

**SOCIO-ECONOMIC STATUS AND LIVELIHOOD SECURITY
OF WOMEN: COMPARATIVE STUDY OF HILLS OF
INDIA AND SRI LANKA**

THESIS

By

H.W. SHYAMALIE

Submitted to



CHAUDHARY SARWAN KUMAR
HIMACHAL PRADESH KRISHI VISHVAVIDYALAYA
PALAMPUR HP 176 062

in

Partial fulfillment of the requirements for the degree

of

**DOCTOR OF PHILOSOPHY IN AGRICULTURE
(AGRICULTURAL ECONOMICS)**

2008

Professor

CSK Himachal Pradesh Krishi Vishvavidyalaya
Palampur-176062 (H.P.), India

CERTIFICATE -I

This is to certify that the thesis entitled “**Socio - economic status and livelihood security of women : Comparative study of hills of India and Sri Lanka**” submitted in partial fulfillment of the requirements for the award of the degree of **Doctor of Philosophy (Agriculture)** in the subject of Agricultural Economics of CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur is a bonafide research work carried out by **Mrs H.W. Shyamalie (A-2005-40-10)** daughter of late **Shri Hewasinghalage Siripala** under my supervision and that no part of this thesis has been submitted for any other degree or diploma.

The assistance and help received during the course of this investigation have been fully acknowledged.

Place : Palampur
Dated : August, 2008

(A.S. Saini)
Chairman
Advisory Committee

CERTIFICATE -II

This is to certify that the thesis entitled “**Socio-economic status and livelihood security of women : Comparative study of hills of India and Sri Lanka**” submitted by **Mrs H.W.Shyamalie (A-2005-40-10)** daughter of late **Shri Hewasinghalage Siripala** to the CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur in partial fulfilment of the requirements for the degree of **Doctor of Philosophy (Agriculture)** in the subject of Agricultural Economics, has been approved by the Advisory Committee after an oral examination of the student in collaboration with an External Examiner.

(Dr. A.S. Saini)
Chairman
Advisory Committee

External Examiner

(Dr. K.D. Sharma)
Member

(Dr. Kamlesh Singh)
Member

(Dr. D.R. Thakur)
Member

(Dr. C. M. Sharma)
Dean's Nominee

(Dr.J.S. Sohi)
Member

(Dr. R. K. Sharma)
Head of the Department

(Dr. Pradeep K. Sharma)
Dean,
Postgraduate Studies

ACKNOWLEDGEMENT

As a matter of external compliance, at the outset, I bow to thank Lord Buddha, one of the incarnations of almighty God who enabled me through his liberal blessings to accomplish this venture.

I am highly grateful to the Government of Sri Lanka for providing me financial assistance in the form of fellowship and Government of India for providing me an opportunity to pursue my Ph. D programme at CSKHPKV, Palampur (HP).

I want to thank wholeheartedly to chairman of my advisory committee, Dr. A.S. Saini, Professor, Department of Agricultural Economics with whom I have worked very closely since January 2006. I am grateful to have had the privilege of his excellent and articulate academic guidance, motivation, support and encouragement. I am heavily indebted for his patience and continuous support during difficult times, when it seemed too difficult on my part. I have learnt life time lessons from his critical comments and discussions.

I am also deeply indebted to my advisory committee members, Dr. K.D. Sharma and Dr. D.R. Thakur, senior scientists, Department of Agricultural Economics, Dr. Kamallesh Singh, Professor and Head, Department of Physics, Mathematics & Statistics, Dr. J.S. Sohi, Professor and Head, Department of Extension & Education and Dr. C. M. Sharma, Professor, Department of Soil Science for their academic guidance, constructive comments on the draft of the thesis and encouragements.

I am availing this opportunity to express my thanks to Dr. R.K. Sharma, Professor and Head, Department of Agricultural Economics for providing necessary facilities and support during the course of my study.

I also express my sincere thanks to the faculty and staff members of Department of Agricultural Economics for their cordial help and co-operation provided to me during the course of this investigation, as and when required.

I am really obliged and deeply indebted to the Director and Board of Management, Tea Research Institute of Sri Lanka, for granting me the opportunity to carry out my Ph. D programme. I would also like to thank the executive Director, Council for Agricultural Research Policy (CARP), Sri Lanka for their financial support. It would not have been possible for me to initiate and complete my study without their continuing financial support. My thanks are due to ICAR, New Delhi (India) for selecting me as a Ph. D scholar under scholarship programme.

I take this opportunity to convey my sincere thanks to Dr. T. Pratap, Vice-Chancellor, Dr. S.C. Sharma, Director of Research, Dr. P.K. Sharma, Dean, Postgraduate Studies, Dr. O.P. Sharma, Dean, College of Agriculture, CSKHPKV, Palampur for providing me conducive environment for the completion of this study.

I will always remember the support and encouragement provided by Mrs. Asoka Jakody, Head, Department of Agricultural Economics, Tea Research Institute of Sri Lanka.

I also want to acknowledge the cordial and enthusiastic support extended by Ms., Kusuma and Mrs. Brij Bala during the survey in Kangra district. I would like to express my sincere gratitude to Mr. K.A. Kuruppu and K.R. Edirisinghe, Senior Tea Inspectors, Tea Small Holding Authority for their support extended to me during data collection in Nuwara Eiya district. I am also indebted to the people of both the study areas. Without their participation and co-operation it would not have been possible for me to conduct my research. From the core of my heart, I thank all the people who participated in this study.

Thanks are due to my seniors, Dr. Bharti, Shantha, Sonika, Atul and Amit and juniors, Swati, Rachna and Wagendra for their support and encouragement.

I wish to acknowledge the support I have received from my family and relatives. I express my sincere gratitude to my mother, father in - law, my brother, sisters, brother in - laws and sister in - laws for looking after my family and for giving me the time to concentrate on my studies.

I always felt the pain of separation of my loving son, Chamath who might have reserved his feelings during the period of my Ph.D. I am deeply grateful to my son for making me happy all the times. Without his love I could not have accomplished this work.

My loving husband, Ranasinghe stimulated me to take up the challenge to start my Ph. D and finish it. His unconditional help, unceasing moral support, caring attitude and invaluable contribution have bounded me for ever under his debt that I may not be able to pay back in any form at least during my this birth.

Needless to say, errors and omissions are mine.

Place: Palampur, (H.P)

Dated: August 2008

(H.W. Shyamalie)

CONTENTS

<i>Chapter</i>	<i>Title</i>	<i>Page</i>
I	INTRODUCTION	1-10
II	REVIEW OF LITERATURE	11-47
III	MATERIALS AND METHODS	48-61
IV	RESULTS	62-133
V	DISCUSSION	134-150
VI	SUMMARY	151-159
	LITERATURE CITED	160-176
	APPENDICES	177-183

LIST OF TABLES

Table No.	Title	Page
4.1	Overview of the Study Districts/Areas	64
4.2	General Information and Net-work Facilities of Sample Villages	68
4.3	Age Wise Population Distribution	70
4.4	Sex Composition of the Household Members by Age	71
4.5	Household Size and Gender of Head of Household	73
4.6	Marital Status of Household Members	74
4.7	Distribution of Population According to Age at Marriage	75
4.8	Educational Level of Adult Household Members	77
4.9	Education Disparity Index	78
4.10	Occupation of Household Members by Sex	79
4.11	Land Holdings and Ownership Pattern	80
4.12	Household Income / Per Capita Income/Expenditure (Rs. / Month)	82
4.13	Categorization of Household According to Per Capita Income	83
4.14	Average Monthly Non-Food Expenditure (Rs./Household)	84
4.15	Categorization of Household Based on Per Capita Expenditure	85
4.16	Expenditure Pattern (per capita) of Different Income Groups	86
4.17	Housing Structure of Sampled Households	86

Table No.	Title	Page
4.18	Facilities Available in Houses of Sample Households	88
4.19	Daily Frequency of Food Intake	90
4.20	Age Wise Mean Calorie Intake & Calorie Adequacy Ratio (CAR)	92
4.21	Categorization of Nutritional Status	93
4.22	Percentage Distribution of Women by Decision Making Relating to Economic Aspects	95
4.23	Percentage Distribution of Women by Decision Making Relating to Social Aspects	96
4.24	Distribution of Women by Decision Making Index	97
4.25	Distribution of Women by Mobility Index	98
4.26	Key Determinants of Status of Women in Kangra	100
4.27	Key Determinants of Status of Women in Nuwara Eliya	102
4.28	Key Determinants of Overall Status of Women in Kangra & Nuwara Eliya	103
4.29	Ranking of Components According to Their Relative Contribution to Entrepreneurial Behavior among the Rural Women	105
4.30	Distribution of the Respondents According to Different Components of Entrepreneurial Behaviour	107
4.31	Determinants of Entrepreneurial Behaviour of Women	109
4.32	Contribution of Women to Agriculture & Livestock Activities	111
4.33	Contribution of Women to Household Income and Expenditure	112

<i>Table No.</i>	<i>Title</i>	<i>Page</i>
4.34	Effect of Women's Income on Calorie Adequacy Ratio	113
4.35	Women Community Participation	114
4.36	Benefits Getting from Organizations	115
4.37	Impact of Organizations on Women	116
4.38	Food Security Index	118
4.39	Economic Security Index	119
4.40	Health Security Index	120
4.41	Education Security Index	122
4.42	Habitat Security Index	123
4.43	Social Network Security Index	124
4.44	Standardized Score Range of Livelihood Outcomes	125
4.45	Distribution of Women Based on Levels of Livelihood Security Index	126
4.46	Shocks to Livelihood Security	127
4.47	Coping up Strategies Followed by Households	128
4.48	Problems / Constraints Faced by Women Being an Entrepreneur	131
4.49	Problems / Constraints Faced by Rural Women Being a House Manager	133

LIST OF FIGURES

Figure No.	Title	Between pages
3.1	Map of Himachal Pradesh Showing Kangra District	49-50
3.2	Map of Kangra District Showing Study Area	49-50
3.3	Map of Sri Lanka Showing Nuwara Eliya District	49-50
3.4	Map of Nuwara Eliya District Showing Study Area	49-50
3.5	Sampling Plan for the Selection of Tea Growing Pockets, Villages and Households	49-50
4.1	Livelihood Outcomes of Women in Kangra District	124-125
4.2	Livelihood Outcomes of Women in Nuwara Eliya District	124-125

**Department of Agricultural Economics
CSK Himachal Pradesh Krishi Vishvavidyalaya
Palampur-176062**

Abstract for Board of Management

Title of Thesis : **Socio-Economic Status and Livelihood Security of Women: Comparative Study of Hills of India and Sri Lanka.**

Name of the student : H.W. Shyamalie

Admission No. : A-2005-40-10

Subject : Agricultural Economics

Abstract

Gender equality is one of the constitutional mandates in most of the developing countries. Though contribution of women in performing agricultural operations as well as in domestic activities is quite high and hilly areas are no exception. Many studies have pinpointed the issues relating to women, but not much attention has been paid to examine their socio-economic status and livelihood security. In view of the above, the present investigation was planned to throw reasonable light on the various pointers of socio-economic status and livelihood security of women in hilly areas of Himachal Pradesh (India) and Sri Lanka with the specific objectives viz. (i) to identify the key socio-economic pointers contributing to the status of women, (ii) to study entrepreneurial behaviour of women and their involvement in various activities/ organizations for women empowerment / upliftment of the family, community and society and (iii) to examine livelihood security of women and problems faced by them in socio-economic upliftment.

The present study was restricted to tea growing locations of the selected districts. Three tea growing locations were randomly selected from each district, and one village was randomly selected from each selected location. From each sampled village, 25 households were randomly selected, thus, making a total sample size of 150 households. Primary data relating to various parameters of socio – economic status, entrepreneurship and livelihood security were gathered through specially designed schedules by survey method for an agricultural year (2006-07). The secondary information was collected from various published/unpublished sources. Tabular and regression techniques were employed to analyse the data. The study revealed that the decisions rights/power lies more with the women of Nuwara Eliya as compared to Kangra. The marital status, education and social participation were the significant pointers determining the status of women in both the study areas. Also, caste was found one of the key pointers in Kangra and type of family was observed as another parameter determining the status of women in Nuwara Eliya. Among the components of entrepreneurial behaviour, achievement motivation, management orientation and risk taking ability in order of ranking were the important pointers for the women of Kangra district. Whereas, achievement motivation, management orientation and ability to co-ordinate the farm activities were found to be the important components of entrepreneurial behaviour for women in Nuwara Eliya. Education, farm income, economic motivation and accessibility to market were identified as the key determinants of entrepreneurial behaviour of women in Kangra district. Whereas, age, farm income and information sources were the important determinants of entrepreneurial behaviour of women of Nuwara Eliya. It was found that the proportion contribution of women to the household income from farm activities was comparatively higher in Nuwara Eliya as compared to women of Kangra district. Based on the livelihood security index, overall, the women of Nuwara Eliya district were found better in all the indicators as compared to their counterparts of Kangra district. The problems faced by the women being a house manager were found all most similar for both the study areas. The most important problems pointed by women were lack of training programmes, followed by no loan facilities for household infrastructure. As an entrepreneur, the most important problems of women were high cost of raw materials and lack of knowledge about financial institutions, training institutions in both study areas. In view of above, it can be concluded that low literacy, sex ratio, calorie intakes is a serious concern which needs to be addressed through concerted

efforts and policy support. Further, it was suggested that launching effective public and communication systems to create awareness among the society about the equal importance of male and female child, imparting free education to them up to graduation level as in case of Sri Lanka to enhance the literacy level of females, imparting training on the said aspects and revising their training courses as per the need of the females from time to time are important policy options that have emerged from the study.

Signature of Student with date
Advisor

Signature of Major Advisor

Counter Signature
Head of Department

Dean
Postgraduate Studies

INTRODUCTION

The greatest revolution in a country is the one that promotes the status and living conditions of women and ensures gender equality as the position and status of women in a society are reflected through an index of its civilization. Perhaps with this philosophy in mind, Pandit Jawahar Lal Nehru (the first Prime Minister of India) said, when women move forward, the entire family moves, when the village moves, then the entire nation moves. Thus, women have been regarded as the nuclei of a nation and the builders and moulders of its destiny. Commensurately, gender equality is one of the constitutional mandates in most of the developing countries and under developed countries in recent time.

Women's Role in Economic Development

The contribution of women to the society can not be over sighted as they constitute about one-half of the total population of the world that accounted for around 496 million as against a total human population of 1027 million. According to world scenario, sixty per cent of the working hours in the world goes to women's share; makes up thirty per cent of official labour force; and fifty per cent share of the world economy is contributed by them (DFID, 2000).

Women in India are major producers of food in terms of value, volume

and number of hours they work. Nearly seventy per cent of all economically active women are engaged in agriculture as compared to sixty three per cent of men. In India, about 80 per cent of the female population lives in the rural areas and 86 per cent of the rural women work in agriculture and allied activities (Borah, 1998) and perform a variety of roles in domestic as well as socio-economic fronts, of which, many are of greater economic significance (Bhople and Palki, 1998). In addition, seventy per cent of farm work is being performed by women. The work participation rate of women is 23 and 27 per cent, respectively for urban and rural areas; beside 19 per cent of the total population work as unpaid family workers. Of the total workers, 94 per cent are concentrated in the informal sectors associated in low skill, low status and poor paid jobs in the country (Census of India, 1981).

The role of women in Sri Lankan agriculture and rural development does not differ from that of women in the other developing countries in Asia. According to Census of 2002, forty per cent of females are engaged in agriculture, forestry and fishing related activities as compared to thirty one per cent males. Women's productive involvement in farming has created beneficial impacts on improving the status of livelihood as well as alleviating poverty.

Status of Women

The status of women in terms of social and economic pointers can be defined as the degree of equality and freedom enjoyed by women. Women's participation on equal terms with men in domestic decision-making, freely expression of their views and participation in community life makes them being recognized in the society. This in turn, distinguishes the high and low status that the society vis-à-vis family allocates to women. Women's power of expression and capacity to defuse problems through their views and ideas, generally come with education that makes them capable of being heard by their own folk as well as by the opposite sex. It is this

capability of a woman that often makes her strong and determined by spearheading the overall voice of woman in the society, attaining education and participating in gainful economic pursuit. The financial freedom that comes with her employment opportunity cannot be denied and these two aspects that generally make a woman capable of asserting her voice both in the family as well as in the society. Once she is able to achieve this, it automatically provides her an important position in the society and she is made to feel equal, if not above the others within the family circle and social environment.

Women's Placement in the Society

In fact, it was the constitution of both the government (India & Sri Lanka), which laid a frame-work for providing an equal status to both men and women by granting them equal political, economic and social rights without any discrimination. More than half a decade of Independence and a century of striving for a better status for women in India and Sri Lanka, have not produced results even close to the desirable level. Also at the same time, it was realized that women are in a disadvantageous situation as they remain largely confined to domestic chores of life bearing the responsibility of looking after and caring the members of the household. There is widespread acceptance that women get barely one per cent of the world's income and hardly one per cent of world's wealth (DFID, 2000). Nevertheless, it is frequently asserted that seventy per cent of the world's poor are women (UNDP, 1995, United Nations, 1996). This skewed distribution implies that globally there are 900 million poor females.

There is no denying the fact that in terms of all indicators of development like socio - economic and livelihood status, women have fared worse than men, across regions and strata of the population. There is a clear difference between male and female entitlement with respect to property/assets,

work/employment, earnings, education, health status, decision making, empowerment, etc., and as such, in reality women lagged behind men in terms of every aspect of life like, socio-economic and livelihood pointers. It has been amply supported recently by National Sample Survey Organization (NSSO) study that wage rates are lower for women as compared to men both in rural and urban areas of developing countries.

The nation's entry in to twenty first century unfolds an era of reconstruction to enhance the quality of Indian women. These efforts are pulsed through adoption of various measures namely, educational, social, political and economic empowerment to women. The society is advancing very fast with all round socio-economic development, but the position of the women is not improving at par the pace of development. A large number of Indian women are slowly emerging out of a system. So, emancipation of women has been recognized as one of the generator of economic development and social progress. United Nations conference on women status (1985) has rightly recommended that every nation should provide opportunities for full development of potentialities of women, particularly in rural areas. Despite that, the goal of achieving the economic and social development of women is enshrined in the Nairobi Forward – Looking Strategies for the Advancement of Women (United Nations, 1985), Jakarta Declaration and Platform for Action (United Nations, 1995).

Need of Improving Status of Women

Any type of development cannot help women until or unless their socio-economic status and livelihood security are improved in urban as well as in rural settings. The most important means of achieving improvement in the status of women would be to secure for them a fair degree of employment opportunities in various sectors of economy, as the employment enhances economic status to women and in turn, it paves the way for higher social status. For this, most of the developing and under developed countries have had greater emphasis on the need for livelihood security of rural women by their active involvement in the main stream of development through granting employment and development schemes, particularly for women and children.

Also, commercialization and modernization have put the women to exploitative practices by way of family planning measures, low wages and arduous/unpleasant works. Since the new technologies demand presence of more permanent, trained and skilled labour force, men have again monopolized the skills and occupied their jobs in the fast changing economic environment, whereas women have been left as a low paid, unskilled and casual labour force in India and Sri Lanka. Above all this, till now, a woman has not been appropriately welcomed/respected in the society, particularly in the under developing nations of the world due to which she is generally given second rate treatment. Consequently, she has to undergo a series of maltreatment, hurdles and problems such as increasing burden of work and responsibility, increased domestic violence, limited economic advancement, continuing social and caste oppressions and constraints to decision making in the home right from childhood (as a daughter, a daughter in law/a wife and a mother) to old age. Thus, the dominance and guardianship of father / brother / husband continue to influence and shape her life in the name of care, protection and family values, though she significantly contributes to the family income. Also, another glaring and worrying aspect came to light that women in India continue to suffer from an adverse sex ratio. In fact, it has become an inevitable fact that the sex ratio is increasingly favouring men and if one examines the past hundred year's record, it becomes doubtlessly clear that the proportion of females to males is declining substantially (972 in 1901 to 933 in 2001). However, in many South Asian countries poverty, poor access to basic facilities such as health, education and adequate nutrition, beside extensive hard work for survival do not give many of its women room to flourish in life, or develop/harness their full potential.

In fact the word status is an elusive one and it carries diverse and opposite views. Though, it is often felt that the opportunities of social participation, nature of work, legal status and more importantly the actual treatment given to a woman make her position in the society higher or otherwise. It is also a fact that woman ought to achieve these by remaining and honouring those many norms that the society had identified for her. It, therefore, makes her effort

towards gaining a better status living within the patriarchal norms that are much more difficult. However, it must be admitted that women in south Asian countries are not unlike India and Sri Lanka.

Rationale of the Study

There is wide variation in the degree of mobility, degree of control in decision making, status of livelihood and value of women across the societies, regions and countries. The women contribution in performing agricultural operations and household activities is quite high (Singh and Garcia, 1999), but adequate attention has not been paid to various visible and non visible problems faced by women in hilly areas. The heavy workload of women in hilly areas has more recently been aggravated by considerable male migration to the plains, urban areas and beyond in search for better income opportunities. Other common problems of mountain women are their limited access to social services, credit facilities and agricultural extension, levels of literacy are low and they have minimum or no control over resources. Moreover, there has been very slow progress in amelioration of socio - economic status and livelihood security of women especially in the hilly areas due to their uniqueness inherited with many myths and taboos. For in such types of socio-economic setting, it requires policy and programme actions for improving women's access to the scarce and valuable resources of their societies (particularly, secured livelihoods and economic resources), alleviate disproportionate household responsibilities, remove legal and eliminate the spectrum of domestic and sexual violence from their daily lives and raise social awareness through effective programmes. There is an urgent need for a focused understanding of women's status and work participation with respect to livelihood security for women themselves as well as for the family as a whole (IFPRI, 2000). Keeping the crux of the above problems of women in view, the proposed study has been planned to throw reasonable light on the socio-economic status and livelihood security of women in hilly areas of Himachal Pradesh (India) and Sri Lanka. Moreover, at such a juncture, when the world have recently celebrated '2002' as international year of mountain, it becomes imperative to search out at length the issues relating to livelihood security of women in hilly regions so as to come out with appropriate policy to shape

their destiny by improving their socio-economic status and livelihood avenues in the society.

Objectives

Specifically, the main objectives of the present study are outlined below:

- i. To identify the key socio-economic pointers contributing to the status of women
- ii. To study entrepreneurial behaviour of women and their involvement in various activities/organizations for women empowerment, upliftment of the family, community and society.
- iii. To examine livelihood security of women and problems faced by them in socio-economic upliftment.

Limitations of the Study

The precision of the study depends upon the accuracy and reliability of data and their sources and methodological approach followed. All the scientific inquiries are subjected to few limitations, although these may differ with respect to magnitude of limitations. The findings of the present study are subject to the following limitations:

1. As no records were maintained by the households, the data were collected by survey method on their memory and past experience. Though, efforts were made to extract accurate information, the probability of a few slips from the memory of the respondents could not, however, be ruled out.
2. As the study pertained to the agricultural year 2006-07, the results may not be valid over a longer period of time due to fast changing socio-economic settings in these study areas.
3. The study was confined to six tea growing locations of Kangra and Nuwara Eliya districts which were represented by 6 villages and 150 households. Thus the results of this study are applicable only to similar kind of situation analysis. However, the results can be made use of in other areas with some modifications.
4. Because of the limitation of time and other resources involved in research, the investigator had to seek a compromise between the objectives and problem of a study like this. Due to said reason, the present study was restricted to a limited number of

households in Kangra and Nuwara Eliya district. The results drawn from this study, therefore, may have a limited application. It is, therefore, important that such studies be taken on a macro level in order to make the estimates more reliable and to generalize the inference for wider application.

5. The secondary information collected for the study is not free from biases and errors and as such, the out come of the study is subject to some variation.

Organization of Study

The entire study has been systematically planned in six chapters. Chapter I of the study is designed to focus the problem, rationale, objectives and limitations. A brief resume of the work already done in India, Sri Lanka and abroad, which is relevant to the present topic of investigation, in terms of socio-economic status of women, their entrepreneurial behaviour and involvement in various activities, livelihood security and problems and constraints faced by women received attention in Chapter II. The systematic methodology adopted for selection of samples, data collection and analytical frame-work of the study has been presented in Chapter III. The results of the study described under different sections have been presented in Chapter IV. In Chapter V, findings and interpretations of results are contained in respect to the objectives of the present investigation. The final Chapter VI synthesizes and summarizes the findings of the study and presents the policy implications. The additional information has been given under different appendices for further clarification, understanding and future use of the interested readers.

REVIEW OF LITERATURE

The scientific inquiries based on systematic thinking, factual observations and past experience, become a sound base of knowledge for the future research work to be undertaken. Before initiating any study a critical and thorough insight of the studies already conducted relating to topic of the problem, therefore, becomes imperative for conceptual clarity and methodological improvement in the research work to be conducted. Keeping the above in view, the present chapter has been arranged to briefly depict the review of the studies already conducted relating to the research problem “socio-economic status and livelihood security of women” under the following five sub-heads:

- 2.1 Socio-Economic Status of Women
- 2.2 Entrepreneurial Behaviour of Rural Women
- 2.3 Women’s Involvement in Various Activities
 - 2.3.1 Contribution of women to agriculture & livestock
 - 2.3.2 Contribution of women to household income and expenditure
 - 2.3.3 Impact of women’s income on food security
 - 2.3.4 Women’s involvement in organizations
- 2.4 Livelihood Security, Its Measurements and Coping up Strategies
 - 2.4.1 Measurement/assessment of livelihood security
 - 2.4.2 Shocks and coping up strategies
- 2.5 Socio-Economic Problems/Constraints
 - 2.5.1 Problems/constraints faced by women being an entrepreneur

2.5.2 Problems/constraints faced by women being a house manager

2.1 Socio-Economic Status of Women

The status of women can be broadly defined as the degree of socio-economic equality and freedom enjoyed by women. Women's participation on equal terms with men in domestic decision making, expression of their views freely and participation in community life makes them being recognized in the society.

Studies on status of women revealed that status of women was largely influenced by various factors like husband's education and occupation (Buric and Zeevic, 1967), the level of education (Lamouse, 1969), social setting (Rodman, 1972), the place of residence and age (Acharya and Bennett, 1983).

Vlassoff (1982) examined the status of rural Indian women and revealed that overall level of education was low with only five per cent of females having high school education as compared to 15 per cent of males. Further, it was found that over fifty per cent of females had received no education.

Soni and Jindal (1983) studied the impact of employment on decision making by women in Ludhiana district of Panjab. The study revealed that the economic decision relating to family budget was mostly taken by husbands (40 per cent) of the non - working women, against 26 per cent in case of working women. Majority of wives were found to be deciding family budget in consultation with their husbands in case of working women (50 per cent) as compared to non-working women (30 per cent). Savings and investments were mostly decided jointly. About 18 per cent of working and 8 per cent of non - working women decided independently, decisions relating to children's education and occupation. The corresponding figures for joint decisions were 65 and 69 per cent, respectively. It was further revealed that 32 per cent of the working women and 20 per cent of the non - working women in the rural area decided purchase of durable goods themselves. However, most of the decisions were reported to be taken jointly.

Zhao (1991) examined the determinants of women's economic status in rural China. The study focused on women's labour force participation, decision making power and

consumption of non - staple food and expenditure on clothes. The main hypothesis was that women's economic status in the household, depends on three levels of influences viz., women's acquired economic and social power, the socio – economic status of their households and the level of support and opportunities in the community. The results of the multivariate analysis revealed that women's economic well-being was enhanced by women acquiring independent sources of income, adopting new values of self - esteem through education, benefiting from improvement in the socio - economic conditions of their households and the overall level of development in their community. Further, researcher observed that women's absolute level of consumption improved with household income, but their relative shares in non - staple food and clothing expenditure declined with the household enhanced economic position.

Oldenburg (1992) studied socio - cultural factors which determine the low status of women in India. The identified factors were the value of children for religious rituals and comport and companionship; the inability of women to return to their natal homes; prohibition on women working out side the home; non enforcement of laws concerning alimony and child support; restrictions on female ownership/control of land or assets; poor access of women to communal resources; poor access to support systems (such as natal family) and poor access to external support (such as government programs, extension, credit clubs).

Samarasinghe (1993) examined socio - political factors among the Indian Tamil female tea plantation workers in Sri Lanka. He observed that although their wage rate and work hours had been increased, there had not been a corresponding increase in women's ability to control their income and it remained a male dominated social and political system. The study further explained that status can be improved through the control of women's income and labour and male dominance both at work and home.

