

CHAPTER VII

SUMMARY AND CONCLUSIONS

7.01 Summary: The present research work as outlined in the preceding chapters basically embodies an attempt to capture the totality of labour commitment of female cultivators and agricultural labourers, their composition of income and consumption expenditure and economic conditions in terms of assets and liabilities, housing status, availability of safe drinking water, percent of household having electricity as a source of lighting, not having toilet facility, percentage of population having access to radio; television; telephone, adult literacy rate and health problems and health care services of Assam in general and that of Barpeta District of Assam in particular. It has been revealed that majority of female workers of rural areas are either female cultivators or agricultural labourers. The survey indicates that female cultivators and agricultural labourers contribute a significant share of the labour use in crop production, but also spend a considerable amount of time in livestock rearing, food processing, Sericulture and weaving activities. These time commitments are in addition to the amount of time spent in household chores – almost invariably the responsibility of women. There is substantial gender specificity to many agricultural operations. Women agricultural workers continue to be paid less than their male counterparts, and suffer seasonality in employment. Though there are no inter village and intra village differences regarding labour time use, income and consumption expenditures of female cultivators and agricultural labourers, yet there are inequalities between the two sections of the rural society on some basic parameters of economic well-being like assets and liabilities, housing conditions, availability of safe drinking water, literacy rate, health care services and sanitation among the groups of villages under study.

Chapter I which encompasses the research problem, its goal and significance and a review of research in the field forms the basic foundation and direction of the study. Methods and approaches thought to be appropriate for the present study have been applied including a review of relevant literature and personal field observations. It may, however, be mentioned here that the analysis of the problem is sometimes constrained due to the non-availability of adequate data at desired level.

A study of the socio-economic status of women in Assam is made in Chapter II, as they have a significant bearing on both the quality of women population and the level of socio-economic development of the region. An attempt is made to examine

the demographic characteristics of women population of Assam as well as the three geographical regions of Assam (Lower Assam, Central Assam and Upper Assam) along with Barpeta District in comparison to national level, in terms of age and sex composition, fertility and mortality pattern, infant mortality, life expectancy, marital status, maternal mortality rate, educational status, supply of basic amenities of life and labour force participation. It has been found from the study that women in Assam don't enjoy a satisfactory position in a number of demographic fronts. For instance, infant mortality rate in Assam was 64 per mille in comparison to 53 per mille in India in 2009, female mortality rate in Assam was 7.4 per mille in comparison to 6.7 per mille in India in 2009, female life expectancy were 59.3 years in Assam in comparison to 64.2 at all India level in 2002-06, and maternal mortality rate in Assam was 480 per 1,00,000 live birth in Assam in comparison to only 254 at all India level indicating lower health status of women population in Assam. Although GER in schools in Assam at middle stages (classes VI to VIII) were higher for girls' at 90.5 in comparison to 74.4 at all India level (2010-11), the school dropout rates in Assam were higher than all India level (78.51 percent in Assam in 2008-09 in comparison to 60.12 percent at all India level) indicating poverty as most of the females dropped out from schools due to economic necessity. In the field of education, women in Assam are in a better position than the all India average. As per 2011 provisional census, the total literacy rate for Assam was 73.04 percent as against 74.04 percent rate for India. While male literacy was 78.81 percent (India – 82.14 percent), female literacy stands at 67.27 percent (India – 65.46 percent). The male-female gap in the literacy rate is still perceptible although female literacy rate in Assam is higher than all India average. Although the sex ratio of Assam have been increasing over the period 1951-2011 with the increase of the female literacy rate, the labour force participation rate of rural and urban women of Assam has been low over the period 1993-94 to 2005-06. But at regional level a slight different picture has been revealed. Although the female literacy rate of Upper Assam was 71.75 percent in comparison to 66.15 percent of Central Assam and 66.12 percent of Lower Assam in 2011, the sex ratio was low at 1000:949 in Upper Assam followed by 1000:956 in Central Assam and 1000:957 in Lower Assam. Similarly, the female labour force participation rate of Upper Assam was only 24.49 percent although literacy rate was higher. But the female labour force participation rate of Central Assam was 28.19 percent with literacy rate of 66.15 percent in 2011. The female labour force participation rate of Lower Assam was only

16.70 percent although literacy rate was 64.12 percent in 2011. Although the female literacy rate of Barpeta District was lower than Assam, the sex ratio was higher at 1000:958 in comparison to 1000:954 of Assam in 2011. But female labour force participation rate of Barpeta District was only 14.01 percent.

Life expectancy at birth is directly associated with the level of socio-economic development. As a matter of fact, the physical well-being of any population can very well be ascertained from its life expectancy. Although female life expectancy of Assam was higher than males over the period 1989 – 99 to 2002 – 06, it was much lower than national level.

The marital status of female vis-à-vis male population reflects demographic and social status of women population. Satisfactorily, the proportions of married population are quite low among both the sexes in Assam as compared to that of the country as a whole. It is indicative of the prevalence of a relatively higher age at marriage in Assam. The situation becomes far from satisfactory when proportions of widows and divorced/separated females are taken into consideration. It is because both the proportions of widows and divorced/separated females are strikingly higher than the respective male counterparts in Assam due to the prevailing social restriction of their remarriage.

