Chapter Five
Findings and Suggestions

This chapter is organized into the following three sections - summary of the principal findings of the preceding chapters, conclusion drawn on the basis of statistical and empirical analysis, and policy suggestions to reduce inequality and improve quality of life. At the end of the chapter, the limitations of this study have been pointed along with the scope for further research.

5.1 Summary of Principal Findings

This section gives an account of the major findings of the preceding four chapters. The introductory chapter of the present study, that is, Chapter I was designed to have a brief discussion about tribes, tribes of Assam and North-eastern Region and then about the Tiwa tribe. This chapter highlights the rationale of the present study and portrays the profile of the study areas, viz., Morigaon and Nagaon districts. At last, objectives of the present study and hypothesis to be tested are mentioned. In Chapter II, attempt was made to review relevant research work and literature on poverty, inequality and quality of life both in India and other poor countries. Chapter III was on materials and methods. Econometric methods cover the OLS regression and Logit methods. Non-econometric methods are used to measure inequality and inequality adjusted human development index at the household level. Nature and sources of primary and secondary data are mentioned accompanied by the location map of sample districts and sampling tree. Finally, Chapter IV reports and analyses the empirical findings of the study.

The principal findings of the study are present below:

- Dependency ratio in the present study is defined as the ratio of number of dependents per working member multiplied by 100. The average dependency ratio among sample Tiwa households in Nagaon district was 320 (or just 3.2 if not multiplied by 100, implying just more than 3 dependents per working member). In Morigaon it was 358, i.e. slightly higher (or 3.58 dependents per working member). The overall average dependency ratio in

these two districts was 346 (or 3.46 dependents per working member). This indicates that a little above 3 members are dependent on a working member in the sample households. Since all-India and state levels figure for dependency ratio is difficult to find (especially in accordance with the present definition) the present figures for the sample of Tiwa households cannot be compared on the basis of all Assam or all India figures. Moreover different authors define dependency ratio in different ways which make the figures in-comparable. In the Indian context exactly the opposite is also measured i.e. ratio of workers to total household size and ratio of workers to non-workers. In urban pockets most households dependent on either one or two working members as majority of house-holds are dependent on the service sector or unorganized business.

- The mean household size (number of members) in Nagaon and Morigaon districts were 6.00 and 5.78 per household respectively. And the overall mean size of household in the two districts among the Tiwa tribe was found to be 5.69. In other words mean household size is around 6 in the present sample. This is clearly higher compared to the average household size in urban and sub-urban areas where mean household size is around 4.
- The sex ratio on the basis of the present sample of Tiwa households in Nagaon is 991 and for Morigaon it is 987. Interestingly, the mean sex ratio among sample Tiwa households (of 989) is far above the corresponding all-Assam figure of 958 and all India figure of 940 according to Census of India Report (2011), implying that gender bias is not an issue among the Tiwa community. In fact, these figures are better than other north eastern states of India which are Arunachal Pradesh (920), Meghalaya (986), Mizoram (975), Nagaland (931), Manipur (987) and Tripura (961). But the sex ratio in the selected sam-ple is considerably lower than that of the state having the highest sex ratio of the country i.e. Kerala (at 1038) as per census of India (2011).
- Out of the total sample households (442) in the two districts, the proportion of the nuclear families among Tiwas was higher (60.86 per cent) than the proportion of the joint fami-lies (39.14 per cent). Majority of Tiwa households have nuclear families which implies the traditional Tiwa society is passing through a phase of transition where the joint family set up is rapidly breaking down into nuclear set up. This indicates that (or a part of it)

Tiwa community is quite at par with the socio-economic behavior of the main stream where nuclear families are dominant.

