital formation through farm women groups
2. To study the group efficiency
3. To study the perception of farm women and extension facilitators regarding the group processes
4. To identify the constraints experienced by farm women in the group process
5. To compare the efficiency of farming by individuals and by groups.

The study was conducted in six panchayats of Kollam district namely Karavaloor, Pavithreshwaram, Chadayamangalam, Chathanoor, Poruvazhy and Pooyapally. The panchayats were selected based on the purposeful sampling. There were two categories of respondents farm women and extension facilitators. Farm women groups were randomly selected and from each group 15 members were randomly selected. A total of 30 extension facilitators were randomly selected from VFPCCK, ATMA and Kudumbashree.

The dependent variables of the study were extent of social capital formation, group efficiency and planning, production and marketing aspects of vegetables. In addition to this the group characteristics of the groups were also studied. The independent variables of the study were age, education, annual income, increase in income, area under vegetable cultivation, social participation, achievement motivation and economic motivation. The independent variables were selected after the judges rating by experts. The dependent variable extent of

social capital was measured using SOCAT, Social capital assessment tool developed by World Bank. The other variables were measured using the appropriate procedure developed for the purpose. The data were collected using structured pre-tested interview schedule, focus group discussions, PRA etc. The statistical tools used were mean, percentage and correlation analysis.

Findings

1. The qualitative study on social capital came up with the result that the respondents had good knowledge about the institutions and they maintain a good relationship with each other.
2. The social capital formation study reveal that majority of the respondents had medium level of social capital formation (82%)
3. It was found out that the maximum social capital formation was observed in Karavalloor panchayat with 71% social capital formation.
4. Majority of the respondents were in medium category for all the independent variables
5. 63% of the respondents have high school education and 17%of the respondents had college education where as only 3% of the respondents had professional education.
6. Majority of the respondents i.e. 38% of the respondents had annual income between 10001-20000
7. The study revealed that 61% of the respondents had an increase in income more than Rs. 3001 per year. .
8. The study also came out with the result that majority of the respondents 70% had area under vegetable cultivation less than 60 cents.
9. The result of correlation analysis indicated that the independent variables annual income showed a positive significant relationship with social capital formation where as area under vegetable cultivation showed a negative significant relationship with social capital formation.
10. The study in planning, production and marketing aspects of vegetable cultivation revealed that majority of the respondents had medium

involvement in planning, production and marketing aspects of vegetable cultivation.

11. From the correlation analysis it was found out that the variable increase in income showed a significant positive relationship with planning, production and marketing aspects of vegetables. Achievement motivation showed a positive significant relationship with the production aspect.
12. The study of group efficiency resulted that majority of the respondents ie 53% of the respondents fell under medium category.
13. It was observed that all the group variables except group interaction had majority of the respondents in the medium category where as in case of group interaction majority of the respondents were under the high category(83%)
14. From the correlation analysis of group variables with the independent variables it was observed that education showed a negative significant relationship with group cohesion and group interaction where as social participation showed a positive significant relationship .Annual income and increase in income showed a positive significant relationship with group interaction. Achievement motivation showed a positive significant relationship with group cohesion.
15. Gender role changes and recognition studies revealed that majority of the respondents (64%) comes under the medium category and only (15%) fell under the high category.
16. The results of comparing farming by individuals and by groups confirmed that cent percent of the respondents prefer group farming.
17. Almost all the farm women (99%) perceived that groups in vegetable cultivation is one of the best programmes implemented and that the cost of cultivation can be reduced through group approach. They also perceived that the plant protection could be very effectively done through the group approach.

18. Cent percent of the extension facilitators perceive that women groups boost self confidence and helped to achieve a sustained livelihood for women.
19. Lack of working capital at the field center was the most important constraint as identified by the farmwomen , the extension facilitators also listed out a a number of constraints
20. Some of the important suggestions were ensuring the availability of working capital and providing proper storage facilities for the perishable commodities like vegetables.

Implications of the study

The implications of the study are as follows:

The study would provide data for new researches in social capital formation. The present study was focussed on a particular district, but the continuation can be taken up to state levels and national levels.

The results of relationship between the various dependent and independent variables would help the officials and extension facilitators to formulate new plans and decisions for enhancing social capital formation through women groups.