Satisfactorily, the mean female age at marriage is found to be significantly high in Assam. Region wise, mean age at marriage for females in Upper Assam was higher in comparison to Central and Lower Assam as literacy rate of Upper Assam was also significantly higher.

The analysis of composite z-test and some selected demographic indicators reveals that the physical well-being of women in Assam varies widely from one region to another. The values of composite z-test show that the Central Assam occupies the highest position followed by Upper Assam and Lower Assam.

Thus, the demographic characteristics as outlined above do not seem to reveal a clear cut picture of the physical well-being of women in Assam. It appears that the factors influencing different indicators of physical well-being operate at variance at different situations.

Chapter III deals with the nature of economic activities of rural women in Assam. There is not only low female work participation in Assam, but also there are rural urban differentials. The work participation rate among the urban women is very low against their rural counterpart in Assam and Barpeta District. Moreover, the

female work participation rate in rural and urban areas of Barpeta District of Assam is lower than the average rate of Assam. The employment indicators like female WPR and proportion of female main and marginal workers are low in low literacy region (Lower Assam). In other words Lower Assam shows highest proportion of female non-workers. Being a part of Lower Assam, the WPR and proportion of female main and marginal workers in Barpeta District are low in comparison to average rate of Assam as literacy rate is only 59.04 percent leading to highest proportion of female non-workers at 85.98 percent.

Moreover, there is high percentage of female main workers in the age group 5-14 years than males in Assam which is an indicative of more child labour among females than males. Further, a significant proportion of female main workers above 60 years of age work due to economic necessity. It is however, satisfactory to note that the percentage of female main workers in the age group 15-59 were higher than males in Assam as elsewhere of the country.

Age and sex are two important demographic characteristics. It has been observed from NSSO data that there is no major increase in FWPR in rural and urban areas of India during 1993-94 to 2004-05. But in Assam, the highest increase in FWPR in rural areas took place in the age group 30-44 years (around 4 percent) during 1993-94 to 2004-05 as against highest increase in urban Assam in the age group 45-59 years i.e. 15 percent. The analysis of Age-Specific WPR has shown that the highest increase in FWPR in rural areas took place in the age group of 30-44 years (around 4 percent) during 1993-94 to 2004-05 as against highest increase in urban Assam in the age group 45-59 years i.e. 1.5 percent. Thus, higher aged persons are entering in the female labour market in recent times. This may be due to impact of inflation or social cause like breaking up of joint families into nuclear ones'.

Further, the ESFWPR in Assam was increased by 13.9 percentage points and almost stagnant at all India level during 1993-94 to 2004-05. The possible reasons may be that 87 percent of Assam population lives in rural areas. Literacy rate and education level is poor in rural areas. For illiterate women it is easy to enter the primary sector. On the other hand, women with higher education prefer to do job/work and earn rather to sit idly.

Census data of work participation rate of main and marginal workers has shown that the percentage of both male and female main workers decreased in Assam during the period 1991-2001. But there was substantial male-female gap of main

workers. It was almost 30 percent in 1991 which marginally declined to 29 percent in 2001. It indicates that males were engaged in more assured productive activities than females. Region wise, the percentage of female main workers to the total female population were lower in industrially backward Lower Assam and Barpeta District of Assam in comparison to average figure of Assam in 1991 and 2001. However, the percentage of female main workers to the total female population was higher in Central and Upper Assam in comparison to the average figure of Assam in 1991 and 2001 as because these regions are industrially advanced (particularly by tea industries) in comparison to Lower Assam.

As men migrate in search of better paid work, women particularly in rural areas are taking over agricultural work in the villages. They face meager wages, long hours and hazardous work. Figures from the census show that, amongst women, the percentage of "marginal workers" (defined as working for less than 183 days per year) has increased significantly in Assam from about 9 percent in 1991 to about 11 percent in 2001. During the same period, there was a sharp fall in the percentage of "main workers" (more than 183 days a year). The figures thus show a casualisation and feminization of the work force, with the number of marginal women workers becoming larger and more significant. Region wise, the percentage of female marginal workers in Central Assam was highest, although it has remained stagnant at around 13 percent over the period 1991-2001. During the same period, there was a sharp rise in the percentage of female marginal workers by around 6 percent in Upper Assam, and only 2 percent in Lower Assam and Barpeta District. In fact, the percentage of female marginal workers in Upper and Central Assam was more than average figure of Assam in both 1991 and 2001. It indicates not only significant regional variation in proportion of female marginal workers, but also possibility of higher incidence of unemployment among females. As marginal work is uncertain and related to irregular income, the significant percent of female marginal workers also indicate poverty and inequality.

Data relating to age group wise labour by sex has shown that higher percentage of female main workers were in the age group 5-14 years than males in both Assam and India indicating more child labour among females than males. Similarly, significant percent of female main workers in the age group above 60 in both Assam and India indicates poverty where aged people are compelled to work due to economic necessity.

