

# **Local Bodies and Provisioning of Services in Urban North Bengal**

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requirement for award of the Degree of*

**DOCTOR OF PHILOSOPHY**

**JOYDEEP SAHA**



**Centre for the Study of Regional Development**

**School of Social Sciences**

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जवाहरलाल नेहरू विश्वविद्यालय  
JAWAHARLAL NEHRU UNIVERSITY  
Centre for the Study of Regional Development  
School of Social Sciences  
New Delhi-110067

**DECLARATION**

I declare that the thesis entitled "Local Bodies and Provisioning of Services in Urban North Bengal" submitted by me for the award of the degree of Doctor of Philosophy of Jawaharlal Nehru University is my own work. The thesis has not been submitted for any other degree of this university or any other university.

Date: 08/05/2018

.....Joydeep Saha.....

(JOYDEEP SAHA)

**CERTIFICATE**

We recommend that this thesis can be placed before the examiners for evaluation.

Prof. Sachidanand Sinha

Chairperson

Prof. Anuradha Banerjee

Supervisor



Chairperson  
Centre for the Study of Reg. Dev.  
School of Social Sciences  
Jawaharlal Nehru University  
New Delhi -110067



Dr. Anuradha Banerjee  
Professor  
Centre for the Study of Regional Dev.  
School of Social Sciences  
Jawaharlal Nehru University  
New Delhi-110067

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## Acronyms

<b>Short Form</b>	<b>Details</b>
ADB	Asian Development Bank
AITC	All India Trinamool Congress
AMR	Antimicrobial Resistance
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
APL	Above Poverty Level
ARWSP	Accelerated Rural Water Supply Programme
AUWSP	Accelerated Urban Water Supply Programme
BADP	Border Area Development Programme
BCC	Bengal Chamber of Commerce
BMS	Basic Minimum Services
BPL	Below Poverty Level
BSUP	Basic Services for Urban Poor
CAA	Constitutional Amendment Act
CBO	Community-based Organisation
CDS	Community Development Society
CER	Central Eastern Region
CFC	Central Finance Commission
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organisation
CPIM	Communist Party of India (Marxist)
CSR	Corporate Social Responsibility
CT	Census Town
DFID	Department for International Development
DGHC	Darjeeling Gorkha Hill Council
DPR	Detailed Project Report
EIC	East India Company
EWS	Economically Weaker Section
FIRE	Financial Institutions Reform and Expansion
GDP	Gross Domestic Product

GIS	Geographical Information System
HDI	Human Development Index
HDR	Human Development Report
HIDCO	Housing Infrastructure Development Corporation
HMC	Howrah Municipal Corporation
HNAF	Himalayan Nature and Adventure Foundation
HPEC	High Powered Expert Committee
HUDCO	Housing and Urban Development Corporation
ICDS	Integrated Child Development Services
IDSMT	Integrated Development of Small & Medium Towns
IEC	Information, Education and Communication
IHSDP	Integrated Housing and Slum Development Programme
ILCS	Integrated Low-Cost Sanitation
INC	Indian National Congress
ISGPP	Institutional Strengthening of Gram Panchayats Programme
IT	Information Technology
JBIC	Japan Bank for International Cooperation
JDA	Jaigaon Development Authority
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
LIC	Life Insurance Corporation of India
MDG	Millennium Development Goals
MED	Municipal Engineering Directorate
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	Management Information System
MLA	Member of Legislative Assembly
MLALAD	Member of Legislative Assembly Local Area Development
MLD	Million Litres per Day
MoDWS	Ministry of Drinking Water and Sanitation
MoEF	Ministry of Environment and Forests
MoHUA	Ministry of Housing and Urban Affairs
MoU	Memorandum of Understanding

MoUD	Ministry of Urban Development
MPCE	Monthly Per Capita Expenditure
MPLAD	Member of Parliament Local Area Development
MT	Metric Ton
NABARD	National Bank for Agriculture and Rural Development
NB	North Bengal
NBA	Nirmal Bharat Abhiyaan
NFHS	National Family Health Survey
NGO	Non-Government Organisation
NH	National Highway
NITI	National Institute for Transforming India
NIUA	National Institute of Urban Affairs
NRCP	National River Conservation Plan
NSDP	National Slum Development Programme
NSLRS	National Scheme for Liberation and Rehabilitation of Scavengers
NSSO	National Sample Survey Organisation
O&M	Operation and Maintenance
OBC	Other Backward Class
ODF	Open Defecation Free
OG	Outgrowth
OHR	Overhead Reservoir
PHED	Public Health Engineering Directorate
PPP	Public-Private Partnership
PRI	Panchayati Raj Institution
RAY	Rajiv Awas Yojana
RGNDWM	Rajiv Gandhi National Drinking Water Mission
RLB	Rural Local Body
RSM	Rural Sanitary Mart
SBA	Swachh Bharat Abhiyaan
SBM	Swachh Bharat Mission
SER	South Eastern Railways

SFC	State Finance Commission
SHG	Self-Help Group
SJDA	Siliguri Jalpaiguri Development Authority
SJSRY	Swarna Jayanti Shahari Rozgar Yojana
SLB	Service Level Benchmark
SLNA	State Level Nodal Agency
SMC	Siliguri Municipal Corporation
SME	Small and Medium Enterprise
SPSS	Statistical Package for the Social Sciences
SRP	Sector Reform Project
SSPWP	Small Scale Private Water Providers
STP	Sewage Treatment Plant
SWM	Solid Waste Management
TCPO	Town and Country Planning Organisation
TPD	Tons per Day
TSC	Total Sanitation Campaign
UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
UIG	Urban Infrastructure and Governance
ULB	Urban Local Body
UNICEF	United Nations Children's Fund
URGD	Urban Rural Growth Differential
USAID	United States Agency for International Development
VAMBAY	Valmiki Ambedkar Awas Yojana
VWSC	Village Water and Sanitation Committee
WB	West Bengal
WBIDC	West Bengal Industrial Development Corporation
WBPCB	West Bengal Pollution Control Board
WBSEC	West Bengal State Election Commission
WHO	World Health Organisation
WPR	Workforce Participation Rate
WR	Western Region

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*Research is a never-ending process and deep involvement in which might influence the researcher into debating issues and raising critical questions. I would be really acknowledged if this thesis gets academically critiqued in a positive note, and opens up new vistas for future studies.*

**Date: 8<sup>th</sup> of May, 2018**

**Place: New Delhi**

**Joydeep Saha**

# Chapter-1. Introduction

## 1.1 INTRODUCTION:

Urban centres are often portrayed as engines of economic growth, hubs of multiple services and amenities and pivots of modern socio-cultural set-up. These opportunities and associated conveniences pull a large number of migrants from rural areas also. In fact, the quality of life of residents, who continuously run the socio-economic and cultural system of urban centres, gains paramount importance. In such a perspective of urban development, both provisioning of basic civic services (drinking water supply, the arrangement of toilets and drainage, and management of solid waste) and their operation and maintenance are equally important. As low-income households primarily need the access to these amenities, their interaction with local governing bodies also appears to be very significant.

## 1.2 STUDY AREA:

North Bengal, comprising of Cooch Behar, Darjeeling, Kalimpong (carved out of Darjeeling in 2017) Jalpaiguri, Alipurduar (also formed recently, carved out of Jalpaiguri, in 2014), Uttar Dinajpur, Dakshin Dinajpur (erstwhile West Dinajpur, before partition in 1992) and Malda districts, is regarded as an ‘administrative division’ i.e. Jalpaiguri. Its geographical location is 24°48'20" N-27°13'0"N latitudes and 87°45'50"E-89°54'36"E longitudes, covering a geographical area of 21000 square kilometres<sup>1</sup>. As far as regionalisation schemes of West Bengal are concerned (as elaborated in section 2.4), North Bengal is identified as a ‘meso region’ (Lahiri, 1972) or a ‘planning region’ (State Landuse Board). However, few schemes divide North Bengal into two regions like ‘Hill Region’ (Darjeeling, Jalpaiguri and Cooch Behar districts) and ‘Northern Sub-region’ (Dinajpur and Malda districts) of South Eastern Region (TCPO, 1982). National Sample Survey<sup>2</sup> delineates ‘Himalayan Region’ (Darjeeling, Jalpaiguri and Cooch Behar

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<sup>1</sup> IAMR (2002)

<sup>2</sup> [http://mospi.nic.in/mospi\\_new/upload/nss/nss\\_regions.pdf](http://mospi.nic.in/mospi_new/upload/nss/nss_regions.pdf) (as accessed on 05/11/2014)

districts) and ‘Eastern Plains’ (Uttar Dinajpur, Dakshin Dinajpur, Malda, *Murshidabad*, *Birbhum* and *Nadia*).

In terms of physiography, North Bengal has three distinct parts, i.e. Hills (Darjeeling and Kalimpong districts and part of Jalpaiguri and Alipurduar districts), Sub-Himalayan Foothill (some areas of Jalpaiguri, Alipurduar and Cooch Behar districts) and Plains (mainly Uttar Dinajpur, Dakshin Dinajpur, Malda; parts of Jalpaiguri, Cooch Behar and Alipurduar districts). One can see a mesh of rivers in North Bengal, and some of these are Tista, Torsha, Jaldhaka, Balasan, Mahananda, Kulik, Punarbhaba, Tangan, Atrai etc. North Bengal basically exhibits humid tropical climate<sup>3</sup>. However, in the high-altitude points of Darjeeling district, cold climatic conditions prevail. North Bengal is well known for its natural resource base – be it tea gardens in Darjeeling-Jalpaiguri, forests in Alipurduar and Jalpaiguri or fertile soil in riverine tracts of Malda, Uttar Dinajpur and Dakshin Dinajpur districts. Therefore, tea and timber are abundant, and these are of considerable economic values. In terms of biodiversity, this part of West Bengal<sup>4</sup> is also famous, as it is a habitat for elephants, rhinos and leopards. Plains of this region are mainly known for agricultural products like rice, jute, mustard and so on. Some of the local vegetables (like tomatoes and green chillies in Haldibari, Cooch Behar) and fruits (like mangoes in Malda) have a significant popularity in the domestic consumer market of India. Micro, Small and Medium Enterprises are also present here. Service sector-based economic activities primarily revolve around urban centres like Siliguri and Darjeeling. Among these, tourism, banking and insurance sector are very important. Apart from these, food processing, education, healthcare and IT industry are some of the sectors that have untapped potentials<sup>5</sup>. Ethnic and cultural diversity is pronounced, as it varies from Nepali community dominated Darjeeling hills, tea gardens with a significant

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<sup>3</sup> According to Mitra and Mukherjee (2010), plain areas of this region displays damp warm climatic conditions, with average annual rainfall of 3900 mm, and mean maximum temperature of 33-35 degree Celsius (summer) and mean minimum temperature of 7.5-10 degree Celsius (winter).

<sup>4</sup> North Bengal and its adjoining areas of Nepal, Bhutan, Sikkim and Assam exhibit wide biodiversity, as this is located at the confluence of several biogeographic realms (Das:2); also see [http://www.wwf.org/about\\_wwf/priority\\_species/indian\\_elephant/conservation\\_issues/northern\\_west\\_bengal/north\\_bengal\\_biodiversity/](http://www.wwf.org/about_wwf/priority_species/indian_elephant/conservation_issues/northern_west_bengal/north_bengal_biodiversity/) (as viewed on 02.07.2017)

<sup>5</sup> Destination: North Bengal “Exploring Industrial Competitiveness to Attract Investment”, 05.05.2017, Indian Chamber of Commerce

presence of tribal population<sup>6</sup> (18.89 percent ST population in Jalpaiguri and 21.52 percent in Darjeeling district, Census 2011) to the areas of Jalpaiguri and Cooch Behar districts with numerically large Scheduled Caste people (37.65 and 50.17 percent population, respectively in 2011). In a nutshell, “The geographical diversity blended with the cultures of different ethnic groups has placed North Bengal in the most treasured tourist destinations” (North Bengal Development Department, Government of West Bengal).<sup>7</sup>

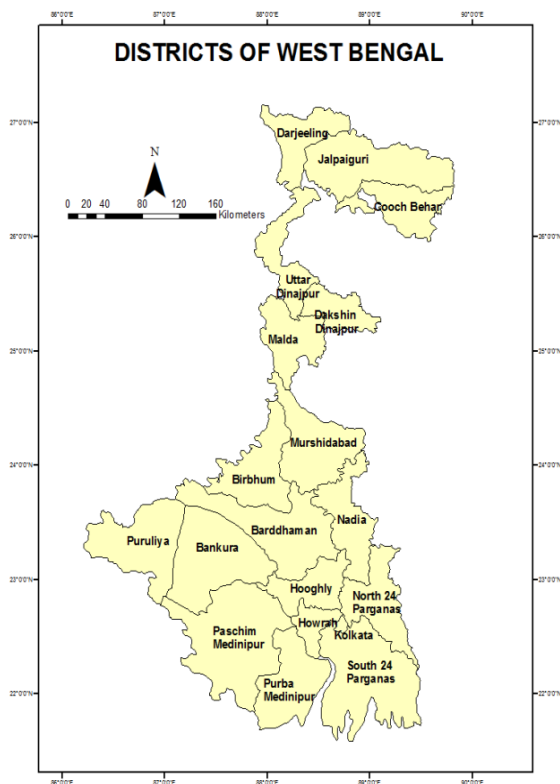


Fig- 1.1: Districts of West Bengal  
Census of India, 2011

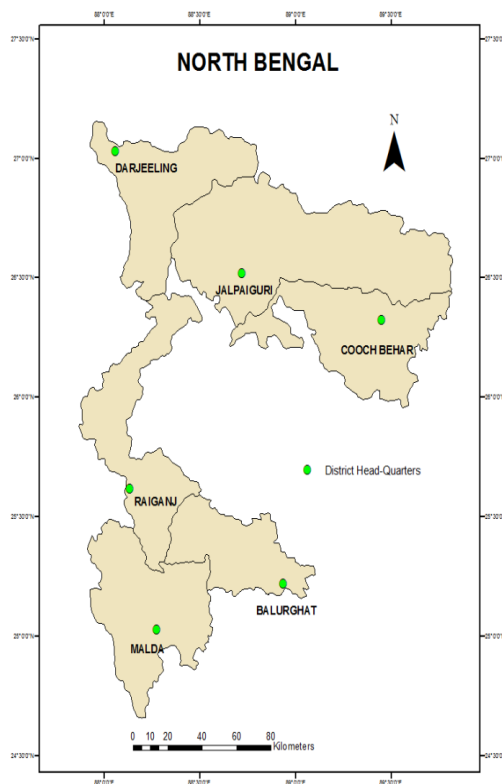


Fig- 1.2: Districts of North Bengal  
Census of India, 2011

<sup>6</sup> Adivasis from Santhal Parganas, Chotanagpur region; autochthonous tribes like Mech, Rabha and Toto (Bhowmik:1988:63)

<sup>7</sup> <http://wbnorthbengaldev.gov.in/htmlpage/index.aspx> (as accessed on 02.10.2014)

Table-1.1: Fact Sheet of Urban Centres, North Bengal, 2011

Rank	Name of Urban Centre	Total Population	Size-Class	Number of Households	Sex Ratio	WPR
1	Siliguri (M Corp.)	513264		115957	946	36.62
2	English Bazar (M)	205521		42867	924	31.78
3	Raiganj (M)	183612		35326	905	32.75
4	Balurghat (M+OG)	153279		37949	998	37.90
5	Dabgram (P) (CT)	119040		26827	949	36.64
6	Darjeeling (M)	118805		21782	1007	34.38
7	Jalpaiguri (M)	107341	Class-I	26205	999	34.74
8	Old Maldah (M)	84012		16479	772	42.41
9	Koch Bihar (M)	77935		18431	998	35.16
10	Alipurduar (M)	65232		15556	969	35.07
11	Kharia (P) (CT)	61661		14715	957	40.27
12	Binnaguri (CT)	58840		12868	945	35.15
13	Gangarampur (M)	56217		12589	932	37.15
14	Islampur (M)	54340		11404	925	32.22
15	Kaliaganj (M)	53530	Class-II	12347	959	36.36
16	Kalimpong (M)	49403		10113	968	33.92
17	Dhupguri (M)	44719		10365	948	36.84
18	Kurseong (M)	42446		6616	981	23.24
19	Jaygaon (CT)	42254		8243	950	33.70
20	Dalkhola (M)	36930		6861	920	30.41
21	Dinhata (M)	36124		8739	969	33.90
22	Mainaguri (CT)	30490		7678	969	34.44
23	Mal (M)	25218		5933	968	39.16
24	Uttar Bagdogra (CT)	25044		5634	817	37.27
25	Mathabhanga (M)	23890		5792	981	36.16
26	Khagrabari (CT)	23122		5613	971	34.79
27	Guriahati (CT)	21064		5122	978	38.00
28	Tufanganj (M)	20998	Class-III	5171	965	35.78
29	Falakata (CT)	19716		4709	967	36.01
30	Alipur (CT)	17347		3490	962	44.79
31	Krishnapur (CT)	16470		3323	968	44.63
32	Uttar Latabari (CT)	16350		3877	988	35.49
33	Bara Suzapur (CT)	15808		3306	945	40.44
34	Banarhat Tea Garden (CT)	15652		3463	965	36.06
35	Bara Mohansingh (CT)	15616		3720	1003	34.16
36	Tari (CT)	14558		3086	985	42.12
37	Cart Road (CT)	14444		3231	1030	29.44
38	Haldibari (M)	14404		3405	972	35.76
39	Paschim Jitpur (CT)	14334	Class-IV	3489	994	36.47

40	Odlabari (CT)	14194	3116	976	34.82
41	Bamangram (CT)	13550	3004	962	46.35
42	Jagannathpur (CT)	13454	2724	966	39.21
43	Dumriguri (CT)	13416	3000	930	33.86
44	Bholar Dabri (CT)	12670	3057	961	32.54
45	Silampur (CT)	12664	2533	978	45.87
46	Milki (CT)	12581	2703	927	32.49
47	Takagach (CT)	12418	2839	948	36.62
48	Baliadanga (CT)	12379	2502	953	38.39
49	Uttar Kamakhyaguri (CT)	12022	2826	961	38.56
50	Sonada Khasmahal (CT)	11635	2541	1008	31.06
51	Telipara Tea Garden (D) (CT)	11535	2465	1021	37.53
52	Mathapari (CT)	11529	2659	953	41.46
53	Mirik (NA)	11513	2465	1024	32.34
54	Parangarpar (CT)	11408	2690	924	37.35
55	Chhota Suzapur (CT)	11216	2290	931	42.56
56	Bhimram (CT)	11058	2458	943	35.70
57	Karari Chandpur (CT)	10941	2213	964	43.79
58	Birpara (CT)	10821	2686	930	37.84
59	Alipurduar Rly.Inc.(CT)	10733	2650	998	33.39
60	Sonatala (CT)	10589	2241	995	39.89
61	Kasba (CT)	10067	2295	928	34.11
62	Sahapur (CT)	9906	2176	949	39.61
63	Uttar Madarihat (CT)	9631	2328	970	40.88
64	Mechiabasti (CT)	9592	1937	958	34.96
65	Kalkut (P) (CT)	9184	1991	927	35.17
66	Mekliganj (M)	9127	2249	957	35.21
67	Jateshwar (CT)	8963	2066	935	36.15
68	Nazirpur (CT)	8778	1744	939	42.05
69	Geni (CT)	8747	2026	962	36.13
70	Bagbari(CT)	8660	1862	893	37.02
71	Chakchaka (CT)	8582	2064	939	33.72
72	Samuktola (CT)	8132	1861	951	40.19
73	Kharimala Khagrabari (CT)	7844	1946	993	35.44
74	Chaspara (CT)	7731	1665	951	42.34
75	Chechakhata (CT)	7613	1864	967	36.16
76	Jadupur (CT)	7585	1529	936	43.67
77	Gairkata (CT)	7577	1749	980	38.38
78	Dakshin Khagrabari (CT)	7469	1805	973	34.61
79	Baksinagar (CT)	7255	1691	964	39.64
80	Laskarpara (CT)	7137	1674	926	32.02
81	Gopalpur (CT)	7016	1738	958	39.10
82	Lalman (CT)	6894	1583	920	35.36

83	Dungra Khasmahal (CT)	6789	1504	1072	34.69
84	Kharibari (CT)	6660	1493	965	32.25
85	Jagijhora Barabak (CT)	6474	1328	933	31.53
86	Kendua (CT)	6452	1519	958	41.97
87	Dakhin Rampur (CT)	6392	1497	938	35.36
88	Chak Bhrigu (CT)	6269	1618	958	38.24
89	Bandhail (CT)	6175	1447	955	36.10
90	Badamtam Tea Garden (CT)	6102	1256	1043	37.64
91	Itahar (CT)	6022	1434	991	36.47
92	Nachhratpur Katabari (CT)	6011	1295	924	37.12
93	Hanskunda (CT)	5939	1115	938	29.47
94	Mangalbari (CT)	5934	1390	997	38.36
95	Aiho (CT)	5898	1337	978	43.54
96	Jitu (CT)	5892	1419	1042	35.57
97	Congtong Tea Garden (CT)	5802	1340	1017	43.36
98	Singtam Tea Garden (CT)	5792	1289	1032	35.79
99	Chopra (CT)	5777	1214	928	32.14
100	Kachu Pukur (CT)	5752	1362	935	36.07
101	Mangarjung Tea Garden (Nagri) (CT)	5644	1224	1046	32.94
102	Chhatianmor (CT)	5582	1176	954	41.19
103	Chanchal (CT)	5570	1311	970	31.76
104	Sobhaganj (CT)	5488	1319	918	38.12
105	Chhota Laukuthi (CT)	5480	1297	963	35.00
106	Rangabhita (CT)	5464	1302	993	33.38
107	Jalalpur (CT)	5460	1139	929	43.64
108	Kamat Phulbari (P) (CT)	5339	1342	946	40.93
109	Dakra (P) (CT)	5268	1339	993	38.86
110	Chakiabhita (CT)	5251	1199	931	37.65
111	Shyamdhan (CT)	5192	1122	956	34.50
112	Rongmook Ceder Tea Garden (CT)	5150	1216	1037	40.04
113	Jhangra (CT)	5022	1061	974	39.25
114	Baisguri (CT)	5021	1206	948	36.33
115	Harirampur (CT)	5021	1209	954	40.13
116	Dakshin Odlabari (CT)	4997	1051	979	34.10
117	Lataguri (CT)	4981	1208	979	40.19
118	Chalsa Mahabari (CT)	4973	1130	1021	35.71
119	Bairatisal (CT)	4916	1220	1005	35.78
120	Baneswar (CT)	4841	1220	910	34.85
121	Nagar Changrabandha (CT)	4483	1135	992	33.75
122	Sukhiapokhri (CT)	4450	998	1038	29.93
123	Dhaliabari (CT)	4383	1063	935	47.64

Class-VI

124	Bhangri Pratham Khanda (CT)	4379	1059	923	36.83
125	Matialihat (CT)	4215	910	916	33.24
126	Sisha-Jumrha (CT)	4130	921	952	34.60
127	Ging Tea Garden (CT)	4089	902	1007	39.47
128	Birodhi (CT)	3838	788	974	39.63
129	Par Patiram (CT)	3225	733	1007	37.95
130	Dakshin Bagdogra (CT)	2647	590	1035	33.13

*Note:* Sex Ratio = Number of Females per 1000 males; WPR (Workforce Participation Rate) = Number of workers per 100 population

*Source:* Calculated from Primary Census Abstract, Census of India, 2011

### 1.3 RATIONALE OF THE STUDY:

North Bengal has been referred as ‘backward’ in terms of economic and human [development indicators (Khan, 1992; Dasgupta, 1995; IAMR 2002, W.B HDR, 2004; Basu, 2012). In the Human Development Report<sup>8</sup>, North Bengal appears as a ‘specific region’ with problems like inadequate infrastructural development and paucity of institutions. In such a backward region, urban centres are supposed to be the torch-bearers of development. In such development process, urban centres in every size-category should play specific roles. At present, considerable number of research work has pin-pointed characteristics, prospects and problems of particular cities like Siliguri, English Bazar, Jalpaiguri, Balurghat, Darjeeling and so on. But, there is hardly any research work on North Bengal that binds the interrelated issues of urban infrastructure, amenities, finance and governance in a framework of urban system. The broad-based and analytical study on processes of urbanisation and development of urban infrastructure (Saha, 2013) show that provisioning of basic household amenities are more or less better in Class-I cities as compared to small and medium towns. But, there are few research studies dealing with small and medium towns of North Bengal. Census Towns, in 2001 and 2011, are also showing ‘mixed characteristics’ in terms of basic amenities, But other CTs are mostly governed by rural local bodies (i.e. Gram Panchayats, the last tier of Panchayati Raj system). All these point out that there needs to be a comprehensive study on the linkages of local body governance and finance in terms of building, operating and

<sup>8</sup> HDI Rank of North Bengal Districts: Darjeeling (4), Jalpaiguri (10), Cooch Behar (11), Dinajpur (13) and Malda (17); Total number of districts: 17



maintaining infrastructure; provisioning basic services to people (especially poor) and engaging them in the decentralised development processes.

## **1.4 LITERATURE REVIEW:**

### **1.4.1 Processes of Urbanisation and Urban System**

The processes of urbanisation differ considerably between more developed and less developed countries. In the More Developed Countries (MDCs), expansion of industries mainly occurred in urban centres. Therefore, rural folk moved to urban centres and got employed in industries. These cities became foci of technological innovation, which diffused across space, particularly to rural areas. In contrary, Less Developed Countries (LDCs) saw a rapid movement of distressed rural people into cities, characterised with the limited resource base, a handful of industrial units and growth of the low-end informal sector. Therefore, 'generative' cities in MDCs were acting as engines of growth, whereas cities in LDCs were basically 'parasitic' in nature (Hoselitz, 1955). One should note that this comparative perspective on urbanisation emphasises on *economic* and *demographic* factors. It is also important to look at the socio-spatial structure of cities, as to how *urbanism as a way of life* gets shaped in cities with large population size, higher population density and social heterogeneity (Wirth, 1938). From a geographical perspective, it is also judicious to explore processes of *macro-urbanisation* (movement of people from rural to urban areas), *metropolitanisation* (movement of people from smaller towns to large cities; expansion of large cities in terms of area and population size) and *suburbanisation* (spilling over of urban population from core parts of city to immediate rural neighbourhood or fringe area; mixed land-use and socio-economic set-up).

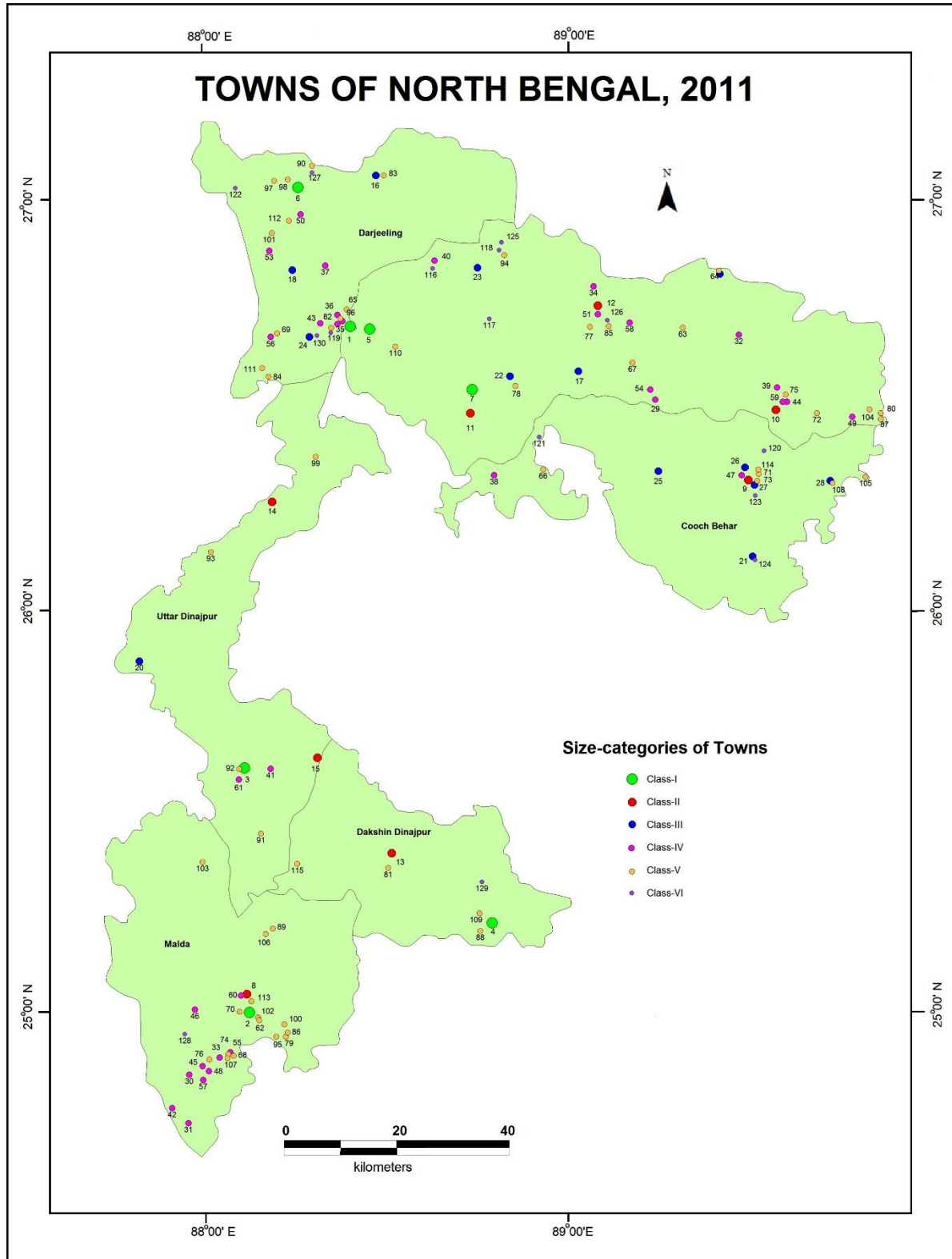


Fig-1.3: Towns of North Bengal, Classified by Population Size, 2011

If one looks at the data on urban growth and level of urbanisation over 1961 to 2011, it would be far easier to comment on existing processes, trends and patterns of urbanisation. Census 1951 reported relatively higher urban growth rate due to “independence and partition of the country” and “non-rigorous identification of towns and cities”. From 1961 onwards, Census of India has maintained a more rigorous and formal definition with a considerable consistency. From 1961 to 1981, urban growth rate picked up, only to slow down later up to 2001. In terms of the level of urbanisation, the progress is at best moderate. However, the most important point to note is absolutely huge urban population size, that too a large chunk of it concentrating in large cities thereby reporting a rapid growth. In such ‘dual’ structure of India’s urbanisation, top-heaviness is often aggravated as large cities especially metro cities experience both in-migration and areal expansion. In-migration is driven by economic opportunities, while areal expansion occurs as city boundaries tend to include satellite towns and outgrowths. However, inter-state variations in terms of urban growth and level of urbanisation are quite prominent. Till 1991, more developed states had higher levels of urbanisation, although urban growth rates were moderate. On the other hand, less developed states registered higher urban growth rates, although with a lower level of urbanisation. In these group of states, government-backed infrastructural development and industrial dispersal programmes acted as a pull factor, and agricultural stagnation worked as a push factor of rural-urban migration. During the 1990s, more developed states have seen higher urban growth, whereas less developed states have got saturated in terms of urban growth. It is explained by the fact that developed states already had a relatively better economic set-up due to industries and infrastructure investment, and added to that the ‘decentralisation model’ envisaged by the 74<sup>th</sup> CAA actually strengthened large cities with stronger economic base<sup>9</sup>. In this trajectory, West Bengal is an exception. Due to government-specific policies, this state has not experienced higher urban growth, although its level of urbanisation is consistently close or more than the national average. (Kundu, 2006). During 2001-2011, the urban population of India has grown up to 377 million at the rate of 2.76 percent per year. For this, Bhagat (2011) gives credit to the fast-growing economy. In his analysis of urban

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<sup>9</sup> Even within metro cities and surrounding regions, only a handful has been the hubs of major investment. These are Ahmedabad-Pune Corridor, Bangalore-Chennai-Coimbatore triangle; surrounding areas of National Capital i.e. Delhi; new ones like Hyderabad, Vishakhapatnam and Kochi (Shaw, 1999).

growth components for 2001-2011, net rural-urban classification and net rural-urban migration appear as major ones, however, natural increase adding around 40 million population in this decade is something very important. At the state level, 'economically advanced' states located in southern and western India show higher levels of urbanisation. Like Kerala, Andhra Pradesh and Gujarat, West Bengal has also reported a large number of 'new' towns, formed due to net rural-urban classification.

As far as the present body of literature on urbanisation of West Bengal is concerned, only Kolkata and Asansol-Durgapur belt have been more frequently and elaborately studied. Some scholars like Nath (1990), Sarkar (1997) and Giri (1998) have attempted to analyse overall processes and patterns of urbanisation in West Bengal. Migration (Partition and War; rural-urban migration), manufacturing and service sector activities, low-end informal works and agricultural growth have been cited as important factors shaping the course of urbanisation in West Bengal. Scholarly works show that evolution of urban centres is intricately related with dynamic socio-economic, demographic, geographic and politico-administrative processes. Although very few studies have endeavoured to discuss urbanisation processes of North Bengal as a whole, there are abundant research works dealing on economic and demographic processes, particularly operating in large and old cities like Siliguri, Darjeeling, Jalpaiguri, Balurghat and English Bazar. The studies, dealing with overall processes of urbanisation in North Bengal, have mainly focused on migration, trade and commerce, changing occupational structure and relevant politico-administrative factors (Mukhopadhyay, 1977; Namita Choudhury, 1988; Gangopadhyay, 2003).

Some research works have attempted to look at urbanisation processes through a historical lens. During the pre-British period, prominent urban centres like 'Pandua', 'Gour' (later known as Laxmanabati) and 'Cooch Behar' played significant politico-administrative and economic roles for the surrounding region (Agarwala 1993; Gangopadhyay, 2003). This legacy of urbanisation, during the British period, spread to a large geographical extent. With a profit-motivated eye towards strategic and productive locales, British administrators started development of urban centres. Darjeeling (due to its strategic location and node for regional trade), Siliguri (nodal centre facilitating

administrative and commercial functions) and Jalpaiguri (Tea plantation hub) emerged as important urban centres during this period. Apart from this, urban centres like Raiganj and Balurghat were developed for administrative control and revenue earning. It suggests that economic and administrative factors played crucial roles in the urbanisation of North Bengal during this phase.

Politico-administrative processes, as pointed out by some scholars, have been pivotal in urban centres of North Bengal. Establishment of administrative offices and consequent growth of tertiary sector job opportunities are quite prominent. If one looks at the post-independence scenario, 15 settlements have become 'Statutory Towns', and most of them are sub-divisional and block headquarters. Again, some urban centres of North Bengal hold paramount importance in terms of infrastructure and connectivity in the geo-strategically important region. For example, the corridor from English Bazar to Siliguri, through urban centres like Raiganj, Dalkhola and Islampur is lying between Bihar in the west and Bangladesh in the east (Saha, 2013).

Economic processes of urbanisation are quite significant in North Bengal. Trade, commerce, transport and services have large shares of workers (Chatterjee and Giri; Saha, 2013). Siliguri is the well-known regional centre of trade, commerce, transport and other tertiary activities in the whole of North Bengal. North Bengal, an industrially backward zone, consists of a bunch of small and medium towns which are basically acting as 'market' or 'transport' and 'service centres'. These towns are actually providing some socio-economic and infrastructural facilities to neighbouring rural areas. During the post-independence period, transport and communication factor has also strengthened urbanisation processes, for example in Siliguri, Alipurduar and English Bazar. Tourism activities, especially in Darjeeling and Dooars area, also depend on local urban centres.

Cross-border migration from Bangladesh, during the partition of undivided India (1947) and Bangladesh war (1971), has led to a spurt in urban growth of North Bengal (Nath, 1990). For example, during 1941-51, urban centres like Siliguri, Cooch Behar, Dinhata and Jalpaiguri and during 1961-81, Balurghat have seen considerable population growth.

The aforesaid processes are interlinked to each other. For instance, the 'demographic' process of cross-border migration has substantially increased population size of many settlements, and expansion of 'market' and 'administrative functions' has led to the formation of full-fledged urban centres, governed by locally elected bodies. In short, such interlinked processes have resulted into creation of an urban system, where the number of small and medium towns is higher, but a large chunk of the population actually resides in handful large cities like Siliguri, English Bazar, Raiganj, Balurghat and Jalpaiguri. A limited number of Statutory Towns, a higher number of Census Towns, low to moderate urban growth rates, slow to moderately increasing level of urbanisation, the emergence of Census Towns around Class-I cities are the main features of the urban system in North Bengal (Saha, 2013).

#### **1.4.2 Urban Infrastructure and Amenities – Issues of Governance in India**

Infrastructure, both physical and social, is important not only for the urban residents but also adjoining rural areas. A sound system of physical infrastructure (water supply, drainage, waste management, road, electricity etc) and social infrastructure (school, college, vocational training institute, hospital, cinema hall etc) acts as a pivot around which the entire urban economy and socio-cultural network are centred. In India, one can see the relatively better levels of infrastructure in urban centres as compared to rural areas (Ramanathan, 2007). Water and sanitation related amenities, at household level, are having better coverage in more developed states as compared to less developed ones, thereby indicating an association of per capita income, government funding and capacities of ULBs (Kundu and Banerjee, 2018).

A huge body of literature has pointed out that there lies the considerable difference between 'Large Cities' and 'Small and Medium Towns' in terms of urban infrastructure and provisioning of amenities. However, it is true that both categories of urban settlements are required to play their specific roles and interact with each other as well. Large cities, often attracting the attention of policymakers at different levels, are being hailed as engines of economic growth and drivers of modernisation. It is true that large cities offer diversified economic opportunities and high-quality infrastructural facilities to people, which often creates a positive rippling effect on the regional socio-economic

system. As opined by McNamara (1975), cities provide '*more productive life*' and '*productive employment*' to the needy people. Some scholars have argued that large cities have been able to receive more funds due to their already developed economic base. Some very large city corporations (for example, Ahmedabad, Ludhiana and Nashik) have even used an alternative approach, i.e. accessing capital market (Bagchi, 2001) for financial requirements. India's top-heavy urban hierarchy (Kundu, 2003) is manifested in the fact that a huge chunk of the total urban population resides on a limited number of million-plus cities. North Bengal is no exception, where Class-I cities consist higher proportion of urban population. However, one should also note that these large cities are plagued with a host of environmental problems like the proliferation of slums and squatters, crime, poverty, unemployment, haphazard unplanned growth and so on (Dikshit, 1997; Dhar Chakrabarti, 2001).

'Small and Medium Towns', are also having a significant role in regional development (Rana and Krishan, 1981; Rondinelli, 1983; Dikshit, 1997; Phadke, 1997; Sahasranaman, 2012). These towns possess a symbiotic relationship with the rural hinterland. The growth of agriculture and allied activities, household industries and rural infrastructural development largely depend on these towns. This category of urban centres basically acts as market or service centre for surrounding villages and semi-urban settlements; encourages trade and commercial activities; reduces migration toward bigger cities and potentially de-congest them. The nature of problems is quite different in this category of urban settlements. Scholars have shown that poor economic base, an absence of employment opportunities (especially in manufacturing and services), lacunae in financial management, inadequate infrastructure and amenities are some of the major problems in small and medium towns (Kundu et al, 1999; Sharma, 2012). On the financial front, these weak towns have continued to depend on government grants for service provisions (Bagchi, 2001; Maitra, 2001; Chattopadhyay, 2006).

Kundu (2003) has beautifully summed up the above discussion in the light of dualistic urban scenario of the post-independence period. Large cities, especially located in developed states, have seen higher population growth due to a stronger economic base, infrastructural development and consequent migration and areal expansion. In contrary,

small and medium towns, especially in backward states, have grown because of their administrative status, some sort of industrial base, 'gap-filling approach' based government grants and rural push factor-led migration.

In India, one has to look into another important categorisation of urban settlements, i.e. 'Statutory Towns' and 'Census Towns'. This categorisation of urban settlements is considerably interlinked with governance issues. 'Statutory Towns' are recognised by the concerned state government and characterised by the presence of Urban Local Bodies (ULBs) like Municipal Corporation, Municipality, Notified Area Authority and so on. As per the 74<sup>th</sup> Constitutional Amendment, Statutory Towns are governed by directly responsible ULBs for some functions like local level planning, service provisions, revenue collection and infrastructure development. Central and state governments assist these ULBs through grants and loans as well as technical and manpower inputs. Large and medium-size urban settlements usually belong to this category. An electoral mandate-based representative system is the democratic pillar of municipal corporations and municipalities. Through the Ward Committee meetings with people, the concerned ULB can prioritize and make plans for infrastructure development and service provisions. These urban centres can also have own sources of income from different taxes, rates and non-tax revenues. In large cities of India (like Bengaluru, Chennai, Kolkata, Mumbai and Delhi), Non-Government Organisations, Civil Society Organisations and other agencies also aim to bridge the gap between ULB and common people (Harriss, 2007; Ramanathan, 2007).

