

Chapter-8

Recommendations and Conclusion

8.1 Findings

From the field survey of slums, and analysis of primary and secondary data the findings found are as follows:-

1.The slums located in different wards of Siliguri Municipal Corporation (SMC) are distributed by city zones. On the basis of this distribution ,it is found that in core zone there are 24 notified and 7 non-notified slums. In intermediary zone there are 39 notified and 7 non-notified slums. In periphery zone there are 91 notified and 19 non notified slums . In total there are 154 notified and 33 non-notified slums in Siliguri Municipal Corporation (SMC). It was found that the slums located in the core zone of SMC are older slums. These slums are smaller in area as they cannot expand horizontally. The population density is very high (above ninety persons per sq km) in these slums. The houses are very congested. Where as the slums in periphery zone are newly developed. The areas of the periphery zone slums are larger compared to the areas of core zone.

The density is also low, compared to the periphery zone slums it is found that maximum number of notified and non-notified slums are located in periphery zone.

In 1991 Siliguri was a municipality. It consisted of only 30 wards. Out of 30 wards only 16 wards had slum population. Total number of slums was 64. In 1994 Siliguri Municipal Corporation was incorporated. It was comprised of 47 wards. Out of 47 wards only 33 wards had slum pockets. In 2001 the total number of slums was 154. In 2011 the total number of slums become 187. Out of this 187 slums 154 slums are notified and 33 are non-notified. Non – notified slums were identified in ward no- 8, 14 and 22 of Siliguri Municipal Corporation which had non slum population earlier come under the list of slum wards in 2011 census.

It was found that out of 187 slums in Siliguri Municipal Coporation, Sraban Nagar slum located in ward no- 18 has highest slum population of 4846 and Fuleswari colony of Ward No 29 has the lowest slum population of only 70 person.

2) On the basis of slum status it is observed that out of 187 slums in Siliguri Municipal Corporation 179 are residential slums, 6 are industrial and 2 are institutional slums.

3) On the basis of notification it is found that out of 187 slums in Siliguri Municipal Corporation 154 are notified slums and 33 are non-notified slums. Zone – wise the percentage of non-notified slums (22.58 Percent) are found highest in core zone and percentage of notified slums (93.48 Percent) are found highest in intermediary zone.

4) On the basis of ownership of land it was found that out of total 187 slums majority i.e. 119(63.64 Percent) are owned by state Government. Zone – wise it was found that majority of the slums in core zone are owned by Railways. i.e. 58 percent, slums owned by local bodies are also found highest in this zone (22.58 percent) where as in intermediary and periphery zone majority of the slums are owned by State Government.

5) Regarding connectivity to drinking water it was found that out of 187 slums in Siliguri Municipal Corporation 122(65.24 Percent) are partially connected, 53 (28.34 Percent) are not connected and 12 (6.42 Percent) are fully connected to drinking water Supply.

6) Regarding connectivity to drains it is observed that out of 187 slums 116(62.03) Percent are partially connected, 55(29.41 Percent) are not connected and 16(8.56 Percent) slums are fully connected to drains.

7) Regarding connectivity to sewage disposal it is found that out of 187 slums 172(91.98 Percent) are not connected to sewage disposal. They throw garbage anywhere they like. Only 7 (3.74 Percent) are fully connected and 8 (4.28 Percent) are partially connected.

8) On the basis of slum age it is found that highest percentage of slums in SMC are 30 to 50 years old. Only 2.67 Percent slums age is less than 10 years. In core and intermediary zone none of the slums age is less than 10 years. Percentage of Slums having age more than 50 Years are found highest in core zone. Therefore core zone has the oldest slums in Siliguri Municipal Corporation and periphery zone has newly formed slums.

9) According to 2011 Census density of population in Siliguri is 23,544 persons per sq km and slum density is 60,016 persons per sq km. The density of slums ranges from 1570 persons per sq km to 9,5650 Persons per sq km . Out of total 187slums of Siliguri Municipal Corporation it is found that Adarsha Nagar Colony slum of Ward No 4 in periphery has the highest density (9,56,50 Persons per sq km) and Panchanan colony slum of Ward No 1 in intermediary zone has the lowest density (1570 Persons per sq km).