The analysis of occupational structure reveals that a substantial proportion of rural work force engaged in primary sector and a very small proportion have been found engaged in secondary and tertiary sector. Agriculture is the mainstay to a very large proportion of the working population. As much as 60.33 percent of females are engaged in this sector in rural Assam, 82.21 percent in Barpeta District and 79.85 percent in rural India in 2001. In fact percentages of female work force engaged in agriculture in Barpeta District are more than average percentage of Assam. It is because of the inadequate development of secondary and tertiary sector that a substantial part of the labour force is compelled to remain in the primary sector. However, the female occupational structure in rural and urban areas has been changing slowly with a slow declining trend in the proportion of labour force in the primary sector. Moreover, the number of workers engaged in tertiary sector is on an increase as against decrease in secondary sector. This means that the change in the female occupational structure in 1991-2001 decade signifies rising work participation in the tertiary services sector, rather than in the commodity sector. This perhaps points to the emergence of positive growth forces in the economy.

Moreover, majority of female main workers are either cultivators or agricultural labourers. As many as 40.42 percent of female main workers in Assam is cultivators and 16.48 percent are agricultural labourers. In Barpeta District, 30.86 percent of female main workers are cultivators and 19.24 percent are agricultural labourers. In fact, percentage of agricultural labourers in Barpeta District is higher than Assam indicating poor economic condition and landlessness to a large section of population.

Although a significant proportion of female population is engaged in the unorganized primary sector, the participation of women in the organized sector is remarkably low in Assam. But the participation of women in the organized sector in Assam is remarkably higher than the national average. It may be due to large number of tea garden labourers in Assam. However, the share of women in employment out of total employment in organized private sector in Assam is higher than public sector. It is an indication of less economic security to a majority of employed female in Assam. The employment position of women as per employment exchange in Assam is also not encouraging. Almost 16 percent of females are without any placement, out of the total registered females in employment exchanges.

An important aspect of quality of female employment in Assam is predominance of the unorganized sector. Over the years, organised sector employment has grown relatively slowly (less than one percent during 2001-08) reflecting the faster growth of employment in the unorganized sector. As a result, there has been increasing informalisation of employment over the years. As a whole, about 67 percent of female employment is in the unorganized sector in Assam. In urban areas, the percentage of unorganized sector workers is close to 55-60 percent.

A large proportion of the workers engaged in the urban unorganized sector is migrants from rural areas with poor educational, training and skill background and are employed in low-paying, semi-skilled or unskilled jobs. The productivity and earning levels in most of the enterprises are low and do not often provide full time work to those engaged. For the employees, the working environment is not conducive, working hours are long and most of the conditions of decent employment (e.g. paid leave, pension, bonus, medical support and health insurance, maternity leave benefit, compensation against accident, etc) are virtually non-existent.

Although the magnitude of unemployment in Assam is not precisely known, we can have an idea about the trend and dimension of the problem from the number of job seekers registered with the employment exchanges. The percentage share of women to the total placement gradually increased by around 9 percent and as a result percentage of women without placement declined gradually by around 6 percent during 2004-08. Nevertheless, almost half of the women registered in employment exchanges have remained without placement. This is an indication of the mass unemployment problem of Assam in recent years. The unemployment statistics reflect only the trend and not the totality of employment and underemployment as all unemployed do not and cannot register themselves with the employment exchanges, which are mostly located in the urban areas.

Besides, there is a significant proportion of under-employment or disguised unemployment existing in the rural areas of the state, which is exerting enormous pressure on the rural economy of the state. The enormity of the problem can be appreciated from the fact that nearly 36 percent of the total population of Assam continues to live below the poverty line, a figure much above the national average of 26 percent.

The employment-unemployment survey conducted by the NSSO in various rounds provides a glimpse of various characteristics of employment and

unemployment situation in the country as well as in the states. The percentage of female employment in rural Assam according to usual status was around 16 percent in NSSO's 50th round which sharply declined to around 8.6 percent in the 60th round as the state continues to be marked by low agricultural productivity, poor infrastructure, weak communications and nascent levels of industrial activity during this period. With political normalcy restored since the past few years and improvements in the state's exchequer, investments and developmental interventions have experienced improvements. This may be the possible reason for sharp increase in female employment in rural Assam to around 21 percent of NSSO's 61st round and around 29 percent in 64th Round.

As agriculture is the predominant sector in rural areas, therefore, unemployment rate for both males and females in rural areas was less than urban areas during 1995-96 and 2004-05 in Assam as well as in India. The rural-urban differential of female unemployment rates was almost 6 percent in Assam during 1995-96 and remained almost the same in 2004-05. However, such rural-urban differential was only 4 percent in 1995-96 and marginally increased to around 5 percent at national level during 2004-05. It indicates that the unemployment rate among urban women was not only higher than rural women but also higher than the national level. The possible reason may be that there is a tendency of early exit of women (probably after marriage) from labour market particularly in urban areas due to inadequate social and family support system.