- In Nagaon district, 26.23 per cent of head of the households are found to be illiterate. The corresponding figure is 31.56 per cent in Morigaon district. Out of the total sample households (442), 30.09 head of the households are illiterate. This is an alarming situation as it is indicative of low skill formation, low awareness, and prevalence of occupations in the informal sector which do not require basic education. This is a serious issue from the government's educational perspectives. The percentages of graduate and post-graduate heads are 2.46 and 0.86 respectively in Nagaon and 2.19 and 0.63 respectively in Morigaon. Thus graduated earners are actually very few among Tiwas which need policy intervention.
- Out of the total sample members aged 7 years and above in the two districts, a total of 559 (or 26.15 per cent) are found to be illiterate, 745 (34.85 per cent) are found to be educated up to primary level (1-4th Class), 505 (20.79 per cent) between 5^{th} to 9^{th} standard, 126 (or 5.89 per cent) between 10^{th} to 12 standard, 127 (5.94 per cent) up to Higher Secondary, 56 (2.62per cent) up to graduation and only 20 (0.93) having post-graduate degrees. The overall literacy rate in the sample is 75.53 per cent in Nagaon district and 72.84 per cent in Morigaon district. Overall literacy rate covering both districts is 73.85 per cent.
- The study finds male and female literacy rates respectively at 83.88 per cent and 61.09 per cent in Morigaon district. The corresponding figures for Nagaon district are 85.77 per cent and 65.85 per cent respectively. Alarmingly, there exists a significant gap between male and female literacy rates in both districts among sample Tiwa households. While male literacy is above national average the female literacy rate is far from satisfactory. According to 2011 census, average literacy rate of Tiwa is 73.01 per cent out of which 80.01 per cent of males and 66.06 per cent of females reported to be literate. During the same period literacy rate among the ST population of the state is 72.1 per cent where 78.6 per cent males and 68.2 per cent females are literate**.** According to 2011 census, average literacy rate of India is 74.04 per cent in which 82.14 per cent of males and 65.46 per cent of females are reported as literate. During the same period literacy rate of

Assam was 73.18 per cent where 78.81 per cent males and 65.46 per cent females were found literate. In contrast, the literacy rate figure among selected Tiwas is much higher compared to the corresponding all-India and all-Assam figures.

- As per census of India, 2011 the work participation rate (WPR) is 48.71 per cent for all STs of India, whereas in Assam it is comparatively lower at 43.99 per cent. The WPR of all STs is 45.17 per cent in Morigaon district which is above the WPR of all STs of Assam while the same is 43.94 per cent in Nagaon which is below the WPR of all STs of Assam. On the other hand, in the present study it is found that workforce participation rate among sample Tiwas is 49.49 per cent in Morigaon district and 47.48 per cent in Nagaon district. The female workforce participation rate is 37.94 per cent in Morigaon and 30.37 per cent in Nagaon. About 76.67 per cent of males and 30.23 per cent of females in Morigaon district and 74.72 per cent of males and 31.71 per cent of females in Nagaon district are found to be main workers. In other words around 70 per cent of sample Tiwa female workers are currently working as marginal workers.
- The percentage of households earning primarily from cultivation, agricultural labour, non-agricultural labour, self-employed (businesses) are 35.52, 23.76, 13.80, 10.63 and 16.28 per cent respectively whereas contribution to total income in the sample are 43.41 per cent by service, 18.86 per cent by self-employed, 18.86 per cent by cultivation, 6.88 per cent of agricultural labour and 11.99 per cent of non-agricultural labour. It reveals that households of prime occupation in formal sector (service =16.28 per cent plus self-employed =10.63 per cent) i.e. 26.91 per cent, contributes 62.27 per cent of sample total monthly income. In sharp contrast to this, all households in informal sector occupations (agricultural labour= 23.76 per cent plus non-agricultural labour= 13.80 per cent plus cultivation= 35.52 per cent) i.e.73.09 per cent, contribute only 37.73 per cent to total sample monthly income. It indicates the disparities in income distribution across occupations in the sample Tiwa households of Morigaon and Nagaon districts of Assam.
- The percentage share of different occupations to total consumption expenditure are 40.64 per cent by service households (16.28 per cent), 16.92 per cent by self-employed (10.63 per cent), 8.34 per cent by non-agricultural labour (13.80 per cent), 14.42 per cent by agricultural labour (23.76 per cent) and 19.68 per cent by cultivator households (35.52 per

cent). Thus, the disparities in the share of consumption expenditure to total consumption expenditure across occupations are also evident.