Among the 23 surveyed slums it is found that Surya Sen Colony Block E-I-A slum of Ward No 34 in periphery zone has lowest density (3455 persons per sq km) and Vivekananda Colony slum of Ward no 7 in core zone has highest density (8,62,50 Persons per sq km). It is found that the slums having low and very low density are due to the fact that the Infrastructurual facilities in these slums are not up to the mark. The commercial activities are also not developed properly in these slums so people are reluctant to settle in these slums. Some low density slums are located in the flood prone area and there are chances of water logging with little rainfall. The areas get inundated. The slums where transport and communication is not good also have low density as the slum dwellers have to invest money in transportation everyday to come to the core area for work, it is found that Vivekananda colony slum has the highest density among the surveyed slums. This slum is located near Siliguri's Mahabirstan Market where most of the dwellers of this slum are found working. Siliguri town station market is also near this slum where the maximum hawkers residing in this slum sell goods. The flower whole sale market which starts from 3 am and ends at 9 am is located under Siliguri flyover. Majority of the flower sellers are from South Bengal, Nadia, Murshidabad etc. They have settled in this slum for its nearness to the wholesale market. This slum is also in red light area where majority of females are engaged in prostitution business. All these factors have increased the density of this slum.

10) Comparing the Land use Map of 2004 and 2018 it is found that the percentage of increase in industrial and recreational land is very less during the period (2004-2018) but the area under residential land has increased tremendously. This is due to increase in population. The area under open space has decreased from 12.52 Percent in 2004 to 7.75 Percent in 2018 mainly due to encroachment of the area by unauthorized settlements of urban poor.

Public and semi public land use which include (Administrative cum Institutional building) cover only 3.87 percent land. There is no change in the area of this land use during the period (2004-2018). It is found that there is shortage of space and ill distribution of administrative and educational zone in Siliguri Municipal Corporation.

There are uneven distribution of these institutions and the sites are also not selected properly. The educational institutions are located in very congested localities where there is shortage of space for future extension. The administrative offices are also seen scattered haphazardly in Siliguri Municipal Corporation Area. Some are found located in the city centre and some at the periphery. At the cost of open space only urban land uses are expanding. The open space of SMC has reduced from 12.52 percent to 7.75 percent during the period (2004-2018). Municipal areas of SMC need to be extended otherwise open space will decrease continuously. It is clear from the study that decreasing percentage of open space will make the city more congested in future.

11)According to 2011 Census the sex ratio of slums in Siliguri Municipal Corporation is 944 females per thousand males. The sex ratio of surveyed slums varies between 743 to 1032 females per thousand males. It is found that Sraban Nagar of Ward 18 and Vivekananda Colony slum of Ward 7 has sex ratio more than 1000 females per thousand males. Among the surveyed slums it is observed that Vivekananda Colony slum has highest sex ratio 1032 in Siliguri Municipal Corporation. The high sex ratio in this slum is due to influx of females from the surrounding areas with hope of employment opportunities. This slum is also in red light area and majority of females are engaged in prostitution business. So females are being bought in this slum from other areas. Large number of females above 60 years are also found in this slum as these females are not able to return to their families after they get involved in prostitution business.

It is observed that lowest sex ratio is found in Sitala Para slum (743) of Ward No 31. During the survey it was found that majority of the households are Muslims in this slum. The Muslims confine the females in the four walls of the house most of the time which affects their health adversely. Females are given low status. This lead to high female mortality and decline the sex ratio. It is also found that females deny their life's comfort for the sake of their husband and children. They eat less and give the

meal to husband and children. This affect their health and lead to female mortality. Slums having low sex ratio has very less literacy rate. It was found during survey that slum dwellers think females as economic and social liability and males are seen as assets to family. As a result the female childs are neglected and this increases female mortality. All this leads to low sex ratio.

11) From the survey it is found that intra state migration is higher than inter- state migration. Maximum number of slum dwellers have migrated from the surrounding districts. Intra state migrants constitute 39.04 Percent. Among intra state migrants highest percentage of migrants came from Jalpaiguri district (37.41 Percent). In slums like Phuleshwari Colony, Surya Sen Colony Blok E-I-A, Shibnagar Colony, Rajendranagar, East Baghajatin Colony the migrants from Jalpaiguri district are more compared to other surveyed slums . It is also found that 0.56 Percent are residential households in the surveyed slums. They belonged to Siliguri by place of birth. These households are found mostly in periphery zone of Siliguri Municipal Corporation . These dwellers were rural people. When Siliguri become Municipal Corporation the adjoining wards were merged in corporation. Gradually the rural area changed to urban area. The rural people after selling land got engaged in informal sectors. As a result the residential poor who were rural poor before transformed to urban poor.

Among Inte-r state migrants majority came from Bihar (30.14 Percent) . Inter- state migrants found highest in Rana Baste Colony slum in core zone, Shibnagar Colony and Ujammu Shib Nagar slums in periphery zone and Prakashnagar slum in intermediary zone .

It is found that only 5.34 Percent of migrants are from other countries. Majority of the migrants(63.15 Percent) came from Nepal. In Rana Baste, Sitala Para, Mahananda Colony slums outside country migrants are more compared to other slums.

Regarding reason for migration it is found that majority (26.4 Percent) migrated for job in SMC.