Suggestions for future research

A detailed study should be taken up working out the economics of women groups and social capital formation. Women groups become more productive when they have a high benefit cost ratio. An extensive study should be made regarding the factors contributing for the group sustainability as it is very important for the social capital formation.

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APPENDICES

APPENDIX-I

KERALA AGRICULTURAL UNIVERSITY

Department of Agricultural Extension

College of Agriculture,

Vellayani .P.O

Thiruvananthapuram

Pin 695 522

Dated 20th October 2014

Dr.G.S.Sreedaya

Assistant Professor

Dear Sir/Madam,

Miss Revathy Chandran, M.Sc. (Ag) student of this department has taken up a research study on “Social Capital formation through farm women groups in vegetable production in Kollam district” under my guidance. She has identified some of the profile, group characteristics and social capital indices based on review of literature, discussion with experts and pilot study. These are enlisted in the annexures along with their operational definition.

Considering your valuable experience I request you to offer your valuable rating about the relevancy of each variable for inclusion by putting a tick mark in the appropriate column. Kindly add any variable if considered appropriate to the list with necessary comments. I would be thankful, if you can send the same to the student through the self addressed stamped envelope enclosed at the earliest

With regards

Yours sincerely,

Sd/-

(G.S.Sreedaya)

APPENDIX-1

LIST OF VARIABLES

(Kindly put a tick mark)

INDEPENDENT VARIABLES (Personal socio-psychological characters)

Sl. No	Variables	Most relevant	More relevant	Undecided	Less relevant	Least relevant
1	Age-refers to the number of calendar years completed by the respondent at the time of interview.					
2	Educational status-refers to the informal and formal learning achieved by the respondent					
3	Caste –refers to the hierarchy of a group member whether belongs to upper/backward/sc					
4	Marital status-single/married					
5	Family type-whether nuclear/joint family					
6	Occupational status-defined as the position of group member ,which acts as a source of income in which she spends major part of the time and attention					
7	Annual income-refers to the total earnings of all members of the family of the respondent for one year.					
8	Experience in vegetable cultivation-refers to the total number of years the respondent has been engaged in vegetable cultivation					

9	Increase in income after joining the group-refers to the increase in income after joining group.					
10	Area under vegetables-refers to the area under vegetables possessed by respondents.					
11	Innovativeness –refers to the degree to which the respondent was earlier in adopting new ideas					
12	Credit orientation-refers to the favourable and positive attitude of the respondent towards obtaining credit from institutional source					
13	Material possession-defined as the money value of materials possessed by the respondent					
14	Economic motivation-refers to the respondent's orientation towards achievement of maximum economic ends.					
15	Market perception- refers to the degree of perception of woman farmer about the different marketing channels					
16	Achievement motivation-refers to the striving of farmers to good work and attain a sense of accomplishment.					
17	Cosmopolitaness-refers to the tendency of the respondent to be in contact with the outside village on the belief that all needs of the individual cannot be satisfied within their own village.					

18	Entrepreneurial behaviour-refers to the human behaviour involved in identifying and exploiting opportunities through creating and developing new ventures					
19	Extension contact-refers to the degree of contact of respondents with different extension agencies					
20	Scientific orientation-refers to the degree to which the respondent is oriented to the use of scientific methods in decision making in vegetable cultivation					
21	Social participation-refers to the participation of respondent in various formal social institutions either as a member or as an office bearer.					
22	Information need perception-being a member of the group , the extent to which the respondent is aware about the group norms and its activities					
23	Self reliance- refers to the ability to get things done and and to meet your own needs.					
24	Mass media exposure-refers to the extent to which the respondent is exposed to different mass media channels					
25	Indebtedness-defined as the total debt in terms of money, a group member owes at the time of survey to various money lending source					

26	Job efficiency-the ability of the respondent to produce a given level of output at a low cost.					
27	Risk bearing ability-refers to the ability of the respondent in involving activities that requires risk					

GROUP CHARACTERISTICS

Sl No	Variables	Most relevant	More relevant	undecided	Less relevant	Least relevant
1	Group interaction-refers to the tendency of individuals to mix freely with each other without inhibition					
2	Transparency –refers to the extent to which activities of groups are open and clear to the members of the group.					
3	Group cohesion-refers to the degree to which the group member is affiliated to one another and are motivated to remain in the group.					
4	Discipline –refers to the degree to which members of group conform to self discipline in group activities					
5	Team spirit-refers to the extent to which joint action behaviour is exhibited by group members through co-ordinated efforts to achieve common goals.					
6	Feeling of oneness-defined as a feeling existing between members so that they will be considered as a unit					
7	Need satisfaction-defined as achieving individual member's need and requirements by a group within a stipulated time.					