'Census Towns' (CTs), on the other hand, are identified by Census of India (2011) on the basis of three criteria, such as (i) population size more or equal to 5000; (ii) population density of 400 persons per sq.km. and (iii) engagement of at least 75 percent male main workforce in non-agricultural activities. These towns, often smaller in size, are not recognised as urban settlements by the concerned state government. But, these towns, either located mainly near peripheries of large cities or grown as a nodal market/service centre, usually exhibit certain urban characteristics in terms of infrastructure and amenities. One can find that land use categories (like built-up area, commercial area etc) typically gives an urban look to these towns. However, these remain in a stage of



transition being governed by rural local bodies (Panchayats), which cannot develop adequate urban infrastructure and necessary urban amenities due to financial constraints (Samanta, 2014). Few studies have pointed out the deterioration of environment and infrastructure of Census Towns, which are located in the peripheries of large cities (Kundu et al, 2002; Shaw, 2005). Samanta (2014) has blamed '*slow process of municipalisation*' as a driving factor behind the growth of these '*non-recognised urban territories*' in West Bengal, which reflect some kind of '*unacknowledged urbanisation*' (Pradhan, 2012). Another important point is haphazard unplanned land use plans and building construction in CTs. In fact, the necessity of developing infrastructure and amenities demands urban recognition for such towns. That means, these settlements require suitable governance framework, under which the demand for infrastructure and services can be met. Shaw (2005) and Samanta (2014) have argued that inclusion of 'Town Panchayat' status within West Bengal Municipal Act can boost infrastructural development in CTs. Sahasranaman (2012), however, talks about a robust district-level development planning which will take care of all small and medium towns as well as surrounding villages. Although there remains financial crunch in terms of service provision, '*the desire to avoid taxation*' also deters CTs to become Statutory Towns (Bhagat, 2005).

Eventually, this entire discussion on Statutory Towns and Census Towns points to the issue of rural-urban classification of India. Some research works clearly show how so-called rurally governed villages are acquiring urban character, thus resulting in a massive increase in the number of Census Towns. Bhagat (2005) has rightly opined that there need to be uniform criteria to define 'transitional areas' across the states for better governance and financial arrangement. Another issue is varying norms regarding population size of different categories of ULBs like municipal corporations and municipalities across the states. He has called for a well-thought-out reorganisation of urban spatial units, using the concepts of Standard Urban Area and Urban Agglomeration.

Another associated and pertinent issue arising out of this entire discussion is 'peri-urbanisation'. Large cities sometimes get expanded to the extent that it crosses the boundary of local body jurisdiction, and thereby resulting in a mixed land use pattern –

both rural and urban. People prefer to live in this ‘dynamic’ part of habitation because both ‘rural’ and ‘urban’ facilities are available to them. While ‘rural’ environment ensures less pollution and cheap land, ‘urban’ environment offers better healthcare, education and entertainment facilities coupled with diversified job opportunities. Cities and rural settlements also share a mutual relationship. In terms of supply of vegetables, flowers, dairy products, bricks and many other materials, cities depend on peri-urban areas. The agriculture-based economy thrives on the market-based demands generated in cities. The only paradox is the structure of governance. Urban Local Bodies have their own boundary, beyond which any form of development work is not usually done. Rural Local Bodies, on the other hand, cannot provide services like piped tap water and solid waste disposal facilities to residents mainly because of limited financial resources. ULBs often try to exploit such areas, as it would provide these bodies cheap land on which many civic services are dependent on (for example, solid waste management services in a city depends on a garbage disposal facility, maybe a dumping ground, located in the peri-urban areas). Rural Local Bodies continue to remain in hope that municipal boundary would be extended sooner or later. Such a paradox of governance structure actually leads to a haphazard spread of built-up area, often through engulfing productive agricultural land, open spaces and water bodies. Another thing that crops up is the number of small and medium-sized industrial units, which flout environmental norms (Shaw 2005; Mahavir in Patra ed., 2011; Mallick and Sen 2011; Tewari 2011).

### **1.4.3 Availability and Accessibility of Urban Amenities – Conditions of Poor People**

‘Urban Poor’, who often live in slums and work in informal sector, contribute a lot in country’s economy, especially like that in India. As a matter of fact, they often do such informal works for which other urban dwellers are hardly available. While commenting on urban poverty, Bandyopadhyay has rightly said that presence of urban poor in Indian cities are characterised by lower economic productivity, lower standard of living, hunger, under-nutrition, overcrowding, hunger, homelessness, joblessness, personal and social insecurity (foreword: Ali ed., 2006). The overall scenario in developing countries is not much different either. In the developing countries, where rapid urbanisation is taking

place, in-migrating rural poor fails to get absorbed in productive employment and therefore joins low end-low paid informal sector (McNamara, 1975; Mitra, 1992). According to Mitlin (2005), who has done a neat review of ‘chronic’ urban poverty in developing countries, seven influential factors are quite important: (1) lack of cash, (2) structural problems in labour market, (3) paucity of basic services in residential areas lived by poor people, (4) family composition (especially number of young and old ‘dependent’ persons), (5) specific group identity (e.g. any particular ethnic group; women; old persons) , (6) absence of legal and policy safeguards and rights, and (7) dynamic or transitory nature of urban poverty. Although ‘poverty’ is ‘multi-dimensional’ in nature, a large body of literature tends to equate decline of poverty levels in association with economic growth. If one looks at Latin America, amid an impressive economic growth in 2003-2008, poverty figures have certainly declined. This stands in contrast to situation that prevailed in eighties and nineties. But even then, slightly more than one-third people live in poverty as in 2010. An important question that emerges is: why do poor remain poor even amid such economic growth trajectory? The answer lies in the fact that ‘high occupational and wage instability’ associated with such jobs that are not covered and assisted by ‘social security system’ which force people to stay within the bracket of ‘poverty.’<sup>10</sup> In fact, the linkages between household income and living conditions is very significant, and these linkages are also specific to countries and regions. A qualitative study of urban poverty on Kinshasa city, Republic of Congo shows, for example, that pathetic conditions of education-health-transport system, coupled with ‘income poverty’ and ‘high unemployment’ are the main reasons behind such sheer poverty. Solutions to these bracket of problems are also region specific. ‘Social Capital’ built through age-old cultural traditions such as mutual help and trust helps poor people to cope up and survive (Iyenda, 2007). It is also important to analyse urban poverty from a spatial perspective. A World Bank report (2004), studying the case of Brazil, point out that urban poor living in informal settlements of large metropolitan cities are affected by congestion and environment pollution factor more than others because they cannot access formal housing and basic municipal services like water supply, sanitation and public

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<sup>10</sup> see Beccaria *et.al.* (2013) – whose analysis of five Latin American Countries, namely Argentina, Brazil, Costa Rica, Ecuador and Peru – speak volumes on ‘poverty dynamics’

transport. ULBs in rapidly growing small towns and medium-sized cities, on the other hand, lack technical and financial capability to provide basic services, and this badly hit poor people, who often migrate from rural areas. Even looking at India's case in 2011, about 63 percent Statutory towns are found to report occurrence of 'slums'. Moreover, inadequate service provisions and poor delivery of services mainly affect poor people. Due to absence of sufficient earning, legal land and certain other necessary factors, these poor people cannot arrange amenities on their own. Naturally, they tend to continuously depend on free public services provided by ULBs. In large cities, often NGOs and other civil society organisations try to provide services to these people. For example, Bangalore Urban Poverty Alleviation Programme (BUPP), through the coordination of local government, NGOs and CBOs, has helped in construction of toilet blocks, drainage channels and supply of drinking water in some slums (de Wit, 2002). Another mechanism is the involvement of local people in slum redevelopment process, in which residents are trained to start a new business and residents are informed about ULB's schemes and projects. In Rio-de-Janeiro (Brazil), improvement of *favelas*<sup>11</sup> through local innovation, popular and political support and management capacity is also a glaring example (Pamuk and Cavallieri, 1998). McNamara (1975) has pointed out that: "... discriminations against the poor are compounded by limited access to public services. There are heavy biases in the design, location, pricing, and delivery of such services." (p. 341). He has also argued that absence of public water supply system, sewerage and clean environment often lead to illness among urban poor. According to him, equal access to public utilities is one of the major strategies for reducing urban poverty in developing countries. Date (2007) has felt that rather than chasing the dream of becoming a global city, the administration should focus on provision of basic services like good quality water, public park, and sanitation system for urban poor residing in Mumbai. Nonetheless, one should also note that urbanisation has made positive impacts too, not only on existing urban poor but also through improving standard of living of rural people in developing countries (Ravallion *et al*, 2007). Problems of 'urban poor' in India is sometimes equated and considered as problems of 'slum dwellers' only (for example, Ali 2006:11-24), thereby leaving non-slum dwellers out of policymakers' attention. Again within 'slums', categories like

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<sup>11</sup> *Favela* is a Portuguese word for 'slum' in Brazil

‘notified’ and ‘non-notified’ are commonly found in literature and large secondary datasets like NSSO. A recent paper, amid the inconsistency of results, has attempted to point out the gaps between ‘notified’ and ‘non-notified’ slums in India:

“The evaluation of plans, policies and schemes coupled with latest Round observations on changing conditions of water and sanitation related parameters suggest that slums still need better availability of amenities. Non-notified slums are in comparatively poorer condition, because a lion’s share of these clusters have not seen presence of any services earlier and even now in last five years, these services are conspicuously absent. Given the fact of very low shares of expenditure allotted under BSUP in JNNURM, discontinuation of RAY and only limited expansion of Swachh Bharat Mission programmes, it is understandable that slums will take much time to even get such basic amenities, and the gap between notified and non-notified slums may continue to remain at large. This also raises broader issues of how to achieve inclusive urban growth and make cities resilient and smart” (Saha, Mondal and Banerjee: 2017)

Considering urban West Bengal as the study area, several studies have been done on poverty. Bardhan (1987) has analytically observed that with households with relatively higher levels of education, and salaried employment status, are less likely to remain as poor in urban areas. Mukherjee and Chatterjee (2014) have pointed out that from 1983 to 2009, levels of urban poverty in West Bengal, measured as the head-count ratio in terms of consumer expenditure data, have declined to a considerable extent as compared to other states of India. Their empirical analysis shows this decline is associated with “faster pace of urbanisation, small size of the household, decline in urban inequality, growth in per capita industrial income and rise in per capita public expenditure on education and health” (p. 15). However, both studies fail to throw much light on spatial patterns of urban poverty present in West Bengal. A survey, done by PRIA and CINI, show that slum dwellers in West Bengal mostly earn around Rs. 5000 a month, and a major chunk of the income goes as ‘food expenditure’. Although they participate prominently in elections, basic entitlements in terms of amenities are yet to reach a level of satisfaction. Many of them do not have their own houses. Relatively more needy people like old persons and widows hardly get entitled benefits.<sup>12</sup>

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<sup>12</sup> <https://terraurban.wordpress.com/2014/03/26/urban-poverty-and-governance-west-bengal/> (as viewed on 07.07.2017)

#### 1.4.4 Financial Issues of Statutory Towns – India and West Bengal:

To operate and maintain routine functions, Statutory towns and cities need to stand on their own financial resources. 74<sup>th</sup> CAA (1992) also prescribes strengthening of municipal finance, so that local bodies can perform day-to-day functions properly. For this, the CAA makes a provision of (a) constitution of State Finance Commissions every five years and (b) Central Finance Commission to “*suggest measures needed to augment the consolidated fund of the states to supplement the resources of municipalities devolved on the basis of the respective SFC recommendations*” (Mohanty *et al*, 2007: i<sup>13</sup>). If one looks at municipal income or revenue, major categories are ‘taxes’ or ‘rates’, ‘non-tax revenue’ and ‘grants and contributions’. On the expenditure front, major components are ‘general administration’, ‘public health and convenience’ and ‘public safety’ and the like.

But, it is often found that these local bodies depend too much on financial allocation provided by state and union government. One of the reasons is “*constitutionally built-in imbalances in functions and finances*” (ibid. ii) as assigned to different tiers of government. Internal revenue generation by ULBs in India is abysmally low, especially when compared to countries like Brazil. As per 12<sup>th</sup> Finance Commission report, cited by Sahasranaman and Prasad, municipal revenue in India is 0.67 percent of GDP, and own revenue is 0.38 percent of GDP. The corresponding figures for Brazil is 7.4 and 2.6 percent, respectively. As Kundu *et al* (1999) point out the diminishing budgetary allocation in urban infrastructure development, it becomes quite important how urban local bodies utilise limited available funds that come from higher tiers of government as ‘grants and contributions’. At some point of time, municipalities used to depend on a traditional source of revenue known as ‘octroi’<sup>14</sup>. Abolition of such revenue sources is often blamed as it negatively affects own revenue generation in ULBs, for example in West Bengal (Bagchi, 2001). On the other hand, in terms of per capita expenditure on core services by the metropolitan municipal corporations, Maharashtra and Gujarat have

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<sup>13</sup> This study was conducted by the Development Research Group, Reserve Bank of India. It looked at the financial database of 35 metropolitan municipal corporations, having more than 1 million population each as per Census 2001 figures. This study was primarily dependent on budget documents of those ULBs for the period 1999-2000 to 2003-04.

<sup>14</sup> Octroi refers to a “*tax levied on the entry of goods into the geographical territory of the city for use or sale*” (Bagchi, 2001: 398).

done relatively better, as these ULBs are allowed to levy octroi (Mohanty *et al*, 2007: iv). Therefore, they argue that in states where Octroi has been abolished, ULBs of those states should be *adequately compensated*. In the same way, property tax was abolished in Rajasthan and Haryana, and in that case local governing bodies were not taken on board in the unilateral decision making process supremely controlled by respective state governments (Sahasranaman and Prasad). Mohanty *et al* (2007) also point out that non-granting of liberal permission by state government restrict ULBs to incur debts. Another important aspect is how these local bodies increase and manage their own revenues. The coverage and collection system of 'Property Tax', a major source of revenue, is grossly inefficient in most of the Indian cities. Collection of 'user charges' for basic services is 'haphazard' and politically-backed 'popularity' keep its tariffs unreasonably low. Therefore, a major source of municipal income comes from 'intergovernmental transfer' (Pierce, 2016). So far as 'municipal expenditure' is concerned, the major components as stated above will continue to occupy lion's shares as these are obligatory functions of ULBs and no other organisation or company takes initiatives to perform such functions because of high capital investment and low returns. Up to the 8<sup>th</sup> Five Year Plan, government was mainly financing infrastructural development through budgetary grants. However, since the 9<sup>th</sup> Five Year Plan, a conscious effort was made to cut down budgetary allocation, promote municipal reforms, advocate foreign direct investment in urban development projects, support PPP models, and so on. (Purohit, 2016). Housing and Urban Development Corporation (HUDCO) was given the responsibility of lending money to ULBs, but "*it has not focused attention on developing municipal capacities in the long-term, thereby only spawning a culture of dependence and lack of accountability*" (ibid. p.8). It has been observed that financial constraints coupled with rapidly growing population take a toll on municipal service delivery (Jha, 1983). But it is also true that urban infrastructure in India needs a huge investment. At 2004-05 prices, an estimated amount of Rs. 63000 crores per year for a period of ten years of 2004-05 to 2013-14 was required (Mohanty *et al*, 2007). The HPEC Report estimates an amount of Rs. 3.92 million crores as the total urban infrastructure services investment requirements over a period of 2012-31. Although it is not only paucity of funds, but sometimes unwillingness and inefficiency of officials involved in fund utilisation and project

implementation, that badly affect level of service delivery (Mathur, 1990). According to Bagchi (2001), negligible presence or absence of ‘user charges’ for municipal services, high administrative/establishment expenses, feeble municipal governance, and inefficient financial discipline are some of the key challenges before ULBs. Given this context, a need of restructuring municipal finance system was felt, in which a ‘municipal finance schedule’ should be placed that matches with functions assigned to ULBs (Mohanty *et al*, 2007). Some scholars point out the need of using alternative sources of urban infrastructure finance like public-private partnership and capital market, in which largest ULBs again get advantages due to its higher creditworthiness (Bagchi, 2001; Pethe and Ghodke, 2002), whereas small and medium towns continue to languish<sup>15</sup>. Maitra (2001) has elaborated on the role of different external donor agencies like World Bank, Asian Development Bank, Department for International Development, which aim to improve urban infrastructure, delivery of civic services and elimination of urban poverty. Her discussion on the changing priorities, attached conditions and mode of supervision of these donor agencies always keep ULBs on toes, and for the success of these externally-aided projects call for ‘reforms’, ‘capacity building’ and ‘performance-oriented project implementation’. Chattopadhyay (2006) has pointed out the importance of municipal bond system in raising own revenue, but again ‘financially strong’ municipalities have been able to utilise this. Purohit (2016), citing examples of Tamil Nadu and Karnataka, mentions how small and medium-sized ULBs can avail ‘pooled financing’<sup>16</sup> for their infrastructure projects. In general, over the last 20 years, municipal finance system in India has gradually shifted from ‘grant’ and soft loans’ to market based sources like bonds. According to Sahasranaman and Prasad, it is imperative that ULBs in India attempt to raise own revenue by bringing reforms in ‘property taxation’ and introducing ‘user charges’ for the services. Property tax can emerge as a ‘buoyant’ source of ULB's own revenue if GIS-based mapping, area-based approach/capital value-based approach to taxation and periodic revision is mandated through legal provisions. Citing the example of South Africa, they posit that clearly defined government mandate helps in making capital value-based property taxation system in which each city has to revise property

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<sup>15</sup> A study done by Pierce (2016), based on Town Directory database of Census 2001, show that smaller urban centres in the class hierarchy are largely dependent on intergovernmental transfer i.e. grants.

<sup>16</sup> Also see Sahasranaman and Prasad, who also argue the same point, citing the same examples.



values every five years. As they continue to note, any ULB's proposal of introduction and revision of 'user charges' in India is dependent on state government's approval<sup>17</sup>. However, the experiences of many cities show that urban residents have willingness to pay provided they receive quality civic services in a sustainable manner. Consistent generation of own revenues, through property tax and user charges, also gives additional strength to ULBs which can seek funds from external sources in the form of bank loans and bonds and so on.

While pointing out West Bengal's case in particular, some of the pertinent issues get highlighted. Firstly, the overall condition of ULBs in pre-74<sup>th</sup> CAA period was not satisfactory. During the 1970s, municipal system was very weak in this state, and many of the urban local bodies were either 'superseded' or 'suspended' (Mukhopadhyay, 1984). The Left Front government, after coming to power in 1977, formed 'Urban Development Strategy Committee' (1980). This committee advocated the creation of towns and cities outside Calcutta with strong municipal bodies and vigorous participation of citizens. However,

“The general financial picture of the municipal bodies in West Bengal has been one of poor exploitation of the property tax, negligible utilisation of the powers to levy other taxes and fees, inadequate action to raise non-tax revenues and, consequently, increasing dependence on transfers and grants from the state government” (Datta, 1982: 36)

Secondly, even after implementation of 74<sup>th</sup> CAA and formation of State Finance Commission (SFC), the status of municipal finance has not improved to a great extent. To give one instance, the recommendation of distributing the amount collected on the surcharge of sales tax among local bodies as suggested by First SFC was rejected by the government of West Bengal. Moreover, Second SFC recommended that the total amount of 700 crores per year should be devolved to local bodies. However, the government of West Bengal only sanctioned 350 crores per year. Added to this, the state government is yet to empower ULBs to collect taxes on urban land. All these instances show how SFC basically works as a 'token body' to review the financial status of local bodies, and also

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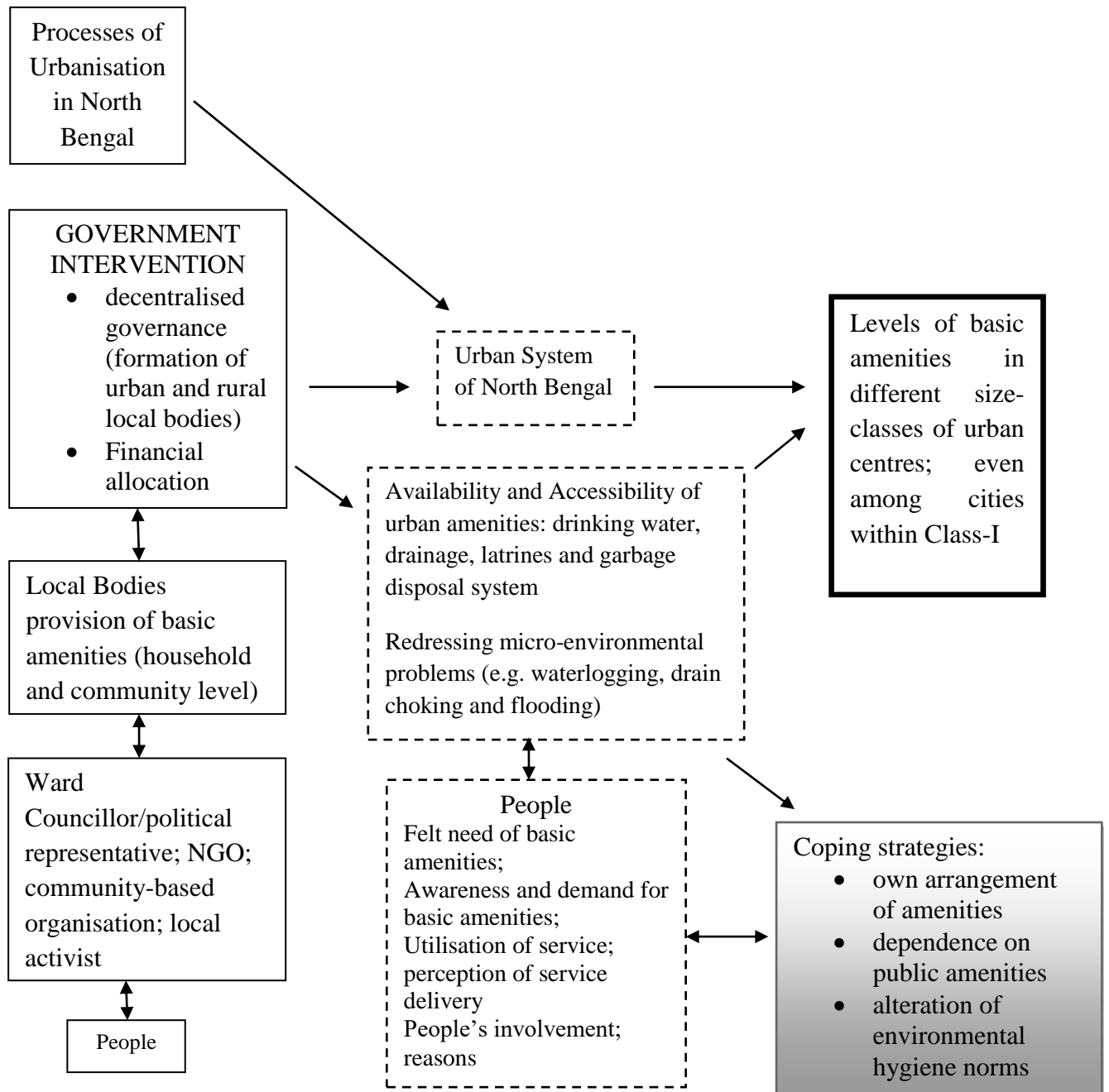
<sup>17</sup> Mohanty *et al* (2007: vii) argue that through enhancing user charges, cities can make new infrastructural projects undertaken with borrowed funds economically viable.

how local bodies are still made subjugated to the state government in terms of financial allocation. Citing one example of Kolkata Municipal Corporation, it has been argued how dependence on external grants (ADB and DFID) and their attached conditions amid 'dwindling' own revenue base and substantial administrative/establishment expenditure has posed a serious question mark on the sustainability of slum improvement projects (Dutta, 2014). The overall fiscal scenario is also far from satisfactory, as this state exhibits similarities with Uttar Pradesh, with characteristics like *low levels of non-grant revenue along with high dependence* (Pierce, 2016:49). Thus 'dependence' means higher shares of 'government grants' in total municipal revenue. That means, if one looks at the figures of the degree of internal resource generation, West Bengal was in the bottom as compared to many states, both in 1997-98 and 2001-02, In fact, mobilisation of 'user charges' and 'fees' has not gained momentum in this state. On the other hand, it remains in the 'medium' category of 'per capita municipal expenditure'. The expenditure on 'establishment', 'wages', 'salaries' are so high that it cannot even be covered by municipal own revenues. In short, the expenditure-revenue gap is on a higher side (Mathur, 2006).

#### **1.4.5 Gaps in Literature**

One of the gaps that can be identified in the existing body of literature is the absence of linkages between service provisioning-governance structure-financial status of urban centres. This is particularly true in case of Census Towns. There is a serious gap in the literature that deals with the financial scenario of rural local bodies like Gram Panchayats. A systematic treatise dealing with decentralised governance and service provisioning in small and medium towns of West Bengal, especially its northern parts, is also missing.

### 1.5 CONCEPTUAL FRAMEWORK:



## 1.6 OBJECTIVES:

This study primarily aims to understand the interrelated mechanism of governance, finance and people's involvement in the provisioning of urban services across different categories of urban centres in North Bengal. The specific objectives are outlined below:

- To understand how different processes of urbanisation are operating in North Bengal vis-à-vis other regions of West Bengal;
- To analyse varying levels of infrastructure and amenities across size-categories of the urban centres of North Bengal vis-à-vis other regions of West Bengal;
- To study the inter-urban and intra-urban infrastructural set-up and associated provisioning of services within present governance and financial framework of Statutory and Census Towns;
- To assess the accessibility of services with special reference to people's experiences, problems, felt needs, coping strategies and their interactive involvement with local governing bodies.

## 1.7 RESEARCH QUESTIONS:

This study attempts to answer a core research question: *Why do variations in the provisioning of basic services occur within and among different urban centres across size-classes? How these service-related problems, emanating from such variations, are dealt by service providers and beneficiaries if they at all exist?*

Specific research questions are outlined below:

- How do different processes of urbanisation, over a considerable time period, have structured the urban system?
- What are the variations in the levels of infrastructure and associated amenities across the urban scale?
- How and why provisioning of services, the status of their delivery, operation and maintenance vary across size-categories of urban centres with different governing structure and financial scenario?
- What is the perspective of local governing bodies and functionaries in terms of service provisioning?

- Up to what extent, provisioning of services remains available and accessible to people?
- How do people cope up when their felt needs of services are not satisfied?
- How people's experiences, perceptions and felt needs are intertwined with the interactive bottom-up approach to governance?

## 1.8 MAJOR DATABASE:

Table-1.2: Secondary Data Sources

<i>DATA SOURCE</i>	<i>YEARS</i>	<i>AIM</i>
<i>Town Directory, Census of India</i>	1991, 2001 and 2011	To study issues of growth, size-class distribution, the concentration of urban population, primacy of Siliguri as well as existing physical infrastructure related to water supply and sanitation system in North Bengal
<i>Household Amenities Table, Census of India</i>	1991, 2001 and 2011	To display the availability of basic amenities (drinking water and sanitation) and assets at household level in urban centres.
<i>Municipal Statistics of West Bengal, Bureau of Applied Economics and Statistics</i>	1994-95, 2000-01, 2009-10 and 2012-13	To understand financial condition (income and expenditure) of Statutory towns

This study also requires secondary data for different schemes that aim to provide basic services. For example, Department of Municipal Affairs, Government of West Bengal is the nodal authority through which various schemes of water supply, drainage, solid waste management and latrine construction operate in the Statutory Towns. These schemes include Integrated Low Cost Sanitation (ILCS), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), Integrated Housing and Slum Development Programme (IHSDP), *Swachh Bharat* (Urban) etc. Panchayats and Rural

Development Department, Government of West Bengal also provides a database on major source wise fund details to rural local bodies for infrastructural development and basic service provisioning.

*Primary Database-*

In this research work, extensive fieldwork plays a pivotal role. As far as urban services are concerned, this study is limited to water and sanitation. Important variables that are included:

Drinking Water: Sources of drinking water; operation and maintenance of water supply system; regularity and frequency of water supply; water treatment

Sanitation:

- Solid Waste Management: Collection and disposal; frequency and regularity of cleaning of solid waste heaps; operation and maintenance of solid waste disposal system;
- Drainage: Structure of waste water outlet and its connectivity to drainage types; problems in drainage system; frequency of drain cleaning; use of disinfectants like mosquito repellants and bleaching powder;
- Latrine Facility: Availability of latrines within or outside premises; Functional Status of available latrines; latrine types;

**1.9 METHODOLOGY:**

In this research work, the literature review is an important component which helps not only to get an overview of processes of urbanisation and urban infrastructure development but also build a theoretical understanding to reflect the interconnection among governance, finance, infrastructure and amenities and people's involvement.

For the first objective, apart from literature review, few quantitative techniques like urban growth rate, the proportion of urban population to total population, Urban-Rural Growth Differential are applied. To analyse varying levels of infrastructure and amenities across size-classes of urban centres, region-wise cross-tabulation is done. The third and fourth objective of this study depends on fieldwork-based analysis:

### *Field Work*

At *first* stage, important secondary data (mainly related to water and sanitation) is collected from central and state government offices. In the *second* stage, necessary data, maps and other documents are collected from concerned local bodies. Reconnaissance Surveys and Pilot Surveys have been carried out to get a glimpse of the real situation of basic service provisioning. In the *third* stage, i.e. actual fieldwork stage, where each and every component like household surveys, institutional surveys, detailed interviews with key-informants, group discussions with service providers, beneficiaries and intermediaries are dealt. In the *fourth* stage, suitable statistical methods and qualitative methods are used to analyse primary data. This has been represented by suitable cartographic method.

### **Sampling Framework:**

Review of literature and analysis of secondary data show that urban centres of North Bengal are varied in terms of population size, economic activities, levels of infrastructure and amenities, governance framework and certain other grounds. One commonly used method to select unbiased samples for survey research is ‘Stratified Sampling’ where “percentages of the population in various categories are known beforehand, and the sample is obtained in such a way that those percentages appear in the sample” (Klugh, 1970: 108). The sampling procedure will be carried out by following stages-

#### Stage-I: FIRST STRATUM

Urban Centres of North Bengal, in short, Urban North Bengal is stratified into three categories on the basis of population size, viz-

- a) Large Cities (Class-I Cities, having a population of more than 1,00,000)
- b) Medium Towns (Class-II and III Towns; population size 20,000-1,00,000)
- c) Small Towns (Class-IV, V and VI Towns; population size less than 20,000)

#### Stage-II: SECOND STRATUM

On the basis of jurisdiction and governance issues, all these three categories are again divided into:

- a) Statutory Towns
- b) Census Towns

### Stage-III: SUB-STRATUM

Fixing sample size and distributing the sample in selected towns-wards-households becomes crucial at this stage. Keeping the time-cost feasibility factor in mind and then following Probability Proportional to Size (PPS) sampling method<sup>18</sup>, Table 1.3 is prepared:

Table-1.3: Sample Size of the Fieldwork-based Primary Survey, North Bengal, 2016

<b>Class</b>	<b>No. of Urban Centres</b>	<b>Population</b>	<b>Total HH</b>	<b>Pop. Share (Percent)</b>	<b>n= 700*share/100</b>
I	7	1400862	306913	43.2	302
II	8	511767	114389	16.1	113
III	13	421702	91880	12.9	90
IV	33	437092	99817	14.0	98
V	54	363507	82867	11.7	82
VI	15	64547	14928	2.1	15
	130	3199477	710794	100.0	700

<b>Class</b>	<b>Towns</b>	<b>Wards per</b>		<b>HH</b>	<b>Wards</b>
		<b>Town</b>	<b>HH/Ward</b>		
I	2	8	20	320	16
II	2	4	16	128	8
III	2	2	24	96	4
IV+V+VI	4	2	24	192	8
TOTAL	10			736	36

Source: Calculated on the basis of PCA data, Census of India, 2011

### III-A: SELECTION OF TOWNS

Different criteria and methods have been used to select towns for this study:

<sup>18</sup> **Probability proportion to size** is a sampling procedure under which the probability of a unit being selected is proportional to the size of the ultimate unit, giving larger clusters a greater probability of selection and smaller clusters a lower probability ([http://www.who.int/tb/advisory\\_bodies/impact\\_measurement\\_taskforce/meetings/prevalence\\_survey/psws\\_probability\\_prop\\_size\\_bierrenbach.pdf](http://www.who.int/tb/advisory_bodies/impact_measurement_taskforce/meetings/prevalence_survey/psws_probability_prop_size_bierrenbach.pdf) (as accessed on 19/11/2014))



### *Large Cities*

Among 7 Class-I cities, Siliguri is selected due to its largest population size and presence of institutions like Siliguri Municipal Corporation (SMC) and Siliguri-Jalpaiguri Development Area (SJDA). Darjeeling Municipality and Dabgram CT get excluded from sample design due to logistic support and feasibility issues. From rest of the four large cities, which are district head-quarters and governed by municipalities, English Bazar is selected randomly.

### *Medium Towns*

After considering logistic support issues, some towns (both Statutory and Census) are excluded first. Besides, Household Amenities Index (a composite index, with six indicators like percentage of households with access to permanent Census house, electricity as the major source of lighting, tap water, waste water outlet connectivity to closed drainage, water closet latrine, and bathroom facility) is computed for Statutory and Census Towns in 2001. After ranking towns on the basis of this index and arranging them in descending order, the *systematic random sampling* method is followed to select Statutory towns. Following this process, the selected towns are Kurseong (Rank 6), Alipurduar (Rank 12) and Kaliyaganj (Rank 30). It should be noted that Banarhat Tea Garden (Rank 18) and Kachu Pukur (Rank 24) are already excluded due to an absence of logistics support. Jaigaon (CT) gets automatically and *purposively* included, because of its unique administrative juxtaposition i.e. Jaigaon Gram Panchayat-II and Jaigaon Development Authority.

### *Small Towns*

This category is having a large number of Census Towns and only three Statutory Towns (Haldibari, Mekhliganj and Mirik). Among the Statutory towns, Haldibari is *purposively* chosen due to its relatively larger population size (14404 in 2011) and presence of convenient logistics support base. In case of Census Towns, those situated in areas like tea gardens, hills, forests and violence-affected zone, are excluded due to logistics-related problems. After having the list of CTs where field work is feasible, three towns are selected while looking at the geographical spread.

### III-B: SELECTION OF WARDS/SANSADS IN STATUTORY/CENSUS TOWNS

On the basis of percentage of ‘kachha’ houses provided in Census household tables (as a proxy of urban poverty), BPL population and local level information on poor and non-poor residential neighbourhood, wards are selected. Purposive or judgmental sampling is again followed so that ‘core’ and ‘old’, as well as ‘peripheral’ and ‘new’ parts of selected towns, can be covered.

For Census Towns, based on maps and local information, specific Gram Sansads are covered.

### III-C: SELECTION OF HOUSEHOLDS

Households are selected purposively from chosen wards/areas.

#### **Selected Urban Centres for Sampling:**

- **STATUTORY TOWNS**

- I. **Large Cities:** Siliguri (Municipal Corporation), English Bazar (Municipality)

- II. **Small and Medium Towns:** Alipurduar (Municipality), Kaliyaganj (Municipality), Kurseong (Municipality) and Haldibari (Municipality)

- **CENSUS TOWNS**

- Jaigaon, Kasba, Chak Bhrigu and Lataguri

#### ***Qualitative Methods***

A great deal of this research work is dependent on qualitative methods. Service-related issues i.e. existing status, challenges and remedies, while looking at perspectives of local bodies (service providers) and people (beneficiaries of services) are often specific to the spatial context. Such context is associated with local physical and socio-economic and cultural environment. Hence, case study-based approach is used to capture this spatial context.

To strengthen such case studies with shreds of evidence, few qualitative techniques like ‘group discussion’ and ‘key-informant’ interview have been applied. Group discussions are arranged with beneficiaries so that they can share their *lived experiences*. For example, the users of ‘public taps’ have shared the issues related to water supply in a

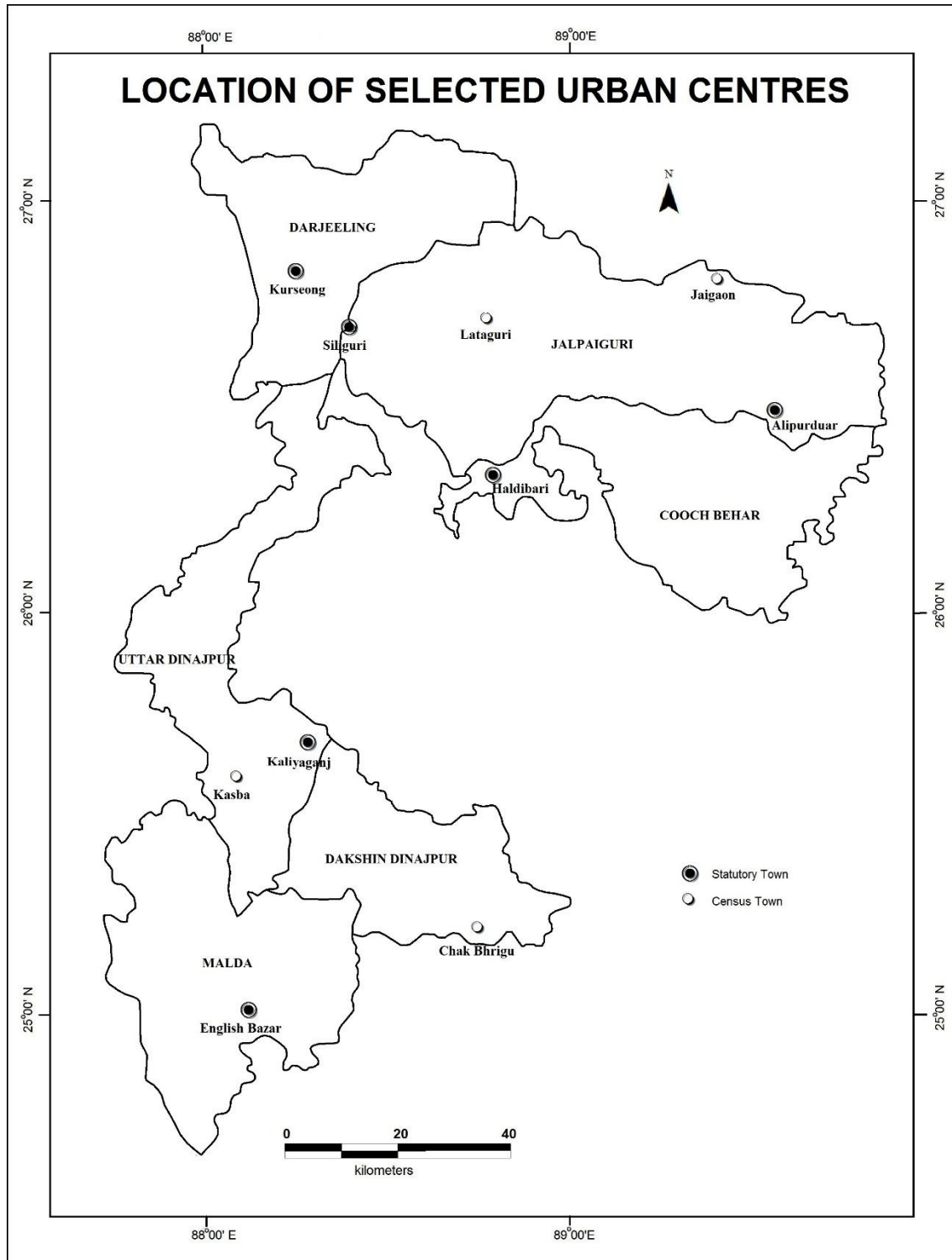


Fig-1.4: Location of Selected Urban Centres for the Primary Survey, 2016

given area. The issues like frequency, regularity, quantity and quality of drinking water – that are dealt practically by these users – who can throw some lights on levels of drinking water supply.

Another technique is the interview with 'key-informants'. To assess the perspectives of service providers, this technique is used, as officials often point out specific challenges and remedies that are associated with provisioning of basic services. Again borrowing the example of drinking water supply, it can be told that concerned engineers and workers specify some challenges. While problems like inadequacy of fund for routine operation and maintenance is often put forward, some of the local problems like the layout of 'worn-out' pipes and reservoirs are more specific to a spatial context, say in old and congested part of urban centres.

In short, this study adopts a 'mixed method approach' to address the research objectives.

### **1.10 Chapterisation Scheme:**

The first chapter is introductory in nature. After a brief discussion on the study area and relevance of the topic of research, review of literature is done in detail. This detailed review, looking at specific themes of processes of urbanisation and urban system, urban infrastructure and services, urban governance and finance, and urban poverty, attempts to point out research gaps. This present thesis is a humble attempt towards filling up this gap, as it binds all these elements (i.e. urban processes, provisions of infrastructure and services, urban governance and financial framework) together in the next section i.e. the 'conceptual framework'. This is followed by 'objectives' and 'research questions'. To address these objectives, a detailed description of 'database' and logical explanation of suitable tools and techniques chosen for research is provided in the 'methodology' section.

The second chapter explores the evolution of local bodies, especially their role in the provisioning of basic services. After reviewing regionalisation scheme of West Bengal, an attempt is made to propose a new and updated scheme. Then, it looks at the evolution of an urban system in this State, from a historical context to the present-day picture. Political-administrative and economic processes of urbanisation are discussed in detail

across four regions of West Bengal. Demographic processes of urbanisation are reflected in trends and patterns of urbanisation, for which few quantitative techniques have been applied.

The third chapter delves into the urban infrastructure and amenities (water supply, sanitation-drainage, bathing facilities, latrines and solid waste management) across regions. This chapter is focused particularly on availability and accessibility of amenities in households across various size-classes of urban centres.

The fourth chapter is focused on the status of water supply and sanitation-related service delivery in selected Statutory and Census Towns. This chapter, focusing on household level information collected through the primary survey, provides a current scenario of services availed and accessed by beneficiaries. It also looks at the technical dataset provided by local bodies.