- It is found that out of 442 households, 192 households (43.4 per cent) have at least one woman engaged in economically gainful activities. Among all the working women, 31.13 per cent of them are found engaged in cultivation, 25.57 per cent engaged as agricultural labour and 17.19 per cent engaged as non-agricultural labour. It is also found that only 13.65 per cent working women are self-employed and 12.09 per cent are engaged in service. It is evident that an overwhelming majority i.e. 76.5 per cent are engaged in informal occupation against of 21.3 per cent in formal occupation. The results also indicate that about 46.04 per cent of Tiwa women workers are illiterate and illiterate Tiwa women workers are distributed almost equally among the three occupational groups – cultivation, agricultural labour and non-agricultural labour. It is also found that as the level of education increases, the work participation of women shifts from agricultural and allied activities to non-agricultural and formal sector salaried jobs.
- Regarding occupational sustainability, the present study found that only 12.37 per cent of cultivator households are willing to continue with cultivation as their prime occupation. On the other hand 10.48 per cent of agricultural labour households are willing to continue with their current occupation. The corresponding figure for non-agricultural labour is 11.48 per cent. In other words the study reveals the fact that an overwhelming majority of the households engaged in informal occupations do not wish to continue or stay in their current occupations. The main factors behind such reluctance to continue their ancestral occupation are lack of adequate cultivable land, lack of access to capital, land fragmentation due to break up of joint families, high cost of production relative to revenue, flood problem, irrigation scarcity, parents' apathy, insecure markets, infrequent farm incomes etc.
- It is found from the field study that occupation wise average monthly per capita income is Rs. 6384.96 in service, Rs. 3936.15 in self-employed, Rs. 1012.96 in non-agricultural labour, Rs. 991.03 in agricultural labour and Rs. 1115.96 in cultivation. On the other hand, average monthly per-capita consumption expenditure (MPCE) is Rs. 4874.88 of service, Rs. 2879.18 of self-employed (in small and medium businesses), Rs. 1000.55 of

non-agricultural labour, Rs. 972.17 agricultural labour and Rs. 949.80 of cultivation. The overall monthly average per capita income is Rs. 2131.85 as against Rs. 1738.47 monthly per capita consumption expenditure.

- The BPL households spend more on food items (60.1 per cent) than on non-food items (39.9 per cent); while APL households spends more on non-food items (54.1 per cent) as compared to food items (45.9 per cent). The share of food expenditure (54.1 per cent) to the total expenditure among the Tiwa tribe in Nagaon and Morigaon districts exceeds the all India level and is lower than the all Assam figure.
- In this study, type of house is classified as per NSSO definition. According to NSSO, a pucca house is one, which has walls and roof made of wall material and roof material. Wall material includes brunt bricks, stones, cement concrete, timber, ekra etc. Roof material includes tiles, galvanised corrugated iron sheets, asbestos cement sheet, timber etc. On the other hand, if the walls and roof are made of materials such as un-burnt bricks, bamboos, mud, grass, reeds, thatch, loosely packed stones, etc are treated as kutcha house. But a house that has fixed walls made up of pucca material but roof is made up of material other than those used for pucca house. Among sample Tiwa households in Nagaon district, 10.18 per cent households live in pucca houses, 48.50 per cent households live in semi-pucca houses and 41.32 per cent households live in kutcha houses. In Morigaon district, 9.82 per cent households live in pucca houses, 46.90 per cent households live in semi-pucca houses and 43.27 per cent households live in kutcha houses. In the entire sample only 9.95 per cent households have pucca houses as against 42.53 per cent with kutcha type houses. The NSSO household level survey data (NSSO, 2014:50) show that in Assam 26.6 per cent of houses are of pucca-type, 58 per cent are of semi-pucca type and 15.3 per cent houses are of Kutcha type.
- In addition, 2.49 per cent sample Tiwa households live in a single room as against 6.33 per cent in 5 or more rooms. An overwhelming majority 61.09 per cent live in houses with 3 rooms while 12.44 per cent live in 2 rooms and 17.65 per cent live in 4 rooms.
- Majority of the households (71.27 per cent) are using tube well as source of drinking water. Only 5.66 per cent households are using government supplied piped water using taps in the house which also is the source of drinking water. 9.73 per cent are still using

