

## Chapter VIII

### Summary and Conclusion

#### 8.1. INTRODUCTION

The issue of female labour force participation or participation of women in economic activities gained prominence during the decade of the 1970s wherein the benefits of macroeconomic strategies aimed at modernization and growth failed to “trickle-down” to the poor, especially women and improve their conditions as was advocated by the prevalent development theories. Scholars and academicians challenged the “trickle-down” theory and advocated for inclusion of women in the development agenda for addressing their needs through recognition of their roles and contributions in the development process. The declaration of the United Nations Decade for Women launched in 1975 with 1975 as the International Women’s year may be regarded as a landmark in the history of women’s movement as women’s issues now gained international visibility. This gave rise to a vast amount of research on women’s issues highlighting their disadvantaged position and exploring means to address it.

Scholars’ interest on female labour force participation arises principally due to the fact that much of women’s labour escapes statistical visibility despite being crucial for the sustenance of the family, hence society, and have stressed on the need for a proper evaluation of the same through appropriate methods. The invisibility of women’s labour, as mentioned by many, arises due to the gendered nature of work which has its roots in the sexual division of labour, with the sexual division of labour being determined traditionally by the biological differences between men and women. Being naturally involved in procreation, women may be regarded as nurturers or care givers with their activities being confined to the domestic spaces i.e. within the household. Men, on the other hand have been associated traditionally with hunting or providing for the family which has led to the emergence of their role as bread winners, with their domain of operation being outside the household. Being confined to the household and not being exchanged for a price, a good amount of women’s work therefore remains unrecognized and hence unvalued. Significant bias in the definition of national income and in the collection of statistics in several countries with regard to women’s work, especially in rural areas, is another reason for under valuation of women’s work. In many instances the biases arise on the part of the enumerator, and in several others on the part of the respondents themselves who do not consider themselves as economically active despite

having active involvement in agriculture and other allied activities. The monetization of women's non-market work and valuation of their labour is not just a question of justice, but concerns the status of women in the household and society.

Another factor that has aroused the interest of scholars regarding women's work is its diverse and complex nature. While men's involvement in economic activities is determined fundamentally by economic motive of providing for the family, the reason why some women work and some don't is rooted in a wide range of economic and non-economic factors such as demographic, cultural, social, religious, personal etc. In patriarchal structures, women's work may be determined by the patriarchal norms regarding appropriate work for women, and the distinctions based on class/caste wherein women belonging to higher socio-economic class usually do not participate in activities outside the household. Owing to its diversity and complexity, it is therefore inappropriate to make generalizations regarding women's work and its determinants. Women's work hence needs to be examined with reference to the specific context under consideration.

The rationale for undertaking the present study therefore can be clearly understood from the facts that much of women's labour is subject to invisibility, and that women's work participation decisions are diverse and complex requiring region specific analysis. The primary objective of the present study undertaken in the Darjeeling hills of West Bengal is to investigate the nature and extent of women's work participation in the mountain farming systems and to highlight the significant role that women play in the rural hill economy through their involvement in different activities related to agriculture and allied activities along with unpaid domestic work. Women in the hill regions although having higher work participation in comparison to the other areas, show a predominance of family labour compared to wage labour. High work participation in the hill regions however does not indicate a high status for women rather it is a reflection of their hard economic life (Pande, 1996, p. 154). Further, hill and mountain regions owing to difficult terrain, lack of proper transport, cold climate and other constraints face marginalization in several respects. Women, in such settings therefore face double marginalization being the marginalized gender in marginalized areas. The present study therefore stresses on the need for recognition and valuation of women's contribution and suggests measures which may help to reduce women's work load and improve their status in society. The summary of the major findings of the study undertaken in the hill regions of Darjeeling district of West Bengal is presented in this chapter.