The fifth chapter presents an analysis of the perspectives of local bodies. This chapter, after looking at overall constitutional and legal framework, specifically points out some of the existing challenges local bodies face while they provide water and sanitation related services. Apart from this, it is also discussed how these local bodies are trying to combat these challenges and exploring alternative arrangements to improve services.

The sixth chapter is based on people's experiences and their involvement in accessing services. Building upon their felt needs, awareness and demand for services, this chapter attempts to throw some light on service provider and service beneficiary interaction through formal channels. It also highlights the role played by intermediaries like local NGOs and consultancy agencies.

After evaluating the level of basic services, the seventh chapter briefly provides a discussion of each of the policies and schemes that are directly related to water supply and sanitation and attempts to raise a debate on the efficacy of such policies and schemes.

The last chapter concludes the entire discussion, through the summary of findings. It also focuses on policy implications and recommendations, with a cautious note on limitations of the study and scope of future research.

### 1.11 LIMITATIONS OF THE STUDY:

Following limitations of the study are outlined-

- One of the basic problems is the absence of suitable secondary data at the Statutory or Census Town level. For instance, details of Solid Waste Management database, i.e. total quantity of solid waste collected, transported, segregated and disposed of is hardly available. Another instance is the lack of maps and a detailed budget (i.e. receipt and expenditure database) at the Gram Panchayat level. For urban centres, this study is very much dependent on Census tables and a few published data sets, tender documents and reports published by concerned ministries/departments of government.
- Due to time-cost feasibility and logistics issues, some of the small Census Towns located in hills, tea gardens and violence-affected areas could not be covered in this study. The same set of factors have partially hindered undertaking of more detailed studies in few Census Towns like Jaigaon.
- The choice of sampling method and designing of entire sampling framework has its own limitations. Selection of households in wards/gram sansads through the purposive method of sampling inherently consist of some statistical bias.
- In a few Statutory (e.g. English Bazar and Kurseong) as well as Census Towns (e.g. Lataguri), concerned officials and people's representatives were dilly-dallying or unwilling to share dataset available with them or participate in in-depth interviews. Some of the rhetoric administrative replies (like "no such data is available with us", "we cannot provide any data set to research scholars like you", "all documents are burnt") appear as sheer stumbling blocks.
- Quantitatively speaking, the primary data set gathered at Ward or Gram Sansad level, can be analysed only through the use of some descriptive statistical techniques. The nature of data set does not allow the use of advanced statistical techniques.

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# Chapter-2.

## Urbanisation: Processes, Trends and Patterns

### 2.1 INTRODUCTION

A section of literature precisely points out that it would be more insightful to see 'rural' and 'urban' settlements collectively, rather than separately. 'Rural' and 'urban' settlements are mutually interdependent, and their interaction is reflected through the flow of goods, services and people. Due to widening processes of interaction, after a certain period of time, areas of urban settlements expand in area by engulfing the surrounding villages. More and more people start residing in urban settlements. Demographic, economic and socio-political factors play key roles in urbanisation of any region. The nature, trends and patterns of urbanisation in West Bengal is also similar to this broad scenario. But these are also quite different from many other highly urbanised states of India. In terms of historical roots as well as physiographic, socio-economic and cultural characteristics, West Bengal shows a considerable diversity across regions. Therefore, firstly one should look at the regional nomenclature of this state, and then discuss processes, trends and patterns of urbanisation subsequently.

The structured plan of this chapter is as follows. Following this introduction, the second section mentions the sources of data and methods used in this chapter. The third section mentions the different schemes of regionalisation of West Bengal. In the fourth section, a discussion on the evolution of urban system and the processes of urbanisation operating across different regions of West Bengal is present. The fifth section presents the trends and patterns of urbanisation, again across regions of West Bengal. The last section summarizes major findings. In the entire chapter, a special emphasis is given on North Bengal.

## 2.2 DATABASE AND METHODOLOGY

This chapter primarily draws relevant data from the existing pool of literature and dataset published by Census of India. Primary Census Abstract, for example, is the major source for collecting data on the size of the population across urban centres – which is helpful for computing quantitative indices like levels of urbanisation and urban growth rate. Apart from this, the composition of workforce data, as contained in the ‘B’ Series of Census, is also used.

This chapter begins with the regionalisation schemes of West Bengal. In this section, a Composite Index of Development is constructed using the Standard Scores or Z-Scores:

$$\text{Standardised value} = \frac{x - \mu}{\sigma},$$

where  $x$  = Indicator value,  $\mu$  = Mean and  $\sigma$  = Standard Deviation

$$\text{CID} = (\text{Sum of Standard Scores for all indicators} / \text{Number of Indicators})$$

The same method is also used for the construction of Composite Development Index (C. D. I) at the CD Block level of North Bengal.

A substantial part of the discussion on the trends and patterns of urbanisation is based on computation and analysis of few quantitative indices, as follows-

- Levels of Urbanisation =  $(\text{Urban Population} / \text{Total Population}) * 100$
- Annual Exponential Growth Rate of Urban Population (say, in between 1991 and 2001) =

$$((\text{Log } P_{2001} / \text{Log } P_{1991}) / 10) * 100$$

Where  $P_{2001}$  = Urban Population of 2001

$P_{1991}$  = Urban Population of 1991

- Urban-Rural Growth Differential (URGD) = (Urban Growth Rate – Rural Growth Rate)

### 2.3 REGIONS OF WEST BENGAL

Few organisations and scholars have attempted to devise schemes of regionalisation for West Bengal, and these are presented below (Table- 2.1):

Table-2.1: West Bengal - Existing Schemes of Regionalisation

Organisation/Scholar	Basis and/or purpose of Regionalisation	Regions
National Sample Survey Organisation	Geographical features, rural population density, cropping pattern	<i>Himalayan-</i> Darjeeling, Jalpaiguri, Cooch Behar <i>Eastern Plains-</i> Uttar Dinajpur, Dakshin Dinajpur and Malda, Murshidabad, Birbhum and Nadia <i>Central Plains-</i> North 24 Parganas, South 24 Parganas, Howrah, Hooghly, Kolkata, Barddhaman <i>Western Plains-</i> Medinipur, Bankura and Puruliya
T.B.Lahiri	Income, manufacturing employment, levels of development	<i>North Bengal</i> – Malda, West Dinajpur, Cooch Behar, Darjeeling, Jalpaiguri <i>Lower Bengal</i>
Town Planning Department, Government of West Bengal	Cropping pattern, land use, mineral resources, broad population characteristics, relief and drainage, vegetation including forests, existing linkages	<i>Hill Region-</i> Darjeeling, Jalpaiguri, Cooch Behar; <i>South-Western Region-</i> Puruliya, Medinipur, Bankura and Birbhum <i>South Eastern Region-</i> <i>Northern Sub-region:</i> West Dinajpur, Malda, Murshidabad and Nadia <i>Sunderban Sub Region:</i> adjusted to Police Station boundary <i>Rest of the S.E.Region:</i> 24 Parganas (excluding Sunderban), Calcutta, Howrah, Hooghly, Burdwan
State Landuse Board	Planning purpose	<i>Northern Region:</i> Darjeeling, Cooch Behar, Jalpaiguri, West Dinajpur, Malda <i>Sunderban</i> <i>Southern Region:</i> rest of the districts (excluding Sunderban in 24 Parganas)

Dasgupta <i>et al</i> (1988)	Level of Urbanisation as the basis to locate new towns	Region-I: Calcutta Metropolitan Development Authority operational area i.e. Calcutta, Howrah, Hooghly, Nadia and 24 Parganas; Region-II: Burdwan Region-III: Midnapore, Purulia, Bankura, Birbhum and Murshidabad Region-IV: Darjeeling, Cooch Behar, Jalpaiguri, West Dinajpur and Malda
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*Source:* Compiled from Literary Sources

Like any scheme of regionalisation, all of these schemes also have merits and demerits. One should note that these old schemes were mainly dependent on geographical, population and resource characteristics. These schemes do not reflect anything related to current levels of development. Hence, it would be worthwhile to propose a new scheme of regionalisation here, which is mainly based on following development indicators at district level:

Table-2.2: West Bengal: Composite Index of Development (2011-12) – List of Indicators

<b>Indicator</b>	<b>Variables included</b>	<b>Source of Data</b>
Literacy Rate	Literate Population and Total Population	Primary Census Abstract, Census of India, 2011
Child Sex Ratio	Female Population and Male Population for 0-6 age group	Primary Census Abstract, Census of India, 2011
Workforce Participation Rate for Main Workers	Main Workers and Total Population	Primary Census Abstract, Census of India, 2011
Per Capita Income	9-fold Industrial Categories, at constant prices (2004-05)	Quick Estimates of Net District Domestic Product, 2009-10, Bureau of Applied Economics and Statistics, Government of West Bengal
Road Density	Total Road Length maintained by Public Works Department, Zilla Parishads, Panchayat Samitis and Gram Panchayats; Geographical area	Economic Review, Government of West Bengal, 2009-10; Primary Census Abstract, Census of India, 2011
Yield of Foodgrains	Yield of rice, wheat, other cereals and pulses	Economic Review, Government of West Bengal, 2011-12
Households with Electricity	Electricity as Main Source of Lighting in Households	Household Tables, Census of India, 2011

Number of Institutions per population	Medical per 5000	Total number of Institutions Population	Medical and Total	Health on the March 2011-12, State Bureau of Health Intelligence, Directorate of Health Services, Govt. of WB
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*Source:* Compiled from aforesaid datasets and reports

On the basis of aforesaid eight indicators, an attempt has been made to form a Composite Index of Development (CID). Standardisation method<sup>1</sup> has been used to construct this index. After that, districts have been ranked based on CID values.

Table-2.3: West Bengal: District wise Values of Composite Index of Development, 2011-12

District	C.I.D.	Rank
Howrah	1.072557	1
Hooghly	0.882296	2
Darjeeling	0.591211	3
North 24 Parganas	0.56745	4
Bardhaman	0.456896	5
Nadia	0.232112	6
Medinipur (Paschim+Purba)	0.09674	7
Dakshin Dinajpur	0.066753	8
South 24 Parganas	-0.05961	9
Murshidabad	-0.13109	10
Birbhum	-0.2133	11
Jalpaiguri	-0.27217	12
Cooch Behar	-0.28751	13
Bankura	-0.46533	14
Maldah	-0.64449	15
Uttar Dinajpur	-0.67645	16
Puruliya	-1.21607	17

*Source:* Computed from a compiled data set

After considering locational significance, administrative convenience and above table, the following regional nomenclature of West Bengal is proposed (also see Fig-2.1) –

**I. Western Region (WR):** This region includes Bankura, Birbhum and Puruliya.

In terms of overall development, the districts are at the bottom ranks.

<sup>1</sup> Composite Index of Development =  $(\sum \text{Standard Scores of Development Indicators} / \text{Number of Indicators})$ ; Standardised value =  $X - \mu / \sigma$ , where X= Indicator value,  $\mu$  = Mean and  $\sigma$  = Standard Deviation

- II. **Central Eastern Region (CER):** This region is constituted by Nadia, Murshidabad and Bardhaman. These three districts are at moderate levels of development.
- III. **Southern Region (SR):** It includes more developed districts like Howrah, Hooghly and North 24 Parganas, moderately developed Medinipur and South 24 Parganas.
- IV. **Northern Region (NR)/ North Bengal:** It includes less developed districts like Uttar Dinajpur, Malda, Cooch Behar and Jalpaiguri. Dakshin Dinajpur is moderately developed. However, Darjeeling emerges at the top category, as its rank is four.

The results are somewhat similar to the observations made in the West Bengal Human Development Report (2004). The report, dedicating a chapter on a discussion of 'Problems of Specific Regions', observes "...that both material and human development in West Bengal have strong regional dimensions". In this chapter, North Bengal, Sunderban and Paschimanchal emerge as 'specific regions'. North Bengal is divided into two administrative zones i.e. (A) Darjeeling Gorkha Hill Council (DGHC) comprising 8 hill blocks of Darjeeling district and (B) Uttarbanga Unnayan Parishad comprising rest of Darjeeling district and entire stretches of Jalpaiguri, Cooch Behar, Uttar Dinajpur, Dakshin Dinajpur and Malda districts. Apart from this, North Bengal is also divided into three agro-ecological regions viz. (A) Malda and Dinajpur, (B) Darjeeling, Jalpaiguri and Cooch Behar and (C) the 'chicken neck' of Uttar Dinajpur. Like the above results (as shown in Table 2.3), this report has also recognised diversities in terms of levels of development. The report also takes note of linguistic and cultural heterogeneity.

Therefore, it may be argued that although North Bengal appears to be a homogeneous region in people's parlance as well as an administrative division, actually the region shows certain heterogeneity in terms of physiography, levels of development and cultural parameters. In case of Western Region, a striking similarity is found between the computed results and the Human Development Report. The CD Blocks served by Paschimanchal Unnayan Parishad partially belong to this Western Region. Here, it should be observed that both North Bengal and Paschimanchal have been demonstrated as less

developed and problem regions in the Human Development Report. The latest figures (Table 2.3), corresponding roughly to 2011-12, also pose the same picture.

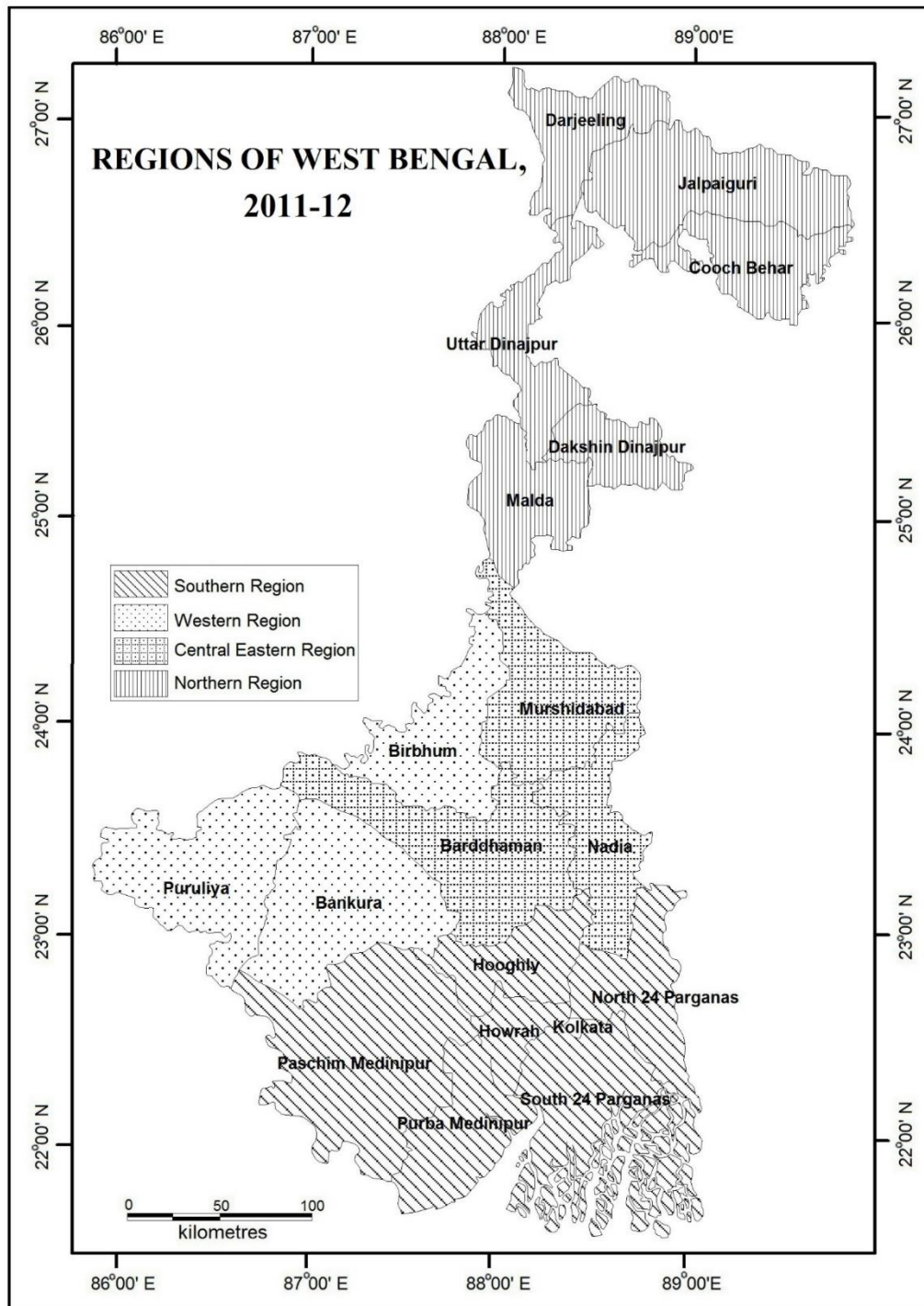


Fig-2.1: Regions of West Bengal, 2011-12

Table-2.4: Indicators of Composite Development Index (CDI), at CD Blocks of North Bengal, 2011-14

District	CD Block	Indicators*								CDI
		1	2	3	4	5	6	7	8	
Darjeeling	Darjeeling	938	73.34	41.25	80.20	59.20	42	1.67	0.03	0.932
	Pulbazar									
	Rangli Rangliot	959	73.43	37.54	86.50	70.60	18	1.81	0.09	0.921
	Kalimpong -I	956	73.34	39.54	75.90	70.80	25	1.65	0.08	0.919
	Kalimpong - II	934	71.11	37.75	72.40	64.80	13	1.62	0.06	0.397
	Gorubathan	920	68.72	39.79	54.00	46.90	20	1.81	0.07	0.248
	Jorebunglow	960	75.76	34.74	91.20	71.00	19	1.59	0.04	0.775
	Sukiapokhri									
	Mirik	908	74.04	37.42	83.90	60.40	23	1.92	0.09	0.539
	Kurseong	1011	73.82	36.16	88.40	59.40	24	1.95	0.07	1.331
	Matigara	978	65.39	38.20	75.80	71.70	15	0.70	0.30	0.789
	Naxalbari	936	66.86	36.77	74.50	62.10	21	0.88	0.04	0.142
	Phansidewa	972	55.53	37.43	49.70	26.60	26	0.86	0.02	-0.077
	Kharibari	974	58.16	39.20	52.30	39.60	27	1.06	0.05	0.271
Jalpaiguri	Rajganj	950	62.82	37.51	35.50	46.60	25	0.52	0.02	-0.228
	Mal	969	57.67	37.94	37.40	31.50	25	0.63	0.00	-0.209
	Matiali	975	58.93	42.71	63.20	31.70	29	0.70	0.01	0.251
	Nagrakata	970	53.10	38.12	38.00	22.20	25	0.53	0.01	-0.350
	Madarihat	976	59.59	40.42	50.90	41.60	22	0.59	0.00	0.057
	Kalchini	961	60.96	40.29	60.10	47.50	27	0.48	0.00	0.073
	Kumargram	951	63.79	39.63	38.50	46.00	29	0.78	0.00	-0.010
	Alipurduar - I	955	67.63	41.13	37.40	56.00	24	0.76	0.00	0.113
	Alipurduar - II	933	67.06	39.53	27.80	56.10	22	0.88	0.00	-0.158
	Falakata	944	63.93	38.76	35.30	59.80	22	0.64	0.00	-0.153
	Dhupguri	962	60.71	40.57	37.00	38.50	30	0.56	0.00	-0.060
	Maynaguri	939	66.06	36.56	26.60	37.20	25	0.75	0.00	-0.370
	Jalpaiguri	959	64.92	42.19	28.30	39.70	12	0.86	0.00	-0.136
Cooch	Haldibari	961	60.44	37.91	14.10	27.60	13	1.13	0.02	-0.364
Behar	Mekliganj	931	59.78	41.12	15.60	26.30	19	0.99	0.02	-0.486
	Mathabhanga - I	946	61.65	44.94	15.20	41.30	22	0.91	0.01	-0.113
	Mathabhanga - II	939	63.36	39.76	23.60	89.40	21	0.81	0.02	0.026



	Cooch Behar - I	942	67.02	41.21	30.40	55.60	8	0.81	0.02	-0.198
	Cooch Behar - II	959	72.20	37.31	34.20	70.90	20	0.76	0.07	0.204
	Tufanganj - I	939	65.06	40.49	24.70	57.80	19	0.82	0.02	-0.153
	Tufanganj - II	960	67.05	39.77	22.90	67.40	27	1.02	0.01	0.234
	Dinhata - I	947	64.18	39.73	25.20	64.10	18	0.74	0.01	-0.132
	Dinhata - II	936	63.54	39.69	18.10	49.10	20	0.84	0.02	0.307
	Sitai	967	54.01	45.67	15.20	56.00	28	0.76	0.03	0.123
	Sitalkuchi	964	60.73	39.53	21.30	45.00	37	0.89	0.02	0.092
<b>Uttar</b>	Chopra	954	49.42	31.80	31.40	23.20	36	0.74	0.02	-0.550
<b>Dinajpur</b>	Islampur	967	43.50	30.87	32.30	20.40	62	0.69	0.00	-0.281
	Goalpokhar - I	948	34.24	30.93	29.50	12.80	41	0.55	0.01	-0.926
	Goalpokhar - II	958	37.31	31.39	32.80	16.90	42	0.64	0.02	-0.697
	Karandighi	943	43.70	40.54	26.10	21.20	61	0.54	0.01	-0.240
	Raiganj	940	54.44	39.39	28.70	34.40	43	0.89	0.01	-0.159
	Hemtabad	955	58.34	42.22	27.40	21.10	36	0.99	0.03	-0.013
	Kaliyaganj	969	57.74	42.18	23.00	16.70	37	1.03	0.01	0.023
	Itahar	954	50.50	38.21	24.80	18.20	43	0.85	0.02	-0.278
<b>Dakshin</b>	Kushmundi	955	56.98	38.11	27.00	17.30	22	0.88	0.03	-0.413
<b>Dinajpur</b>	Gangarampur	937	62.46	40.80	39.30	29.00	20	0.84	0.02	-0.283
	Kumarganj	951	66.29	42.98	36.30	26.40	28	1.03	0.03	0.095
	Hilli	966	68.54	44.94	42.00	38.10	21	1.03	0.08	0.406
	Balurghat	968	66.65	45.64	40.00	36.30	9	1.03	0.03	0.179
	Tapan	954	60.87	45.63	31.30	23.50	25	0.56	0.02	-0.132
	Bansihari	972	60.42	40.94	42.50	40.50	20	0.71	0.03	0.041
	Harirampur	977	55.61	40.36	38.60	21.90	23	0.85	0.03	-0.066
<b>Malda</b>	Harischandrapur - I	954	44.41	35.17	29.30	22.00	28	0.66	0.35	-0.215
	Harischandrapur - II	957	44.84	31.33	22.60	15.10	31	0.58	0.18	-0.622
	Chanchal - I	944	56.53	38.01	31.30	28.10	26	0.64	0.38	0.018
	Chanchal - II	953	48.28	34.41	24.60	17.00	26	0.54	0.19	-0.534
	Ratua - I	959	50.16	32.81	31.20	24.10	25	0.56	0.22	-0.396
	Ratua - II	967	47.46	30.27	30.70	27.20	25	0.56	0.20	-0.466
	Gazole	975	54.97	42.49	23.20	26.00	23	0.76	0.17	0.062
	Bamangola	953	60.38	42.55	30.90	39.80	24	0.89	0.28	0.301
	Habibpur	951	51.32	45.83	21.40	24.00	19	0.82	0.24	-0.037

Malda (Old)	972	51.56	40.37	31.40	30.50	39	0.78	0.26	0.315
English Bazar	968	53.91	35.96	45.80	39.40	17	0.64	0.18	-0.093
Manikchak	950	48.51	36.19	23.10	24.60	27	0.67	0.23	-0.348
Kaliachak - I	956	54.28	44.46	54.10	41.90	25	0.37	0.13	0.105
Kaliachak - II	968	54.27	42.67	43.00	27.30	26	0.72	0.24	0.245
Kaliachak - III	967	44.48	44.67	26.60	21.10	45	0.44	0.14	0.032

*\*Note:* 1. Child Sex Ratio, 2. Literacy Rate (%), 3. Workforce Participation Rate (%), 4. Households with Electricity as a major source of lighting (%), 5. Households with Latrines (%), 6. Population served per Bank, 7. Number of Schools per thousand population, 8. Number of Hospital Beds per thousand population

*Source:* Calculated from Census of India 'H'-series tables, 2011; District Profile, Bureau of Applied Economics and Statistics, 2013-14

It is apparent that North Bengal shows a heterogeneous or mixed picture in terms of levels of development. This is also validated through computation of another development index at CD Block level (Fig-2.2). In general, those CD Blocks located in the northern part of Darjeeling and Jalpaiguri district are relatively developed. Besides, some patches of Dakshin Dinajpur and Malda are also showing relatively higher levels of development. For instance, three CD Blocks of Kaliachak, as well as Old Malda, Gazole and Habibpur belong to this category of higher levels of development; same is applicable to Balurghat, Hilli and Kumarganj CD Blocks in Dakshin Dinajpur. On the contrary, almost all CD Blocks of Uttar Dinajpur district are lying at moderate to lower levels of development.

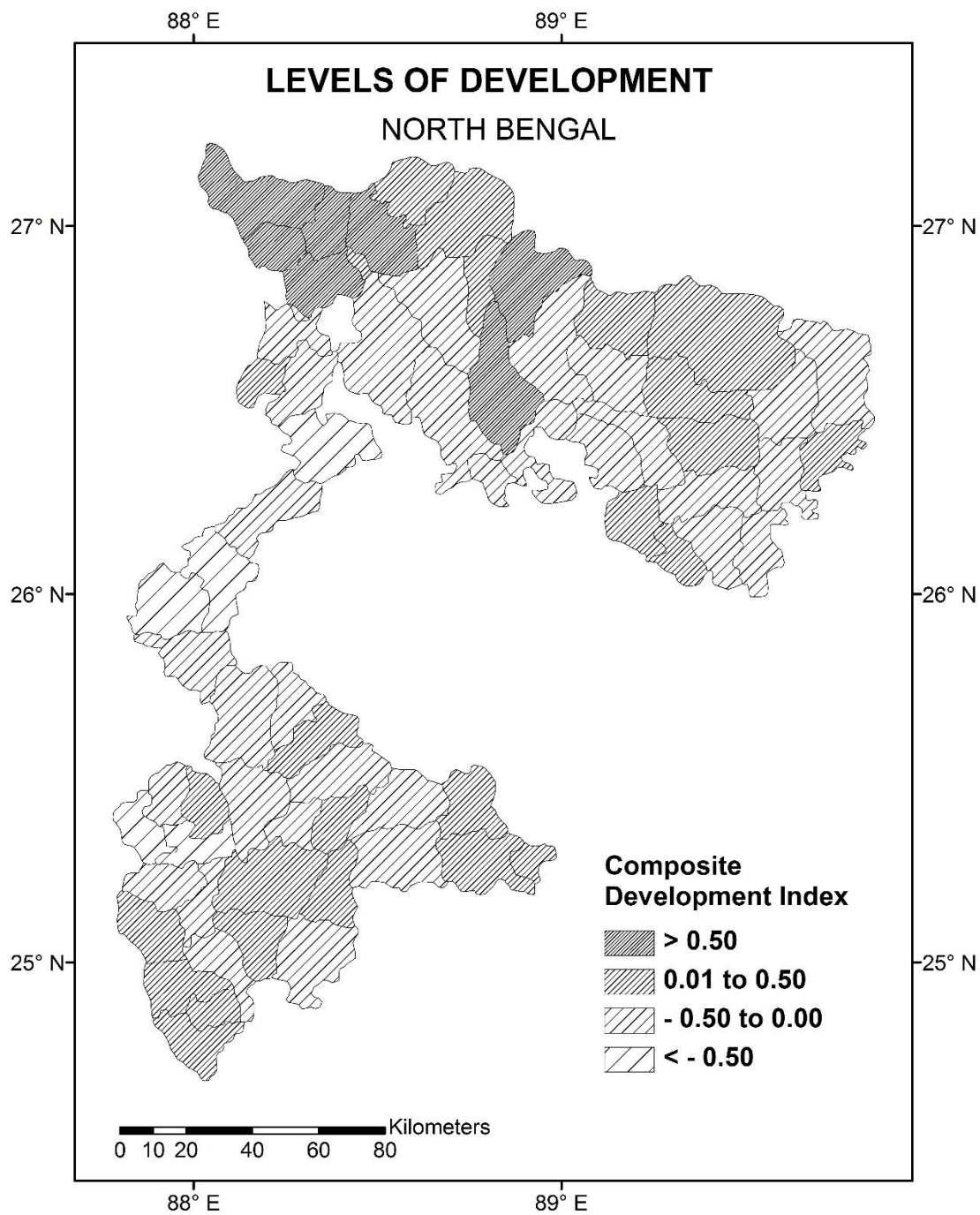


Fig-2.2: Composite Development Index showing Levels of Development across CD Blocks of North Bengal, 2011-14

## 2.4 EVOLUTION OF URBAN SYSTEM IN WEST BENGAL

### 2.4.1 HISTORICAL CONTEXT:

In order to decipher present trends, patterns and nature of urbanisation of any region, it is quite important to trace the historical roots. At a certain period, one urban centre may emerge as the hub of all activities, and in due course of time, a new centre may emerge, while the former one loses its importance. On the basis of literature review, it would be convenient to trace such historical roots of urbanisation in two periods – Pre-British and British period.

#### 2.4.1.1 Pre-British Period:

During this period, one of the most important urban centres was Murshidabad, and one district in Central Eastern Region still holds this name. It was ruled by Muslim kings i.e. *Nawabs* such as Siraj-ud-Daula and widely reputed for silk production.

As far as North Bengal is concerned, one can trace three urban centres such as ‘Pandua’, ‘Gour’ / ‘Laxmanabati’ and ‘Bangarh’. ‘Pandua’, earlier known as ‘Pundra Vardhana’ city, was ruled by Pundra kings. This important urban centre was known for sugarcane and silk production. ‘Gour’ was initially ruled by ‘Pala’ and ‘Sena’ kings. Muslim rulers invaded it and they shifted capital interchangeably to ‘Laxmanabati’ and ‘Pandua’. Both urban centres were known for the beautiful architectural design, roads and river-port based trade of silk clothes. Another important urban centre was Cooch Behar. It was reigned by Kamrup, Khen and Koch rulers. Cooch Behar palace still stands out to reflect heydays of Koch kingdom. Although one knows very little about ‘Bangarh’, stone craft relics found on the bank of Punarbhaba temple near today’s Gangarampur town in Dakshin Dinajpur district show some sort of art and aesthetic sense. Archaeological shreds of evidence suggest that a civilisation did exist here, and the rulers used to worship Lord Shiva. A large palace was found, and samples of utensils, wells, coins, jewellery etc were also excavated from here (Bhoumick, 2015).

#### **2.4.1.2 British Period:**

In CER, mining of coal, industrialisation and associated infrastructural development worked as a catalyst for urbanisation:

“Discovery of coal, establishment of coal mine near Raniganj (1820), railway link of Raniganj-Calcutta (1855), iron factory at Kulti (1869), paper mill at Raniganj, iron and steel plant at Burnpur etc ignited the development of industries...Industrialisation..have brought initial spurt of urbanisation..(Saha, 2013b: 302).

In North Bengal, some of the present cities and towns bear the legacy of British Period. Darjeeling is considered as one of the cities, where British rulers made a profound impact. After signing a treaty with Sikkim rulers, East India Company (EIC) started developing sanatorium and military cantonment. EIC was also keen to tap the geostrategic potential of this urban centre so that it could easily keep a tab on neighbours like Nepal, Bhutan and Tibet. Another attraction was the presence of ideal geographical conditions for tea plantations. Thus, politico-administrative and economic factors influenced British rulers, and they started developing Darjeeling (O’ Malley, 1907; Chatterji, 2000; Chattopadhyay, 2003; Ray, 2005; Saha, 2006; Pradhan, 2007, Ghosh, 2011). Jalpaiguri also had a cantonment at Fakirganj. It was also the administrative headquarters of Rajshahi Division in undivided India. Apart from this, tea plantations and timber-based trade significantly boosted its economy (Chakraborty, 2007; Ghosh, 2011; Bhawal, 2011; Saha, 2011). British administrators also minutely understood the nodal importance of Siliguri, which was a small village then. As Darjeeling started developing, these administrators also focused on connecting it with Siliguri through a railway line. Subsequently, different offices were also set up in Siliguri to cater administrative needs (Gangopadhyay, 2003). Administrative functions, primarily devised to collect revenues and maintain law and order situation, were important in urban settlements like Raiganj, Balurghat and Malda. In all these urban centres, British rulers established Police Station, Court and Revenue offices. Raiganj, a settlement located along the banks of Kulik river, was a hub of agricultural product-based trade (Sengupta, 2008). Balurghat was a sub-divisional town during the British period. Old Malda was known for its river port based trade. Dutchmen set up a silk factory here, and subsequently, this place became famous for silk trade. With the introduction of silk factory by EIC, fame tilted in favour of English Bazar (Agarwala, 1993). One needs to understand that administrative and

economic factors led to the initial development of such urban settlements. Subsequently, expansion of job opportunities and infrastructural development attracted people to a considerable extent. Thus, the process of migration has also led to a growth of such settlements. British interests led to an unbalanced nature of urban development, where only a few isolated urban centres managed to flourish. According to Gangopadhyay (2003), it created a massive depletion of natural resources and consequent ecological problems.

#### **2.4.2 PROCESSES OF URBANISATION:**

Ramachandran (1989:75) has asserted that “There are, in fact, not one but several processes of urbanisation at work at any given point in time and space” and continued to elucidate urbanisation as (1) socio-cultural process, (2) political-administrative process, (3) economic process and (4) geographical process. The second and third processes have considerably shaped the course of urbanisation in various regions of West Bengal.

##### **2.4.2.1 Urbanisation as a Politico-Administrative Process:**

The discussion made in the section 2.4.1 point out that political-administrative processes were part and parcel of capital cities like ‘Gour’, ‘Pandua’ and ‘Cooch Behar’. During the British period, these processes got more emphasis. British rulers established offices and police stations for collecting revenue and maintaining law and order, respectively. In North Bengal, some cities like Darjeeling and Jalpaiguri reflect characteristics of such processes.

Even during the post-independence phase, like any other parts of India, West Bengal also exhibits growth and development of many urban centres, which cater to political-administrative purposes. Bardhaman and Jalpaiguri, two older urban centres of West Bengal with a princely legacy, are today’s ‘Divisional Headquarters’. Almost all ‘District Headquarters’ in West Bengal are Class-I cities in 2011. Cooch Behar and Alipurduar in North Bengal and Suri in Western Region are Class-II towns in 2011. Another category is ‘Sub-divisional Towns’. These are mostly medium-sized towns (Class-II and III categories). According to Ramachandran (1989), the establishment of administrative offices is followed by a subsequent development of transport and communication systems

through railway stations and post offices. All these ultimately result in the creation of urban settlements that provide tertiary services. Last but not least category is 'Block Headquarters' He continues to argue that Community Development Programme (1952) started the creation of 'Block Headquarters' that acted as 'rural service centres'. Even if some of these are not recognised as urban settlements in a particular Census enumeration, it is quite likely that administrative processes will give these settlements an 'urban' tag after some point of time. This category basically includes small towns. It should also be noted that most of the 'District Headquarters' and 'Sub-Divisional Towns' are 'Statutory Towns'. On the other hand, 'Block Headquarters' are mostly 'Census Towns.'

North Bengal has a geostrategic importance. It borders neighbouring countries like Bangladesh, Nepal and Bhutan and states like Bihar and Sikkim. The geostrategic importance was earlier realised by British administrators, and therefore, they started developing Darjeeling and Siliguri. Due to the partition of Bengal, transport system between Jalpaiguri and West Dinajpur got shattered. After the inclusion of some parts of Kishanganj (Bihar) within West Dinajpur, and laying out of NH-34 and NH-31, North Bengal is now relatively better connected with other parts of the state (Pal, 2011). Indo-China war (1962) also has a bearing on the development of transport systems. To bolster geostrategically significant North Bengal, Government of India helped in setting up of New Jalpaiguri and Malda Town railway stations, National Highways and other important road and railway networks. As a result of this infrastructural development, urbanisation processes have got a big momentum (Agarwala, 1993; Gangopadhyay, 2003).

#### **2.4.2.2 Urbanisation as an Economic Process:**

Ramachandran (1989) has presented both classical and modern views of urbanisation as an economic process. While the classical view recognises urban settlements as parasitic and exploitative of agricultural surplus produced in rural hinterland, modern view talks about a symbiotic relationship between urban settlements and their rural hinterland. Urban settlements provide some functions for the benefit of villagers, again these are also dependent on agricultural products supplied by villages located in the hinterland. He has

opined that the second i.e. modern view is more relevant in the present context of post-industrialisation. Giri (1998) has focused on how economic processes have influenced the trajectory of urbanisation in West Bengal. He has identified manufacturing and service sectors as quite significant economic factors in West Bengal, but also argued that industrial sickness and enormous population pressure have led workers to join in low-end informal jobs. Apart from this, agricultural growth (indirectly augmenting non-agricultural employment) has played a key role in the emergence of small towns across different regions.

Urban economic base across different regions of West Bengal varies to a considerable extent. In between 2001 and 2011, except CER, proportions of 'Marginal Workers'<sup>2</sup> have substantially declined in all regions, with an obvious simultaneous increase in the proportion of 'Main Workers' (Table-2.5). That means urban centres in three regions have become more strengthened in providing relatively longer-term employment to workers. In this context, it would be interesting to analyse non-agricultural workforce composition.

Table-2.5: Urban West Bengal: Percentages of 'Main' and 'Marginal' Workers, 2001, 2011

REGION	2001		2011	
	Main Worker	Marginal Worker	Main Worker	Marginal Worker
Western	65.74	34.26	83.25	16.75
Southern	78.05	21.95	87.02	12.98
Central & Eastern	82.02	17.98	83.06	16.94
North Bengal	77.05	22.95	86.69	13.31

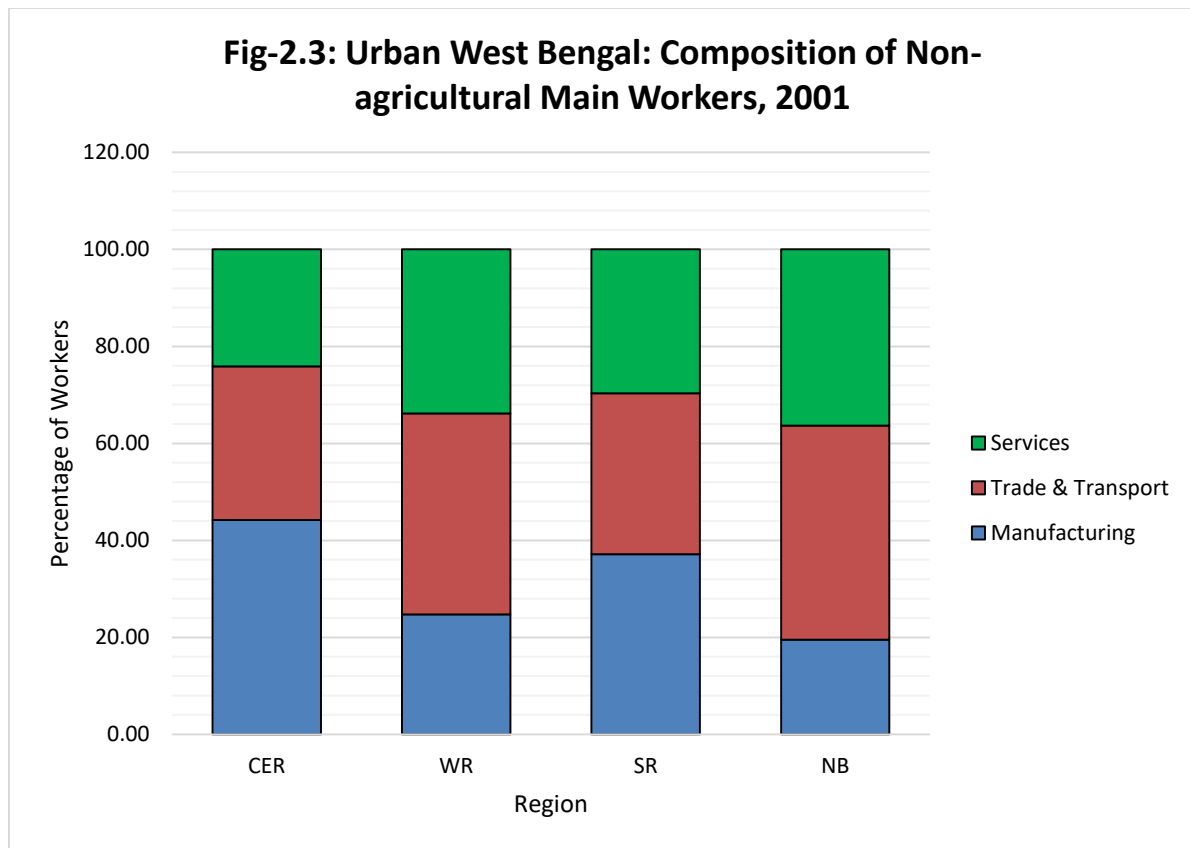
Source: Calculated from Primary Census Abstract, Census of India, 2001 and 2011

As far as North Bengal is concerned, there is not much variation in the proportion of 'Main' and 'Marginal Workers' at the district level (2011). A proportion of 'Marginal Workers' working from three to six months is higher in Malda (15.96 percent) and

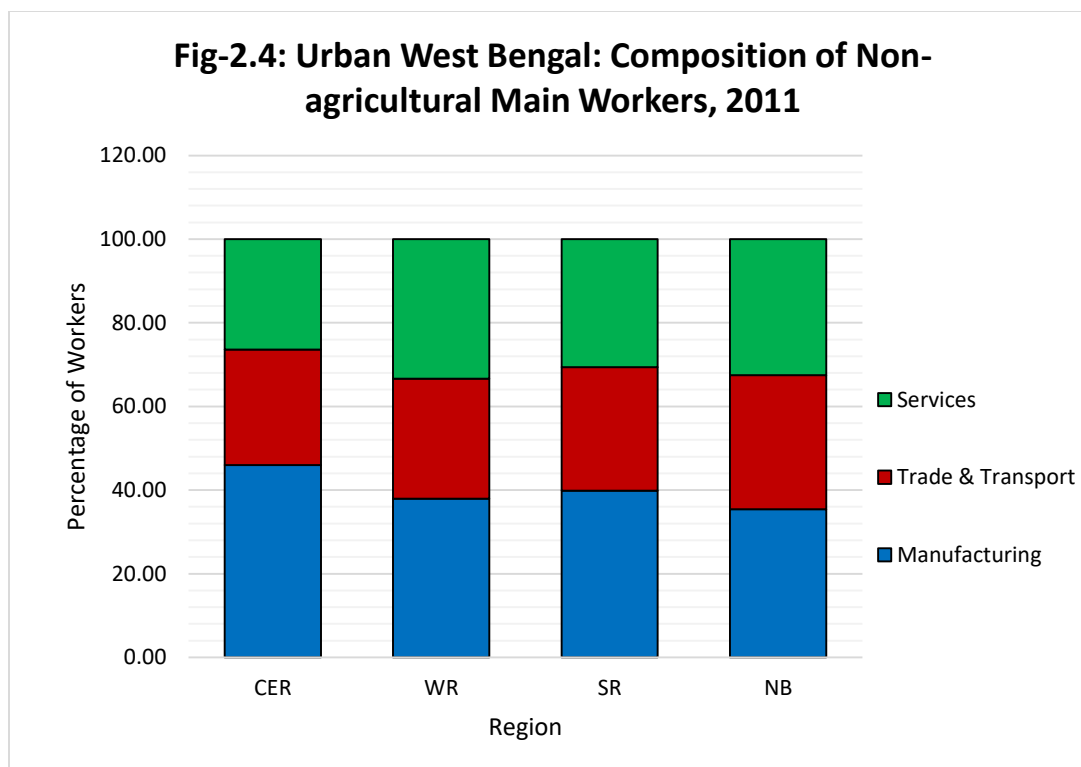
<sup>2</sup> Census of India has defined 'Workers' as persons who have participated in any economically productive activity with or without compensation or profit; 'Main Workers' as persons who have worked for six months or more during reference period; 'Marginal Workers' persons as who have worked less than six months.



