

**4.1 Introduction to the study area**

It is well known that analysis of burden of disease, health seeking behaviour and healthcare expenditure incurred by the people or household members of any region are closely associated with geographical, epidemiological, demographic and socio-economic conditions of the people living in that region. Therefore, before starting an investigation into the region, it is imperative to be familiar with the demographic and socio-economic conditions of the people of Siliguri Municipal Corporation Area (SMCA) of the state of West Bengal, where the study was conducted.

In India, urban areas are defined as: (1) all places with a municipality, corporation, cantonment board or notified town area, and (2) all other places satisfying the criteria of: (a) minimum population of 5, 000 (ii) at least 75 percent of the male working population engaged in non-agriculture pursuits, and (b) density of population of at least 400 per sq. km (Census of India, 2001). According to these criteria, in India, there are about 7935 urban areas and towns (Census of India, 2011) which is an increase from 5161 in 2001. Further, total number of urban population also increased from 28.6 crore in 2001 to 37.7 crore in 2011 (Census 2001, 2011). In other words, over the decade, urban population in the country increased from 27.8 percent in 2001 to 31.16 percent in 2011. During the same period (i.e. 2001-2011), in West Bengal, urban population increased from 27.8 percent to 31.87 percent.<sup>1</sup> It indicates that people living in the urban areas are continuously rising across the country including in West Bengal. Further, there are ninety eight municipal corporation cities in India<sup>2</sup>, out of which the state of West Bengal has six municipal corporation cities. Siliguri Municipal Corporation is one of them.

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<sup>1</sup> <http://www.census2011.co.in/census/state/west+bengal.html> accessed on 25. 09. 2015. <sup>2</sup>Sources: National Portal Content Management Team, Reviewed on 10. 06. 2011. Also, [www.archive.india.gov.in/citizen/nagarpalika.php?id=5](http://www.archive.india.gov.in/citizen/nagarpalika.php?id=5) accessed on 28. 09. 2015.

#### 4.1.1 Brief description of urban norms and urban healthcare services in India

The Indian Constitution (Seventy-Fourth) Amendment Act, 1992 vested the responsibility of local self-governance to the Urban Local Bodies (ULBs) regarding development of urban infrastructure and basic services including public healthcare services. Urban Local Bodies (ULBs) may comprise of any municipality town, corporation city, cantonment board or notified town area. Further, ninth plan envisioned the development of a well-organised network of urban primary healthcare institutions providing the health and family welfare services to the urban inhabitants by re-vamping existing structure. In addition to central and state government funds, some external funded and sponsored projects or schemes were extended to the ULBs for their development of basic public utility services including public healthcare services.

In urban areas, there is no structural guideline for the public healthcare institution, as it exists in the rural areas in India<sup>3</sup>. With the aim of improving the health status of the urban population including slum dwellers and other disadvantaged sections of the society, and, moreover, increasing the equitable access of quality public healthcare services, the Union Cabinet, Government of India gave approval to launch National Urban Health Mission (NUHM) on 1<sup>st</sup> May, 2013<sup>4</sup>. With the other objectives, the mission would strengthen the functioning of municipal governments and other ULBs relating to public healthcare services according to the provisions of the Constitution (seventy-fourth) Amendment Act, 1992. It was planned that NUHM will be implemented through the health department of the ULBs, municipal towns or corporations, excepting for the specific large cities. ULBs including municipal corporations will have the direct role in planning and management of the urban health programmes. All the urban healthcare services will be delivered through the Urban Primary Healthcare Services (UPHCs), Urban Community Healthcare Services (UCHCs) and other referral services. Further, NUHM would provide a system for convergence of all communicable and non-communicable disease programmes including HIV/AIDS through integrated health planning at the city level.

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<sup>3</sup> <http://uhrc.in/module-ContentExpress-display-ceid-92.html>. accessed on 21. 09. 2015

<sup>4</sup> <http://nuhm.upnrhm.gov.in/nuhm/aboutus.html> accessed on 17. 08. 2015.

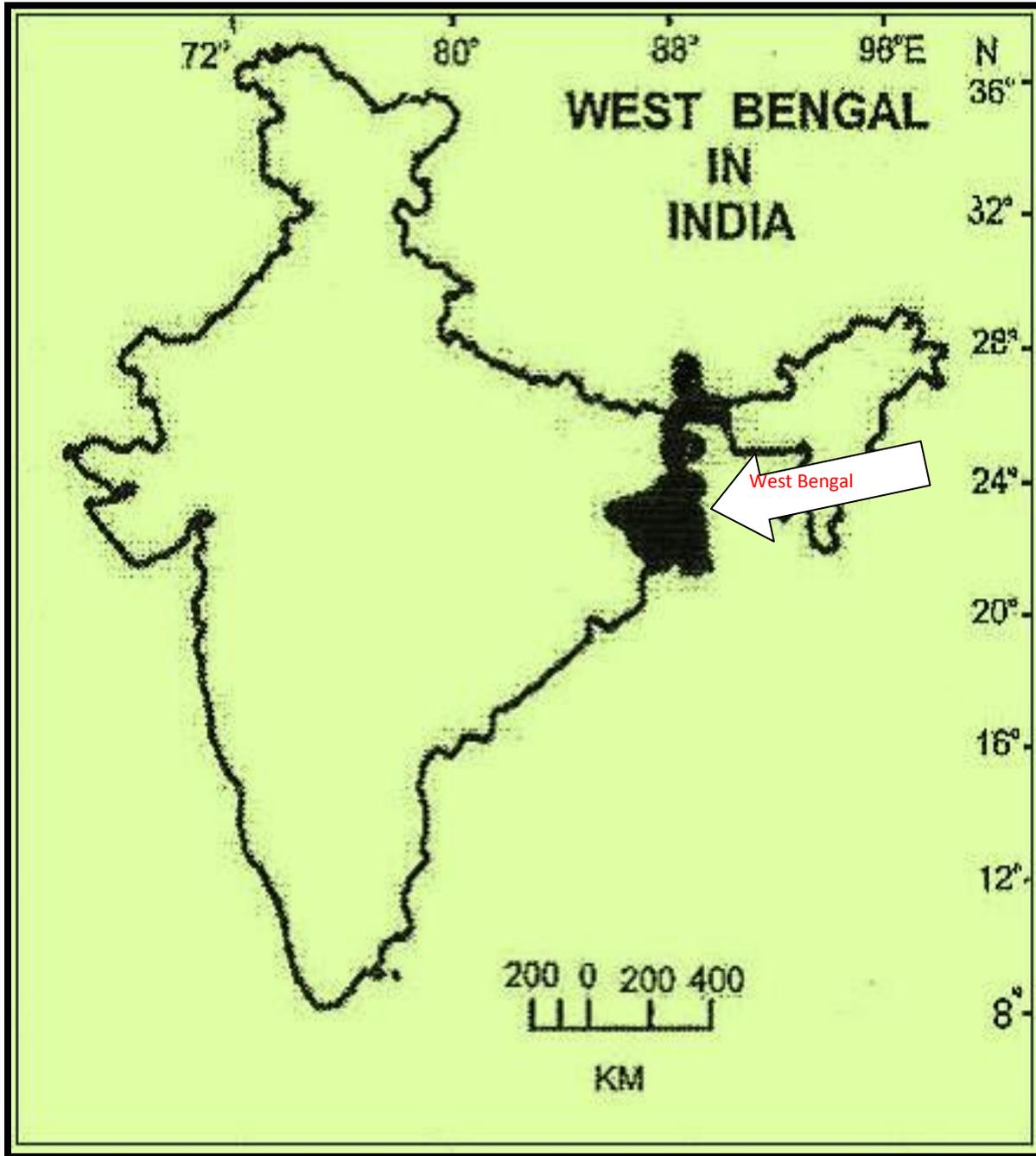
The mission also proposes linkage with other programmes having similar objectives such as Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Swaran Jayanti Shehari Rozgar Yojana (SJSRY), and Integrated Child Development Services (ICDS) to achieve the goals of NUHM under National Health Mission (NHM). In addition, with the objectives of maintenance of cleanliness of public places and hygiene, Government of India, initiated a massive campaign, known as 'Swachh Bharat Abhiyan' or 'Clean India Mission' on 2<sup>nd</sup> October, 2014. Through this mission, Government is trying to generate public awareness about sanitation, safe toilet and solid waste management, and strengthen the public healthcare services, which in turn, will reduce the exposure to and spread of different diseases caused due to lack of cleanliness. The mission will cover all parts of the country including urban areas, where it will be implemented through the Ministry of Urban Development. Till the study was being conducted, NUHM was not implemented and it was in the planning stage in the concerned study area.