## **8.2. SUMMARY OF MAJOR FINDINGS**

The significance of hill and mountain regions in the global map can be understood from the fact that they occupy 24 percent of the global landscape and are home to 12 percent of the world's population. Mountain regions provide critical resources for survival and are important biodiversity hotspots. Nevertheless, they are some of the least developed regions of the world and face several constraints being inaccessible, marginal and fragile. The high rate of out migration of working aged males from hill regions leaving behind only the women, children and the elderly has led to additional work burden for women folk in these areas as they now need to perform tasks previously performed by men. Women being the principal production agents in the hill regions, women's work participation are significantly higher than in the plains. However, not being a part of the mainstream gender concerns in mountain regions has received little attention from scholars. Recognizing the importance of women in the rural hill economy, the present study has therefore been undertaken in the Darjeeling Hill region of the state of West Bengal to bring to light the nature and extent of work undertaken by women.

Located within the Lesser and Sub - Himalayan belts of the Eastern Himalayas the hill areas of the Darjeeling district occupy an area of 2,477.83 square kms which constitutes 79 percent of the total area of the district and is home to half (47 percent) of the district's population. Despite its declining share in the district's domestic product, agriculture is an important contributor to the economy of the district, the other important contributors being tea, timber and tourism. The agriculture practiced in the Darjeeling Hills is different in nature from the mainstream agriculture practiced in low land areas since the techniques are primarily traditional, labour intensive and is characterised by small scale of operations. The constraints imposed by the altitude leave only 13% of the total land being available for cultivation in the hills. Agriculture in the region is greatly influenced by altitude and slope aspect and the methods of cultivation in the hills vary with the crops to be grown. No crops are grown above 2,895 meters due to the cold. The productivity levels of the district are low compared to the other districts for almost all crops which could be attributed to the prevalence of small and marginal holdings; infertile land; poor irrigation facilities and inability to use modern technology. Nevertheless, the district shows higher productivity for different fruits and vegetables as compared to the productivity of other principal crops. Further, the state including the hill areas of Darjeeling district also has immense potential in

the cultivation of medicinal plants and herbs which could be harnessed for increasing the income of the rural agricultural households.

In recent years there has been a decline in the proportion of the hill population in the district which may be an indication of migration of the hill population to the lowland areas or an in migration from the surrounding states or countries to the Siliguri sub-division of the district. The proportion of the district's female population residing in the hills is also found to be greater than the proportion of the male population in both rural and urban areas which may again be an indication of male outmigration from the hill areas. The high population density and the increasing rate of urbanization of the hill areas may have adverse effect on the quality of life of women and their status in society as problems related to lack of civic amenities like sanitation, water supply, growth of slums, and increase in criminal activities etc. The sex ratio of Darjeeling district is higher than that for West Bengal and India which could point to out migration of males from the district to cities and towns in search of better employment opportunities which leads to an increased work burden of women. In terms of literacy rates the hills fare better than the district for both males and females. An upward trend in the female literacy rates is also observed which is a positive indication. Although the increasing and high levels of female literacy rates indicate improvement in the status of women, its importance should not be over emphasised. It should be analysed with respect to other indicators of women's well being.

The work participation rates for male and females in 2011 were 51.17 percent and 22.44 percent respectively in the district with the female work participation rate in the district being higher than that in the state. The district ranked 6<sup>th</sup> out of its nineteen districts according to the Census 2011 figures with a female WPR of 22.4 percent. As regards rural female work participation rates, the district ranks third among the nineteen districts. Analysis of WPRs for the district reveals higher rates for rural females in comparison to those in urban areas indicating higher work burden for the rural women. An increasing trend towards casualisation of the workforce, both male and female has also been observed as marginal category workers have registered significant growth rates during the period under analysis along with increasing WPRs. Within the agricultural sector although an increase in growth of agricultural labourers accompanied by a decline in cultivators has been observed, the general trend is a shift towards non-agricultural work as revealed by the declining proportion of rural workers in agriculture. The life cycle effects of age on female WPRs is also observed from the age specific WPRs wherein women of child-bearing and child rearing age show lower WPRs being burdened by these responsibilities. The age specific WPRs were found to reach

a peak during the middle age group of 30-49 years. The relationship between female WPRs and the level of education points to a more or less J- shaped relationship with illiterates having a higher WPR in comparison to literates up to secondary level of education. The WPR then increases for those with technical education, declines for graduates and then rises for those with technical degree. Similar pattern is observed in rural and urban areas with rural rates being higher than urban rates.