Dakshin Dinajpur (11.30 percent). Moreover, Malda (3.41 percent) and Jalpaiguri (2.43 percent) districts show a higher proportion of 'Marginal Workers' working even less than three months during the reference period (Saha, 2013a). In 2001, CER and SR have a relatively higher proportion of workers engaged in 'Manufacturing'. It should be noted that coal mining activities in Durgapur-Asansol-Raniganj belt in Barddhaman district account for such large proportion in CER. On the other hand, Western Region and North Bengal show some similarity as both the regions have relatively lower percentage of workers in 'Manufacturing', and a higher percentage of workers in 'Trade & Transport' and 'Services' (Fig-2.3 and 2.4; see Appendix-I for the Industrial Categories).



*Source:* Calculated from the 'B' Series, Census of India, 2001



*Source:* Calculated from the 'B' Series, Census of India, 2011

Over the decade (2001-11), the percentage of workers in 'Manufacturing' has gone up quite a bit in WR and NB, due to rapid growth in construction work. Within North Bengal, one can hardly find any spatial difference in terms of non-agricultural workforce composition (Table-2.6 and 2.7). All six districts report that majority of workers are engaged in 'Trade & Transport' and 'Services', whereas 'Manufacturing' engages relatively less proportion of workers. Only in Malda, 'Manufacturing' is more important and 'Services' is less important compared to rest of the five districts.

Table-2.6: Urban North Bengal: Composition of Non-agricultural Main Workers (Percent), 2001

DISTRICT	Manufacturing	Trade & Transport	Services
Darjeeling	17.14	40.06	42.80
Jalpaiguri	21.88	46.48	31.64
Koch Bihar	19.09	40.83	40.08
Uttar Dinajpur	19.90	48.14	31.95
Dakshin Dinajpur	22.24	38.41	39.35
Malda	26.21	41.44	32.35

*Source:* Computed from 'B'-Series, Census of India, 2001

Chatterjee and Giri have attempted to classify all urban centres of West Bengal on the basis of their functions. This functional classification shows that urban centres of North Bengal, during 1961 and 1971, mostly report 'Trade & Transport' and 'Services' as main economic activities. Unfortunately, down to 2011, the broad scenario of non-agricultural workforce composition has hardly changed. The Census data for last four-five decades generally reflect industrial backwardness, which is one of the major bottlenecks of urbanisation in North Bengal.

Table-2.7: Urban North Bengal: Composition of Non-agricultural Main Workers (Percent), 2011

District	Trade & Services		
	Manufacturing	Transport	Services
Darjeeling	23.54	31.71	44.75
Jalpaiguri	30.60	36.96	32.44
Cooch Behar	33.51	33.77	32.73
Uttar Dinajpur	35.37	33.64	30.99
Dakshin Dinajpur	29.56	31.94	38.50
Malda	52.65	24.74	22.61

Source: Computed from 'B'-Series, Census of India, 2001

### **Economic Factors:**

Analysis of secondary data and review of the literature suggest that following economic factors have ushered urbanisation processes in various regions of West Bengal-

#### ***Trade, Commerce and Industrialisation:***

At the time of independence, even up to late 1960s, West Bengal was considered as an industrialised state. However, after that, this state lost its shine in terms of manufacturing products. Looking at specific indicators like number of factories in organised manufacturing sector, percentage share of Net Value Added to all-India, labour productivity, capital productivity and value addition per factory over a period of 1974-75 to 2011-12, Chaudhuri *et al* (2014) have pointed out that West Bengal has been doing far poorer than all-India figures. Their analysis also highlighted some problems like negative consequences of partition, lack of Bengali entrepreneurs, the paucity of modernisation and technological upgradation, freight equalisation policy, industrial unrest and so on. After analysing functional characteristics of towns using Census data of 1961 and 1971, Giri (1988:107) has observed that

“..outside the metropolitan neighbourhood of the Calcutta Urban Agglomeration and the industrial belt of Asansol-Durgapur subdivision, the small and medium towns by and large are based on trade, transport and service activities.”

This broad scenario is still true to a certain extent. Trade and commercial activities are quite important in the Western Region and North Bengal. It has already been mentioned that Darjeeling, apart from geostrategic and administrative importance, was also a hub of trade and commercial activities. It attracted Marwari businessmen and they started settling over there. Jalpaiguri’s growth and development has also revolved around tea and timber based economic activities. Administrative offices also provided job opportunities to people in Darjeeling and Jalpaiguri. Siliguri, the largest city of North Bengal, is a well-known trading and commercial hub. Siliguri is well-connected by roads, and it boasts of the single civil airport in entire North Bengal. Siliguri acts as a ‘node’, and joins entire country with Sikkim and North East India. Therefore, trade, commerce and various services have flourished here. As this city is located at the junction of borders, smuggling also takes place rampantly. Siliguri also has immense potential in terms of industrial development. Establishment of Dabgram Industrial Estate is a concrete step towards achieving such development<sup>3</sup>. Unfortunately, the Dabgram Estate has not been much beneficial till date. North Bengal is still an underdeveloped region, and a huge chunk of population still lives in villages and depends on agricultural activities. Hence, one can find a substantial number of small and medium agro-based towns which provide certain functions to the rural hinterland. Such functions are interlinked with physical and social infrastructure base of towns. But mostly “urban centres in North Bengal are basically ‘market towns’, ‘service towns’ or ‘transport towns’ ”. (Saha, 2013a: 47). It is recently noted that emerging sectors like IT industries, healthcare, real estate and education can boost the economy of North Bengal (BCC, 2016). In the Central and Eastern Region, industries have particularly concentrated in Asansol-Durgapur belt of Barddhaman district. Iron and steel factory and allied industries have grown over there. In the districts of Bankura and Puruliya located in Western Region, one can observe a significant

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<sup>3</sup> According to West Bengal Industrial Development Corporation (WBIDC), such industrial estates or growth centres have been set up in Cooch Behar, Jalpaiguri and Malda in North Bengal (see [http://www.wbidc.com/images/pdf/Issues\\_Regarding\\_Indu\\_WB.pdf](http://www.wbidc.com/images/pdf/Issues_Regarding_Indu_WB.pdf) as viewed on 20.08.2017)

presence of traditional art and craft-based household industries. Apart from this, two Census Towns in Bankura district, i.e. Barjora and Beliapore have emerged as small-scale industrialised locales with sponge iron factories and paper mills (Saha, 2013b). Some of the stone-crushing units are located near Rampurhat and Sainthia towns of Birbhum district in this region. In the Southern Region, “24 Parganas, Howrah and Hooghly accounts for a number of large, medium and small industries such as jute mills, textile industry, metal products, chemical works, handlooms, small-scale engineering industries etc” (Ghosh Roy, 1988: 242). Industrialisation, according to the author, has played a prime role behind urban growth and urbanisation in these districts. Her analysis shows the importance of trade and commercial activities in Medinipur district. Kharagpur is an exception, as engineering industry has developed over there. Today, another important industrial complex is located in Haldia, where petrochemical and allied industries have flourished. It should be noted that Howrah-Hooghly Industrial Belt, since pre-independence times, is well-known. In the later stages, Food and Poly Park is also established in Sankrail, Howrah. One of the major inputs required for industrial development is power. In West Bengal, one can trace a few examples, where power project sites have fuelled growth of urban centres. Such examples include Farakka Barrage Township (population size 20126 in 2011) in Murshidabad and Santaldih Thermal Power Project town (2507) in Puruliya. But such towns may also be abolished after the completion of concerned project. For example, Jaldhaka Hydro Power Project town was a CT in 1981 with a population of 3533 persons. However, this is completely missing in the list of urban centres in 2001 and 2011.

It is indeed clear that West Bengal is gradually shifting from its traditional agriculture base to consumer market based economic activities, especially trade-commerce-services<sup>4</sup>. This is also reflected in the sprouting of a substantial number of Census Towns in 2011. In this context, WBIDC’s plan to encourage Small and Medium Enterprises (SMEs)

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<sup>4</sup> “.. the disappointing performance of the agricultural and the industrial sectors notwithstanding, the per capita net output performance has been reasonably satisfactory for West Bengal. This appears to suggest that the service sector has been a savior” (Deepankar Dasgupta’s analysis of Net State Domestic Product from 2005-06 to 2014-15) [https://www.telegraphindia.com/1151016/jsp/opinion/story\\_48178.jsp](https://www.telegraphindia.com/1151016/jsp/opinion/story_48178.jsp), as viewed on 21.08.2017

through the establishment of an industrial cluster in each and every district is a welcome step.

***Transport:***

Nodal location in terms of transport facilities is one of the major economic factors of urbanisation in West Bengal. If one looks at the Western Region, Adra emerges as a suitable example. It is a small Census Town, nestling only around fifteen thousand people in 2011. It has primarily grown out because of the railway junction. It is the headquarter of Adra Division under the South Eastern Railway and connects Kolkata with Delhi, Chennai and Mumbai (Saha, 2013b). In North Bengal, Siliguri is also considered to be an appropriate example. Apart from roadways, the presence of New Jalpaiguri rail station and Bagdogra airport have added to the locational advantage of Siliguri. Being located in the foothills of Darjeeling Himalayas, this city plays the role of a ‘break-of-bulk’ point. ‘Toy-Train’, plying between Darjeeling and Siliguri, was not just only a mere mode of transport, as it helped in transporting tea from hills to plains, as well as many consumer product items from Siliguri to Darjeeling in return. Due to this connectivity, the transport cost reduced quite a bit, and thus tea industry-tourism activities and residential schools largely got benefitted. That is why Darjeeling and Kalimpong became two important hill towns (Sankrityan, 2017). Another relevant instance is English Bazar, the second largest city in North Bengal (i.e. population size of 205521 in 2011). It is largely benefitted by its proximity to NH-34 and presence of Malda Town railway station. Transport network also helps in expanding industrial development. The industrial belt located along both sides of Hugli river (Southern Region) is benefitted by the road network, railway lines, navigable river and proximate location of ports. Haldia petrochemical complex gets easy access to Haldia port. Another example is Beliatare in Western Region. It enjoys a mid-location on the state highway in between Bankura (19 km) and Durgapur (22 km). In CER, Durgapur-Asansol coal-steel complex also gains from the busy stretch of railways on Kolkata-Delhi route. Administrative, market and service centres also develop along major transport routes. One suitable example in North Bengal is the stretch of NH-34 connecting at least four important Statutory towns- English Bazar, Old Malda, Raiganj and Dalkhola. Alipurduar, being connected with NH-31 and New Jalpaiguri-Guwahati

railway line, also exhibits its locational advantage. Raiganj-Kaliyaganj-Gangarampur-Balurghat forms the main transport route along the state highway in Uttar and Dakshin Dinajpur. District headquarters like Behrampore (Murshidabad district) and Krishnanagar (Nadia district), Barddhaman (Barddhaman district) in CER; Medinipur (Paschim Medinipur district) in Southern Region are also located along National Highways. Along the main railway route between Malda and Barddhaman, towns like Bolpur, Nalhati and Sainthia also reflect the importance of good transport connectivity.

### ***Tourism***

In West Bengal, industrial development is concentrated in few belts. West Bengal offers a blend of tourist spots: diversified physiographic setting (ranging from the hills of Darjeeling Himalaya to rolling beaches of Bay of Bengal), unique presence of vegetation (Mangrove forest in Sundarbans), cultural heritage sites (like Shantiniketan in Birbhum district, Nabadweep in Nadia district) and historical sites (like ‘Gour’ in Malda district; ‘Hazarduari’ in Murshidabad district). As per the *India Tourism Statistics* (2015), West Bengal rank 8<sup>th</sup> and 5<sup>th</sup>, respectively in state-wise percentage shares of domestic and foreign tourists. Apart from trade and commerce and different service-based activities, this specific factor of ‘tourism’ has led to the growth of small and medium towns in this state. This is particularly true in case of North Bengal. Some of the places in Darjeeling and Dooars attract a huge number of tourists. This influx of tourists has directly encouraged hotel accommodation, booking of vehicles and other associated activities in urban centres like Darjeeling, Kalimpong, Kurseong, Siliguri, Jalpaiguri and Alipurduar. Tourism activities in historical places like ‘Gour’ are directly linked with nearby urban centres like English Bazar. If one looks at the Western Region, a medium-sized town like Bishnupur is primarily known for its tourist attractions. Some old terracotta temples (like Rasmancha, Madan Mohan temple) and large tanks (like Lalbandh) are reputed. Along with this, popular handicrafts (like terracotta, a metal craft known as *Dokra* and *Baluchoree Saree*) and nearby sites like Mukutmanipur make Bishnupur a very popular tourist spot. In the same region, Rampurhat (Birbhum district) is the main railway station along Barddhaman-Malda railway route, where pilgrims visiting Tarapeeth Temple de-board. In Medinipur district of Southern Region, a project of the coastal circuit along

Digha-Shankarpur-Tajpur-Mandarmani is sanctioned<sup>5</sup>, which may usher urbanisation to a considerable extent.

## 2.5 TRENDS AND PATTERNS OF URBANISATION

To decipher the trends and patterns of urbanisation in West Bengal, a region-wise study has been attempted. Therefore, in the following sub-sections, an application of few popular quantitative techniques has been employed for an objective analysis of the nature of urbanisation in the state.

### 2.5.1 Changes in Number of Urban Centres

Any academic discussion on trends and patterns of urbanisation of a spatial unit may begin with the changes in the number of urban centres over a certain time period. Table-2.8 depicts that across all regions, the number of 'Statutory Towns' have hardly increased, but the number of 'Census Towns' have sharply increased.

Table-2.8: West Bengal: Changes in Number of Statutory and Census Towns, 2001, 2011

Region	2001		2011	
	Statutory Towns	Census Towns	Statutory Towns	Census Towns
WR	11	12	12	48
SR	62	121	64	420
CER	27	91	32	201
NB	21	27	23	107

Source: Calculated from Primary Census Abstract, Census of India, 2001 and 2011

The table (Table-2.8) reveals two things across all regions. Firstly, expansion of non-agricultural activities may have transformed relatively larger villages into small size Census Towns. Except for CER, all three regions report almost four-times jump in the number of Census Towns. Secondly, the government has been slow to recognise urban centres as Statutory Towns.

### 2.5.2 Levels of Urbanisation

The next attempt is to look at the levels of urbanisation across regions of West Bengal. The term 'levels of urbanisation' refers to the proportion of urban population to total population in the concerned spatial unit.

<sup>5</sup> India Tourism Statistics, 2015



Table-2.9: West Bengal: Levels of Urbanisation (Percentage) across Regions, 1991-2011

<b>REGION</b>	<b>1991</b>	<b>2001</b>	<b>2011</b>
WR	8.86	8.57	11.19
SR	28.96	30.95	36.25
CER	23.83	24.53	29.61
NB	13.52	14.16	18.7

*Source:* Calculated from Census of India, 1991-2011

It may be spelt out that levels of urbanisation have marginally increased across regions during 1991-2001, but substantially increased in the next decade primarily due to a jump in the number of Census Towns. Western Region and North Bengal show relatively less proportion of urban population to total population. Industrialisation, mining, trade, commerce and service-based activities have flourished both in Central & Eastern and Southern Region, and these have unleashed substantial momentum of urbanisation in these two regions. On the other hand, both Western and Northern Region still depend on trade, commerce and services and primarily cater to a large rural hinterland. In North Bengal, two districts namely Darjeeling and Jalpaiguri have shown a steady increase in the levels of urbanisation. During 1981-2011, Darjeeling's level of urbanisation has increased from around 27 percent to 39 percent, whereas the corresponding figure is 14-27 percent in case of Jalpaiguri. Interestingly, both districts have shown a wider increase in the number of Census Towns between 2001 and 2011. Historical accounts suggest that Darjeeling and Jalpaiguri had early startup, and subsequently economic and political-administrative factors have fuelled urbanisation. Malda district has gone through a kind of transition during this phase. It was a less urbanised district and now has certainly come up in a big way, thanks to the presence of English Bazar city and adjoining Old Malda town, and a massive jump in the number of Census Towns. In contrary, Cooch Behar and West Dinajpur districts are prominently dependent on agriculture, and only trade, commerce and service-based activities have grown to a certain extent. Hence, these districts show relatively lower levels of urbanisation.

### ***2.5.3 Urban-Rural Growth Differentials:***

To understand the demographic factor behind urbanisation, it would be more precise if one looks at Urban-Rural Growth Differentials (URGD). Annual Exponential Growth Rates for rural and urban population has been shown separately (Table-2.10). In between

1991-2001, urban growth rates are slightly higher than rural growth rates in three regions. But in Western Region, rural growth rates are in fact higher than urban growth rates. As a substantial number of Census Towns have emerged in the next decade, one can see a spurt of urban growth rates in all the regions, and resultant higher URGD.

Table-2.10: West Bengal: Urban-Rural Growth Differentials across Regions, 1991-2011

Region	Rural Growth Rate (Percentage)		Urban Growth Rate (Percentage)		URGD	
	1991- 2001	2001- 2011	1991- 2001	2001- 2011	1991- 2001	2001- 2011
Western	1.45	1.08	1.09	4.04	-0.37	2.97
Southern	1.39	0.49	2.34	2.87	0.95	2.38
Central & Eastern	1.61	0.71	1.99	3.29	0.38	2.58
North Bengal	1.94	1.02	2.48	4.34	0.54	3.32

Source: Calculated from Census of India, 1991-2011

#### 2.5.4 Common Urban Centres - Variations in Population Growth Rates:

Table-2.11: Urban Growth Rates (Percentage), Western Region, 1981-2011

Urban Centre	Urban Growth Rate	Category
Nalhati N.M	3.38	
Bolpur M	2.45	
Dubrajpur M	2.08	
Sainthia N.M	2.05	HGR
Rampurhat M	1.71	
Suri M	1.70	
Puruliya M	1.65	
Raghunathpur M	1.64	
Balarampur N.M	1.50	MGR
Jhalda M	1.31	
Sonamukhi M	1.27	
Bankura M	1.23	
Bishnupur	1.18	
Arra N.M	1.11	LGR
Chapari N.M	-0.14	NGR

Adra N.M	-1.15
Khatra N.M	-1.28
Santalalih Thermal Power Project Town N.M	-2.50

*Note:* N.M – Non-Municipal Town/City; M – Municipality; HGR – High Growth Rate; MGR – Moderate Growth Rate; LGR- Lower Growth Rate; NGR- Negative Growth Rate

*Source:* Calculated from Census of India, 1981-2011

Table-2.12: Urban Growth Rates (Percentage), Southern Region, 1981-2011

<b>Urban Centre</b>	<b>Urban Growth Rate</b>	<b>Category</b>
Maheshtala (M)	14.97	
Haldia (M)	7.51	
Uluberia (M)	7.23	
Rajpur Sonarpur (M)	6.74	
Bidhannagar (M)	6.24	
Barasat (M)	4.77	Very High Growth Rate (VHGR)
Madhyamgram (M)	4.70	
Dum Dum (M)	4.09	
Bankra (CT)	4.06	
Chakapara (CT)	3.97	
Podara (CT)	3.52	
North Dum Dum (M)	3.16	
Contai (M)	3.16	
Khardah (M)	2.91	
Nebadhai Duttapukur (CT)	2.85	
Jhargram (M)	2.79	
Jagadishpur (CT)	2.74	
Chata Kalikapur (CT)	2.71	
Tamluk (M)	2.66	
Ashokenagar Kalyangarh (M)	2.63	
Panchpara (CT)	2.57	
Nibra (CT)	2.42	
Bally (CT)	2.42	
Diamond Harbour (M)	2.41	
Dhuilya (CT)	2.38	High Growth Rate (HGR)
Baruipur (M)	2.35	
Uttarpara Kotrung (M)	2.31	

Bally (M)	2.29	
Habra (M)	2.27	
Medinipur (M)	2.25	
Raghunathpur (P) (CT)	2.22	
Arambag (M)	2.20	
Raghudebbati (CT)	2.16	
Naihati (M)	2.14	
Keota (P) (CT)	2.12	
Tarakeswar (M)	2.09	
Mahiari (CT)	2.06	
Makardaha (CT)	2.04	
Panihati (M)	2.02	
<hr/>		
Panchla (CT)	1.97	
Patulia (CT)	1.95	
Pandua (CT)	1.92	
Chandrakona (M)	1.89	
Kalara (CT)	1.87	
South Dum Dum (M)	1.87	
Noapara (P) (CT)	1.85	
Bhadreswar (M)	1.82	
Baidyabati (M)	1.80	
Kshirpai (M)	1.80	
Chak Kashipur (CT)	1.78	
Naldanga (CT)	1.75	
Dakshin Jhapardaha (CT)	1.73	
Gobardanga (M)	1.73	
Santoshpur (CT)	1.71	
Khalor (CT)	1.70	
Sarenga (CT)	1.69	
New Barrackpore (M)	1.67	
Uttar Raypur (CT)	1.67	
Ramchandrapur (CT)	1.66	
Chandannagar (M Corp)	1.64	Moderate
Domjur (CT)	1.62	Growth
North Barrackpore (M)	1.62	Rate
		<u>(MGR)</u>

Singur (CT)	1.61	
Baduria (M)	1.60	
Ramjibanpur (M)	1.55	
Balichak (CT)	1.55	
Jaynagar Mazilpur (M)	1.54	
Bangaon (M)	1.48	
Taki (M)	1.46	
Basirhat (M)	1.45	
Ghatal (M)	1.44	
Rishra (M)	1.43	
Bipra Noapara (CT)	1.41	
Sankrail (CT)	1.37	
Begampur (CT)	1.34	
Garulia (M)	1.34	
Konnagar (M)	1.32	
Bhatpara (M)	1.29	
Champdani (M)	1.26	
Kharar (M)	1.23	
Kolaghat (CT)	1.23	
Howrah (M Corp)	1.23	
Amta (CT)	1.22	
Baranagar (M)	1.21	
Serampore (M)	1.19	
Kanyanagar (CT)	1.17	
Hugli-Chinsurah (M)	1.16	
Kamarhati (M)	1.13	
Kharagpur (M)	1.07	
Jhorhat (CT)	1.07	Low Growth Rate
Kanchrapara (M)	1.01	(LGR)
Bansberia (M)	1.00	
Barrackpore (M)	0.94	
Andul (CT)	0.91	
Halisahar (M)	0.89	
Bowali (CT)	0.76	
Madhusudanpur (CT)	0.69	
Titagarh (M)	0.36	
Budge Budge (M)	0.29	Very Low Growth Rate
Birlapur (CT)	0.25	(VLGR)
Nabagram Colony (CT)	0.15	
Kharagpur Rly. Settlement (CT)	0.03	

Barrackpur Cantonment (CB)	-0.45	
Banupur (CT)	-0.82	
Raghunathpur (PS-Magra) (CT)	-1.41	
		Negative
		Growth
Ichhapur Defence Estate (CT)	-2.31	Rate
Krishnapur (CT)	-3.75	(NGR)

*Note:* CT – Census Town. The term ‘Non-Municipal Towns’ is similar to ‘Census Towns’

*Source:* Calculated from Census of India, 1981-2011

Table-2.13: Urban Growth Rates (Percentage), Central Eastern Region, 1981-2011

Urban Centre	Urban Growth Rate	Category
Jamuraia (M)	8.31	
Kulti (M)	6.76	
Dhulian (M)	4.41	VHGR
Khandra (CT)	3.99	
Asansol (M Corp.)	3.74	
Guskara (M)	3.46	
Raniganj (M)	3.26	
Kalyani (M)	3.22	
Memari (M)	3.12	
Kanksa (CT)	3.08	
Katwa (M)	3.03	
Hindusthan Cables Town (CT)	2.97	
Paschim Punropara (CT)	2.80	
Birnagar (M)	2.49	
Phulia (CT)	2.49	
Kajora (CT)	2.48	
Berhampore (M)	2.48	
Murshidabad (M)	2.41	
Jagadanandapur (CT)	2.35	
Jangipur (M)	2.33	
Chak Bankola (CT)	2.32	
Aurangabad (CT)	2.30	
Dignala (CT)	2.23	
Bagula (CT)	2.19	
Ukhra (CT)	2.15	HGR

Sukdal (CT)	2.13	
Barddhaman (M)	2.10	
Beldanga (M)	2.05	
Srimantapur (P) (CT)	2.05	
Parasia (CT)	2.04	
Parashkol (CT)	2.02	
Santipur (M)	2.01	
<hr/>		
Durgapur (M Corp.)	1.99	
Bahula (CT)	1.93	
Madanpur (CT)	1.83	
Kandi (M)	1.78	
Chhora (CT)	1.74	
Aistala (CT)	1.61	
Kalna (M)	1.61	
Chakdaha (M)	1.58	
Jiaganj-Azimganj (M)	1.53	
Kasim Bazar (CT)	1.53	
Krishnanagar (M)	1.48	
Dainhat (M)	1.44	
Gayespur (M)	1.16	
Farakka Barrage Township (CT)	1.06	
Jemari (J.K. Nagar Township) (CT)	1.06	
Kenda (CT)	1.00	MGR
<hr/>		
Ondal (CT)	0.96	
Gadigachha (CT)	0.88	
Ranaghat (M)	0.85	
Raghunathchak (CT)	0.57	LGR
<hr/>		
Nabadwip (M)	0.47	VLGR
<hr/>		
Panuhata (CT)	-0.06	
Ballavpur (CT)	-0.07	
Amkula (CT)	-0.55	
Taherpur (NA)	-0.74	
Chittaranjan (CT)	-0.87	
Bhanowara (CT)	-0.89	
Haringhata Farm (CT)	-1.62	NGR
<hr/>		

Source: Calculated from Census of India, 1981-2011

Table-2.14: Urban Growth Rates (Percentage), North Bengal, 1981-2011

<b>Urban Centre</b>	<b>Urban Growth Rate</b>	<b>Category</b>
Old Malda	7.54	
Dalkhola	5.36	
Tufanganj	4.85	
Siliguri	4.00	VHGR
Raiganj	3.71	
Uttar Bagdogra	3.52	
English Bazar	3.19	
Dinhata	3.03	
Gangarampur	3.01	
Kurseong	2.86	
Mathabhanga	2.57	
Darjeeling	2.41	
Islampur	2.41	
Haldibari	2.34	
Mekhliganj	2.33	
Kaliyaganj	2.30	
Dhupguri	2.20	
Uttar Latabari	2.12	HGR
Jalpaiguri	1.84	
Kalimpong	1.79	
Mal	1.73	
Guriahati	1.67	
Falakata	1.66	
Kasba	1.53	MGR
Mainaguri	1.48	
Balurghat U.A	1.03	LGR
Alipurduar M	0.98	
Cart Road	0.90	
Gairkata	0.80	
Koch Bihar M	0.49	VLGR
Alipurduar Rly Jn	-2.54	NGR

Source: Calculated from Census of India, 1981-2011



As there is a serious lack of urban centre specific studies, it is almost impossible to explain growth trends of each and every one of them. However, an attempt can be made to highlight some of the observations, as follows:

- Cities like Maheshtala, Rajpur-Sonarpur, Bidhannagar, Dum Dum, Barasat and Madhyamgram (Southern Region) exhibit very high growth rates over three decades. It can be attributed to its locational factor, i.e. proximity to Kolkata. A considerable number of service holders and businessmen live here, who are directly/indirectly linked to socio-economic dynamics of Kolkata. However, very high growth rates of Jamuria and Kulti in Western Region and Siliguri in North Bengal speak different stories. Jamuria and Kulti<sup>6</sup> have grown due to its core economic base, i.e. mining and manufacturing plants. The same logic is applicable to Haldia (Southern Region), which is centred on the dock complex and petrochemical plant. Siliguri is the main nodal trade, commerce and service centre in North Bengal. Apart from these, the higher growth rate of Bolpur (Western Region) is attributed to its educational and cultural hub, i.e. Visva-Bharati.
- Urban centres, primarily grown in the traditional industrial belt, along with both sides of Hooghly river, portray relatively slower growth rates. This list includes Konnagar, Champdani, Halisahar, Serampur and many others. A decline of traditional industries like jute is reflected in relatively slow population growth.
- It is significant to note the examples of a few urban centres, which have experienced ‘negative growth rate’ in terms of population size over three decades. These examples include ‘Project’ towns like Santaldih in Western Region, ‘Railway Junction’ towns like Alipurduar in North Bengal and Adra in Western Region, ‘Cantonment’ town like Barrackpur or ‘Defence Estate’ town like Ichhapur in Southern Region. This list shows that too much dependence on one single infrastructural project (like a power plant) or facility (like military establishment or railway junction) cannot propel the momentum of urbanisation for a longer period. The case of Kharagpur ‘Railway Settlement’ is also reflecting

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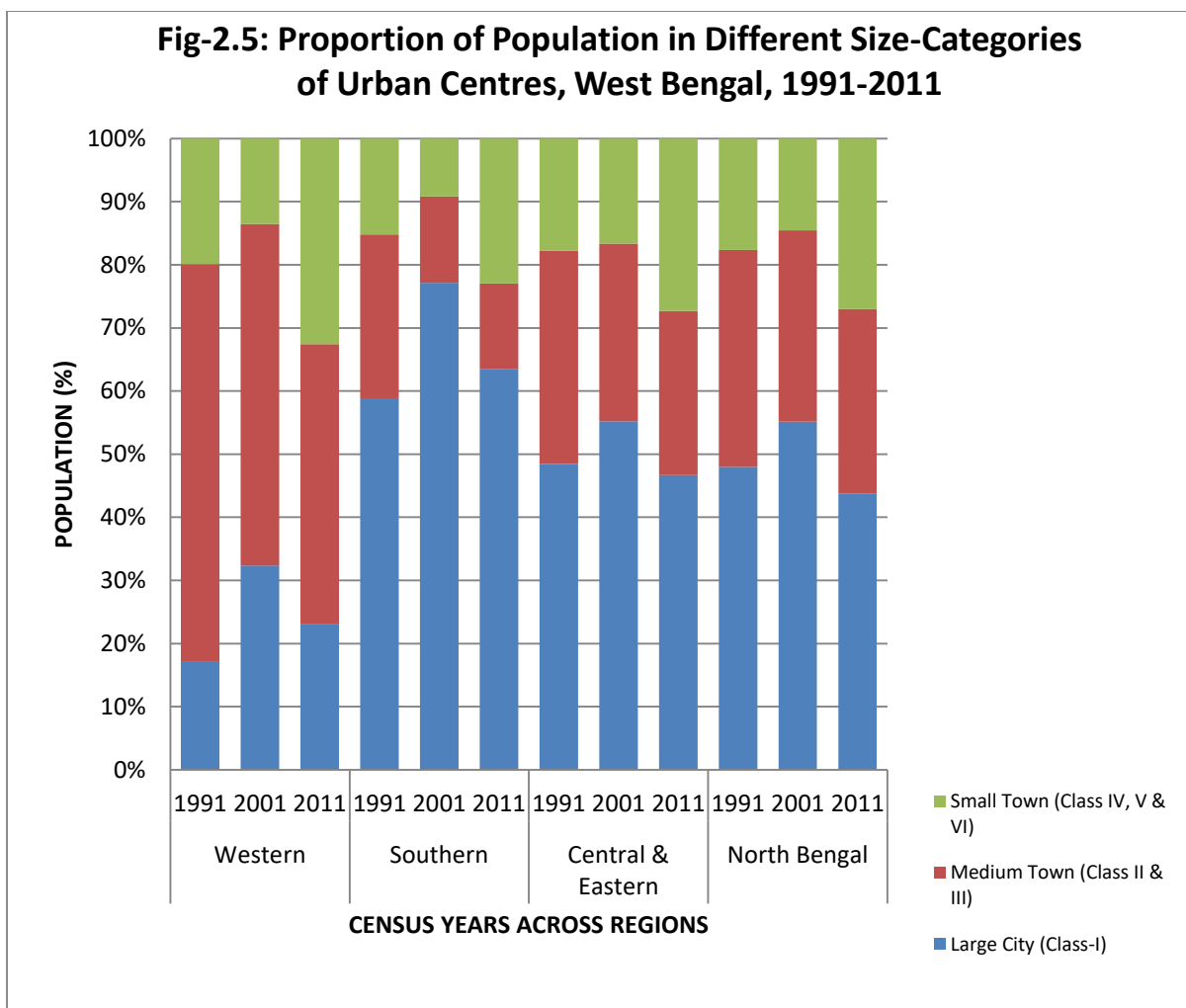
<sup>6</sup> In 2015, three ULBs of Jamuria, Kulti and Raniganj have been subsumed within the boundary of Asansol Municipal Corporation

an almost same scenario, with a growth rate of 0.03 percent. Even single economic activity based towns are also included in the list, like Haringhata (known for its Dairy Farm) in Central Eastern Region and Chittaranjan (known for its Railway Electric Locomotive manufacturing plant). Coincidentally, this dairy farm and the locomotive plant was set up in the same year, i.e. 1950. Perhaps, at the initial phase, these towns acted as important economic nodes, and that is why these got urbanised. But then, in the due course of time, with changing economic and socio-political scenario, these towns got stagnant and couldn't diversify their economic base. As a result, population growth rates started getting slower, and then negative. However, Farakka Barrage Township is an exception, as it shows a moderate growth rate of 1.06 percent.

- It seems quite difficult to comment upon the growth trends observed in medium-sized towns and smaller cities. Administrative and market factors, however, have definitely played a big role for the high to moderate population growth rates, especially as observed in urban centres like Raiganj (North Bengal), Medinipur (SR) and Bardhaman (CER).

### ***2.5.5 Size-class Structure***

The size-class structure of urban centres in West Bengal, over two decades from 1991 to 2011, shows that majority of the population still lives in Class-I cities. Gini's Coefficient values over these two decades show that more and more population is getting highly concentrated in Class-I cities. This is common in all the regions. In all the four regions, the proportion of the population in Class-I cities increased significantly between 1991 and 2001. After that, with the inclusion of a huge number of new Census Towns in the list of urban settlements, the proportion of population in small towns has gone up to a considerable extent. Over two decades, all the regions have reported declining shares in population in Medium-sized towns. Perhaps, such medium towns that are governed mostly by ULBs, may have failed to act as strong economic nodes or provide civic services to people.



*Source:* Calculated from Primary Census Abstract, 1991-2011

## 2.6 CONCLUSION

While looking at the processes, trends and patterns of urbanisation across regions, this chapter brings forward a narrative of West Bengal. Urban centres, varying across size-classes, are rooted in a historical context, ranging from Pre-British Period to Post-Independence period. Urbanisation was very much limited to the capitals of kingdoms during the pre-British period. In the British period, administrative and economic importance transformed many human settlements into ‘urban’ ones. In the post-independence phase, different levels of the administrative hierarchy have unleashed the momentum of urbanisation. As a result, varying sizes of urban centres have developed; majority of the Class-I urban centres are District Headquarters, and medium towns are

mostly Sub-Divisional Headquarters. The processes or factors of urbanisation vary over space and time, and that is why West Bengal has ‘mining towns’, ‘industrial towns’ as well as towns where ‘trade and transport’ is the major function. Except for CER, there is an increasing share of ‘main workers’ across regions over 2001-2011. While ‘manufacturing’ is of prime importance in the Southern Region, ‘trade and transport’ is the major function in Western Region and North Bengal. Apart from the giant presence of Kolkata city, and the fast-growing adjacent metropolitan region, the evolution and growth of urban centres across regions show a clear and distinct pattern. Old and large urban centres, often with decades of existence, are connected to major economic activities, demographic and administrative significance. Along with this, new Census Towns have come up in a big way, with prominent signs of economic restructuring, where the importance of service sector has been instrumental. Although the number of Statutory Towns has hardly increased. Urban growth rates are mostly higher than rural growth rates across regions over decades. People are getting concentrated mainly into Class-I cities. Mono-functional towns like ‘Railway Junctions’ and project-based towns show slow urban growth trends.

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## **Chapter-3. Regional Profile of Urban Infrastructure and Amenities, West Bengal**

### **3.1 INTRODUCTION:**

Different processes of urbanisation are closely related with urban infrastructure and amenities. By ‘Urban Infrastructure’, one denotes a set-up or system for provisioning of certain services. ‘Physical Infrastructure’ includes durable assets like water reservoirs, dumping grounds and sewerage treatment plants; whereas ‘Social Infrastructure’ includes a host of institutions like schools, colleges, hospitals, libraries and so on. The recent Census and NSSO figures demonstrate that for the country as a whole, overall urban infrastructure is yet to emerge as an important driver of economic growth, be it any type of infrastructure – water supply, sanitation, public transport and housing - a deficit is clearly visible<sup>1</sup>. In fact, government’s share of social services expenditure as part of GDP is meagre, and added to that ULB’s very little own revenue generation is pointing towards the fact that India’s urban infrastructure development is under a serious stress (Purohit, 2016). Urban infrastructure is built, operated and maintained to provide certain facilities or amenities to citizens – at household and community levels. Thus, ‘Urban Amenities’ includes water supply through stand-posts, drains to wash out liquid wastes and toilet blocks for hygienic removal of excreta. In fact, both urban ‘infrastructure’ and ‘amenities’ are important from the point of view of urban planning and development. A well-planned water supply network can only be helpful if storage system, pipelines and distribution points (i.e. taps) operate fruitfully and citizens access safe drinking water on a regular basis. Waste water outlets from households, if properly connected with functional drainage network, then will help in fruitful use of infrastructural assets like sewerage treatment plants. Not only proper collection of solid wastes (door-to-door as well as from public places), but also appropriate maintenance of dumping ground can

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<sup>1</sup> Shiromany attributes factors like rapid population growth and fast economic growth leading to sheer demand-supply gap in urban infrastructure, as retrieved from [http://www.teriin.org/projects/apn/pdf/day2/Financing\\_of\\_Infrastructure\\_Development\\_TERIGoa.pdf](http://www.teriin.org/projects/apn/pdf/day2/Financing_of_Infrastructure_Development_TERIGoa.pdf) on 22.02.2018

lead to an efficiently-managed clean tag for the concerned ULB. All these examples show how urban infrastructure and amenities – are both interrelated.