Moreover, the Workers Population Ratio (WPR) of Assam is lower than the national average at all age group level both in rural and urban areas. While at the younger age (below 14) lower WPR is a good sign for Assam, yet about 5 percent of the population in rural areas and about 3 percent in urban areas of the population of the age below 14 years are workers, which indicates existence of child labour in the society.

The most dismal stage of affairs in the female labour market of Assam can be located in the category of casual wage labourers while their work contract is terminated and renewed on a daily basis. Poor working conditions and low wages drive them to poverty. The index of casualisation in the rural areas of Assam increased by around 16 percent during 1993-94 to 2004-05 as against 13 percent decrease in urban Assam during the same period. The marked rural-urban difference in terms of percentage of female workers engaged as casual wage earners at once

reveal the several disadvantages experienced like, low wage rates, uncertain employment, and irregularity of rural female workers. In 2004-05, average casual wages for males and females was just Rs.58/- and Rs.36/- respectively in rural areas and Rs.76/- and Rs.45/- respectively in urban areas. In addition to low wages for casual workers, there is also gender bias in wage payments. It is important to note that the gender bias in casual wage payments is low in rural areas (0.61) than in urban areas (0.58).

As majority of female main workers are either cultivators or agricultural labourers, therefore Chapter IV is an attempt to examine the role of female cultivators and agricultural labourers in terms of labour hours in crop production and allied activities in rural Assam, based on field survey data. The technical design of the study is three-stage stratified random sampling with the Block as the first stage of the sampling unit, villages as the second stage of the sampling unit and the female cultivators and agricultural labourers as the third and ultimate stage of the sampling unit. The data was collected on the basis of interview method by dividing the sample villages into three groups A, B and C depending on FWPR. Such data were converted into per (8 hour) day equivalents for analysis of the role of female cultivators and agricultural labourers in agriculture and allied activities in terms of labour hours within the study groups. In doing so we pay particular attention to many activities that are often not counted as economically productive, such as time spent in tending of animals and poultry. It has been found that more female cultivators are employed in crop cultivation than agricultural labourers. In respect of study groups, the employment of female cultivators and agricultural labourers in crop cultivation is higher in group A followed by groups B and C. Disaggregated analysis by crop pattern reveal that rice is the major crop followed by vegetables and oilseeds where majority of female cultivators and agricultural labourers spent their labour time. Pulses and sugarcane accounted for a small percent of labour time use. The study also indicates that there is considerable specificity to the operation in which women participate. Women are engaged in sowing, transplanting and harvesting activities. They do not participate in the preparation of land, spraying of insecticides/pesticides, and use of wooden plough.

Next to crop cultivation, the study indicated that majority of female cultivators contributed their labour time in livestock and poultry related activities followed by handloom weaving, sericultural activities and food processing. But the female

agricultural labourers spent their labour time more in livestock and poultry related activities rather than crop cultivation as they do not possess their own land. The next important set of activities is the sericultural activities followed by handloom weaving and food processing by agricultural labourers.

Taking into account all the activities of female cultivators and agricultural labourers it is being observed that labour time use by female cultivators and agricultural labourers were highest in group A followed by group B and group C. But analysis of variance (ANOVA) of labour time use of female cultivators and agricultural labourers has shown that the difference in the labour time use of female cultivators and agricultural labourers among various groups is insignificant. Moreover, it has been found on the basis of z-test that the labour time use of female cultivators and agricultural labourers are almost the same within the groups as calculated value of z in all groups are smaller than critical value at 5% level of significance.

The composition of income and consumption expenditure of female cultivators and agricultural labourers has been delineated in Chapter V. As analyzed from the data the average income of the cultivators is around Rs.5,43,000 as compared to Rs.4,36,000 approximately for the labourers. In respect of groups also the income of the cultivators is higher as compared to the income of the labourers. In case of cultivators it is the maximum in group A with about Rs.6,50,000 and minimum is group C with almost Rs.4,81,000 as labour time use for group A cultivators was more than group C in crop cultivation and allied activities. Similar phenomenon has been observed for labourers where income of the group A labourers is highest with around Rs.5,00,000 and lowest in group C with about Rs.3,67,000 which may be due to the same reason i.e. more labour time use of group A labourers in crop cultivation and allied activities than group C. It indicates a possible correlation between labour time use and income of cultivators and labourers.

Farm income is the largest source of income of the cultivators where the earnings from casual labour are the major source of income of the labourers. On an average, farm income realised by crops is contributing almost 48 percent to the total income for cultivators. It is again highest in group A with around 49 percent and lowest in group C with about 47 percent to their respective total income as the economic well-being of group A cultivators (Chapter VI) based on composite z-test is 0.85 in comparison to -1.08 in group C. There is no possibility of farm income in case

of agricultural labourers as they are defined as the landless agricultural labourers. The major part of their income is from their participation as casual labour. On an average, they are earning almost Rs.2,58,000 as casual labour which is around 59 percent to their total income. In case of cultivators, the female family labour is taken into account. Their labour is converted as the permanent labour and it is worked out that cultivators are earning about Rs.1,57,000 i.e. around 29 percent from their family labour whereas the income of the labourers from permanent labour is around Rs.98400 i.e. about 22 percent. The labourers prefer casual labour as the casual workers enjoy more freedom.