### **8.2.1. Employment Structure and Labour Force Characteristics of the Sample**

The present study has been carried out in three rural villages in the hill regions of the Darjeeling district each belonging to the three hill sub-divisions of the district i.e. Darjeeling Sadar, Kalimpong and Kurseong. The study has been undertaken prior to the bifurcation of the Darjeeling district into Darjeeling and Kalimpong on 14<sup>th</sup> February 2017. Darjeeling Sadar and Kalimpong (now district) sub-divisions have three Community Development blocks each and Kurseong sub-division two Community Development blocks. One community development block each, with a higher than average proportion of agricultural workers, was chosen from Darjeeling Sadar and Kalimpong, and Kurseong block was chosen from Kurseong sub-division because of its proximity to the town. Darjeeling-Pulbazar block was chosen in the Darjeeling Sadar sub-division with 44.2 percent of agricultural workers, and Kalimpong II was chosen in Kalimpong sub-division with 61.9 percent of agricultural workers. In Kurseong sub-division Kurseong block was chosen over Mirik due to proximity from the town. From each community development block, one village each was chosen randomly with a relatively high proportion of agricultural workers. The villages selected for the purpose of the study were Samalbong in Darjeeling-Sadar, Git Dubling Khasmahal in Kalimpong II, and Sitong Khasmahal in Kurseong. In each village 50 households were purposively selected for the study where the family members participated in agricultural activities either for commercial purposes or for subsistence. This gave a total of 150 households surveyed.

The villages chosen for the present study are primarily agrarian in character. In Samalbong village in Darjeeling Sadar sub-division, the percentage of households deriving income from agriculture as a primary activity is 38 percent which is an indication of agriculture being primarily for subsistence. An important factor explaining this could be the smaller size of the land holdings in Samalbong village which is only 1.4 acres. The larger proportion of unitary families could help to explain the smaller size of the land holdings in Samalbong village since land holdings get fragmented as families divide. The average monthly income in the Samalbong village is Rs. 11,347.97 with 92 percent of households having

monthly income up to Rs.20, 000. The male and female literacy rates are 88.3 and 88 percent respectively. The work participation rate (WPR) of the sample according to the *usual principal activity status (ps)*, in Samalbong village is 59 percent for males and 41.6 percent for females both of which show an increase according to the *usual subsidiary activity status (ss)* and the *usual status (ps+ss)*. The structure of employment according to the *usual status (ps)* reveals 43.5 percent of the male workers to be employed in agriculture in comparison to 72.3 percent for the female workers with higher proportion of self employed in agriculture. Allied activities which include livestock rearing, sericulture and fish farming were not taken up as a primary activity in the region but were important sources of subsidiary household income. The jobs outside agriculture for the males included carpentry, driving vehicles, government jobs like the army or casual jobs in construction/MGNREGA as casual labour or overseer. For the women, the off farm jobs included opening a shop in the precincts of the house selling household articles, teaching or casual labour in MGNREGA during the lean season in agriculture. Some women were involved in preparing and selling country liquor.