river/pond and 3.62 per cent using well as a source of drinking water. It is found that 13.80 per cent draw drinking water from impure or unsafe sources.

- About 52.86 per cent Tiwa households have their drinking water source within premises. This figure is better than that of rural India (46.1 per cent as per Census, 2011) but below rural Assam (79.1 per cent). On the other hand, 31.6 per cent households have to travel almost 500 meters to fetch drinking water from the principal source located outside the premises. Drinking water quality is serious issue in flood affected areas where chances of water borne diseases are more. Moreover there is no quality check on the government supplied water and level of purification is a serious issue.
- For judging attainments in safe sanitation among sample Tiwa households this study relies on WHO definition of safe sanitation. Overall about 31.44 per cent households do not have safe sanitation facility, i.e. they defecate outdoors. As low as 11.99 per cent households have pucca sanitation, 28.05 per cent have semi-pucca and 28.51 per cent have kutcha sanitation facility. The situation is almost the same in both the districts. About 31.74 per cent of the households in Nagaon have no lavatory facility within the premises of their residence in Nagaon, whereas the corresponding figure is 31.27 per cent in Morigaon. Proportion of households using Kutcha toilets is About 27.54 per cent households in Nagaon and 29.09 per cent households in Morigaon use. The proportion of households using semi-pucca toilets is 28.00 per cent in Morigaon and 28.14 per cent in Nagaon. It is observed that in Nagaon and Morigaon, 11.64 per cent and 12.57 per cent households respectively have safe sanitation facility.
- Findings of this study show that inequality on the basis of per capita consumption expenditure for all occupations is marginally lower than results of inequality obtained from calculation on the basis of per capita income. The relative poverty is high in service and self employed in both the districts as compared to cultivation and any labour works. It is because occupations like cultivation and agricultural labour and non-agricultural labour have less difference in their earning patterns. So inequality based on their PCI is not as high as it is reasonably found in service and self employed group.

- The Gini coefficient is first calculated within different occupational groups and also for the entire sample on the basis of per capita household incomes. The Gini is slightly higher in Nagaon district (0.586) as compared to that of Morigaon district (0.527). It implies that inequality in income distribution is higher in Nagaon district. Again the Gini coefficient computed on the basis of per capita educational expenditure is higher in Nagaon district (0.450) as compared to that of Morigaon district (0.437). The Gini coefficient computed on the basis of per capita health expenditure is higher in Nagaon district (0.519) as compared to that of Morigaon district (0.513).
- The results of inequality measures indicate that relative poverty is marginally higher in Nagaon district as compared to Morigaon district. This may be because, Morigaon is a highly flood affected district, and is primarily rural where the population is over-dependent on agriculture. A few households located in non-flood affected pockets have better living conditions and slightly higher standards of living. Characteristics of villages, occupation patterns and ways of living are almost identical in the two selected districts.
- The present study has developed its own methodology of constructing a household level modified human development index adjusted for inequality. Inequality-adjusted household-level development index (IHLDI) values of Morigaon and Nagaon districts accounted for 0.398 and 0.414 respectively. Household-level development index (HLDI) values using unlogged PCI are estimated at 0.524 and 0.514 in Morigaon and Nagaon district respectively. Loss due to inequality in Morigaon and Nagaon districts were 24.0 per cent and 19.40 per cent. Household-level development index (HLDI) value in Nagaon district was computed at 0.536 and the corresponding figure for Morigaon district stood at 0.520.
- The mean value of economic index among sample Tiwa households in Morigaon district is 0.419. In Nagaon it is 0.426, i.e. slightly higher. Again the mean value of education index is 0.571 in Nagaon and 0.550 in Morigaon district. The mean value of health index in Nagaon is 0.574 and it is 0.540 in Morigaon. Finally the mean value of housing quality index in Nagaon and Morigaon respectively is 0.440 and 0.475. It is seen that Nagaon district has marginally better physical quality of life in comparison to Morigaon district. The mean value of HQLI among sample Tiwa households is found to be 0.487 in Morigaon district and 0.512 in Nagaon district.