Malhotra and Mather (1994) examined the women's status in Sri Lanka. The measures of women's status in the study were household decision making and financial control. It was found from the multinomial logistic analysis that married women have either partial, full or no control of finances. While schooling and work experiences were indirectly connected to financial control and act through increased status in the marriage system. In case of decision making

power, marriage system (residence with parents, presence of children) variables were more important than financial control.

Arun (1994) conducted a study to examine whether land ownership makes a difference of women's roles in agriculture in Kerala, India. The study reported that women enjoyed high status in Kerala and economic, social and cultural factors interplay for reinforcing the gender differences in ownership, control and access to land through inheritance, marriage or informal networks. The researcher argued that the traditional rights of women to land had not been adequately recognized. The gender gap in the ownership and control of property was the only most significant contributor to the gender gap in the economic well-being, social status and empowerment of women.

United Nation (1995) reported that improvement of women's political, social, economical and health status was highly important in improving the status of women and it enhances their decision making capacity at all levels and all spheres of life.

Meeker and Meeker (1997) researched on precarious socio-economic position of women in rural Africa. They observed that in rural African societies, women were typically engaged in agricultural, household and income generating activities and also often had a heavier workload than do men. But they typically did not experience equal access to resources like education and economic.

Lieu (1999) carried out a comparative study to examine differences in family and social status in urban and rural areas among different regions, and between men and women in contemporary China. Status has been determined by a score of power to manage family income, decision making power over the family consumption, say in matters concerning children's future, decision making power on reproductive matters and decision making power on matters of self interest. It was revealed that there was weak correlation among all four indexes except reproductive decision making and women's family status which was related to women's income, number of children, and educational level beyond high school.

Haddad (1999) studied the status of women in seven Asian countries, Sri Lanka, Philippine, PRC, Vietnam, India, Pakistan and Bangladesh. The researcher observed

considerable variation in the status of women relative to men in the seven countries, using different indicators such as life expectancy, school enrollment, earned income share, literacy rate, etc. Further, it was found that the status of women was lowest in India, Pakistan and Bangladesh and position and status of women was formed around a series of cultural and economic factors such as resource use, ownership, control, legal and ideological structures, education and information. The status of women strongly influenced their ability to make decision in the spending of household income, the quantity and quality of childcare and health seeking behaviour including family planning decisions.

Sobha (2001) explained that the socio-economic conditions of agricultural women are a reflection of their status in the society and the main factors which had a bearing on their socio-economic status were age, education, income and debt and number of hours spend in the farm.

Balk (2003) carried out a study in rural Bangladesh. The analysis has been focused on two indicators, women's freedom to move outside their homes (mobility) and women's authority in household decision making. The findings revealed that both mobility and authority tended to increase with women's age. Women who lived in the household, headed by their in-laws, had less mobility and much less authority. Women from poor homes had greater mobility, but wealth had little effect on household decision making. Education tended to increase decision making authority but decrease mobility.

Meitei (2004) studied education or earning and access to resources determining women's autonomy. The study examined the involvement of the women in ten areas of decision making under the two broad categories such as economic and social decisions. Under the economic decisions, decisions relating to expenditure of small day to day needs (daily family expenditure), expenditure on personal needs (personal needs), major financial matters like buying and / or selling of land/TV/fridge/vehicle, etc., (major finances), possession and liquidation of ornaments (ornaments) and save and/or borrowing money, have been considered. Children's education, treatment for sick child, going to natal kin, and joining friends were included, under the social decisions. Further, it was reported that most of the decisions were taken jointly by husband and wife, while working women took more of independent decision than the non-working women.

Bhadra (2004) examined the status of scheduled caste women in Rajbansis of West Bengal and observed that the status of women depended on their age, family and kinship status, type of household, education, occupation, income and property. The study further revealed that status improved with age, when woman became a chief housewife in a nuclear family or a mother-in-law in a joint family. But the role of education in determining the status of women was very much limited as the majority of the women were illiterate.

Ghosh and Bharati (2005) studied the interrelationship of women's status in terms of socio-economic inequality between two ethnic groups (munda and poundraksshatriya) in Kolkata and its effect on women's health at micro level. The results revealed that there was a significant difference between various factors (socio-economic, demographic, diet intake and body mass index) among the ethnic groups that indicated a better situation for the poundraksshatriya women. The number of live births, dietary intake and Body Mass Index (BMI) of the women in the two ethnic groups varied differentially among socio-economic factors such as women's education, working pattern and poverty level of the household, which were the most recognized measures of the women's status.

Das (2006) examined increasing gender gap and socio-economic status of women in North-East India. It was found that the best possible indicators of the determination of the status of women were education and employment. Education coupled with employment have made women more conscious of their rights and helped in making them assert in the society. Women's participation on equal terms with men in domestic decision making makes them being recognized in the family. The study pointed out that women's power of expression, capacity to reach through their views and ideas generally come with education. The educational attainment and participation in to gainful economic pursuit make women strong and determined. The financial freedom that comes with their employment opportunity can't be denied and these two aspects generally make women capable of asserting their voice both in the family as well as in the society.

While going through the studies reviewed in this sub-head, it is amply clear that status of women depends on socio – economic factors such as education, occupation, women's

income, decision making power, ownership, control and access to land, financial control, family structure, demographic features, mobility and authority. Some studies highlighted that educational level, decision making power, control of income and lands, mobility and authority of rural women are lower as compared to their male counterpart. The researchers also revealed that status of rural women is positively related to their income, age, education, occupation and family structure (nuclear family). In general, the status of women differs with socio-cultural environment, but none of the studies compared the status of women in the family with different socio - cultural settings. Identification of key determinants of status of women is also highly important for improving their livelihoods, however, scanty literature has been found in this regards. Moreover, such types of research have not been carried out regarding the rural women in hilly areas. Therefore, the present investigation tries to identify and compare key determinants of status of women in hilly areas of two neighbouring countries like India and Sri Lanka.

2.2 Entrepreneurial Behaviour of Rural Women

The entrepreneur is the person who strives to maximize his/her profits by innovations. However, the entrepreneurs are not simply innovators, they are persons with a will to act, to assume risk and to bring about a change through organization of human efforts. Woman entrepreneur is one who wants to set up a commercial venture on her own with determination, zeal enthusiasm, and basic knowledge of business. The basic concept underlying the definition of entrepreneurship is that it connotes innovativeness, an urge to take risks in the face of uncertainties and an intuition i.e. capacity of seeing things in a way which afterwards proved to be true (Vinze, 1987). By a simple definition doing new things or doing things that are already being done in a new way is a part of entrepreneurial behaviour.

Studies on entrepreneurship (Kilby, 1971; Nandi, 1973; Vinze, 1987) revealed that emergence of entrepreneurship depends on certain personality traits like perception of market factors, independence, ability to influence others, decision making, access to and control over resources, risk taking ability and innovativeness.

Buttner (1993) conducted a comparative study on the presence of achievement

motivation, goal orientation, risk taking and independence of the entrepreneurial men and women. The study observed that women entrepreneurs were more adoptive, socially aware and had wider experience in different business areas.

Studies on entrepreneurial behaviour of dairy women (Fulzele and Meena, 1994; Bhatt, 1995; Reddy, 1995) revealed that most of the dairy women farmers had medium level of social participation, value orientation and management orientation whereas; very few of them had high level of training.

Monica and Talukdar (1997) attempted to study variables influencing entrepreneurship of women entrepreneurs in four districts, Kamrup, Sonitarpur, Jorhal and Dibrugarh. The findings of the study revealed that women on an average had medium extent of entrepreneurship and majority of women were sufficiently high where skills were concerned, but where knowledge and attitudinal dimensions were concerned, majority of them had only a medium level of knowledge or a moderately favourable attitude. Researchers further explained that there were significant and positive correlation between the extent of entrepreneurial behaviour and job involvement, achievement motivation and total annual income of the family and the variables role conflict as housewife and role conflict as an entrepreneur exhibited significant negative correlation. It was recommended that more number of special entrepreneurial development programmes should be organized by the promotional agencies and developmental organizations along with development of entrepreneurial qualities.

Lerner et al. (1997) examined the individual factors influencing performance of Israeli women – owned business. They identified five theoretical perspectives to explain performance, such as individual motivation and goals; social learning (entrepreneurial socialization); network affiliation (contacts and membership in organization); human capital (level of education, business skills); and environmental influences (location, sectoral participation and socio-political variables).

Kapoor (1998) studied entrepreneurial behaviour of women in Ludhiana. The investigation focused on four components of entrepreneurial behaviour, risk taking, ambitious behaviour, decision making and goal orientation. It was found that about thirty two per cent of

rural women had no ambition and did not set goals and also their risk taking was found to be low.

Mundhwa and Podheria (1998) examined the entrepreneurial behaviour of dairy women in Mehsana district of Gujarat. The study has considered single dependent variable (entrepreneurial behaviour) and twelve independent variables such as age, education, type of family, farm size, dairy farming income, social participation, milk yield and infrastructural experience. The researchers observed that except age, farming experience and dairy farming income, other variables were significantly different in their entrepreneurial behaviour.

Deepti and Hema (1998) studied entrepreneurial behaviour of milk producers in Bareilly district of Uttar Pradesh. The study focused on women's social, personal, economic and psychological attributes. The entrepreneurial behaviour of rural women has been analyzed by using thirteen independent variables such as age, caste, religion, marital status, family size, family type, herd size, family land holding, family education status, attitudes towards self employment, attitudes towards income generation, milk production and credit availability. The study revealed that about sixty per cent of women were in medium level of entrepreneurial behaviour followed by twenty one and eighteen per cent were in high and low categories, respectively. It was further found that entrepreneurial behaviour was significantly higher amongst those who belonged to middle age group and higher castes and lower amongst landless rural women. Standard of family education was a significant positive factor to the entrepreneurial behaviour of women.

Jayalekshmi *et al.* (1999) attempted to examine factors influencing entrepreneurial behaviour of rural women in Trivadrum district of Kerala state. They found that there is positive and significant relationship between caste, educational status of family, educational status of respondent, annual income, information seeking behaviour, mass media contact, social participation, cosmopolitaness, level of aspiration, attitude towards self employment and perceived knowledge about technology with the entrepreneurial behaviour. The study further suggested that promoting and developing entrepreneurship among rural women required

encouragement, training to improve the knowledge and skills, developing initiatives and providing necessary information regarding financial support by development agencies.

Rashiq (1999) examined entrepreneurial behaviour of women in Guwahati and found that women entrepreneurs were more cosmopolite in business dealings and had no hesitation to expand contacts beyond their locality. And they also had risk taking ability and medium risk orientation.

Nayyar (2001) studied entrepreneurship attributes among women entrepreneurs in Chamba, Kullu, Kangra and Mandi districts of Himachal Pradesh. The study revealed that important attributes for women entrepreneurs were self confidence, management skill, and achievement motivation, risk taking ability, decision making ability, amicable nature and conflict revolving ability.

Subrahmanyeswari *et al.* (2007) attempted to analyze entrepreneurial behaviour of rural dairy women farmers in Chittoor district of Andhra Pradesh and found that achievement motivation and decision making ability were among the first two ranks, whereas, innovativeness and risk taking ability got the least importance among small and medium dairy women farmers. The study further revealed that majority of dairy women farmers' possessed medium entrepreneurial behaviour. Land holding, material possession, management orientation, value orientation, income from dairy farming, education and innovativeness were positively and significantly related with entrepreneurial behaviour.

An overview of the studies reviewed above indicated that there are eleven dimensions of entrepreneurial behaviour such as innovativeness, decision making, achievement motivation, knowledge, information seeking, risk taking ability, ability to coordinate activities related to enterprise, assistance of management of services, leadership ability and cosmopoliteness. Many researchers highlighted that women entrepreneurs had medium level of social participation, value orientation, management orientation, knowledge and favourable attitude. It was also observed that there was positive correlation between the extent of

entrepreneurial behaviour and job involvement, achievement motivation and total annual income of the family, educational status of family, educational status of respondent, information seeking behaviour, mass media contact and level of aspiration. However, all these studies have been done related to dairy farming and other enterprises. The present study focuses itself towards above important aspects related to entrepreneurial behaviour of rural farm women in hilly area and compares findings between two countries.

2.3 Women's Involvement in Various Activities

Widespread ignorance and belief that women in the rural areas do not participate in socio-economic development, because they are confined to homework, are still common. There has been inadequate understanding and evaluation of women's contribution to household. However, some of the studies given below argue that the women in rural areas are more active than others.

2.3.1 Contribution of women to agriculture & livestock

Aronoff and Crano (1975) on the basis of the study of 862 societies revealed that women contributed appreciably to their respective economies. The world wide percentage of food production contributed by women is 43.88 with a range of 32.24 to 50.73 over specific culture areas.

Miranda (1977) reported that women's employment in agricultural sector was inversely related to regional development. Data on the labour – force participation of Brazilian women revealed that 8 per cent of the women in developed region were in labour force. The corresponding figures for intermediate and less developed region were 24 and 36 per cent, respectively.

Census of India (1981) reported that women played an important role in agriculture, as agriculture is largely a household enterprise. Recent studies highlighted that women in India are major producers of food in terms of value, volume and number of hours worked.

Spencer (1981) on the basis of series of detailed surveys of both farm and non – farm households in Siera Leone, indicated that women play an important role in agriculture

and contribute at least 40 per cent of the total labour input.

A study of hill region of Uttar Pradesh by Kumar and Singh (1983) indicated the dominance of women workers in agriculture particularly in per capita employment of 51 days for a woman in crop activities against only 19 days for a male worker. Further, it was found that on an average three - fourth of the total work in agriculture was being performed by female workers in the family alone. In addition to this, their monetary contribution (67 per cent) in the total income generated from agriculture was also higher.

Agnihotri (1983) studied the contribution of female workers in the farm sector in Una district of Himachal Pradesh. It was found that 63 per cent of women were participating in work force and 90 per cent of them were associated with agriculture.

Barun *et al.* (1985) conducted a study on commercialization of agriculture under population pressure in the commune of Giciye, situated in the North-Western part of Rwanda. They found that men contributed on an average 25.3 per cent of the total family labour input as against 74.1 per cent by women. The share of women for all crops and activities was higher than men.

Guleria and Agnihotri (1986) studied the female labour participation in various farm operations in Una district of Himachal Pradesh. They reported that female farm workers accounted for 42 per cent of the total working force and share of female workers in the overall income was found to be 5 per cent higher than male workers.

Gupta and Singh (1986) examined the participation pattern of women in different farm and non - farm activities in Haryana. They found that 14 per cent of total adult female members were engaged in wage earning activities. The remaining members were found to be participating in own farm activities.

Bhati and Singh (1987) estimated the household's total labour inputs and examined the division of labour in farm household in Himachal Pradesh. It was revealed from the study that women labour accounted for 61 per cent of the total farm work and their participation was greater in activities like animal husbandry than in crop production.

Bhople and Palki (1988) studied socio-economic dimensions of farm women labour in rural India. They reported that rural women perform a variety of roles of which many are

of greater economic significance and farm women play a significant role in domestic and socio-economic life of the society.

Salika (1999) investigated the role of women in agriculture including animal husbandry, sericulture and other allied activities and the involvement of farm women in decision making process in Assam. The researcher revealed that the proportion of females playing a major or equal role was highest in the selection of crop variety while in financial matters, the involvement of women was relatively low.

Singh and Garcia (1999) examined the impact of women participation in agricultural work on their role in decision making process about economic activities and household matters. The study highlighted overwhelming economic contribution of women in productive as well as domestic activities in the hill region.

Singh *et al.* (2004) studied participation of women in agriculture and found that rural women play a significant role in agricultural activities such as seeding, transplanting, weeding, fertilizer application, plant protection, harvesting, processing, storage, etc. Several of these operations were exclusively carried out by women only. Thus, they directly or indirectly influenced the course of agriculture by participating all above agricultural activities.

2.3.2 Contribution of women to household income and expenditure

Simmers (1976) observed that West African women play significant roles as farmers, traders and entrepreneurs in their own rights and these roles are of central importance to the women, their families and the economies of West African countries.

Silver (1977) while discussing about the role and status of women in France indicated that in the rural sector, the role of the women is essential for the functioning of the farm and the economic survival of the family. The farming woman is a partner to her husband, combining an occupational role with a domestic responsibility. She has always had an important economic function as a producer of goods and often she has also been in-charged of the finances of the rural enterprises.

Kumar *et al.* (1985) made an attempt to study the employment and income pattern of women labour in modern agriculture in Meerut district of Uttar Pradesh. They observed that women devoted 66 per cent of the total labour to agriculture and rest to non - agriculture. Total annual income per women labour amounted to Rs.2489. Out of which about 60 per cent was derived from agriculture, 28.44 per cent from non - agriculture and the rest from owned and other sources.

Sander (1986) carried out a study on participation of farm women in on-farm and off - farm activities and revealed that farm women contributed significantly and substantially to farm family income, farm production over time as well to manage family income.

Noponen (1991) examined female income contribution to household income. The researcher found that, on an average, total female earnings accounted for 42 per cent of overall household income, while the corresponding figure for males was 48 per cent.

Haddinot and Haddad (1995) investigated influence of female income share on household expenditure in c[^]ote d'Ivoire. They observed that women's share of cash income positively and significantly affected the budget share of a number of goods. Specially, it had a positive and significant effect on the budget share of food and negative and significant effect on meals eaten out, children's clothing, adult clothing, alcohol and cigarettes.

Tuleja (2000) studied the contribution of female agricultural workers in family income and their status in Haryana. The study revealed that female agricultural workers contributed significantly in household income as all farms and the earnings were found most crucial for the landless and small farm households.

A study undertaken in thirteen villages of Bharmaur tehsil by Chauhan (2000) indicated women shared in farm and off - farm income to the extent of 27 and 12 per cent, respectively, giving an overall contribution of 24 per cent in the household income excluding their contribution as home maker.

Cheryl Doss (2005) conducted a survey to examine how the share of assets owned by women in Ghanaian households affects household expenditure patterns. In this analysis,

assets include business assets, savings, and farmland. The results indicated that women's share of assets had an impact on household budget shares for a number of expenditure categories. Although the number of households in which women own land was much smaller than the number of households in which women own assets, the coefficient on the share of household land owned by women was statistically significant in explaining five of the nine budget categories. In particular, women's share of farmland significantly increased budget shares on food.

2.3.3 Impact of women's income on food security

In terms of underlying factors, women's control of income is a key promoter of household food security and nutrition. Women are more likely than men to spend extra income on nutrition inputs such as food.

Garcia (1991) examined the impacts of female income on food and nutrition outcomes, using data from 841 households in Philippine. It was revealed that female income share had a positive and significant association with household budget, shares of milk, bread, pork, green leafy vegetables, medical care & children's schooling and this translated in to a positive and significant association with household calorie availability.

The studies conducted by Thomas (1990, 1992), Hoddinott and Haddad (1995) found that increased non - labour income held by women led to a greater share of the household budget devoted to expenditure on human capital and a higher level of nutrition intake.

Alderman and Garcia (1994) investigated the food security and health security to explain the level of nutritional status in Pakistan. They highlighted the critical role of the women's education in achieving nutritional goals in rural areas. Women who were educated at least up to the primary level; there was a strong impact on nutrition. The level of child wasting would be reduced by almost one-half of the current prevalence level.

Janseen (2000) conducted a study to examine women human capital and livelihood in developing countries. The researcher observed that enhancing the capacity and capability of women as major contributor to food production needs careful consideration. Also, the study found that there were number of ways to enhance women's ability to produce food and active better health such as improving control and access to productive resources (credit, agricultural inputs

and markets), improving access to health to raise the health status of women, providing education and training, improving access to services and information including education.

Rathnayake and Weerahewa (2002) carried out a study on assessment of intrahousehold calorie allocation of urban poor in Kandy. The results revealed that mother's income showed significant positive effect on mother's and children's calorie adequacy ratio.

2.3.4 Women's involvement in organizations

Devadas *et al.* (1975) conducted a study of Balwadis in two villages of Coimbatore and revealed that one - fourth of the mothers who participated in the Balwadies had adopted meal planning and more than half of the mothers had adopted the practices demonstrated, indicating the value of nutrition education imparted to them.

Hanumappa and Sujatha (1984) attempted to assess the functional impact of Mahila Mandals in the process of socio-economic upliftment of rural women of Bangalore. They observed that with the introduction of Mahila Mandals there was increased awareness among rural women and certain improvement in their way of talking and self - care behaviour.

Rao and Verma (1987) observed that 51 per cent of beneficiaries of DWCRA in Andhra Pradesh were engaged in trade like rope making, basket weaving and mat making and 23 per cent in small industry like wig making and dress making.

Mahagen (1992) proposed a model to create employment opportunities for the rural women below poverty line and to generate income for rural poor. She suggested that women can improve their participation in the programmes of rural development to increase their earnings, acquire new skills, reduce their daily workload and have better access to credit through the organization of groups.

Mehra (1997) examined women empowerment and economic development. The study found that some non-government organizations, such as Self Employed Women's Association (SEWA) in India, have effectively helped to improve women's economic status.

Puhazhendi and Jayaraman (1999) studied women's participation and employment generation among rural poor. They reported that the informal - groups, rural poor with active intervention of NGO's adequately supported by training and financial assistance significantly

improved women's participation both from economic and social aspects.

Prasad and Singh (2004) conducted a study on participation and role of women in Panchayats in Nau district of Uttar Pradesh. The researchers reported that as leaders, their major concerns for development of their villages were better roads, streets, drainage, water reservoirs and conservation of natural resources.

Raj (2004) examined SHGs' and women's empowerment. It was revealed that SHGs' contributed significantly to the overall development of women in rural areas, by strengthening and empowering. Strengthen and empowered rural women could contribute to the various aspects of rural life.

Gangwar *et al.* (2005) studied empowerment of women in dairy co - operative members and non - members. The study found that majority of co - operative members and non - members had high levels of involvement in decision making in livestock and household activities, whereas co - operative members were more economically independent and self confident than non - members. They further explained that members of co - operative helped the women to move towards empowerment to a certain level.

From the comprehensive analysis of the literature reviewed infer that involvement of women in various activities and their importance to family income, food expenditure, household food security, family labour, decision making and empowerment have been researched. In addition, women's involvement in the development of society and the countries economies has been studied. However, the literature has been silent in general towards the involvement of rural women in hilly areas in various activities and also comparison of women's involvement in various activities in developing countries like India and Sri Lanka as the pattern of women's participation varies due to socio-economic and cultural differences. Thus, there is a knowledge gap in this field, which the present study will take care of.

2.4 Livelihood Security, Its Measurements and Coping up Strategies

Chamber (1989) defined livelihood as "adequate stocks and flows of food and cash to meet basic needs". Redelift (1990) stated that security is "ownership of or access to

resources and assets to offset risks, ease shocks and meet contingencies". According to Chamber and Convey (1992), livelihood comprises the capabilities, assets (stores, resources, claims, and access) and activities required for a means of living. The concept of livelihood as described by Long (1997) express the idea of individuals and groups striving to make a living attempting to meet their various consumption and economic necessities coping with uncertainties. Complain (1998) cited the definition of the world Commission on Environment and Development (WCED) for livelihood, adequate reserves and supplies of food and cash to meet basic needs. According to Ellis (2000) livelihood comprises the assets (natural, physical, financial and social capital), the activities and access to these that together determine the living gained by the individual. Hug (2000) argued that a livelihood encompass income, both cash and kind as well as social institutions relating to kinship, family, neighborhood and village, women groups and property rights required to support and to sustain a given standard of living.

2.4.1 Measurement/assessment of livelihood security

The livelihood assessment process aims to enhance understanding about local livelihood systems, livelihoods, economic, socio - cultural and political system and the constraints, vulnerabilities, marginalization and risks of people.

Bouis (1993) explained two major methods which are widely used to measure food security. The first method was estimate the growth or depletion of food stocks held over the period and second method was 24 hours recalls of food consumption for individual members of household.

Haddad *et al.* (1994) noted a variety of indirect indicators that can be used as predictor for food insecurity, including asset ownership, household size and dependency ratio.

CARE (Centre for Assistance and Relief Every where), Kenya (1996) assessed livelihood security in Kenya, using livelihood security index. The comprehensive index was made up of four indices that reflect health, educational, food and economic security. They have complied number of different indicators under health security (health services access, population services access, access to water and latrines, prevalence of respiratory problems, diarrhea,

immunization rates and birth spacing), educational security (availability of schools & teachers, affordability and accessibility, quality and use, and literacy rate by gender), food security (months of self provisioning from primary productivity, reliance on coping up strategies, diet diversity, per capita calorie availability and number of meals per day) and economic security (current income balance, current assets balance, acreage per household).

CARE, India (1997) assessed household livelihood security in Tathiraspara village, Bastar. The study revealed that the village was on the fragile end of the livelihood security index and it had an overall score of 1.9 on a scale of one to five. They further explained that six of the eight components of livelihood security areas were below the fragile equilibrium mid point and only index score above three was income security due largely to the skewed result of wage labour from part time employment of mining in the area.

Frank (1999) examined livelihood diversity in developing countries. He revealed that gender was an integral and inseparable part of rural livelihoods and men and women have different assets, access to resources and opportunities. Women rarely owned land, may have lower education, discriminating access and their access to productive resources as well as decision making tend to occur through the mediation of men. Women typically confronted narrower range of labour markets than men and lower wage rates. Therefore diversification was more of an option for rural men than women. The diversification can improve household livelihood security while at the same time trapping women in customary roles.

David (1999) studied household livelihood security in urban settlement. He revealed that livelihood strategies could be complicated and confusing in urban settlements. Contexts were changing and uncertain, with accelerating urban growth, increasing crime, an ill equipped public sector and intense competition for limited resources. Household members employed complex, varied strategies, often living on credit, surviving and competing in markets, undertaking seasonal work and earning incomes in the informal economic within the city. Some groups were specially; vulnerable due to their position in the society. Researcher indicated that women were more severely affected than men by poor and over crowded housing. Women usually look after the children, stay at home during the day, care for sick family members and manage the

household. Therefore, it was badly affected to the livelihood security of women.

Drinkwater and Rusinow (1999) developed CARE's livelihood security model which was influenced by the definition given by Chamber and Conway (1992). The CARE livelihood security model reflects three basic attributes viz; the possession of human capabilities (education, health, skill, psychological orientation); access to other tangible and intangible assets (social, natural and economic capital) and the existence of economic activities. It was stated that the model is particularly useful analytical tool to understand the needs of vulnerable.

Christina et al. (2001) conducted a study to address the food security in Africa via multiple livelihood strategies of women farmers. They revealed that food insecurity was primarily a problem in Africa. Therefore, different development interventions, both in policy and technology were needed, as a general rule to increase women's incomes and help make their livelihood sustainable. The ways to improve returns to women's resources in a broader context and facilitate women's cash cropping, income generating activities and agricultural labour, as well as encourage providing, productivity enhancing safety nets for the poorest women were the some strategies to improve livelihood security of women in Africa. They further suggested that policy makers should be encouraged to facilitate women's income generating activities (by expanding micro credits and micro enterprise programs) and multiple livelihood systems appropriate for their environment, resources and household composition, complement them with agricultural research programs aimed at increasing women's agricultural productivity.

Rahman and Alam (2001) conducted a baseline survey on livelihood security of vulnerable urban households in Slums and low income settlements within the municipal areas of Jessore and Tongi in Bangladesh. The researchers highlighted that the incidence of divorce, separation, abandonment and being a widow is strikingly high in female –headed household in both cities, thereby the vulnerability of female headed households require broader family support for their livelihood security.

CARE, USA (2002) documented standard indicators for livelihood outcomes, food, education, health, economic, habitat, nutritional, social network and environment security and these measure lasting changes in the conditions, or aspects of the quality of life

of population.

Azmi (2002a) developed the analytical model to study livelihoods in the village, based on the definition of Drinkwater and Frankenberger (1992) and Drinkwater and Carney (1998). The model analyzed assets (natural, physical, human, social and economic) in relation to structure and process (gender roles, lack of mobility, government policies, community relations, market relations) which enable or constraints the livelihood options of the women and vulnerable contexts (shocks, trends and seasonality).

Azmi (2002b) studied the challenges to women's livelihood strategies in a dryzone peasant colonization schemes in rural Sri Lanka. The study found that land access for women was an acute problem hindering different livelihood options of the women and it should be changed with implications for the future livelihood security of women.