In Git Dubling Khasmahal in Kalimpong II, 70 percent of the households are dependent on agriculture as a primary activity. The average land holding is 2.8 acres. The average monthly income is Rs 22,814.83 with 78 percent having monthly income in the range Rs. 10,000-30,000. The male and female literacy rates are 94.1 and 86.7 percent respectively. The male and female WPRs according to the *usual principal activity status (ps)* are recorded as 59.8 and 52.8 percent respectively. The structure of employment shows that the percentages of male and female workers employed in agriculture according to the *usual status (ps)* are 65.8 percent and 82.5 percent respectively with the percentages increasing for both males and females according to the *usual status (ss)* and *usual status (ps+ss)*. In agriculture, most of the workers are in the self employed category and very few are agricultural workers. Allied activities which include livestock rearing or keeping poultry is taken up as a subsidiary activity with women's involvement being greater than that of men. The off farm activities taken up by the males include teaching, driving vehicles, running a shop, government jobs or casual labour in construction/MGNREGA. For females off farm jobs included running a shop, teaching and working in government office along with casual labour in public works like MGNREGA.

In Sitong Khasmahal village in Kurseong sub-division the proportion of households dependent on agriculture as a primary activity is 44 percent. The average land holding is 1.7 acres with 72 percent of households owning land upto 2 acres. The average monthly income is Rs.15,860.72 which is higher than in Samalbong village but lower than in Git Dubling

Khasmahal. Only 8 percent of households have income above Rs. 30,000. The male and female literacy rates in the village are 95.0 and 85.2 percent respectively. According to the *usual principal activity status (ps)* the male and female WPRs are recorded as 56.3 and 47.8 percent respectively. While 40.3 percent of male workers are employed in agriculture, 87.7 percent of female women workers are engaged in agriculture according to *usual status (ps)*. Among those engaged in agriculture majority are self employed i.e. cultivators and very few are agricultural labourers. Among non-agricultural activities, the majority of the workers both male and female are employed as regular wage/ salaried workers. The male non-farm workers were employed in the army, government offices, or were working in other places like Kurseong town, Delhi, Bangalore, Dubai etc. Some were engaged in carpentry, driving vehicles, teaching or petty trade such as opening a shop etc. Women's off farm jobs included teaching, maintaining a shop, tailoring, ICDS helper, government jobs etc.

Among the three villages it can be seen that in Git Dubling Khasmahal village in Kalimpong there is a larger proportion of households dependent on agriculture as compared to the other two villages. The average size of land holding and the average monthly income of the household in the village is also more than in the other two villages. An important feature regarding the employment structure in all three villages is the high proportion of self employed in agriculture with minimal usage of agricultural labour. The labour exchange system of '*parma*' along with '*khetalas*' cuts down the use of hired agricultural labour considerably. There is thus a predominance of family labour in the region which is an important characteristic of hill agriculture. The higher usage of family labour in the hill areas as compared to the plains could also be attributed to the prevalence of marginal holdings in the hill areas which are generally cultivated by family labour. In the plains, the land holdings are relatively larger which entails the usage of hired labour-male, female or both.

In Samalbong the principal crops grown are vegetables which include potatoes, squash, beans, peas, cabbage, ginger etc. along with black cardamom. In some of the households at a little lower altitude paddy, maize, pulses etc. were also cultivated. In Git Dubling, the principal crops were black cardamom, broom grass, red round chillies or '*dalle khorsani*' along with potatoes and other seasonal vegetables. In Sitong Khasmahal, the principal crops were carrots, radish, broom grass, red round chillies or '*dalle khorsani*', seasonal vegetables like squash, beans, '*rai saag*' etc. Black cardamom is also cultivated in certain households.

### **8.2.2. Women's Work and Gender Division of Labour**

In an attempt to understand the dynamics of gender division of labour in the rural hill region the study has examined the work patterns of men and women in different activities related to crop production, livestock rearing and household activities. Analysis of gender division of labour in different activities related to crop production and livestock rearing reveal the active involvement of women in almost all activities. There are few tasks which are gender specific and women partake in almost all activities related to crop production as family labour. As regards household work, there is very little sharing of such activities by men with the bulk of the work being performed primarily by women which points to the gendered nature of household work.