- HQLI and its components were computed separately across occupations. The mean HQLI is found more in service compared to other occupations. The mean value of HQLI is 0.675 in service, 0.543 for self-employed, 0.345 in cultivation, 0.311 for non-agricultural labour and 0.301 for agricultural labour. Thus HQLI varies across occupations.
- The mean HQLI is found to be higher in working women households compared to non-working women households among sample Tiwas of Morigaon and Nagaon districts of Assam. The mean HQLI is 0.675 for working women households and 0.625 for non-working women households. Thus woman participation in economic activities raises HQLI.

Model Wise Important Findings

The important determinants of quality of life, or its components, which are found statistically significant in different models are as enlisted below.

Model-I: Determinants of Monthly Per Capita Household Expenditure (MPCE)

- Factors which affect monthly per capita household expenditure positively and significantly are adult education score, children education score, women workforce participation, main road connectivity, LPG dummy and reading habits of newspaper by any member in the family.
- Factors which affect monthly per capita household expenditure negatively and significantly are flood dummy, distance from nearest town (a proxy for remoteness), family type (joint family given 1, and 0 for unitary) and dependency ratio.

Model-II: Determinants of Household Education Score (HES)

- Factors which affect household education score (HES) positively and significantly are monthly per capita household expenditure, health score, housing quality score and women workforce participation.
- Factors which affect HES negatively and significantly are dependency ratio, agricultural occupation dummy and MNREGS dummy.

Model-III: Determinants of Household Health Score (HS)

- Factors which affect household health status positively and significantly are household education score, housing quality score, women workforce participation and electricity connection dummy.
- Factors which affect HS negatively and significantly are flood dummy, agricultural occupation dummy and distance from nearest town.

Model-IV: Determinants of Housing Quality Score (HQS)

- Factors which affect housing quality score positively and significantly are health score, household education score, sex ratio, agricultural occupation dummy, electricity connection dummy and reading habits of newspaper by any one member of the family.
- Factors which affect housing quality score negatively and significantly are flood dummy, agricultural occupation dummy and dependency ratio.

Model-V: Determinants of Household Quality of Life Index (HQLI).

- Factors which affect HQLI positively and significantly are women workforce participation, electricity connection dummy, LPG dummy and reading habits of newspaper by any one member of the family and income earned under MNREGS.
- Factors which affect HQLI negatively and significantly are flood dummy, agricultural occupation dummy and distance from nearest town.

Model-VI: Determinants of Women Workforce Participation (WWP) at the Household Level (Binary Logit on household level data).

- Factors which affect WWP positively and significantly are family size, dependency ratio, education of principal earning member, agricultural occupation dummy and indebtedness.
- Factors which affect WWS negatively and significantly are land holding, flood dummy.

Model-VI: Determinants of Women Workforce Participation (WWP) for Working Age Group Women (Binary Logit on Working age group Women).

- Factors which affect WWP of working age group women positively and significantly are monthly per capita consumption expenditure, dependency ratio, years of formal education, agricultural occupation dummy and indebtedness.