### **3.2 IMPROVED WATER SUPPLY AND SANITATION – WAY TOWARDS DEVELOPMENT:**

In terms of beneficial impact of urban infrastructure and associated amenities, water and sanitation holds paramount importance. Various studies, covering a range of different countries and regions over different time periods, broadly argue that improved water supply and sanitation are essential for overall socio-economic development of any community and region. ‘Sustainable access to safe water supply and basic sanitation’ was included within the Millennium Development Goal (MDG)-7 i.e. ‘ensure environmental sustainability’. While evaluating MDGs, United Nations has pointed out that a considerable progress in terms of achieving improved drinking water and sanitation targets. However, a huge number of poor people often live without access to basic services like sanitation, defecate openly and reside in slum-like conditions (United Nations, 2015). One should take note of this fact that planning, installation, operation and maintenance of water supply and sanitation system not only requires a lump sum capital investment, but also fruitful governance network vigorously pursued by responsible stakeholders. World Health Organisation (WHO), in one of its Executive Summaries, has observed that if twin targets of halving proportion of people not accessing improved water supply and sanitation are achieved, then “US\$1 invested would give an economic return of between US\$3 and US\$34, depending on the region” (WHO, 2015)<sup>2</sup>. According to this summary, improved water supply and sanitation system reduces diseases like diarrhoea and consequently occurrence of deaths. Indirectly speaking, it leads to less cost involved in hospitalisation care, drug purchase and transport. It is also important for the overall elimination of poverty. This summary also takes note of the factor of ‘accessibility’, improvement of which will allow more time available for productive work and leisure. Importantly, a Planning Commission of India-appointed High Powered Committee had noted that “A comprehensive conceptual framework of environmental sanitation must include not only the methods of disposal of human excreta but also of liquid and solid waste to which industries, hospitals and several other sources

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<sup>2</sup> [http://www.who.int/water\\_sanitation\\_health/wsh0404summary/en/](http://www.who.int/water_sanitation_health/wsh0404summary/en/) as viewed on 6.8. 2015

contribute in varying measures” (1995:2). Children are usually more vulnerable to water-related diseases, and hence, Bajpai and Saraya (2012:138) comment: “Lack of sanitation, hygiene, and safe drinking water contribute phenomenally to child mortality.” Recently, UNICEF has also emphasised on ‘hygiene’ as a significant factor, as only safe drinking water and improved sanitation are not sufficient for a healthy child, Hygienic practices like washing hands with soap before taking food and after using toilets are also very important<sup>3</sup>. Unclean water and lack of sanitation aggravates antimicrobial resistance (AMR), which causes death of around 7,00,000 persons every year, and could be more lethal than even cancer by mid-century if this trend continues. To check this hazard, one of the major initiatives is achieving universal access to safe water and sanitation, by prioritizing unserved communities in rural and urban areas. For water supply, the strategy should focus on access to treated water in its point of use and maintenance of local systems. Access to safe and hygienic sanitation include investment in toilet construction and promotion of behavioural change to stop open defecation (Singh, *The Times of India*).

In this context, it is important to clarify why ‘drinking water’ and ‘sanitation’ are key issues of urban West Bengal. The Census datasets from 1981 to 2011 point out that West Bengal is one of the ‘consistently high urbanised’ states, and other states like Punjab, Haryana, Gujarat, Maharashtra, Karnataka, Goa, Kerala and Tamil Nadu fall in this group. Another state is Mizoram in North-east India, but its geographical condition – and obviously the nature of ‘drinking water’ and ‘sanitation’ issues are considerably different. If one compares West Bengal with other states in terms of ‘drinking water’ and ‘sanitation’ parameters, through two indicators viz. ‘Percentage of Households with Tap Water’ and ‘Percentage of Households Practicing Open Defecation’ respectively, the real scenario becomes clear. Access to ‘piped tap water’ is relatively safe as it deters external contamination. Access to latrine is also considered as the single most important parameter in the sanitation front. Otherwise, open defecation may lead to serious health and hygiene problems in the local environment. As per Census 2011 figures, for both the indicators, West Bengal exhibits a pale image. ‘Percentage of Households with Tap Water’ is 55.6 in West Bengal, as compared to 90.2 in Goa and 76.4 in Punjab.

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<sup>3</sup>[https://www.unicef.org/wash/index\\_hygiene.html](https://www.unicef.org/wash/index_hygiene.html) as viewed on 10.8. 2015

‘Percentage of Households Practicing Open Defecation’ in West Bengal is 11.3 in West Bengal, as compared to 5.8 in Punjab and 10.7 in Karnataka. Moreover, a recent large sample study i.e. National Family Health Survey-4 (2015-16)<sup>4</sup> also notes that 93.5 percent urban households in West Bengal have access to ‘improved drinking water<sup>5</sup>’ and 62 percent have access to ‘improved sanitation facility<sup>6</sup>’. In terms of ‘drinking water,’ West Bengal is standing at the equal level with all these states. However, the ‘sanitation’ figures are comparatively poorer. Except for Maharashtra (59.8 percent), all other states show a better scenario (ranging from 98.7 in Kerala to 69.7 in Tamil Nadu). Therefore, it may be argued that availability and accessibility of ‘drinking water’ and ‘sanitation’ are two major issues that policymakers need to deal with.

### **3.3 DATABASE AND METHODOLOGY:**

Looking at the importance of water and sanitation in the development trajectory, this chapter takes recourse to available secondary data, so as to obtain a fair idea about the macro scenario, and identify information gaps which can be filled through field-based primary data and observations. One of the major datasets used in this chapter is ‘Household Series’, often short-formed as ‘H’ Series. This dataset, published by Census of India, provides quantitative information on house structure; house materials; availability of amenities like bathroom, latrines, electricity etc; use of fuels and availability of assets and so on. For the purpose of this research work, this chapter is mainly focused on ‘water’ and ‘sanitation’. Hence, only a few amenities like ‘drainage’, ‘bathing facilities’, ‘drinking water’ and ‘latrines’ – which are somewhat related to local bodies and their civic service provisions, have been considered. The biggest advantage of this dataset is the ‘scale’ factor i.e. availability of data at different levels like state, district, urban centre and even ward level. On the other hand, comparability of data across Census periods is a challenging issue. From 1991 to 2011, the scope of this dataset has been expanded significantly, thus helping researchers and policymakers to a great

<sup>4</sup> [http://rchiips.org/NFHS/factsheet\\_NFHS-4.shtml](http://rchiips.org/NFHS/factsheet_NFHS-4.shtml) as viewed on 04.09.2017

<sup>5</sup> Piped water into dwelling/yard/plot, public tap/standpipe, tube well or borehole, protected dug well, protected spring, rainwater, community RO plant

<sup>6</sup> Flush to piped sewer system, flush to septic tank, flush to pit latrine, ventilated improved pit (VIP)/biogas latrine, pit latrine with slab, twin pit/composting toilet, which are not shared with any other household

extent. Another supporting dataset on household amenities is published by the National Sample Survey Organisation (NSSO). NSSO (2014) feels that:

“Housing is a basic requirement of human well-being. Along with the requirement of shelter, other facilities in the micro environment of housing such as type of dwelling unit, drinking water, sanitation, hygiene, etc., form vital components of overall quality of life of the population”

NSSO (2014) also observes that any individual, living in a *‘healthy and sustainable environment’* is more capable to produce goods and services efficiently, thereby leading the country towards growth and development. For this kind of suitable environment, both availability and sustainability of amenities like drinking water and latrine facilities are equally important. Therefore, NSSO collects data on different amenities like drinking water, latrines, bathrooms, and so on. This dataset is quite helpful as one can make an in-depth study on almost all dimensions of every amenity. For example, a researcher looking at water supply facilities, not only gets data on ‘drinking water’ but also ‘water for all household activities’. Even in case of ‘drinking water’, the dataset gives the researcher an opportunity to look at issues like sufficiency, quality, methods of water treatment and travelling and waiting time incurred for collecting water.

Apart from these two major sources, some supporting data sources have also been consulted. One of these is National Family Health Survey (NFHS)-4, 2015-16, from where large sample-based estimates on drinking water and latrine types are available. Another one is the database on solid waste management, provided by Central Pollution Control Board's Annual Review Reports.

### **3.4 STATUS OF PHYSICAL INFRASTRUCTURE:**

#### ***3.4.1 Drainage System:***

Town Directory data published by Census of India (2011) for West Bengal shows that 74 urban centres in North Bengal have ‘open’ drainage system. Even Class-I cities like Raiganj and Jalpaiguri have ‘open’ drainage system. 40 urban centres possess both ‘closed’ and ‘open’ drainage systems. Except for Bamangram, rest of the urban centres

does not have any drainage system. Bamangram, a Census Town in Malda district, reports 'closed' drainage system.

Table-3.1: System of Drainage in Urban Centres, West Bengal, 2011

<b>Region</b>	<b>Closed</b>	<b>Open</b>	<b>Both</b>	<b>No</b>	<b>Data not Available</b>
Western	0	28	18	5	9
Southern	6	256	139	67	16
Central & Eastern	9	101	55	34	52
North Bengal	1	74	40	15	2

Source: Calculated from 'Town Directory', Census of India, 2011

The picture is not very different in other regions of West Bengal. In the Western region, not a single urban centre exhibits 'closed' drainage. In the Southern region, Bidhannagar (M) and Nabadiganta Industrial Township possess 'closed' drainage system, the reason being their adjacent location to Kolkata Municipal Corporation. Unfortunately, there are as many as 52 urban centres in the Central and Eastern region, for which data is not available.

#### **3.4.2 Solid Waste Management (SWM):**

A report (2000) published by CPCB shows that Class-I cities in West Bengal generate slightly less quantity of per capita solid waste i.e. 0.321 kg/day, as compared to all-India average of 0.376 kg/day. A study done by Nema (2004), as cited in Sharholy *et al* (2008), shows that West Bengal generates 158 grams Municipal Solid Waste (MSW) per capita per day, as compared to national figure of 377 gm/capita/day. Out of this amount, West Bengal disposes of 117 gm/capita/day, while the matching figure for India is 273 gm/capita/day. Therefore, the collection efficiency<sup>7</sup> is 74 percent and 72 percent respectively. In 2012, an estimate says that West Bengal generates 8674 MT solid waste per day, out of which 7196 MT is collected, (with a collection efficiency of 83 percent) and only 1415 MT are treated (Planning Commission, 2014). It has also been estimated that Municipal Corporations with more than 10 million population generate 3000-4000 MT waste per day on an average. The corresponding figures for ULBs in Kolkata

<sup>7</sup> Collection Efficiency (%) = (Solid Waste Collected/Solid Waste Generated)\*100

Metropolitan Area are 150-200 MT, and 30-50 MT for small ULBs having 'rural nature' (State Policy and Strategy on SWM, Government of West Bengal).

In case of analysing SWM situation, one encounters lack of household level data in India. Only NSSO attempts to provide a partial picture. In NSSO data (2014), one of the key indicators of the micro environment is 'proportion of households with garbage disposal arrangement'. As far as the indicator is concerned, West Bengal (681 per 1000 households) is quite laggard, trailing well behind the national figure i.e. 758 per 1000 households. But, this sketchy and skewed data is not very much useful, as it lacks detailed information like estimated quantity of solid waste generated, transported and disposed of, regularity and frequency of collection and so on.

The CPCB Annual Reports (starting from 2000-01 to 2014-15) provide a detailed information on the status of SWM in Statutory Towns of West Bengal. Department of Urban Development, Government of West Bengal took the responsibility of Municipal SWM rule implementation. Initially, and obviously apart from the city of Kolkata, the focus was on the processing of solid wastes in Class-II and III towns under KMDA. Another important step was the arrangement of training programmes for concerned officials and NGOs. Subsequently, an area of 10 acres land was identified for waste disposal facilities for North Dum Dum and New Barrackpore Municipalities (having population of 220042 and 83192, respectively, as per Census 2001 figures). The objective was to develop it as a 'model' facility so that success of it could be replicated to other ULBs. It was developed on a cost-sharing basis, where the concerned ULB was supposed to bear 50 percent of the project cost. Kolkata and Asansol were covered for preparation of action plan for MSWM. Identification of land sites and application for authorizing MSWM projects had become a regular practice in West Bengal, thereby showing some sort of action from ULBs. At the top level, West Bengal had come forward with schemes like Solid Waste Mission. 119 out of 126 local bodies have started taking some steps towards the success of this mission. 13 urban centres (10 in KMDA and only 3 non-KMDA) had achieved the target of covering almost all wards with house-to-house waste collection facility. Within North Bengal, only Cooch Behar was able to do this.

Table-3.2: Status of House-to-House Collection of MSW in Statutory Towns, West Bengal, 2000-15

Name of Urban centre	Status	Year
Barrackpore, North Dum Dum, Bidhannagar, Kamarhati, Khardaha, Madhyamgram, Naihati, Rajarhat-Gopalpur, South Dum Dum, Kulti, Suri, <i>Cooch Behar</i>	Almost all wards covered	2004-05
Barrackpore, Bidhannagar, Dum Dum, Kamarhati, Kanchrapara, Khardaha, Madhyamgram, Naihati, New Barrackpore, North Barrackpore, North Dum Dum, Rajarhat-Gopalpur, South Dum Dum, Rajpur-Sonarapur, Kulti, Suri, Bhadreswar, Rishra, Uttarpara-Kotrung, Bally, Howrah, Kolkata, Kharagpur, Kandi, Nabadwip, <i>Cooch Behar, Siliguri, Balurghat, English Bazar</i>	Collection of waste: >50% coverage of households	2005-06; 2006-07; 2007-08
120 out of 126 ULBs	Partial Implementation of MSWM system - collection, segregation, storage, transportation	2007-08
All 127 ULBs (good initiatives especially in Kolkata, North Dum Dum, New Barrackpore, Maheshtala, Chandannagar, Bhadreswar, Kalyani and <i>Cooch Behar</i> )	Partial Implementation of MSWM system - collection, segregation, storage, transportation	2008-09
All 127 ULBs (good initiatives especially in Kamarhati, Budge Budge, Garulia, Bally, Durgapur, Jamuria, Raniganj along with other ULBs mentioned in the 2008-09 list)	Partial Implementation of MSWM system - collection, segregation, storage, transportation	2009-10; 2010-11; 2011-12



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Good Practices observed in all 127 ULBs	Partial Implementation of MSWM system - collection, segregation, storage, transportation	2014-15
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*Note:* Towns located in North Bengal are marked in Italics form

*Source:* Compiled from Annual Review Reports, Solid Waste Management, CPCB, 2000-2015

### ***Current Methods of Solid Waste Disposal in West Bengal***

In West Bengal, solid waste disposal and processing are mainly done in two ways – one is sanitary landfill and the second is compost plants, especially vermi-compost plants (Table-3.3).

Recently, Barasat Municipality has initiated construction of a waste-to-energy plant using pyrolysis gasification. According to the details available with the West Bengal Pollution Control Board (WBPCB), a selected company will establish a Biogas cum electricity generation plant processing 5 Tons Per Day (TPD) segregated biodegradable waste for Barasat Municipality.

Apart from this, Howrah Municipal Corporation (HMC) has also been trying to develop a waste-to-energy (Refuse Derived Fuel, RDF in short) project since 2007-08. Now, it is also trying to implement a Public-Private Partnership project to convert unsegregated municipal solid waste into energy, through the assistance of a German Company (i.e. INTEC Micro Powder AG). This aspiring project, having a value of Rs. 3400 Crores, will generate 70 MW electricity per hour, and provide employment to 300 people at Phase-I and another 200 at Phase-II. As this electricity will be sold to CESC, a well-known power utility company, after 20 years, this project cost will be recovered and additional revenue will be available with the exchequer of HMC. However, information about this project is not available with the latest CPCB Annual Review Report on MSW, 2014-15.

(Source:

[http://web.wbpcb.gov.in/html/downloads/Corrigendum\\_EOI\\_Barasat.pdf](http://web.wbpcb.gov.in/html/downloads/Corrigendum_EOI_Barasat.pdf) as on 26.11.2016; Annual Review Report, CPCB, 2007-08; <http://www.wbreda.org/municipal-solid-waste-to-energy/> as viewed on 29.11.2016; “Garbage powers a bright idea- NAME OF THE PEAK? Mount GARBAGE. SITE? BELGACHHIA, HOWRAH”, *The Telegraph*, Calcutta Edition, November 27, 2015)

In West Bengal, solid waste disposal and processing are mainly done in two ways – one is sanitary landfill and the second is compost plants, especially vermi-compost plants (Table-3.3). Recently, Barasat Municipality has initiated construction of a waste-to-energy plant using pyrolysis gasification. According to the details available with the West Bengal Pollution Control Board (WBPCB), a selected company will establish a Biogas cum electricity generation plant processing 5 Tons Per Day (TPD) segregated biodegradable waste for Barasat Municipality<sup>8</sup>. Apart from this, Howrah Municipal Corporation (HMC) has also been trying to develop a waste-to-energy (Refuse Derived Fuel, RDF in short) project since 2007-08. Now, it is also trying to implement a Public-Private Partnership project to convert unsegregated municipal solid waste into energy, through the assistance of a German Company (i.e. INTEC Micro Powder AG). This aspiring project, having a value of Rs. 3400 Crores, will generate 70 MW electricity per hour, and provide employment to 300 people at Phase-I and another 200 at Phase-II. As this electricity will be sold to CESC, a well-known power utility company, after 20 years, this project cost will be recovered and additional revenue will be available with the exchequer of HMC<sup>9</sup>. However, information about this project is not available with the latest CPCB Annual Review Report on MSW, 2014-15.

Table-3.3: Status of Disposal and Processing of MSW in Statutory Towns, West Bengal, 2000-15

Name of Urban Centre	Status	Year
Operational'(02): Bhadreswar, Chandannagar; 'Ready to Use (09)': North Dum Dum, North Barrackpore, Dum Dum, Baranagar, Garulia, Barrackpore, Bansberia, Hooghly-Chinsurah, South Dum Dum (TOTAL 11)	Construction of landfill facilities	2008-09

<sup>8</sup> [http://web.wbpcb.gov.in/html/downloads/Corrigendum\\_EOI\\_Barasat.pdf](http://web.wbpcb.gov.in/html/downloads/Corrigendum_EOI_Barasat.pdf) as on 26th November, 2015

<sup>9</sup> Annual Review Report, CPCB, 2007-08; <http://www.wbreda.org/municipal-solid-waste-to-energy/> as viewed on 29.11.2016; “Garbage powers a bright idea- NAME OF THE PEAK? Mount GARBAGE. SITE? BELGACHHIA, HOWRAH”, *The Telegraph*, Calcutta Edition, November 27, 2015

39 out of 42 ULBs under Kolkata Metropolitan Area	Waste Processing and Landfill facility (either developed or developing)	2008-09
Operational'(05): Bhadreswar, Chandannagar, Kalyani, Kolkata, <i>Kurseong</i> ; 'Ready to Use'(14): Durgapur, Jamuria, Raniganj, North Dum Dum & New Barrackpore, Garulia, North Barrackpore, Barrackpore, Kamarhati, Budge Budge, Bansberia, Hooghly-Chinsurah, Bally and <i>Balurghat</i> ; 'Planned': (52 ULBs)	Waste Processing Plants	2009-10
Operational'(09): Bhadreswar, Chandannagar, Kolkata, Kalyani, Garulia, North Barrackpore, Kamarhati, Durgapur, Raniganj; 'Under Construction'(04): Barrackpore, Budge Budge, Bansberia, Hooghly-Chinsurah; 'Proposed': (41 ULBs)	Compost Plants	2011-12
Operational'(11): Garulia, North Barrackpore, Kamarhati, Bhadreswar, Chandannagar, Durgapur, Asansol, Jamuria, Raniganj, Bally, Haldia; 'Ready to Use'(07): Dum Dum, South Dum Dum, Baranagar, Barrackpore, Budge Budge, Bansberia, Hooghly-Chinsurah; 'Planned': (40 ULBs)	Sanitary Landfill Sites	2011-12
Operational'(11): Kolkata, Garulia, North Barrackpore, Kamarhati, Bhadreswar, Chandannagar, Durgapur, Jamuria, Raniganj, Bally, Haldia; 'Ready to Use'(10): Barrackpore, Budge Budge, Bansberia, Hooghly-Chinsurah, Uttarpara-Kotrung, Konnagar, Rishra, Serampore, Champdani and Baidyabati; 'Planned': (28 ULBs)	Compost Plants	2012-13
'Operational'(12): Kulti added to the list of 11 ULBs mentioned in 2011-12; 'Ready to Use'(13): Apart from 7 ULBs mentioned in 2011-12 list, Uttarpara-Kotrung, Konnagar, Rishra, Serampore, Champdani and Baidyabati; 'Planned': (28 ULBs)	Sanitary Landfill Sites	2012-13; 2013-14

'Operational'(08): Bhadreswar, Chandannagar, Kolkata, Bally, Garulia, North Barrackpore, Kamarhati, Haldia; 'Ready to Use' (10): same 10 ULBs as in 2012-13; 'Planned' (28 ULBs)	Compost Plants	2013-14
Operational'(14): Bhadreswar, Chandannagar, Bally, Kolkata, Garulia, North Barrackpore, Kamarhati, Haldia, North Dum Dum, New Barrackpore, Panihati, Maheshtala, Baidyabati and Uttarpara Kotrung; 'Ready to Use'(09): Barrackpore, Budge Budge, Bansberia, Hooghly-Chinsurah, Konnagar, Rishra, Serampore and Champdani); 'Under Construction'(28): Ashoknagar-Kalyangarh, Habra, Gobardanga, Taki, Basirhat, Kalna, Barddhaman, Rampurhat, Arambag, Tarakeshwar, Berhampore, Beldanga, Nabadwip, Krishnanagar, <i>Cooch Behar, Mekhliganj, Tufanganj, Haldibari, Darjeeling, Kurseong, Mirik, Kalimpong, Alipurduar, Jalpaiguri, Mal, Raiganj, Kaliyaganj and Old Malda</i>	Compost Plants (Total 14 Compost and 9 Vermi-Compost Plants)	2014-15
'Operational'(20): Garulia, North Barrackpore, Kamarhati, Dum Dum, South Dum Dum, Baranagar, Barrackpore, Bhadreswar, Bally, Haldia, Uttarpara-Kotrung, Konnagar, Rishra, Serampore, Champdani and Baidyabati; 'Ready to Use'(3): Budge Budge, Bansberia, Hooghly-Chinsurah; 'Planned' (29): Ashoknagar-Kalyangarh, Habra, Gobardanga, Taki, Basirhat, Kalna, Barddhaman, Rampurhat, Arambag, Tarakeshwar, Kolkata, Berhampore, Beldanga, Nabadwip, Krishnanagar, <i>Cooch Behar, Mekhliganj, Tufanganj, Haldibari, Darjeeling, Kurseong, Mirik, Kalimpong, Alipurduar, Jalpaiguri, Mal, Raiganj, Kaliyaganj and Old Malda</i>	Sanitary Landfill Sites	2014-15

*Note:* Towns located in North Bengal are marked in Italics form

*Source:* Compiled from Annual Review Reports, Solid Waste Management, CPCB, 2000-2015

The findings of NIUA Sample Survey (1999) reveal that 13 Class-I cities of West Bengal exhibit a mean value of collection efficiency of 83.2 percent, and few cities like Barasat and Siliguri report relatively lower collection efficiency. Among Class-II towns, Chakdaha, Contai and Jangipur show poorer collection efficiency. On the other hand, few urban centres like North Barrackpore, Baharampur, Santipur, Balurghat, Bishnupur and Cooch Behar shows 100 percent collection efficiency. This dataset shows some interesting observations. Barasat, even after collecting solid waste three times per day, is able to attain only 45.3 percent collection efficiency. This may be attributed to a larger population size and larger coverage of wards. On the other hand, Santipur, while collecting solid waste twice a week, is able to achieve 100 percent collection efficiency. It may be due to the fact that a relatively smaller number of wards are covered and therefore a lower amount of solid waste is generated.

Table-3.4: An Overview of Collection Efficiency(SWM) in Selected ULBs of West Bengal, 1999

Size-Class	Region	Urban Centre	Solid Waste Generated (MT/day)	Solid Waste Generated by Source (MT/day)		Solid Waste Collected (MT/day)	Collection Efficiency (Percentage)
				Domestic	Non-domestic		
Class-I	WR	Kolkata M.Corp	2500	1375	1125	2100	84.0
		Bankura M	28	10	18	26	92.9
		Barasat M	53	45	8	24	45.3
	SR	Halisahar M	20	8	12	17	85.0
		Medinipur M	63	33	30	53	84.1
		North Barrackpore M	40	30	10	40	100.0
		Asansol M.Corp	78	52	26	60	76.9
		Baharampur M	81	59	22	81	100.0
		Barddhaman M	100	55	45	75	75.0
		Krishnanagar M	50	25	25	38	76.0
	CER	Santipur M	33	20	13	33	100.0
	NB	Balurghat M	33	18	15	33	100.0
		Siliguri M.Corp	240	202	38	150	62.5
WR		Bishnupur M	13	11	2	13	100.0
Chakdaha M		27	20	7	7	25.9	
SR	Contai M	29	22	7	9	31.0	
Class-II	CER	Jangipur M	33	11	23	18	54.5
		Katwa M	37	14	23	36	97.3
		Raniganj M	54	36	18	41	75.9

	Cooch Behar M	21	10	11	21	100.0
	Darjeeling M	50	15	35	30	60.0
NB	Jalpaiguri M	25	20	5	21	84.0

Note: M.Corp – Municipal Corporation; M – Municipality

Source: Statistical Volume-III: Solid Waste Management, 1999 in 'Status of Water Supply, Sanitation and Solid Waste Management in Urban India', NIUA, June, 2005

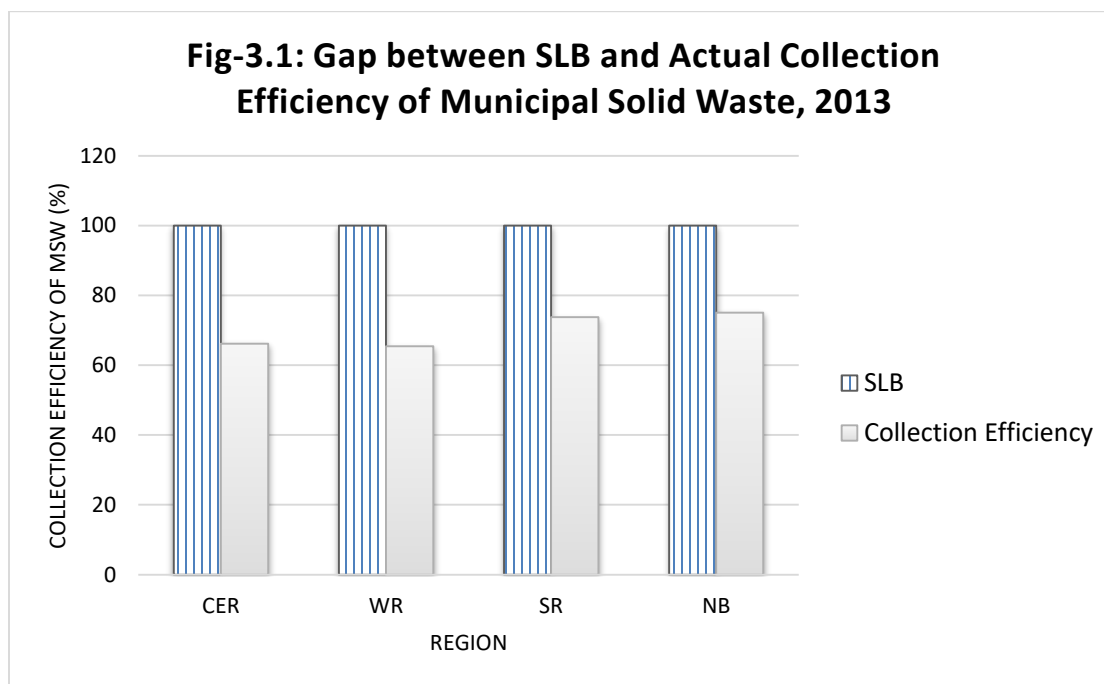
Table-3.5: An Overview of SWM System in Selected ULBs of West Bengal, 1999

Size-Class	Region	Urban Centre	Daily Frequency of SW Collection	Weekly Frequency of SW Collection	Solid Waste Transported (MT/ day)	Solid Waste Collected but not Transported per day
		Kolkata M.Corp	1		2100	0
	WR	Bankura M	1		26	0
		Barasat M	3		24	0
		Halisahar M	1		17	0
		Medinipur M	2		53	0
	SR	North Barrackpore M	1		40	0
		Asansol M.Corp	1		60	0
		Baharampur M	1		81	0
		Barddhaman M	2		75	0
		Krishnanagar M			37	1
	CER	Santipur M		2	33	0
		Balurghat M	1		33	0
Class-I	NB	Siliguri M.Corp	1		150	0
	WR	Bishnupur M	1		13	0
		Chakdaha M		2	7	0
	SR	Contai M	2		9	0
		Jangipur M	1		18	0
		Katwa M	1		36	0
	CER	Raniganj M	1		41	0
		Cooch Behar M	2		21	0
Class-II		Darjeeling M	1		30	0
	NB	Jalpaiguri M	1		20	1

Note: M.Corp – Municipal Corporation; M – Municipality

Source: Statistical Volume-III: Solid Waste Management, 1999 in 'Status of Water Supply, Sanitation and Solid Waste Management in Urban India', NIUA, June, 2005

One of the important achievements lauded by CPCB is that its state counterpart has done consistently well in authorizing MSWM projects. From 2001 to 2014, WBPCB has granted authorisations to 98 out of total 127 ULBs. Another important issue is that West Bengal lies among 15 states, where the ambient environment (air; groundwater; VOC/Methane/Leachate) of MSW disposal sites (landfill/dumpsite) is monitored. Here, ULBs monitor their own disposal sites.



*Source: Compiled from 4<sup>th</sup> SFC Report, West Bengal, 2016-17*

In the process of making an assessment of civic services, it would be worthwhile to look at the gaps between the Service Level Benchmarks (SLBs) and actual levels of services. Benchmarks broadly refer to desired levels that the services need to achieve and deliver. The SLBs related to urban water supply and sanitation was standardised by the Central Public Health and Environmental Engineering Organisation (CPHEEO), a technical annex of the approving authority of the Ministry of Urban Development (MoUD). Figure-3.1 (based on 4<sup>th</sup> SFC Report, West Bengal, 2016-17) reveals that the gaps between the SLB and collection efficiency are relatively lower in North Bengal. But one has to interpret the figures with a note of caution. Collection efficiency figures do not indicate about the extent of coverage of ULBs. It may be quite true that in a large city

like Siliguri SWM system is operating in all the wards, but a small town like Haldibari reports only a partial coverage. While the ULB in Haldibari can collect the entire load of solid waste from the selected wards, it seems quite impossible for Siliguri to do the same from all wards due to logistics issues.

### **3.5 HOUSEHOLD AMENITIES IN WEST BENGAL: WHERE DOES IT STAND?**

It would be worthwhile here to look at latest Census and NSSO data for judging the rank of West Bengal in comparison to national figures.

#### ***3.5.1 Drainage System:***

Since 2001, Census of India has been publishing data on waste water outlet connectivity to the drainage system. There are two types of drainage system – ‘closed’ and ‘open’. If one looks at the overall scenario of drainage in urban India, barring few large cities, drainage system, by and large, belongs to the second type. Census of India (2011) data reveals that waste water outlets of around 42 percent households in West Bengal is connected to ‘open’ drainage system, and only 24 percent is connected to ‘closed’ drainage system. In contrary, the corresponding all-India figure is 37 and 44 percent, respectively. In India, almost 18 percent households are not availing connectivity to any type of drainage, and the figure is alarming in West Bengal, i.e. approximately 33 percent. This same scenario is reflected in NSSO's large-scale sample-based estimates. NSSO data on ‘improved drainage facility’<sup>10</sup> also shows that West Bengal is lagging far behind the all-India figure in 2012. While only 648 per 1000 households access ‘improved drainage facility’ in West Bengal, the corresponding all-India figure is as high as 825. While 299 per 1000 households lack drainage facility in West Bengal, the matching figure is 125 in India (NSSO, 69<sup>th</sup> Round, Report no. 556, 2014).

#### ***3.5.2 Bathing Facilities:***

Census of India has been bringing out data on bathing facilities since 2001. In 2001, data on the number of ‘households having bathroom facility within house’ was available. Now, in 2011, one can find data on ‘Bathing facility’ divided into ‘Bathroom’ and ‘Enclosure without Roof’. The second sub-category is quite important as "it is mainly found in lower-income households, who cannot afford a decent bathroom, but at least

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<sup>10</sup> including ‘underground’, ‘covered pucca’ and ‘open pucca’ system



have an enclosure ensuring hygiene, privacy and dignity of individuals" (Saha, 2013:78). In India, around 77 percent households have bathrooms and 9 percent use enclosures without the roof for bathing purpose. In West Bengal, however, the corresponding figures are 60 and 11 percent, respectively. That means, almost 29 percent households do not have any bathing facility in West Bengal as compared to only 13 percent in India. NSSO 69<sup>th</sup> Round data (2012) also exhibits that there are 266 per 1000 households without bathroom facility in West Bengal, as compared to the all-India figure of 167 per 1000 households. Within the category of ‘bathrooms’, NSSO data is divided into two sub-categories, i.e. ‘attached’ bathrooms and ‘detached’ bathrooms. Both in all-India and West Bengal figures, ‘attached’ bathrooms are more common than ‘detached’ bathrooms.

### 3.5.3 Drinking Water:

So far as main sources of drinking water are concerned, Census of India (2011) reveals that both India and West Bengal depend primarily on ‘Tap’ and ‘Hand Pump’ / ‘Tube Well’ (Table-3.6).

Table-3.6: Water Supply at Household level – India and West Bengal, 2011 and 2012

	<b>all- India</b>	<b>West Bengal</b>
<b>Main Sources of Drinking Water, 2011</b>		
1. Tap	70.6%	55.6%
2. Well	6.2%	4.5%
3. Hand Pump/ Tube Well	20.8%	38.3%
4. Others	2.5%	1.5%
<b>Estimated Figures for 2012</b>		
No. of per 1000 households accessing improved sources of drinking water	953	947
No. of per 1000 households having sufficient drinking water throughout the year	896	935
No. of per 1000 households having drinking water facilities within premises	768	490
Average time (in minutes) taken in a day by household members to fetch drinking water from outside the premises	15	10

Average waiting time (in minutes) in a day for household members at the principal source of drinking water at outside the premises	16	16
No. of per 1000 households treating drinking water by any method	544	315
No. of per 1000 households getting perceived good quality of drinking water	881	889
No. per 1000 households with access to the principal source of drinking water in the form		
I) Exclusive use	468	304
II) Common use in the building	253	188
III) Community use	190	454
No. per 1000 households who are not required to pay water charges	457	882

*Source:* Census of India, 2011 and NSS 69<sup>th</sup> Round, Report no. 556, 2014

- It is observed that West Bengal is ahead of estimated all-India figures in only one parameter i.e. sufficiency of water. It is perhaps due to a substantial amount of rainfall and availability of ground water.
- In terms of accessibility of improved sources of water and receiving good quality of water, national and state figures are closely comparable. But, so far as availability of drinking water within premises is concerned, West Bengal is lagging far behind. A considerably higher number of households travel up to 0.5 km and mostly depend on community water sources. Hence, on an average, members belonging to such households spend 26 minutes daily (10 minutes travelling and 16 minutes waiting time) for accessing drinking water. Therefore, one of the prime objectives of government-sponsored water supply system should be on directly covering as many households as possible. It will automatically reduce household's burden to collect and transport water.
- Another issue is 'treatment' of water. An estimated 889 per 1000 households perceive that they fetch good quality of drinking water. But, public health experts often argue that it is always better to treat water before drinking. As West Bengal is nowhere close to national figures in terms of water treatment at households, need of awareness campaigning is optimally felt.

- The last but not the least important issue is charges for supplied water<sup>11</sup>. Water supply through the government-laid network of public stand-posts is often regarded as a free commodity in West Bengal, and hence an estimated 882 per 1000 households are not required to pay any water charges. Given the present scenario of under-coverage of water supply at premises, it would be interesting to see whether the government may think about collecting affordable water charges from the upper and middle-class section of people, and thereby completely focus on free, good quality and sustainable water supply only to poor people.

### 3.5.4 Latrine Facility:

Although the household level data on ‘toilet’ availability has been published in 1991, its scope has been enlarged considerably in the following two Census publications i.e. 2001 and 2011. Census (2011) data exhibits that West Bengal is in a better position than India as a whole. In India, around 81 percent households have latrines within premises, while the matching figure is 85 percent in West Bengal. It should be appreciated here that both all-India and West Bengal figures show that majority of the households access improved types of latrines like ‘Flush’ / ‘Pour Flush’ and ‘Pit’ within premises. On the other hand, open defecation is quite rampant, both in India and West Bengal (Table-3.7).

Table-3.7: Types of Latrines (in Percentages of Households) – India and West Bengal, 2011

	Flush/Pour Flush latrine connected to				Pit Latrine	
	Latrine within premises	Piped sewer	Septic Tank	Other	with Slab/Improved/Ventilated Pit	without Slab/Open Pit
India	81.36	32.68	38.15	1.74	6.42	0.67
West Bengal	85.01	13.58	45.44	2.54	21.46	1.05

<sup>11</sup> Delhi’s case study shows the ‘vicious circle’, i.e. shortage of resources – bad quality of service delivery – discouraged people’s unwillingness to pay higher user charges – further deterioration of services (Bandyopadhyay and Bagchi, 2013:24)

	Service Latrine			Alternative source		
	Night soil disposed Open Drain	Human	Animal	Latrine not within premises	Public Toilet	Open
India	1.20	0.26	0.23	18.64	6.02	12.63
West Bengal	0.35	0.23	0.37	14.99	3.74	11.25

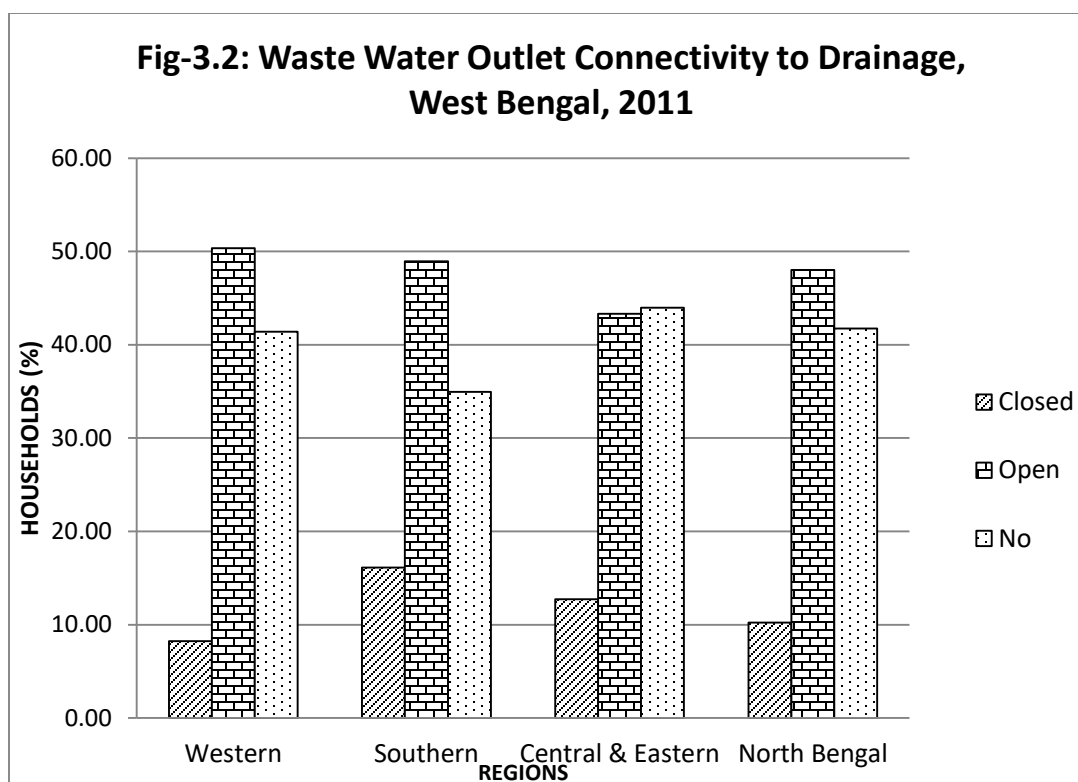
*Source:* Calculated from Census of India, 2011

According to the NSSO data pertaining to 2012, aforesaid observations also get confirmed. In West Bengal, 54 per 1000 households do not have latrines as compared to 88 in India. 932 per 1000 households in West Bengal have 'improved' source of latrines as compared to 896 in India. But, as far as the exclusive use of latrines is concerned, all-India figure (639 per 1000 households) is higher than West Bengal (574).

### **3.6 HOUSEHOLD AMENITIES - REGIONS OF WEST BENGAL**

#### ***3.6.1 Drainage System:***

Urban centres mostly have 'open' drainage system and different regions of West Bengal, including North Bengal, are no exception to it. Waste water outlet connectivity to open drains hover around 48-50 percent households in all the four regions. As far as connectivity to closed drains is concerned, Southern Region (approximately 16 percent) is way forward than Western Region (around 8 percent). An absence of drainage connectivity at the household level is still a great obstacle, as the value ranges between 44 percent in Central and Eastern Region and 35 percent in Southern Region. North Bengal, as a region, is not as good as Southern Region but is closely comparable to other two regions, namely Western and Central and Eastern Region (Fig-3.2).



*Source:* Calculated from Household Tables, Census of India, 2011

In North Bengal, at the district level, large shares of households report waste water outlet connectivity to open drainage system. It ranges from as low as 33 percent in Malda to 60 percent in Darjeeling district. A comparative analysis of 2001 and 2011 dataset reveals a certain degree of improvement in drainage availability. But, Malda district shows opposite results. The absence of drainage system has become more acute here as 49 percent urban households do not access drainage system in 2011, and there has been a 7 percentage point increase of such households from 2001 (Table-3.8).