Mtshali (2002) studied household livelihood security in rural KWA Zalu-Natal in South Africa and identified the main problems in rural areas for their livelihoods as illiteracy, unemployment, poor infrastructure, lack of resources of agricultural production (land, capital, credit, appropriate technology, input, trainings, extension and markets) resulting food insecurity and lack of income to buy enough food. The study also observed that gender was critical in the household structure and processes that relate to rural livelihood.

Frank *et al.* (2002) conducted a study on livelihood and rural poverty reduction in Malawi. They revealed useful insights about the individuals attempt to construct viable livelihood strategies. One of the key point emerged was landless. Therefore several emerging trends were apparent and one of the important trends was for matrilineal traditions of land inheritance to be replaced by patrilineal forms, with implications for the future livelihood security of women, especially those widowed or divorced who already feature disproportional in the poorest category in the rural communities.

Ali (2005) carried out a study on livelihood and food security in Saturia subdistrict under Manikgani district of Bangladesh. The study found that the gender of the household members was crucial for attaining individual level of food security and women's social capital played a crucial role in achieving household food security and averting vulnerability. It

was further explained that women take more responsibility in sustaining their livelihoods by engaging in economic activities, particularly young women and widowed or divorced women without son.

2.4.2 Shocks and coping up strategies

Mutangadura and Markaudze (1999) investigated the urban vulnerability to income shocks and effectiveness of current social protection mechanisms. The study identified idiosyncratic shocks as unemployment, retrenchment, death in the family, long illness and divorce, and covariant shocks as general price increases devaluation, taxes and droughts. Also the study reported a number of coping up strategies such as reduced consumption, switching to cheaper substitution, child labour and subletting.

In 2003 Zimvac conducted a national urban assessment in Zimbabwe, using the livelihoods based vulnerabilities assessment framework. The study examined coping mechanisms among different socio-economic groups and reported that shocks to livelihood security as inflation, cost of services, unemployment, death, illness and hospital bills.

Mutonodzo (2006) examined the coping strategies with limited food, insufficient income, and expenditure reduction in urban household in Harare. The study revealed that about 71 per cent of household conserved expenditure by regularly reducing the number of meals taken per day and rationing quantities of food eaten per meal was the next important strategy employed by 66.8 per cent of households. About 60 per cent of household conserved expenses by eating less preferred foods and borrowing food were the strategy of last resort with 40 per cent of households. Income related strategies included diversification, temporary migration in search of alternative income sources and casual labour. Researcher further observed that shock with greatest score was the general increases in prices and other shocks included operation restore order, payment school fees, medical care and services.

From the comprehensive review of the literature it was found that the various outcomes of livelihood security at the household and community level have been assessed by many researchers but very few studies have been found related to livelihood security of women.

However, no research has been undertaken relating to livelihood security of women in hilly areas. Therefore, the present study aims to assess the livelihood security of rural women in hilly areas of India and Sri Lanka and compares the differences of their livelihoods.

2.5 Socio-Economic Problems/Constraints

The women contribution in performing agricultural activities as well as domestic activities is quite high. But they have to face various visible and non visible problems being an entrepreneur and a house manager.

2.5.1 Problems/constraints faced by women being an entrepreneur

Yadav (1985), Banarjee (1986) and Dogra (1988) observed that women were unable to generate income due to lack of skill, unawareness regarding credit facilities, lack of technical knowledge and marketing, financial problems and other input constraints.

Balaraman (1988) examined the sex discrimination in farm wages in Tamil Nadu, on the basis of wage rate data. It was found that the wages paid to female workers were roughly 60 to 80 per cent of wage paid to male workers.

Grassman (1988) attempted to study on women in business curriculum materials. It was revealed that women have to overcome several additional barriers such as difficulty of obtaining credit, limited exposure to math and credit, social biases, ambivalence about being a competitive, profit oriented deal matters due to their socialization in to nurturing, mothering and serving others, isolation from business network, balancing home and work roles, developing management style as they may not be sure about their leadership ability and assertiveness, potential negative perception, hostile environment including lack of respect, social conditioning and sexual stereotyping, lack of business management, training and experience.

Azad (1989) analyzed the development of entrepreneurship among Indian women and observed that conflict or the difficulty in managing both the home and job as experienced by married women has a negative influence over Indian women.

Dias (1990) investigated women and micro - enterprise in Colombo. It was identified several socio-cultural, economic constraints of women's participation in entrepreneurial activities

such as familial responsibilities (lack of child caring facilities and domestic help), shortage of capital, lack of secured credit, low levels of education and technical know how. The study further suggested that attention needed to be given to social support structure that was required to enhance women's ability to participate in training and related programmes and to enter self employment.

Rao (1991) identified the factors that impede and slow down the entrepreneurial development of rural women in Anantapur district of Andhra Pradesh. The findings showed that economic backwardness, lack of family and community support, ignorance of opportunities, lack of motivation, shyness and inhibition, preference for traditional occupations were some of the factors that inhibit the promotion of grass roots entrepreneurship among rural women.

Seetharam (1992) stressed that the employment opportunities for women were reported to be restricted by the factors such as adverse impact of farm technology, restrictions on women's access to resources, negative attitude for working women by themselves, by men and society, inadequate educational and training opportunities and other socio - demographic constraints. In addition to those, several other problems such as lack of child care facilities, poor skills, lack of training etc. also hindered the expansion of female employment.

Kamulon and Kumar (1992) observed that the lack of infrastructural facilities, non - availability of raw materials, transport facilities and lack of markets were reasons to the slow growth of women entrepreneurs.

Vepa (1992) reported that lack of motivation from family members was a major constraints encountered by women entrepreneurs leading to a great difficulty in combating the opposition first from family members and then from society at various levels. A large number of entrepreneurs were also found having no any awareness about various programmes run by the government and private agencies.

Misra (1995) pointed out that the main problems faced by Indian women entrepreneurs were lack of adequate finance, lack of technical know - how, non-availability of raw materials, inadequate marketing facilities, lack of technical and management skill.

Jayalekshmi *et al.* (1997) studied constraints faced by rural women entrepreneurs in Thiruvananthapuram and reported that even though rural women have been trained in various technologies, some of them were not able to start their own enterprise due to constraints of marketing and lack of financial assistance.

Talukdar *et al.* (1998) examined knowledge and attitude of women entrepreneurs in Assam. The study observed that 41.6 per cent women had less favourable attitude due to lack of requisite support from concerned technical department, limitation of government policies, lack of support from spouse/family members, negative social attitude toward women entrepreneurs, tendency of others to underestimate a women's capability of entrepreneurship, higher scrutiny and cumbersome formalities in banks or financial institutions, lack of pertinent knowledge and lack of economic resources under the command.

Punitha *et al.* (1999) examined the problems and constraints faced by women entrepreneurs in the Pondicherry region. The study revealed that the major problems faced by rural women were competition from better quality products and marketing problems and the least problems were ignorance about schemes, distance from market and ignorance about agency and institutions. It was further indicated that socio - physiological problems faced by women according to their descending order of ranking were conflicts due to dual responsibility, lack of social contacts, lack of motivation from family members, male dominance, lack of emphasis placed on growth, lack of self motivation and absence of appreciation for individual decisions.

Anitha and Laxmisha (1999) studied women entrepreneurship in India. They explained women literacy rate which it self is the cause for low economic status, creates a vicious circle of low social and economic status. The rural female literacy rate was 30.4 per cent, whereas the rural male literacy rate was 57.8 per cent. They further explained that emergence of women entrepreneurs should be viewed as a socio - economic emancipation of women.

Perera (2004) investigated problems of women entrepreneurs in the Matara district of Sri Lanka. The study revealed that women are facing various types of problems related to socio –

cultural such as cultural believes, values, attitudes, behavioural patterns and customers, sub cultural aspects such as family status, reference group, nationality, social groups, personal factors such as age, education, occupation, income, economic circumstances, pattern of life cycles, role as a mother and wife and psychological factors such as motivation towards business, learning, believes and attitudes.

2.5.2 Problems/constraints faced by women being a house manager

Congress of labour foundation (1990) examined health status of plantation workers in Nuwara Eliya district of Sri Lanka. It was reported two kinds of health problems experienced by women related to poor nutrition, unsatisfactory housing and sanitary facilities and conditions and practices of work. The study recommended that to provide health education, adequate nutrition, safe drinking water, basic sanitation and provision of suitable clothing and equipment.

Yadev and Verma (1990) investigated main problems faced by women labourers in Haryana. It was observed that low wages, economic insecurity, education of children, uncertainty of occupation, marriage of daughters, exploitation by landlords, non - availability of cultivable lands, good food to eat and scarcity of drinking water were the main problems faced by women.

Miller (1992) reviewed Indian case studies and identified several economic factors which, were responsible for discrimination against girls in South Asia such as low demand for female labour in subsistence agriculture, under estimation of the value of non - market activities and opinion of parents such that girls are less likely to be able to provide supports for parents in old age.

Pattanaik (1996) reported that women face barriers in three areas i.e. access to education, reproductive health and credit resources. Women will not have equal access to opportunities and to the benefits of developments until barriers persist in these areas.

Bhadra (2004) conducted a study on status of scheduled caste women in West Bengal and found that the Rajbansi women suffered from three types of oppressions under the specific social conditions. Firstly, their status suffered due to their social status as a whole in the

Hindu caste hierarchy as a scheduled caste. Secondly, they were economically, educationally and politically backward. And thirdly, their status suffered due to gender biasness in their own society.

While the various problems and constraints faced by women in the plains as well as hilly areas have been highlighted by scholars, but no one has tried to compare the problems of women for the proposed study areas. So, the present study attempts to identify and compare problems faced by women in hilly areas of India and Sri Lanka being an entrepreneur and being a house manager.

Overall, it is amply clear that many studies on socio- economic status of women have been carried out at the national and international levels, but there are a few studies relating to Himachal Pradesh and Sri Lanka. Till now no study has come across that has researched issues of livelihood security of women in Kangra district of Himachal Pradesh (India) and Nuwara Eliya district of Sri Lanka. Further, it is also evident from the review of literature presented that the topic of present investigation “socio-economic status and livelihood security of women” has not been researched in a comprehensive manner. Therefore, the present study has been undertaken to fill up this research gap.

MATERIALS AND METHODS

Science is a systematized body of knowledge. It is marked by careful and accurate classification of facts, discovery of scientific laws by creative imagination and self criticism to arrive at logical conclusions. The reliability and validity of the research findings depend mainly upon the methodological framework employed. Therefore, the present chapter has been planned to elaborate methodological procedure adopted and various analytical techniques employed in achieving the set objectives of the present study on “Socio-economic status and livelihood security of women” under the following sub - heads.

3.1 Selection of the Study Area

3.2 Sampling Design

3.2.1 Selection of tea growing locations

3.2.2 Selection of villages

3.2.3 Selection of households

3.3 Data Collection

3.3.1 Primary data

3.3.2 Secondary data

3.4. Analytical Frame Work

3.4.1 Tabular technique

3.4.2 Regression analysis

3.1 Selection of the Study Area

The present study was carried out in tea growing areas of Kangra district of Himachal Pradesh (India) and Nuwara Eliya district of Sri Lanka, as both areas have almost similar type of

agro-climatic conditions viz; altitude (500 – 5500m amsl), temperature (5.7 – 33.1 °C) and rainfall (1100 – 3100 mm/annum) as a result of which, tea cultivation dominates the cropping pattern in higher ranges of both regions.

3.2 Sampling Design

Multi- stage random sampling technique was employed to select tea growing locations, villages and households.

3.2.1 Selection of tea growing locations

There are four tea growing areas of Kangra district (India), namely Palampur, Baijnath, Dharmasala and Kangra (Tea Directory of HP, 1997) and five in Nuwara Eliya district, namely Ambagamuwa, Uдахewaheta, Kothmale, Nuwara Eliya and Walapane (Department of Census and Statistics, Sri Lanka. 1981). In the first stage of sampling, three locations were randomly selected from each selected district for the present investigation (Figs. 3.1 - 3.5).

3.2.2 Selection of villages

In the second stage, a complete list of all villages was prepared from each selected tea growing location and one village from each pocket was randomly selected to reflect different resource endowments, livelihood scenarios and socio-economic features, thus, making a total sample size of 6 villages. The selected villages from Kangra district were Tohri Da Behru, Mahlpat and Rajehr, while same number of selected villages from Nuwara Eliya district was Avenugala, Gasnagaldeniya and Yatimadura.

3.2.3 Selection of households

In the final stage, a complete list of all the households of the selected villages was prepared with consultation of members of Panchayat / Gramasewaka. Keeping the time and resource constraints in view, a manageable sample of 25 households from each selected village was randomly chosen, thus making a total sample of 150 households.

3.3 Data Collection

The present study was based on primary as well as secondary data at the household level and village level.

3.3.1 Primary data

Primary data relating to various parameters of socio-economic status, entrepreneurship and livelihood security were gathered from the female respondents of selected households through well designed and pre-tested schedules, by survey method for an agricultural year (2006-07).

The details of primary data pointers are given below:

- Demographic features (age, education, marital status)
- Assets (landholdings, productive assets, non-productive assets)
- Income pattern (occupation, farm income, off-farm income)
- Expenditure pattern (food, non-food expenditure)
- Consumption pattern (diet diversity, nutrient intake)
- Health status
- Quality of housing
- Social participation
- Components of entrepreneurial behaviour
- Indicators of livelihood outcomes
- Shocks & coping up strategies
- Problems & constraints

3.3.2 Secondary data

The secondary information was collected from various published and unpublished sources, different offices of Govt. (District Statistical Office, Block development office, Panchayat office, Gramasewaka office, District secretariat office, Govt. schools, primary health centers, Tea Small Holding Authority (TSHDA), Department of Agriculture, Department of Animal Husbandry) and NGO's (women organizations, Aanganwadi, Balwadi, co-operatives, CARE- Sri Lanka, Centre for Women Research (CENWOR), Beredina). Further, information was collected through participatory approach and from key informants in the village.

The various components of secondary data collected are elaborated as under:

- Demographic information

- Historical information
- Infrastructural information
- Institutional & organizational structures
- Production & income generating activities

3.4 Analytical Frame Work

To meet out the set objectives of the present investigation, tabular and regression techniques were employed to analyse the data.

3.4.1 Tabular technique

The tabular technique was extensively employed to workout averages, ratios, percentages and indices for the data relating to various socio-economic features of sample households, women's involvement in various activities, contribution of components of entrepreneurial behaviour of women, livelihood outcomes (food security, economic security, educational, health, habitat and social network security), shocks & coping up strategies and various socio-economic problems faced by them.

3.4.1.1 Construction of indices

The following indices relating to various pointers were computed as under:

Educational Disparity Index (EDI)

$$EDI = \frac{F_{ed}}{M_{ed}}$$

Where;

F_{ed} = Per cent of literate females

M_{ed} = Per cent of literate males

If the *EDI* value = 1 ; no disparity

< 1 ; there is disparity

Decision Making Index (DECIND)

In order to arrive at a more clear idea of women's involvement in decision making, a composite index was constructed assigning a higher weightage in case of women's individual independent decision making (Meitei, 2004). In the present investigation, 10 areas of

women involvement in decision making were considered under two broad categories such as economic related decisions (daily family expenses, personal needs, major finances /investments, ornaments, saving & borrowing) and social related decisions (children’s education, treatment for sick child, going to natal kin and joining with friends). Score 1 was assigned, if the respondent made the decision by herself, while 0.5 was assigned if she participates in making decision along with males (joint decision). If the respondent does not participate in making decisions, zero score was assigned. A composite index was constructed by summing all the values. The index ranges from 0 if the respondent does not participate in any decisions and 10 if she takes all the 10 decisions by herself. DECIND were classified in to three groups viz, low, medium and high with the help of cube - root cumulative frequency method of stratification (Singh and Manget, 1996) that has been explained as under:

$$L_i = y_{i-1} + \left(\frac{S_k - S_{i-1}}{L} \frac{1}{\sqrt[3]{f_i}} \right) (y_i - y_{i-1})$$

Where;

L = No. of strata

L_i = Upper limit of i th strata

y_{i-1} = Lower limit of the class in which L_i lies

S_k = Cumulative total of $\sqrt[3]{f_i}$

$\sqrt[3]{f_i}$ = Cube root of the frequency of the i th class in which L_i lies

S_{i-1} = Cumulative cube root of the frequency of preceding class to the class to which L_i lies

y_i = Upper limit of the class in which L_i lies

$y_i - y_{i-1}$ = Width of the class in which L_i lies

Mobility Index (MI)

The mobility index was constructed based on the women’s responses whether she can go alone to the market, hospital, homes of friends/relatives, natal place and work in the distant places (Stash and Morgan, 1999 and Durrant and Sathar, 2000). If the respondents response “yes”, score 1 was assigned and otherwise zero. The aggregate index was

developed by summing all scores of the responses.

Entrepreneurial Behaviour Index (EBI)

Entrepreneurial behaviour index is an aggregate measure of eleven components. These components were measured with the help of different scales developed by Nandapurkar (1982) on achievement motivation, leadership ability, farm decision making, ability to co-ordinate farm activities, knowledge of farming, cosmopolitanness & innovativeness and Samantha (1977), Supe (1969) and Murali (1977) on management orientation, risk taking ability and self confidence, respectively. Utilization of available assistance was also measured with the help of scale developed considering available assistance in the study areas. The different scales were applied by giving different score values. To make it comparable, the scores were computed out of ten. The composite EBI was developed by aggregating all the scores of the above components.

Livelihood Security Index (LSI)

LSI is consisted of six livelihood outcomes and these were measured based on accessibility/availability, quality and status. To assess the different livelihood outcomes relevant indicators were selected from the standard menu indicators of CARE USA/Program Division/PHLS (Appendix - I). Each indicator was ranked on a five - point ordinal scale and these ranges were calibrated to the situation of the villages of Kangra district. Livelihood security Indices such as food, economic, health, education, habitat and social net-work security were computed by aggregating all the scores of the selected indicators.

3.4.3 Regression analysis

To identify key determinants of status and entrepreneurial behaviour of women, step - up regression analysis was employed using SPSS version 9.0. The status of women was studied under three categories, low, high (ranked based on cube root cumulative frequency method) and overall status for the pooled data. The functional form of the key determinants of women status was as under:

$$Y_1 = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + B_{10}X_{10} + B_{11}X_{11} + B_{12}X_{12} + B_{13}X_{13} + B_{14}X_{14} + B_{15}X_{15} + \mu_1$$

Where,

Y_1 = Status of women (quantified with the help of scale developed).

X_1 = Caste

1, if a woman belongs to upper caste

0, if she is from lower caste

X_2 = Age (in years)

X_3 = Marital status

1, if the woman is married and 0, otherwise

X_4 = Education level of women

0, if the woman was illiterate

1, if she had studied up to primary

2, if she had studied up to middle

3, if she had studied up to matric

4, if she had studied up to secondary

5, if she had studied up to Graduate & Postgraduate level

X_5 = Family size (No.)

X_6 = Type of family

1, if joint family

0, if Nuclear family

X_7 = Husband's education level

0, if the husband was illiterate

1, if husband had studied up to primary

2, if husband had studied up to middle

3, if husband had studied up to matric

4, if husband had studied up to secondary

5, if husband had studied up to Graduate & Postgraduate level

X_8 = Social participation

1, if a woman was member of any organization

0, if she was not member

X_9 = Inter-spouse age difference (in years)

X_{10} = Marriage duration (in yrs)

X_{11} = Occupation

1, if woman was employed

0, if she was not employed

X_{12} = Land ownership

1, if a woman was owner of land

0, if she had no land ownership

X_{13} = Women's income (Rs./annum)

X_{14} = Per capita income (Rs./annum)

X_{15} = Women's saving (Rs./annum)

B_0 = Intercept term

B_1, \dots, B_{15} = Regression coefficients

μ_1 = Random error term

The functional form of the key determinants of entrepreneurial behaviour of women was given as under;

$$Y_2 = B_0 + B_1 X_1 + B_2 X_2 + B_4 X_4 + B_8 X_8 + B_{16} X_{16} + B_{17} X_{17} + B_{18} X_{18} + B_{19} X_{19} + B_{20} X_{20} + B_{21} X_{21} + B_{22} X_{22} + B_{23} X_{23} + B_{24} X_{24} + \mu_2$$

Where,

Y_2 = Entrepreneurial behaviour index

X_1 = Caste

1, if a belongs to upper caste

0, if the woman is from lower caste

X_2 = Age (in yrs)

X_4 = Education level of women

0, if the woman was illiterate

1, if she had studied up to primary

2, if she had studied up to middle

3, if she had studied up to matric

4, if she had studied up to secondary

5, if she had studied up to Graduate & Postgraduate level

X_8 = Social participation

1, if a woman was member of any organization

0, if she was not member

X_{16} = Land holdings (in acres)

X_{17} = Experience in farming (in yrs)

X_{18} = Income from farming (Rs./annum)

X_{19} = Total household's income (Rs/annum)

X_{20} = Marketing facilities

3, if the market facility is available <5 km distance (local)

2, if the market facility is available <5 -20 km distance (near)

1, if the market facility is available >20 km (away)

X_{21} = Economic motivation (schedule developed by Supe, 1969)

X_{22} = Scientific orientation (schedule developed by Supe, 1969)

X_{23} = Training received (in days)

X_{24} = Information source utilization (schedule developed)

B_0 = Intercept term

B_1 B_{24} = Regression coefficients

μ_2 = Random error term

It is well known fact that R^2 normally increases with the increases in independent variables. To neutralize these effects, adjusted coefficient of multiple determination \bar{R}^2 was calculated as follows:

$$\bar{R}^2 = 1 - (1 - R^2) \left\{ \frac{(N - 1)}{(N - K)} \right\}$$

The significance of \bar{R}^2 was tested with the help of F test as under:

$$F = \frac{\bar{R}^2}{(1 - \bar{R}^2)} \frac{N - K}{K - 1}$$

Where,

\bar{R}^2 is the adjusted coefficient of multiple determination.

N is the sample size and

K is the total number of parameters estimated from the sample observations

The calculated regression coefficients were tested for significance by employing t test.

$$t_{cal} = \frac{\text{Regression-Coefficient}}{SE} \sim t(N - K)$$

Where,

t_{cal} = calculated t value

$t(N - K)$ = table t value for degree of freedom $(N - K)$ at given level of significance.

SE = Standard Error of regression

Wherever the stratification of data was needed, the cube root cumulative frequency

method was applied.

Pearson's correlation coefficients

To examine impact of women's income on household food security, Pearson's correlation coefficients were calculated as follow.

$$r = \frac{\sum x_i y_i}{\sqrt{\sum x_i^2} \sqrt{\sum y_i^2}}$$

Where, $x_i = (X_i - \bar{X})$

$y_i = (Y_i - \bar{Y})$

$\bar{X} = \sum X_i / N$

$\bar{Y} = \sum Y_i / N$

Where,

r is the correlation coefficient.

X_i and Y_i are the Calorie Adequacy Ratio (women calorie adequacy ratio, household calorie adequacy ratio and children's calorie adequacy ratio) and women's income, respectively. N is the number of observations derived from the sample.

The calculated correlation coefficients were tested for significance by employing t test. The value of t statistic is estimated from the sample correlation coefficient r , by the expression

$$t^* = \frac{r\sqrt{N-2}}{\sqrt{1-r^2}}$$

Where,

t^* = calculated t value

N = Number of observations

RESULTS

The presentation of findings in a systematic manner is imperative for arriving at the logical interpretations and suggesting policy options. Commensurate with the set objectives, results of the study have been presented under the following six broad sections in this chapter:

- 4.1 Description of the Study Area
- 4.2. Status of Women Based on Their Different Socio –Economic Parameters and key Determinants.
- 4.3 Components of Entrepreneurial Behaviour of Women and its Key Determinants.
- 4.4 Women Involvement in Various Activities and How They Contribute to the Improvement of Their Livelihoods, Family and Society.
- 4.5 Livelihood Security of Women and Coping up Strategies
- 4.6 Problems / Constraints Faced by Women Being House Managers as well as Entrepreneurs

4.1 Description of the Study Area

For conducting research in an area, it is necessary to understand and have an incisive insight in to prominent features like agro- climatic and geographical conditions, population matrix, infrastructure net-work and socio – economic pointers that affect the development, as socio-economic development of particular area basically depends on these factors. Specially, undulating topography and harsh climatic conditions in hilly areas are impediments to development and living condition of the people than that of plain areas. Therefore, some vital features that impact the living style of the inhabitants have been examined and described in the following sub – heads for both the study areas of present investigation:

4.1. 1 Description of the study districts

The present investigation was carried out in Kangra district of Himachal Pradesh and Nuwara Eliya district of Sri Lanka and, thus, it becomes imperative to examine the prominent aspects of these two study districts and the same are displayed in Table 4.1.

Kangra district is located between $30^{\circ} 40^1$ to $32^{\circ} 25^1$ North Latitude and $75^{\circ} 35^1$ to $77^{\circ} 05^1$ East Longitude. The elevation varies from 500 to as high as 5500 m above mean sea level. The annual rainfall ranges from 1100 to 3000mm and maximum and minimum temperature of the district is 33.1°C and 5.7°C , respectively. While, Nuwara Eliya district lies between $6^{\circ} 85^1$ to $7^{\circ} 35^1$ North Latitude and $80^{\circ} 45^1$ to $80^{\circ} 95^1$ East Longitude and elevation ranges from 600 to 3500 m above mean sea level. As per the meteorological data, annual rainfall varies from 1800mm to 3100mm. The maximum and minimum temperature of Nuwara Eliya district of Sri Lanka is 22.8°C and 9.4°C , respectively.

The climate of the both districts has a slight diversity due to their topographical variation and elevation of the area. Climatically, there are four broad seasons in Kangra viz; summer (March to June), rainy (July to September), autumn (October to November) and winter (December to February).

Table 4.1 Overview of the Study Districts/Areas

Description	Kangra (Himachal Pradesh)	Nuwara Eliya (Sri Lanka)
Location	Located between $30^{\circ} 40^1$ to $32^{\circ} 25^1$ North Latitude and $75^{\circ} 35^1$ to $77^{\circ} 05^1$ East Longitude	Located between $6^{\circ}.85^1$ to $7^{\circ} 35^1$ North Latitude and $80^{\circ} 45^1$ to $80^{\circ} 95^1$ East Longitude
Elevation (m amsl)	500-5500	600 -3500
Climate		
Annual Rainfall (mm)	1100-3000	1800-3100
Temperature ($^{\circ}\text{C}$)		
Maximum	33.1	22.8
Minimum	5.7	9.4

Area ('000 acres)	1417.53	430.0
Literacy Rate		
Male	87.5	89.8
Female	72.5	78.8
Population ('000)		
Total	1,339.03	703.6
Male	661.25	350.00
Female	677.77	353.60
Sex Ratio	1025	1010
Population Density (persons/ km ²)	233	347
Rural Population ('000)	1266.75 (94.6%)	654.35 (93.0%)
Households (No.)	256,490	169,540
Poor families (No.)	63,250 (21.87%)	48,658 (28.7%)

Note: Percentage of relevant figures was given in the parentheses.

Sources: Survey Department of Sri Lanka

Household income and expenditure survey, Department of Census & Statistics, Sri Lanka.

Department of Meteorology, Sri Lanka

Census of India, 2001.

Directorate of Land Records, HP.

Meteorological Centre, Palampur

The temperature of the lower valley of Kangra district also falls to freezing range during winter, while the places lying on high altitude receive moderate to heavy snow. However, temperature in Nuwara Eliya district does not fall to freezing range, but it is a bit cold during December to February.

At present, district of Kangra comprises of five sub – divisions, twelve tehsils and four sub – tehsils. The geographical area of Kangra district is 14, 17, 530 acres which accounts for nearly 10.31 percent of total area of the state. Nuwara Eliya district consists of five divisions and covers an area of 4, 30, 000 acres which is almost one - third of the area of Kangra district. Total population in district Kangra stood at 13, 39, 030 comprising of 6, 61, 250 males and 6, 77, 770

females showing 1025 sex ratio (Census & Statistics, 2001). Population in Nuwara Eliya district was five times less than the population in Kangra district. The sex ratio of Kangra and Nuwara Eliya districts is greater than HP (970) and Sri Lanka (1008). Furthermore, according to 2001 census female as well as male literacy rate in both study districts also exceeds the HP (68 and 86 per cent, respectively) and Sri Lanka (89.7 and 92.6 per cent, respectively). However, the literacy gap between female and male is higher in Kangra as compared to Nuwara Eliya district. The population density is, however, higher in Nuwara Eliya (341 persons /km²) in comparison to Kangra district (233 persons / km²). However, population density of HP is 109 in comparison to 290 in Sri Lanka (Census & Statistics, 2001). The proportion of rural population is more or less similar in both study districts. As per 2001 census, the percentage of poor families in Kangra and Nuwara Eliya districts were 21.87 and 28.70 per cent, respectively, though the criteria of selecting poor families was not the same for both study districts as these fall under different socio-political and economic environment (Appendix - II).