12) It is found that among the surveyed females 66.67 Percent are married. Regarding their age at first union it is observed that 4.7 Percent females married in between (13 to 15 years) age, , 18 Percent married in between (16 to 18 years) age and 77.3 Percent in between (19 to 21 years) age.

It is found that low age of marriage of slum females is due to the high cost of schooling which blocks the opportunities of education for girls after 15 years and the parents also fear of wed-lock pregnancies due to premarital sex as the girls due to extreme poverty engage in transactional sexual activity.

13) It is found that out of 600 married females five parity women are found highest in the surveyed slums. Five parity women constitute 20.33 percent. As slum women get married at early age they give birth to many children. The preference of boy child among the slum dwellers prevent them from using birth control measures. The fertility rate is also very high. For this five parity women found highest.

It is also found that more the level of education less is the parity level. Literate females are found aware of family planning methods and try to use necessary methods.

14) The average family size of slum households in India is 4.7 where as the average family size of surveyed slum households in Siliguri Municipal Corporation is 5.2 which is more than the national average. Family size of 6 members (36.2 Percent) found highest among the surveyed households. It should be mentioned that none of the surveyed households had single and more than eight members. It is also found that educational status of slum dwellers is related with family size.

15) It is found that among the surveyed slum population 39.72 Percent are literates and 60.28 percent are illiterates. Out of total literates 20.39 percent male and 19.33 Percent females are literate among the surveyed households. The low literacy rate of females are due to prejudices against the female education, low status granted to the females , lack of educational institutions for girls, early marriage of girls etc. Among the three zones literacy rate is found highest in periphery zone i.e. 17.75 Percent.

In core zone literacy rate is found highest in Sraban Nagar slum(49.12 Percent) and Phuleshwari Colony (49.18 Percent).

In Periphery zone highest literacy rate is found in Ujamu Shib Nagar slum (60.56 Percent)

In intermediary zone literacy rate is highest in East Baghajotin Colony (52.48 Percent).

16) It is observed from Education level that the percentage of slum dwellers studying upto primary level is highest (65.63 Percent) than other educational levels. Only 0.82 Percent males are found having college education. The study also reveals that none of the females of the studied area had college education Regarding reason of illiteracy majority i.e. 38.58 Percent respondents have blamed poor economy as the main reason for being illiterates.

17) The study reveals that the percentage of females above 60 Years (2.22 Percent) are more than the males(1.37 Percent). As the males in slums are engaged in work which requires hard physical labour throughout their life than their female counterpart so male mortality rate is higher than females.

18) It is found that out of total surveyed population 55 Percent are economically active and 45 Percent are economically non-active population, Economically active population found high in Rana Bastee, Ram Nagar slum and Rajendra Nagar slum where percentage is more than 60 Percent.

19) According to 2011 census the sex ratio of the slums of Siliguri Municipal Corporation is 944. The study reveals that out of 154 notified slums of SMC high sex ratio (above 950 females per thousand males) are found in 94 slums. Moderate sex ratio (900 to 950 females per 1000 males) found in 35 slums and low sex ratio (below 900 females per thousand males) found in 25 slums. There are 51 slums in SMC where sex ratio is above The District sex ratio (970 females per thousand males). Vivekananda and Sraban Nagar slum have sex ratio 1032 and 1007 respectively. Sitala Para slum of Ward No. 31 has the lowest sex ratio of 743 and Vivekananda Colony slum has highest sex ratio of 1032 .

There are 104 slums whose sex ratio is above the national average (940 females per thousand males).

20) It is revealed from the study that out of total 356 households 82 percent are male headed and 18 percent are female headed households. As majority of the respondents migrated from other areas and settled in slums the male headed households dominated the study.

21) It is found from the field study that out of total 356 surveyed households the percentage of nuclear families are found highest i.e. 27.53 percent.

Zone –wise it is found that nuclear family households found highest in core zone 8.99 percent and intermediary zone 7.87 percent. Where as intermediate family house type found highest in periphery zone.

22) It is found from the field study that among social groups highest percentage of population belongs to scheduled caste i.e. 33.21 percent.

Zone wise it is found that scheduled caste population found highest in core zone i.e. 11.83 percent, other backward class caste population are highest in periphery zone i.e. 16.14 percent and in intermediary zone General caste population found highest (7.83 percent). The high percentage of scheduled caste population in core zone may be due to the fact that as the core zone has the oldest slums and majority of the initial settlers in the slum were belonging to the schedule caste community where as backward class community is highest in periphery zone as the slums in this zone formed by recent migrants who migrated from different places with different social backgrounds in search of jobs.

23) It is found from the study that Majority of the slum dwellers live in Kutcha houses which comprises 82.30 percent. Pucca houses are built by those whose source of income is high.

It is also revealed that from the study that 75 percent houses have tin roof. Only 6 percent households have brick roof. The percentage of brick roof house holds found highest in core zone. In case of brick roof the height of roof is found not more than 8 feet where as in Kutcha and Semi Pucca houses the roof are of low height i.e. 4 ½ to 5 feet . It is found that 30.06 percent of studied households used tin material for walls.