The crop sharing labour is similar to permanent labour and the method of payment is the only difference. The crop sharing labourers are getting the particular share of the crop of the cultivators. A few cultivators are serving as crop share labourers. But the number of agricultural labourers is higher. Female cultivators are earning almost Rs.3190 i.e. less than 1 percent to the total income. On the other hand, the agricultural labourers are earning around Rs.21300 i.e. around 5 percent to their total income. It indicates that the landlessness of labourers compel them to engage themselves in crop sharing for their livelihood.

Among the subsidiary occupations dairy farming is the major contributor to the income of the female cultivators and agricultural labourers. The cultivators are earning about Rs.30150 i.e. around 5 percent to the total income whereas the labourers are earning about Rs.12500 i.e. around 3 percent. It is primarily because of the better facilities which are available to the cultivators to run this business. Poultry farming is the other activity which contributes almost 4 percent of income to the total income in all groups as against about 3 percent of the labourers. The cultivators as well as labourers are running certain other small enterprises related with farming like sale of vegetables, bee keeping, sheep rearing etc. and the cultivators are earning almost 2 percent to their total income in all groups as against only 0.37 percent of labourers from such activities. Although variance of income among study groups is not statistically significant, it is significant within the groups. Using ANOVA it has been found that the difference in the income among various groups (Group A, B and C) of female cultivators and agricultural labourers is not significant as variance ratio (F) is less than critical value at 5% level of significance. Similarly, the results of variation of income of female cultivators and agricultural labourers within the groups are analysed by using z-test. It has been found from the said test that the income

difference of female cultivators and agricultural labourers within the groups is statistically insignificant. Thus, there is no inter and intra village difference of income of cultivators and labourers.

As the income of the cultivators from farm and non-farm sources is higher than labourers, the average consumption expenditure of cultivators is also higher than labourers. It is around Rs.5 lakh for cultivators in comparison to about Rs.4 lakh of the labourers indicating that the cultivators are spending almost 12 percent more than labourers. Though there is a significant difference in the expenditure in these two sections, but they are spending the major part of their income on the food items and a very small amount on non-food items indicating under development of the rural society. The food items constitute for almost 76 percent of their total consumption expenditure for cultivators whereas the labourers are spending about 85 percent. On the other hand, around 24 percent of the total consumption expenditure is being spent on non-food items by the cultivators. The labourers are spending about 15 percent on non-food items. Among the food items, the maximum is being spent on rice which is the staple food. The cultivators are spending 21.29 percent on rice in all groups as against 23.31 percent of labourers. Another important food item is meat/fish, eggs and so about 13 percent of the total consumption expenditure is made by the cultivators on this item in all groups as against almost the same percent by the labourers as fish and eggs are easily available in our study villages with relatively cheaper price than nearest urban centres. In non-food item only about 3 percent of the total expenditure is spent on clothing by the cultivators whereas the labourers are spending almost 2 percent. Very small amount is spent on entertainment.

In respect of groups, group A is the leading group as average income of this group of cultivators and labourers was higher than group B and C. The average consumption expenditure of group A of the cultivators is about Rs.6 lakh whereas it is about Rs.5 lakh for the labourers. A good amount of money is being spent on social ceremonies, but it is observed that in case of cultivators, they are spending only about 2 percent of their total consumption expenditure on social ceremonies as against almost 1 percent of the labourers. The money spent on education that is the most important for improvement in the quality of life is very small for both the sections of the rural society. It is only about 2 percent to the total consumption expenditure for cultivators in all groups as against around 1 percent of labourers. In respect of groups, the group B cultivators are spending the maximum with more than 2 percent and

minimum in group C with about less than 2 percent. But the labourers are spending maximum in group A with about 2 percent and minimum in group C with less than 1 percent. All such phenomenon indicate lower literacy rate among cultivators and labourers. The average expenditure on meat/fish/egg is the maximum in group A and minimum in group C for the cultivators and in case of labourers also it is the maximum in group A and minimum in group C. The average expenditure on food items of the cultivators is the maximum in group C with about 80 percent to the total consumption expenditure and minimum in group A with almost 71 percent indicating lower economic well-being of group C cultivators than group A as literature suggests that more is the under development more is the expenditure on food items and less expenditure on luxuries. Similar phenomenon has been observed for labourers where expenditure on food items in group C is the maximum with about 85 percent and minimum in group A with around 80 percent. Reverse, the average consumption expenditure on non-food item is the maximum in group A with about 29 percent for cultivators and minimum in group C with only 20 percent approximately. Similarly, the average consumption expenditure on non-food item is the maximum in group A with about 20 percent for cultivators and minimum in group C with only 9 percent approximately.