Table-3.8: Waste Water Outlet Connection with Drainage in Districts, Urban North Bengal, 2001 and 2011

District	Percentage of Urban Households					
	Closed Drainage		Open Drainage		No Drainage	
	2001	2011	2001	2011	2001	2011
Darjeeling	13.74	14.06	58.47	60.07	27.79	25.87
Jalpaiguri	4.18	5.42	43.83	49.24	52.00	45.34
Cooch Behar	4.71	5.42	42.94	53.62	52.35	40.96

Uttar Dinajpur	4.62	10.66	26.61	37.35	68.77	52.00
Dakshin Dinajpur	3.31	11.74	33.74	46.78	62.95	41.49
Malda	18.02	17.59	39.74	32.87	42.24	49.54

*Source:* Calculated from Census of India, 2001 and 2011

A more detailed picture can be observed at the size-class level (Table-3.9). Except for Class-VI towns, all other urban centres report an increase in the availability of drainage connectivity. This can be broadly attributed to the overall increase in people's income, sanitation-related awareness and active role of local bodies. One can also find some differences between small towns and medium and large urban centres. The problem of unavailability of drainage system connectivity increases from Class-I cities to medium towns and as one goes down to small towns. In last ten years, all the Class-I cities have shown improvement in drainage system connectivity – both in ‘open’ and ‘closed’ types. But, even within Class-I cities, around 24 percent households are not connected to drainage network in 2011.

Small towns report the decline in percentage shares of households with waste water outlet connectivity to ‘open drainage’. On the other hand, large and medium urban centres show increased connectivity in this type of drainage system. In large and medium urban centres, statutorily governed by Urban Local Bodies (ULBs), a considerable share of households is getting benefitted by government projects which emphasise on the construction of drains. To reach the target of covering all wards and households, ULBs tend to construct open drains.

Table-3.9: Waste Water Outlet Connection with Drainage across Size-Classes, Urban North Bengal, 2001 and 2011

	Percentage of Urban Households					
	Closed		Open		No	
	2001	2011	2001	2011	2001	2011
Class-I	10.76	14.46	51.01	61.3	38.23	24.24
Class-II	4.58	5.98	34.93	40.19	60.49	53.83
Class-III	7.15	9.99	35.03	52.06	57.81	37.95
Class-IV	3.31	7.68	36.13	33.32	60.56	59
Class-V	4.40	4.7	29.35	27.11	66.25	68.19
Class-VI	0.89	6.46	40.56	29.82	58.55	63.72

*Source:* Calculated from Census of India, 2001 and 2011

### 3.6.2 Bathing Facilities:

Across different regions, one can find considerable variations. While around 30 percent households do not have access to bathing facilities in Southern Region, the corresponding figure in Western Region is approximately 41.5 percent. ‘Enclosure without roof’ is mostly found in Central and Eastern and Southern regions. As compared to other regions, North Bengal is showing higher accessibility of bathrooms in households. In fact, as Table-3.10 shows, North Bengal (57.35 percent) is very close to Southern Region (58.32 percent).

Table-3.10: Availability of Bathing Facilities in Regions, Urban West Bengal, 2011

Region	Percentage of Urban Households		
	Bathroom	Enclosure without roof	No
Western	50.79	7.76	41.45
Southern	58.32	11.29	30.40
Central & Eastern	50.75	12.28	36.97
North Bengal	57.35	9.37	33.29

Source: Calculated from Census of India, 2011

In North Bengal, all the districts, except Malda, have shown an increase in the percentage of households accessing bathing facilities. In fact, Malda district has reported a marginal decline of such households in terms of percentage values (Table-3.11).

A detailed perusal at the size-classes of urban centres shows considerable variations (Table-3.12). Across all the size-classes, availability of bathing facilities within premises has increased in between 2001 and 2011. It may be attributed to people's increasing income and standard of living, as well as a sense of privacy and dignity. Urban centres belonging to Class-VI and Class-III categories have reported a sharp increase, approximately 33 and 26 percent respectively. However, Class-II and Class-IV towns have shown a quite slow increase in the availability of bathing facilities. All Class-I cities have shown a commendable increase in the availability of bathing facilities. As compared to others, Siliguri's progress is relatively slower as 17.4 percent households report absence of any bathing facilities within premises.

Table-3.11: Availability of Bathing Facilities in Districts, Urban North Bengal, 2001 and 2011

District	Percentage of Urban Households			
	2001		2011	
	Bathroom within house	Bathroom not within house	Bathing facilities within premises	Bathing facilities not within premises
Darjeeling	57.16	42.84	75.27	24.73
Jalpaiguri	54.87	45.13	65.36	34.64
Cooch Behar	53.59	46.41	72.86	27.14
Uttar Dinajpur	49.12	50.88	65.26	34.74
Dakshin				
Dinajpur	50.42	49.58	67.77	32.23
Malda	55.63	44.37	54.57	45.43

*Note:* 'Bathroom within house' (2001) is compared with 'Bathing facility within premises' (2011); in 2011, 'Bathroom within premises' encompasses two categories, viz. 'Bathroom' and 'Enclosure without roof'.

*Source:* Calculated from Census of India, 2001 and 2011

Table-3.12: Availability of Bathing Facilities across Size-Classes, Urban North Bengal, 2001 and 2011

Size-Class	Percentage of Urban Households			
	2001		2011	
	Bathroom within house	Bathroom not within house	Bathing facilities within premises	Bathing facilities not within premises
I	59.99	40.01	77.14	22.86
II	47.74	52.26	59.8	40.2
III	49.03	50.97	75.25	24.75
IV	47.03	52.97	52.84	47.16
V	43.58	56.42	47.95	52.05
VI	21.1	78.9	54.02	45.98

*Source:* Calculated from Census of India, 2001 and 2011



### 3.6.3 Drinking Water:

Even a cursory look at the Table-3.13 reveals that North Bengal has more diversified sources of drinking water as compared to other regions. Southern Region and Central and Eastern Region are mainly dependent on ‘Tap’, ‘Hand Pump’ and ‘‘Tube Well’/Borehole’. Majority of urban households in the Western Region fetch drinking water from ‘Tap’, ‘‘Tube Well’/Borehole’, ‘Hand Pump’ and ‘Well’. North Bengal is not only dependent on all these sources, but also around 3 percent households collect drinking water from ‘Springs’. Residents living in the hill towns of Darjeeling depend considerably on ‘Springs’. What is dismal is relatively poorer coverage of treated ‘Tap’ water supply in North Bengal. Usually, ULBs supply treated drinking water through ‘Tap’, and this figure should push them towards revamping and strengthening water supply system. Perhaps, this is the reason that explains relatively higher proportion (1.52 percent) of households in North Bengal collecting drinking water from ‘Other Sources’. Probably, a section of residents, in absence of treated ‘Tap’ water supply, opt packaged water containers. Another possibility that emerges is a large number of Census Towns vis-à-vis a small number of Statutory Towns. In the context of present governance and financial framework, it is quite difficult for the first category of towns to provide treated ‘Tap’ water supply and cover a majority of households (to be elaborated in subsequent chapters).

Table-3.13: Urban West Bengal: Sources of Drinking Water across Regions, 2011

<b>Region</b>	<b>Treated Tap</b>	<b>Untreated Tap</b>	<b>Covered Well</b>	<b>Uncovered Well</b>	<b>Hand Pump</b>
Western	45.23	7.42	2.19	9.85	15.68
Southern	47.86	6.24	0.50	0.96	24.12
Central & Eastern	41.24	4.50	0.88	5.26	33.00
North Bengal	28.71	7.93	3.17	15.60	24.58

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<b>Region</b>	<b>Tube well/Borehole</b>	<b>Spring</b>	<b>River/Canal</b>	<b>Tank/Pond/Lake</b>	<b>Other Sources</b>
Western	18.51	0.06	0.11	0.28	0.66
Southern	19.32	0.07	0.12	0.19	0.62
Central & Eastern	13.86	0.07	0.16	0.11	0.91
North Bengal	15.30	2.86	0.13	0.20	1.52

*Source:* Calculated from Census of India, 2011

In terms of accessibility of drinking water in North Bengal (1991-2011), a recent study (Saha, 2013) shows that increasing number of urban households in West Dinajpur and Malda fetch it from within the premises. On the other hand, Cooch Behar, Jalpaiguri and Darjeeling districts reveal the opposite picture. The study also points out to the fact that there exist considerable spatio-temporal variations in the sources of drinking water. From 1991 to 2011, ‘Well’ is the most important source of drinking water in Jalpaiguri and Darjeeling districts. ‘Hand Pump’ / ‘Tube Well’ is the major source of drinking water in West Dinajpur district. Darjeeling district poses a diversified picture as urban households collect drinking water from different sources like ‘Well’, ‘Tap’, ‘River’/ ‘Canal’, ‘Tank’ and ‘Other types.’

A detailed analysis of urban households at the size-class level (Table-3.14) highlights few important findings. From 1991 to 2011, utilisation of ‘Tap’ water in urban households of Class-I cities have doubled from 22 percent to 44 percent. This has happened mainly due to the active role of ULBs and rising income and living standards of people coupled with the awareness of safe drinking water. Simultaneously, percentages of households using water from ‘Well’ and ‘Hand Pump’ / ‘Tube Well’ have reduced. The data of Siliguri reveals that percentage of ‘Tap’ water utilisation has gone up almost four times (from 13 to 49 percent in 1991-2011). English Bazar has shown a spectacular progress in this regard (from 8 to 76 percent). One should note that most of this ‘Tap’ water is treated and hence considered to be safe for drinking. Simultaneously, percentages of households using water from ‘Well’ and ‘River’ / ‘Canal’ have declined continuously over last two decades. However, the percentage of households drinking water from ‘Any Other’ sources has continued to go up, even if slowly. This figure once again pertains to the fact

that a major proportion of households living in towns located in Darjeeling hills depend on ‘Springs’. Growing use of sealed water containers is also present.

Table-3.14: Sources of Drinking Water across Size-Classes, Urban North Bengal, 1991-2011

Size-Class	Well			Tap			Hand Pump/Tube Well		
	1991	2001	2011	1991	2001	2011	1991	2001	2011
Class-I	45.69	31.74	22.87	22.30	32.48	44.35	30.48	31.49	28.42
Class-II	16.07	1.10	19.00	48.85	30.94	26.86	27.54	67.05	52.30
Class-III	28.81	22.43	14.12	26.39	33.04	44.03	37.76	35.86	35.30
Class-IV	21.82	9.46	11.74	24.73	32.04	30.35	49.33	55.59	53.31
Class-V	33.78	10.43	16.22	23.25	26.09	23.46	35.85	50.97	52.82
Class-VI	51.51	1.16	23.52	10.41	6.40	26.57	32.88	78.59	42.53
Size-Class	River, Canal			Tank			Any Other		
	1991	2001	2011	1991	2001	2011	1991	2001	2011
Class-I	0.21	0.04	0.05	0.06	0.11	0.09	1.26	4.14	4.23
Class-II	0.16	0.03	0.14	0.02	0.09	0.06	7.36	0.77	1.63
Class-III	0.13	0.17	0.23	0.19	0.07	0.31	6.73	8.41	6.00
Class-IV	1.49	0.24	0.16	0.01	0.06	0.32	2.62	2.61	4.11
Class-V	0.43	0.15	0.23	0.00	0.10	0.49	6.68	12.26	6.78
Class-VI	2.74	0.04	0.23	0.27	0.00	0.40	2.19	13.82	6.72

Source: Computed from Census of India, 1991, 2001 and 2011

Class-III towns have shown consistently increasing the importance of ‘Tap’ water utilisation. ‘Hand Pump’ / ‘Tube Well’ is still the most important source of drinking water in Class-II, Class-IV and Class-V towns, where almost half of the total households depend on it. This may point out to the fact that many poor and lower-middle income class residents fetch drinking water from this source, given the limited coverage of ‘Tap’ water network. Class-VI towns have shown considerable progress in ‘Tap’ water utilisation, thereby reducing dependence on ‘River, Canal’ and ‘Hand Pump’ / ‘Tube Well’. In this category of urban centres, the percentage of households using ‘Tap’ water has gone up from 6.4 to 26.5 percent. Conspicuously, in Class-IV and Class-V categories, utilisation of ‘Tap’ for drinking water has gone up from 1991-2001 only to reduce in between 2001-2011. In fact, Class-II towns have reported consistently declining percentage of households using ‘Tap’ water (from almost 49 percent to 27 percent, 1991-

2011). In fact, ‘treated’ (13.51 percent households) and ‘untreated’ tap water (13.35 percent) contribute almost equally. In this category of towns, perhaps, the demand for piped ‘Tap’ water from the burgeoning population has increased, but ULBs have failed to expand the piped network and meet this demand.

#### ***3.6.4 Toilet/Latrine Facilities:***

Although the household level data on ‘toilet’ availability was published for the first time in 1991, its scope has been enlarged considerably in the following two Census publications i.e. 2001 and 2011. Open defecation is still a big menace in Western (almost 41 percent households) and Central and Eastern Region (22 percent). Except for Western Region, ‘Flush or Pour Flush Latrine connected to Septic Tank’ and ‘Improved/Ventilated Pit Latrine with Slab’ are mainly found in urban households. As compared to other regions, North Bengal poses a satisfactory picture, as around 83 percent households access latrines within premises. But unfortunately, those who do not have access to latrines within premises, opt open defecation. North Bengal, in such a context, really needs to extend public latrine facilities to a considerable extent (Table-3.15).

So far as the district level scenario over last two decades in North Bengal is concerned, spatial variations are found to a certain extent. Districts like Cooch Behar and Darjeeling have done well in terms of coverage of latrine facilities. Malda and Jalpaiguri districts have reported increasing availability of latrines in 1991-2001, and then a declining coverage in 2001-2011. Majority of the households have ‘Water Closet’, ‘Pit’ and ‘Other’ Types of Latrines. Non-availability of latrines within house/premises is a pertinent problem in Malda (25.6%), Uttar Dinajpur (19.3%) and Jalpaiguri (17.6%) districts (Saha, 2013).

Considerable variations are also observed at the size-class level (Fig 2 and 3). In 2001, ‘Water Closet’ latrines are available mainly in Class-I, II and IV category urban centres. However, this type of latrines has become more available across all size categories. In terms of the availability of ‘Pit’ latrines, small towns appear to be most important, both in 2001 and 2011. This is attributed to the efforts of Local Bodies in implementing various

government-sponsored programmes (see Chapter 7). But, it is also true that percentage of households reporting such latrine type has also reduced to a certain extent. Over ten years, ‘Other’ type of latrines i.e. ‘Service’ latrines have been largely reduced – mainly due to consistent efforts of Local Bodies and residents’ awareness on safe hygienic practices.

Table-3.15: Urban West Bengal: Types of Latrines within Premises (Percentage) across Regions 2011

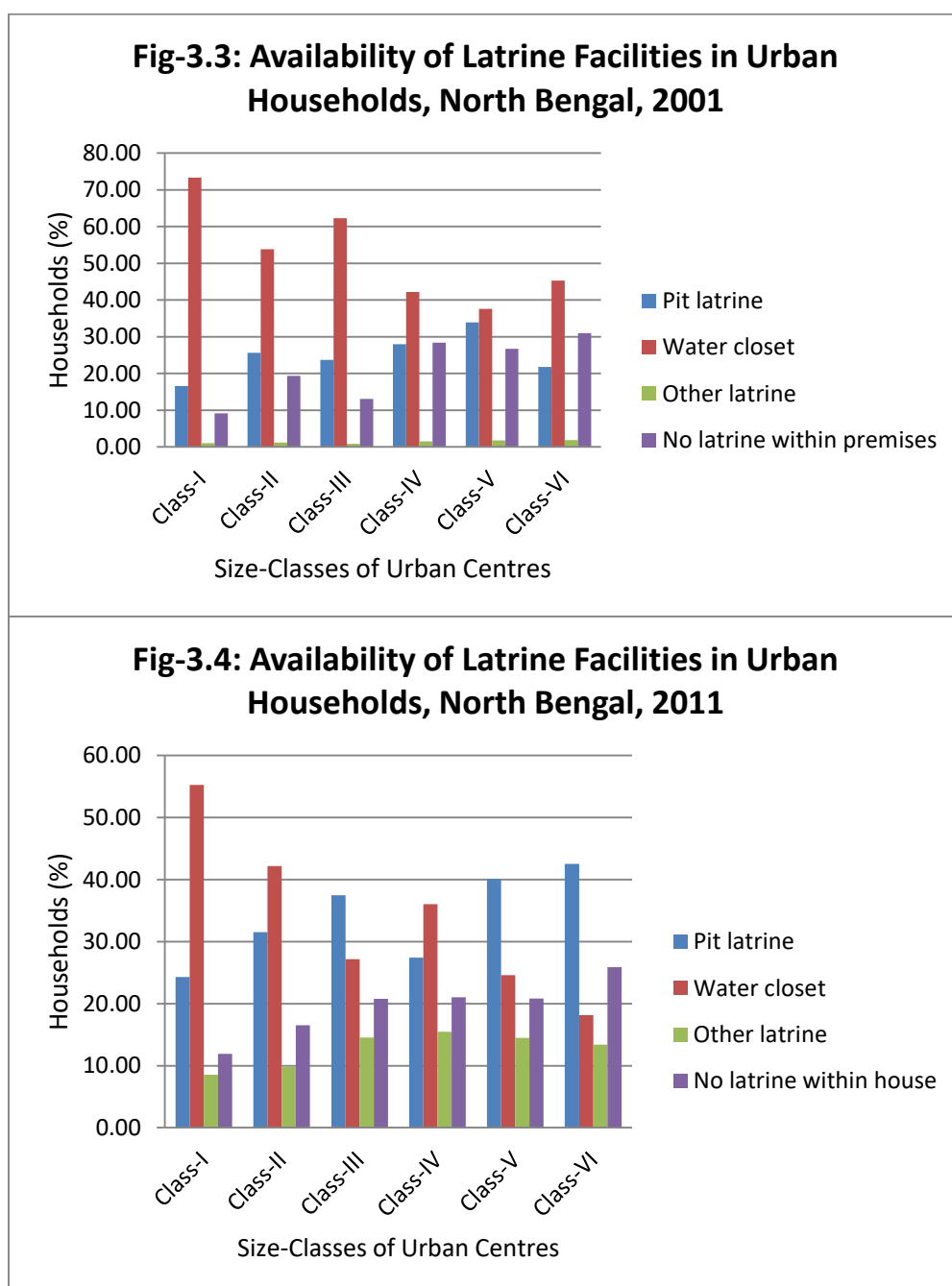
Region	Latrine within premises	Flush/pour flush latrine connected to			Pit Latrine	
		Piped Sewer	Septic Tank	Other	With Slab/Improved/Ventilated Pit	Without Slab/Open Pit
Western	58.02	5.26	46.78	1.74	3.35	0.18
Southern	88.22	8.18	47.92	2.53	27.55	1.03
Central & Eastern	75.42	8.56	38.89	2.92	22.57	1.59
North Bengal	83.44	8.96	46.14	4.41	21.00	1.72

Region	Night soil disposed into open drain	Service Latrine			Alternative source		
		Human	Animal	Latrine not within premises	Public Toilet	Open	
Western	0.15	0.04	0.51	41.98	1.35	40.63	
Southern	0.40	0.24	0.37	11.78	4.43	7.36	
Central & Eastern	0.29	0.30	0.30	24.58	2.69	21.89	
North Bengal	0.52	0.34	0.35	16.56	2.49	14.07	

Source: Calculated from Census of India, 2011

The disturbing fact is the wide gap between large cities and small towns in terms of the availability of latrine facility within house or premises. In 2011, while Class-I cities report only 9 percent households not availing latrines within premises, the corresponding figures are as high as 27 percent and 31 percent respectively in Class-V and Class-VI categories. Moreover, the worrying fact is the declining availability of latrines within house or premises in Class-IV, V and VI towns over last ten years. In small towns, open

defecation is rampant, as reported by 23.9 percent and 27.5 percent households in Class-V and Class-VI categories, respectively. Apart from this, the ULBs governing Class-II towns should take note of increase of 3 percentage points in terms of non-availability of latrines, even if marginal. It may ponder them to investigate whether poor people who are migrating from rural areas are not having access to latrine facilities.



Source (Fig 3.3 and 3.4): Calculated from Household Tables, Census of India, 2001-11

### 3.7 CONCLUSION:

The discussions and analysis made in this chapter show that supply of safe drinking water and improved sanitation system is really important from the perspective of public health and hygiene. The case of urban West Bengal, as compared to all-India figures, depicts that these two are key issues that really need to be addressed. Relatively less availability of drinking water sources within premises and waste water outlet connectivity to drains is a major issue. Southern Region is found to be a relatively better status than other regions, in all aspects of water supply and sanitation facilities. North Bengal depicts a kind of transition, and it indicates that a significant percentage of households are availing 'bathroom' and 'latrines', but 'Tap' water coverage and use at households is relatively less compared to other regions. Through the analysis of urban centre specific data, 'Open' drains and some sort of systematic and progressive move towards building-operating and maintaining SWM infrastructure are the general pictures one can draw – but household level scenario varies across regions and size-classes of urban centres. Focusing specifically on Urban North Bengal, a mixed character in terms of availability and accessibility of water and sanitation related amenities emerges. The relative situation is better in case of a sufficiency of drinking water and availability of latrines. Over the years, temporal improvement in the availability of water and sanitation facilities is also found, thereby indicating the possible role of Local Bodies and residents' living standards and awareness also. Malda district reveals a different pattern, as compared to other districts of North Bengal. This district is characterised by an improvement in the availability of amenities in between 1991 and 2001, and then a certain decline in between 2001 and 2011. It is mainly attributed to a rapid jump in the number of Census Towns, whereas the number of Statutory Towns is same, i.e. two – English Bazar and Old Malda. In North Bengal, large cities and towns are in a relatively better condition as compared to small and medium towns. Small towns, in particular, have a long way to go. The case of Class-II urban centres, over the decade of 2001 and 2011, indicates demand-supply gaps and the resultant decline in the coverage of households in terms of 'Tap' water and latrines within house/premises.

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# **Chapter-4.**

## **Status of Service Delivery:**

### **Case Studies of**

## **Statutory and Census Towns**

#### **4.1 INTRODUCTION:**

In the earlier chapter, an attempt is made to look at the figures which throw some light on the existing set of infrastructure and amenities present in urban centres of North Bengal vis-à-vis other regions of West Bengal. Carrying forward the findings, the present chapter aims to highlight the existing status of physical infrastructure related to water and sanitation sector, provisioning of basic services and their delivery. So, in the present chapter, an effort has been placed to observe not only the 'availability' factor but also the 'accessibility' factor. As provisioning of basic services and their delivery largely depends on 'governance' structure, a segregation of 'urban' and 'rural' local bodies is reflected in this chapter. The entire discussion, made in this chapter, attempts to highlight possibilities and problems associated with the mechanism of basic service provisioning.

The structured plan of this chapter is as follows. Following this introduction, a brief profile of selected urban centres is presented in the second section. The third section deals with the status of service delivery (in the parameters of water supply, SWM, drains and latrine facilities) in selected Statutory towns. The discussion on the same parameters, as related to Census towns, is made in the fourth section. The fifth and final section is a summary of findings.

#### **4.2 A BRIEF PROFILE OF SELECTED URBAN CENTRES:**

##### **SILIGURI:**

Siliguri is the largest city in North Bengal in terms of population size (513264 as per Census, 2011). Since 1931, this city has grown enormously in terms of population size and

importance. Strategic and nodal location, wide transport and communication facilities and growth of trade, commerce and services characterize this city. Several well-known educational and health institutions like North Bengal Medical College and University of North Bengal are also present here.

### **ENGLISH BAZAR:**

It is the second largest (205521 people in 2011) and second most important urban centre in North Bengal. Not only it holds paramount administrative significance, but it is considered as the gateway of North Bengal. Its prominent road and rail connectivity with entire southern, central eastern and western parts of West Bengal is one of the main reasons behind its economic progress. Trade and commerce, along with a bunch of services, directly and indirectly employ a lot of people. One of the examples is the market of procuring-selling and dispatching of famous mango varieties that are produced in the villages of Malda district. Along with this, the presence of educational and healthcare institutions also add to the importance quotient. Over the last decade, establishment of Malda Medical College, an engineering institute under central government and University of Gour Banga, is a suitable example in this regard. Historical tourism site of Gour-Pandua is also located nearby.

### **ALIPURDUAR:**

Although it holds similarities with quite a few urban centres in North Bengal offering administrative and market functions, it is best known for its linkages with tea, timber and tourism. Along with this, road and rail connectivity is also an important factor, due to which this town has seen considerable growth. It was a sub-divisional headquarter of Jalpaiguri district; after the division of the district, a new district named Alipurduar is formed, and this town is now the district headquarter. Presence of educational and health services is also significant. Its population size is 65232 in 2011.

### **KALIYAGANJ:**

Kaliyaganj is one of the Statutory towns of Uttar Dinajpur district. Its population is 53530 in 2011. It received a 'Town' status in Census of India 1961 records. It is primarily an agro-based market town which also acts as a service centre. Presence of block administrative

offices, schools, college, state general hospital, and other institutions add to the importance of this town. Trade and commercial activities are also important here.

### **HALDIBARI:**

This small town (i.e. population size 14404 in 2011), although located in Cooch Behar district, is functionally more integrated to nearby Jalpaiguri city. This town is famous for its market of agricultural products, or specifically vegetables like green chillies and tomatoes. Apart from this, existence of schools, healthcare and transport facilities render it to act as a service centre for the adjacent villages. *Huzur Saheb er Mela* (Huzr Saheb Fair) attract a huge gathering of people.

### **KURSEONG:**

Known as the 'Land of Orchids', this is a picturesque hill town with a population size of 42446 in 2011. This is also an old town, in the growth and development to which British rulers contributed a lot. At present, it is acting as an administrative and market town. Some of the local tourist spots make it more attractive. It is also having widely reputed residential schools.

### **JAIGAON:**

Located at the foothills of Bhutan hills along India-Bhutan border, this small town (i.e. population size of 42254 in 2011) holds paramount importance in terms of trade and commerce. This also acts as place of rest or transit for people who travel across these two countries. With a mix of people belonging to Bengalee, Nepali and other communities, this town represents a multi-ethnic culture. Perhaps, due to this location and economic and cultural characteristics, illegal activities like smuggling are also prominent. This market town is functionally linked to Alipurduar, for upper level of services like higher education and tertiary healthcare.

### **KASBA:**

This is a very small town located adjacent to Raiganj city in Uttar Dinajpur district. Looking like an extension of Raiganj, this town nestles around 10000 people who are

mainly involved in non-agricultural activities like small businesses, factory work and salaried or contractual services. This shows a mixed land use pattern, as residential, commercial and open spaces are prominently found. One of the reasons behind its growth and development is the location of West Bengal Police Armed Barrack beside NH-34. This is also close to district hospital, stadium, university and correction home.

#### **CHAK BHRIGU:**

This is also a very small town (population size of 6269 in 2011) located adjacent to Balurghat city in Dakshin Dinajpur district. As Balurghat Railway Station is located in Chak Bhrigu, it appears as an extension of Balurghat. In fact, one one side of river Atrayee, Balurghat is located; whereas on the other side, one can find Chak Bhrigu. This settlement is not new, as ‘market’ and ‘road connectivity’ factors have led to its growth and development. The road to Tapan moves through Chak Bhrigu. Presence of two High Schools, a Bust Stand and market show the ‘urban’ character of Chak Bhrigu. However, for higher order functions, it is linked to Balurghat.

#### **LATAGURI:**

Lataguri is a place known for its close proximity to Gorumara National Park. Therefore, around 50 hotels and guest houses have been established here to accommodate tourists. Jungle Safari in Gorumara is a key attraction, and hence some local residents of Lataguri work as jeep drivers and tour guides. To support tourism activities and local demands, a small market is present in Lataguri, near the Railway Station. Functionally, this small settlement (population size around 5000 in 2011) is dependent on Malbazar and Jalpaiguri.

### **4.3 DATABASE AND METHODOLOGY:**

This chapter is primarily based on primary data, and in some cases, supporting secondary data sources have also been used. As the focus of this chapter is on identifying the ‘status’ of service provisioning in the water and sanitation front, data is collected from service providers as well as beneficiaries. The list of ‘service providers’ includes concerned municipal corporation, municipalities, development authorities and gram panchayats, as

well as Public Health Engineering Directorate (PHED), Government of West Bengal. ‘Beneficiaries’, in this study, denote households. However, there is some difference between the nature and range of data collected from service ‘providers’ and ‘beneficiaries’. One clear difference is – service ‘providers’ offer technical database, whereas ‘beneficiaries’ offer a ‘mixed’ data – both ‘quantitative’ and ‘qualitative’ in nature. As for example, service ‘providers’ offer dataset on ‘duration’ of water supplied, whereas ‘beneficiaries’ can pinpoint the ‘functional duration’ of water supply, as water pressure within the pipeline and connected taps varies spatially. In one Ward, households may obtain 2 hours of water at a stretch, however in another Ward in the same city, the ‘functional duration’ could be just one and half hours. Therefore, to ascertain the ‘status’ of service provisioning, both ‘technical dataset’ and ‘field observations’ have been presented together, so that a holistic picture emerges out and ‘problems’ emanating out of such situation can be identified.

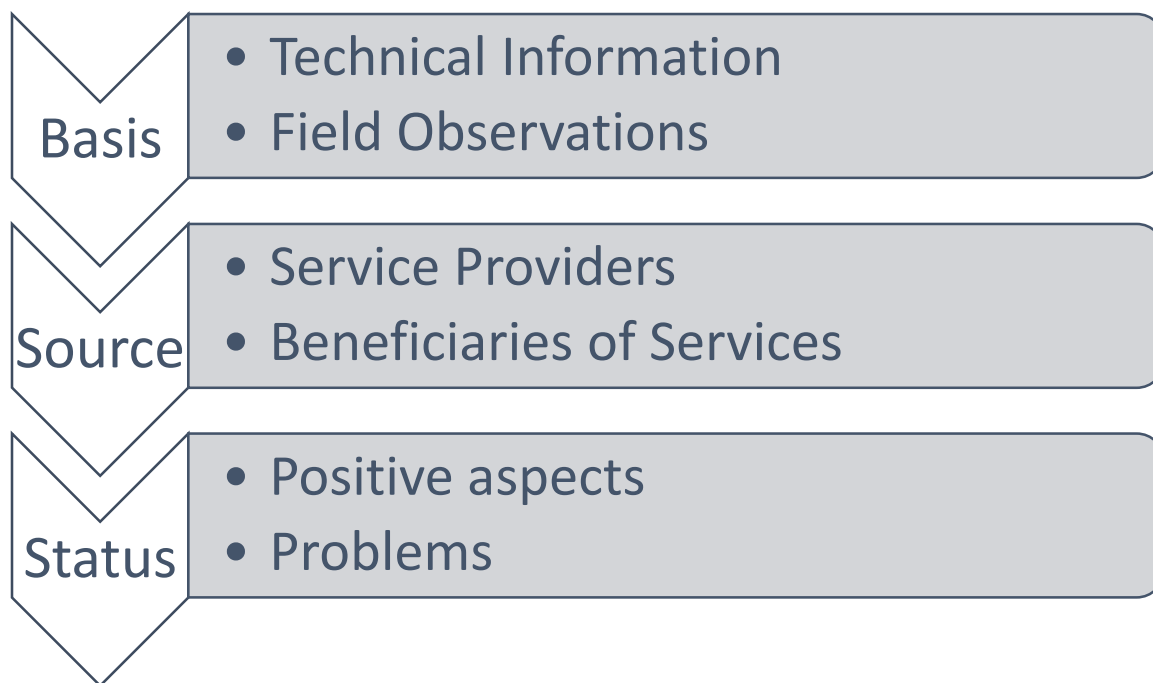


Fig-4.1: Flow Chart showing the Analytical Framework of Chapter-4

‘Technical Information’ has been obtained from concerned engineers, sanitary inspectors or assistants, urban planners and other officials of concerned urban and rural local bodies. In some cases, due to poor maintenance of records and unwillingness, these officials could

not provide necessary data. This gap, although not entirely, is fulfilled by obtaining supporting data from other secondary sources. For example, neither ULBs nor RLBs has exact figures on (1) number of households without latrines, and (2) provision of solid and liquid waste management. For this kind of figures, in this chapter, (1) household amenities tables (Census of 2011) and (2) Baseline Surveys of *Nirmal Bharat Abhiyan*, Ministry of Drinking Water and Sanitation, Government of India have been used, respectively.

‘Field Observations’ include primary dataset collected through questionnaires prepared for household survey, field photographs and field notes. Household Questionnaire is focused on following aspects –

- Drinking Water - Availability (Frequency and Regularity) and Accessibility of Drinking Water; Its perceived quality; operation and maintenance related issues; Methods of secondary treatment
- Solid Waste- Place of disposal; Issues of Segregation; Issues related to cleaning
- Waste Water Outlet and Drainage System – Place of Disposal; Issues related to cleaning
- Latrine Facility- Availability and Accessibility

Using these datasets, an attempt is made to present existing status of services. Therefore, this chapter is both descriptive and analytical in nature. It is descriptive in the sense that all technical information and field observations have been put together in a tabular or text form. It is analytical also, as the similarities and dissimilarities of both datasets have been pointed out, so as to identify ‘problems’ that is visible, and invisible too. Frequency Distribution (using SPSS), across urban centres and Wards, is used to portray some of the variables. In some cases, suitable cartographic diagrams have been drawn (using MS-EXCEL) and placed in this chapter to present a few field observations. Field Photographs and detailed captions have also been placed to strengthen the facts and arguments presented. As Statutory and Census towns are governed by entirely two different sets of local bodies, i.e. urban local bodies and rural local bodies respectively, separate sections are arranged accordingly. Even among Statutory towns, specific sections on the largest city, a large city and small and medium towns are outlined. As the hill town of Kurseong

shows comparatively different nature of infrastructure and service provisioning system, this is separately discussed.

#### **4.4 STATUS OF SERVICE DELIVERY IN STATUTORY TOWNS:**

##### **4.4.1 SILIGURI MUNICIPAL CORPORATION:**

###### **4.4.1.1 Water Supply:**

###### *Technical Information:*

Piped water supply system is not new in Siliguri; it was started well back in 1968 through a distribution network of stand-posts. Later on, 'Siliguri Comprehensive Water Supply Scheme' (in 2000) and UIDSSMT Project on water supply (for the 'Added Area', Ward 33-41, in 2005) largely improved water supply infrastructure in the city. At present, the major source of water is Tista-Mahananda Link Canal. Entire water supply network is divided into ten zones. Through 15 Overhead Reservoirs (OHRs) and Ground Level Reservoirs (GLRs), an estimated average demand of 53 MLD water is satisfied. An estimated number of 1368 stand-posts are present. Total water treatment capacity is 55.02 MLD. Drinking water is supplied twice in a day with a duration of two hours for each slot. Operation and Maintenance Cost is recovered from collected taxes and user charges. Approximately 70 to 80 percent users pay charges. New connection for piped tap water is usually given within 15 days from the date of application, subject to technical feasibility. The rates of domestic consumer connection vary according to the size of 'covered area'.

###### *Field Observations:*

In Siliguri, a substantial chunk of households is dependent on water supply services provided by SMC. One of the important aspects is individual tap connection provided to households, through which a certain quantity of treated water is supplied twice daily. As this survey reveals, perceived quality of supplied water is good and almost 96 percent households are testimony to it. Most of the tap connections are not more than 10 years old. Wards like 4, 31, 15 and 16 report greater coverage of house connection services. Notably, these are also the Wards, where functional stand post supply network is also available, and local inhabitants make good use of it. On the other hand, few Wards like 1 and 43 are basically dependent upon stand-posts, given the fact that individual tap connections are not

higher in number. In case of stand-post also, most of the households receive water from these twice in a day. Only 2 households, both in Ward 35 and 37 each, report continuous water supply from stand-posts.

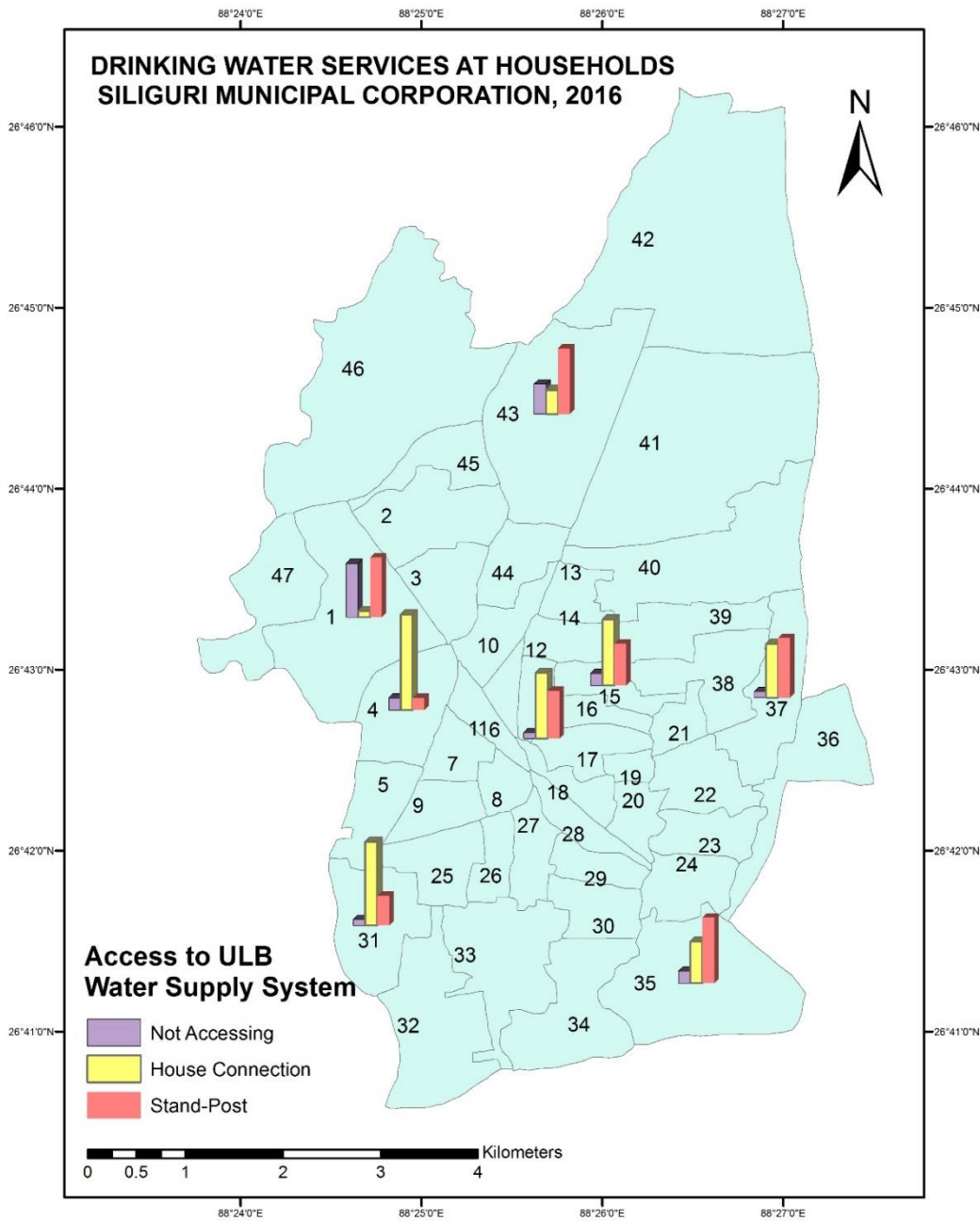


Fig-4.2: Access to ULB Drinking Water Supply System, SMC, 2016



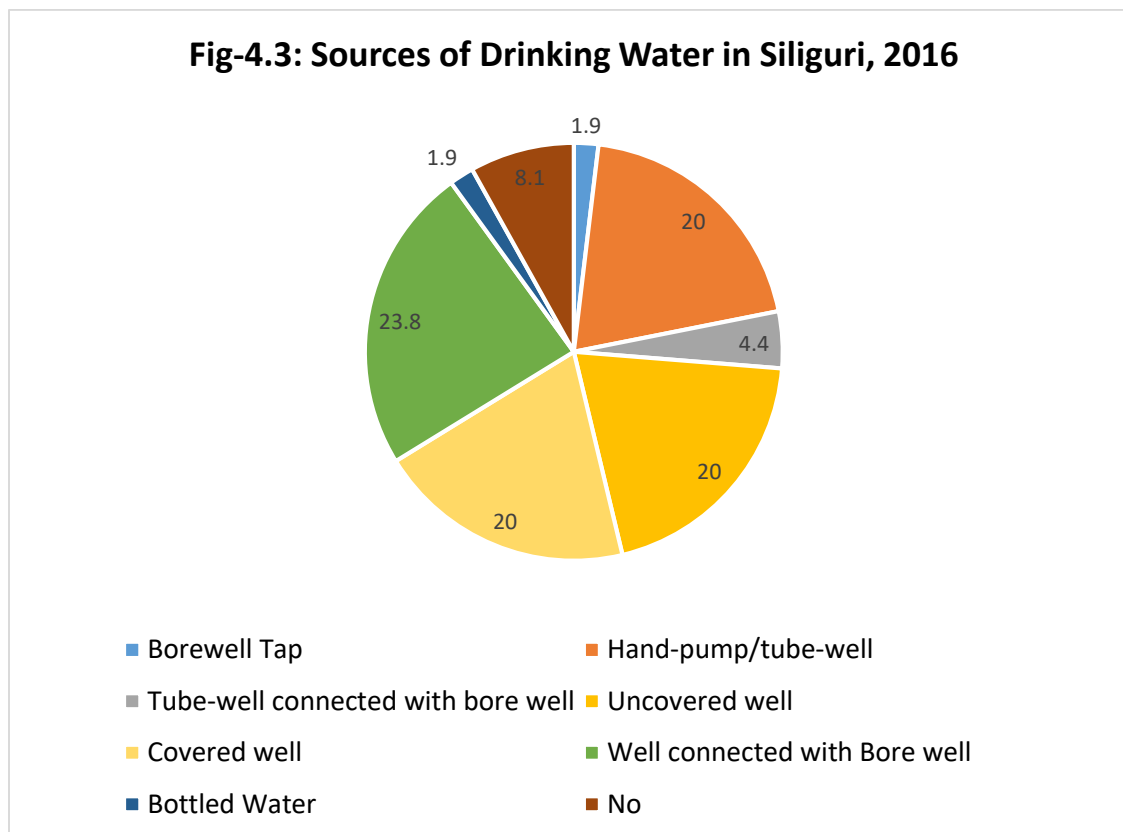
It has happened due to the absence of stop-cocks in those stand-posts, resulting into free flow and wastage of treated water. Barring Ward 43, with 3 complaining households, water supply through stand-posts is quite regular. Perceived quality of water is also reported to be good. Only 4 out of 64 households complains about problems like bad smell, presence of iron and other pollutants. 45 out of 64 households, i.e. 70.3 percent, report that stand-posts are regularly maintained by SMC. But, absence of stop-cocks is a serious problem in Ward 1, where 9 households allege that this problem is resulting into wastage of water, when there is nobody to fetch. Except Ward 31 and 35, rest of the six Wards surveyed has at least one stand-post without any stop-cock. Two households inconveniently collect water from stand-posts with broken stop-cock and dilapidated platform in Ward 43.