#### 4.1.2 Municipal Corporation cities under West Bengal

West Bengal is one of the twenty-nine states in India. It is situated in the eastern part of the country and lies between 85°50' E to 89°50' E longitude, and 21°38' N to 27°10' N latitude. It is bounded on the northwest by the country Nepal, on the southwest by the state of Orissa, on the north-east by the states of Assam and Sikkim and the country Bhutan, and on the west by the states of Jharkhand and Bihar. With a total area of 88,752 sq. km., the state occupies 2.77 percent of country's land area and accommodates nearly 7.6 percent of country's total population as per census 2011. Further, it is the thirteenth largest state in terms of land area and fourth most populous state in the country (Census, 2011). According to 2011 census, West Bengal recorded a population of 91,276,115, which is an increase from 80,176,197 in census 2001. During the same census period, 31.87 percent of the total population live in urban areas, while 68.13 percent people live in rural areas. It indicates that majority of the people of the state live in rural areas but its urban population is quite large in absolute term. The state is divided into 19 districts and 3 divisions, which are further divided into 67 sub-divisions as on 24<sup>th</sup> June, 2014 (before formation of Alipurduar district). These three administrative divisions are Presidency division, Burdwan division and Jalpaiguri division. Further, the state has six municipal corporation cities, namely,

Kolkata Municipal Corporation, Howrah Municipal Corporation, Asansol Municipal Corporation, Durgapur Municipal Corporation, Chandannagar Municipal Corporation and Siliguri Municipal Corporation.

**Figure 4.1: Location of the state, West Bengal in the country**



Source: [www.bharatonline.com](http://www.bharatonline.com) accessed on 12.03.2015

**Table 4.1: Profile of Municipal Corporation cities of West Bengal<sup>5</sup>**

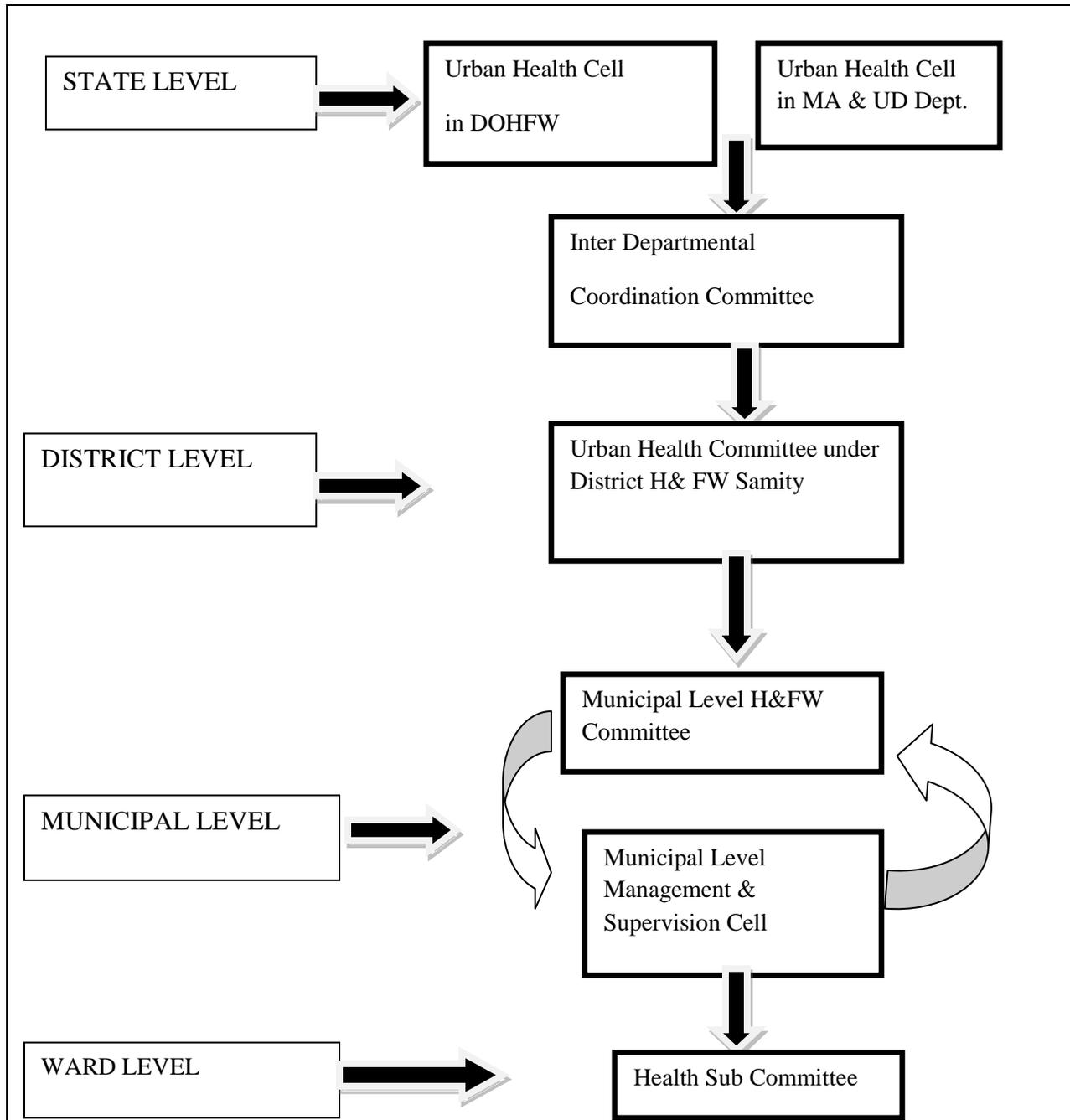
Municipal Corporation	Establishment Year	Covering District	Area (Sq. Km.)	Population (Census, 2001)	Population (Census, 2011)	Density per Sq. Km. (Census, 2011)	Sex Ratio (Census, 2011)
Kolkata	1726	Kolkata	187.50	4,580,544	4,486,679	24,252	922
Howrah	1862	Howrah	51.74	1,008,704	1,072,161	7,658	913
Chandannagar	1955	Hooghly	20.00	162,166	166,949	8,787	981
Asansol	1994	Burdwan	127.24	486,304	564,491	4,434	922
Siliguri	1994	Darjeeling, Jalpaiguri	41.90	4,72,374	513,264	12,250	946
Durgapur	1996	Burdwan	154.20	492,996	566,937	3,700	926

Source: Census of India, 2001& 2011

Table 4.2 reveals that except Kolkata Municipal Corporation, population density (per Sq. Km.) of Siliguri Municipal Corporation is much higher than all other corporation cities in the state. More specifically, it has the highest population density among the newly upgraded corporation cities of West Bengal. Further, it has recorded the highest sex ratio among the other corporation cities in the state, excepting Chandannagar Municipal Corporation. Initially, Siliguri was under the jurisdiction of Darjeeling district, but at the time of up-gradation to corporation city, an additional 21.79 sq. km. from neighbouring Jalpaiguri district had been included to the city. The noticeable feature of Siliguri Municipal Corporation Area (SMCA) is that it is the only corporation city in West Bengal, which spreads over the jurisdiction of two districts such as plain area of Darjeeling district and north -western part of Jalpaiguri district.