4.1.2 Description of sample villages

Three villages (Tohri Da Behru, Mahlpat and Rajehr) from Kangra district and same number of villages (Avenugala, Gasnagaldeniya and Yatimadura) from Nuwara Eliya district were selected to reflect different resource endowments, livelihood scenarios and policy environment relating to various developmental schemes. A comparison of the salient characteristics of the sample villages with respect to their geographical, demographical and infrastructural aspects has been described in this section (Table 4.2). It can be visualized from the table that village Rajehr in Kangra district has a relatively larger geographical area (106.21 acres) and also large number of households (162) in comparison to Tohri Da Behru (76.56 acres) and Mahlpat (83.98 acres). Out of sampled villages in Nuwara Eliya district, Yatimadura has a larger geographical area (93.86 acres) as compared to other two villages, however, total number of households were high (144) in village Avenugala. According to 2006-07 records of Panchayat and Gramasevaka office, the total population was 193, 430 and 789 in the sampled villages Tohri Da Behru, Mahlpat and Rajehr in Kangra district, respectively and 584, 183 and 336 in Avenugala, Gasnagaldeniya and

Yatimadura sampled villages of Nuwara Eliya district, respectively. It is clear from the table that, male population in sampled villages of Kangra district was greater as compared to female population but it was found reverse in case of Nuwara Eliya district. However, the sex ratio was recorded the highest in Tohri Da Behru (1098) of Kangra and Gasnagaldeniya (1128) in Nuwara Eliya. A perusal of literacy level shows that males were in better position in terms of literacy than females in all the sampled villages. Further, it was found that sampled villages of Kangra district had higher incidence of gender disparity in terms of literacy as compared to Nuwara Eliya district.

The level of basic infrastructural facilities related to water supply, electricity, transport, communication, health, education, finance and other welfare measures and accessibility of the people to them are essential conditions for development. Main sources of drinking water in Kangra district were tap, well and other sources like tanks, khul, etc., whereas in Nuwara Eliya, tap, well and khul were the main sources of drinking water. It was found that all the villages in both districts are electrified. As far as transport facilities are concerned, Rajehr, Gasnagaldeniya and Yatimadura were in better position as compared to other sampled villages. Telegraph, telephone and post offices are also important public utilities which are basic components in the communication system. All the sample villages had this facility except Tohri Da Behru.

The facilities for education and medical care are other essential parts of infrastructure. When we are looking across the availability of primary school facility, the entire sample villages had primary school facilities however secondary schools facilities were available only in Yatimadura and Gasnagaldeniya. So far as health and medical facilities are concerned, it was found that all the sampled villages in Kangra had health centers whereas in

Table 4.2 General Information and Net-Work Facilities of Sample Villages

Details	Kangra			Nuwara Eliya		
	Tohri Da Behru	Mahalpat	Rajehr	Avenugala	Gasnagaldeniya	Yatimadura
General Information						
Geographical area (acres)	76.56	83.98	106.21	66.69	49.40	93.86
Household (No.)	48	70	162	144	35	70
Poor families (%)	13.5	16	32	27	15	8

Population (No.)						
Total	193	430	789	584	183	336
Male	92	232	407	280	86	158
Female	101	200	382	304	97	178
Sex ratio	1098	862	939	1086	1128	1126
Literacy level (%)						
Total	74	87	82	98	97	99
Male	90	97	91	99	99	99
Female	80	80	74	98	96	99
Education disparity	0.89	0.82	0.81	0.99	0.97	1.0

Infrastructural Facilities

Drinking water (T=tap water, W= well water, K=khul, O= other sources)	T, O, W	T,O	T, O, W	T, W	T, W,K	T,W, K
Power supply (EA=electricity for agricultural purposes)	EA	EA	EA	EA	EA	EA
Transport (BS=bus stop)	BS	BS	BS	BS	BS	BS
Roads (PR=Pucca road, KR=Katcha road, FP=foot path)	KR, FP	KR, FP	PR, FP	KR, FP	PR, FP	PR, FP
Post office (PO=post office)	-(5 km)	PO	PO	PO	PO	PO
Education(P=primary, M=middle, S=secondary, T=technical colleges)	P,M	P	P,M	P	P,M,S	P,M,S,T
Medical facilities (H=hospital)	-(5 km)	-(5 km)	-(5 km)	-(5 km)	-(5 km)	-(5 km)
Health centre (PHC)	PHC	PHC	PHC	-	-	-
Bank (B)	-	-	B	-	-	-
Veterinary hospital (V)	-	-	V	-	-	-
Market	-	-	-	-	-	-
Co-operatives (C)	-	C	C	C	C	C
Women organization (W)	W	W	W	-	-	-
Aanganwadi/Balwadi (A)	A	A	A	-	-	-

Note: Amenities available (If not available within the village a dash (-) has been shown in the column and next to it in brackets, the distance in broad ranges viz. 5kms, 5-10 kms of the nearest place where the facility is available has been given.

Sources: Records of Panchayat office/Gramasevaka office
Census and Statistics Survey, 2001
Field Survey, 2006-07

Nuvara Eliya such facility was not available. The infrastructural facilities related to banks and credits indicate that bank facility is available only in Rajehr. And veterinary hospital facilities were also available only in this village. Easy accessibility to market facility is very important for the day to day requirement of the people. However, this facility was not available in all the sampled households of both the districts. Co-operative societies are functioning

in all the villages except in Tohri Da Behru. In case of children's welfare centers and women organizations, in all the sample villages of Nuwara Eliya district, neither children's welfare centers nor women organizations are available however pre-school facility is available in all the sample villages.

4.1.3 Socio – economic profile of the sample households

Socio-economic measures at the household level are particularly helpful in examining the status of women, inequalities of wealth and other assets distribution which have significant influence on overall levels of living standard of rural women, because the household's access to property and power represents the social inequalities in the rural setting. Moreover, the differences in social, demographic composition as well as economic entitlement have various implications on women's status at the household level and an insight of general socio-economic features of households enables the understanding of problems and constraints faced by women. It becomes, therefore, quite imperative to examine the socio-economic conditions of sample households. For this, the ensuing section throws reasonable light on the said pointers of sample households in Kangra and Nuwara Eliya districts.

4.1.3.1 Demographic matrix of sample households

Distribution of population, sex composition, family structure, marital status, and educational status were compared for the sample households in both study districts as under:

4.1.3.1.1 Population distribution

The age wise distribution of the family is an important determinant since lesser the proportion of dependents (children below 19 years and old persons above 60 years of age) better will be the economic position of a family. The population age structure of the sample households that has been presented in Table 4.3, revealed that about 34 and 32 per cent of the sample population in Kangra and Nuwara Eliya districts, respectively belonged to the age group of below 19 years. People in the age group of 20-59 years, the real earning group of the society which is known as active workforce constituted about 58 per

Table 4.3 Age Wise Population Distribution

Age group (years)	Kangra						Nuwara Eliya					
	Female		Male		Overall		Female		Male		Overall	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0 – 4	24	12	26	12	50	12	12	7	13	8	25	8
5 – 14	23	11	33	16	56	14	24	14	25	16	49	15
15 – 19	16	8	18	9	34	8	16	8	14	10	30	9
20 – 59	121	60	118	56	239	58	98	58	90	57	188	58
60& above	19	9	15	7	34	8	20	13	13	9	33	10
Total	203	100	210	100	413	100	168	100	157	100	325	100

cent of sample population in both study districts. And the population in the age group above 60 years constituted 8 and 10 per cent of sample population in Kangra and Nuwara Eliya districts, respectively. It was further observed that the proportion of working force was relatively higher among female population in Kangra district than the male population but corresponding proportions were remained almost same in case of Nuwara Eliya.

4.1.3.1.2 Sex composition

The sex composition of the family members was worked out and presented in Table 4.4. The proportion of male population in the age group of below 19 years in the sample households of Kangra as well as of Nuwara Eliya district was relatively higher than females. It can be further visualized that the proportion of females in the age group of above 60 years was very high, indicating thereby higher dependency as well as life expectancy of females in the study areas. However, on the overall average basis, the proportion of male and female population was more or less the same in Kangra district, whereas in Nuwara Eliya district, the proportion of female population was relatively higher than that of male counterparts.

Table 4.4 Sex Composition of the Household Members by Age

Age group (years)	(Per cent)			
	Kangra		Nuwara Eliya	
	Female	Male	Female	Male
0 – 4	48.00	52.00	48.00	52.00

5 – 14	41.07	58.93	48.98	51.02
15 – 19	47.06	52.94	46.67	53.33
20 – 59	50.63	49.37	52.13	47.87
60 & Above	55.88	44.12	60.61	39.39
Average	49.15	50.85	51.28	48.72

4.1.3.1.3 Structure of sample households

The details on family size, gender of the head and type of the family show that a large proportion of households were headed by males and only one - sixth of females in both study districts were reported to be head of the family (Table 4.5). A female acts as a head of the family in case of death of her male counterpart, divorce, separation or the absence of male head for extended period due to his job away from home. Another reason may be because of no mature son residing with female head of the family. Generally, the female headed households had different characteristics than male headed households and these differences affect household's total available resources, the income generating activities, expenditure pattern and decision making power in the family, besides insecurity and instability factors. All male headed sample households tended to be larger on an average than female headed households. Also, female headed households had a tendency to constitute of small households consisting of 5 and 4 members in sample households of Kangra and Nuwara Eliya district, respectively against 5.5 and 4.3 members, respectively in male headed households. It is also noticed that there was a difference in the estimated mean household size between samples of two study districts. The mean household size of the sample households in Kangra district (5.5) was larger than the household size in Nuwara Eliya district (4.3). The household size of majority (72 per cent) of the sample households in Nuwara Eliya ranged between 1 to 4 persons, while the household size of the majority of the sample households in Kangra districts, (51 per cent) varied between 5 - 8 persons. It was also observed that majority (88 per cent) of the sample households in Nuwara Eliya district were nuclear families, whereas in case of Kangra district, almost half of the households were having joint family system.

Table 4.5 Household Size and Gender of Head of Household

Characteristics	Kangra		Nuwara Eliya	
	No.	%	No.	%
Gender of head of the household				
Male headed	63	84	62	83
Female headed	12	16	13	17
Household size				
1 -4 persons	28	37	53	71
5 - 8 persons	38	51	21	28
9 – 11 persons	9	12	1	1
Mean household size				
Male headed	5.5		4.3	
Female headed	5.0		4.0	
Overall	5.5		4.3	
Type of family				
Joint	38	51	9	12
Nuclear	37	49	66	88
Number of observations	75	100	75	100

4.1.3.1.4 Marital status

The marital status indicates whether a person is married, marriageable, unmarried or widow or widower or divorced or separated (husband and wife neither live together nor divorced) and this is one of the important factors that determines the status of women. Table 4.6 speaks of marital status of household members. About 76 per cent (73 per cent of females and 79 per cent of males) of the population in sample households of Kangra district was married in comparison to

nearly 71 per cent (67 per cent of females and 75 per cent of males) in Nuwara Eliya district. It can be further observed that 12.5 per cent of females and 20 per cent of males in sample of Kangra district were unmarried though they were in marriageable age. The corresponding figures for the sample of Nuwara Eliya district were 17 and 22.5 per cent, respectively. Besides, the incidence of divorce and separation was less prevalent among the women in both study areas, the incidence of widow was also considerably higher among females and the corresponding figures were negligible for males.

Table 4.6 Marital Status of Household Members

(Per cent)

Marital status	Kangra			Nuwara Eliya		
	Female	Male	Overall	Female	Male	Overall
Unmarried	12.50	19.70	15.94	17.09	22.55	19.63
Married	72.93	78.79	75.72	66.67	75.49	70.78
Separated	0.69	0.00	0.36	0.00	0.00	0.00
Divorced	0.69	0.00	0.36	2.56	0.00	1.37
Widowed	13.19	1.51	7.62	13.68	1.96	8.22
Total	100	100	100	100	100	100

Note: The minimum marriageable age of the girls and boys was considered as above 18 and 20 years, respectively.

4.1.3.1.5 Age at marriage

Age at marriage is also one of the important determinants impacting education, fertility rate and decision making ability of a person in general and a woman in particular. The distribution of population of sample households according to age at marriage has been presented in Table 4.7. Regarding the age of marriage, it was found that about 27 and 9 per cent of females in Kangra and Nuwara Eliya, respectively were married before completing 18 years of age. Majority of females (65.26 per cent) and males (54.43 per cent) in Kangra district and majority of females in Nuwara Eliya district were married between 18 and 25 years. However, marriageable age of majority of males (37.50 per cent) in Nuwara Eliya district varied between 26 - 30 years.

Table 4.7 Distribution of Population According to Age at Marriage

(Per cent)

Age group (years)	Kangra			Nuwara Eliya		
	Female	Male	Overall	Female	Male	Overall
Below 18	27.37	0.00	14.94	8.75	0.00	4.38
18-25	65.26	54.43	60.34	61.25	28.75	45.00
26- 30	7.37	43.04	23.57	17.50	37.50	27.50
30 -35	0.00	2.53	1.15	7.50	18.75	13.12
Above 35	0.00	0.00	0.00	5.00	15.00	10.00
Total	100	100	100	100	100	100

It is interesting to observe that about 5 and 15 per cent of the females and males in Nuwara Eliya district, respectively were married at the age of above 35 years. The average age at marriage was 20 years for females and 25 for males in Kangra, whereas in case of Nuwara Eliya district, the corresponding figures were 25 and 30 years, respectively.

4.1.3.1.6 Education status

Education is the process that liberates the mind of human beings from all forms of darkness, ignorance and sharpens it for logical thinking.

Educational level indicates the quality of human resources and helps to determine the extent of knowledge, managerial skill, ability to understand particular problem and the decision making ability of the people.

Furthermore, education is regarded as the corner – state for socio-economic development of the society. The educational level of the family is an important indicator of status of women as well as a social resource and a means of reducing inequality in the society. Keeping above facts in view,

the status of sample population with regards to the level of education was studied (Table 4.8).

The analysis of general educational level among the adult family members of the sample households revealed that the female illiteracy rate was quite high in the sample population of Kangra (16.33 per cent) as compared to Nuwara Eliya district (1.71 per cent). However, among males, 2.29 per cent in Kangra and about 1 per cent in Nuwara Eliya were illiterates. It can be further observed that percentage difference between female and male illiteracy rate was considerably higher in sample population of Kangra district. Another important fact was that the proportion of females (nearly 62 per cent) in Kangra district who are educated up to middle level and above was also lower in comparison to males (90.84 per cent). However, the corresponding figures for Nuwara Eliya district were 88 and 91.33 per cent, respectively.

Table 4.8 Educational Level of Adult Household Members

Educational level	(Per cent)					
	Kangra			Nuwara Eliya		
	Female	Male	Overall	Female	Male	Overall
Illiterate	16.33	2.29	9.71	1.71	0.96	1.36
Primary (1-5)	21.77	6.87	14.75	10.26	7.69	9.05
Middle (6-8)	17.01	20.61	18.71	8.55	14.42	11.31
Metric (9-10)	17.69	38.93	27.70	47.01	49.04	47.96
Secondary (11-12)	17.01	19.08	17.99	29.06	24.04	26.70
Graduate	8.16	10.69	9.34	3.41	2.88	3.17
Postgraduate	2.03	1.53	1.80	0.00	0.97	0.45
Total	100	100	100	100	100	100

In contrast to findings of Kangra district, it was found that proportion of females studied up to secondary level was relatively higher in sample population of Nuwara Eliya district. It was also worth noting that

percentage of females (2.04 per cent) who were having higher education (postgraduate & above) was slightly higher against male population (1.53 per cent) in the sample of Kangra district.

The education disparity index measures the disparity in the literacy rate between males and females as well as study regions. The disparity index was worked out for the present investigation and presented in Table 4.9. The analysis of disparity index score revealed that it was 0.86 in Kangra as compared to 0.99 in Nuwara Eliya district, indicating wide disparity in terms of literacy between males and females in the sample of Kangra district. It can also be observed that there was a disparity in education level between two study districts.

Table 4.9 Education Disparity Index

Education disparity	Kangra	Nuwara Eliya
Between male & female	0.86	0.99
Between Kangra & Nuwara Eliya	0.92	

4.1.3.2 Occupational pattern

A critical analysis of pattern of occupation helps to understand the economic position of the family. So, the pattern of occupation has been discussed in the Table 4.10. Farming was found to be the major source of livelihood and occupation for majority of the sample population, accounting for around 29 and 27 per cent in sample of Kangra and Nuwara Eliya districts, respectively. More than half of women in the sample households were house mangers and also helping in agricultural related activities. Government service was the main occupation of only 2 per cent of females and 8.54 per cent of males in the sample of Kangra district whereas around 4 per cent of females and 8 per cent of males in Nuwara Eliya district were in government service. About 2 per cent of women against 17.68 per cent of males in sample of Kangra district were engaged as agricultural labourer to earn their livelihoods. Business was reported to be another important sector of employment particularly for males that accounts for 1.4 per cent of females and 4.27 per cent of males in the sample of Kangra district. The corresponding figures for females and males in Nuwara Eliya district were 2.41 and 10.71 per cent, respectively. Defense service is another important sector for earning livelihood for 7.32 per cent of males in Kangra

and 5.32 per cent of males in Nuwara Eliya. Interestingly, 1.61 per cent of females in Nuwara Eliya were serving in the military service and none of the women was found in this profession from Kangra district. It is worth mentioning that percentage of women employed in private sector as well as government sector, was relatively less in the sample of Kangra as compared to Nuwara Eliya district. Job opportunities in government sector as well as private sector were much less for females in comparison to males in both the study areas that resulted in to the higher per cent of unemployed women in Kangra (12.38 per cent) and Nuwara Eliya districts (11.33 per cent).

Table 4.10 Occupation of Household Members by Sex

(Per cent)

Occupation	Kangra			Nuwara Eliya		
	Female	Male	Overall	Female	Male	Overall
Farming	25.71	32.93	28.88	25.90	27.68	26.62
Agriculture /daily wage labourer	1.90	17.68	8.82	0.00	17.86	7.19
Defense services	0.00	7.32	3.21	1.61	3.57	1.44
Private sector	2.86	18.90	9.89	6.02	21.43	12.23
House managers	53.81	0.00	30.21	50.20	0.00	30.94
Unemployed	12.38	9.76	11.23	9.04	7.14	8.27
Government services	1.90	8.54	4.81	4.22	8.04	5.76
Business	1.44	4.27	2.67	2.41	10.71	5.76
Service abroad	0.00	0.60	0.28	0.60	3.57	1.79
Total	100.00	100.00	100.00	100.00	100.00	100.00

4.1.3.3 Land holding pattern

The size of land holding possessed by the households determines their status and economic position, since it provides regular employment as well as income to the rural family. The operation management and work participation of labour varied according to the size of the holding. Therefore, the present study examined the landholding pattern of sample households that has been depicted in Table 4.11. The average land holding size varied from 0.5 acres to 4 acres in both study districts. Most of the sample households (more than 50 per cent) in both study

areas owned land below 0.5 acres. The land holding ranging from 0.6 -1.5 acres was owned by 25 and 37 per cent of the sample households in Kangra and Nuwara Eliya districts, respectively. Land ownership pattern explains the property rights of the individual in general and women in particular. Moreover, property right has been recognized as the most fundamental pre-requisite to women's empowerment. One – fourth females in Kangra and two – fifth females in Nuwara Eliya were having land in their name which speaks of implementation of women empowerment policy in both the study areas.

Table 4.11 Land Holdings and Ownership Pattern

Category	Kangra		Nuwara Eliya	
	No.	%	No.	%
Landholdings (acres)				
0.1 - 0.5	43	58	38	51
0.6-1.5	19	25	28	37
1.6 - 4	13	17	9	12
Overall	75	100	75	100
Land ownership by sex				
Female	18 (19.07)	24	31(29.09)	41
Male	57 (40.16)	76	44 (39.70)	59
Overall	75 (59.23)	100	75 (68.79)	100

Note: Land entitlement (in acres) is given in parentheses

4.1.3.4 Income and expenditure pattern on the sample households

The difference in income generating activities between men and women determines, in part, the levels and sources of income of the household. Total income portfolio is comprised of farm income, as well as off farm income and non - factor income such as pension, government transfers, remittances, etc. The off - farm income mainly depends on the prevailing structure of wage rate and the types of occupation. Table 4.12 summarizes monthly mean income and expenditure pattern of sample households. Main source of income on the sample households was off - farm income that contributed around 81 per cent to the total income of the sample household of Kangra and 77 per cent to that of Nuwara Eliya district. The contribution of non - factor income was negligible in both the study areas. Farming which is generally of subsistence type, added 19 to 22 per cent to the total household income in Kangra and Nuwara Eliya district. A poor widow in Kangra gets Rs.200 per month as pension and a poor family gets food

items (15 kg of wheat and 20 kg of rice/month) at free of cost or at cheaper rate as compared to market rate under the IRDP programme. While the poor people in Nuwara Eliya gets ration (rice, sugar, kerosene oil, soap, spices etc.) for some fixed amount under the Samurdhi programme. The older persons get pension amounting to Rs.100/person/month. It was further observed that mean total household income of the sample in Kangra district was two times larger than that of Nuwara Eliya district. Mean monthly per capita income was considerably higher for sample households of Kangra district (Rs.1920 /head) than that of Nuwara Eliya district (Rs.1127/head) and the same was found true for per capita food and non-food expenditure, which are generally considered more reliable indicators of permanent income. It also found that the purchasing power of the people in Nuwara Eliya district was higher than that of Kangra, mainly due to low prices of commodities in Nuwara Eliya district as compared to Kangra (Appendix -III).

Table 4.12 Household Income / per Capita Income/Expenditure (Rs. / Month)

Income / expenditure	Kangra	Nuwara Eliya
Off farm Income	8293 (81.00)	4164 (77.50)
Non factor income	52 (0.005)	43 (0.008)
Farming	1871 (18.99)	1164 (22.48)
Total income	10215	5371
Average per capita income (Rs./ person)	1921	1127
Average per capita expenditure on food items (Rs. / person)	590	511
Average per capita expenditure on non - food items (Rs./ person)	390	255

Note: Values relating to income and expenditure have been rounded off by considering Rs.0.50 and above to next integer value. Sri Lankan currency was converted in to Indian currency based on average annual currency conversion rate for the year 2006-07. Percentages of the relevant figures were given in parentheses

The source of income as well as income level is an important determinant of a household's vulnerability to economic shocks. Poor families are generally more vulnerable

to economic shocks and they are over represented in the lowest income groups. Table 4.13 explains the distribution of households on the basis of different income levels. More than one - third of sample households in Kangra district were found under low income group whereas majority of them (41 per cent) belonged to medium income group. In contrast, most of the households (61 per cent) in Nuwara Eliya were found in the low income group followed by medium income group (31 per cent) and only few households (8 per cent) in the high income group.

Table 4.13 Categorization of Household According to Per Capita Income

Income group	Kangra		Nuwara Eliya	
	No.	%	No.	%
Low (Below Rs.1150)	26	35	46	61
Medium (Rs.1151-Rs.2725)	31	41	23	31
High (Above Rs.2725)	18	24	6	8
Total	75	100	75	100

Note: Categorization of income groups was done based on per capita income of sample household of Kangra district.

Table 4.14 depicts the breakup of mean monthly non - food expenditure of the sample households and results indicated that health and medical expenses was the major non - food expenditure in the sample households of Kangra district. In case of sample households of Nuwara Eliya district, the main non - food expenditure was allocated on education (especially for tuition fees for additional classes). It is interesting to note that the sample households of Nuwara Eliya district spent considerably larger proportion from their budget on education than in Kangra district. Allocation for other non - food expenditures such as telephone charges, clothing and expenses for social ceremonies remained more or less similar for both study districts. However, sample households of Kangra district allocated larger amount for miscellaneous expenses (like expenses for ornaments, cosmetics etc.), whereas in Nuwara Eliya it was spent more on electricity, fuel charges, etc.

Table 4.14 Average Monthly Non-Food Expenditure (Rs./ Household)

Items	Kangra		Nuwara Eliya	
	Expenditure	%	Expenditure	%
Telephone charges	305	12.29	153	13.08
Electricity / fuel charges	223	8.98	145	12.44
Water charges	21	0.86	4	0.33
Transport charges	348	14.00	155	13.29
Health & medical expenses	376	15.13	153	13.14
Education fees	371	14.96	269	23.08
Clothing expenses	264	10.63	122	10.46
Miscellaneous expenses	328	13.20	15	1.30
Social ceremonies	247	9.95	150	12.88
Total	2483	100	1168	100

Higher mean expenditure of the household does not indicate high per capita expenditure as per capita expenditure mainly varies with the size of the household. Moreover, it may not give a clearer picture of vulnerability of the households. Therefore, in the present study per capita expenditure was compared under three categories namely low, medium and high (Table 4.15). Majority of the sample households in Kangra district belonged to medium income group (50.67 per cent), whereas in Nuwara Eliya district, majority fell in the low expenditure group (44 per cent). Further, it was found that the proportion of households that belonged to high income group was almost the same in both the study areas.

Table 4.15 Categorization of Household Based on Per Capita Expenditure

Expenditure groups	Kangra		Nuwara Eliya	
	No.	%	No.	%
Low (Below Rs.740)	22	29.33	33	44.00

Medium (Rs.741-Rs.1136)	38	50.67	28	37.33
High (Above Rs.1136)	15	20.00	14	18.67
Total	75	100.00	75	100.00

The Table 4.16 compares the expenditure pattern of households according to their income levels. Household expenditure pattern generally varies with the level of income. The implications of Engle's law of consumption are found true in both the study areas as the highest proportion of total expenditure on food items was found in low income group and the same was the lowest in case of high income group. Interestingly, the reverse was found true in case of expenditure on non – food items, indicating thereby the share of food expenditure from the household budget decreases with the increase level of income while share of non - food expenditure increases.

Table 4.16 Expenditure Pattern (per capita) of Different Income Groups

Income group	(Rs/month)			
	Kangra		Nuwara Eliya	
	Food expenditure	Non-food expenditure	Food expenditure	Non-food expenditure
Low	625.11 (75.61)	201.62 (24.39)	440.62 (78.85)	118.17 (21.15)
Medium	530.00 (60.59)	344.68 (39.41)	517.88 (63.60)	296.40 (36.40)
High	615.57 (49.67)	623.65 (50.33)	574.51 (62.11)	350.43 (37.89)
Mean	590.22 (60.21)	389.98 (39.79)	511.00 (60.02)	255.00 (39.98)

Note: Figures in parentheses indicate per cent of total expenditure.

4.1.3.5 Housing structure

House is a place where the entire family takes shelter after doing hard work for earning livelihood at night. And as such, the study of type of house is imperative to examine the status of family as it is the place which protects the family members in case of some natural calamities like rain, earth quake, cold, heat etc. For these reasons, housing structure of the

sample households was examined in both study areas (Table 4.17). It was found that about 19 per

Table 4.17 Housing Structure of Sampled Households

Type of house	Kangra		Nuwara Eliya	
	Number of households	%	Number of households	%
Pucca	14	18.67	18	24.00
Semi-Pucca	19	25.33	23	30.67
Kuchha	42	56.00	34	45.33
Total	75	100.00	75	100.00

cent of total houses in Kangra and 24 per cent in Nuwara Eliya were pucca which were made of concrete (cement, tiles, stone and bricks). Whereas about 45 per cent of houses in Kangra and 56 per cent in Nuwara Eliya were kuchha in nature that were made of mud bricks and rest of houses were of semi – pacca type.