Group wise average consumption expenditure of cultivators and labourers is analysed by using ANOVA and it is observed that the difference in consumption expenditure among various groups is statistically insignificant as variance ratio (F) is less than critical value at 5% level of significance. Similarly, the results of variation of consumption expenditure of cultivators and labourers within the groups are analyzed by using z-test. It has been found from the analysis that the calculated value of z for consumption expenditure of cultivators and labourers in group A (22.33), group B (9.97) and group C (18.59) is higher than critical value at 1% and 5% level of significance. Therefore, we may reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1) i.e. annual average consumption expenditure of female cultivators is greater than the labourers within the study groups, even though annual average income of cultivators and labourers provides no evidence of difference within study groups. This may be possible as consumption function is a psychological concept and it is influenced by subjective factors, like consumer's preferences, habits etc. Although variance of consumption expenditure among various groups is not significant, it is significant within the groups. Thus there are no inter-village

differences of average consumption expenditure of cultivators and labourers. However, there are intra-village differences of average consumption expenditure between the two sections of rural society.

Chapter VI deals with economic conditions of female cultivators and agricultural labourers using various parameters such as share of assets and liabilities, housing conditions, percent of households having electricity as source of lighting, access to safe drinking water within premises, not having toilet facility, percentage of households having access to radio; television; telephone, adult literacy rate and health problems and health care services!

The average value of assets of the cultivators is around Rs.979000 whereas it is about Rs.457000 of the labourers. As group A is the leading group in respect of income, so the assets of the group A are higher for cultivators. Similarly, for labourers the value of assets is highest in group A followed by group B and C. In case of cultivators, the value of assets of the group A is around Rs.1193000 and on the other hand, the value of the household assets of the labourers in group A is about Rs.513800. The value of household assets of the cultivators varies from about Rs.786400 to Rs.1193000 and for the labourers it varies from around Rs.372800 to Rs.513800.

The assets are divided into two parts as physical assets and financial assets. Although, the value of physical assets of labourers is more than cultivators in all groups, their value of financial assets is less than cultivators. The value of physical assets of labourers is around 92 percent to their total value of assets as against about 90 percent of cultivators. On the other hand, the value of financial assets of labourers is about 8 percent to their total value of assets in comparison to almost 10 percent of cultivators in all groups indicating that capacity to save for labourers is less than cultivators. Moreover, about 72 percent of average physical assets of labourers are livestock assets as against almost 32 percent of cultivators, although cultivators are having the better base to keep the milch animals and they have their own land to get easy supply of fodder. The possible reason for higher livestock assets of labourers may be the livestock sharing system followed in the villages under survey under which the labourers borrows live stocks from their employer cultivators. Labourers are compelled to follow this system as a substitute source of income for their livelihood because they have no farm income.

In respect of groups, the value of physical assets is the maximum for group C cultivators with about 91 percent and minimum in group A with almost 89 percent. But the value of financial assets is the minimum in group C with about 8 percent to their total value of assets and maximum in group A with around 11 percent which indicates lower saving capacity in group C than group A. Similarly, the value of physical assets for group C labourers is the maximum with about 93 percent and minimum in group A with around 92 percent. But the value of financial assets for group C labourers is lowest with about 7 percent as against around 8 percent in group A.

The liabilities on the loan outstanding of female cultivators and agricultural labourers are available from institutional and non-institutional sources. But loan taken by female cultivators are higher from institutional sources as against higher amount of loan from non-institutional sources for labourers. Among the farmers maximum loan was taken for production purposes followed by house construction, consumption, social ceremonies, health care and repayment of old debts. In the absence of land holding, the labourers are taking maximum loan for health care purposes followed by consumption, social ceremonies, house construction and repayment of old debts. The labourers are taking only about 7 percent of loan for production purposes as against almost 36 percent of cultivators to the total loan in all groups.

The housing condition of both the sections of the society is very poor. Although the average square feet of the cultivator houses is around more than 67 thousand sq. feet and almost 56 thousand sq. feet for labourers, yet almost 20 percent of labourer houses are kacha houses as against 9 percent of cultivators. Moreover, the number of bricked houses of cultivators is higher than labourers as the cultivators have farm income which is one of the most important sources of income in rural society. Though every village is having the facility of electricity but only about 72 percent of the cultivators and almost 62 percent of labourers are having this utility. There are only about 21 percent of mixed houses with the cultivators and labourers. Similarly, the cemented houses are only about 8 and 2 percent approximately for cultivators and labourers respectively. Only around 49 percent of the cultivator houses are ventilated as against almost 46 percent of labourers. Moreover, the percentage to the total number of houses of the cultivators having separate cattle yards are around 54 as against only about 42 percent of labourers indicating that the cultivators and particularly the labourers are having very small space for their living and when they