<sup>5</sup>Official websites of six Municipal Corporation cities of West Bengal accessed on 17. 08. 2015

**Figure 4.2: Existing Institutional arrangements for urban healthcare delivery services in West Bengal**



Source: [https://www.wbhealth.gov.in/other\\_files/UHS\\_july\\_2008.pdf](https://www.wbhealth.gov.in/other_files/UHS_july_2008.pdf) accessed on 17.04.2015

Note: DOHFW=Department of Health and Family Welfare, MA&UD =Municipal Affairs & Urban Development

## 4.2 Brief description of the study area, SMCA

Siliguri is considered to be the head quarter of the plains of Darjeeling District of the state, West Bengal. Siliguri was recognised as a municipal town in 1950. Then, it had an area of 15.54 sq. km under the jurisdiction of Darjeeling district, which was substantially increased to 41.90 sq. km in 1994 at the time of up-gradation to municipal corporation city. Census, 2011 reveals that religion of the most of people of SMCA is Hinduism (91.98 percent), but Islamic (5.37 percent), Christianity (0.94 percent), Jainism (0.23 percent), Sikhism (0.21 percent), Buddhism (0.21 percent) and others (0.02 percent) represent minority religion<sup>7</sup>. Further, a majority of the people of SMCA speaks in Bengali, but other languages such as Nepali, Marwari, Punjabi, and Bihari are also spoken. Here, all the people from different communities were staying together and celebrating the different festivals together for long time. Therefore, city showcases a cultural diversity and the city has a multi-lingual presentation. The city is also well-known as ‘4Ts’ city, because the city is famous for the business of tea, timber, tourism and transport. Recently, another one ‘T’ is added to the crown of SMCA for producing a good number of successful table tennis players in the country.

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<sup>6</sup>Source: Capacity Building for Urban Development, Rapid Baseline Assessment – Siliguri Draft Report, October 2013, Ministry of Urban Development, Government of India

<sup>7</sup>[http:// www.census2011.co.in/census/ state/ West + Bengal.html](http://www.census2011.co.in/census/state/West+Bengal.html) accessed on 15. 06. 2015

Figure 4.3: Location of the study area (SMCA) in the state



Source: www.mapsofindia.com accessed on 26.03.

### 4.2.1 Population size and Growth of Siliguri

Population growth of Siliguri is mainly dependent upon migration, refugee influx, and illegal immigrants. Due to large number of immigrants from neighboring countries like Nepal, Bhutan and Bangladesh and neighboring states such as Bihar, Assam and Sikkim, population of SMCA is continuously rising. In addition, formation of corporation in 1994 gave new momentum to the growth of population in the city.<sup>8</sup> Latest census 2011 revealed that the population of SMCA is 513,264 which is an increase from 472,374 in census 2001. Over the last 50 years, the number of population increased about eight times and since Independence, the number increased by nearly sixteen times. During 1961-1971, decadal population growth rate declined from 9.94 percent to 4.89 percent, and thereafter, Siliguri experienced a continuous increase in the population growth rate and continued for next several decades. During the year 1991, Siliguri registered a high population growth rate of 8.01 percent, while during the previous decade (i.e.1971-1981), it was 7.05 percent. Population growth trends of the city are presented in the following table.

**Table 4.2: Population growth trends of Siliguri**

Census Year	Population	Decadal Growth Rate ( In Percent)
1931	6,067	----
1941	10,487	7.29
1951	32,480	21.31
1961	65,471	9.94
1971	97,484	4.89
1981	1,53,825	5.78
1991	2,77,000	8.01
2001	4,72,374	7.05
2011	5,13,264	0.86

Source: Various Census reports of India, Siliguri Municipal Corporation

Siliguri municipality was administratively divided into 30 wards in 1991 and then it registered about 2, 77,000 population. Later on, a dramatic big jump of population was observed during the census, 2001. It may be the arrival of people from surrounding area due to attraction of facilities of the corporation city and inclusion of additional area from neighbouring Jalpaiguri district to Siliguri. The decadal population growth during 2001-2011 is 0.86 percent while in previous decade (1991-2001) it was 7.05 percent. Though the decadal population growth rate declined, absolute population increased sharply during the latest census. However, the actual pressure of population upon SMCA may be higher than what is estimated from various census reports published so far.

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#### 4.2.2 Slums under Siliguri Municipal Corporation Area (SMCA)

With the rise in number of municipal towns and cities in the country, urban slum area and slum population are also rising dramatically. SMCA is no exception to it either. Due to the rapid development and attraction of the urban infrastructure of the city many people from the surrounding areas come for job in informal sectors, petty trading, hawking etc. This has resulted into an increase in urban slums in and around SMCA. Further, this leads to an inevitable shortage of water supply, sanitation, housing and other facilities including healthcare services in the city, but the existing public health infrastructure is not adequate enough to meet the growing needs of these slum inhabitants. It indicates that the existing healthcare facilities are overburdened and people living in this area are vulnerable to different types of disease. Official record of corporation reveals that except 19 wards (i.e. ward number 8, 9, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 25, 26, 27, 29 and small part of ward number 10 and ward number 18), all other 28 wards under SMCA are having slum pockets with considerable number of people living there.<sup>10</sup> Over the decades, SMCA witnessed a number of slum areas and this number was steadily increasing. Before 1960, there were only 11 slum areas in the city, and thereafter this number increased by manifolds.

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<sup>8</sup> Siliguri Municipal Corporation Handbook

During the early 1980s, Siliguri recorded the highest number of slum areas and this number reached at maximum of 68 and 1990s onwards this trend declined, may be due to some legal restriction and shortage of land and others. But the slum population of the city is in upward trend and now it constitutes a substantial portion of total population.

**Table 4.3: Growth of Slums area in and around SMCA**

Year	Number of Slum Area
Before 1960	11
1961-1970	28
1971-1980	68
1981-1990	37
1991-2000	10
Till 2001	154
Census , 2001 (Slum households) <sup>9</sup>	35,134
Census , 2011(Slum households) <sup>10</sup>	26, 619