The study of gender differentials in time allocation also corroborates the above findings. Women's total contributions in terms of time allocated to different activities are larger than that of men in all three villages with women expending the bulk of their time in domestic activities vis-a-vis men who expend more time on personal activities. ANOVA tests reveal significant differences in average total time spent by men and women per day in all the three sampled villages. Therefore, the hypothesis which states that women's work burdens in the hill regions are higher than that of men can be accepted in the present study.

In terms of time spent per day, women in Samalbong and Sitong Khasmahal villages expend more time in crop production and livestock rearing whereas in Git Dubling Khasmahal village the opposite is true. The empirical study also reveals higher work participation rates for women in agriculture as compared to men in the three villages. Analysis of variance (ANOVA) tests however reveal statistically non significant results for the time spent by men and women in crop production and livestock rearing in all the three villages. The study therefore partially accepts the hypothesis that the labour input of women is higher than that of men in agricultural activities.

Among the several productive and non-productive activities that women perform, household work which includes cooking, cleaning, washing, caring for children and elderly etc. is fundamental for sustenance of the family. Women's involvement is also found to be relatively higher than that of men in activities such as collection of critical resources for family sustenance such as fuelwood, water and fodder for animals. This requires a lot of physical labour since it involves travelling for long distances especially in recent times due to depletion of forest, drying up of springs etc. These activities may also prove hazardous as women sometimes need to work on steep slopes to procure these resources.

The findings of the present study reinforce the fact widely prevalent in literature on women's work that women bear a disproportionate load of domestic work. The total time devoted by women to such activities is clearly much greater than that of men in all three villages with ANOVA test showing statistically significant results. The study therefore accepts the hypothesis that the labour input of women is higher than that of men in domestic work.

Since land in rural areas is a primary asset as it determines social status along with economic and political power, women's participation in rural areas may be determined by the amount of land owned by a household. The gender differentials in time allocation to different activities on the basis of the farm size have been analysed. The holdings have been grouped into three categories-less than 1 acre, 1-2 acres and more than 2 acres. In the present study with increase in size of the holdings an increase in time spent by women in crop production has been observed in the sampled villages. Statistically significant differences in crop production on the basis of size of land holding were observed only in Git Dubling Khasmahal village. In Git Dubling Khasmahal village, besides crop production statistically significant difference was observed in livestock rearing and total time per day. In Samalbong village statistically significant differences were not observed in any activity while in Sitong Khasmahal village statistically significant difference was observed in forage collection and fuel collection. The empirical evidence presented in the study does not provide conclusive results regarding increased participation of women in agriculture with increase in size of holdings and increased participation in non-agriculture for smaller sized holdings as the results do not hold uniformly for all the three villages under study.

### **8.2.3. Covariates of Rural Female Work Participation**

To understand the effects of socio demographic and economic variables on women's work participation in the region, a logistic regression exercise has been undertaken in the present study in which two separate models have been estimated. The first model takes into consideration both paid and unpaid employment of women as participation in the workforce and includes women in paid/wage work or self-employment, as well as those engaged in family farms as unpaid family labour. In order to arrive at the determinants of women's paid work, the second model considers a more restrictive definition of participation that includes only paid market work, but covers both wage work and self-employment. The results of the analysis show that women's employment in the rural hill regions is characterised by a predominance of unpaid work as family labour in agriculture. While 71.9 per cent of working-age women in the study were employed in paid as well as unpaid employment, only

14.5 per cent reported active participation in paid employment. This highlights the crucial role that women in the rural hill economy play through their involvement in unpaid farm employment and allied work which contributes significantly to household food and economic security.

The different variables considered for the analysis include several socio-economic and demographic variables such as age and age squared, education, structure of the family, presence of children below the age of six years, marital status of the women, primary occupation of the household head, presence of male migrant in the household, monthly per capita consumption expenditure of the household and the ownership holding of the household. The findings of the study show that the age of women has a non-linear effect on their participation in economic activities (paid as well as unpaid work) which highlights the life cycle effects of age. This implies that younger women being engaged in child-bearing and rearing activities, and other household work; and older women due to their age may not participate in economic activities as much as middle-aged women. However, age does not show a significant effect on women's work decisions, if we consider only paid work.