attach the cattle yard in their own houses, their living becomes more difficult. While they are having problems of accommodation, they are also compelled to keep the cattle in their houses to supplement their income. Almost 85 percent of cultivator houses are accessing safe drinking water while percentages of households having safe drinking water for labourers are about 81 percent indicating possibility of water borne diseases for both the sections of the rural society. Moreover, the percentages of households having radio; television and mobile phones are about 19, 10 and 14 respectively for cultivators as against almost 16, 9 and 11 percent of labourers indicating that both the sections of the rural society are unable to access latest information relating to production, marketing and even family planning, although labourers are comparatively more disadvantageous than cultivators in accessing up-to-date information. It has further been observed that the percentage of cultivator households having toilet facilities is more than labourers as the resource base of the cultivators was higher than labourers. It is around 65 percent for cultivators as against almost 49 percent of labourers indicating higher possibility of some diseases like diarrhea, trachoma, cholera and schistosomiasis among labourers than cultivators. However, almost one third of cultivators and half of the labourers are not having toilet facilities. Further, the literacy rate which is an important tool for vertical mobility is marginally higher for cultivators than labourers. It is around 47 percent for cultivators as against almost 44 percent of labourers indicating limited scope of vertical mobility for both the sections of the society. The illness distributions among cultivators and labourers during last two weeks prior to the date of interview reveal that the percentage of cultivators without having any perceived health problems is higher than labourers in all groups. It is around 17 percent for cultivators as against about 10 percent of labourers indicating that illness among the labourers is more than cultivators. The possible reason of higher incidence of illness among groups of villages of labourers than cultivators may be due to work related health hazards as the incidence of chronic skeletal muscular and postural health problems such as joint pain, back pain and respiratory diseases such as asthma of labourers are more than cultivators. The incidence of water borne diseases like diarrhea and jaundice is also higher for labourers than cultivators as percentage of labourers accessing drinking water from safe sources is less than cultivators. The incidence of general malaise and abdominal pain is also higher for labourers than cultivators which is an indicative of under-nourishment and poor health of labourers as such diseases is arising mainly

from acidity problems created by improper and irregular food habits. Thus, the general trends in the morbidity patterns reveal that their ailment is related more with poverty and occupation rather than with lifestyle. Compared to the load of general ailments, the proportion of reproductive health problems like leucorrhoea and irregular bleeding among cultivators and labourers is very small. However, the incidence of irregular bleeding for labourers is higher than cultivators indicating lack of proper medical attention by the labourers during bleeding which may be due their poor socio-economic background, overwork and lack of adequate nourishment. The percentage of induced abortion of labourers in all groups is also higher than cultivators. It is around 9 percent for labourers to the average number of ever married women as against almost 6 percent of cultivators indicating that the tendencies to terminate unwanted pregnancies and apprehension regarding birth of another girl child for labourers is more than cultivators as the literacy rate of labourers is lower than cultivators. Thus it is found that even today, women depend on abortion for controlling their fertility. Similarly, the percentage of premature delivery to the average number of ever married women among labourers is also more than cultivators in all groups. It is around 15 percent for labourers as against about 11 percent of cultivators indicating more under-nourishment and poverty among labourers than cultivators. Although the percentage of dependence on public health care system of cultivators (51.9 percent) is higher than labourers (49.26 percent), the dependence of labourers on rural bej / kabiraj and medical shop is higher than cultivators. It is about 26 percent for labourers as against almost 17 percent of cultivators indicating that the ignorance, superstitious belief and illiteracy among labourers are more than cultivators.

Depending on the parameters of economic conditions of female cultivators and agricultural labourers as noted above (selected parameter), a composite z-test has been calculated to ascertain the relative standing of each group in respect of their economic well-being. It has been found that the economic well-being of female cultivators and agricultural labourers in our study villages is almost the same as the composite z value for both the sections is almost equal i.e. around -3, although the cultivators have their own land against landlessness of labourers. It indicates subsistence level of living for both the sections of the society. In respect of groups, the composite z value for group A cultivators is maximum with + 0.85 and minimum in group C with -0.268. However, the composite z value for group B cultivators is also less than group A i.e. -

1.28. Therefore, group A cultivators has been ranked with 1st followed by group B (with 2nd) and group C (3rd) in terms of economic well being. It indicates that the economic well being of group A cultivators is better than group B and C, although the difference of the composite Z value between the groups is almost negligible

Similarly, the group A labourers has been ranked at 1st in terms of economic well-being as composite z value is maximum with 2.30 and group C villages has been ranked at 3rd as composite z value is around -6. On the other hand, group B labourers have been ranked at 2nd where the composite z value is 0.78. It can therefore be concluded that there is intra village difference of economic well being of cultivators and labourers as against absence of any inter village difference.

7.02 Conclusion:

The findings of the study and the conclusions there of are presented as follows:

I. It has been observed that the demographic characteristics of female population of Assam do not seem to reveal a clear cut picture of the physical well-being. It appears that the factors influencing at different indicators of physical well-being operate at variance at different situations. Moreover, there are regional variances of the physical well-being of women population in Assam. The physical well-being of women in Central Assam is better followed by Upper Assam and Lower Assam.

II. Majority of female main workers are cultivators and agricultural labourers. Although a significant proportion of female population is engaged in unorganized primary sector, the participation of women in the organized sector is remarkably low in Assam. Further, the female employment according to usual status has been fluctuating over the period 1993-94 to 2004-05 in both rural and urban Assam. It also appears that the percentages of unemployment among rural women in Assam are not only more than their male counterparts but also more than national average over the period 1995-96 to 2004-05.