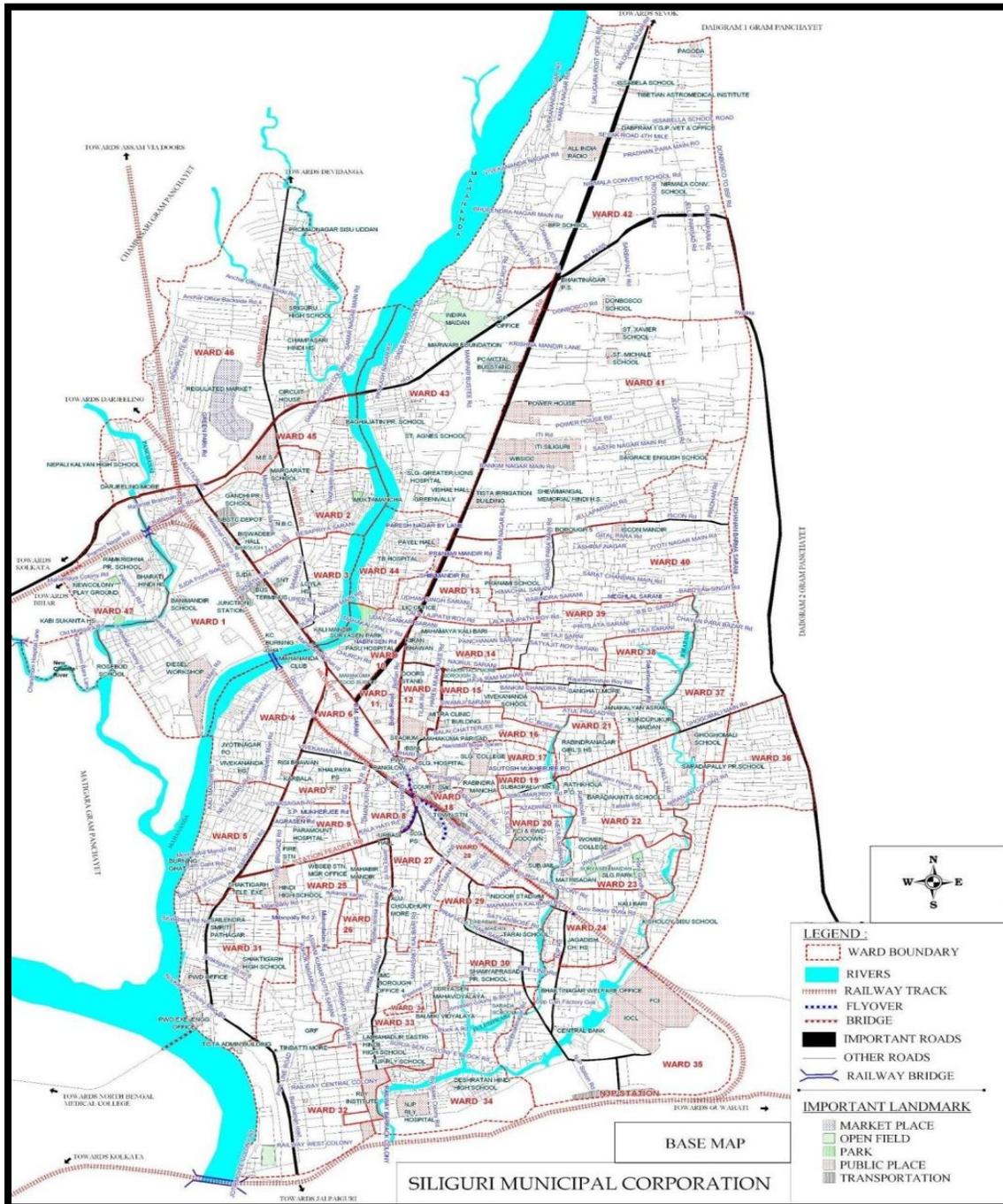
Source: Various Censuses of India, Siliguri Corporation Handbook

Census 2001 reported that the number of urban slum area in and around SMCA was 154 with population 168,214, which was about 33 percent of total population, and this percentage was much higher than the state average of 18.4 percent and national average of 15 percent. On the other hand, census, 2011 reveals that there are 26, 619 slum households with population 122, 958 which constitute about 23.96 percent of the total population of the city. It implies that over the years, number of slum area was not increased but percentage of slum population drastically decreased.

<sup>9</sup>Source:Capacity Building for Urban Development, Rapid Baseline Assessment – Siliguri Draft Report, October 2013, Ministry of Urban Development, Government of India

<sup>10</sup><http://www.census2011.co.in/census/state/West+Bengal.html>.

Figure 4.4: Geographical boundary of the study area



Source: [http://www.siligurismc.com/Wardpercent 20Mapperpercent 20ofpercent 20SMC\\_Original.JPG](http://www.siligurismc.com/Wardpercent%20Mapperpercent%20ofpercent%20SMC_Original.JPG) accessed on 01.08.2014.

### 4.2.3 District-wise distribution of Municipal Wards of SMCA

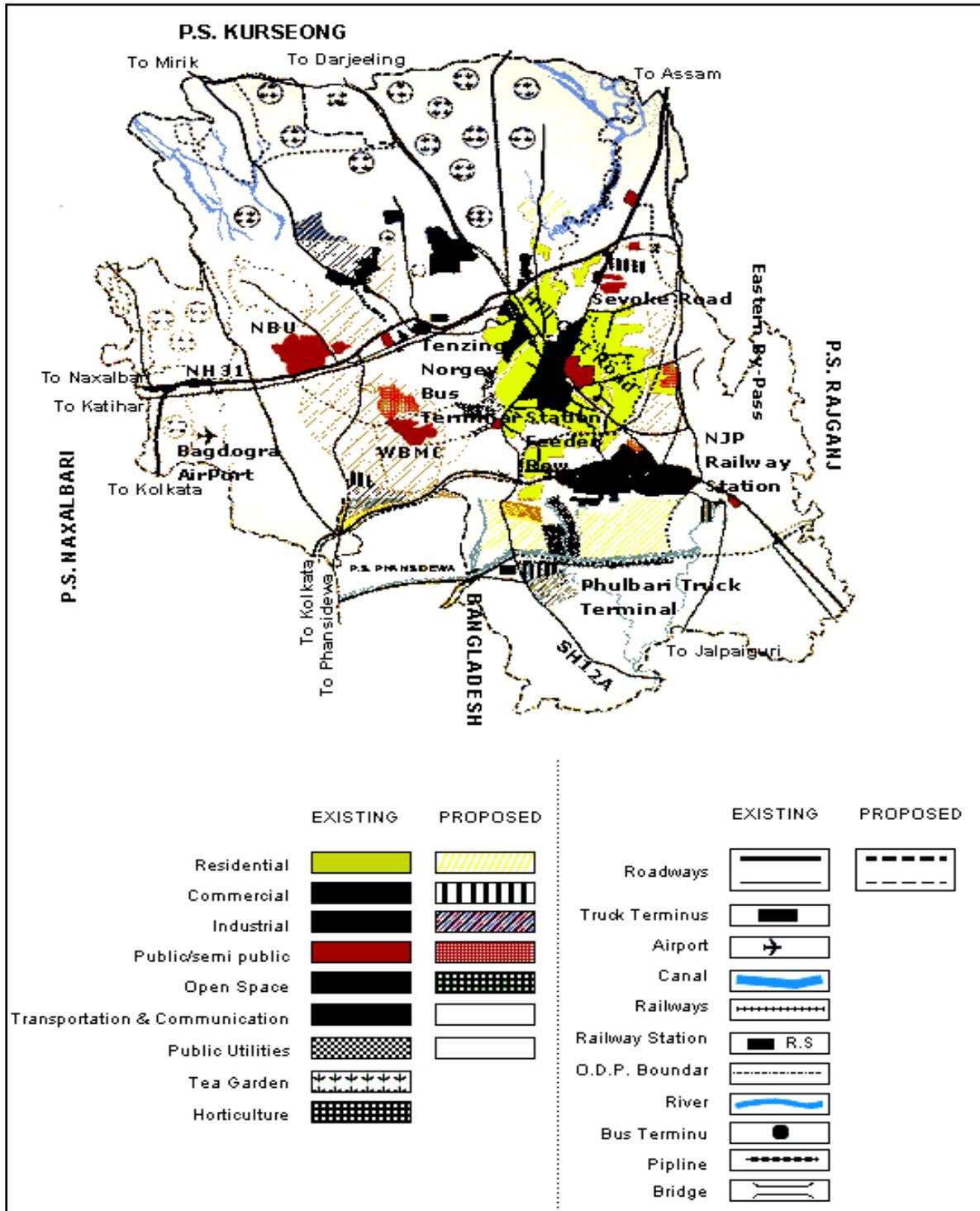
Siliguri Municipal Corporation has 47 wards with around 115,191 normal households as of census 2011. Majority of the wards of SMCA fall under Darjeeling district and rest of the wards fall under neighbouring Jalpaiguri district. Out of total 47 municipal wards, 33 wards covering 20.11 sq. km. are under the jurisdiction of Darjeeling district, while 14 wards with 21.79 sq. km. are under the jurisdiction of Jalpaiguri district. As per the master plan prepared by Siliguri Jalpaiguri Development Authority ( SJDA) for SMCA, out of total area of 41.90 sq. km., residential land area is 20.95 Sq. Km., commercial land area is 2.933 Sq. Km., and rest of areas were kept for public and semi-public, and other purposes. In other words, 50 percent of total land area is for residential purpose and other 50 percent of land is reserves for other purposes such as commercial, public services, communication, transport and others. District-wise distribution of wards is presented in the table below:

**Table 4.4: District-wise distribution of Municipal Wards**

Covering district	Area (Sq. Km.)	Number of wards	Ward Number
Darjeeling	20.11Sq. Km.	33	1-30, 45, 46, 47
Jalpaiguri	21.79 Sq. Km.	14	31,32,33,34, 35,36,37,38,39, 40, 41, 42, 43, 44
SMCA	41.90	47	-

Source: Siliguri Municipal Corporation, District census primary handbook

**Figure 4.5: Land use map of SMCA**



Source: Capacity Building for Urban Development, Rapid Baseline Assessment – Siliguri Draft Report, October 2013, Siliguri Jalpaiguri Development Authority (SJDA), Ministry of Urban Development, Government of India

#### 4.2.4 Borough-wise distribution of Municipal Wards of SMCA

According to the West Bengal Municipal Corporation (Amendment) Act 2009, every Urban Local Bodies (ULBs) with population of three lakhs or above, wards are divided into some groups. Each group is called as borough. The number of borough is minimum five to maximum fifteen (in case of Municipal Corporation). Each borough must comprise of minimum six adjacent wards. The borough is administered by the borough committee where every councillor of that area is the member of the respective borough committee. The borough administers all the municipal services such as water supply, sanitation, street light maintenance and solid waste management etc. Following the Municipal Corporation (Amendment) Act, 2009, total 47 wards of SMCA, were grouped into 5 boroughs. Borough number II, III and IV consist of 10 wards each, whereas borough numbers I and V has 8 wards and 9 wards respectively. Borough wise distribution of wards is presented in table below:

**Table 4.5: Borough-wise distribution of Municipal Wards of SMCA**

Borough	Ward Number	Total number of wards	Area (Sq. Km.)
I	1, 2, 3, 4, 5, 45, 46, 47	8	11.74
II	6, 7, 8, 9, 10, 11, 12, 13, 14, 15	10	3.11
III	16, 17, 18, 19, 20, 21, 22, 23, 24, 28	10	3.29
IV	25, 26, 27, 29, 30, 31, 32, 33, 34, 35	10	8.41
V	36, 37, 38, 39, 40, 41, 42, 43, 44	9	15.35
Total SMCA	1- 47	47	41.90

Source: Draft Development Plan, Siliguri Municipal Corporation

#### 4.2.5 Demographic profile of the study area (SMCA)

According to 2011 census, total population of SMCA was 5,13,264 ; of which male population was 2,63,218 and female population was 2,49,562. Percentage of male and female population was 51 and 49 respectively. Population growth rate during 2001-2011 was about 8.6 percent was quit lower than state average of 13.84 percent. Further, Sex ratio for female was 946 per 1000 males, which is close to state average of 947 per 1000 males. Child population (0-6 years) was 52,540; out of which 27,215 were boys and 25, 325 were girls. This Child population constitutes nearly 10.24 percent of total population of the city. Child sex ratio of girls for SMCA was 931 per 1000 boys. Number of literate persons in SMCA was 3, 95,802; out of which 2, 11,682 were males and 1, 84,120 were females. In addition, average literacy rate of SMCA was 85.91 percent; of which male literacy was 89.51 percent and female literacy was 82.11 percent. It indicates that average literacy rate is higher than the national average of 59.5 percent and state average of 76.26 percent. Socio-economic and demographic indicators of SMCA are presented below:

**Table 4.6: Demographic indicators of SMCA (2011)<sup>11</sup>**

Particulars	Siliguri Municipal Corporation
Total Population	5,13,264
Total Male Population	2,63,218
Total Female Population	2,49,562
Population Growth Rate (2001-11)	8.6 percent(Approx)
Density	12,250 persons per sq. km
Average Literacy Rate	85.91percent
Sex Ratio	946
Number of normal household*	1,15,191
Average household size	4.4
Total Slum Population	122, 958( i.e. 23.96 percent)

<sup>11</sup>Refer to <http://www.census2011.co.in/census/city/192-siliguri.html>

Note: Normal household indicates the household other than institutional and houseless households.

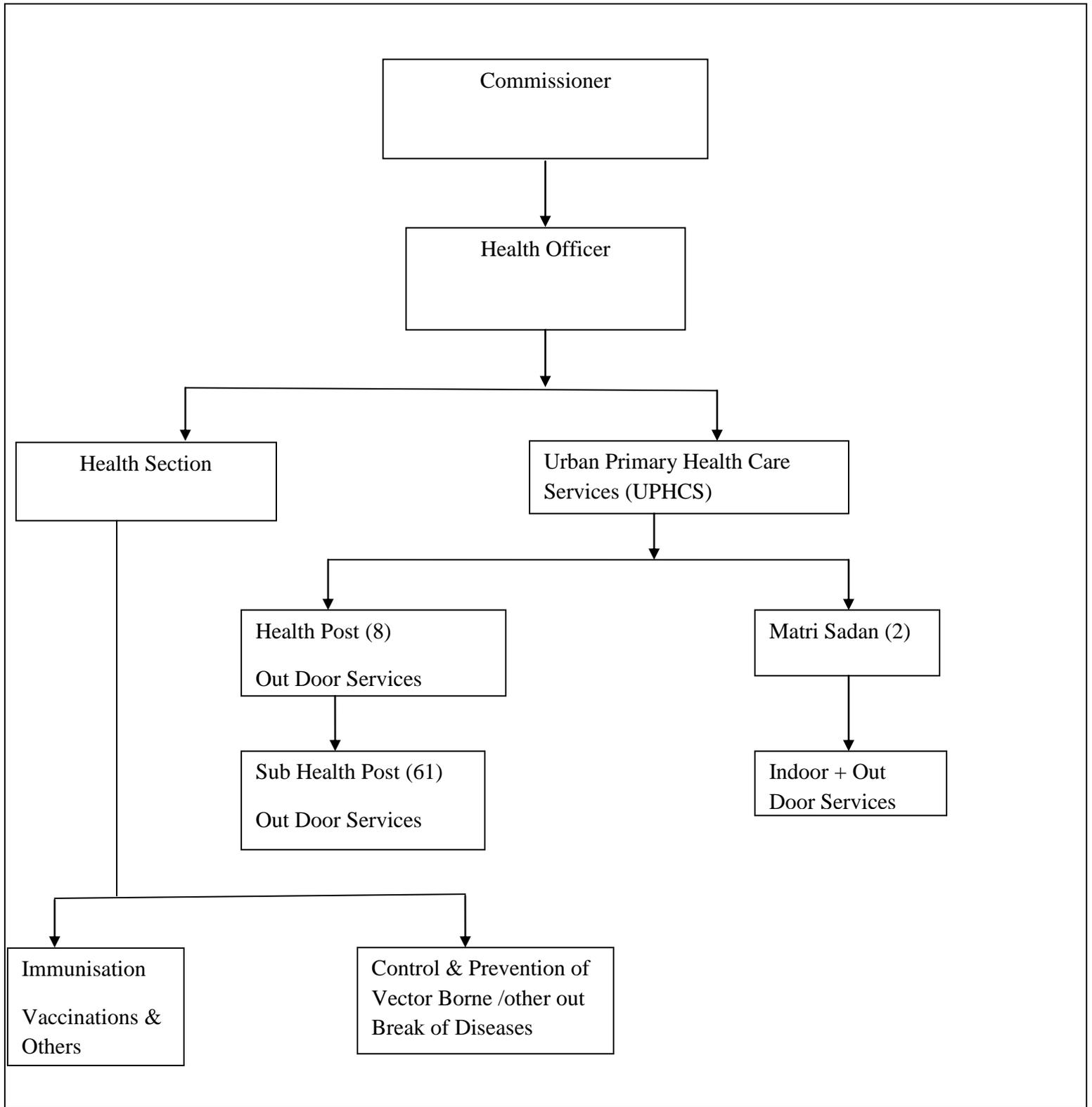
#### 4.2.6 Healthcare Facilities or Institutions available in SMCA