8	Involvement in decision making-defined as the frequency which group members were involved in generation of ideas ,evaluation of opinion and making of choice from among options					
9	Accountability –refers to the extent to which members are answerable for performance of responsibility over achievement of objectives as agreed upon.					
10	Autonomy –defined as the degree to which group has freedom and independence in the direction and scheduling of activities					

Social capital

Social capital is defined as the “connections among individuals –social networks and the norms of reciprocity and trustworthiness that arise from them.”

Sl No	Variables	Most relevant	More relevant	und ecid ed	Less relevant	Least relevant
1	Trust –defined as the reliance on the integrity ,strength, ability, surety etc of a person .					
2	Collective action and co-operation-defined as any action taken together by a group whose goal is to enhance their status and achieve a common objective.					
3	Social cohesion-defined as the willingness of members of a society to co-operate with each other in order to survive and prosper.					
4	Social inclusion-defined as the process of improving terms for individuals and group to take part in society.					
5	Empowerment –is defined as a management practice of sharing information ,power and rewards with employees so that they can take initiatives and make decisions to solve the problems and improve service and performance					
6	Political action-Any action that brings pressure on political or government agencies in order to persuade them to take action					
7	Information and communication-refers to the openness existing among the members of the group in sharing information					

8	Subjective well being-defined as a person's cognitive and affective evaluations of his/her own life.					
9	Volunteerism-defined as an activity of donating time and energy for the benefit of other people in community as a social responsibility rather than for financial reward.					
10	Corruption-defined as the spiritual or moral deviation from the ideal					
11	Every day sociability-refers to the respondents interest to get involved in social activities in day to day life.					

APPENDIX II
INTERVIEW SCHEDULE FOR BENEFICIARIES

- Date :
Panchayath :
Group :
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 group (Rupees/annum)

6. Educational 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 college status :

7. Economic Motivation

Please indicate your agreement or disagreement to the following statement

SA-Strongly Agree, A-agree, UD- undecided, DA-Disagree, SDA-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 of food crops for home consumption					
5	It is difficult for farmers children to make good start unless she provides them with economic assistance					
6	A farmer must earn her living but the most important thing in life can not be defined in economic terms					

8. 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
3. Others regard as a quality of leadership

9. 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 ST N
1	Panchayath		
2	Co-operative society		
3	Farmer's club		
4	Youth club		
5	Socio-cultural organization		
6	Any other(specify)		

10. Perception about group

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

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

Sl No.	statement	SA	A	UD	DA	SDA
1	Groups in vegetable cultivation helps to achieve sustained livelihood to women					
2	Maximum utilization of available resource of women farmers is possible through groups.					
3	Groups in vegetable cultivation help to reduce heavy crop losses					
4	Implementation of groups encourages corruption					
5	Groups in vegetable cultivation is a blessing to small and marginal women farmers					
6	Groups in vegetable cultivation is one of the best programmes implemented for the development of agriculture in the state					
7	Group approach in vegetable cultivation does not promote opportunities for income and employment generation to farm families					
8	Groups in vegetable cultivation is one of the best programmes implemented for the development of agriculture in the state					
9	Plant protection could be more efficiently followed through groups					

11. Group Cohesion

Indicate your response to the following statements in appropriate columns.

A-Always ST-sometimes N-never

Sl.no	statement	A	ST	N
1.	The group to which I belong functions properly			
2.	Almost all the members of the group take part actively in planning ,production and marketing aspects of vegetables.			
3.	Differences in opinion are common during the group decision making.			
4.	Members of the group exhibit mutual trust among each other.			
5.	Since the differences in opinion exceeds its limit, it becomes difficult to arrive at a wise decision.			

12. Group interaction

Please indicate your extent of agreement or disagreement to the following statement

SA-Strongly agree, A-agree, UD-undecided, DA-disagree,

SDA-strongly disagree

Sl.no.	Statements	SA	A	UD	DA	SDA
1.	The members of my group give suggestions freely					
2.	Agrees with each other					
3.	Seems indifferent					
4.	Asks for information freely					
5.	Empathize with each other					

13. Team spirit

Please indicate your extent of agreement or disagreement to the following statement.