4.1.3.6 Facilities available in the houses of sample households

The basic amenities such as access to safe water, sanitation, availability of electricity and type of energy used for cooking, etc are the important pointers that considerably impact the health of the family and its socio - economic position. In order to know the extent of disparity in case of basic amenities across the sample households, availability of these amenities were studied and presented in Table 4.18. Drinking water supply is one of the basic needs of the people. It was observed that 68 per cent of the sample households in Kangra district were having facility of drinking water through common tap which is generally shared by about 5 – 6 households. Whereas, rest of the households were having their own water tap in the house itself for their domestic purposes. In case of Nuwara Eliya district, it was observed that majority of the sample households (84 per cent) were having tap water facility in their own homes. All most all the sample households in Kangra district were electrified. All the sample villages in Nuwara Eliya have been electrified and all the households except few (11 per cent) have got connection. Regarding bathroom facility, which is generally considered important for maintaining the

privacy of female members of the family only 12 per cent household in Kangra district had bathroom in side the house as compared to 21 per cent in Nuwara Eliya district. It was also

Table 4.18 Facilities Available in Houses of Sample Households

Sources	Kangra		Nuwara Eliya	
	Number of household	%	Number of household	%
Drinking water				
Own pipe line	24	32.00	63	84.00
Common pipe line/well	51	68.00	12	16.00
Availability of electricity	75	100.00	67	89.33
Bathroom facility	9	12.00	16	21.33
Latrine facility				
Sanitary (water sealed)	15	20.00	19	25.33
Pit latrine	6	8.00	34	45.33
Unsanitary (Temporary)	38	50.67	17	22.67
Non/open field	16	21.33	5	6.67
Energy for cooking				
Gas	7	9.33	1	1.34
Gas + fire wood	36	48.00	16	21.33
Fire wood	32	42.67	58	77.33
Road facility				
Foot path	67	89.33	47	62.67
Cemented/stone	8	10.67	28	37.33

observed that a bit more than one – fourth of the total sample of Kangra district possessed pit or sanitary latrines. Whereas majority of the sample households (71 per cent) in Nuwara Eliya district, had such types of latrine facilities. Use of an unsanitary or open latrine was

substantially higher in sample households of Kangra (72 per cent) as compared to Nuwara Eliya district (27 per cent). With regards to source of energy for cooking, around 9 per cent of sample households in Kangra used only gas as compared 1 per cent in Nuwara Eliya district. Gas and firewood was the main source of energy for majority of households (48 per cent) in Kangra. In case of Nuwara Eliya district, only around 21 per cent of households used gas with fire wood as the energy for cooking. The main source of energy for 43 per cent of the sample households in Kangra was firewood, against about 77 per cent in Nuwara Eliya.

4.1.3.7 Consumption pattern of the sample households

The consumption pattern of the people is also an important indicator deciding their health status and economic position. Besides, consumption pattern is one of the main characteristics of local cultures: it reflects local food availability, purchasing power of household, people’s knowledge and perceptions. And also the consumption pattern varies across the regions, countries and different income groups.

4.1.3.7.1 Dietary diversity of sample households

Table 4.19 displays the mean number of different food groups consumed per day (dietary diversity) over a period of 24 hours (Appendix -IV). Cereal, fat & oil and sugar were the most common food groups consumed in both the study districts, with a median value of three times per day. Roots and tubers, particularly pulses were also found to be commonly consumed by the people of both the study areas. The frequency of consumption of milk and milk products was higher on the sample households of Kangra district. Whereas, sample households of Nuwara Eliya district consumed fish and vegetable more frequently than that of Kangra district. It can be visualized from the table that the frequency of consumption, especially protein & vitamin rich food items like meat, eggs and fruits was very low in both study districts.

Table 4.19 Daily Frequency of Food Intake

Food groups	Kangra	Nuwara Eliya
--------------------	---------------	---------------------

	Average	SD	Average	SD
Cereals	2.99	0.12	2.96	0.20
Roots and tubers	1.46	0.64	1.21	0.57
Pulses	1.11	0.36	1.04	0.72
Meat	0.01	0.00	0.10	0.00
Fish	0.00	0.00	1.51	0.75
Eggs	0.01	0.00	0.13	0.00
Milk/milk products	3.24	1.17	1.02	0.13
Vegetables	1.55	0.56	2.18	0.82
Fruits	0.01	0.00	0.13	0.33
Fats and oils	3.00	0.00	2.94	0.23
Sugar	2.88	0.85	2.57	0.55

Note: SD denotes Standard Deviation

4.1.3.7.2 Calorie intake and calorie adequacy ratio

Adequate nutrition enhances the physical health of the people and thereby improves their labour productivity and efficiency. Generally, there is a gender inequality in terms of intrahousehold calorie allocation and several studies have considered (Rathnayake, I.M. and Weerahewa, J. 2002 & 2003, Thomas, 1990a & 1990b) that females are the most disadvantageous group. Moreover, the calorie requirement of individual depends upon several factors like age, body composition and level of physical activity on daily basis, sex, stage of the life cycle, etc (Appendix – V & VI). The mean calorie adequacy ratio as per the recommended requirements of individuals (males and females), has been shown in the Table 4.20. The energy requirements are given separately for various age groups like adults and children. The mean calorie intake of female (1445 Kcal/day) as well as male (1851 Kcal/day) in Kangra district was relatively lower than that of Nuwara Eliya district (1553 vs. 1950 Kcal/day). It can be visualized

that the overall average calorie adequacy ratio of females in case of Kangra district was 0.89 as compared to 0.94 in Nuwara Eliya district. Table further revealed that overall calorie adequacy ratio of males was greater than females. Calorie adequacy ratio of males in the age group of above 20 years was one or above which implies that the said group of males gets energy as per the recommended requirement. It is important to note that both male and female children in both study districts were the most disadvantageous group in terms of calorie allocation. Further, in comparison to male counterparts, female children as well as adults suffered more in terms of energy allocation, indicating thereby inequality in the calorie allocation and it was more skewed towards males in both the study areas.

Table 4.20 Age Wise Mean Calorie Intake and Calorie Adequacy Ratio (CAR)

Age group (yrs)	Kangra				Nuwara Eliya			
	Mean daily intake	Mean CAR	Mean daily intake	Mean CAR	Mean daily intake	Mean CAR	Mean daily intake	Mean CAR
	Female		Male		Female		Male	
1-3	516	0.95	245	0.96	705	0.75	950	0.92
4-6	977	0.75	1168	0.87	948	0.81	1154	0.89
7-9	1238	0.78	1315	0.83	1367	0.88	1196	0.86
10-12	1553	0.78	1526	0.72	1710	0.88	1499	0.87
13-15	1775	0.82	1978	0.93	1870	0.89	2073	0.97
16-19	1686	0.85	2267	0.99	1866	0.90	2119	0.92
20-39	1807	0.95	2635	1.05	2055	1.07	2942	1.16
40-49	1789	0.98	2528	1.05	1888	1.05	2501	1.04
50-59	1757	1.03	2362	1.06	1671	0.98	2676	1.20
60-69	1703	1.12	2260	1.15	1844	1.22	2810	1.39
70 & above	1096	0.85	2083	1.26	1163	0.87	2245	1.27
Average	1445	0.89	1851	0.98	1553	0.94	1950	1.04

4.1.3.7.3 Nutritional status of sample households

Nutritional status in terms of energy was unpacked into five categories (Table 4.21). The first category includes those individuals (around 1 per cent) who meet their energy up to 25 per cent of total energy requirement. The second category includes those individuals who could meet their energy requirement ranging from 25.1 to 50 per cent and this category

comprised of around 8 per cent females and 9 per cent males in Kangra district. In Nuwara Eliya district, the corresponding figures were 8 per cent for females and 5 per cent for males. It is amply clear from the table that the proportion of females in both the study areas who belonged to third and fourth category was relatively higher than that of males. Overall, it can be concluded from the findings that around 22 per cent females and 45 per cent males in study villages of Kangra district are secured on energy front and the proportion of females (41 per cent) and males (47 per cent) was higher in sample households of Nuwara Eliya districts.

Table 4.21 Categorization of Nutritional Status

Categories	(Per cent)			
	Kangra		Nuwara Eliya	
	Female	Male	Female	Male
0 - 25% energy needs met	0.51	0.58	1.25	0.00
25.1 - 50% energy needs met	8.16	8.67	8.13	5.08
50.1 - 75% energy needs met	25.51	14.45	19.38	19.49
75.1- less than 100% energy needs met	43.37	31.79	30.63	27.97
>/=100% energy needs met (food secure)	22.45	44.51	40.63	47.46

4.2 Socio-Economic Status of Women

The status of women in any society is determined by the interplay of various socio-economic factors. Hence, the following section attempted to compare status of women in Kangra and Nuwara Eliya district with respect to their socio – economic characteristics.

4.2.1 Decision making power of rural women

The power to make decision is highly important from the view point of status of women because it is often argued that women are secluded and their voice is not properly listened. Moreover, the position and status of women strongly influence their ability to make decisions in the spending of household income, the quality and quantity of childcare they are able

to provide and health seeking behaviour. The decision making power of the women is not limited only to ownership of resources, control legal and ideological structures, education and information rather it is also formed around a series of cultural factors. So, in the present study, the involvement of the women in decision making in the economic and social spheres at home was examined and compared for both the study districts that have been depicted in Tables 4.22 to 4.24.

4.2.1.1 Decision making relating to economic aspects

Economic aspects of decision making were studied under six different types of decision making. It is inferred from the Table 4.22 that women in both study districts had power to take decision on daily expenses and personal needs. It was found that the decision relating to financial matters which is most important aspect of economic decision making was taken generally by males in the both study districts. Half of females in Kangra and four - fifth of females in Nuwara Eliya district decided either to possess or liquidate their vulnerable ornaments with the consent of their husbands. A greater proportion of women in Nuwara Eliya district (73 per cent) took decision relating to savings, whereas, in case of Kangra district, only about 18 per cent of women decided whether to save or not. Majority of males in Kangra district (73 per cent) took the decisions on borrowing, whereas majority of women and their husbands in Nuwara Eliya district (73 per cent) made decision on borrowing.

Table 4.22 Percentage Distribution of Women by Decision Making Relating to Economic Aspects

	(Per cent)	
Type of decision	Kangra	Nuwara Eliya
Daily family expenses		
Females	65	84
Males	11	7
Females as well as males	24	9
	100	100
Personal needs		
Females	65	92
Males	9	2

Females as well as males	26	6
	100	100
Major finances (Investment)		
Females	2	3
Males	95	89
Females as well as males	3	8
	100	100
Ornaments		
Females	4	11
Males	44	10
Females as well as males	52	79
	100	100
Saving		
Females	18	73
Males	52	6
Females as well as males	30	21
	100	100
Borrowing		
Females	2	6
Males	76	22
Females as well as males	22	72
	100	100

4.2.1.2 Decision making relating to social aspects

In the present investigation, different types of social decisions such as decision relating to children's education, treatment of sick child, visit to natal kin and joining friends were examined. According to Table 4.23, more than two - third of the females in both the study districts reported that they took the decisions regarding children's education jointly with their husband. Only few females in Kangra (4 per cent) and Nuwara Eliya district (10 per cent) decided alone on children's education. Majority of women in both the study districts took decisions on treatment of sick children, visit to natal kin and joining friends. In addition, findings revealed that the women in Nuwara Eliya district had better decision making power than that of their counterparts of Kangra district.

Table 4.23 Percentage Distribution of Women by Decision Making Relating to Social Aspects

Type of decision	(Per cent)	
	Kangra	Nuwara Eliya
Children's education		
Females	4	16
Males	29	24
Females as well as males	67	60
	100	100
Treatment for sick child		
Females	54	79
Males	19	11
Females as well as males	27	10
	100	100
Going to natal kin		
Females	52	77
Males	7	3
Females as well as males	41	20
	100	100
Joining friends		
Females	67	82
Males	9	8
Females as well as males	24	10
	100	100

4.2.1.3 Decision making index

In order to depict a clear picture of women's involvement in decision making, a composite decision making index was constructed and presented in the Table 4.24. The index scores were divided in to three main groups as low, medium and high on the basis of number of decisions taken by women. It can be seen from the table that one - fourth of females in Kangra district and low proportion of females in Nuwara Eliya district (17 per cent) fell in to low level of decision making category. Furthermore, the index score shows that nearly one - third of women in Kangra and one - tenth of women in Nuwara Eliya district belonged to medium category of decision making index. Nearly 43 per cent of females in Kangra district had a high decision making index score in comparison to 73 per cent of females in Nuwara Eliya district. Overall, it can be concluded that females of Nuwara Eliya district are in better position in terms of decision making as compared to Kangra district of Himachal Pradesh (India).

Table 4.24 Distribution of Women by Decision Making Index

(Per cent)

Decision making index	Kangra	Nuwara Eliya
0-3(Low)	25	17
3.1-5 (Medium)	32	10
5.1-10(High)	43	73
Total	100	100

4.2.2 Women's mobility index

To examine the mobility of women in Kangra and Nuwara Eliya districts the mobility index was constructed. The mobility index was categorized in to three main groups as low, medium and high based on index score (Table 4.25). It can be seen from the table that 23 per cent of females in Kangra and 12 per cent in Nuwara Eliya district were found in low mobility index. Further, nearly one -fifth of women in Kangra and Nuwara Eliya districts belonged to medium category of mobility index. The major proportion of women in Kangra (56 per cent) and Nuwara Eliya (70 per cent) district belonged to high range of mobility index.

Table 4.25 Distribution of Women by Mobility Index

(Per cent)

Decision making index	Kangra	Nuwara Eliya
0-1.60 (Low)	23	12
1.61-2.83 (Medium)	21	18
Above 2.83 (High)	56	70
Total	100	100

4.2.3 Key determinants of status of women

The overall status of a woman is a joint function of her socio-economic status. Therefore, socio-economic status of women should be evaluated on the basis of a number of

socio – economic factors such as caste, age, marital status, education, family size, type of family, social participation of women, husband’s education, inter spouse age difference, marriage duration, occupation, land ownership, women’s income/per capita income and saving. To develop an effective programme for improving their status, it is necessary to assess the nature and magnitude of the problem and also identify factors affecting it. So, stepwise regression analysis was carried out to identify key determinants of status of women in Kangra and Nuwara Eliya districts.

4.2.3.1 Key determinants of status of women in Kangra

In the present study, the status of women was examined under two categories such as low and high status and Table 4.26 depicts the results of step-up regression analysis. An overview of the regression analysis revealed that there are several factors that impact the status of rural women. The model fitted for low status category clearly revealed that marital status, education, social participation, occupation and saving were the positive and significant determinants of status of women. Among these variables, marital status and occupation showed positive and strong influence on women’s status. The positive significant coefficient of education implies that status of women increases with their educational level. As expected, the coefficient of saving turned out to be positive indicating that this variable significantly enhances the status of women. However, husband’s education had a negative impact on status of women in this category. The estimated model for high status category showed that it was highly dependent on education, occupation, land ownership and women’s income. The significant coefficients of level of education, land ownership and women’s income indicated these variables strongly impacting the status of women. Calculated adjusted R^2 was 0.809 in low status category which revealed that about 81 per cent of the total variation of status was explained by the independent variables specified in the model. However, calculated adjusted R^2 was 0.521 in other model (high status) showing that specified independents variables in these models were able to explain only 52 per cent of the variations of the status of women. On the other hand the calculated F values of the above two models were significant at 0.01 level of probability, indicating thereby overall significance of the fitted regression models.

Table 4.26 Key Determinants of Status of Women in Kangra

Variables	Low status		High status	
	B	T cal	B	T cal
Constant	18.87***	2.931	31.48***	5.406
Caste	-0.228	-1.582	-	-
Age	0.082	0.465	-0.381	-1.009
Marital status	0.392***	3.243	0.103	0.879
Education	0.312*	1.650	0.373***	2.903
Family size	-0.090	-0.691	-0.064	-0.657
Type of family	-	-	-0.032	-0.200
Social Participation	0.317**	2.123	0.086	0.793
Husband's education	-0.665***	-3.663	-	-
Duration of marriage	-	-	0.422	1.164
Occupation	0.658***	4.574	0.197*	1.910
Land ownership	-	-	0.501***	4.120
Women's income	0.134	1.264	0.402***	4.037
Per capita income	-	-	-	-
Saving	0.199*	1.944	-	-
\bar{R}^2	0.809***		0.521***	
F (cal)	10.301		6.408	

Note: Figures marked by ***, ** & * denote significance level at 0.01, 0.05 & 0.1 level of probability, respectively. B denotes the regression coefficient.

4.2.3.2 Key determinants of status of women in Nuwara Eliya

The results of the step-up regression analysis for women in Nuwara Eliya district were presented in Table 4.27. The estimated model for low status category showed that marital status, social participation, occupation, and saving had positive and significant impact on status of women. The significant coefficient of occupation showed that occupation of women had a very high impact on the status of women in low status category. Whereas, husband's education, indicated negative impact on the status of women. The key determinants of low status category in Kangra and Nuwara Eliya districts were almost same except education as education is not a significant factor to the status of women in Nuwara Eliya. It has been observed that the key determinants of high status women in Kangra differed from Nuwara Eliya district. The model

estimated for high status category revealed that education, joint family, social participation and marriage duration were the positive and significant determinants of status of women. The education and type of family had positive strong effects on status of women. The sign of the coefficient of type of family indicated that if a woman is living in a joint family, it helps to enhance her status. However, family size was the significant negative factor to the status of women. Calculated adjusted R^2 (0.712) in low status category revealed that about 71 per cent of the total variation of status was explained by the independent variables specified in the model. R^2 for model of high status category (0.408) indicated only 41 per cent of the variation in the status explained by the specified variables in the model. The calculated F values of models were significant at 0.01 level of probability.

Table 4.27 Key Determinants of Status of Women in Nuwara Eliya

Variables	Low status		High status	
	B	T cal	B	T cal
Constant	28.630***	3.889	33.390***	5.725
Age	-	-	0.411	1.231
Marital status	0.357***	2.762	-	-
Education	0.270	1.389	0.437***	3.610
Family size	-	-	-0.459***	-2.972
Type of family	-0.179	-1.233	0.461***	3.108
Social Participation	0.330*	1.930	0.227**	2.028
Husband's education	-0.552***	-2.864	-	-
Inter spouse age difference	-	-	-0.183	-1.573
Marriage duration	-	-	0.431*	1.731
Occupation	0.430***	3.036	-	-
Land ownership	-	-	0.056	0.491
Women's income	0.097	0.697	-	-
Per capita income	-	-	0.054	0.477
Saving	0.230*	1.933	-	-
\overline{R}^2	0.712***		0.408***	
F (cal)	8.113		3.898	

Note: Figures marked by ***, ** & * denote significance level at 0.01, 0.05 & 0.1 level of probability, respectively. B denotes the regression coefficient. The caste system is not clear in Nuwara Eliya as in Kangra. Therefore, this

variable was excluded from the analysis.

4.2.3.3 Key determinants of overall status of women in Kangra and Nuwara Eliya (SL)

Data were pooled for each study area and the model was fitted to examine the overall status of women. It was found that marital status, education, social participation and land ownership significantly and positively influenced overall status of women in Kangra district and caste had negative impact. Whereas, in Nuwara Eliya key variables like marital status, education, type of family and social participation showed positive impact on overall status of women. The calculated adjusted R^2 (0.363 and 0.522) values showed that specified independent variables in these models were able to explain only 36 and 52 percent of the variations in the status of women in Kangra and Nuwara Eliya, respectively. The calculated F values of models were significant at 0.01 level of probability (Table 4.28).

Table 4.28 Key Determinants of Overall Status of Women in Kangra and Nuwara Eliya

Variables	Kangra		Nuwara Eliya	
	B	T cal	B	T cal
Constant	44.57***	5.835	28.11***	4.696
Caste	-0.176*	-1.852	-	-
Age	-0.102	-0.318	-0.122	-1.328
Marital status	0.445***	4.319	0.504***	4.919
Education	0.267**	1.978	0.102*	1.311
Family size	-0.138	-1.509	-0.166	-1.565
Type of family	-0.166	-1.317	0.187*	1.732
Social Participation	0.192**	2.086	0.257***	3.113
Inter spouse age difference	-	-	-0.095	-1.071
Duration of marriage	0.150	0.495	-	-
Land ownership	0.322***	2.941	-	-
Women's income	-	-	0.042	0.414
Per capita income	0.076	0.729	-	-
Saving	-	-	0.050	0.497
\overline{R}^2	0.363***		0.522***	
F (cal)	5.379		8.992	

Note: Figures marked by ***, ** & * denote significance level at 0.01, 0.05 & 0.1

level of probability, respectively. B denotes the regression coefficient.

4.3 Entrepreneurial Behaviour of Women

Women's economic independence is one of the main contributory factors of their overall status in the family as well as in the society. Of the major rural enterprises, farming has been regarded as an important instrument of economic and social change to supplement the income and employment to the rural sector in general and rural women in particular. However, the progress of farming depends on the entrepreneurial behaviour of these women farmers. Keeping the above facts in view, the present study attempted to examine the entrepreneurial behaviour of rural farm women.

4.3.1 Components of entrepreneurial behaviour

It can be reviewed from the past studies that there are eleven components of entrepreneurial behaviour such as innovativeness, management orientation, achievement motivation, knowledge of farming, utilization of available assistance, risk taking ability, farm decision making, leadership ability, self confidence, ability to co-ordinate farm activities and cosmopolitaness. However, these components are not equally important to the entrepreneurial behaviour of rural women. So, the present investigation looked in to the relative contribution of different components to entrepreneurial behaviour of rural women and results are summarized in the Table 4.29. Results revealed that achievement motivation was the most important aspect of entrepreneurial behaviour of women in Kangra and Nuwara Eliya districts with highest score of 7.89 and of 8.46, respectively. The next important aspect was management orientation (7.06 average score for Kangra and 8.43 for Nuwara Eliya district). The component at third rank was risk taking ability in Kangra district, while the ability to coordinate farm activities was ranked at third place in case of Nuwara Eliya district. Self confidence and leadership ability were ranked as fourth and fifth important aspects of entrepreneurial behaviour of rural women in Kangra, whereas in Nuwara Eliya fourth and fifth were leadership ability and farm decision making ability, respectively. Utilization of available assistance, ability to coordinate farm activities, knowledge of farming, cosmopolitaness and innovativeness were other variables in the descending order of their contribution to entrepreneurial behaviour of women in Kangra district and knowledge of farming, self confidence, risk taking ability, cosmopolitaness, utilization of available

assistance and innovativeness in case of Nuwara Eliya district. Higher score of entrepreneurial behaviour index of women in Nuwara Eliya district (72.72) indicated that their entrepreneurial behaviour was better than women in Kangra (52.26).

Table 4.29 Ranking of Components According to Their Relative Contribution to Entrepreneurial Behavior among the Rural Women

Components	Kangra		Nuwara Eliya	
	Mean score	Rank	Mean score	Rank
Achievement motivation	7.89	I	8.46	I
Management orientation	7.06	II	8.43	II
Risk taking ability	6.39	III	6.60	VIII
Self confidence	6.07	IV	6.67	VII
Leadership ability	5.57	V	7.40	IV
Farm decision making	5.35	VI	7.37	V
Utilization of available assistance	4.86	VII	5.97	X
Ability to co-ordinate farm activities	4.63	VIII	7.41	III
Knowledge of farming	2.25	IX	6.93	VI
Cosmopolitaness	1.21	X	6.23	IX
Innovativeness	0.98	XI	1.26	XI
Entrepreneurial Behaviour Index	52.26		72.72	

In general each individual has different levels of entrepreneurial behaviour according to their personal and socio-economic characteristics. It is clear from the results presented in the Table 4.30 that majority of females in the sample of Kangra district (56 per cent) had medium level of innovativeness and majority of females in Nuwara Eliya district (57 per cent) had low level of innovativeness regarding the new technologies. With respect to management orientation 35 per cent of females in Kangra had high managerial orientation as compared to 91 per cent in Nuwara Eliya district. The proportion of females was very high (40 per cent) in Kangra district who had low level of achievement motivation. Whereas, half of females in Nuwara Eliya district had high level of achievement motivation. Most of the females in Kangra district (50 per cent) possessed low knowledge on farming followed by 5 per cent of females in high level of knowledge. On the other hand, about 95 per cent of the females in Nuwara Eliya had high knowledge on farming followed by low (5 per cent) level of knowledge. Considering the utilization of available assistance, very low proportion of sample women (5 per cent) in Kangra district

frequently utilized the available assistance as compared to their counterparts in Nuwara Eliya district (76 per cent). The results further indicated that about 5 per cent of females in Kangra district possessed high level of risk taking ability against 38 per cent in Nuwara Eliya district. Most of the females in Kangra district had medium level of farm decision making, leadership ability and self confidence whereas females in the sample of Nuwara Eliya district, had high levels of these aspects. It was further observed from the table that a majority comprising of 55 and 40 per cent of the sample in Kangra had low level of ability to coordinate farm activities and cosmopolitaness, respectively. However, about 76 per cent of females in Nuwara Eliya district had high level of ability to coordinate farm activities and cosmopolitaness.

Table 4.30 Distribution of the Respondents According to Different Components of Entrepreneurial Behaviour

		(Per cent)	
Components	Category	Kangra	Nuwara Eliya
Innovativeness	Low (0 -1.03)	35	57
	Medium (1.04 - 2.22)	55	14
	High (Above 2.22)	10	29
Management orientation	Low (0 - 6.93)	35	0
	Medium (6.94 - 7.64)	50	19
	High (Above 7.64)	15	81
Achievement motivation	Low (0 - 7.76)	40	19
	Medium (7.77 - 8.32)	35	29
	High (Above 8.32)	25	52
Knowledge of farming	Low (0 - 1.46)	50	5
	Medium (1.47 - 3.86)	45	0
	High (Above 3.86)	5	95
Utilization of available assistance	Low (0 - 4.60)	50	10
	Medium (4.61 - 5.06)	30	14
	High (Above 5.06)	20	76
Risk taking ability	Low (0 - 6.12)	50	38
	Medium (6.13 - 6.83)	35	24
	High (Above 6.83)	15	38
Farm decision making	Low (0 - 4.99)	35	0
	Medium (5.00 - 5.78)	45	5
	High (Above 5.78)	20	95
Leadership ability	Low (0 - 5.25)	25	0
	Medium (5.26 - 6.36)	60	24
	High (Above 6.36)	15	76
Self confidence	Low (0 - 5.93)	30	24
	Medium (5.94 - 6.42)	45	14
	High (Above 6.42)	25	62
Ability to co-ordinate farm activities	Low (0 - 4.38)	55	0
	Medium (4.49 - 6.00)	30	24
	High (Above 6.00)	15	76

	Low (0 - 0.49)	40	0
Cosmopolitaness	Medium (0.50 - 2.02)	35	24
	High (Above 2.02)	25	76

4.3.2 Determinants of entrepreneurial behaviour of women

Entrepreneurial behaviour of rural women depends on personal, socio-economic and psychological characteristics as mentioned in the previous chapter. To examine the determinants of entrepreneurial behaviour, step-up regression analysis was carried out and results of regression analysis have been presented in the Table 4.31. The estimates of model for the sample in Kangra district indicated that education, farm income, economic motivation and market were the significant and positive determinants of entrepreneurial behaviour. The regression coefficients for education, farm income and economic motivation indicated that these variables significantly improved the entrepreneurial behaviour of rural women in Kangra district. Calculated adjusted R^2 (0.710) revealed that about 71 per cent of the total variation of entrepreneurial behaviour was explained by the independent variables specified in the model. The estimated equation for women in Nuwara Eliya district showed that age of woman, farm income and information sources would improve their entrepreneurial behaviour significantly as indicated by their positive and significant coefficients. It was interested to note that size of the family was a negative significant factor to the entrepreneurial behaviour. The independent variables in this model had explained 60 per cent of total variation in the entrepreneurial behaviour. The calculated F values for both models were significant at 0.01 level of probability.

Table 4.31 Determinants of Entrepreneurial Behaviour of Women

Variables	Kangra		Nuwara Eliya	
	B	T cal	B	T cal
Constant	29.043***	3.911	31.765**	2.200
Age	-	-	0.581***	3.733
Caste	-0.233	-1.500	-	-
Education	0.331**	2.181	0.108	0.263

Family size	0.420	0.920	-0.268*	-1.741
Land holdings	-0.100	-0.664	-0.263	-1.528
Household income	-0.058	-0.332	-	-
Farm income	0.537***	3.128	0.269**	1.795
Experience	0.130	0.843	-	-
Economic motivation	0.367**	2.324	-	-
Scientific orientation	-	-	0.078	0.521
Training	-	-	0.197	1.232
Market	0.391*	1.753	0.098	0.638
Information source	-	-	0.454***	2.971
\bar{R}^2		0.710***		0.595***
F (cal)		6.825		5.634

Note: Figures marked by ***, ** & * denote significance level at 0.01, 0.05 & 0.1 level of probability, respectively. B denotes the regression coefficient.