In floor type it is found that 69.66 percent households have Kutcha floor. Pucca floors found highest in core zone. The study also reveals that the living space for each family is very less. Majority of the households have floor area less than 50 sq feet (47 Percent).

Zone – wise it is found that the highest percentage of households having floor area less than 50 sq feet is found highest in periphery zone i.e. 24 percent as this zone is formed by migrants who settled here recently. Their income is very low and so they built houses whose area is less than 50 sq feet only. Ten households have been found

whose floor area is more than 120 sq feet . A significant relationship is found between family size and floor area of the house.

24) It is found from the study that one room households are found highest (78.9 percent) among the surveyed households. Three room households found highest in Sraban Nagar in ward No 18 of SMC. No significant relationship is found between household size and number of rooms.

25) It is found that highest percentage of studied households (33.71 percent) are using kerosene as fuel for cooking. The percentage of households using firewood is only 15.73 percent. Kerosine is easy to use and the price of kerosene is subsidized by the Government so majority use kerosene stoves for cooking. Although firewood and cowdung are cheaper than kerosene but is not readily available in market.

26) It is found that out of total 356 households only 1.68 percent had separate kitchen and 98.32 percent of households had no kitchen in house. It is found that houses having kitchen have better income and the health of these dwellers are comparatively good than other households having no kitchen.

27) It is found that 97 percent respondents have own houses and 3 percent are staying on rent. During survey it was found that among the rented households some of the respondents do not pay rent as they have close relationship with the owner.

28) Majority of the surveyed households age are found less than 5 years i.e. 87.36 percent. In the studied slums majority of houses were kutcha made of bamboo, polythene , jute sack, tin etc. They do not last long and need to be repaired after one or two years. It is also found that 97 percent of houses are one storied and 3 percent are two storied .In intermediary zone two storied households found highest.

29) Among the studied households it is found that 92 percent had voter card and 8 percent heads of households had no voter card. The non availability of voter card may be because the household members might have gone to their native place when voter list was prepared. But it is also seen that there is competition among the political parties to enlist the new migrants in the slums as voters to increase their vote bank.

It is also found that among the studied slums 77 percent are BPL card holders, 4 percent are AAY card holders and only 1 percent are APL card holders.

30) Regarding pension it is found 99.08 percent people do not get any pension. Only 16 people of surveyed household receive pension, out of this 16 people, 2 people get disable pension, 7 people receive old age pension and 7 people receive widow pension. The pension scheme in SMC are IGNOAPS, IGNWPS. It is found that out of surveyed households 97.5 percent do not have LIC policy only 3 percent had LIC policy . But out of this 3 percent 1.1 percent had discontinued LIC. Due to low income and financial problems the household members who had LIC has to discontinue. As most are rural migrants the awareness of future security is found very poor among them. .

31) It is found that of the total 1852 surveyed population 1010 (55 percent) respondents are earning and 842 (45percent) are not earning. These 45 percent are young or old dependents. Zone – wise earning members are found highest in periphery zone (26 percent). As slums in periphery zone is formed of new migrants. They are comparatively more educated than the slum dwellers of other two zones and are engaged in better jobs than the respondents of core and intermediary zone.

32) It is also found that majority of the households (53.65 percent) monthly income ranges between Rs 2500 to Rs 5000 and 21.35 percent households monthly income is below Rs 2500. Low income influences the rate of school enrollment of slum children which is very low.

Zone wise it is found that majority of the households 14.61 percent in core zone earn between Rs 2500 to Rs 5000. In periphery zone only one households has monthly income ranging between Rs. 10000 to Rs 12500. In intermediary zone 1.12 percent households income ranges between Rs 7500 to Rs 10000.

It is found that in core zone highest percentage of earning members are in Rana Bastee and lowest in Sraban Nagar. Young dependents are more in Sraban Nagar . Households having high income ranging between Rs(7500-10000) are found in Vivekananda Colony slum.

It is seen that females of this slum are engaged more in work than the males. As this slum is in red light area most females are engaged in prostitution business.

In periphery zone lowest percentage of earning members are found in Ujambu Shivnagar. This slum is a non-notified slum and located in ward No -46 . This slum is

newly formed by migrants who came from surrounding rural areas and are still searching jobs.

33) The study reveals that there are five types of income earners, namely , single earner, double earner, triple earner, Four earner and Five earner. It is found that out of total 356 surveyed households the percentage of triple income earners are highest i.e. 45.79 percent. City zone wise distribution of income earners reveals that out of three zones the percentage of triple income earners are highest 28.09 percent in periphery zone. Although majority of the households have triple income earners but still income level remain low as most of the slum dwellers are engaged with informal sector and can not earn much money. As a result the economic condition of slum dwellers remains poor.