- Factors which affect WWP negatively and significantly are land holding, flood dummy and years of husband's formal education.

Conclusion

The present study reveals a very dismal picture of the quality of life of Tiwa people in Nagaon and Morigaon districts of Assam. In the region about 42.53 per cent of people are living in kutcha houses and across occupations around 34.61 per cent of households are below the poverty line by per capita consumption expenditure. Across occupations about 60 per cent have no safe sanitation facility and about 13.76 per cent are out of safe source of drinking water. All these aspects or dimensions of quality of life taken together definitely reflect poor socio-economic conditions among Tiwas. In other words attainments are poor in terms of health, housing, sanitation, education, income and consumption.

Agriculture is practiced in a primitive style and is the major occupation of the people. In the region 59.05 per cent sample households depend on agriculture and related activities and only 16.06 per cent sample household's income comes from service sector. At the same time economic conditions of female workers in the society is quite poor. Female literacy is found to be 63.08 per cent in contrast to male literacy rate of 84.44 per cent. Work force participation of females is 35.79 per cent against 61.68 per cent for males. Women are mainly employed in low paid work and around 69.41 per cent female are marginal workers.

Overall, in the 21st century, the life style of the Tiwa community in Nagaon and Morigaon districts of Assam is quite primitive. If Tiwas are to perform at par with the mainstream, there has to be some significant transformation in the policy formulation and its actual implementation. Although there are several schemes in the country for the welfare of the tribal communities, it appears that such schemes have by-passed the current section of the people. Thus it is required to have a re-look at the efficacy of such schemes and their actual translation on the ground. The various suggestions put in the current study could surely be useful to various agencies (including government) working to transform the life of tribal communities like the Tiwa community of Nagaon and the Morigaon districts.

To bring modernization in the society there must be transformation in technology and improvements in skill. Tiwa community needs investment in human resources to inculcate skills in the community. This has to be coupled with favourable technology to increase productivity, incomes and hence eradicate poverty. Establishment of sufficient number of educational institutions, vocational centres, hospitals & community health centres and motorable roads are the immediate needs of the hour.

Other than implementation of reservation policy, institutions like government and other voluntary agencies must come forward to develop and market tribal products like artifacts and handicrafts. A section of the Tiwa community is dependent on weaving and hence microfinance to weavers may help to uplift them out of poverty. All these will ensure occupational sustainability and livelihood security of the community and could bring out the community out of the dismal socio-economic state as has been observed in the present study. The following subsection presents the policy suggestions.

5.2 Policy Suggestions

Tiwa community, like other tribal communities, has its own identity, particularly in respect of language, dress and ornaments, culture, social structure etc. But, a segment of Tiwa people are living in different socio-economic and mixed cultural settings, which lead to socio-cultural change and so also their lifestyles and sources of earnings. In spite of the existence of numerous central and state funded welfare schemes, Tiwa community is still lagging far behind in terms of socio-economic conditions. Overall, the findings derived from primary data collected during the field survey provide important policy insights on amelioration of poverty and inequality on the one hand, and raising the physical quality of life on the other. Based on the empirical findings of present study, the following policy suggestions can be drawn to uplift the community.