4.4 Involvement of Women in Different Activities

Women folk are considered as the backbone of a nation and better half of the men in almost all spheres of life, of which India and Sri Lanka are not the exceptions. Sharing of productive activities by women is neither a new phenomenon nor a new development. Moreover, their productive involvement has created beneficial impacts in uplifting the status of their and their family, improving nutritional status and in alleviating rural poverty. In this background, ensuing section has attempted to examine a disaggregated picture of women's involvement in various activities.

4.4.1 Involvement of women in income earning activities

The main income earning activity of rural women is agriculture and livestock as it has also been regarded as an important instrument of economic and social change to supplement income and employment to the rural sector. Researchers have undertaken many studies on involvement of women in agricultural related activities such as cultivation, planting, inter-culture including weeding, hoeing, irrigation, fertilizer application, etc., harvesting, and post harvesting operations and livestock related activities such as collection of fodder, chopping, feeding, grazing, watering, milking the cattle, preparation of milk products and marketing, etc. Therefore, the present investigation emphasized on percentage work done by women related to agriculture and

livestock activities and results of the same were presented in Table 4.32. It was revealed from the table that about 60.84 per cent of work related to farming and 67.15 per cent of work related to livestock had been done by women in Kangra district. Whereas women in Nuwara Eliya district engaged 62 per cent of work related to agriculture. In hill region, the burden of work related to animal husbandry is generally on the shoulders of female members in the households. However, women in Nuwara Eliya district were not involving themselves in livestock related activities since; it was not an income earning activity in this study area. Further, employment opportunities generated by the women farmers were examined for both the study areas and it was revealed that farm women in Kangra district hired labour on an average seven days per month by paying Rs.75 / day. While, farm women in Nuwara Eliya district hired labour on an average 5 days per month by paying Rs.104.10 / day.

Table 4. 32 Contribution of Women to Agriculture and Livestock Activities

Activities	% work done	
	Kangra	Nuwara Eliya
Contribution		
Agriculture	60.84	62.00
Livestock	67.15	-
Employment generation		
Number of days/month	7	5
Daily payments	75.00	104.10

4.4.2 Contribution of women to household income and expenditure

Though, women are considered as important contributors to the household economy, yet they are found losers in terms of expenditure/spending. For these reasons an analysis was carried out to examine the contribution of women in the total income and expenditure of the household in both the study areas (Table 4.33). Total average monthly income per woman in Kangra district was found to be Rs.3163, out of which, about 59 per cent was derived from

agriculture and the rest from owned and other sources. In case of sample of Nuwara Eliya district, total average monthly income per woman was Rs.1563 and out of which, about 55 per cent was earned from agriculture. It was further revealed that female farm workers in Kangra and Nuwara Eliya district added 51.5 and 74 per cent, respectively, to the total farm income. The contribution to the total off farm income by women in Kangra district was 26.53 per cent and the corresponding figure for female workers in Nuwara Eliya district was 16.84 per cent. The share of women in Kangra district to the total income (around 31 per cent) was found to be 2 percent higher than that of women workers in Nuwara Eliya district (29 per cent). In the present study the effect of female income on household expenditure was also examined. Contribution of women's income to household expenditure was 62.56 per cent in the sample of Kangra district and 44.39 per cent in case of Nuwara Eliya district. However, the amount of saving of women in Nuwara Eliya district (Rs.288 / month) was found to be greater than that of Kangra district (Rs.89 / month).

Table 4. 33 Contribution of Women to Household Income and Expenditure

Indicators	Kangra	Nuwara Eliya
Average farm income (Rs / month)	963	862
Average off farm income (Rs / month)	2200	701
Average total income (Rs / month)	3163	1563
Income Share of women on household income (%)		
Farm income	51.50	74.00
Off farm income	26.53	16.84
Women's income share on household expenditure (%)	62.56	44.39
Average saving (Rs. / month)	89	288

4.4.3 Impact of women income on food security

Women's control of income is a key promoter of household food security unlike men

as women spend extra income on nutrition inputs such as food. The Table 4.34 shows the importance of women's income to calorie adequacy ratio of members of the sample households. The women income in Kangra district exhibited positive and significant relationship with women calorie adequacy ratio, household calorie adequacy ratio and children's calorie adequacy ratio. Positive and significant relationship between women's income and women calorie adequacy ratio, household calorie adequacy ratio was also observed, however, children's calorie adequacy ratio in case of Nuwara Eliya exhibited positive but non-significant relationship. Considering household income, it was observed positive significant relationship with women's and household's calorie adequacy ratio in both the study districts. However, non - significant positive relationship can be observed between household income and children's calorie adequacy ratio in case of Kangra district. Data regarding Nuwara Eliya district showed that there was a negative correlation between children's calorie adequacy ratio and household income.

Table 4.34 Effect of Women's Income on Calorie Adequacy Ratio

Income	Women's CAR	Household's CAR	Children's CAR
Kangra			
Women income	0.187*	0.296***	0.216***
Household income	0.192*	0.199**	0.061
Nuwara Eliya			
Women income	0.260***	0.298***	0.054
Household income	0.289***	0.392**	-0.097

Note: Figures marked by ***, ** & * denote significance level at 0.01, 0.05 & 0.1 level of probability, respectively.

4.4.4 Women involvement in organizations

Different women organizations as well as many other organizations are functioning in the study areas. Some government and non-government organizations, such as village Panchayat, Co-operatives, Self Help Group, Mahila Mandal in the villages of Kangra district and welfare organization, Co-operatives, Tea smallholding authority, Samurdhi committee, Beredina, etc., in the villages of Nuwara Eliya district, effectively help the women for improving their status, living standard, empowerment, etc. Though, there are many organizations in the sample villages but active participation of women is lacking in these organizations. However, in comparison

to women in Kangra district, the level of participation in community organization was better in Nuwara Eliya district (Table 4. 35).

Table 4. 35 Women Community Participation

(Per cent)

Kangra		Nuwara Eliya	
Organizations	% Participation	Organizations	% Participation
Mahila Mandal	42	Social Welfare	20
Selp Help Group	5	TSHDA	24
Village Panchayat	0	Co-operatives	13
Co-operatives	0	Samurdhi Samithi	52
Farmer's club	0	Health campaign	6
Tea grower's society	0	Govi Samithi	4

Rural women are benefited from these organizations in different ways to uplift their living condition. The benefits which the women were getting from different organizations along with their impact on women livelihoods were also studied (Table 4.36). Majority of the women in kangra district (61.90 per cent) reported that they could get useful materials for household by participation in the organizations. However, the most of women in Nuwara Eliya district (64.86 per cent) expressed that they were able to get training or information. Loan facility was yet another benefit perceived by smaller proportion of women (4.76 per cent) in Kangra district in comparison to Nuwara Eliya district (46 per cent). About 2 and 57 per cent of women in Kangra and Nuwara Eliya districts, respectively reported that they obtained raw materials (fertilizer or planting materials) from different organizations. Other advantages reported by the women in Nuwara Eliya district were financial support, improved infrastructural facilities, subsidy and marketing facilities.

Table 4. 36 Benefits Getting from Organizations

(Per cent)

Benefits	Kangra	Nuwara Eliya
----------	--------	--------------

Training/Information	0.00	64.86
Loan facilities	4.76	45.95
Provide raw materials	2.38	56.76
Job opportunities	0.00	0.00
Provide other materials	61.90	0.00
Provide financial support	0.00	21.62
Improve infrastructural facility in village	0.00	10.81
Provide Subsidy	5.00	56.76
Provide marketing facilities	0.00	2.70

Note: Percentages were worked out on the basis of response of members of organizations.

The present study also investigated the impact of women's participation in community organizations on their livelihoods (Table 4.37), which revealed that about two-third of women in Nuwara Eliya district had active interaction with NGO's, and government organizations that supported them to improve their income and knowledge to considerable extent. On the contrary, low proportion of women (7.14 per cent) in Kangra district participated in organizations (like Mahila Mandal and Self Help Group) that helped them to enhance their family income and knowledge. About 38 per cent of women in Nuwara Eliya district expressed that involvement in organizations improved their decision making ability and enhancement in risk taking ability was reported by 5 per cent of women. Few women (2.38 per cent) in Kangra district reported that participation to organization leads to improve their risk taking ability. It was further observed from the table that about 4.76 and 8.11 per cent of the women in Kangra and Nuwara Eliya, respectively claimed that participation to organization helped them to get more recognition from their family as well as from the society.

Table 4. 37 Impact of Organizations on Women

(Per cent)

Type of impacts	Kangra	Nuwara Eliya
Improve knowledge	7.14	70.27
Improve decision making ability	0.00	37.84
Increase risk bearing ability	2.38	5.41
Improve income of the family	7.14	100.00
Recognition from the family, society	4.76	8.11

Note: Percentages were worked out on the basis of response of members of organizations.

4.5 Livelihood Security of Women

It is well known fact that in rural household livelihood conflicts, women generally become the first victim and the first to lose their livelihoods. Assessment of women's livelihood security helps to enhance understanding of adequate and sustainable access to income and resources to meet basic needs including adequate access to food, health facilities, educational opportunities, housing and time for community participation and social integration and design programme to improve their livelihood.

4.5.1 Livelihood security outcomes

Livelihood outcomes are important to determine whether livelihoods are successful in pursuing their livelihood strategies. Therefore, the present investigation constructed indices for different livelihood security outcomes which can be used for measuring improvement in woman that is directly tied to the specific basic needs and the means to obtain them. Another purpose of the index is to provide an even clearer profile of constraints to women livelihood security. Tables 4.38 to 4.42 present the comparison of general scenario of index scores obtained for different livelihood security areas for women in the study districts (Figs. 4.1 & 4.2).

4.5.1.1 Food security of women

Food security is better defined as sufficient food consumption by all people at all times for a healthy and productive life (Thomson and Metz, 1997). Achieving food security requires that food supplies are sufficient and that the household has adequate access to food,

either from own production or through the market or some other sources. The present investigation considered two main indicators for assessing food security of women, namely, calorie adequacy ratio and diet diversity. The disaggregated scores of these indicators of food security have been depicted in Table 4.39. It was revealed from the results that scores of calorie adequacy ratio of women, diet diversity of women as well as composite food security of women in Nuwara Eliya district obtained greater value than that of Kangra district, indicating thereby that twomen in Nuwara Eliya district were in better position in terms of food security than in Kangra. Further, it can be observed that the composite index of food security scored a value slightly above the mid point of the index score scale one to five point reflecting that women in both study areas were relatively in a better position in terms of food security. The results of Z test showed that the mean difference of index scores was not statistically significant.

Table 4.38 Food Security Index

Indicators	Kangra	Nuwara Eliya
Calorie Adequacy of women	3.43	3.71
Diet diversity	2.69	2.95
Aggregate mean score	3.06	3.33
S.D	0.79	1.14
Z value		1.94

Note: S.D. denotes standard deviation

4.5.1. 2 Economic security of women

Economic security is the capacity to generate sufficient income to satisfy the basic needs and to maintain or increase the goods necessary for the stability of the family economy. The recommended indicators that can provide insight on vulnerability of women are women's income earnings, savings, land holdings and the level of productive and unproductive assets. The obtained scores of these indicators are given in the Table 4.39. Except women's saving, level of

productive and unproductive assets and other indicators obtained low scores for women in both study districts. The score of women's income was more or less similar in Kangra and Nuwara Eliya, but it was found higher for women's saving and land ownership in Nuwara Eliya as compared to Kangra district. The score of productive assets was slightly higher in Kangra. However, the composite index score of the overall economic security of women in Kangra (2.04) showed a lower value than the sample of Nuwara Eliya district (2.15), indicating greater vulnerability of women in Kangra district to economic insecurity. According to the value of Z test, no significant difference between economic security of women in Kangra and Nuwara Eliya district was found.

Table 4.39 Economic Security Index

Indicators	Kangra	Nuwara Eliya
Women's income	1.92	1.87
Women's saving	1.40	2.35
Women's ownership of land	1.30	1.60
Level of productive assets	2.38	-
Level unproductive assets	3.04	2.80
Aggregate mean score	2.04	2.15
S.D	0.71	0.88
Z value		1.80

Note: S.D. denotes standard deviation

4.5.1.3 Health security of women

The capacity of individuals to identify, prevent, and manage significant risks to their health is the operational definition of health security used in the present study. A large number of indicators are available to measure health security of women depending on the nature of the intervention in the health sector. However, for the present purpose, the selected indicators, as per CARE recommendation, were the level of pre-natal and post-natal services, access to health services and quality of sanitation facility. There is a widespread belief that adequate care during pregnancy, delivery and the post natal period can improve the health of the mother. With regards to level of pre-natal and post-natal services, score of women in Kangra district was far below the mid point (2.15) of the score scale 1-5 point. The women of Nuwara Eliya district obtained score

near to end point (4.76) of the continuum. In contrast, access to health services gained a better score for women in Kangra district (3.69), compared to women of Nuwara Eliya district (1.75). It was further revealed from the table that the quality

Table 4.40 Health Security Index

Indicators	Kangra	Nuwara Eliya
Level of prenatal & reproductive health services	2.15	4.76
Accessibility to health services	3.69	1.75
Quality of sanitation facility	2.60	3.00
Aggregate mean score	2.80	3.17
S.D	0.76	0.43
Z value		4.23*

Note: S.D. denotes standard deviation

of sanitation facilities showed more or less similar values in both study districts and also the aggregate index obtained a score above the mid point of the continuum. In case of health security, the mean difference of aggregate index score between the sample of women in Kangra and Nuwara Eliya district was statistically significant (Table 4.40).

4.5.1.4 Education security of women

The present investigation refers educational security as the capacity of individuals to obtain / receive and benefit from a basic education. The indicators used in the present study were women’s literacy level, availability and accessibility to schools. Literacy level of the women is associated with higher income, lower fertility rates, lower infant mortality and improved nutrition. It was revealed from the Table 4.41 that literacy level scored a lower value for women in Kangra district (4.31) in comparison Nuwara Eliya district (4.87). Availability and accessibility

to schools were the other areas which had lagged behind women in Kangra district compared to Nuwara Eliya district. On the other hand, index score of overall educational security of women in Kangra (3.23) as well as in Nuwara Eliya (4.26) district took a value above the mid point of the index score scale of 1-5. Values of Z test showed that there was a statistically significant mean difference between Kangra and Nuwara Eliya district in terms of educational security. This highlighted that women in Kangra district were more vulnerable to education security and women in Nuwara Eliya district stood comparatively in a better position.

Table 4.41 Education Security Index

Indicators	Kangra	Nuwara Eliya
Women's Literacy level	4.31	4.87
Availability schools	2.26	4.63
Accessibility to schools	3.12	3.27
Aggregate mean score	3.23	4.26
S.D	0.82	0.61
Z value		11.20*

Note: S.D. denotes standard deviation

4.5.1.5 Habitat security of women

It is defined as the access of individuals to adequate shelter and related resources to ensure that they have a healthy and sanitary environment, protection from harm and detrimental elements to enable safe and secure livelihoods. The quality of housing and access to safe drinking water were the parameters used for the assessment of habitat security of women (Appendix - VII). The quality of a dwelling house has an impact on health of the individuals and it is also a good proxy indicator of poverty. Except quality of roof, scores of other materials were higher in Nuwara Eliya district in comparison to Kangra. It was further observed that score of accessibility to drinking water was relatively higher in Nuwara Eliya district as compared to

Kangra. Overall habitat security index score for women in Kangra district (2.70) was below than that of sample of Nuwara Eliya district (3.26). However, it should be noted that habitat security of women in both study districts gained the values above mid point of continuum. This indicated the less vulnerability of women to habitat security as compared to other livelihood security outcomes. However, the mean index score of Kangra district was significantly different from Nuwara Eliya district (Table 4.42).

Table 4.42 Habitat Security Index

Indicators	Kangra	Nuwara Eliya
Quality of Floor	2.37	3.01
Quality of Wall	2.64	3.21
Quality of Roof	3.59	2.97
Space of house	3.09	3.21
Accessibility to drinking Water	2.88	4.32
Aggregate mean score	2.70	3.26
S.D	0.84	0.60
Z value		5.44*

Note: S.D. denotes standard deviation

4.5.1.6 Social network security of women

The definition of social network security used in the present study was the capacity of individuals to maintain and participate in social networks that enable them to pursue viable livelihoods by reducing risks, accessing services, protecting themselves from deprivation and accessing information. The Table 4.43 shows selected indicators and obtained scores for social network security of women. Level of active participation in community organizations determines whether women have opportunity to participate in reference to time, access and their acceptance by the other groups. Level of active participation in community organization scored a low value for women in Kangra district (1.50) against women in Nuwara Eliya district (3.03). Moreover, the score of the above indicator was far below the mid point of continuum for both study districts. It

was further revealed from the table that level of support from organizations (1.93) and mutual support from kin & friends (2.55) also obtained lower score for the sample women in Kangra district in comparison to Nuwara Eliya district. Furthermore, the aggregate index score of social network security was lagged behind for women in Kangra (1.99) compared to women in Nuwara Eliya district (3.35). It can be observed from the values of Z test that there was a statistically significant difference between mean index of Kangra and Nuwara Eliya district.

Table 4.43 Social Network Security Index

Indicators	Kangra	Nuwara Eliya
Level of support (government & other)	1.93	3.01
Mutual support of kin and friends in neighbourhood / community	2.55	4.03
Level of active participation in community organization (Women participation)	1.50	3.03
Aggregate mean score	1.99	3.35
S.D	0.54	0.63
Z value		12.34*

Note: S.D. denotes standard deviation

4.5.2 Categories of livelihood security

Livelihoods of all the women in the samples were neither secured nor in secured and they belonged to different levels of vulnerability of livelihood outcomes. The levels of vulnerability were examined under three groups of livelihood outcomes namely low, moderate and high (Table 4.44).

Table 4.44 Standardized Score Range of Livelihood Outcomes

Livelihood security outcomes	Score range		
	Low	Moderate	High
Food security	Upto 2.45	> 2.45 and upto 3.42	> 3.42
Economic security	Upto 1.50	> 1.50 and upto 2.65	> 2.65
Habitat security	Upto 2.00	> 2.00 and upto 3.00	> 3.00
Health security	Upto 2.77	> 2.77 and upto 3.42	> 3.42
Education security	Upto 2.64	> 2.64 and upto 3.79	> 3.79
Social Net Work security	Upto 1.86	> 1.86 and upto 2.43	> 2.43
Overall LS security	Upto 2.35	> 2.35 and upto 2.83	> 2.83

The distribution of women with regards to levels of vulnerability was also studied and presented in Table 4.45. The results revealed that about 43 and 58 per cent of women in Kangra and Nuwara Eliya districts, respectively came under the category of the high level of food security. It can be observed from the distribution of women, majority of women in Kangra district had moderate levels of economic security, whereas majority of women in Nuwara Eliya district had low or moderate levels of economic security. Considering health security, majority (50 per cent) of women in Kangra district represented the low level health security and most of women in Nuwara Eliya district (56 per cent) belonged to moderate level category. It is worth mentioning that none of the women in Nuwara Eliya

district fell in the low levels of educational security. However, one - fourth of the women in Kangra district showed low level of educational security. It was further observed from the table that about 29 per cent of women in Kangra district and 62 per cent of women in Nuwara Eliya district belonged to high levels of habitat security. Majority of women in Kangra district (42 per cent) had low level of social network security and reverse was true in case of women in Nuwara Eliya district (4 per cent). With regards to overall livelihood security, nearly one - third of the women in Kangra district had high levels of overall livelihood security as compared to four - fifth of women in Nuwara Eliya district. This emphasized again that women in Kangra district were more vulnerable to overall livelihood security as compared to women in Nuwara Eliya district.

Table 4.45 Distribution of Women Based on Levels of Livelihood Security Index
(Per cent)

Livelihood security outcomes	Kangra			Nuwara Eliya		
	Low	Moderate	High	Low	Moderate	High
Food security	19	38	43	22	20	58
Economic security	39	48	13	36	34	30
Health security	50	36	14	22	56	22
Education security	17	3	80	3	3	94
Habitat security	35	36	29	4	34	62
Social network security	42	40	18	4	13	83
Overall LS security	24	47	29	3	17	80

4.5.3 Shocks to the livelihood security

A shock, which is an event that has impact on the household's livelihood security, is normally transient and can be viewed as a rapid departure from norm of a given factor. The shocks to livelihood that were reported by the households were presented in Table 4.46.

The main shocks among these were the increasing prices of food and electricity charges. These shocks were reported by more than half of the sample household in Kangra district and one - third of sample household in Nuwara Eliya district. Another important shock reported by 24 and 7 per cent of sample household in Kangra and Nuwara Eliya district was unemployment risk. Other shocks included by few females in both study areas were increased school fees, long illness of family member and sudden death in the family.

Tables 4.46 Shocks to Livelihood Security

Type shocks	(Per cent)	
	No. of affected households	
	Kangra	Nuwara Eliya
High electricity charges	56.00	28.00
Food prices increasing	60.00	33.33
Unemployment risk	24.00	6.67
Increasing school fees	6.67	10.67
Long illness of family members	4.00	13.33
Sudden death of income earner	1.33	1.33

4.5.4 Coping up strategies

The coping capacity of the households from livelihood insecurity depends upon the severity of the exposure to hazards and also the quantity and quality of asset holdings of the household as well as ability of families to mitigate the scarcity. The Table 4.47 depicted three categories of coping up strategies followed by households namely coping with limited food, expenditure reduction and income related strategies. Borrowing food was the main coping up strategy followed by almost all the sample households. About 49 and 35 per cent of households in the sample of Kangra and Nuwara Eliya, respectively curtailed expenses by eating less preferred foods. Reduced number of meals and quantity per meal was the last strategy followed by sample households in both the study areas. Coping up strategies to reduce expenditure was followed by 35 and 11 per cent households, respectively in Kangra and Nuwara Eliya by avoiding expenditure on health care. Few households in Kangra district reported that they followed strategy of reduced expenditure on water, electricity and transport. It was clear from the table that seeking more work was the main strategy followed by households in Kangra district

(33.33 per cent) with insufficient income. In addition to seeking more work (8 per cent), other strategies followed by sampled households in Nuwara Eliya district were meeting exigencies from saving (5.33 per cent) and pawn jewelry (4 per cent).

Tables 4.47 Coping up Strategies Followed by Households

Coping up strategies	No. of households (Per cent)	
	Kangra	Nuwara Eliya
Coping strategies with limited food		
Borrowed food or money to buy food or bought food on credit	52.00	33.33
Relied on less preference food as substitute for preferred food	49.33	34.67
Reduced number of meals eaten per day	5.33	1.33
Reduced quantity of meals consumed	13.33	4.00
Coping strategies to reduce expenditure		
Avoided spending on health care	34.67	10.67
Reduced expenditure on education	4.00	4.00
Reduced expenditure on water and electricity	1.33	0.00
Reduced expenditure on transport	4.00	0.00
Coping with insufficient income		
Seeking more work	33.33	8.00
Met from savings	-	5.33
Pawn Jewelry	-	4.00

4.6 Various Problems / Constraints Faced by Women

The various problems and constraints faced by women had been studied under two sub heads, women being an entrepreneur and being a house manager.

4.6.1 Various problems / constraints faced by women being an entrepreneur

With regards to problems faced by women being an entrepreneur, majority of women in Kangra district expressed lack of knowledge about financial institutions, training institutions, marketing and schemes of various departments related to agriculture and high cost of raw materials as the major constraints faced by them whereas most of women in Nuwara Eliya district reported lack of knowledge about financial institutions, support from concerned organizations and

high cost of raw materials (Table 4.48). Lack of knowledge about training institutions as a constraint in farming was felt badly by women in Kangra district (100 per cent) as compared to women in Nuwara Eliya district (57 per cent). Lack of knowledge about marketing linkages was yet another problem perceived highly by women (100 per cent) in Kangra district in comparison to women in Nuwara Eliya district (57 per cent). Women further expressed their problem about the lack of knowledge about schemes of various departments related to farming. This problem was felt by almost all women in Kangra district and 67 per cent of women in Nuwara Eliya district. Lack of knowledge about financial institution was emphatically and critically expressed by about 95 and 76 per cent of women in Kangra district and Nuwara Eliya district, respectively. Poor knowledge about farming leads to reduce overall profit of the enterprise. This problem was felt by about 65 and 71 per cent of the women in Kangra and Nuwara Eliya district, respectively.

Considering problems related to institutions and marketing, difficulty in getting loan was more intense in case of women in Nuwara Eliya district (72.43 per cent) than in Kangra (20.32 per cent). Lack of financial institutions was another constraint faced by 50 per cent women in Kangra and 52 per cent women in Nuwara Eliya district. Lack of requisite support from concerned organizations was reported vocally by 85 per cent of women in Kangra district and 76 per cent of women in Nuwara Eliya district. Around 70 and 43 per cent of women in Kangra and Nuwara Eliya districts, respectively expressed that lack of demand of agricultural products like milk, etc., in local market was a constraint to them. Other problems revealed from the data were lack of marketing centers and competition from larger and well established centers. Problem of lack of marketing centers was felt by 50.23 and 14.29 per cent of women in Kangra and Nuwara Eliya district, respectively. Another 5 and 52 per cent of women in Kangra and Nuwara Eliya, respectively reported that competition from larger and well established centers was a constraint to them.

Data regarding problems related to inputs revealed that about 30 and 62 per cent women in Kangra and Nuwara Eliya, respectively faced problem of non availability of raw materials. High cost of raw materials was reported as one of the major problems faced

by women in both districts (85 vs. 76 per cent). Another 35 and 33 per cent of women in Kangra and Nuwara Eliya districts, respectively reported untimely supply of raw materials. However, lack of family support was a minor constraint for women in both study districts. Untimely availability of labour was reported as another constraint by women in Nuwara Eliya district.

Table 4.48 Problems / Constraints Faced by Women Being an Entrepreneur
(Per cent)

Problems / constraints	Kangra	Nuwara Eliya
Problems related to knowledge & awareness		
Lack of knowledge about training institutions	100.00	57.14
Lack of knowledge about marketing linkage	100.00	57.14
Lack of knowledge about schemes of various department related to farming	100.00	67.67
Lack of knowledge about financial institutions	95.11	76.19
Poor knowledge about farming	65.2	71.43
Problems related to Institutions & marketing		
Difficulty in getting loan	20.32	72.43
Lack of financial institution in the areas	50.23	52.38
Lack of requisite support from concerned organizations	85.27	76.19
Lack of demand in local market	70.00	43.86
Lack of marketing centers	50.23	14.29
Competition from larger & well established centers	5.01	52.38
Problems related to Inputs		
Non availability of raw materials	30.05	62.90
High cost of raw materials	85.27	76.19
Untimely supply of raw materials	35.00	33.33
Untimely availability of labour	-	33.33
Lack of family support	10.01	4.52

4.6.2 Problems / constraints faced by women being a house manager

Problems / constraints faced by women being a house manager have been studied

and presented in Table 4.49. Poor transport facilities as a problem was reported by 17 per cent of women in Kangra district. No loan facilities for housing and sanitary facilities were found maximum among the women in Kangra district (63 per cent) in comparison to women in Nuwara Eliya district (24 per cent). Difficulty in getting loan was another problem revealed by the 16 per cent of women in Kangra and 21 per cent of women in Nuwara Eliya district. One of the major problems expressed by women in both districts was lack of training programme for self employment. This problem was felt by 77 and 45 per cent of women in Kangra and Nuwara Eliya districts, respectively. Lack of job opportunities was another important problem faced by women in both study districts. It can be inferred that doing services at distance places as well as compulsion of doing services after the working hours were major constraints highlighted by nearly 9 per cent of women in Nuwara Eliya district. However, none of the women in Kangra district reported services at distance places or compulsion of doing services after the working hours as constraints to them. No freedom to participate in social organizations and no freedom to contribute for social cause were the major constraints to the women in Kangra district. Disputes of the family were revealed by 17 and 7 per cent of the women in Kangra and Nuwara Eliya districts, respectively. It can further be observed from the table that about 9 per cent of women in Kangra district expressed husband's addiction to alcohol as compared to 3 per cent of women in Nuwara Eliya district. Poor health facility was another problem faced by one - fifth of women in Kangra district and it was a minor problem in case of Nuwara Eliya district (1 per cent). Low support from government organization was mentioned as a problem by 35 and 16 per cent of women in Kangra and Nuwara Eliya districts, respectively. Women in both study districts reported that lack of support from family members and no facilities for children's education were minor problems for them. While no decision making power in the family as a problem was reported by 37 and 3 per cent of women in Kangra and Nuwara Eliya districts, respectively.