Although theoretically a positive correlation may be expected between levels of education and female labour force participation, results from developing countries present mixed results (Standing 1981 cited in Ackah *et al.* 2009) with some studies showing a negative relation between the two while others indicate a non-linear relation. The results of the study indicate the significant positive effect of education on women's involvement in paid work. When we consider women's paid and unpaid employment however, education did not have a significant effect on women's work participation. Women with higher levels of education preferred to take up non-farm jobs either in self-employment or wage employment. From the results of the study the hypothesis which states that education enhances women's participation in the labour market is accepted with some modification as education has been found to be positively associated with women's participation in paid work only.

The structure of the family was also observed to have an important effect on women's labour market behaviour, with women in nuclear families showing higher participation as compared to women in joint families. The presence of a single male breadwinner and the desire to augment family income in order to improve living standards may be contributing factors for higher work participation of women in nuclear families. This suggests a higher work burden for women in nuclear families where there is very little sharing of domestic responsibilities. The study also shows that the presence of children under the age of six reduced women's participation in paid work. The marital status of women was non

significant in determining women's involvement in economic activities in both models, although an inverse relation between the two was observed in both the models.

The presence of a male migrant in the family and the per capita consumption expenditure of the household, a proxy for household income, had no significant effect on the work participation of women in the study. These findings contradict the findings reported in several studies that male out-migration and low family income increases female work participation. In the present study the hypothesis which states that male out-migration has increased the work participation of hill women can thus be rejected. The study also rejects the hypothesis that labour force/work participation of women is relatively higher in case of low income families since it is not supported by the results of the study. Finally, size of landholding was found to influence women's participation in paid activities in the study area, with women in households with smaller landholdings showing a higher likelihood of participating in paid activities.

#### **8.2.4. Women's Participation in Agriculture**

The structure of employment in the study area shows that among the women who are involved in any form of economic activity, a higher proportion is engaged in agriculture with most of them being self-employed. The remaining who are considered to be engaged only in domestic activities are also involved in agriculture in subsidiary capacity. As such they form important components of the labour force. A predominance of family labour, especially female labour is hence observed to be an important characteristic of farming in the study area. Realizing the importance of women's labour inputs in agriculture, the study attempts to identify the factors that determine the time invested by women in agriculture through a multiple regression analysis. The results of the regression analysis indicate that the socio-economic and demographic factors that are significant in explaining women's involvement in agriculture are- age of the respondent, education as measured by the years of schooling, marital status of the respondent, primary occupation of the household head, the size of land holding of the household and the time spent by the male members in agriculture.

Age has a non-linear effect with time spent in agriculture increasing up to a certain age and decreasing thereafter. The younger and older aged women's participation is less than that of middle aged women showing the life cycle effect of age on women's involvement in agriculture. Education significantly influences women's involvement in agriculture wherein women with higher levels of education were found to spend less time in agriculture. This highlights the fact that higher levels of education increases the aspirations for better paid jobs outside agriculture. The results of the study also indicate that women who are currently

married tend to show a higher involvement in agriculture as opposed to the other category which includes unmarried/ widowed/ separated/divorced women. This implies that since farming in rural areas is a way of life and considered to be a part of household activity married women invest more time in it. Women belonging to agricultural households and households with larger landholdings are also found to be spending more time in agriculture in the study area. The time spent by the women in agriculture has also been found to be inversely associated with the time spent by the male members of the households which implies that the female labour is a substitute for male labour especially in agricultural households. The structure of the family, presence of a male migrant, presence of children below the age of six years and the monthly per capita consumption expenditure of the household which is regarded as a proxy for household income are found to have non-significant effects on the time spent by women in the study area. From the results of the study therefore, the hypothesis which postulates that women with larger land holdings spend more time in agriculture is accepted in the present study.