III. There is considerable specificity to the operation in which women participate. Women are engaged in sowing, transplanting and harvesting activities. They do not participate at all in the preparation of land, spraying of insecticides /pesticides, and use of wooden herb. Though both the sections of the society spent considerable time

in crop cultivation, livestock and poultry farming, Seri culture, handloom weaving and food processing, the contribution of cultivators in terms of labour time is higher than labourers. But statistical analysis has shown that the difference in the labour time use of female cultivators and agricultural labourers among various groups of villages under study provides no evidence of difference. However, the analysis of variance of labour time use of cultivators and labourers within the two groups shows insignificant differences i.e. labour time use of cultivators is almost the same to the labourers. Thus, there are neither intra village nor inter village differences regarding labour time use of female cultivators and agricultural labourers.

IV. It has been observed that the female cultivators and agricultural labourers form the largest part of the society. The level of living of both these sections is very poor. The average income of the female cultivators is around Rs.5 lakh, whereas it is almost Rs.4 lakh for the labourers. Their level of income, consumption, assets and housing conditions, health status and sanitation facilities is very poor. Both the sections have a poor standard of living. Moreover, there are intra village inequalities regarding the consumption, assets, housing conditions and health care services of female cultivators and agricultural labourers.

V. The source base of the female cultivators and agricultural labourers is very low. Though the female cultivators are confined to their small holdings for their employment, at the same time their children are working as family labour on their holding. The farm income earned is very low. On the other hand, the labourers are dependent on their physical labour. But because of the poor source of farm business and less opportunities of employment, the female cultivators and agricultural labourers are underemployed and unemployed.

VI. Though certain parameters of economic well-beings for cultivators are higher than labourers, yet economic well-being of female cultivators and agricultural labourers are almost the same.

7.03. Suggestions:

On the basis of the existing findings, the following measures are suggested for improvement in physical well-being, socio-economic status and labour force participation of women population in Assam.

1. In view of the existing unbalanced sex ratio in most parts of the region, concerted efforts need to be made to improve the health status of women along with that of men, on the one hand, and the quality improvement of its human resources.

2. It needs no elaboration that the females in most parts of the region are largely lagging behind in terms of education than their male counterparts. Considering the vital importance of education towards upliftment of female section of the society in all spheres, effective steps need to be taken urgently by the state and Central Government for promotion of female education.

3. It follows that educational advancement in true sense among the females would result in socio-economic development in Assam, inasmuch as it helps to develop consciousness among women in respect of health and family welfare, fertility and child mortality control, and raised marriage age and gender equality. All these will make the family planning programmes a more successful one, whether women adopt them on their own or these are launched by the different implementing bodies. In any event, the role of women in this respect is very crucial.

4. The female work participation in Assam may be raised substantially through occupation based education and recognition of various household activities as viable economic activities. This would undoubtedly bring economic prosperity in Assam and also help to reduce the gender discrimination in many respects. Besides, expansion of opportunities for employment in selected areas suitable for women and recognition of their services in many unaccounted informal sectors need be made. For this, necessary training programmes on various skills including modern handicraft, weaving and farming activities have to be vigorously executed for the rural women in Assam.

5. In recognition to the direct linkage between development and women's status, it is obvious that emphasis needs to be laid on all-round socio-economic development in the region. It is because the improvement in women's status would ensure gender equality, enhancement of capacity to sustain from competition during the process of economic globalization, reduction in population growth rate and consequent sustainable balanced development across the state.

6. Raising the wage levels of casual workers both in agriculture and non-agriculture needs adequate policy attention. In this regard, stricter implementation of the Minimum Wage Act, 1948 and targeted employment generation programmes are important policy considerations. A number of studies carried out in recent years have shown that the Mahatma Gandhi National Rural Employment Guarantee Act

(MGNREGA) has had significant positive impact on rural wages. Moreover, standardization of minimum wages across various states through centrally fixed and periodically revised Statutory National Floor Minimum Wage may be an important policy initiative in this regard.

7. Special efforts should be undertaken to develop the economic condition of agricultural labourers. Land reform measures need to be strictly implemented.

8. Land is obviously the principal asset in rural areas. Access to credit, extension services, technologies, and even cooperative organizations are generally linked to land titles. The provision of land rights and access to related resources (credit, technology etc.) by female cultivators and agricultural labourers is urgently required to alter the production relations.

The present research work has unraveled a number of vital issues concerning the demographic and socio-economic characteristics of women, their labour force participation, their role in terms of labour hours particularly female cultivators and agricultural labourers, their composition of income and consumption and economic conditions. It may, however, be mentioned here that, in view of vastness of the study area and the theme, the treatment of the problem leaves further scope in a number of directions. Extensive work among various social groups, as also at micro unit levels would surely provide deeper insights into the problem. The present work on Assam has both academic value and practical significance. This work is expected to provide a precise direction to future researches in this less explored field of study in Assam but also in other parts of the country. Further more, it is needless to emphasise that the findings and suggestions of the study would also be useful in formulating effective policy and programmes for the uplift of women in the society. The proper implementation of the measure will not only reduce the gender gap in socio-economic front, but will certainly promote the process of balanced and sustainable human resource development throughout the state.