Table 4.49 Problems / Constraints Faced by Rural Women Being a House Manager

Problems/constraints	(Per cent)	
	Kangra	Nuwara Eliya
Poor transport facilities	17.33	0.00

No loan facilities	62.67	24.00
Difficulties in getting loans	16.00	21.33
Unavailability of land	33.33	18.67
Lack of training programmes	77.33	45.33
Lack of job opportunities	28.00	17.33
Doing services at distant places & after working hours	-	9.33
Disputes in the family	17.33	6.67
No freedom to participate in social organizations	65.31	5.14
No freedom to contribute for social cause	68.12	2.23
Husband addict to alcohol	9.33	2.67
Poor health facility	20.00	1.33
Low support from relevant organizations	34.67	16.00
Low support from family members	8.33	5.00
No facilities for children's education	1.33	0.00
No decision making power	37.33	2.67

DISCUSSION

In consonance with the set objectives of the present study, this chapter has been planned to elucidate the results backed by reasoning and logic so as to arrive at the logical conclusions and policy options. The discussion of the results has been described under the following six sections:

5.1 Socio – Economic Profile of Sample Households

5.2 Status of Women in the Study Areas

5.3 Entrepreneurial Behaviour of Women

5.4 Women’s Contribution Towards Employment, Livelihoods and Family

5.5 Livelihood Security of Women vis – a -vis Coping up Strategies

5.6 Impediments Faced by Women

5.1 Socio-Economic Profile of Sample Households

In view of considerable variation in the socio-economic features of sample households across the two study districts, it is quite obvious that these variations do have bearing on the level of resource endowments and empowerment of women which mainly determine their status in the family as well as society. It is, therefore, imperative to discuss various pointers that impact the status of women and this humble endeavor is in this direction.

When we consider the age-wise distribution of sample households, the striking feature was that more than half of the population in both the study areas belonged to

the working age group which can be considered as one of the good indicators of the development. It was revealed that the proportion of females in Kangra was higher than that of males, due to migration of males to urban areas in search of better income earning activities, education, etc. However, such type of freedom was hardly found for females mainly due to heavy work load and cultural barriers and restrictions.

Sex composition is another important socio-demographic factor that established the status of women. The sex composition of the sample households showed that the proportion of male population below 19 years in Kangra as well as in Nuwara Eliya was relatively more than females, implying thereby preference for male child in both the study areas. A recent paper presented by Arnold (1997) using the data of Demographic and Health Survey also confirmed the preference of boys than girls in India. Pullum (1980) reported that moderate son preference also exists in Sri Lanka. However, Samarasinghe and Kuruppu (1999) found that women being involved in agricultural activities and income generation for the family, the fact that daughters can care better for their parents and in the high status women society in Sri Lanka, son preference is not a common perception. Whereas on the basis of overall average, proportion of males and females was more or less similar in Kangra district, but it was found that proportion of female population was higher than males in case of Nuwara Eliya, which mainly was due to more mis happenings with males as a result of militancy and ethnic conflicts.

The phenomenon of women headship of the household is an emerging issue in the hilly areas, mainly due to rapid social and economic transformation taking place in the society. According to findings, about one-sixth of the sample households were headed by females in both the study areas. Other reasons behind female headed family are an increase in migration of males in search of occupations leaving behind their wives, widow women choosing to remain single and increase in number of divorce desertion cases. Further, it was observed that female headed households were small in size which led to increase their work load by devoting extra hours for agriculture apart from their usual domestic chores. A larger proportion of families in Nuwara Eliya district was found nuclear in nature. Poor economic condition, frequent quarrels in the joint family, belief in having separate household for married couple and their offspring and

individualistic attitude might be the main factors responsible for breakdown of joint families in Nuwara Eliya.

An overwhelming majority of widows who lost the bread winners of their families faced comparatively more financial difficulties. Apart from that they have to face various problems such as social, psychological, physical insecurity, loneliness and non co-operation from other family members. The incidence of widow was relatively higher among females in both the districts, the reasons of which was same for the both study areas as male counterparts of most of widow women were serving in defense / security forces and as such, they were killed during encounter. Moreover, the life expectancy of females was found higher than males mainly due to health unfriendly dietary pattern of males in both the study areas. According to 2008 census, the life expectancy of males and females in Sri Lanka was 73 and 77 years, respectively. Whereas, in India, life expectancy of males and females was 67 and 72 years, respectively (Anonymous, 2008).

Education empowers women; it enhances women's status in the community and leads to greater input into family and community decision making. Education also provides women with knowledge and skill, especially in the areas of health, nutrition, sanitation and the environment. Parental aspiration for the education of their children is considered as an upward socio-economic mobility that creates a gender neutral – social demand and provides the momentum for educational expansion without gender differentiation. However, the literacy rate was markedly higher for males (98 per cent) as compared to females (84 per cent) in Kangra district which amply speaks of disparity of education among females and males. Parents show apathy towards girls' education in most of the cases. This is mainly due to the low aspiration and resource crisis. Whereas, in case of Nuwara Eliya such type of disparity was not found. This was due to the facility of free education to all up to graduation level in Sri Lanka. The introduction of free education in Sri Lanka, has paved the way for women to have equal access to education as an effective tool to breakdown the barriers of a patriarchal society to a grater extent.

Property rights like land ownership has been recognized as the most fundamental pre-requisite to women's empowerment. However, the land ownership pattern was found more skewed towards males in Kangra as only 24 per cent of the total women respondents had

land in their names. On the other hand, 41 per cent of the total sampled women respondents of Nuwara Eliya had entitlement of land. The patriarchal norm, which favours the male counterparts, is the argument to justify the issue of unequal land rights of women and men. Agarwal (1989) and Fazeeha (2002) also found that the land ownership of males is higher than females.

The distribution of sampled households according to per capita income indicates that majority of households belonged to medium and low income group (77 per cent Kangra and 92 per cent Nuwara Eliya). Across the study areas, the higher proportion of respondents was found in the high income group in Kangra (24 per cent) as compared to Nuwara Eliya (8 per cent). The similar trend in distribution of sampled households on the basis of per capita expenditure was observed in the both the study areas, except varied proportion of respondents under medium and low income group (about 80 per cent Kangra and Nuwara Eliya).

Nutrition and food consumption were among the first areas of inquiry into the extent of intrahousehold differences in resource allocation (Sen, 1984), since women often were more vulnerable to nutritional problems due to their low economic and social status. The nutritional status revealed that calorie adequacy ratio was more skewed towards males in both the study areas. Similar findings have been reported by Rathnayake and Weerahewa (2003) from their studies. Across the study areas, the calorie adequacy ratio was more for females and males in Nuwara Eliya as compared to Kangra district, which might be due to the differences of food habits in two study areas. Another important point that emerged from the findings was energy inadequacy tends to decline with the age. It was found that children were the most disadvantageous group in terms of intrahousehold calorie allocation. The probable reasons might be less attention on children's food preferences due to heavy work load of mothers and unawareness of children's nutritional requirement. Medina (1991) and Rathnayake and Weerahewa (2003) also revealed that children were receiving calories less than their requirement.

5.2 Status of Women in the Study Areas

5.2.1 Decision making

Decision making power of rural women in the family has been looked upon as one of

the important factors impacting the life of the woman herself and others. In this context, the decision making relating to economic aspects has been examined, which revealed that decisions (out of six economic decisions) on minor matters such as daily family expenses and their personal needs were generally taken independently by women in both the study areas and these findings are in tune with that of Sethi (1998). Due to predominance of male over the females, it has been observed that still majority of males in Kangra district are habitual of taking major economic decisions relating to investments, savings and borrowings. Extreme patriarchal social settings of the study area could perhaps have attributed to the male dominance in economic related matters. Further, the findings of Meitei (2004) and Cain and Nahar (1979) also corroborate sole power of males to take decisions on financial matters. However, this finding is not in line with the findings of Das and Lenna (1993), who concluded that husband and wife jointly decided major financial matters. Decision on saving appears a dominance of majority of women in Nuwara Eliya district deciding themselves whether to save or not. This mainly attributed to the liberal social setting of Sri Lanka. Meitei (2004) also confirmed the decision making power of women for saving from his study. However, this finding is not confined with the results of Bala and Monga (2004). Decisions relating to jewellery and borrowings were taken together by males and females in Nuwara Eliya district. Whereas, in contrast to this, males alone took decisions relating to said matters in Kangra district. The findings, further suggest that women in Kangra district are more ignored in economic related decisions as compared to Nuwara Eliya district.

In decision regarding, social aspects, majority of females in both districts reported that they could take the decisions related to treatment for sick child, visit to natal kin and joining friends. However, the most important social decisions, children's education was taken by females as well as males. This finding is in line with that of Soni and Jindal (1983) and Bala and Monga (2004). The important point that aroused from the findings was that females in the study areas were not ignored in decision making relating to social aspects.

5.2.2 Key determinants of women's status

The results of step-up regression analysis carried out for low and high status

category of women presented in the last chapter are not displayed here just to avoid repetition and thus only the implications of findings are elaborated in this section. The findings relating to low status category women revealed that marital status, education, social participation, occupation and savings of women were the key determinants that impacted the status of women in Kangra district. Cocharan (1979), Jejeebhoy (1995 & 1996) also reported the similar factors that affected the status of women. A direction of decision making power determines the resources being possessed by women. Resources include not only the income drivers, but also the educational attainment and the occupation. Therefore, in a family, if a woman has more resources, she has more power to exercise in decision making. In this context, the occupation, women's saving and education showed positive impact on status of women. These findings have been supported by various other studies (Buric and Zeecvic 1967; Michal 1967; Saffilos-Roths Child 1967; Lamouse 1969; Lupri 1969; Kandal and Lesser 1972). Dixon (1978) also reported that status of women was determined on the basis of their earning and access to the resources. However, Bhadra (2004) argued that education has some negative impact on women's status as educated families are economically well-off and have their different life style that confines women to the domestic sphere and withdraws women from economic activities outside the home. Further, out of said variables, marital status and occupation of the women revealed strong positive influence on the status of women, whereas, husband's education impacted negatively on the status of women which might be due to the fact that if the female was uneducated or less educated in a family and her husband was more educated, then children were dependent, except food etc., on father for getting home work done, attending parent's day, preparation for exams, etc., that led to lower down the status of women. In case of high status category, education, occupation land ownership and women's income were found to be the key determinants of women's status. In this case also, education, land ownership and women's income had positive impact on the status of women. Overall, the key determinants of women's status that impacted positively were found to be the pointers like marital status, education, social participation and land ownership; however, it was the caste that impacted negatively on the status of women.

In case of Nuwara Eliya district of Sri Lanka, the key determinants that impacted the

status of women in the low status category were marital status, social participation, occupation and savings. In contrast to this finding, Indira Devi (1982) has arrived at conclusion that the employment does not bring any change to status of women. Again, as in case of Kangra, husband's education level showed negative impact on the status of women. In case of high status category, education, type of family, social participation and marriage duration had positively impacted the status of women. Bhadra (2004) also found that marriage duration positively affected the status of women. Overall, the marital status, education and social participation were the significant pointers determining the status of women in both the study areas. Also, caste was found one of the key pointers in Kangra and type of family was observed another parameter determining the status of women in Nuwara Eliya.

5.3 Entrepreneurial Behaviour of Women

5.3.1 Components of entrepreneurial behaviour

Of the major rural income earning activities, farming has been regarded as an important instrument of employment provider to the rural sector and rural women in particular. However, success of farming depends on the entrepreneurial behaviour of farm women. In this context, the relative contribution of entrepreneurial components, its association with personal, socio-economic and psychological traits and key determinants of rural women are discussed as under:

Among the components of entrepreneurial behaviour, achievement motivation, management orientation and risk taking ability in order of ranking were the important pointers for the women of Kangra district and such type of findings have been confirmed by Subramanyeswari et al. (2007). Whereas, achievement motivation, management orientation and ability to co-ordinate the farm activities were found to be the important components of entrepreneurial behaviour for women in Nuwara Eliya. Achievement motivation is the desire or need to excel and achieving a certain goal. It was observed from the results presented in the previous chapter that majority of sample households in both the study areas possessed land below 0.5 acres. Therefore, small land holders may have the desire to extend their farm size and

increase their economic level and this might be the reason for the achievement motivation being occupied first position among the eleven components of entrepreneurial behaviour of women in both the study areas. Interestingly, the women in Kangra were found of more risk averse nature and reverse was found true in Nuwara Eliya. However, risk taking ability was not contributed much to the entrepreneurial behaviour of rural women in Nuwara Eliya as in case of Kangra district. The plausible reasoning for this is that most of the women in Nuwara Eliya district are engaged in tea cultivation which is highly capital and labour intensive perennial crop and as such, they are not in a position to take risk which they have ranked at eight. Limited participation in social activities, lack of awareness about different information sources and their utilization and poor financial status might be another weaklinks for women in Kangra district, that is why they opted for the positions of leadership ability (V), farm decision making (VI), utilization availability assistance (VII), ability to coordinate farm activities (VIII) and knowledge of farming (IX). Low mobility and exposure due to restrictions and heavy work load might have attributed to the tenth position for cosmopolitaness in Kangra district. Further, women in both the study areas might have developed negative attitude towards the new technologies due to satisfaction of the results of technologies adopted earlier and unawareness of new technologies that attributed to their least inclination towards innovativeness (eleventh rank) which is one of the components of entrepreneurial behaviour.

5.3.2 Determinants of entrepreneurial behaviour of women

A farm woman may be differentiated in terms of her lifestyle, attitude, values and behaviour which together attribute her entrepreneurial behaviour. In this context, the findings revealed that education, farm income, economic motivation and accessibility to market were the key determinants of entrepreneurial behaviour of women in Kangra district. The positive impact of education implies that as the level of education increases, her entrepreneurial behaviour also increases. This may be due to the fact that education provides directions to the thinking process of the individual, hence improves her entrepreneurial behaviour. Similar findings were also reported by Mundhwa and Podhera (1998), Banajee and Talukdar (1997), Jajalekshmi et al. (1999), Subramanyeswari et al. (2007) from their respective studies. Higher farm income

improves the achievement motivation and also increases the ability of adoption of innovations and risk taking, thereby farm income showed positive impact on entrepreneurial behaviour. These findings are confined with the study of Banajee and Talukdar (1997). Whereas, age, farm income and information sources were the important determinants of entrepreneurial behaviour of women in Nuwara Eliya. The positive effect of age indicates that old age woman has a greater entrepreneurial behaviour than young ones. This may be due to the fact that availability of employment opportunities for young females in garment sector can provide more income and status than that of agriculture, but old women do not have any other option than agriculture for earning livelihoods. Another possible reason may be, as age of the woman increases her experience also increases which in turn influences the entrepreneurial behaviour. However, Mundha and Podhera (1998) and Saxena and Tripathi (1998) reported that young age women have more entrepreneurial behaviour than old age. As far as the findings of information utilization is concerned, easy accessibility of information sources which in turn updates the knowledge of farming might have attributed positive impact on entrepreneurial behaviour which is in tune with the findings of Manjula (1999).

5.4 Women's Contribution towards Employment, Livelihoods and Family

Being highly engaged in farming, rural women in Kangra and Nuwara Eliya districts performed more than three –fifth of the work related to farming, making it more or less a female domain. The proportion contribution of women to the household income from farm activities was comparatively higher in Nuwara Eliya (74 per cent) as compared to women of Kangra district (52 per cent). In case of off - farm income the reverse was found true. Women income share to total household expenditure was more in Kangra (63 per cent), than Nuwara Eliya (44 per cent), but in case of saving it was found reverse. Women are the key actors in achieving food security within the household. Findings relating to impact of women on household food security of both the study areas revealed that women's income significantly influenced women calorie adequacy ratio and household calorie adequacy ratio.

In general, women in Kangra reported that they got very limited benefits from

organizations and also there was not much impact of these services on their livelihoods. In comparison to Kangra, women in Nuwara Eliya had favourable attitude towards the organizations, indicating thereby higher level of active participation in organizations which in turn impacted their livelihoods.

5.5 Livelihood Security of Women vis-à-vis Coping up Strategies

5.5.1 Livelihood security of women

Assessment of livelihood security is helpful especially to know the constraints faced by women and also to design programme for improving their livelihoods as mentioned in the previous chapter. The purpose of comparison of cross national livelihood outcome indices is that, it could be used to evaluate the impact of national policies and spending pattern at the community level or individual level. In this context, six different livelihood outcomes of women were assessed based on the prevailing conditions of the sample households of Kangra district.

The findings of livelihood security assessment revealed that there is a significant difference between health, education, habitat and social network security of women in Kangra and Nuwara Eliya districts. On the other hand, relatively better food security score may be due to the agricultural based rural economy in the study villages coupled with introduction of food ration system for poor families. The composite index score of the overall economic security of women in Kangra showed a lower value than that of Nuwara Eliya district, indicating greater vulnerability of women in Kangra district to economic security. The limited availability and accessibility of health services in Kangra district were explained by the low aggregate health index score. It is not surprising that the index score of pre-natal and post-natal shows low value, as it was observed from the village level survey that service of female health worker is not available in some of the sample villages. Further, it was highlighted that women in Kangra district were more vulnerable to education security and women in Nuwara Eliya district stood comparatively in a better position. This might be due to the strong investment pattern on education at national level in Sri Lanka. However, it should be noted that habitat security of women in both study districts gained the

values above mid point of continuum. This indicated the less vulnerability of women in both the study areas to habitat security as compared to other livelihood security outcomes. In addition, the aggregate index score of social network security lagged behind for women in Kangra as compared to women in Nuwara Eliya district, indicating thereby low level of active participation of women in Kangra district for organizations.

Based on the livelihood security index, overall the women of Nuwara Eliya district were found better in all the indicators as compared to their counterparts of Kangra district.

5.5.2 Coping up strategies

A shock is a relatively short acting stress to livelihoods. Rural economy of both study areas is more re-silent to environmental hazardous (droughts, floods), conflicts, epidemic and other technical and social events. According to the findings, increased electricity charges and food prices were the main shocks for livelihoods of both the study areas. Coping up strategies are mechanisms dealing with short term insufficiency or insecurity of livelihoods. It was observed that borrowing food was the common practiced strategy by the women in both study areas with limited food. The next important strategy followed by the women in both the study areas against food inadequacy was to rely more on less preferential cheaper food substitute for preferred and costlier food.

5.6 Impediments Faced by Women

5.6.1 Problems/constraints faced by women being an entrepreneur

With regards to problems and constraints faced by women being an entrepreneur, poor knowledge about farming was a much severe constraint in both study districts, which perhaps might be due to low extension contacts, poor participation in extension activities and poor exposure of these women to mass media, etc. Sharma (1996), Chauhan (1999) and Chand (2000) also pinpointed these problems in farming in their studies. Majority of farm women in both study districts reported emphatically about the lack of knowledge, financial institutions, training institutions, marketing linkages and various schemes related to subsidies, loans, etc. For this,

special awareness and knowledge campaign should be launched by extension agencies. Vepa (1992) also reported that a large number of women entrepreneurs have no awareness about programmes launched by the government or private agencies. Among different problems associated with farm credits, the lengthy and complicated procedure for getting credit was the most important hindrances mentioned by them. This problem was reported by few women in Kangra district, since they were not much interested to take loans for farming. Good price as a result of high demand for the product encourages investment in farming. However, majority of females stated that low price due to no demand in the local market was a constraint to them. The problem of high cost of farm inputs was perceived by the women in case of application of manure and fertilizers, chemicals for weed control and plant protection measures. This problem might be due to the poor economic condition of sample households. Lack of subsidy was also identified as another problem faced by farm women. Singh et al (1996) also reported that lack of subsidy was one of the major problems of Himachal farmers.

5.6.2 Problems / constraints faced by women being a house manager

There are number of problems and constraints faced by women which directly or indirectly affect their livelihoods. Poor transport facilities impact on their livelihoods in many ways, eg. for schooling, marketing, etc. This problem was found to be more severe in Kangra district. Loan facilities were the dire need of households in Kangra district, for improving their households' infrastructure like drinking water and sanitary facilities. Access to land is the most important asset of rural livelihoods. However, around one-third of women in Kangra and one-fifth in Nuwara Eliya district reported unavailability of land. It was revealed from the survey that, no effective training programmes were available in both the study areas for self employment. Moreover, majority of women expressed their willingness to get engaged themselves in small industries like mushroom cultivation, handloom, etc. Therefore, training programmes should be expanded effectively to deliver benefits for rural women in both the study areas. Seetharam (1992) also emphasized that lack of training hindered the expansion of female employment. Females in Nuwara Eliya who were employed in garment factories and at distant places reported that, working

environment in the working places was not desirable. Therefore, their security can be ensured by providing support services like crèche facilities at working places, educational institution for children and transport facilities. Few females in both the study areas, reported that family disputes due to customs of dowries, lower caste, no children and having only daughters badly affected their livelihoods. No freedom to participate in social organizations and to contribute for social causes were the other problems reported by majority of women in Kangra. Husband addiction to alcohol was another important problem faced by few women in both the study areas, which mainly affected the economic condition of the family as well as social status of women.

SUMMARY

6.1 Introduction

A critical peep into the literature reveals that rural women remain the most vulnerable and the least developed lot even today, in spite of the fact that they are equal partners. Beside their biological and social right through history, contribution of rural women in term of times or efforts is not low or less than men in any way. However, this is largely implicit, unpaid, home based and, therefore, not visible and as such it is neither counted nor considered. Even the constraints that are put by this large chunk of unpaid work of rural women on their development opportunity are not concerned or evaluated in the right perspective by the policy makers.

Gender equality is one of the constitutional mandates in most of the developing countries and the importance of understanding rural women's socio-economic status and livelihood security has now been recognized by a number of international development agencies.

Because, if their condition is not improved, the chances of all round development of these people, who constitute a major portion of the population, are rather bleak and it will adversely affect overall development of the nation.

In rural areas, these females are playing major role in almost all the domestic chores as well as in agricultural and non - agricultural operations since ages and hilly areas are no exception. Unfortunately, their contributions to farm sector and various economic activities have been ignored, unsupported and inadequately understood. Many studies have pinpointed the issues relating to women, but not much attention has been paid to examine their socio-economic status and livelihood security. Moreover, hitherto conditions of women in the plains have been examined by scholars concerned with the development of women, the hilly and remote areas, however, have been neglected for a long time. In view of the above facts, the present investigation was planned to throw reasonable light on the various pointers of socio-economic status and livelihood security of women in hilly areas of Himachal Pradesh (India) and Sri Lanka.

6.2 Objectives

The present study is based on the following specific objectives:

- To identify the key socio-economic pointers contributing to the status of women
- To study entrepreneurial behaviour of women and their involvement in various activities/ organizations for women empowerment / upliftment of the family, community and society.
- To examine livelihood security of women and problems faced by them in socio-economic upliftment.

6.3 Materials and Methods

The present study was restricted to tea growing locations of Kangra district of Himachal Pradesh (India) and Nuwara Eliya district of Sri Lanka, as both areas have almost similar type of agro-climatic conditions as a result of which, tea cultivation dominates the cropping pattern in higher ranges of both regions. Multi – stage sampling technique was employed to select tea growing locations, villages and households. In the first stage of sampling,

three tea growing locations were randomly selected from each district and one village was randomly selected from each selected location in the second stage of sampling. In the final stage, 25 households were randomly selected from each sampled village, thus, making total sample size of 150 households. The present study was based on primary as well as secondary data at the household and village level. Primary data relating to various parameters of socio – economic status, entrepreneurship and livelihood security were gathered through specially designed schedules by survey method for an agricultural year (2006-07). The secondary information was collected from various published/unpublished sources, different offices of Govt. (District Statistical Office, BDO office, Panchayat office, Gramasevaka office, District Secretariat office of Nuwara Eliya, Govt. schools, Primary Health Centers, Tea Small Holding Authority etc.), NGO's (Women organizations, Aanganwadi, Balwadi, co-operatives, CARE Sri Lanka, Centre for women Research , Sri Lanka, Beredina, etc.), despite that information was collected through participatory approach and from key informants in the village.

The Tabular technique was extensively performed to workout averages, ratios, percentages, and indices relating to various socio-economic features of sample households, women's involvement in various activities, contribution of components of entrepreneurial behaviour of women, livelihood outcomes and constraints & problems faced by women. To identify key determinants of status and entrepreneurial behaviour of women, step-up regression analysis was employed. In addition, Pearson's correlation coefficients were calculated to examine impact of women's income on household food security.

6.4 Main Findings

The main findings emerged out of present investigation are summarized as:

1. The sex composition showed that the proportion of male population below 19 years in Kangra as well as in Nuwara Eliya was relatively more than females, implying thereby preference for male child in both the study areas. Whereas on the basis of overall average, proportion of males and females was more or less similar in Kangra district, but it was found that proportion female population was higher than males in

case of Nuwara Eliya which mainly was due to more mis happenings with males as a results of militancy.

2. The incidence of widow was relatively higher among females in both the districts, the reason of which was same for the both study areas as male counterparts of most of widow women were serving in defense / security forces and as such, they were killed during encounter. Moreover, the life expectancy of females is higher than males mainly due to health unfriendly dietary pattern of males in both the study areas.
3. The literacy rate was markedly higher for males (98 per cent) as compared to females (84 per cent) in Kangra district which amply speaks of disparity of education among females and males. Whereas in case of Nuwara Eliya such type of disparity was not found. This was due to the facility of free education to all up to graduation level in Sri Lanka.
4. The land ownership pattern was found more skewed towards males in Kangra as only 24 per cent of the total women respondents had land in their names. On the other hand, 41 per cent of the total sampled women respondents of Nuwara Eliya had entitlement of land.
5. The distribution of sampled households according to per capita income indicates that majority of households belonged to medium and low income group (77 per cent Kangra and 92 per cent Nuwara Eliya). Across the study areas, the higher proportion of respondents was found in the high income group in Kangra (24 per cent) as compared to Nuwara Eliya (8 per cent). The similar trend in distribution of sampled households on the basis of per capita expenditure was observed in both the study areas, except varied proportion of respondents under medium and low income group (about 80 per cent Kangra and Nuwara Eliya).
6. The nutritional status revealed that calorie adequacy ratio was more skewed towards males in both the study areas. Across the study areas, the calorie adequacy ratio was more for females and males in Nuwara Eliya as compared to that of Kangra.

7. The decisions relating to daily family expenses, personal needs, treatment for sick child, visit to natal kin and joining family friends were taken by females in the study areas. Whereas, the decisions relating to major finances (investments), saving and borrowings were taken by the males alone in Kangra. In case of Nuwara Eliya, it has been observed that decisions relating to major finances were taken by males and decisions relating to saving were taken by females. The decisions relating to ornaments were taken jointly by females and males in both the study areas. Overall, it may be concluded that the decisions rights/power lies more with the women of Nuwara Eliya as compared to Kangra.
8. The marital status, education and social participation were the significant pointers determining the status of women in both the study areas. Also, caste was found one of the key pointers in Kangra and type of family was observed as another parameter determining the status of women in Nuwara Eliya.
9. Among the components of entrepreneurial behaviour, achievement motivation, management orientation and risk taking ability in order of ranking were the important pointers for the women of Kangra district. Whereas, achievement motivation, management orientation and ability to co-ordinate the farm activities were found to be the important components of entrepreneurial behaviour for women in Nuwara Eliya. Interestingly, the women in Kangra were found of more risk averse nature and reverse was found in Nuwara Eliya.
10. Education, farm income, economic motivation and accessibility to market were identified as the key determinants of entrepreneurial behaviour of women in Kangra district. Whereas, age, farm income and information sources were the important determinants of entrepreneurial behaviour of women of Nuwara Eliya.
11. The proportional contribution of women to the household income from farm activities was comparatively higher in Nuwara Eliya (74 per cent) as compared to women of Kangra district (52 per cent). In case of off farm income the reverse was found true. Women income share to total household expenditure was more in Kangra (63 per

cent), than Nuwara Eliya (44 per cent), but in case of saving it was found reverse.

12. Based on the livelihood security index, overall the women of Nuwara Eliya district were found better in all the indicators as compared to their counterparts of Kangra district.
13. The problems faced by the women being a house manager were found almost similar for both the study areas. The most important problems pointed by women were lack of training programmes, followed by no loan facilities for household infrastructure.
14. As an entrepreneur, the most important problems of women were high cost of raw materials and lack of knowledge about financial institutions, training institutions in both study areas.