*Plate-4.1: Although blue-painted stand-posts are functional, broken platform and absence of stop-cock are serious problems in SMC.*

Drinking water, being a necessary item for life, seems to be so important that 147 out of 160 households have their own sources. Almost 24 percent households have wells connected with bore wells; while ‘uncovered’ and ‘covered’ wells are present in 20 percent households each. Another 20 percent households have hand pumps/tube wells (Fig-4.2). Wells connected with bore wells are mostly present in Ward 15 and 16, while hand

pumps/tube wells are most frequent in Ward 1 and 31. Uncovered wells are commonly found in Ward 4, 35 and 37, while covered wells are mainly there in 43, 37 and 31 numbered Wards.



*Source:* Compiled from the Household Survey Database, 2016

A whopping figure of 123 households, i.e. 76.9 percent to total, do not treat water before drinking. Candle filter (26) and electronic filter device (8) are used to a certain extent, however that too is mainly restricted to Ward 15 and 16.

#### **4.4.1.2 Solid Waste Management:**

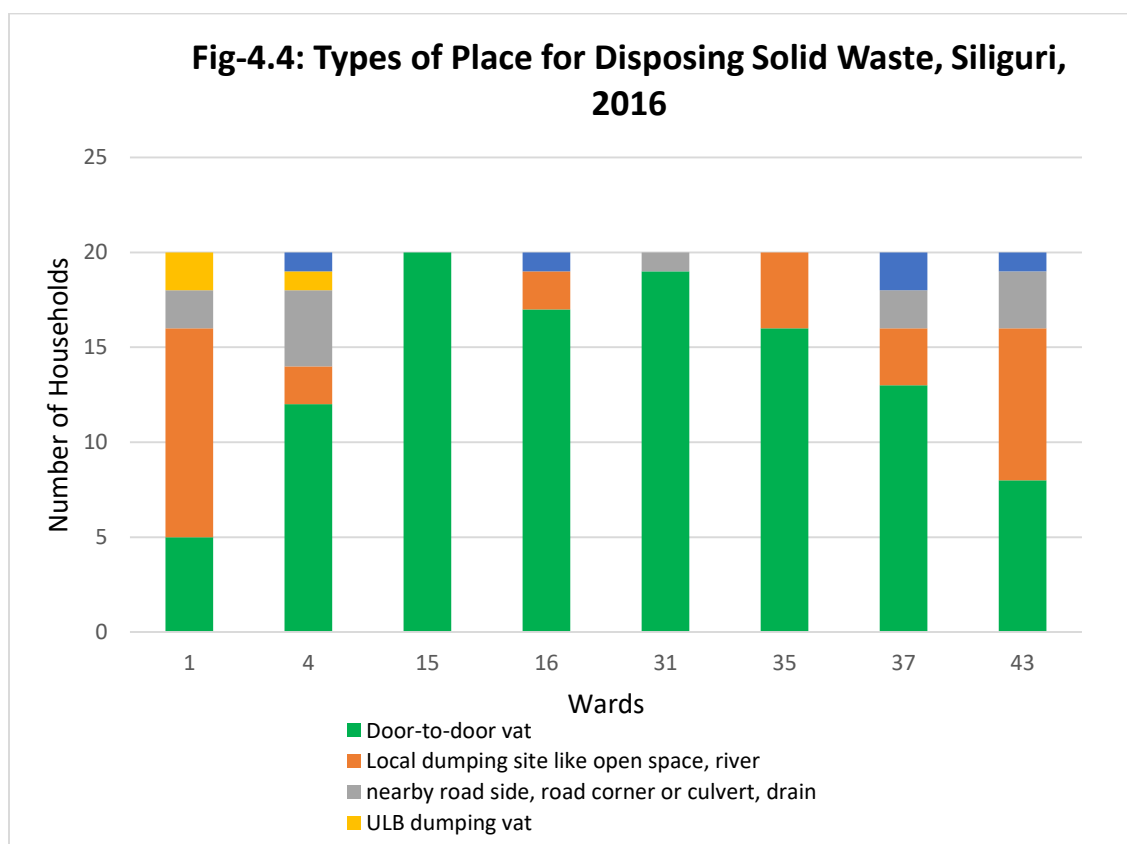
##### *Technical Information:*

Using Government of India's fund, Solid Waste Management Mission was started in Siliguri. At present, SMC emphasizes on door-to-door collection of solid wastes, through engaging labourers. For 300-350 landholdings, one tri-cycle van is provided, with separate buckets – black for inorganic waste and green for organic waste. Segregation is also done at the doorsteps. From the movable tri-cycle vans collecting waste from households, heaps

of garbage is dumped at movable vats. Large heavy vehicles, using hydraulic technology, lift that heaps of garbage. Then, truckloads of garbage is sent to dumping ground. Compostable waste is used for producing organic manures. Non-compostable waste is disposed in the dumping ground. Approximately 143 tons of waste is disposed.

*Field Observations:*

In this city, solid wastes are collected directly from around 69 percent household doors. Around 19 percent households are reported to be disposing those wastes into nearby local dumping sites like open spaces and rivers. 7.5 percent households just throw it into roadsides, road corners, culverts or drains. However, disposal on own land (3.1 percent) and ULB Dumping Vat (1.9 percent) is not very common. Door-to-door collection of solid wastes is working quite well in few Wards like 15, 31, 16 and 35. However, this is hardly present in Wards like 1 and 43. These are the only two Wards, where throwing of solid wastes either into local dumping sites or other places is found to be rampant.



*Source:* Compiled from the Household Survey Database, 2016

### **Solid Waste Management in SMC: One City, Different Looks**



*Plate-4.2: Dilapidated Community Waste Bins*

*Plate-4.3: Solid waste scattered as thrown in an open space*



*Plate-4.4: Choking of High Drains due to Solid Waste*

*Plate-4.5: Dumping of Solid Waste on the River Bank*





*Plate-4.6: Open Burning of Solid Waste*

*Plate-4.7: Choked Kachha Outlet on bank of Mahananda river, where piled solid waste is burned*

What is unfortunate is the sketchy presence of solid waste segregation at the source i.e. household level. Only one-fourth of the total households report segregation of solid wastes. Wards 31 and 35 are relevant examples. Even within Ward 15, where all surveyed households avail door-to-door waste collection facilities, segregation is done by only half of the households. Quite obviously, the practice of solid waste segregation is almost absent in Wards 1 and 43.

75 and 28 out of 111 households report 'daily' and 'twice-thrice in a week' collection of solid wastes from household doorsteps, respectively. Ward 15 reports that daily collection of solid waste is entirely done through this system. Even in Wards like 16, 31 and 35, higher shares of household record daily door-to-door collection of solid wastes. By and large, 5 households record 'twice-thrice in a week' collection frequency in other Wards like 4, 37 and 43. Although solid waste is often thrown into local dump sites, these are not regularly cleaned. The problem is in an alarming proportion in Wards like 1 and 43, where there is hardly any presence of ULB door-to-door collection system or ULB designated community vats. Another prominent issue is frequency of dump site cleaning. 17 households say that they 'do not know' the frequency, perhaps because they are hardly bothered about it. 12 households assert 'never' and that, at least to a partial extent, suggests inactivity of ULB in cleaning dump sites. Sometimes, as reported in Ward 1, once in a year, rivers and other water bodies are cleaned, before *Chhat Puja* festival. Here comes the interesting point, where 24 households respond that 'none' takes the responsibility of cleaning dump sites. Sometimes, as 13 households point out, ULB sanitation staff clean dump sites. Only 6 households are found to be reportedly cleaning dump sites, mainly by open burning.

#### **4.4.1.3 Drainage System:**

##### *Technical Information:*

Along with street sweeping, on an average 20-22 labourers per Ward per week get engaged in drain cleaning work. Majority of the work is done manually. For large culvert sides, de-silting machines and auto-suction machines are used. Lifted waste, which come after

cleaning of drains, is dried along roadside. After that, heavy and large vehicles like tippers and JCBs are used to lift them again to trucks, and then these trucks carry it to the dumping ground. An estimated figure of 25 tons per day is generated after drain cleaning and street sweeping.

*Field Observations:*

75 percent of the households have pucca waste water outlets. 10.6 percent households report 'semi-pucca' and 'kachha' waste water outlets, each. In Wards like 15, 31 and 16, share of households having pucca outlets is equal or more than 90 percent. But kachha outlets are present in Wards like 1, 37 and 43. In case of almost 77 percent households, waste water outlets are connected to pucca drains. Except Wards 37 and 43, all other Wards have good connectivity of waste water outlets with pucca drains. The next category is those 8.1 percent households from where waste water outlets empty into open space/water bodies/road. 6.2 percent households have waste water outlets connected to semi-pucca drains, and this is mainly observed in Wards 31 and 43.

Approximately 87 percent households have reported no drainage related problems, albeit that 6 percent complaining about choked drains. Given such backdrop, it is highly surprising to see a figure of 106 (i.e. 66.2 percent) households reporting irregular nature of drain cleaning. Again, 35 households reporting 'monthly' cleaning; 32 households responding 'three-four times in a year' and 26 households recording 'fortnightly' drain cleaning frequency poses few questions. While 133 (i.e. 83.1 percent) households assert that ULB sanitation staff cleans drain, one can gauge the load of responsibility in part of ULBs given the fact of public malpractice of solid waste throwing into drains, often escalated into choking and mosquito breeding. As many as 52 households (i.e. 32.5 percent) have 'never seen' spreading of disinfectants like mosquito larvicidal oil or bleaching powder, and that suggests the problem of public health and hygiene in Siliguri. More or less 54 percent households have seen spreading of mosquito larvicide oil only sometimes in a year, mainly during the outbreak of diseases like Dengue and Japanese encephalitis. Use of bleaching powder (mainly used to curb spreading of dysentery/diarrhoea) is a comparatively rare phenomenon.





*Plate-4.8: One SMC appointed sweeper cleaning a drain – the entire responsibility of cleaning all the drains rest on the ULB, and these sweepers*

#### **4.4.1.4 Latrine Facilities:**

As per Census 2011, around 94 percent households have latrines within premises. ‘Flush’ (75 percent) and ‘Pit’ (18) latrines are common. This sample survey quite appreciably notes that almost all sampled households (98.8 percent) have latrines to use. While ‘flush’ latrines are more common only in Ward 15 and 16, ‘Ventilated Improved Pit latrine with Cemented Ring and Slab’ is the most common type (total 77.8 percent households) found across all sampled Wards.

#### **4.4.2 ENGLISH BAZAR MUNICIPALITY:**

##### **4.4.2.1 Water Supply:**

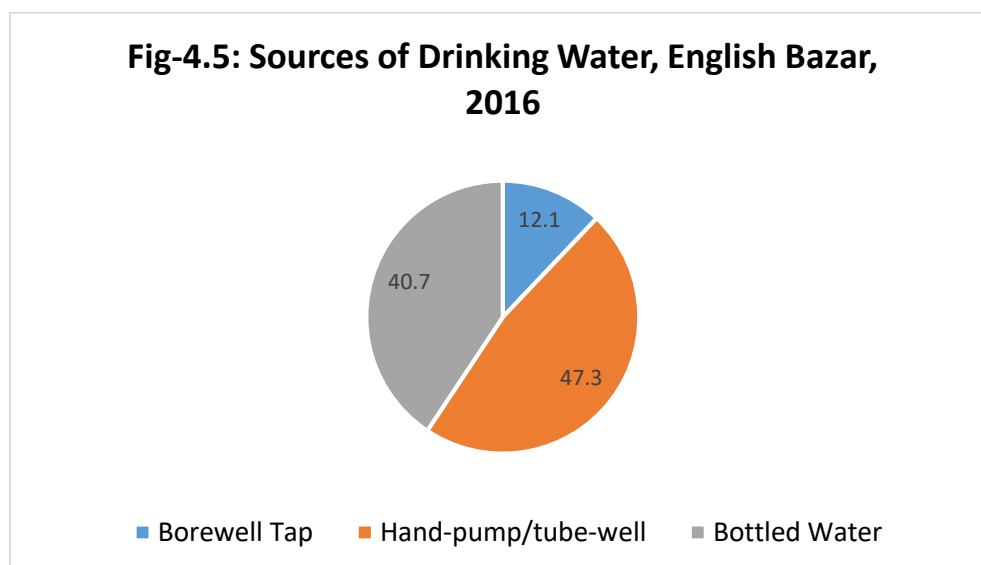
###### *Technical Information:*

English Bazar Municipality’s water supply system, at present, is dependent upon underground sources. Every day, 2, 40, 93000 litres of water is lifted, and then stored in two OHRs (having storage capacity of 1 lakh gallon each). This water, through an estimated 165.60 km length of distribution network, is supplied to 22400 domestic connection points and 1012 stand-posts. In this city, around 80 purified water tanks are

present, out of which 57 are maintained by the municipality. Through the use of deep tube well, underground water is lifted to storage tanks. Apart from this, 815 hand pumps are also installed. Usually, domestic connection for water is provided within 15 days after submission of application. For APL and BPL categories, an user charge of Rs. 30 and Rs. 15 is levied, respectively.

*Field Observations:*

132 out of 160 households are availing drinking water through ULB supply system – individual tap connections (60) and stand-posts (72). Ward 10 and 12 show a mixed picture, while Wards like 3, 8 and 9 are highly dependent on stand-posts. Only in Ward 11, share of households having tap connection is higher than stand-post using households. Most of the households receive three times supply of water in taps per day. Water quality, as perceived by the residents, range from ‘good’ (75 percent households) and ‘medium’ (20 percent). As many as 28 households fail to recollect the time period since which they have been using tap water for drinking. In some Wards like 11 and 22, drinking water supply pipelines are quite old, in between 5-30 years. Water supply in stand-posts is also regular and Out of 72 households fetching water from stand-posts, 65 receive water thrice in a day. However, in Ward 22, 6 households are reported to be using stand-posts providing two times supply per day.



*Source:* Compiled from the Household Survey Database, 2016

50 households perceive water quality as 'good' while other 22 consider this as of 'medium' quality. In Ward 8 and 12, as many as 7 and 5 households drink 'medium' quality water, respectively. By and large, maintenance of stand-posts is also satisfactory (as reported by 54 out of 72 households). Broken stop-cocks, often leading to wastage of water, is a common problem, especially in Ward 12 (as 6 households complain) and 8 (5 households), respectively. 43.1 percent of total 160 households do not have own sources of drinking water. Within the rest of the households, Hand Pump/Tube Well is found to be most common source of own drinking water, especially in Ward 3 and 23. It is followed by 'bottled' water and as many as 7 households in Ward 10 drink this water. In this city, only 28 (i.e. 17.5 percent) households treat water for drinking, using candle filtering (9) and boiling methods (7).

#### **4.4.2.2 Solid Waste Management:**

##### *Technical Information:*

An attempt to regularize a system of solid waste management started from 2010. Initially, two buckets were given to each land holding, for segregating compostable and non-compostable waste. At present, unsegregated solid waste is collected from households six days per week. Approximately, 200 MT per day solid waste is accumulated and collected. On an average, six labourers per Ward are engaged to perform this duty. Entire load of waste is collected in garbage trolleys and/or community bins or vats. After that, tractors are used to transport and dispose these off at the dumping ground.



*Plate-4.9: One EBM appointed Sweeper, with a garbage trolley, Ward-10. Such trolleys are used for collecting solid waste from households and narrow roads or lanes*



*Plate-4.10: Heaps of garbage accumulated in the major roads are collected by labourers and transported away by tractors in EBM*

*Field Observations:*

77 out of 160 households (i.e. 48.1 percent) households are reported to be throwing solid waste into ULB door-to-door vats, while another 28 (i.e. 17.5 percent) utilize ULB community bins/vats. However, 42 households (26.2 percent) throw these into local dump sites like open space and river. Door-to-door collection of solid waste is more common in Wards like 10, 11, 12 and 3. In most of these Wards, waste is collected daily (except Sunday) from household doorsteps. Otherwise, at least, solid waste is collected twice or thrice in a week in most of the surveyed Wards. 12 households dispose solid waste into ULB community bins/vats in Ward 22, where door-to-door collection is not very popular. Mismanagement of solid waste is a serious problem in Ward 23, where 19 households report that local dump sites are used for waste disposal. Besides, 12 households in Ward 8 do the same. Throwing of solid waste into nearby roadside/road corners/drains/culverts is neither absent nor common in the city.

Most unfortunately, as many as 151 households (i.e. 94.4 percent) do not segregate solid waste while disposing off. Out of 83 households recording solid waste disposal in dump sites, only 28 report regular cleaning (mainly in Ward 9, 10 and 22). In Ward 23, this problem poses alarming as all the households complain about irregular cleaning of dump sites. Out of the same 83 households, 40 respond 'never' and another 16 'do not know' when asked about the frequency of dump site cleaning. Again in Ward 23 and 8, many surveyed households assert that they have never seen anybody cleaning the dump sites, as no one have specific responsibility to do so. In Ward 22, however, weekly cleaning of dump sites is responded by 9 households. ULB sanitation staff play a significant role in cleaning dump sites, especially designated by their own authority, and Ward 22 is the testimony to it.



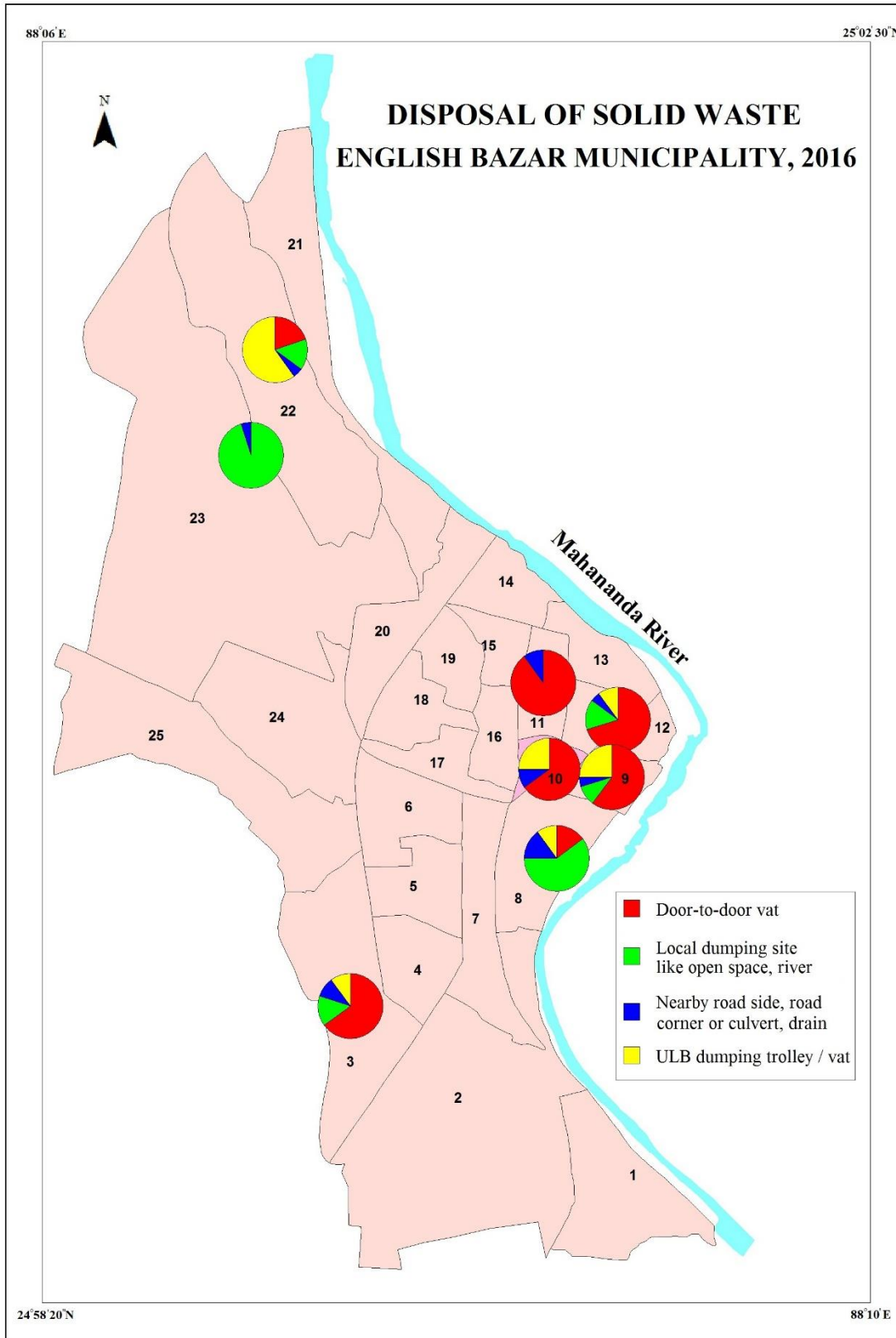


Fig-4.6: Places for Solid Waste Disposal across Wards, English Bazar Municipality, 2016

#### 4.4.2.3 Drainage System:

##### *Technical Information:*

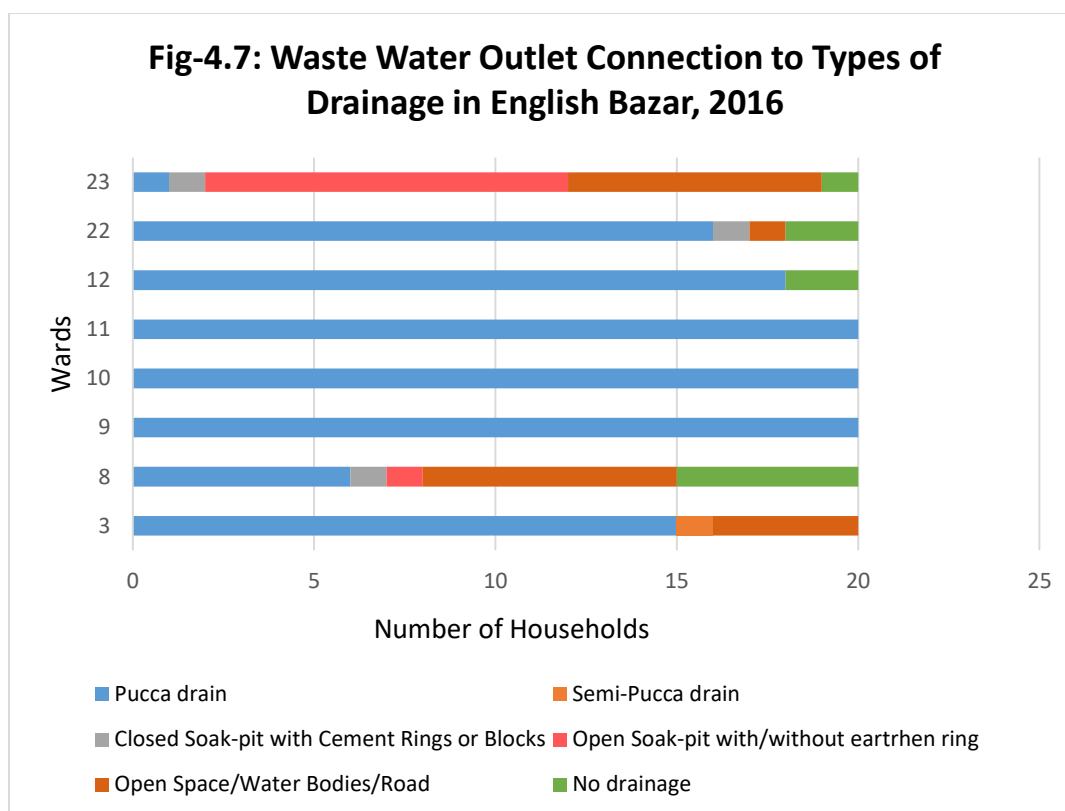
Open pucca and kaccha drains are present in this city. Total length of pucca drain is 309.86 km and kaccha drain is 98.96 km. Drains are cleaned manually. For each Ward, six labourers are appointed on an average. These labourers are involved in street sweeping, collecting solid waste from households and roads and cleaning drains. Disinfectants like bleaching powder and larvacidal oil are used sometimes in a year.

##### *Field Observations:*

70 percent households have pucca waste water outlets, whereas 18.1 percent have kaccha outlets. Kaccha outlets are mainly there in Ward 23 and 3. It is heartening to note that approximately 72 percent households' waste water outlets are connected to pucca drains. In few Wards 9, 10 and 11, all surveyed households have waste water outlets connected to pucca drains.

However, again Ward 23 poses bad image, because 10 households have waste water outlets connected to open soak pits and 7 households' waste water goes to open spaces/rivers. In Ward 8 also, 7 households have such waste water outlets emptying into open spaces/rivers. By and large, absence of drainage facilities is not a big problem in this city. 140 households in total have not reported any problems with drainage. Only in Ward 8, 5 out of total 20 households do not have any drainage facility.

To a partial extent, choking of drains is found in all the surveyed Wards. Drain is more or less regularly cleaned in Wards like 9, 10, 11 and 12. But, in case of Ward 23, drains are hardly cleaned. Ward 3 represents a mixed picture, as 10 households respond 'regular', while another 10 record 'irregular' cleaning of drains. In Wards like 9, 10, 11 and 12, drains are usually cleaned twice or thrice in a week. Ward 3 shows a lot of variation, ranging from '2-3 times in a week' to 'fortnightly'. In Wards like 3, 9, 10, 11, 12 and 22, ULB sanitation staff plays the main role in cleaning drains. In Ward 22, where a huge amount of land belongs to Railways, concerned sanitation staff also cleans some of the drains.



*Source:* Compiled from the Household Survey Database, 2016

55 households respond that spreading of mosquito larvicide oil is done, while 42 households assert that both bleaching powder and mosquito larvicide oil is spread. However, all the Wards exhibit a mixed picture, as at least one-fifth of the households in each of them have not seen spreading of any materials for cleaning and hygiene maintenance. Spreading of mosquito larvicide oil is done sometimes in a year (as responded by 55 households), but 57 households have not seen anything happening on the ground. As it has been opined by residents across Wards, spreading of bleaching powder is a rare event.

#### **4.4.2.4 Latrine Facilities:**

As per Census 2011, around 92 percent households have latrines within premises. 'Flush' (78 percent) and 'Pit' (12 percent) latrines are common. It is also commendable to see a figure of 146 (i.e. 91.2 percent) sample households having access to own latrines. 'Ventilated Improved Pit Latrine with Cemented Ring and Slab' type is most common (approximately 77 percent) followed by 'Pit with earthen rings' (11 percent). 'Flush'



latrines are most common in Ward 9 and 10. On the downside, open defecation is present in Ward 3, 8 and 23. This city has a number of pay & use latrines, and 3 households in Ward 10 are found making use of it.



*Plate-4.11 EBM: A Ventilated Pit Latrine with Slab under construction. Although a source of water, i.e. a hand pump is visible, walls and roof of the latrine are yet to be constructed.*

#### 4.4.3 SMALL AND MEDIUM TOWNS:

##### 4.4.3.1 Water Supply:

###### Technical Information:

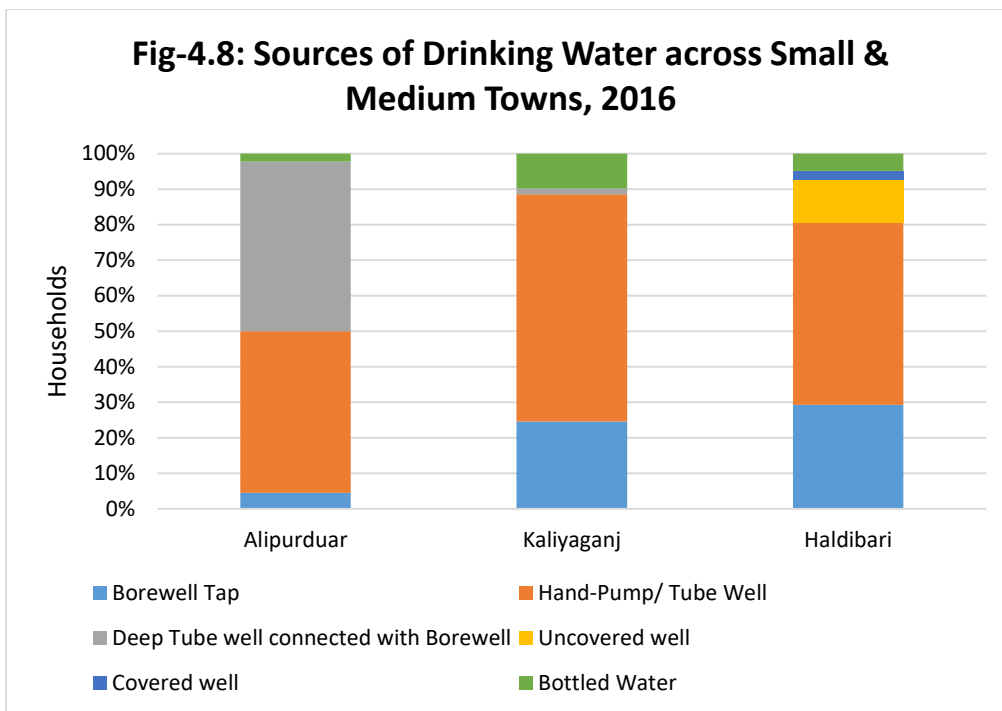
Table-4.1: Profile of Water Supply System, Small & Medium Towns, 2016

Parameter	Alipurduar	Kaliyaganj	Haldibari
<i>System</i>	Public Stand-post network (approximately 160 in number, out of which 30 is permanently damaged due to road widening)	Stand-post network (approximately 180 numbers); House connection (officially provided to only few households)	Public Stand-post network (approximately 482 numbers)
<i>Source of water</i>	Ground water	Ground water	Ground water
<i>Duration</i>	4.5 hours in 3 slots	3*2 = 6 hours	N. A

<i>Year</i>	N. A	Officially commissioned in 2017	Sanctioned in 1981, augmentation in 2011
<i>Storage system</i>	OHR (02 Numbers)	OHR (03 Numbers)	OHR (03 Numbers)
<i>Storage capacity</i>	360 Kilo-litres	2140 Kilo-litres	1105.34 Kilo-litres
<i>Treatment</i>	Full	Full	Full
<i>Estimated length of network</i>	29 km	66.23 km	52 km
<i>Estimated supply</i>	<i>water</i> N. A	2.14 MLD	N. A
<i>Estimated demand</i>	<i>water</i> N. A	9.22 MLD	N. A
<i>Operation and Maintenance</i>	PHED	Kaliyaganj Municipality, with technical assistance of PHED	PHED
<i>User charge</i>	No	No	Rs. 30 as monthly user charge for domestic connection

*Source:* Collected and Compiled from official sources like Engineers and Urban Planners of respective Municipalities and PHED Offices

It is found to a certain extent that households are benefitted through government water supply system. ULB water supply through individual tap connection is almost absent in such towns. Public stand-posts are available in all these towns. In some of the households of Alipurduar, ULB-installed deep tube wells are found. In Haldibari, one can find ULB-installed hand pumps in few households. In all three towns, public stand posts regularly yield water thrice a day. Except Haldibari (that too only in case of 4 out of 25 households), quality of water supplied through such stand-posts are perceived to be good. On the downside, maintenance of stand-posts pose a serious question. In Kaliyaganj, as many as 14 out of 25 households fetch water from stand-posts which do not have any stop-cocks, thus leading to considerable wastage of treated water. Haldibari, however, reports more or less satisfactory scenario in this respect. Own sources of drinking water vary considerably among these three towns. In general, three sources namely, 'hand pump / tube well', 'borewell tap' and 'deep tube well connected with borewell' are more important, along with 'bottled water'. In Kaliyaganj, 'hand pump /tube well' is more common, whereas 'deep tube well connected with borewell' is frequent in Alipurduar. Majority of the households (i.e. 78.4 percent) do not treat water before drinking. Use of electronic filter device and candle filter are limited to handful number of households.



*Source:* Compiled from the Household Survey Database, 2016



*Plate-4.12. Overhead Reservoir used for storing water, with an attached pump house – operated and maintained by PHED, Haldibari*

#### 4.4.3.2 Solid Waste Management:

##### *Technical Information:*

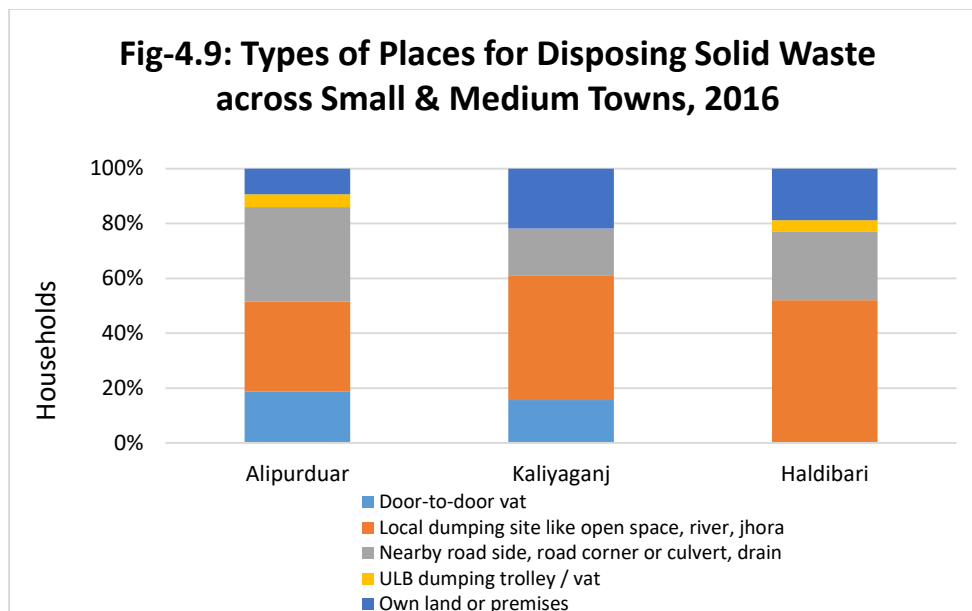
Table-4.2: Profile of Solid Waste Management System, Small & Medium Towns, 2016

<b>Parameter</b>		<b>Alipurduar</b>	<b>Kaliyaganj</b>	<b>Haldibari</b>
System		Door-to-door collection, as well as from community vats or dustbins	Door-to-door collection	from community vats or dustbins
Total collected	Quantity	22 MT/day	N. A.	15-20 MT/day
Total segregated	quantity	No	No	No
Total disposed	quantity	22 MT/day	N. A.	15-20 MT/day
Frequency of collection	of	Three days/week	Three days/week	Two days/week
Method of disposal		Dumping	Dumping	Dumping
Staff		200-250	N. A.	26
Vehicles		N.A.	23	N. A.
User charge		Households pay Rs. 50 per month as labour charge, not formally introduced by the ULB	No	No

*Source:* Collected and Compiled from official sources like Sanitary Inspectors and Urban Planners in respective municipalities

A thumping figure of 75 out of 176 households (i.e. 42.6 percent) in three towns in total shows how mismanaged solid waste is creating micro-environmental problems. These households throw solid waste into local dumping sites like open space and rivers. Another set of 45 households (i.e. 25.6 percent) deposit solid waste on nearby roadside/road corner/culvert/drain, sometimes not even carried and cleaned away by the concerned ULBs. 16.5 percent households are reported to have solid waste disposal system on their own premises. Door to door collection system (covering only 22 households in total) is not extensive at all, and completely missing in Haldibari. Even ULB's provision of dumping trolleys/vats is not up to the mark.





*Source:* Compiled from the Household Survey Database, 2016



*Plate 4.13, 14 and 15 (Clockwise from Left Up): Unsegregated solid waste thrown into a dilapidated dustbin in Alipurduar; A new plastic waste contained installed in Haldibari; An old outdated metallated waste container in Kaliyaganj*

Segregation of solid wastes at the source is almost absent, and only 12 out of 176 households report to do so, as to feed vegetable residues to domestic animals. In Alipurduar, daily collection of solid waste from door-to-door is done on a daily basis, and in Kaliyaganj, this is mostly done in every two-three days per week or even only once in a week. Dump sites are not cleaned regularly, and 74 out of 154 households report to have never seen any form of dump site cleaning. Out of these 154 households, 45 report some cleaning done by concerned ULBs, and another 32 claim to clean solid waste themselves, mainly through burning/digging pits.

#### 4.4.3.3 Drainage System:

##### *Technical Information*

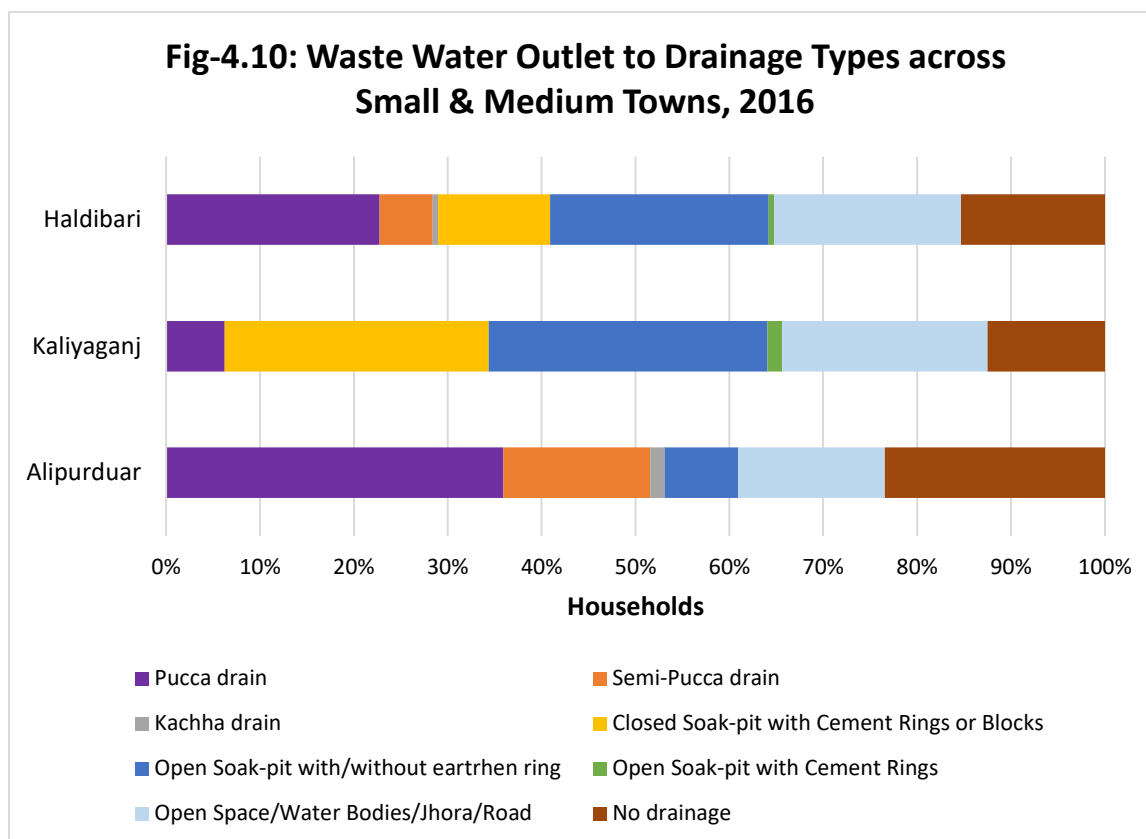
Table-4.3: Profile of Drainage System, Small & Medium Towns, 2016

Parameter	Alipurduar	Kaliyaganj	Haldibari
System	Manual	Manual	Manual
Length of Drains	Pucca 43 + Kachha 77.3 km = Total 120.3 km	N. A	Pucca 12.8 km + Kachha 27.6 km = Total 40.4 km
Frequency of Cleaning	Every 15 days	Nothing specific, entirely need-based,	More or less weekly; nothing specific, entirely need-based, subject to availability of labourers
Staff	N. A	N. A	N. A
Use of disinfectants	Yes	Yes	Yes
User Charge	No	No	No
Disposal of drained waste	Open space	N. A	N. A

*Source:* Collected and Compiled from official sources like Sanitary Inspectors and Urban Planners in respective municipalities

Only 31 out of 176 (i.e. 17.6 percent) households do not have any waste water outlets. The proportion of households having pucca and kachha waste water outlets is almost same. Absence of waste water outlets at household level is a grave problem in Alipurduar (i.e. 19 out of 64 households). In Haldibari, majority of the households (i.e. 56.2 percent) have kachha outlets. Almost same proportion of households (i.e. 23 percent) empty waste water into ‘open soak-pit with/without earthen rings’ and ‘pucca drains’. Connectivity of waste water outlets to open space/water bodies/road is also common (as many as 19.9 percent).