34) It is observed from the field study that out of 1852 population only 455 i.e. 24.57 percent are children. It is found that out of 455 only 67 i.e. 14.73 percent are children earners. Children earners are found mainly in female headed families and where old dependents are more. Two types of children earners are found i.e . Single earner and double earner. Out of 67 children earners 63 children (94.03percent) are single earners and 4 children(5.97 percent) are double earners.

City zone wise distribution of children earner reveals that out of three zones, children earners found highest 5.71 percent in periphery zone. Single earners found highest in periphery zone where as double earners found highest in core zone. The new migrants have settled in the periphery zone most of them are in search of livelihood. Many males who settled in this zone brings their brother who left studying in rural areas and engage them in some jobs in the city. They do so simply to find some supplement to the meager household income and to support their family in rural areas. As a result the percentage of children earners are high in periphery zone.

35) The study reveals that the poorer the households the probability of having less assets are high. Low cost assests like utensils are present in almost all houses but high cost assets are owned by households having little high income.

36) The study reveals that in occupation pattern of studied slums six main category of workers are found namely construction worker, transportation worker, sales worker and other categories under this main category there are many sub categories. Among

the main category of workers highest percentage is occupied by the service workers 29.90 percent. Service workers include home maid , cook, aya, barber, sweeper etc. As this service do not require any education on any training skill anyone can be engaged in this service.

Among the sub category of workers the percentage of labourers are found highest 10.40 percent in the studied slums.

Based on the wages of respondents engaged in different occupations, the income earners are divided into three categories namely daily income earner, weekly income earner and monthly income earner. The study reveals that out of total 1010 income earners the percentage of daily earners are highest 52.67 percent than monthly and weekly earners. Among the females the percentage of monthly income earners are highest as most of the females are engaged as home maid, aya, Cook, sweeper where payment is made monthly but among males the percentage of daily earners are found highest.

Among weekly income earners none of the females are found as traders. Among monthly income earners the percentage of females are found highest as home maid 27.75 percent and males found highest as peon 41.41 percent.

37) Expenditure pattern of slum dwellers depends on income, size of household and fooding habit. The study reveals that expenditure pattern is not fixed. It changes from event to event. It is found that food and rice together represent 43 percent of total household expenditure.

38) In ethnic composition the percentage of Bengalis are found highest 43.8 percent in the studied slums.

39) The study reveals that majority of the respondents are Hindus 53.24 percent followed by Muslims 24.46 percent, Christian 11.45 percent, Buddhist 4.37 percent and others constitute 6.48 Percent. Zone wise distribution of households reveals that out of the three city zones, Christianity is found highest in intermediary zone i.e. 5.94 percent.

In periphery zone Muslims are found highest in Sitala Para 71.83 percent where as Christian population found highest 72.22 percent in East Baghajotin Colony in intermediary zone.

40) Regarding sources of drinking water it is found that out of the total surveyed households only 17.70 percent access water from private sources and 82.58 percent access water from public sources. In regard to private sources of drinking water 50.79 percent households have hand pumps and 49.21 percent have wells. Hand pumps seen more than wells as the construction of wells are costly than the hand pumps.

41) The study reveals that majority of the households depends on public water sources . Regarding accessibility to public water sources majority i.e. 32.77 percent has to cover (50-100) metre distance to fetch water from public sources daily.

42) Regarding duration of piped water supply it is found that out of 293 households depending on public water sources 61.09 percent respondents said duration of water supply is twice in 24 hours, 31.06 percent reported once in 24 hours and 7.85 percent reported water supply is uncertain when there is any maintainance work in pipeline and in dry season water supply becomes uncertain.

43) The study revealed that there are three different ways of access to toilets namely shared latrines, own toilets, and public community toilets. In absence of toilet, open defecation is widespread. Only 21.07 percent of households had toilet facilities. The remaining people use hanging latrines or practice open defecation. 40 percent households have hanging latrines, 32 percent use Pit latrines and 28 percent use sanitary latrines.

Zone wise distribution of toilets reveals that out of three zone availability of toilet is more in periphery zone. The households are new in periphery zone compared to other zones. The literacy level of respondents are higher in this zone compared to other zones. They understand the relation between sanitation and health.

44) It is found that out of total surveyed household 78.93 Percent households have no toilet facility. They patronize public toilet or practice open defecation. Out of this 78.93 Percent who do not have toilet facilities 11.03 Percent households use neighbor toilet, 62.63 Percent practice open defecation and 26.33 Percent use public toilet.

Public toilets are less in study area. There are long queues in front of public toilet as a result the practice of open defecation is more among slum dwellers.