Healthcare service infrastructure of the city is not well structured as it exists in other cities of the country. The city is characterised by mixed type of health facilities such as public, private and charitable institutions etc. Record of Siliguri Municipal Corporation reveals that only one district hospital in SMCA and one medical college and hospital in its adjoining area play vital role in delivering public healthcare facilities to the people living in SMCA. These two major public healthcare institutions (viz. district hospital and medical college) perform their activities under the guidance and control of state health department. On the other hand, structure of public health facilities under SMCA is different, where both health section and urban primary healthcare services (UPHCs) function under the control and direction of health officer of Siliguri Municipal Corporation. Health section is responsible for providing immunisation, vaccination to prevent and control the outbreak of different air borne, vector borne, and water borne diseases. Along with the mother and child care healthcare services, UPHCs deliver other public healthcare services including outdoor patient services through its different channels functioning in the city. Further, there are eight health posts work under the guidance of urban primary healthcare services (UPHCs) and sixty-one sub centres(sub-health posts) operate its activities or deliver their services under guidance of eight health posts. In these sub-health posts, 61 First Track Supervisors (FTS) and 283 Honorary Health Workers (HHW) are engaged to cater the public healthcare services including reproductive mother and child care. Besides district hospital, two public maternity homes (known as, ‘Matri Sadan’) are run under the control of UPHC in the city. In these institutions, both outdoor patient and indoor patient services are available for the general people. The city is also having one malaria control and prevention centre, one TB (tuberculosis) hospital, one mental counselling centre and hospital, two fair price medicine shops and one community medicine dispensary to deliver public health services to the people. In addition, district hospital and medical college are having separate departments for the treatment of leprosy cases. Beside these, to test the HIV suspected cases and to provide them counselling, integrated counselling and testing centres (ICTC) run under the guidance of district hospital and medical

college. Official records also reveal that there are about thirty registered non-government organisations (NGOs), five charitable health institutions under Lions Club and many welfare organisations provide healthcare services to the people living in and around SMCA.

To prevent and control the outbreak of different air borne, vector borne and water borne diseases such as dengue, encephalitis, swine flu, bird flu and other infectious diseases, health department of the corporation works in association with state health department and other national and international agencies. Moreover, there are two railway hospitals in corporation area, one is under New Jalpaiguri railway station and another is under the Siliguri Junction railway station, but general people cannot access these institutions due to some reservation. In addition, there are more than thirty- five registered private health facilities including private nursing homes, super or multi-specialty hospitals, available in corporation area. In SMCA, both the unqualified medical practitioners and the specialist physicians are found practicing simultaneously in their private clinics or chambers. A large number of homeopathy and few ayurveda doctors provide private healthcare services to the patients at their own chambers in and around the city. Further, the city has considerable numbers of physiotherapy centres, yoga institutions and gym clubs for maintenance body fitness and relief from pains and injuries. It clearly indicates that city is dominated by private players.

**Figure 4.6: Public Health Structure of SMCA**



Source: Self-preparation based on discussion with health officer, Siliguri Municipal Corporation

## 4.3 Brief Profile of the Sample

**Table 4.7: Ward-wise distribution of Sample**

Ward Number	Male	Female	Total
W <sub>1</sub>	40	38	78
W <sub>3</sub>	34	38	72
W <sub>6</sub>	36	38	74
W <sub>8</sub>	53	43	96
W <sub>10</sub>	43	36	79
W <sub>13</sub>	32	30	62
W <sub>15</sub>	37	27	64
W <sub>18</sub>	40	33	73
W <sub>20</sub>	31	31	62
W <sub>22</sub>	41	31	72
W <sub>25</sub>	33	28	61
W <sub>28</sub>	42	38	80
W <sub>30</sub>	41	25	66
W <sub>47</sub>	50	44	94
Total DRJA	553	480	1033
W <sub>33</sub>	68	37	105
W <sub>35</sub>	67	44	111
W <sub>37</sub>	70	37	107
W <sub>40</sub>	70	42	112
W <sub>42</sub>	62	41	103
W <sub>44</sub>	73	40	113
Total JPGA	410	241	651
Total SMCA	963	721	1684

Source: Self-elaboration from Field Survey, Note: DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.7 depicts the ward-wise distribution of total sample. In the selected 20 wards, total 1684 persons were found, out of which 963 were males and 721 were females. Further, table shows that out of total 1684 persons, 1033 persons are from Darjeeling district area and 651 are from Jalpaiguri district area.

**Table 4.8: District-wise and Gender- wise distribution of Sample**

District	Male	Female	Total SMCA
Darjeeling	553(54)	480(46)	1033(61)
Jalpaiguri	410(63)	241(37)	651(39)
Total (SMCA)	963(57)	721(43)	1684

Source: Self-elaboration with survey data. Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.8 reveals that out of total 1684 persons in SMCA, 61 percent of total persons are from Darjeeling district area and 39 percent of total persons are from Jalpaiguri district area. Further, out of total sampled population, 57 percent are male and 43 percent are female. Further, table shows that in Darjeeling district area, out of total 1033 persons, 553 persons are male, constituting about 54 percent and 480 persons are female constituting about 46 percent of total persons respectively. On the other hand, in Jalpaiguri district area, out of total 651 persons, 410 persons are male constituting about 63 percent and 241 persons are female constituting about 37 percent of total persons. Thus, for SMCA as a whole, number of male member is greater than female member.

**Table 4.9: Religion-wise and Caste- wise distribution of Sample**

Religion				Caste			
Particulars	DRJA	JPGA	SMCA	Particulars	DRJA	JPGA	SMCA
Hindu	921 (89.2)	598 (91.9)	1519 (90.2)	UR/ General	623 (60.3)	377 (60.0)	1000 (59.4)
Muslim	91 (8.8)	38 (5.8)	129 (7.7)	SC/ST	191 (18.5)	177 (27.1)	368 (21.9)
Jain	11 (1.1)	11 (1.7)	22 (1.3)	OBC	219 (21.2)	97 (14.9)	316 (18.76)
Others	10 (0.9)	4 (0.6)	14 (0.8)				
<b>Total</b>	<b>1033</b>	<b>651</b>	<b>1684</b>	<b>Total</b>	<b>1033</b>	<b>651</b>	<b>1684</b>

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage. UR denotes the unreserved category, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.9 shows the distribution of sample population with regard to religion and caste in the study area (SMCA). Out of total 1033 sample population in Darjeeling district area, 921(i.e.89.2 percent) persons belong to Hindu community, 91(i.e. 8.8 percent) persons belong to Muslim community, 11(i.e. 1.1 percent) persons belong to Jain community and 10 (i.e. 0.9 percent) persons belong to others communities. But in Jalpaiguri district area, out of 651 sample units, 598 (i.e. 91.9 percent) persons belong to Hindu community, 38(i.e. 5.8 percent) persons belong to Muslim community, 11(i.e. 1.7 percent) persons belong to Jain community and 4 (i.e.0.6 percent) persons belong to other communities. Among the total 1684 persons in the study area (SMCA), 90.2 percent belongs to Hindu community, 7.7 percent belongs to Muslim community, 1.3 percent belongs to Jain community and 0.8 percent belongs to other communities. Therefore, in both the districts majority of the persons belong to Hindu community followed by Muslim community, Jain community and other communities. Further, table also reveals that in Darjeeling

district area, 60.3 percent belong to UR (Unreserved)/General category, 18.5 percent belong to Scheduled Caste (SC) and Scheduled Tribe (ST) category and 21.2 percent from Other Backward Class (OBC) categories. On the other hand, in Jalpaiguri district area, 60.0 percent from UR/general, 27.1 percent from SC and ST category and 14.9 percent belong to OBC categories. But in study area (i.e. SMCA) as a whole, percentage of UR/general, SC/ST and OBC category people are 59.4, 21.9 and 18.76 respectively. Hence, for the SMCA as a whole, majority of the persons belong to Hindu community and UR/ General Categories.