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

Sl.No	statements	SA	A	UN	DA	SDA
1.	More production can be achieved by working as a team					
2.	Members can overcome the constraints faced more effectively as a team than at individual level					
3	Activities with the coordination and support of different members are executed successfully.					
4	Members are ready to forgo their personal interest while working in a group.					

14. Transparency

Please indicate your response to the following statements in the appropriate columns. A-Always, ST-Sometime, N-never

Sl.NO.	Statements	A	ST	N
1.	Whether venue and time of group meeting is announced earlier?			
2.	Whether the members of the group have a clear idea about activities of the group?			
3.	Whether the group publishes the details of the various aspects of the functioning?			
4.	Whether the report of evaluation is open to all?			

15. Accountability

Please indicate your response to the following statements in appropriate columns.

A-Always, ST-sometimes, N-Never

Sl.no.	Statements	A	ST	N
1	Do you have a system to audit the accounts by the external agency?			
2.	Are the members bound to implement group activities?			
3.	Whether the details on sub communities achievement will be presented in the group for discussion?			
4.	Do you have any procedure system to monitor the group and sub group activities?			

16 .Planning production and marketing aspects of vegetables

Please indicate your response to the following statement in appropriate columns.

a, Planning

SL.NO.	Statement	Always	Frequent	sometim	Rarely	Never
1.	Do you always set an objective of 'profit target' through cultivation?					
2.	Do you prepare calendar of various operations in advance?					
3.	Do you select the variety to be grown and 'season for planting' well in advance considering the adaptability and marketability?					
4.	Do you work- out 'operation -wise expenditure' before the cultivation starts?					
5.	Do you assess the amount of inputs needed for raising the crop?					
6.	Do you estimate the labour requirement for vegetable cultivation before the crop?					
7.	Do you calculate the financial requirement for cultivation of crop in advance?					
8.	Do you try to acquire the money through credit or some other methods before starting the cultivation?					
9.	Do you think in advance about any alternate marketing facilities if the prevailing marketing facilities fail at any chance					

b, Production

Please indicate your response to the statements in appropriate columns

Sl.no.	Statements	always	frequentl	sometim es	rarely	never
1.	Timely planting of crop ensures good yield.					
2.	One should use as much fertilizer as he likes.					
3.	Determining fertilizer by soil test saves money.					
4.	For timely pest control one should know suitable plant based pesticide.					
5.	Seed rate should be given as recommended by the specialist					
6.	When the water table in the soil is very low ,one should use as much irrigation water as possible.					
7.	Scientific methods in vegetable cultivation involves high cost.					
8.	To follow scientific methods in cultivation one should have proper knowledge about the technology.					
9.	Training is essential for starting vegetable cultivation.					

c, Marketing

Please indicate your response to the following statements in appropriate columns.

Sl.no.	Statements	always	frequently	sometimes	rarely	Never
1.	One should grow those varieties which have more market demand.					
2.	One should sell his produce to the nearest market irrespective of the price.					
3.	One should be careful that the price she gets should not come below the prevailing market price.					
4.	One should negotiate with the buyers for increasing the price of her produce.					
5.	One should market her produce either through wholesale or retail method based on the profit consideration					

17. Comparison of farming by individuals and by groups.

Do you prefer farming individually or in a group. Tick your option.

1. Yes
2. No

18. Gender role

In the last year three years have you personally done any of the following things

1. voted in the election

a. yes b. No

2. actively participated in an association

a. yes b No

3. Made a personal contact with an influential person

a. yes b No

4. Made the media interested in a problem

a. yes b No

5. Taken Part in a sit in or disruption of government meetings/offices

a. yes b No

6. Volunteered for a charitable organization

a. yes b No

19. Constraints

In your opinion what are the constraints for effective functioning of your group ?
Indicate your agreement or disagreement to the constraints listed below. Add any
other constraints which you find hindering the successful performance of your
group.