45) It is found that only 5.9 Percent respondent dump waste in fixed places, 78.36 percent reported no fixed place for dumping waste, 6.47 Percent dump waste in pot, 5.9 Percent dump waste in other places and only 3.37 Percent dump waste in SMC dustbin. The percentage of dumping waste in SMC dustbin is very low as SMC dustbin are located far from the households . It is found that majority of the slums have no internal roads. So SMC trucks have problem in going inside the slums. For this SMC dust bin are low.

In core zone it is found that highest percentage of households in Sraban Nagar slum throw their domestic waste in SMC dustbin. As this slum is located in heart of the city & is connected by internal roads . So there is no problem for the SMC trucks to collect garbage from the dustbins.

About 3.37 percent households dispose waste in fixed places or in SMC dustbin. About 73.87 Percent households had to cover more than 400 metre to dump their domestic waste.

46) Three types of drains are found in the studied area. These are covered, open, open and covered. About 76.97 Percent households reported about non existence of drainage facility and only 23.03 Percent households reported about existence of drainage system in front of their households. About 14.32 Percent households reported about open drains in front of their house.

City zone wise study reveals that out of the three zones the percentage of non-existence of drains are highest in Periphery zone i.e. 38.49 Percent. This may be due to the fact that slums in periphery zone are new compared to the slums of core and intermediary zone . As a result the infrastructure in periphery zone is not developed.

In respect to clearance of open drains 5 Percent households reported daily clearance of drains, 10 Percent reported clearance once a week, 20 Percent reported clearance once in 15 days and 60 Percent reported clearance of open drains totally absent .

47) Regarding distribution of internal roads within slums 70.79 Percent households reported that there are no internal roads within slums. About 10.67 Percent

households have non-motorable pucca, 8.99 Percent have non-motorable Kutcha, 3.93 Percent have motorable Kutcha and only 5.62 Percent households are connected with motorable Pucca.

48) From the field study it is found that although street lights are there but majority of the households fail to take electricity connection. It is found that out of 356 households 64.04 Percent had no electricity connection and only 35.96 Percent have electricity connection in their houses.

Out of three zones it is found that periphery zone has highest percentage of households having no electricity connection i.e. 30.61 Percent.

49) The study reveals that 64.04 Percent households have no electricity connections . These households use alternative source of electricity. About 49.99 Percent households use kerosene oil. Kerosene oil is used more than battery or hooking. Out of the three zones it is found that households in periphery zone has highest percentage of use of battery, kerosene and hooking.

50) For analyzing the Respondent's satisfaction level with loaded factors like public institutions, public utilities etc. Likert scale technique is used. It is found that the percentage of dissatisfaction is highest among the respondents with each loaded factors.

51) It is found that out of total 1852 respondents 1716 (93 Percent) were affected by diseases. The basic sources of treatment of disease were hospitals, health centre, clinics, chemist shop etc. Slum dwellers mostly went to hospital (40.09 Percent) followed by health centre (29.95 Percent) and chemist (10.78 Percent) for treatment of disease.

52) When a person falls sick, the prevalence of disease continue for certain duration. Regarding duration of disease the study reveals that majority of the infected slum dwellers were ill for more than 30 days (39.6 Percent) and 28 Percent were ill for 3 to 7 days. The duration of disease depends upon the intensity, environment, hygiene and immunity of a person. This leads to the length of stay of disease germ in his / her body. If the person's immunity is high then the length of stay of disease is lesser. But the slum dwellers stay in unhygienic environment. Lack of proper nutrition and proper treatment increases the duration of disease.

53) It is found that according to duration and severity of disease, health facilities are selected by the studied slum dwellers. About 33.46 percent respondents preferred to go to qualified doctors, 17.03 Percent preferred to go where medicine is available and 15.93 Percent is seen to choose nearness of health facilities. The studied slum dwellers have given 1st position for qualified doctors.

54) It is found that only 4.55 Percent of the respondents were not patronizing health care facility. The reason for not patronizing health facilities were lack of money, to maintain confidentiality, religious barrier etc. The study revealed that majority (32.05 Percent) stated lack of money, 25.64 Percent stated to maintain confidentiality, 15.38 Percent for religious barrier.

55) The study reveals that 38.76 Percent of households were visited by health workers and 61.24 Percent households were not visited by health workers. Out of the three zone highest percentage of households 16.85 Percent in periphery zone are visited by health workers.

56) It is found that the health workers who visited slums belonged to different organizations like public or private sector. They may directly belong to Government Hospitals/ Municipalities/ Corporation/ Aganwadi etc or may belong to Non Government Organisations (NGO) and even may belong to private sources. It is observed that health workers from Government Organisations(52.17 Percent) mostly visited studied respondent households.

57) There are specific job description of work for both male and female health workers. Various topics are discussed by health workers like family planning, healthy lifestyle, vaccine for pregnancy, others. The topics mainly discussed were family planning (31.16 Percent), healthy life style (21.74 Percent), vaccine for pregnant women (20.29 Percent) etc.