6.5 Policy Implications

1. The women of Kangra district lagged behind in respect of literacy, sex ratio, calorie intakes, land holdings and decision making rights as compared to their male counterparts in the study area and female counterparts in Nuwara Eliya district of Sri Lanka. This is a serious concern which needs to be addressed through concerted efforts and policy support.
2. In both the study areas there is a preference of male child which leads to fall in sex ratio that has serious repercussions in the long run for the society. Therefore, it needs to be checked by launching effective public and communication systems to create awareness among the society about the equal importance of male and female child.
3. Comparatively, the position of females in Nuwara Eliya has been found better in terms of pointers of status and livelihood security as compared to females of Kangra district. To improve the existing status and livelihood security of women in Kangra district, there is an urgent need to enhance the literacy level of females by imparting free education to them up to graduation level as in case of Sri Lanka.
4. Lack of training programmes on management of various household / agricultural activities, new livelihood avenues, etc., have been pinpointed by the majority of

female respondents from both the study areas. For this, the concerned institutions should come forward to impart training on the said aspects and revise their training courses as per the need of the females from time to time.

5. Understanding existing patterns of intrahousehold allocation is a key step to formulating effective development policies. While policies may affect the intrahousehold allocation of resources and the existing intrahousehold allocation may lead to policy failures. Moreover, reallocation within the household may offset the effects of targeted interventions. What is needed is a two – prolonged strategy. First, in the short run, it is important to assess the actual impact of policies and programmes that can match the intended impact. Second, in the medium to long run, policies need to improve the status of women by acknowledging the crucial role they play as harbinger of household food security and nutritional status and as major contributors to the overall household economy.

LITERATURE CITED

- Acharya, M. and Bennett, L. 1983. Women and subsistence sector economic participation and household decision making in Nepal. Staff Working Paper. No. 526. Washington. The World Bank.
- Agarwal, B. 1989. Rural women, poverty and natural resources. *Economic and Political Weekly*. 24 (43):25-30.
- Agnihotri, B.B. 1983. Income and employment pattern of rural women - A case study in the Una district of Himachal Pradesh. M. Phil. thesis, Economics Deptt., University, Shimla.
- Alderman, H and Garcia, M. 1994. Food security and health security. Explaining the levels of nutritional status in Pakistan. *Economic Development Change*. 485-507.
- Ali, A. 2005. Livelihood and food security in rural Bangladesh. The role of social capital. Ph.D. thesis. Wageningen University.
- Anitha, H.S. and Laxmisha, A.S. 1999. Women entrepreneurship in India. *Southern Economist*. (38): 11-13.
- Anonymous, 2008. CIA World Factbook. <http://indexmundi.com>
- Arnold, F. 1997. Gender preferences for children: Findings from the Demographic and Health Surveys. Paper prepared for the XXIIIrd IUSSP General population conference. Beijing, China. 11-17 October.
- Aronoff, S. and Crano, W.D. 1975. A Re-examination of the cross-cultural principles of task segregation and sex role differentiation in the family. *American Sociological Review*, 40 (1):13.
- Arun, S. 1994. Does land ownership make a difference? Women's roles in agriculture in Kerala, India. *Indian Pediatr* 31 (9):1094-7.

- Azad, G.S. 1989. Development of entrepreneurship among Indian women; A psychological analysis, SEDME, 16: 63-81.
- Azmi, F. 2002 (a, b). Challenges to women's livelihood strategies in a dry zone peasant colonization schemes in rural Sri Lanka. Dept. of Geography. NTN, Dragvoll, N-7491, Trondheim, Norway.1-25.
- Bala, M. and Monga, O.P. 2004. Impact of women's employment on decision making in families. Social Welfare. 51 (5):13-16.
- Balaraman, S.N. 1988. Sex discrimination in farm wages in Tamil Nadu. Indian Journal of Agricultural Economics. 40 (3):277-278.
- Balk, D. 2003. Change comes slowly for women in rural Bangladesh. European Journal of Clinical Nutrition. 57 (1):52-60.
- Banajee, M. and Talukdar, R.K. 1997. Variables influencing entrepreneurship of women entrepreneurs. Indian Journal of Extension Education. XXXIII (1 &2):25-36.
- Banarjee, N.K. 1986. Economic improvement of poor rural women: Some problems and prospectus for women's development studies, New Delhi.
- Barun, J.V., Haen, H.D, and Blanken, J. 1985. Commercialization of agriculture under population pressure; Effects on production, consumption and Nutrition in Rwanda. Research Report 85. International Food Policy Research Institute: 38-63.
- Bhadra, M. 2004. Status of scheduled caste women: A case study of the Rajbansis of West Bengal. Man in India. 84 (3 & 4): 285-301.
- Bhati, J.P. and Singh, D.V. 1987. Women in hill agriculture; A case study of Himachal Pradesh. Indian Journal of Agricultural Economics. 40 (3): 269.
- Bhatt, R.E. 1995. Women in dairying in India. Indian Dairyman. 39 (2): 157-162.
- Bhope, R.R. and Palki, A. 1998. Socio-economic dimensions of farm women labour, Rural India, September-October. 192-196.
- Borah, R. 1998. Perceived drudgery and factors influencing time spent in agricultural operations by farm women in Assam, Rural India, November, :214-221.
- Bouis, H. 1993. Food consumption surveys: How random are measurement errors? In

Data needs for food policy in developing countries: New directions for households surveys, ed. J.von Braun and D.Pietz, 219-231. Washington, D.C: International Food Policy Research Institute.

Buric, O. and Zeevic, A. 1967. Family authority marital satisfaction and social network in Yugoslavia. *Journal of Marriage and Family*. 29 (1)

Buttner, G.H. 1993. Female entrepreneurs: How far they have come. *Business Horizon*. 36 (2): 59-65.

Cain, M. and S.R. K. Nahar. 1979. Class and patriarchy and women's work in Bangladesh. *Population and Development Review*. 5 (3).

CARE, 2002. Impact Guidelines. Part II: Menu of standard indicators for HLS Impact CARE USA/Program Division/PHLS.

CARE, India. 1997. Household livelihood security assessment. Report. Bastar, Madhya Pradesh. India, CARE, April.

CARE, Kenya. 1996. Rapid food and livelihood security assessment. Report. Nairobi. Kenya. CARE, July.

CARE, USA. 2002. Household Livelihood security Assessments: A Toolkit for Practitioners, TANGO International Inc. Tucson, Arizona, 2002.


Census of India. 2001. Primary Census Abstract. Government of India. Census of population and Housing, Sri Lanka, 2001.

Chamber, R. and Convey, G. 1992. Substantial rural livelihoods practical concepts for the 21st century. Discussion paper 296. Brighton, UK: Institute for Development Studies. University of Sussex.

Chamber, R. 1989. Editorial Introduction: Vulnerability, coping and policy. *IDS Bull.*, 2 (2):1-7.

Chand, P. 2000. Adoption of improved wheat cultivation practices in Mandi district of Himachal Pradesh. M.Sc thesis. Himachal Pradesh Krishi Vishvavidyalaya, Palampur.

Chauhan, R.S. 1999. Adoption of improved agricultural technology of maize cultivation in Hamirpur district of Himachal Pradesh. M.Sc thesis. Himachal Pradesh Krishi Vishvavidyalaya, Palampur.

- Chauhan, S.K. 2000. Women's participation in household economy: A case study of Gaddi tribe. J. Anthropol. Surv.India. 49: 15-21.
- Cheryl Doss. 2005. The Effects of Intrahousehold Property Ownership on Expenditure Patterns in Ghana. Journal of African Economies. 34 (3):338 – 425. 
- Chritina, H., Anne, M.T., Jennifer, S.P., and Anderea S.A. 2001. Addressing food security in Africa via multiple livelihood strategies of women farmers. Journal of Food Policy, 26: 177-207.
- Cocharan, S.H. 1979. Fertility and education: What do we really know? Baltimore, MD: Jons Hopkins University Press.
- Complain, D. 1998. Preface: Livelihoods issues in rootcrop research and development. In: Sustainable livelihood for rural households: Contribution from rootcrop agriculture. Los Banos, Laguna: UPWARD : 9-12.
- Congress of labour foundation. 1990. A research study on the health status of women Plantation workers in Sri Lanka, Colombo. The Congress: 26.
- Das, M.S., Lenna. 1993. Decision making practices of employed and non-employed home makers. Journal of North – East India Council for Social Science Research. 17: 46-48.
- Das, S. 2006. Increasing gender gap and socio – economic status of women in North – East India. IIPS International Conference. Mumbai.
- David Danderson. 1999. Household livelihood security in urban settlement, Technical and Policy Unit, CARE International, UK.
- Deepti Saxena and Hema Tripathi. 1998. Entrepreneurial behaviour of milk producers according to their social, personal, economic and psychological attributes in women's dairy cooperatives. IASSI Quarterly. 17 (2): 41-51.
- Department of Census & Statistics. 2002. Quarterly report of Sri Lanka labour force survey: Second Quarter,2002.
- Department of Census and Statistics, Sri Lanka. 1981. Census of population and housing, Sri

Lanka. Preliminary release. No. 1, Sri Lanka.

Department of Census and Statistics. 2001. Primary Census Abstract of Himachal Pradesh-Series 3, Census of India, Directorate of Census Operations, Himachal Pradesh Shimla

Devadas,R.P., Singh, N. and Singh, R.P. 1975. Impact of Balwadis on women. Indian journal of Home Science. 9 (1): 46-49.

DFID. 2000. Poverty elimination and the empowerment of women. Strategies for achieving the international development targets. Department for International Development : 1-35.

Dias, S. 1990. A Preliminary investigation of women and micro enterprise in Colombo. Second National Convention on Women Studies.

Dixon, R. 1978. Rural women at work. Batimore: John Hopkins University press.

Dogra, S. 1988. An explanatory study of the constraints on the promotion of income generating projects for rural women in Haryana. M.Sc. Thesis, Haryana, Agricultural University, Hisar.

Drinkwater, M and Rusinow, T. 1999. Application of CARE's livelihood approach. Paper presented at NRAD, 1999. <http://www.livelihoods.org>.

Durrant, V.L. and Sathar, Z.A. 2000. Greater investments in children through women's empowerment: A key to Demographic change in Pakistan? Policy Research Division No. 137. Population Council, New York.

Ellis, F. 2000. Rural livelihoods and diversity in developing countries. Oxford: Oxford University Press.

Fazeeha, A. 2002. Challenges to women's livelihood strategies in a dry zone peasant colonization scheme in rural Sri Lanka. NTNU, Dragvoll. N-7491. Trondheim, Norway.

Frank Ellis. 1999. Rural livelihood diversity in developing countries: Evidence and policy implications. Journal of Natural Resource Perspectives, 40.

Frank, E. Milton, K. and Alfred, N. 2002. Livelihood and rural poverty reduction in

Malawi. LADDER Working paper NO.17, National Economic Council, Ministry of Finance, Capital Hill, Lilongwe.

Fulzele, R.M. and Meena, B.L.1994. Training needs of dairy tribal women. *Indian Journal of Dairy Science*. 48 (9). 200-2002.

Gangwar, M., Khandekar, N., Nandal, M.K. and Khandekar, P. 2005. Empowerment of women in dairy co-Operative members and non co-operative members. *Journal of Research, SKUAST-J*, 4 (2): 143-148.

Garcia, M. 1991. Impact of female sources of income on food demand among rural households in the Philippines. *Quarterly Journal of International Agriculture*. 30 (2): 109-124.

Ghosh, R and Bharati. P. 2005. Women's status and health of two ethnic groups inhabiting a periurban habitat of Kolkata City, India: a micro-level study. CNRS, UPR 2147, 75014 Paris France. rohini.ghosh@ivry.cnrs.fr

Grassman, R. 1988. Women in business curriculum materials. Overcoming barriers and building upon strength. University of Wisconsin-Extension and Small Business Development Centre.

Guleria, A.S. and Agnihotri, B.B. 1986. Contribution of female workers in the farm sector. A paper presented in seminar on role of development programmes on socio-economic status of women held in Haryana Agricultural University, Hisar.

Gupta, D. D. and Singh, V. K. 1986. Contribution of female workers in the farm sector. A paper presented in seminar on role of development programmes on socio-economic status of women. Held on Haryana Agricultural University. Hisar, March 21-23.

Haddad, L. 1999. Women's status: Levels, determinants, consequences for malnutrition, Interventions, and Policy. *Asian Development Review*. 17 (1 & 2): 96-131.

Haddad, L., Kennedy, E. and Sullivan, J. 1994. Choice of indicators for food security and nutrition monitoring. *Food Policy* 19 (3): 329-343.

Hanumappa, P.K. and Sujatha, R.S. 1984. The functional impact of Mahila Mandals in the process of socio-economic upliftment of rural women of Bangalore. *Yojana*. 38 (8): 22-28.

Hoddinott, J., and Haddad, L. 1995. Does female income share influence household expenditure? Evidence from the Cote d'Ivoire. *Oxford Bulletin of Economic and Statistics* 51

(1): 77-96.

- Huq, H. 2000. People's perception: Exploring contestation, counter –development, and rural livelihoods; Cases from Muktinagar , Bangladesh, Ph.D thesis. Wageningen, The Netherlands: Wageningen University.
- IFPRI. 2000. Women key to food security looking into the household. International Food Policy Research Institute. Washington DC.
- Indira Devi, M. 1982. Decision making. Women –education, employment: Family living. Gian publishing house, Delhi. 132-139.
- Janseen, J. 2000. Women, human capital and livelihoods; An ergonomic perspectives. Natural Resource Perspectives, 54.
- Jayalekshmi, G., Shailaja, S., and Shobana, G. 1999. Factors influencing entrepreneurial behaviour of rural women. Journal of Tropical Agriculture. 37: 102-104.
- Jayalekshmi, G., Shilaja, S. and Sobhana, G. 1997. Constraints experienced by women entrepreneurs in India. Journal of Extension Education. 8 (3):1752-1754.
- Jejeebhoy, S. 1996. Women's education, autonomy and reproductive behaviour: Assessing what we have learnt. Honolulu: East West centre.
- Jejeebhoy, S. 1995. Women's education autonomy and reproductive behaviour. Oxford: Clarendon press.
- Kamulon, Wabi and Kumar, A. 1992. Entrepreneurship development in Orissa. Yojana. 16 (2):18-19.
- Kandal, D. and Lesser, G. 1972. Marital decision making in American and Danish urban families: A research note. Journal of marriage and the family. 34 (1).
- Kapoor, K. 1998. Entrepreneurial behaviour: A study of successful women entrepreneurs. M.Sc. thesis. Panjab Agriculture University, Ludhiana.
- Kilby, P. 1971. Entrepreneurship and economic development, New York.
- Kumar, D. and Singh, A.K. 1983. Role of women in rural economy. Kurukshetra. 31(7): 13-14.
- Kumar, Vinod., Singh, T.R., Yadav, S.R., and Singh, R.P. 1985. Employment and income pattern of women labour in modern agriculture in district Meerut (UP), Indian

Journal of Agricultural Economics. 40 (3): 276-277.

- Lamouse, A. 1969. Family roles of women: A German examples. Journal of Marriage and the Family. 31 (1).
- Lerner, M., Brush, C. and Hisrich. 1997. Israeli women entrepreneurs: An examination of factors affecting performance. Journal of Business Venturing. 12 (4):315-339.
- Liu, Q. 1999. A comparative study and causal analysis of women's family status in contemporary China. Gender Development. 7 (3):19-27.
- Long, N.S. 1997. Agency and constraint, perceptions and practices: A theoretical positions. In: H. de Haan and N.Long (eds), Image and realities of rural life: Wageningen Perspectives on Rural Transformations. Assen, The Netherlands: Van Garcum.
- Lupri, E. 1969. Contemporary authority pattern in the West Germany family: In cross national validation. Journal of marriage and the family. 31 (1).
- Mahagen, N. 1992. Women's contribution in economic growth. Kurukshetra. XL (6): 15-16.
- Malhotra, A and Mather, M. 1994. Women's domestic power; The importance of life course history and the marriage system in Sri Lanka. Annual Meeting of the Population Association of America. Miami. Florida (Unpublished).
- Manjula, S.A. 1999. Factors influence entrepreneurial behaviour of rural women. Journal of Tropical Agriculture. 37: 102-104.
- Medina, B. 1991. The Filipino family: A text with selected readings Diliman, Quezon city. University of Philippines.
- Meeker, J. and Meeker, D. 1997. The Precarious socio-economic position of women in rural Africa: The Case of the Kaguru of Tanzania. African Studies Review. 40 (1): 35-58.
- Mehra, R. 1997. Annals of the American Academy of Political and Social Science. 554:136-149.
- Meitei, M.H. 2004. Education or earning and access to resources determining women's autonomy: An experience among women of Manipur. IIPS, Mumbai, India.
- Michal, A. 1967. Comparative data concerning the interaction in French and American families. Journal of marriage and family (29).

- Miller, B.D. 1992. Gender discrimination in intrahousehold food allocation in South Asia. Debates and Dilemmas. Paper presented at the Meeting of American Anthropological Association. San Francisco, 2-6. November.
- Miranda, G.V. 1977. Women's labour participation in a developing society-The case of Brazil. Women and national development – The complexities of change. The University of Chicago press, Chicago.
- Misra, B.N. 1995. Women weavers of Midnapore. Social Welfare. 41.
- Monica, M. and Talukdar, R.K. 1997. Variables influencing entrepreneurship of women entrepreneurs. Indian Journal of Extension Education. 33 (1 & 2): 25-36.
- Mtshali, S.M. 2002. Household livelihood security in rural Kwa-Zulu Natal, South Africa. Ph.D thesis. Wageningen, The Netherlands, Wageningen University.
- Mundhwa, A.B and Podheria, M.M. 1998. A study on the entrepreneurial behaviour of dairy women among their different variables categories. GAU Research Journal. Gujarat Agricultural University. 23 (2): 72-76.
- Murali, K. 1997. A study of entrepreneurs in floriculture. M.Sc. thesis. IARI, New Delhi.
- Mutangadura, G. and E. Markaudze. 1999. Urban vulnerability of chronic poverty and income shocks and effectiveness of current social protection mechanisms: The case of Zimbabwe. Harare Consultancy Report submitted to the Ministry of public service, Labour and Social Welfare and the World Bank, DRAFT.
- Mutonodzo, C. 2006. Socio-economic implication of urban agriculture on livelihood and food security in Harare. M.Sc. thesis. University of Zimbabwe.
- Nandapurkar, G.G. 1982. Small farmers. A study on their entrepreneurial behaviour). Marathkanda Agricultural University, Parbhani (Maharashtra), India.
- Nandi, A. 1973. Motives, modernity and entrepreneurial competence, Journal of Social Psychology, 91: 127-136.
- Nayyar, P. 2001. Entrepreneurship attributes among women entrepreneurs. M.Sc thesis. CSKHP Agricultural University, Palampur.
- Noponen, H. 1991. The dynamics of work and survival for the urban poor: A gender analysis of panel data from Madras. Economic Development and Cultural Change. 22 (2):

233-260.

- Oldenburg, P. 1992. Sex ratio, son preference, and violence of India. A research note. *Economic and Political Weekly* 27 (49 & 50):2657-2662.
- Pattanaik, B.K. 1996. Gender Justice women empowerment and maternal health. *Social Welfare*. 10 (11): 31-33.
- Perera, H.S.C. 2004. Problems of women entrepreneurs in the Matara district in the Southern Province of Sri Lanka. Ninth National Convention on Women's Studies Centre for Women's Research. Sri Lanka.
- Prasad, A. and Singh, N.N. 2004. Participation and role of women in panchayats. *Indian Journal of Extension Education*. 40 (3 &4): 55-60.
- Puhazhendi, V. and Jayaraman, B. 1999. Increasing women's participation and employment generation among rural poor. An approach through informal groups. *Indian Journal of Agricultural Economics*. 54 (3): 287-295.
- Pullum, T.W. 1980. Illustrative analysis: Fertility preferences in Sri Lanka, WFS scientific reports. (9).
- Punitha, M., Sangeetha, S. and Padmavathi. 1999. Women entrepreneurs: Their problems and constraints, *Indian Journal of Labour Economics*. 42 (4):701-706.
- Rahman, S and Alam, M. 2001. Baseline survey report: Livelihood security analysis of vulnerable urban households, Jessore and Tongi Pourashauvas. CARE-Bangladesh. SHAHAR Project, House 61 A, Road 8A, Dhanmondi Dhaka -1209, Bangladesh.
- Raj, D.S. 2004. SHGs and women's empowerment. *Social Welfare*. 50 (10):39-41.
- Rao, C. and Verma, V. 1987. Development of women and children in rural areas in Andhra Pradesh. A review. *Journal of Rural Development*. 6: 180-190.
- Rao, C. Harinarayana. 1991. Promotion of women entrepreneurship, SEPME, 18 (2): 21-28.
- Rashiq, S. 1999. Management practices of women entrepreneurs and impact on Quality of life. M.Sc thesis. Haryana Agricultural University, Hisar.
- Rathnayake, I. and Weerahewa, J. 2003. Intrahousehold allocation of calories among low income households in Sri Lanka: Impact of female sources of income.

Progress report. MIMAP. IDRC.

- Rathnayake, I.M. and Weerahewa, J. 2002. An assessment of intra –household allocation of food: A case study of urban poor in Kandy, Sri Lanka. *Journal of Agricultural Economics*, 4 (1): 95-105.
- Reddy, M.S. 1995. A Study on the management attributes of dairy farmers in relation to farming performance in Chitoor district of A.P. M.V.Sc. Thesis, Andhra Pradesh Agricultural University, Hyderabad.
- Redelift, M. 1990. The role of agriculture in sustainable development. In.P Lowe, T.Marsden and Whatmore (eds), *Technological change and the rural environment*. London:David Fulton Publishers Ltd.
- Rodman, H. 1972. Marital power and theory of resources in cultural context. *Journal of Comparative Family Studies*. 2 (1).
- Safilios-Rothschild, C. 1967. A comparison of power structure and marital satisfaction in urban Greek and French families. *Journal of marriage and family*. (29).
- Salika, A. 1999. Role of farm women in agriculture and their involvement in decision making- A study in Jorhat district of Assam, *Indian Journal of Agricultural Economics*. 50 (3): 301-302.
- Samanta, R.K. 1977. A Study of agro-economic, socio-psychological and communication variables associated with repayment behaviour of agricultural credit usres of National Bank. Ph.D thesis. Department of Agricultural Extension, Bidhan Chandra Krishi Vishvavidyalaya, Nadia, W..B.
- Samarasinghe, D. and Kuruppu, K. 1999. Transport to healthcare. *Voice of women*. 5 (4): 6-7.
- Samarasinghe, V. 1993. Puppets on a string: Women’s wage work and empowerment among female tea plantation workers of Sri Lanka. *Journal of Development Areas*. 27 (3): 329-339.
- Sander, W. 1986. Farm women and work. *Home Economics Research Journal*. 15 (1): 14-20.
- Saxena, D. and Tripathi, H. 1998. Entrepreneurial behaviour of milk producers according to their social, personal, economic and psychological attributes in women’s dairy cooperatives. *IASSI*. 17 (2): 41-51.

- Seetharam, M. 1992. Development of rural women –problems and alternatives. KURUKSHETRA. 40 (4): 28-30.
- Sen, A.K. 1984. Family and food: Sex bias in poverty, resources, values and development. Ed. A.K. Sen. Oxford; Basil Blackwell.
- Sethi, R.M. 1998. Status and power of working women within the family. A test of Marxian perspectives. Journal of Sociological Studies. 8: 97-108.
- Sharma, V. 1996. Extension and level of adoption gap in the package of practices for maize crop in Kandi area of Hoshiarpur district of Panjab. M.Sc thesis. Punjab Agricultural University, Ludhiana.
- Silver, C.B. 1977. France: Contrasts in familial and societal roles. In: Giele, J.Z. and Smock, A.C., Ed. (1977), Op.cit.
- Simmers, E.P. 1976. Economic research in women in rural development in Northern Nigeria. AID Research and Development Abstracts, 5 (3):5.
- Singh P., Jhamtani, A., Bhadauria, C., Srivastava, R., Rahul. And Singh, J. 2004. Participation of woman in agriculture. Indian Journal of Extension Education. XXXX (3 &4): 24-26.
- Singh, A.K. and Garcia, P.S. 1999. Female work participation and involvement in decision making process: A study in Uttar Pradesh. Indian Journal of Agricultural Economics. 50 (3): 300-301.
- Singh, R., and Manget, N.S. 1996. Elements of survey sampling. PAU, Ludhiana, Panjab, India. :108 – 122.
- Singh, V., Rana, S.S., Singh, S.P. and Kumar, A. 1996. To study the extent of adoption of latest technology by the farmers and constraints in Himachal Pradesh. Project report. Directorate of Extension. Himachal Pradesh Krishi Vishvavidyalaya, Palampur.
- Sobha, I. 2001. Women in agriculture; A case study. Yojana. 40-43.
- Soni, K. and Jindal, B.R.1983. Effect of employment of women on family decision making pattern. PAU, Journal of Research. 20 (4): 519-524.
- Spencer, D.S.C. 1981. Women in developing economy- A West African case study. AID

Research and Development Abstracts, 9 (1):31.

Stash, S. and Morgan, S.P. 1999. Women's mobility and basic education: Community and family level correlates of primary schooling in Pakistan, India and Nepal. Paper presented at the Annual Meeting of the population Association of America, New York, NY, 25-27 March.

Subrahmanyeswari, B., Veeraraghava, R.K. and Sudhar, Rao. B. 2007. Entrepreneurial behaviour of rural women farmers in dairying: A multidimensional analysis. *Livestock Research for Rural Development*. 9 (1).

Supe, S.V. 1969. Factors related to different degrees of rationality in decision making among farmers in Buldna district. Ph.D. thesis. IARI, New Delhi.

Talukdar, R.K., Monica Bannerjee and Sajib Barva. 1998. Knowledge and attitude of women entrepreneurs. *Indian Journal of Extension Education*. 34:60- 65.

Tea Directory of HP, 1997. Tea Board of India.

Thomas, D. 1990a. Intrahousehold resource allocation: An inferential approach. *Journal of Human Resource*. 25 (4): 635 – 64.

Thomas, D. 1990b. Household resources and child health in Zimbabwe. Paper presented for the Economic Department, University college, London.

Thomas, D. 1992. The Distribution of income and expenditure within the household. Paper presented at the IFPRI –World Bank Conference on Intrahousehold Resource Allocation: Policy Issues and Research Methods, Washington, DC.

Thomson, A.M and Metz, M. 1997. Implications for economic policy for food security. Training materials for agricultural planning. Agricultural Policy Support Service Policy Assistance Division, Food and Agricultural Organization, Rome.

Tuleja, Usha. 2000. Contribution of female agriculture workers in family income and their status in Haryana. *Indian Journal of Agricultural Economics*. 55 (2):136-148.

UNDP. 1995. Human development report. New York: Oxford University Press.

United Nations. 1985. The Nairobi forward –looking strategies for the advancement of women.

New York: United Nations Publication.

United Nations. 1995. The Beijing declaration and plan of action Santa Rosa: Free Hand Book.

United Nations. 1996. Food security for all rural women: International Steering Committee on the Economic Advancement of Rural Women. Geneva

Vepa, R.K. 1992. Rural industrialization problem and prospects. An overview. Khadi Gram Udyog. 39 (1): 34-50.

Vinze, M.D. 1987. Women entrepreneur in India, New Delhi, Mittal Publications.

Vlassoff, C. 1982. The Status of women in rural India: A Village study. NCBI. 32 (4): 380-407.

Yadav, A. 1985. An explanatory study on the feasibility of introducing selected income generating activities for rural women in Mehendragarh district. M.Sc. thesis, Haryana, Agricultural University, Hisar.

Yadev, V. and Verma, T. 1990. Involvement and time allocation of women labours in paddy cultivation in Haryana. HAU, Journal of Research. 20 (1): 78-81.

Zhao, X. 1991. Demographic change and economic status of women in rural China. Dissertation Abstracts. International Humanities and Social Sciences. 52 (6): 2281-2282.

Zimvac. 2003. Zimbabwe urban areas, Food security and vulnerability assessment, Zimbabwe Vulnerability Assessment Committee. Harare.