Suggestions

1. Education based inequalities in quality of employment and income and hence their consequences for health and standards of living are steadily increasing, not decreasing. Population becomes human capital (i.e. the knowledge, ability, skill and physical capacity of the people that help them to be more productive) when investment is made in education and health sectors. Such an investment only enhances human capability which is necessary for people to enjoy an improved standard of living and quality of life. So, the primary task of the government is to create awareness about the importance of education within the community irrespective of their current occupation and economic conditions.
2. Good health and good society go together. Since the overall cleanliness and hygiene is lacking, there is a need to make them aware of the importance of hygiene and safe sanitation. Above all, on the part of the government it is very much necessary that basic needs, like, safe drinking water and sanitation, health education are made available. This is possible only when policy makers frame an effective health policy to achieve a healthy society. There should be provision of timely and adequate health care services including adequate and concessional medical facilities, sufficient doctors and nurses in rural health centers.
3. The share of agriculture in total income has been found to be very dismal in our study. It is definitely not a sign of economic progress health, given that agriculture is the main occupation. Crop rotation, multiple cropping and HYV cultivation are extremely vital to raise yield per bigha as well as total annual output. Cultivators should be provided proper training on use of modern equipment (wherever possible), chemical fertilizers, pesticides and HYV seeds so that farm incomes can be raised.
4. Both Morigaon and Nagaon districts have swampy lands and beels (inland water bodies) providing scope for fishing on commercial scale. This would be able to divert excess manpower from agriculture to other occupations. Fishery-cum-poultry farm, fishery-cum-duckery and allied schemes may be provided so that households that live on daily wage and partly cultivation, may get better opportunity to enhance their earning capacity. The planners should try to use these unutilized but potential avenues to raise income of the poor and needy.

5. The new generation belonging to cultivator households does not desire to join their ancestral occupation. Increased participation and enrolment in formal education would enable them to move away from the farm sector and would release the pressure on land to a large extent. The youths who do not choose to shift to the urban sector would have economical land holdings. The planners must ensure modern farming implements, and a ready market for farm produce, so that the youth who do not choose to shift to the urban sector might be attracted to farming.
6. For livestock development there is a greater need to make a paradigm shift from production orientation to quality and cost orientation for generating higher profits and higher returns to self-employed in agriculture.
7. In comparison to men, the women of this tribe are lagging behind specially in the field of education. Lack of better education of women is itself is a constraint for the improvement in the overall quality of life of the Tiwa people. So, special tribal women specific programmes and policies should be formulated to bring all girls into the mainstream of education. Educational advancement in true sense would help foster consciousness among women in respect of better participation in economic activities. Primary and secondary school infrastructure is vital in this respect.
8. Educated and skilled women should be absorbed in developed public and private enterprises under special women development and employment programme. This will cut across the intra sectional women isolation and deprivation. Tiwa women have enough potential to engage themselves in some home-based income generating and self-sustaining activities like tailoring, poultry and piggery, kitchen gardening, floriculture, cane and wooden furniture designing, bamboo crafting, handloom, food processing, etc. For this, government and other private organisations may take appropriate steps to provide them training and financial support. On the other hand, Tiwa dresses are now getting appreciation from all sections of the society. Urban people now wear their dresses on many occasions. So, modern mechanically developed machinery should be transmitted down to the level of rural and Tiwa inhabitant areas to blend the traditional dresses with modern touch so as to produce quality products for extended urban markets. In the wake of globalization this could bring about a revolutionary change among the Tiwa weavers.

9. Most of the poor express their reluctance to bear the cost of education. So, the government and NGOs should provide free books, uniform and other allied facilities to the poor, especially, to the girl child. Among them it is a fact that female education and fertility are usually negatively correlated, hence the policy of educating girls would also have a direct impact on household size, which is another important determinant of poverty.
10. Transfer of income from skilled migrant Tiwas can be an effective way to reduce income inequalities, and also education and health inequalities. The government should adopt policies that would provide credit facilities, education attainment and job opportunities to the rural migrants who come to urban area for jobs. If the skilled rural jobless migrant are employed in the organized urban sector, their remittances (i.e. income transfer) to their rural households would help to reduce poverty and income inequality and would enhance their spending power on health and education.
11. Poverty alleviation programmes should be redesigned in such a way that the targeted families are in a position to create permanent assets which might help to generate sufficient incomes leading to a permanent improvement in the quality of life and become self sufficient. The study of QOL among Tiwa people indicates that income is the strongest determinant of QOL which is expected. Thus other things constant, higher the income, better shall be the QOL. The onus of this lies with both the individuals concerned and the government. The individual must be motivated to earn more and enjoy higher standards of living. This motivation does not automatically come in a traditional backward tribal society. Grass-root political machinery (through the panchayats) may be effective in raising awareness and providing information and knowledge to the target groups.
12. Micro level planning is very essential for improvement in quality of life. In planning and implementation, involvement of beneficiaries and community should be made mandatory. There should be necessary mechanisms to monitor the quality of life of people either by the state or the community. The study also recommends that in addition to availability of a service, the accessibility and quality of services such as education and health, housing etc, should be ensured. The socio-economic development and improvement in the quality of life of Tiwa people can be best achieved only by involving the tribal people