**Table 4.10: Age -wise distribution of Sample**

Age (Years)	DRJA			JPGA			SMCA
	Male	Female	Total	Male	Female	Total	
<5	48	34	82 (8)	43	12	55(8)	137(8)
15-24	59	55	114(11)	38	16	54(8)	168(10)
15-24	96	70	166 (16)	165	42	207(32)	373(22)
25-44	139	190	329 (32)	55	101	156(24)	485(29)
45-60	138	103	241 (23)	86	62	148(23)	389(23)
61 & Above	73	28	101 (10)	23	8	31(5)	132(8)
<b>TOTAL</b>	<b>553</b>	<b>480</b>	<b>1033</b>	<b>410</b>	<b>241</b>	<b>651</b>	<b>1684</b>

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

From Table 4.10 it is observed that in Darjeeling district area, out of 1033 persons, 8 percent are below 5 years of age group, 11 percent are in the age group of 5-14, 16 percent belongs to 15-24 years of age group, 32 percent are in the age group of 25-44, 23 percent in the age group of 45-60 and 10 percent of persons are above 61 years of age. On the other hand, in Jalpaiguri district area, about 8 percent fall under both the below 5 years of age and in the age group of 5-

14, highest percentage (i.e.32percent) is observed in the age group of 15-24, 24 percent are having 25-44 years of age group, 23 percent are in the age group of 25-44 and very less (i.e. 5 percent) is having more than 61 years of age. It is also evident from the above table that for the study area (i.e. SMCA) as a whole, a majority of the persons are in the age group of 25-44, 8 percent of total persons are having below 5 years and above 61 years of age respectively. In addition, 10 percent are in the age group of 5-14, 22 percent fall under the age group of 15-24 and 23 percent persons are under the age group of 45-60.

**Table 4.11: Education level –wise distribution of Sample**

Education Level	DRJA	JPGA	Total SMCA
Illiterate	24 (2.3)	22(3.4)	46 (2.7)
NASA*	81 (7.8)	53(8.1)	134 (8.0)
Up to Primary	97 (9.3)	28(4.3)	122 (7.2)
Primary to Secondary	245 (23.7)	215(33)	460 (27.3)
Secondary to HS	192 (18.8)	164(25.2)	358 (21.3)
HS to Graduate	336 (32.5)	141(21.7)	478 (28.4)
Post Graduate	58 (5.6)	28(4.3)	86 (5.1)
<b>TOTAL</b>	<b>1033</b>	<b>651</b>	<b>1684</b>

Source: Self-elaboration with survey data Note: In the survey,pre-primary School level education has not been considered. \* HS =Higher Secondary; Figure in parenthesis denotes percentage. \*NASA= Non Attaining School Age, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.11 reveals that out of total 1033 persons in Darjeeling district area, 81 children did not attain school age, 24 persons are illiterate, 97persons have upto Primary level education, 245 persons have Primary to Secondary level education, 192 persons have Secondary to Higher Secondary level education, 336 persons have Higher Secondary to Graduate level education and

58 persons are having Post Graduate degree. In other words, about 57 percent persons have higher secondary and above qualification and 33 percent persons have secondary and below level of qualification. On the other hand, in Jalpaiguri district area, percentage of illiterate is little higher (i.e. 3.4 percent) and Post Graduate degree holders are little lower (i.e.4.3 percent) than that of Darjeeling district area. It is also evident from the above table that a majority of person (32.5 percent ) have Higher Secondary to Graduate degree in Darjeeling district area but in Jalpaiguri district area, a majority of the persons(i.e. 33 percent ) have secondary and below level of education. Further, table reveals that out of total 1684 persons in SMCA, 46 persons (i.e. 2.7 percent ) are illiterate, 134children (i.e.8percent ) still did not attain school age, 122 persons (i.e.7.2 percent ) have upto primary level education, 460 persons (i.e. 27.3 percent ) are having Primary to Secondary level education, 358 persons (i.e. 21.3 percent ) have upto higher secondary level of education, 478 (i.e. 28.4 percent ) persons are having Higher Secondary to Graduate degree and 86 persons (i.e.5.1 percent ) are Post Graduates. Therefore, it is clear that majority of the persons in the study are (i.e. SMCA) are having Higher Secondary to Graduate degree.

**Table 4.12: Marital Status –wise distribution of Sample**

Marital Status	DRJA	JPGA	Total SMCA
Married	624 (60.4)	408 (62.7)	1032 (61.3)
Unmarried	340 (33)	177 (27.2)	517 (30.7)
Widow	44 (4.2)	45 (6.9)	89 (5.3)
Divorcee	19 (1.8)	14 (2.2)	33 (1.9)
Widower	6 (0.6)	7 (1.0)	13 (0.8)
<b>TOTAL</b>	<b>1033</b>	<b>651</b>	<b>1684</b>

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

**Table 4.13: Occupation-wise distribution of Sample**

Occupation	DRJA	JPGA	Total SMCA
Self-employed	46 (4.4)	31 (4.8)	77 (4.5)
Student	184 (17.8)	211 (32.4)	395 (23.5)
Housewife	259 (25.0)	150 (23.0)	409 (24.3)
Govt. Service	60 (5.8)	32 (5.0)	92 (5.4)
Pvt. Service	141(13.6)	35 (5.4)	176 (10.5)
Business	155(15.0)	77 (11.8)	232(13.8)
Retired/ Pensioner	17 (1.6)	5 (0.8)	22 (1.3)
Wage earner / Rickshaw or Van puller/ Casual Labour/others	18 (1.7)	21(3.2)	39(2.3)
Stopped working due to old age(No Earning)	51 (4.9)	10 (1.5)	61 (3.6)
NASA	81 (7.8)	53 (8.1)	134 (8.0)
Unemployed	21 (2.0)	26 (4.0)	47 (2.8)
<b>TOTAL</b>	<b>1033</b>	<b>651</b>	<b>1684</b>

Source: Self-elaboration with survey data Note: Figures in the parenthesis represent the percentage, Here, Pre-Primary School going child is not considered as student. Unemployed are those who are seeking any job, the person may be male or may be female. Only male member is considered in the category of 'stopped working due to old age' who was the earning member of the family previously, but now they have stopped working due to age, physical or other reasons. He is not considered as a pensioner or so called 'Retired Person'. Married woman not doing any out of home job is considered as Housewife, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Figures in the Table 4.12 show that in both district areas a majority of the persons are married and very less persons are widower. Percentage of unmarried persons in Darjeeling district area is greater than that of in Jalpaiguri district area. On the other hand, percentage of widow, divorcee and widower is little higher in Jalpaiguri district area than those of Darjeeling district area. Further, it is also clear from the above table that out of total 1684 persons in SMCA, 1032 (i.e. 61.3 percent) persons are married, 517 (i.e. 30.7 percent) persons are unmarried, 89 (i.e. 5.3 percent) persons are widow, 33(i.e. 1.9 percent) persons are divorcee and 13(i.e. 0.8 percent) persons are widower. In other words, majority of the persons are married, followed by unmarried, widow, divorcee and widower.

Further, it is obvious from the Table 4.13 that percentage of student, wage earners or other types of physical labour and unemployed persons is much higher in Jalpaiguri district area than those of Darjeeling district area. In Darjeeling district area, 42.5 percent persons and Jalpaiguri district area, only 31 percent persons are engaged in different types of occupation, remaining persons are either students, housewives, old people cannot work, children not attaining school age, or unemployed. It indicates that dependency ratio is much higher in Jalpaiguri district area than that of Darjeeling district area. About 19 percent persons are doing government or private Services and 15 percent are doing business in Darjeeling district area but in Jalpaiguri district area, about 12 percent persons are engaged in any kind of services and 11.8 percent are involved in their own business. In addition, table also illustrates that for the SMCA as a whole , out of total 1684 persons , 77 (i.e. 4.5 percent ) persons are self-employed, 395 (i.e. 23.5 percent ) persons are student, 409 (i.e. 24.3 percent ) persons are housewives, 92 (i.e. 5.4 percent ) persons are engaged in government services, 176 (i.e. 10.5 percent ) persons are engaged in private services, 232(i.e. 13.8percent ) persons are doing small or big business, 22 (i.e. 1.3 percent ) persons are pensioners, 39(i.e. 2.3 percent ) persons are wage earners, rickshaw or van pullers and casual labours, 61 (i.e. 3.6 percent ) persons are old people who cannot or have stopped working, 134 (i.e. 8.0 percent )are children who did not attain school age, 47 (i.e. 2.8 percent ) persons are unemployed. In other words, in the study area (i.e. SMCA), about 32 percent persons are engaged in business, services, or other types of job.