58) It is found that health workers distribute different health materials to the people in the area in which they work. It was noted that 38.76 percent of households had been visited by the health workers. Majority of the respondents (52.90 percent) reported health workers distributed health materials.

59) The study reveals that health workers distributed variety of health materials like de-worming tablets, vitamin, iron tablets, family planning materials etc. it is found

that majority (27.40 percent) households reported distribution of materials like birth control pills, condoms etc for family planning. Vitamins (23.29 percent) , iron and calcium (13.70 percent) were also distributed by health workers.

60) Antenatal care (ANC) is the care of women during pregnancy. This care is given after conception and continuous throughout pregnancy. The aim is to achieve healthy mother and child at the end. It is found that 37 percent of pregnant women visited ANC more than 3 times followed by 35 percent women who visited 3 times. About 10.53 percent women never visited ANC during pregnancy.

61) It was found that 89.47 percent of women respondents who were pregnant received ANC and 10.53 percent did not receive ANC. Regarding reception of Tetanus toxoid (TT) injection during pregnancy it is found that only a small portion 11.67 percent of pregnant women did not avail the facility of TT injection during pregnancy. Whereas 88.23 percent responded for Vaccination or already vaccinated. The study revealed that women are much more aware about the vaccination by TT for them as well as their child health for keeping them safe from any type of infection.

62.) It is found that out of total 600 married women 418 (69.67 percent) women were having children. Two types of child delivery were done among these women respondents. They are normal delivery (76.32 percent) and C-section delivery (23.68 percent). Majority of the women respondents opted for normal delivery because they are poor and normal delivery has lesser risk to mother and child. But when there are complication women respondents have opted for C-section delivery.

63) It is found that respondents reported four places of delivery namely Matri Sadan, Govt Hospitals, Nursing Home and Own residence of respondents. About 56.46 percent women opted Govt Hospitals , 21.53 percent own residence , 20.10 percent Matri Sadan and only 1.91 percent Nursing Home for child delivery. This study reveals that due to poor socio economic condition majority opted Govt Hospitals as delivery charges are very normal. Only in complicated cases respondents have gone to Nursing Home for child delivery.

64) It is found that 21.53 percent women opted child delivery at own residence. Home delivery requires a trained attendant to assist. But this study reveals that 50 percent of deliveries were assisted by untrained birth attendants followed by

household members (28.89 percent). As the respondents are less educated and poor they do not go to the doctors or nurse but are self dependents. As a result they even loose the mother and child at times.

65) Regarding family planning method it is found that less than 50 percent of the respondents in selected slums use family planning method. Out of the 3 zones it is found that majority of the respondents in periphery zone that is 25 percent do not use any family planning method. The desire of male child restricts the use of family planning method among the slum dwellers. More awareness program is needed to make people use different family planning method.

66) In type of family method it is seen that there are different preventive methods used by slum dwellers. It is found that only 49.16 percent of the respondents use family planning method. Females mostly use contraceptive pills (32 percent) followed by female sterilization (19.43 percent). About 15.43 percent males use condom. It is found that sterilization is mostly used by females than males. Percentage of female sterilization is more (19.43 percent) compared to that of male sterilization (3.43 percent) . Highest percentage of pills as type of family planning method is used by respondents in core zone (13.71 percent) whereas as condom and female sterilization are used more in periphery zone than other two zones. Sterilization should be made by both male and females equally. Respondents must be educated about the benefits of using family planning method which will help them in their small income to survive in better way.

67) It is found that out of total 1852 studied population 455 (25 percent) were children. This comprises 12 percent from periphery zone, 7 percent core zone and 6 percent intermediary zone. It is seen that more than half (54.73 percent) of the children were not immunized. Only 45.27 percent children were fully immunized. Immunization of children found highest in periphery zone.

68) It is found that 54.73 percent of children in studied slums were not fully immunized. Majority of the respondents reported they don't know vaccine is needed (58.63 percent).

69) Regarding immunization of children it is found that majority (82.98 percent) of the children had Polio immunization. Followed by BCG (68.79 percent) , Measles (56.74 percent) and DPT (53.90 percent).

70) For slum improvement in Siliguri Municipal Corporation various scheme have been launched like IHSDP, ILCS, HUP, Gitanjali, HFA, SJSRY, NULM, NUHM.