themselves and the grass roots level institutions in the task of plan formulation and execution at the micro level.

13. For overall improvement of the quality of life, the government administrative machinery with local representative bodies along with social scientists should work harmoniously. The problems should be identified and the diseases diagnosed. The ways and means of overcoming the problem should be planned by the social scientists, because the social scientists are in a better position to understand the problems as they are informed about the details of the social anatomy and social organisation of the people concerned.
14. To improve the quality of life, policy makers have to focus on the capability and competency of government institutions, because high quality institutions and effective government are required for implementation of good policy and favorable outcomes. Corrupt government officials siphon off funds to different directions and the target groups starve. Thus, to improve the quality of life, strategies must lay emphasis on the equitable and efficient delivery of public services, expansion of agricultural and non-farm sector, and the strengthening of food security and the informal sector. The official data on income and expenditure, health and educational attainment provided by the socio-economic institutions have to be reliable, relevant, quality-based, adequate, timely, accessible, and supervised by expert research groups, but not administratively motivated. Otherwise, it will cause difficulties in policy implementation, research and financial assistance for fostering the well-being of the Tiwa tribe.

5. 3 Drawbacks and Possible Extensions of the Study

Due to scarcity of secondary data on socio-economic status of the Tiwa tribe, the present study had been carried out basically on primary data. The information about the urban Tiwa, hilly Tiwa and non-Tiwa people would have better scope in comparative analysis of their of inequality, women's working status and quality of life. The inclusion of addition numbers of indicators of quality of life may provide the clear and better results. The weakest point of this study is its lack of psychological inputs of individuals regarding their perceptions of quality of life. Attitudinal surveys on a variety of aspects of quality of life evaluation among Tiwa people may strengthen reliability and enrich the substance of this type of study. To explore

the acute causal relationship between poverty and its socio-economic factors, new variables may be incorporated for better results.

The role of micro-finance has been over-looked in the study. This could have a serious impact on people's lives in the region especially among tribal groups. Moreover the role of NGOs is also not considered as a poverty alleviating factor.

Further studies are needed to measure the poverty, inequality and quality of life of different tribes of Assam using the same indicators. This would provide an opportunity for inter-tribe comparisons which is important.

Measurement of subjective aspects of QOL indicators may be studied as it has relevance and considered as important determinant of QOL just like objective determinants.

Subject to the comparability of economic, education, health and housing status, the framework and implications of this study are of relevance for other tribes and general population of Assam as well as India for measurement of these indicators and variables and to establish its linkages with QOL indices.

Women workforce participation is not only determined by socio-economic factors, but by other factors such as historical, biological and cultural. So, an inter-disciplinary approach is required to find out the factors behind gender differences and participation of women in workforce. This is a major area for further investigation.

Analysis on the basis of time series evidences may be another approach for further research, especially to analyze the trends of women work force participation rates for tribal as well as non-tribal women. But such temporal observations on the same household are difficult to find. NSSO rounds may be employed in a similar study but a panel of households would be difficult to construct. From the methodological point of view the well established multi-dimensional poverty measure could have been used in this study in addition to the methods used. This could have provided a cross check on the results.

Factor analysis, principal component analysis and discriminate analyses are non-regression methods perhaps to achieve the same goals. None are used in this study but may be taken up in future studies on this community.