**Table 4.14: Distribution of Sampled Households according to Major Source of Income**

Major source of Income	DRJA	JPGA	Total SMCA
Salary	88 (37.0)	55 (34.0)	143 (35.5)
Wages	11 (4.6)	20 (12.3)	31 (7.75)
Business	103 (43.3)	60 (37.0)	163 (40.75)
Pension	12 (5.0)	3 (1.9)	15 (3.75)
Professionals/Self -employed	19 (8.0)	21 (12.9)	40 (10.0)
Others (Rent etc.)	5 (2.1)	3 (1.9)	8 (2.0)
<b>TOTAL SMCA</b>	<b>238</b>	<b>162</b>	<b>400</b>

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

**Table 4.15: Monthly Income –wise distribution of Sampled Households**

Household's Monthly Income (Rupees)	DRJA	JPGA	Total SMCA
Less than Rs.10,000	45(19.0)	35 (21.6)	80 (20.0)
Rs. 10, 001- 20,000	37(15.5)	50 (30.9)	87(21.75)
Rs. 20, 001-30,000	40 (16.8)	27 (16.7)	67(16.75)
Rs.30, 001- 40,000	46 (19.3)	26 (16.0)	72 (18.0)
Rs.40,001-50,000	34 (14.3)	8 (4.9)	42 (10.50)
More than 50,000	36 (15.1)	16 (9.9)	52 (13.0)
<b>TOTAL</b>	<b>238</b>	<b>162</b>	<b>400</b>

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.14 shows the major source of income of the households in both district areas as well as in SMCA. It is observed from the above table that in both district areas, a majority of the households are engaged in business, followed by services in government or private sources and others. Further, percentage of wage earners and self-employed households is relatively higher in Jalpaiguri district area than in Darjeeling district area. But for the SMCA as a whole, out of total 400 households, 163 (i.e. 40.75 percent) households' major source of income is business, 143 (i.e. 35.5 percent) families' main source of income is salary, 40 (i.e.10 percent) households' main earning source is their own profession, 31(approx.8 percent) household's main source of income is wages and only 8 (i.e. 2 percent) households' major part of income come from other sources.

On the other hand, it is observed from Table 4.15, that in Darjeeling district area, 64.5 percent households have more than rupees 20,000 per month income but, only 47.5 percent households earn more than rupees 20,000 in a month. In Darjeeling district area, majority of households (i.e. 19.3 percent) have monthly income in the range of rupees 30, 001- 40,000, but in Jalpaiguri district area, majority of households (i.e. 30.9 percent) monthly earn in the range of rupees 10, 001- 20,000. It is also seen that percentage of household earning more than rupees 40,000 is much higher in Darjeeling district area than that of in Jalpaiguri district area. For SMCA as a whole, about 42 percent families have less than rupees 20,000 per month income, while only 23.5 percent families have more than rupees 40,000 per month income. Out of total 400 households in SMCA, 80(i.e. 20 percent) families have reported that their income is less than rupees 10,000 per month.

**Table 4.16: Economic Class -wise distribution of Sampled Households**

Economic Class	DRJA	JPGA	Total SMCA
BPL	18.9	21.6	20
APL	80.1	78.4	80
TOTAL	100	100	100

Source: Self-elaboration with survey data Note: This categorisation of APL and BPL was done on the basis of self-declaration by respondents, considering the type of ration card they hold. Authenticity is not verified, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

From Table 4.16, it can be concluded that 18.9 percent households in Darjeeling district area and about 22 percent households in Jalpaiguri district area respectively, fall under Below Poverty Line (BPL) category. On the other hand, percentage of households fall under Above Poverty Line (APL) category in Darjeeling and Jalpaiguri district area is about 81 and 78 respectively. It indicates that economic condition of the households in Darjeeling district area is better than that of in Jalpaiguri district area. For SMCA as a whole, 20 percent of the total households fall under BPL category and remaining 80 percent households belong to APL category.

**Table 4.17: Distribution of Sampled Households according to type of ownership of house, type of family, type of house, source of drinking water, cooking fuel used**

		DRJA	JPGA	Total SMCA
Type of Ownership	Own			
	Rented	49 (21)	27 (17)	76(19)
Type of Family	Joint	50 (21)	15 (9)	65(16.25)
	Nuclear	188 (79)	147( 91)	335(83.75)
	Kaccha	0	0	0(0)
Type of House	Semi-Pucca	92 (39)	97 (60)	189(47.25)
	Pucca	146 (61)	65 (40)	211(52.75)
Source of Drinking Water	Corporation Supply	169(71)	86(53)	255(63.75)
	Well	17 (7)	37(23)	54 (13.5)
	Hand-Pump	0(0)	18(11)	18 (4.5)
	Electronic Water Purifier	52(22)	21(13)	73 (18.25)
	LPG	194(81.5)	123(75.9)	317(79.25)
Cooking Fuel used	Kerosene	22(9.2)	24(14.8)	46(11.5)
	Electric Heater / electronic cooker	14(5.9)	6(3.7)	20(5.0)
	Wood and others	8(3.4)	9(5.6)	17(4.25)
	TOTAL	238	162	400

Source: Self-elaboration with survey data; Note: Figures in the parenthesis represent the percentage, DRJA = Part of SMCA falling under the jurisdiction of Darjeeling district, JPGA = Part of SMCA falling under the jurisdiction of Jalpaiguri district, SMCA= Siliguri Municipal Corporation Area.

Table 4.17 reveals that a majority of the households have their own houses in both the district areas. For SMCA as a whole, it is reported that 81 percent families are possessing own houses and remaining 19 percent families are residing on rented houses..It is also observed, in SMCA, about 84 percent are nuclear families and 16 percent are joint families. However, in Darjeeling district area, number of pucca houses is more than semi-pucca houses, but in Jalpaiguri district area, a majority of houses (i.e. 60 percent)are semi-pucca and only 40 percent houses are pucca. Further, for SMCA as a whole, about 53 percent houses are pucca and 47 percent houses are semi-pucca. No kaccha house was found in both the district areas as well as in SMCA. Further table shows that a variety of sources of drinking water is used by the households in both the district areas as well as in SMCA. In Darjeeling district area, out of 238 households, 169 (i.e. 71 percent) households drink from corporation supply, 17 (i.e. 7 percent) households drink well water, 52 (i.e. 22 percent) households use electronic water purifier as a source of drinking water. On the other hand, in Jalpaiguri district area, out of 162 households, 86(i.e.53 percent) families use corporation supply water for drinking, 37(i.e. 23 percent) families drink well water, 18 (i.e. 11 percent) families use hand pump water and only 21 (i.e. 13 percent) households use electronic water purifier as a source of drinking water. In other words, a large number of households use unsafe drinking water in Jalpaiguri district area. For the SMCA, as a whole, more than 64 percent households use municipal corporation supply water and around 18 percent households use unsafe drinking water from well and other sources. Further, table depicts that in both the district areas, a majority of the households use Liquid Petroleum Gas (LPG) and very less percentage of households use wood, other related articles or cow dung cake as cooking fuel. However, for SMCA as a whole, more than 79 percent households use LPG, about 12 percent use kerosene, 5 percent use electric heater or electronic cooker and about 4 percent use wood and others as cooking fuel.