1. Constraints faced by members of the group

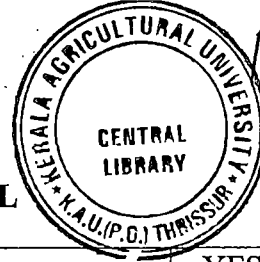
Sl.no.	statements	agree	Disagree
1.	Lack of working capital at the field center		
2.	Perishable nature of vegetables and lack of storage facilities at the field center.		
3.	The time delay in giving back the price of sold produce to the members.		
4.	Strength and unity of merchants.		
5.	Lack of vehicle facility at the field center		
6.	Lack of incentives		
7.	Lack of attendance of all members in the meeting.		
8.	Lack of dedicated and effective leadership		
9.	High political influence limits repayment level by influential members		
10.	Labour cost is a major constraint in profitable farming and income generation leading to more defaulters		

PERCEPTION OF OFFICIALS ABOUT THE GROUP

Please indicate your agreement or disagreement to the following statements.

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

Sl No.	Statements	SA	A	UD	DA	SDA
1.	Women groups boost the self confidence of rural women.					
2.	Groups helped to achieve sustained livelihood for women.					
3.	Self employment through groups cannot be taken up due to lack of literacy and skill.					
4.	The groups enhance the income of women on a sustainable and profitable basis by starting income generating activities.					
5.	Groups develop interdependence and mutual trust among its members.					
6.	In the group, the group members are involved in decision making.					
7.	The group develop a 'we feeling' among the members.					
8.	The group approach is one of best programmes implemented for the development of rural women.					
9.	Women groups help in developing the overall capacity of women					



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SOCIAL CAPITAL

SL NO.	STATEMENT	YES	NO
1	Does the group interact with other groups with different goals in the village		
2	Does the group interact with other groups with different goals outside the village		
3	Do you think this group people generally trust one another		
4	Do you think over the last few years the level of trust have got better		
5	All the members of the group have similar economic status		
6	In the past one year you worked with your neighbourhood for the benefit of the community		
7	Do you feel that you have the power to make important decisions in your life		
8	The feeling of togetherness in the group is very strong.		
9	I have my own home		
10	My household have good sanitary services		
11	The garbage disposal system of our household is well maintained		
12	My family is a small family		
13	I am the only earning member of my family		
14	We have good primary water source.		

**SOCIAL CAPITAL FORMATION THROUGH FARM WOMEN
GROUPS IN VEGETABLE PRODUCTION IN KOLLAM
DISTRICT.**

by

REVATHY CHANDRAN

(2013-11-203)

ABSTRACT

**Submitted in partial fulfilment of the
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MASTER OF SCIENCE IN AGRICULTURE

**Faculty of Agriculture
Kerala Agricultural University**



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ABSTRACT

Revathy Chandran

Date: 20-06-2015

2013-11-203

Time: 11.30am

The study entitled 'Social capital formation through farm women groups in vegetable production in Kollam district' was conducted in six panchayaths of Kollam district. The total number of respondents were 120 which included both farm women and extension facilitators. The main objectives of the study was to assess the scale of social capital formation, group efficiency, perception of farm women and extension facilitators regarding the group processes, constraints experienced by farm women in group process and comparing the efficiency of farming by individuals and by groups.

In this study social capital can be operationally defined as those interactions which facilitates collective action. The dependent variables of the study were the extent of social capital formation, group efficiency and the planning, production and marketing aspects of the vegetables. The independent variables were the personal, socio-psychological characteristics of farm women. The data was collected using structured pre-tested interview schedule and social capital was measured using SOCAT (World Bank, 2010).

Study revealed that majority of the respondents (82%) had medium level of social capital formation and the overall social capital in Kollam district is 61%. Karavalloor panchayath stood first in social capital formation with 71%. Social capital formation showed a significant positive relationship with annual income (0.216) and a significant negative relationship with area under

vegetable cultivation (-0.218). Group efficiency index of the respondents were calculated and it was observed that majority of the respondents had medium group efficiency (53%). The study about planning, production and marketing aspects of vegetables revealed that in all these three aspects, most of the respondents showed a medium level of involvement, i.e. 57%,56% and58% respectively . Majority of the respondents i.e. 64% fall under medium category in gender role changes and recognition. 99% of farm women perceived that 'groups are one of the best programmes implemented for them' and 'the agricultural operations could be done efficiently through groups'. 100% of the extension facilitators perceived that 'groups provide a sustainable income and that it raised the confidence among farm women'. 'Lack of working capital' was identified as the major constraint of the study. Cent percent of the members prefer group farming and it can be concluded that social capital formation had improved over the years through women groups, but more efforts are needed to bring about a high level of social capital formation.