Women in rural households perform multiple tasks which help in ensuring food and economic security of the households. Food security is built on three pillars which include availability of food, access to food and use of food, with women's role being indispensable in each of the components associated with food security starting from production to preparing food and distributing it among the members of the household. Women's key role in ensuring food security in the study area can be understood from their participation in different activities related to crop production, animal husbandry and domestic activities which includes cooking, collection of critical resources such as fuel, water etc. While a little over fifty percent of women have been found to be participating in agricultural activities in Git Dubling Khasmahal (55 percent) and Sitong Khasmahal (54 percent), the average participation of women in Samalbong village was about 48 percent with the average participation of women in the three villages in activities related to crop production being 53 percent. Women were also actively involved in animal husbandry with the average participation being 52, 61 and 56 percent respectively in Samalbong, Git Dubling Khasmahal and Sitong Khasmahal villages respectively. In all the three villages taken together the average participation in animal husbandry was 56 percent. In household activities the average participation was found to be higher in all the villages with the percentages being 84, 80 and 72 respectively in Samalbong, Git Dubling Khasmahal and Sitong Khasmahal villages with the average for all three being 78 percent.

Despite women's essential role in different aspects related to food security, they are at a severe disadvantage mainly due to inequality in access to productive resources. As documented by several micro and macro studies women's limited access to productive resources such as land, credit, extension services etc. has been found to be a major constraint in their active involvement in agriculture which besides lowering agricultural productivity is also linked to women's lower status within the household and society. The FAO (2011) reports that empirical evidence from many different countries show that female farmers although being equally efficient as their male counterparts, produce less since they possess less land and use fewer inputs (FAO, 2011, p. 4). The FAO further mentions that if access to productive resources were equal for women and men, women could increase their farm yields by 20–30 percent raising total agricultural output in developing countries by 2.5–4 percent and reducing global hunger by 12–17 percent (*ibid*, p. 5). Among the different resources land is critical since ownership of land is linked to the access of other productive assets, like credit, fertilizers, extension services etc. However, the patrilineal system of land inheritance prevalent in most regions and communities across the world implies that very few women have access to land titles. Kelkar (2011) mentions that despite the fact that there is feminisation of agricultural work, women do not own land which is one of the reasons for the persistent gender inequality, and also why agricultural extension and information on new technologies are mostly targeted towards men. In the present study, due to limitations regarding empirical data women's access to productive assets have been considered with regard to the following assets-land, credit, savings, training and membership of social groups like self-help groups etc. The results of the study indicate that only about 5 percent of women in the study area have ownership of land either individually or jointly, 26 percent of women had loans granted in their names mainly through micro credit institutions like self-help groups (SHGs) and 30 percent had attended training programmes organised by government agencies. On the other hand, 54 percent of women in the study area were members of the self-help groups (SHGs) and 70 percent of women in the study area had an account in the bank or the post office. The major reason which women mentioned for not obtaining credit in their names through banks was the lack of land ownership, whereas the primary reason for not being able to attend the training programmes was the time constraint on account of household and farm work. Given these constraints, it is essential that development policies focus on specific needs and problems of women farmers and devise policies to overcome the barriers that inhibit women's active involvement in agriculture. Kelkar (2011) advocates for

“a new deal for women in agriculture, along with necessary inputs, technology and credit support” for efficient use of resources leading to increased production.