8.2 Recommendations

Every research has its own findings. On the basis of these findings, some recommendations are given which will help to solve the problems of the slum dwellers. The recommendations are as followed:-

1. As slums are formed of migrants from rural areas so rural areas must be developed by providing employment opportunities, education facilities, amenities in the rural areas so that people don't have to migrate to urban areas.
2. The field study reveals that 70.79 percent, respondents reported having no internal roads within the slums. As a result of this during emergency like fire or any accidents ambulance and fire brigade can not reach the spot. To overcome this slum problem internal roads should be constructed in areas where there is no roads and the existing roads should be broadened. Slums where there is illegal acquisition of space in roads should be removed.
3. In Siliguri Municipal budget there must be provision for fire affected slum dwellers every year which is not present now.
4. Siliguri Municipal Corporation with the help of health workers and other private organization must prepare an action plan to create awareness among the slum dwellers to take precaution measures by which incurable diseases can be controlled.
5. While changing from Siliguri Municipality to Corporation many wards were included in SMC. The limits of SMC extended from time to time. Many suburban areas have been brought into the Municipal limits of Siliguri city. Satellite township schemes can be launched. The implementation of satellite schemes will increases the slum rehabilitation work at a faster pace.
6. The slums located in river banks or in flood plains should be looked and cleared faster so that slum rehabilitation can be done.

7. Siliguri Municipal Corporation should provide incentive to slum dwellers having only one child. This will help in controlling the family size of slum dwellers and indirectly the slum population will also be controlled.
8. More skill development program and livelihood measures must be there for slum dwellers so that their income status becomes high.
9. The field study reveals that majority of the slum dwellers are not aware of the government schemes implemented for them so the electoral representatives must take the responsibility to make them aware of their rights.
10. At the time of planning big housing societies in a affluent localities 20 percent space must be reserved for providing housing to the service providers like home maids, guard, sweepers etc. This 20 percent space reservation must be included in master plan of the society. If this space is reserved the service provides will not erect house nearby and creation for slums can be checked.
11. All the work of slum rehabilitation of SMC should be given to third party by keeping in mind the rules and regulations of slum rehabilitation schemes. The allotment of work to third parties must be done by tender basis only.
12. All the stakeholders i.e. SMC authorities, police department, politicians, NGOs , social workers and the public should jointly take firm decision of not allowing illegal acquisition of space and creating houses to stop the increase of slum at any cost. Government should take step to rehabilitate the existing slum dwellers voluntarily or forcefully to make Siliguri city slum free.

8.3. Conclusion

It is found that the rate of growth of population in urban areas is higher than rural areas. The population growth is related with the economic growth of the place. To stop the growth of slum population in Siliguri , development policy must be framed for the smaller and medium cities for development in working sector, and attractive in residential sector. The problems of smaller cities and rural areas must be tackled first along with the problems of Siliguri citizens for sustainable development of Siliguri city. This will improve the habitable condition of Siliguri city.

Natural growth in population, rapid urbanization and migration cause emergence of slum areas in the Siliguri city. Better education facilities, employment and health facilities in Siliguri city attract people from the surrounding areas. People migrate

from other areas to access these facilities. The study reveals Intra- state migration is higher than Inter- state migration in Siliguri city. Intra- state migrants constitute 39.04 percent. The literacy rate is very low i.e. only 39.72 percent. About 19.33 percent females are only literates and five parity woman found highest in the studied slums. The sex ratio is above 1000 in Vivekananda and Sraban Nagar slum and lowest sex ratio found in Sitala Para slum.

The socio-economic condition of the slum dweller is very poor. Only 55 percent are economically active population. Majority of the household's 53.65 percent monthly income ranges between Rs 2500 to Rs 5000 and 21.35 percent households monthly income is below Rs 2500. So many families are Below Poverty Line. Rice and food together represents 43 percent of total household expenditure of the slum dwellers. Majority of the slum dwellers 82.30 percent live in kutchha houses. Low cost housing schemes should be introduced by the SMC.

The study reveals that there is lack of basic infrastructure in the studied slums. Regarding sources of drinking water it is found that 82.58 percent access water from public water sources. Only 21.07 percent households had toilet facilities. Although there is total elimination of dry latrines and manual scavenging but open defecation is common. 62.63 percent households practice open defecation. Majority of the respondents reported no fixed place for waste disposal. Internal roads within slums are not developed. Siliguri Municipal Corporation should take steps to develop the infrastructural facilities in the slum areas.

To develop the infrastructure of slums and to increase the income of slum dwellers many slum improvement programs have been launched in Siliguri. These programs are IHSDP, HUP, NULM, NUHM, Housing For All, Gitanjali etc. Schemes like VAMBAY had developed slum infrastructure in those slums also which had no land titles. But IHSDP schemes, main criteria were slums should have land titles. As a result many slums were excluded from this scheme. The largest slum Sraban Nagar was also excluded from the scheme. As a result out of 154 notified slums only 94 slums were included in this scheme. The study also reveals that slums where dwelling units started work is still incomplete. The ILCS scheme has eradicated all dry latrines and manual scavengers but the practice of open defecation is still there among the slum dwellers. The EST&P scheme has provided skills to unskilled urban poor.