### **8.3. POLICY RECOMMENDATIONS**

From the analysis carried out in the present study it may be concluded that women are a core element of the rural hill economy. Realising the crucial role of women in agriculture, inclusion of women in the development agenda is therefore imperative for achieving high growth rate in the region. Policies formulated for improving agricultural productivity should include guidelines especially targeted towards women. In this regard the following suggestions may be put forward:

1. Hill and mountain regions have certain distinctive features known as mountain specificities which are noticeably different from the lowland areas. The specificities of inaccessibility, fragility and marginality create several constraints in the mountain areas which makes them marginalized in several respects. Development policies formulated for the lowland areas may therefore be ineffective in addressing the specific requirements of the hill regions as the mountain perspectives may be missing in most of these policies. Development agencies therefore need to be sensitive towards the needs of the mountain communities by acknowledging their differences from the mainstream and including the mountain perspective in development strategies.
2. As observed from the study, agricultural practices in the villages suffered from low productivity and low level of profits. To make agriculture more productive and remunerative it is necessary to diversify traditional agriculture from food crops to high value cash crops, horticulture, floriculture, sericulture, mushroom cultivation, cultivation of medicinal plants etc. This can be done through identification of niche products in the region i.e. the products in which the region has comparative advantage. This will lead to increased incomes of farm households.
3. Transformation of traditional agriculture requires infrastructural development in terms of improved and efficient transport system linking remote villages with urban centres, provision of warehousing and storage facilities for agricultural products, improved marketing facilities through co-operatives and higher procurement prices.
4. Inclusion of gender perspectives in agricultural development policies focusing on specific problems and constraints faced by women in the region would help improve

women's position. In this regard provisions should be made for increasing women's access to productive resources e.g. through micro credit, special saving schemes for women, programmes imparting training and extension services to women in non-traditional varieties of crops and allied activities like bee keeping, fish farming etc.

5. Animal husbandry or rearing of livestock is a characteristic feature of mountain farming systems since animals provide the much needed draught power and is a primary source of organic manure, besides supplementing household income through sale of dairy products, meat, eggs etc. Women's role in the different activities related to rearing of livestock is also found to be quite significant in the region. In this regard therefore, development of animal husbandry on a large scale may help in providing employment to a large number of women in the region. Although some households were engaged in selling of milk and other dairy products, it was carried out on a small scale. Taking inspiration from co-operative dairy farming in other regions of the country, the same could be carried out in the area by involving women in its various operations which would provide an important source of livelihood for many in the area.
6. Steps may also be undertaken for development of household industry in the region through setting up of cottage and small scale industries for augmenting the income of the rural households. This would be particularly important in the context of providing employment opportunities to women in the region since most of them are employed as family labour as is evident from the results of the study. Development of handicrafts industries such as bamboo carving, carpet weaving, knitting of woolen garments, pickling, production of jams, jellies and juices etc. can be initiated through co-operatives, self-help groups etc. Training and skill development programmes can be organized for women to harness their entrepreneurial abilities.
7. One of the factors that led to an increased burden of work for women folk in the villages was collection of critical resources for sustenance i.e. fuel wood, water, fodder for animals etc. which often required women to travel long distances. In this regard the drudgery of women can be reduced through easier availability of LPG, provision of community tanks, water supply connection etc. Rain water harvesting may also be considered as an option for improved availability of water for household and agricultural purposes.
8. The results of regression analysis undertaken in the study indicate that women with higher levels of education spend less time in agriculture and are found to be employed

more in paid work outside agriculture. The results of the study however show that employment of women in the non-agricultural sector is very low. The lack of remunerative non-farm jobs in the region may have caused many women to remain outside the work force despite having higher levels of education. This calls for revamping of the existing educational system and provision of vocational and technical education through setting up of Industrial Training Institutes, Polytechnics and other institutes for imparting professional courses to the youth in the region.

9. Finally, a proper recognition of women's work and their contributions is necessary to improve women's status within and outside the household. Although patriarchal norms and cultural biases regarding women's position is not very severe in the hill areas and women enjoy greater autonomy and respect as compared to the other regions of the country, gender sensitization is nevertheless important regarding women's status so that women are regarded as equal partners in the development process.

It can therefore be concluded that a holistic approach towards women's issues in mountain regions is necessary for recognizing women as important agents of production and for improving their status in society.

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