It is heartening to see that 18 out of 64 households in Kaliyaganj have waste water outlets connected to closed soak-pits with cement rings or blocks. But, the absence of drainage network is a major problem in Kaliyaganj.



*Source:* Compiled from the Household Survey Database, 2016

Drainage flooding and choking are not major problems, at least not reported by households in general. Drains are not cleaned very regularly, and it is mostly done once or twice in a month. The responsibility of drain cleaning entirely lies on the shoulder of concerned ULBs and participation of household members/hiring of private sweepers is almost zero. While 51.7 percent households in total report that no disinfectants are spread after cleaning of drains, 33 percent claim to have seen spreading of mosquito larvicidal oil/cannon gas. Spreading of bleaching powder is also partially reported. However, these disinfectants are not spread frequently, at most few times in a year.

#### **4.4.3.4 Latrine Facilities:**

Census 2011 reveals that Alipurduar, Kaliyaganj and Haldibari have 90, 81 and 84 percent of households with latrines within premises. An overwhelming presence of latrine facilities, as reported by 96 percent sampled households in total, needs to be cheerfully acknowledged. Ventilated Improved Pit Latrine with Cemented Ring and Slab is the major type of latrine (78.1 percent), followed by Flush Latrines (17.2 percent). On the other hand, open defecation is found in Kaliyaganj and Haldibari, although the respective number of households is less, 3 and 2 only. 2 households in Alipurduar are having old dilapidated latrines, night soil tanks of which are emptied into nearby waterbodies.

#### **4.4.4 MEDIUM TOWN IN HILLS: A STUDY ON KURSEONG**

##### **4.4.4.1 Water Supply:**

###### *Technical Information:*

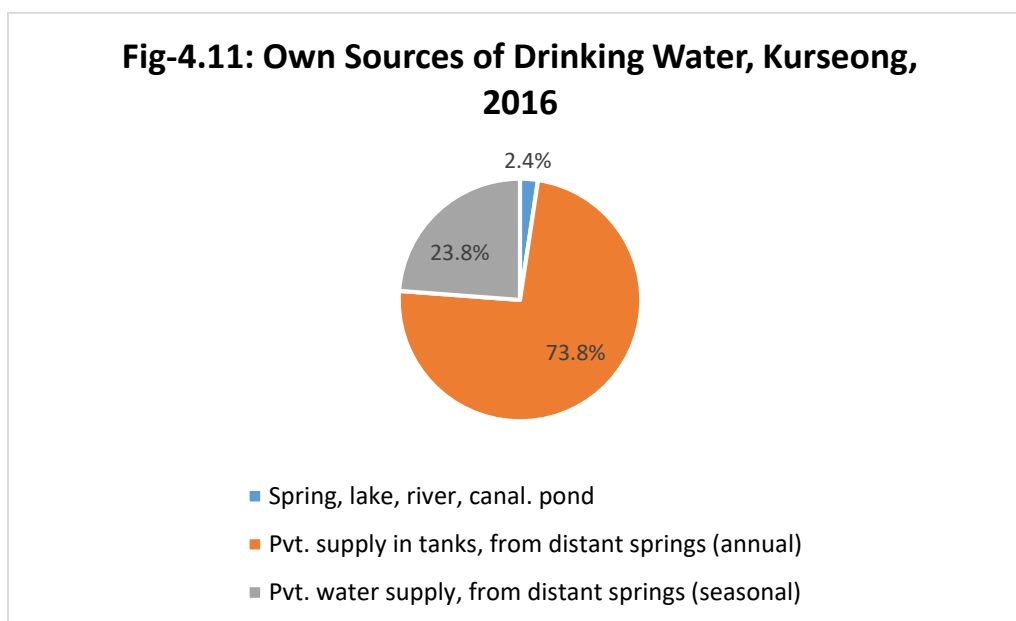
For water supply, the concerned municipality of this hill town mainly depends on perennial and semi-perennial small hill streams and springs (locally known as *Jhora and Khola*) which are total ten in number. The collected water is reserved at storage tanks, from which water is supplied to taps through connection pipes. There are total 11 tanks, and the total storage capacity is 18314 kilo-litres (approximately). Keeping in mind the population figures (actual and floating), water supply stands as 0.44 kilo-litres per capita per day, but demand stands as almost three times higher. For a new tap connection for domestic purposes, a household needs to pay Rs. 5500, and the connection is provided within 45-60 days after application, subject to suitable terms and conditions.

###### *Field Observations:*

In Kurseong, 40 out of 48 households surveyed, have tap water connection provided through ULB supply system. The good quality water is supplied every alternate day for one hour duration. Most of the connections are old, sometimes even greater than 25 years. Stand-post supply is found only in Ward 20, and 5 out of 24 households are dependent on this supply again every alternate day for one hour duration. Stand-posts are well maintained, thereby not leading to wastage of water. Apart from this, majority of the



households are dependent on private water supply. Private water suppliers fetch water from distant springs, and bring it to households in large tanks carried by vehicles.



*Source:* Compiled from the Household Survey Database, 2016



*Plate-4.16: Stored water in tanks, Kurseong*

This demand of water increases especially during dry summer season, as reflected in case of 10 surveyed households which resort to such seasonal supply. In this small hill town, where average temperature is relatively lower, water is usually boiled before drinking. As

many as 29 households are reported to follow this method of water treatment, whereas use of electronic filter device and candle filter is limited.

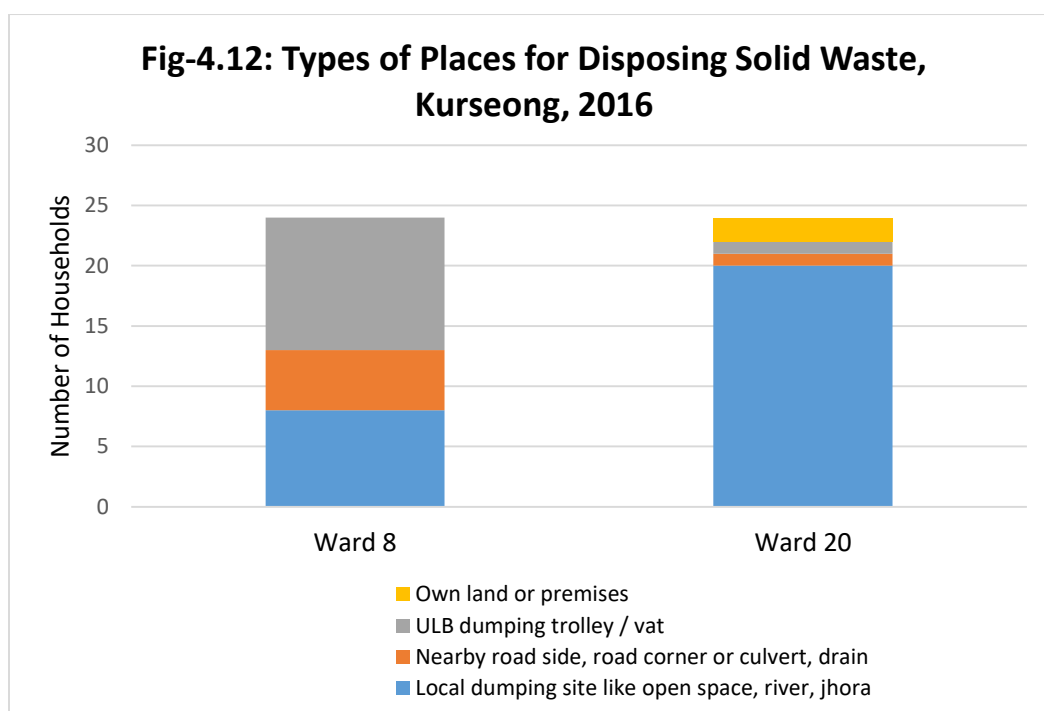
#### 4.4.4.2 Solid Waste Management:

##### *Technical Information:*

Kurseong Municipality has installed vats at multiple locations for throwing solid waste. The ULB uses 2 tractors and 2 trucks to collect and dispose sold waste daily from such vats to trenching ground. However, the ULB does not have any permanent dumping ground or landfill site.

##### *Field Observations:*

Most of the households throw solid waste into local dumping sites like open space and smaller springs locally known as *jhoras*. ULB dumping vats are also found in Ward 8, and 11 households reveal that they deposit solid waste into such vats. However, such vats are not used by residents of Ward 20, where local dumping sites are mostly prevalent.



*Source:* Compiled from the Household Survey Database, 2016

Segregation of solid waste at the household is almost nil. In Ward 8, where a few waste vats are found, households complain about irregular cleaning of those vats. These vats are cleaned mostly in between one and three times per week. 29 out of 48 households have never seen any sort of dump site cleaning, and 8 households do not know/cannot specify the frequency of dump site cleaning. ULB sanitation staff is responsible for dump site cleaning, and they only cover designated vats. Sometimes, household members clean dump sites on their own.



*Plate-4.17. Downslope drains are used for throwing households' solid waste in Kurseong*

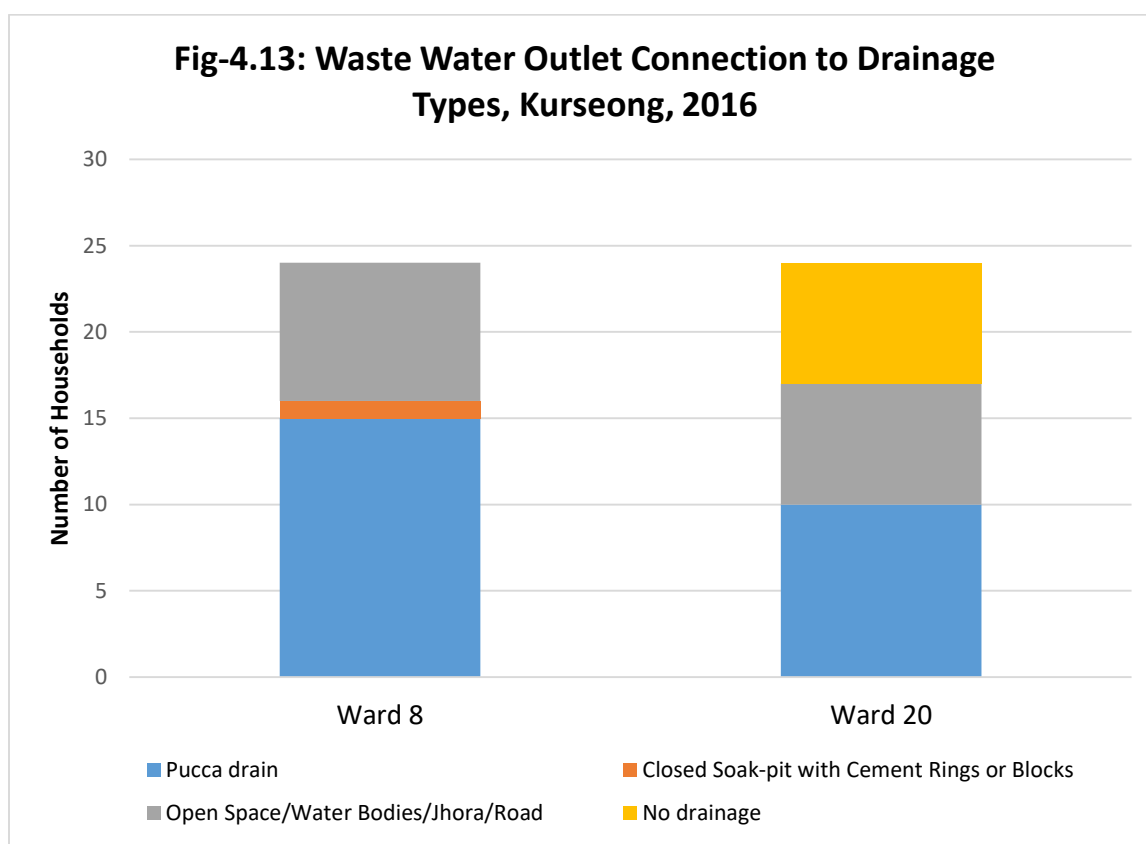
#### 4.4.4.3 Drainage System:

##### *Technical Information:*

In this town, both pucca and kachha types of drains are found, with 36.5 and 20.8 km length respectively. As these drains are uncovered, municipality cleans these manually and carries waste load through vehicles.

##### *Field Observations:*

In Ward 8, 23 households have pucca waste water outlets. On the other hand, in Ward 20, 7 household do not have waste water outlets, and 8 have pucca outlets and 5 have semi-pucca outlets. In Ward 8, waste water outlets of 15 households are emptied into pucca drains, and for 8 households, outlets are connected to open space or *jhoras*. Absence of drainage network is a major problem in Ward 20.



*Source:* Compiled from the Household Survey Database, 2016

In general, drains are not cleaned regularly, and in fact, frequency of drain cleaning is unknown to a major chunk of surveyed households (26 in total). In Ward 8, as per 15 households, cleaning of drains is performed by ULB sanitation workers. This hill town, due to physiographic reasons, does not have problems of mosquito breeding into drains and waterbodies. As a disinfectant, bleaching powder is spread after cleaning road and drain a few times in a year.

#### 4.4.4.4 Latrine Facilities:

##### *Technical Information:*

This is one of the major services that the ULB is concerned with. As night soil is often disposed into open *jhoras*, micro-environmental pollution generates health hazards. As per ILCS Survey, this town had almost 60 percent of total households with kachha latrines. Therefore, a central septic tank, covering all Wards through piped system, is being constructed through UIDSSMT sewerage scheme. At present, it has a partial sewerage network, i.e. 6 km. As per Census 2011, around 88 percent households have latrines within premises, and within that ‘Flush’ (83 percent) and ‘Pit’ (5 percent) latrines are predominant.

##### *Field Observations:*

45 households have latrine facilities available within premises. Ventilated Improved Pit Latrine with Cemented Ring and Slab is the major type of latrine. Pit with earthen rings are also found in Ward 20. Open defecation, especially in the tea gardens, is found to be present. Two households use latrines belonging to neighbours/relatives.

## 4.5 STATUS OF SERVICE DELIVERY IN CENSUS TOWNS:

### 4.5.1 Water Supply:

Table-4.4: Profile of Water Supply System across Census Towns, 2016

Parameter	Jaigaon	Kasba	Chak Bhrigu	Lataguri
<i>System</i>	Stand-post	Stand-post	Stand-post	Stand-post
<i>Source of water</i>	Ground water	Ground water	Ground water	Ground water
<i>Duration</i>	N. A	N. A	3 times/day	N. A
<i>Year</i>	1979	2002 (scheme for rejuvenation	1979, scheme for rejuvenation	1975, (augmented scheme

		sanctioned 2009)	in	sanctioned 2009	in	sanctioned 2006)	in
<i>Storage system</i>	N. A	N. A		N. A		OHR	
<i>Storage capacity</i>	N. A	N.A.		N. A		N.A.	
<i>Treatment</i>	Yes	Yes		Yes		Yes	
<i>Estimated length of network</i>	N. A	N. A		N. A		6 km	
<i>Estimated water supply</i>	N. A	N. A		N. A		N. A	
<i>Estimated water demand</i>	N. A	N. A		N. A		N. A	
<i>Operation and Maintenance</i>	PHED	PHED		PHED		PHED	
<i>User charge</i>	No	No		No		No	
<i>Any other system</i>	Rig Bore Wells installed by Jaigaon Development Authority	Hand pumps installed by the Gram Panchayat		Hand pumps installed by the Gram Panchayat; Treated Tap Water at G.P. office premises <sup>1</sup>		Wells and hand pumps installed by the Gram Panchayat	

*Source:* Compiled and Collected from respective Gram Panchayat Offices and Jaigaon Development Authority

In Jaigaon, piped tap water is available to 45 out of 48 households surveyed. But, in other Census Towns, such facility is missing. This supply is mainly available twice a day. One can find ten year old house connections, but most of the connections are not older than five years. In Kasba, there is a sketchy presence of stand-posts, only available along the National Highway-34. Jaigaon also has a very limited number of stand-posts. On the other hand, a substantial share of households depend on stand-posts both in Chak Bhrihu and Lataguri (i.e. 20 and 32 out of 48 households each). In Lataguri, RLB-installed hand pumps and community wells are also found, from which households fetch water. This is observed near the railway station, because after demolition and subsequent relocation of dwelling structures for new railway lines, previous water sources had to be removed. These are now replaced with hand pumps and community wells. In Chak Bhrihu, water is supplied to stand-posts ‘thrice a day’, whereas rest of the three Census Towns have ‘two times a day’ frequency of water supply. In all these four settlements, water supply through stand-posts is regular. However, in Lataguri, perceived quality of supplied water is ‘medium’ because

<sup>1</sup> Funded under Institutional Strengthening of Gram Panchayats Programme (ISGPP), supported by Gol and World Bank

some households complain about presence of mud and iron content in the water. In other three towns, perceived quality of supplied water is reported to be ‘good’. Broken stopcocks, resulting into wastage of water, are found mainly in Chak Bhrigu.

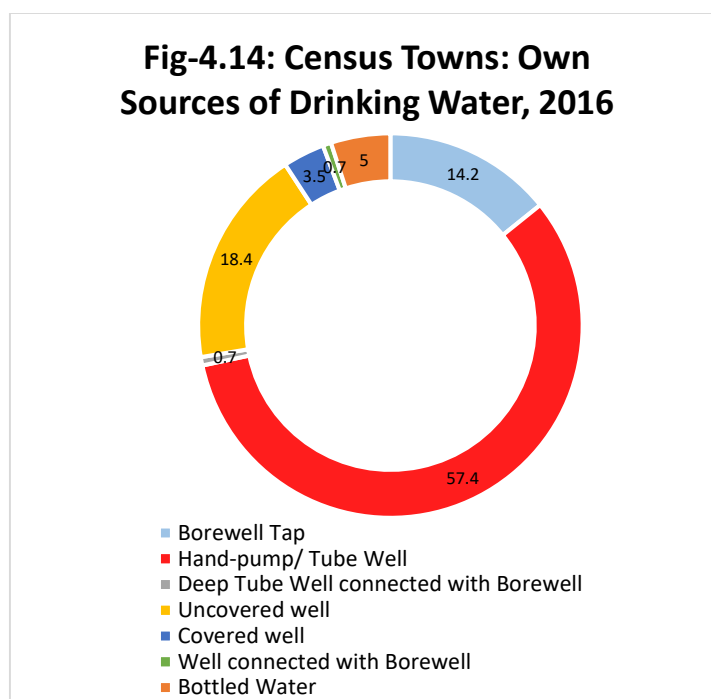
Table-4.5: Own Sources of Drinking Water across Census Towns, 2016

<i>CT</i>	<i>Borewell Tap</i>	<i>Hand-pump/ Tube Well</i>	<i>Deep Tube Well connected with Bore well</i>	<i>Uncovered well</i>	<i>Covered well</i>	<i>Well connected with Bore well</i>	<i>Bottled Water</i>	<i>TOTAL HH</i>
JAIGAON	6 (85.7)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	7 (100.0)
KASBA	4 (8.3)	43 (89.6)	0 (0.0)	0 (0.0)	0 (0.0%)	0 (0.0)	1 (2.1)	48 (100.0)
CHAK BHRIGU	9 (18.8)	34 (70.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (10.4)	48 (100.0)
LATA GURI	1 (2.6)	4 (10.5)	0 (0.0)	26 (68.4)	5 (13.2)	1 (2.6)	1 (2.6)	38 (100.0)
<b>TOTAL</b>	20 (14.2)	81 (57.4)	1 (0.7)	26 (18.4)	5 (3.5)	1 (0.7)	7 (5.0)	141 (100.0)

*Note:* Figures in parentheses indicate percentages

*Source:* Compiled from Primary Survey Technical Database, 2016

Own sources of drinking water vary much across Census towns. A great majority of households in Jaigaon does not have own sources of drinking water, as these are completely dependent on tap water pipe lines. Most of the households located in Kasba and Chak Bhrigu have own hand pumps / tube wells. In Lataguri, wells are more common, as evident in 26 and 5 households (having ‘uncovered’ and ‘covered’ wells, respectively). Treatment of water before drinking is almost absent in 75 percent households in total across all the four Census Towns. Candle filter is found to be greater in use as compared to electronic filter device and boiled water.



*Source:* Compiled from the Household Survey Database, 2016

#### 4.5.2 Solid Waste Management:

*Technical Information:*

Table-4.6: Profile of Solid Waste Management System across Census Towns, 2016

Parameter	Jaigaon	Kasba	Chak Bhrigu	Lataguri
System	Collection of solid waste from main road and market	No	No	No
Total Quantity collected	N. A	Not Applicable	Not Applicable	Not Applicable
Total quantity segregated	N. A	Not Applicable	Not Applicable	Not Applicable
Total quantity disposed	N. A	Not Applicable	Not Applicable	Not Applicable
Frequency of collection	Once in a day	Not Applicable	Not Applicable	Not Applicable
Method of disposal	Open dumping	Not Applicable	Not Applicable	Not Applicable
Staff	20	Not Applicable	Not Applicable	Not Applicable
Vehicles	2	Not Applicable	Not Applicable	Not Applicable
User charge	Yes	Not Applicable	Not Applicable	Not Applicable



Any remarks	other	Entire workload is on the local NGO	formal	Not Applicable	Not Applicable	Not Applicable	After a survey, plan of installing 1 community dustbin per 10 households; engagement of 2 labourers per Gram Sansad
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*Source:* Compiled and Collected from respective Gram Panchayat Offices and Jaigaon Development Authority

Among four Census Towns, the system of door-to-door collection of solid waste is present only in Jaigaon. In other towns, higher shares of households throw solid wastes into local dumping sites like open spaces and waterbodies. In Lataguri, Kasba and Chak Bhrigu, some households report to have dumped solid waste into nearby drains, roadsides or road corners. In Kasba and Chak Bhrigu, however, solid waste disposal in own premises/land is relatively more common.

Table-4.7: Places for Depositing Solid Waste across Census Towns, 2016

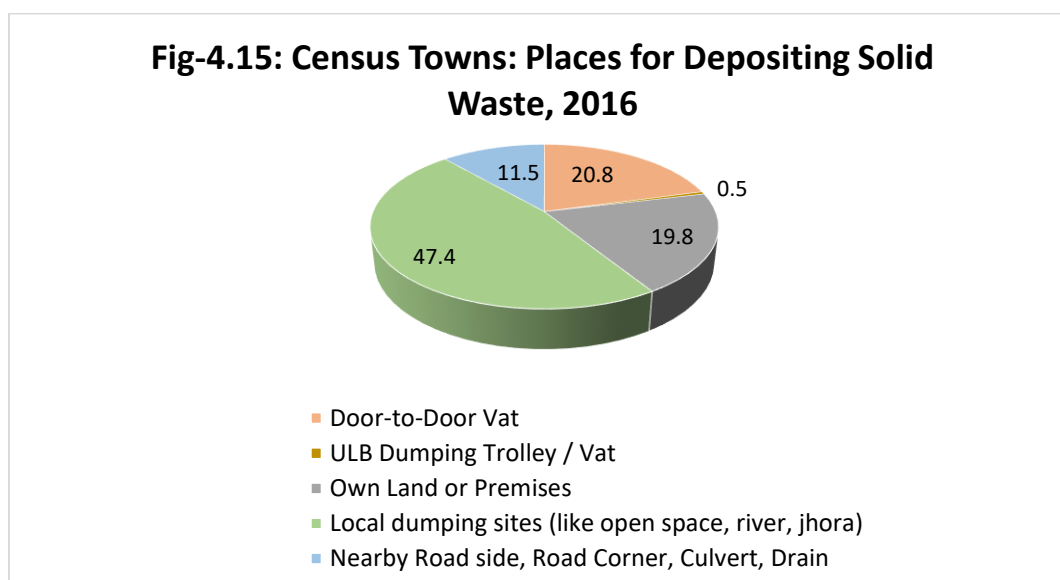
CT	Door-to-Door Vat	ULB Dumping Trolley / Vat	Own Land or Premises	Local dumping sites (like open space, river, <i>jhora</i> )	Nearby Road side, Road Corner, Culvert, Drain	TOTAL HH
JAIGAON	40 (83.3)	1 (2.1)	0 (0.0)	2 (4.2)	5 (10.4)	48 (100.0)
KASBA	0 (0.0)	0 (0.0)	13 (27.1)	34 (70.8)	1 (2.1)	48 (100.0)
CHAK BHRIGU	0 (0.0)	0 (0.0)	16 (33.3)	30 (62.5)	2 (4.2)	48 (100.0)

LATAGURI	0 (0.0)	0 (0.0)	9 (18.8)	25 (52.1)	14 (29.2)	48 (100.0)
<b>TOTAL</b>	40 (20.8)	1 (0.5)	38 (19.8)	91 (47.4)	22 (11.5)	192 (100.0)

*Note:* Figures in parentheses indicate percentages

*Source:* Compiled from Primary Survey Technical Database, 2016

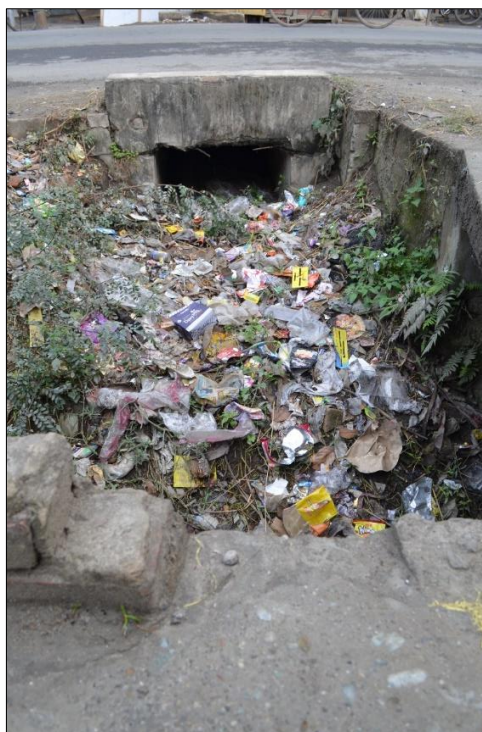
Segregation of solid waste, at the household level, is almost absent. Only in few households of Kasba and Chak Bhrigu, where domestic animals are present, segregate solid waste in order to feed them vegetable residues. In Jaigaon, door-to-door collection of solid waste is practiced two-three days in a week. All the other three towns have reported that dump site is cleaned irregularly. 51.6 percent households reported to have “never” seen any solid waste clearing work, and another 22.4 percent households “do not know/cannot specify” the frequency of such exercise. Quite usually, 51.6 percent households answer that no agency or group of individuals is responsible for waste cleaning. In Kasba, Chak Bhrigu and Lataguri, at least some of the household members themselves clean heaps of garbage. In Jaigaon, only 5 households have revealed that casual wage labourers appointed by the concerned Rural Local Body (RLB) clean solid wastes.



*Source:* Compiled from the Household Survey Database, 2016



*Plate-4.18: Arrangement of Treated Drinking Water for Public Use at Chak Bhrigu G.P. Office*



*Plate-4.19: Solid waste is often thrown into drains and culverts along major roads, Kasba*

### 4.5.3 Drainage System:

#### Technical Information:

Table-4.8: Profile of Drainage System across Census Towns, 2016

Parameter	Jaigaon	Kasba	Chak Bhrigu	Lataguri
<i>System</i>	Pucca and Kachha drains	Pucca and Kachha drains	Open kachha drain	Open kachha drain
<i>Length of Drains</i>	Pucca 5 km; Kachha 9 km	Pucca 1.5 km; Kachha 0.5 km	Pucca 3-3.5 km; Kachha 6-7 km	Pucca 600 m.; Kachha 5 km
<i>Frequency of Cleaning</i>	N.A	1 or 2 times per year	Annual	1 or 2 times per year
<i>Staff</i>	No	N.A	N. A	10 (contractual)
<i>Use of disinfectants</i>	No	No	No	No
<i>User Charge</i>	No	No	No	No
<i>Disposal of drained waste</i>	No specific arrangement – in open space, i.e. dumping ground	No specific arrangement – in open space	No specific arrangement – in open space, i.e. pond side	No specific arrangement
<i>Additional Remarks</i>	manual cleaning through engagement of labourers in MGNREGS			manual cleaning through engagement of labourers in MGNREGS

Source: Compiled and Collected from respective Gram Panchayat Offices and Jaigaon Development Authority

As far as ‘structure of waste water outlet’ is concerned, the survey reveals a mixed picture. Almost same numbers of households have ‘pucca’ and ‘kachha’ outlets, respectively. In Jaigaon, the situation is relatively better as 32 out of 48 households use ‘pucca’ and 13 use ‘semi-pucca’ waste water outlets. But, in rest of the three towns, more than half of the total surveyed households have access to ‘kachha’ outlets. In Lataguri, 5 out of 48 households have complained about absence of waste water outlets.

Table-4.9: Structure of Waste Water Outlet across Census Towns, 2016

	Absent	Pucca	Kachha	Semi-pucca	Total HH
JAIGAON	2	32	1	13	48
	(4.2)	(66.7)	(2.1)	(27.1)	(100.0)

KASBA	1 (2.1)	17 (35.4)	25 (52.1)	5 (10.4)	48 (100.0)
CHAK BHRIGU	2 (4.2)	17 (35.4)	26 (54.2)	3 (6.3)	48 (100.0)
LATAGURI	5 (10.4)	14 (29.2)	27 (56.3)	2 (4.2)	48 (100.0)
<b>TOTAL</b>	10 (5.2)	80 (41.7)	79 (41.1)	23 (12.0)	192 (100.0)

*Note:* Figures in parentheses indicate percentages

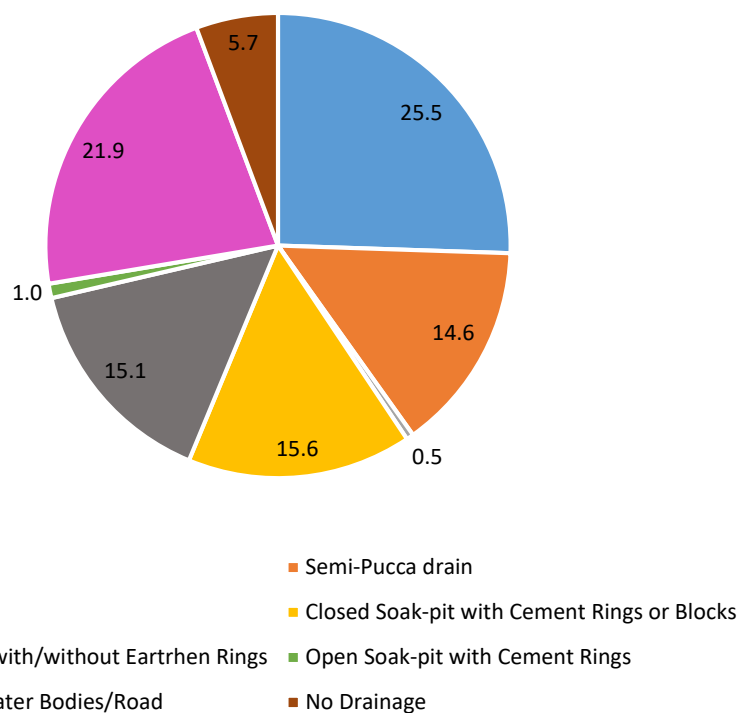
*Source:* Compiled from Primary Survey Technical Database, 2016

In total, around 22 percent households' outlets empty into open space/water bodies/ road. This is mainly observed in Kasba and Lataguri (with 16 households each). Only in Jaigaon, 42 out of 48 households, have connectivity of outlets with 'pucca' drains. 'Semi-pucca' drains are more or less present in Chak Bhrigu and Lataguri. Soak-pits, whether 'closed' or 'open' are also present, to some extent, in Kasba and Chak Bhrigu.

Absence of drainage network is a general problem, found in all the Census towns, except Jaigaon. However, in Jaigaon, most of the households (i.e. 41 out of 48) have complained about choked drains throughout the year, leading to flooding of contaminated water during the occasion of heavy rain and rainy season. In Kasba, 45 out of 48 households complain about the absence of drainage network. In other three settlements, presence of drainage network is partial, that too only along the main road, thereby excluding majority of the residential areas. In Lataguri and Kasba, some households access partially established drainage network, and they do not have specific complaints on drain choking or flooding in general. Only in Chak Bhrigu, one-fourth of the surveyed households complain about flooding of drains during the rainy season. The reason behind the problem of choked drains all through the year in Jaigaon is explained by the fact that drains are cleaned 'twice' (reported by 13 households), 'three-four times in a year' (10 households) and 'once in a year' (9 households). In some parts of Lataguri, drains are cleaned annually (as responded by 8 households). There are few households in Lataguri, Jaigaon and Chak Bhrigu, who do not even know the frequency of drain cleaning.

Both in Lataguri and Jaigaon, labourers appointed by Rural Local Bodies clean drains. In Chak Bhrigu, 19 out of 48 households respond that concerned household members themselves drains they access. Spreading of disinfectants like bleaching powder and mosquito repellants are almost absent, as responded by 152 out of 192 households in total. For example, Jaigaon's nine households have seen use of bleaching powder, and rest 39 have not observed anything. In Lataguri, 22 households have replied that bleaching powder is provided by health department employees to them, mainly for drinking water wells. Spreading of mosquito larvicide oil or cannon fogging is almost absent across these four Census towns.

**Fig-4.16: Census Towns: Connectivity of Waste Water Outlets, 2016**



*Source:* Compiled from the Household Survey Database, 2016

#### 4.5.4 Latrine Facilities:

Although Jaigaon, Chak Bhrigu and Kasba report around 90 percent households with latrines within premises, the corresponding value for Lataguri is 63 percent (Census 2011). Presence of latrines in almost all sampled households across four Census towns is really appreciable. ‘Ventilated Improved Pit Latrine’ is the most common type in all these Census towns. Flush latrines are available to only better-off households, especially in Jaigaon. In Jaigaon and Chak Bhrigu, presence of pit latrines with earthen rings is also found, as responded by 5 households, each. Only, in Kasba, 4 households with ‘service latrines’ are found.



*Plate-4.20: Waste water outlets empty into garbage-clogged main drains, Jaigaon*



#### 4.6 CONCLUSION:

It is observed that there is a mismatch between technical dataset and field dataset. Barring large cities, small and medium towns – be it Statutory or Census – in general lack systematic and updated records. That's why it would be really difficult to make a comparative assessment. As per the absolute scenario, large cities like Siliguri and English Bazar are found to be providing basic services to a considerable extent. Both the urban centres have provisions of house connection and stand post-based tap water supply system, door-to-door collection system of households' solid waste, drainage network and individual as well as public latrines. One part of the explanation comes from the question how old the cities are, and the answer lies in the fact that over years, different schemes and projects have cumulatively added up to reach this present status of infrastructure. Another part of the explanation is the maturity of the local governing body, where stakeholders have taken interest to plan, design and implement these schemes and projects. Moreover, the projects undertaken seem economically viable and socially necessary, as there is a huge demand from general residents to obtain basic services. Creation, operation and maintenance and overall upgradation of water works, drains, dumping ground and other types of physical infrastructure involve a lot of capital investment primarily from government funds, both recurring and non-recurring, for which this twin factors of 'economic viability' and 'social necessity' are of prime importance. Small and medium-sized Statutory towns, on the other hand, reveal a sketchy picture. It's like a mesh of infrastructure in bits and pieces – as 'safe drinking water' is considered as 'life' (and now-a-days an important political priority too), some form of the institutional system of water supply is present in all of these towns. Recently, that means in last five to ten years, another political priority of 'sanitation' is getting momentum, and schemes and projects on 'latrines' and 'solid waste management' are being operationalised. Conspicuously, the layout of drainage and its regular cleaning have not been highlighted much. All towns, therefore, exhibit the partial presence of drains. Even in many parts of Siliguri and English Bazar as well, regular cleaning of drains is absent. Census Towns, another set of sampled urban centres, exhibit that even if a partial presence of water supply and latrine system is visible, there is a negligible presence of drainage system and solid waste management system. Statutory towns are in a better status due to the efforts of central-state and local



government initiatives, but even in Census Towns, large variation emerges out from the *presence* of local level activities (and *absence* too). To give one instance, Gram Panchayats, in general, lack willingness or infrastructure or funds to carry out SWM related services. But in Jaigaon, the coordination between a local NGO and concerned Gram Panchayat is yielding some services in this regard.

Apart from these general issues, urban centre specific issues are also present. For instance, in Siliguri, even if drains are there, these are not regularly cleaned. Spraying of mosquito larvicidal oil and spreading of bleaching powder is also infrequent. Alipurduar, an old and important town, although has a system of solid waste collection from households, the absence of a designated permanent dumping ground is a key challenge.

Therefore, it is important to understand why there is a mismatch between technical data set provided by local bodies and ground-level observations. Additionally, one needs to inquire why there is a variation in terms of service provisioning even within a same urban centre, or across urban centres – be it Statutory or Census. It would be thus worthwhile to intertwine the status of service provisioning with such questions, some answers of which are attempted to be explained in subsequent chapters.

# Chapter-5.

## Perspectives of Local Bodies in Service Provisioning

### 5.1 INTRODUCTION:

In the earlier chapter, a discussion on the status of services is made, which throws some light on the role played by local governing bodies in terms of provisioning basic services in the water and sanitation front. At this juncture, it is important to look at the perspective of service providers in detail, i.e. – their functional status, opportunities, challenges, limitations and the ways in which these can improve provision and delivery of services. Local Bodies, which are ideally supposed to follow five principles, (i.e. Principle of Democracy in Structure; Principle of Autonomy in Functioning; Principle of Fraternal Feeling; Principle of Diversity in Preferences and Principle of Heterogeneity of Units) as suggested by Chaubey (2003), actually work under certain constitutional and legal boundaries and certain project guidelines and norms related to provisioning of services. As the main purpose of service provision is to satisfy the residents in general, many informal issues crop up, some of which actually alter the ways through which services are provided and delivered.

The structured plan of this chapter is as follows. Following this introduction, the second section mentions the database and methodological issues. The third section presents the constitutional and legal provisions which provide functional status and opportunities to local bodies. In the fourth section, case studies of Siliguri and Jaigaon show how such institutional arrangement influences service provisions. The next section points out the challenges of financial imbalances – gaps between receipts and expenditures of Statutory towns. In the sixth section, case studies of Kaliyaganj and Alipurduar reveal how persistent local problems hamper basic services. The seventh section presents case-study based accounts how service-related challenges are solved, citing the examples of Siliguri and English Bazar. The last section is a concluding one.

## 5.2 DATABASE AND METHODOLOGY:

To assess the perspectives of local bodies in general, one should, at first, know the constitutional and legal provisions under which such bodies work. Therefore, important literature sources like the Seventh Schedule, The Constitution (74<sup>th</sup> Amendment) Act (1992), The West Bengal Municipal Act, 1993 (and further amendments) and The West Bengal Panchayat Act (1973), and amendments have been carefully consulted. In West Bengal, one can also find a presence of Development Authorities, formed under general guidelines of The West Bengal Town and Country (Planning and Development) Act, 1979. Such authorities play a significant role in ‘transitional areas’, i.e. areas transforming into ‘urban’ from ‘rural’ characteristics.

As almost all ULBs, at the fieldwork stage, asserted that there remains a shortage of funds for carrying out planning and development work to provide better water and sanitation related services, a secondary dataset titled as ‘*Municipal Statistics of West Bengal*’ is used and analysed to explore the trends, patterns and nature of financial aspects over almost two decades (from 1994-95, 2000-01, 2004-05, 2009-10 and 2012-13). This dataset gives a coherent information on components of ‘income’ and ‘expenditure’ of municipalities. As large cities/towns have more income and expenditure as compared to smaller towns in *absolute* terms, analysis of this dataset is limited to *relative* (i.e. percentage and per capita) terms.

For the case studies on selected issues, as cropped up in the sampled urban centres, due importance is given to qualitative information gathered and photographs captured during fieldwork. In ULBs, officials like Sanitary Inspectors, Engineers (in-charge of water supply and public works section), Urban Planners, and people’s representatives like Chairpersons, Ward Councillors and Ward Committee members have shared technical information and their views on different challenges and opportunities related to water and sanitation related services. In RLBs, Gram Panchayat Pradhans, Gram Panchayat Members, Secretaries and *Nirman Sahayaks*<sup>1</sup> have pointed out specific problems and prospects associated with water and sanitation sector. Group Discussion and In-depth

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<sup>1</sup> Civil Engineers, with at least a Diploma, working in Gram Panchayats who look after the planning, construction, operation and maintenance of civil works related to water and sanitation services.

Interviews conducted with them throw light on this relevant aspects. To substantiate their views, filed notes, field photographs and newspaper reports have also been used.

### **5.3 FUNCTIONAL STATUS AND OPPORTUNITIES:**

The Seventh Schedule (Article 246, State List, Item-5) mentions that “*Local government, that is to say, the constitution and powers of municipal corporations, improvement trusts, districts boards, mining settlement authorities and other local authorities for the purpose of local self-government or village administration*” lies with the concerned state government. The Constitution (74<sup>th</sup> Amendment) Act (1992) recognises the important role played by urban centres in propelling nation’s economy. It notes the limitations of state municipal acts and the pragmatic problems therein. Suspension/Supersession of municipal bodies, weakening of grass root level democratic practices and unsatisfactory financial management in general are some of these problems, which pushed public opinion to favour a constitutional guarantee in making Urban Local Bodies (ULBs) strong and relevant. It advocates the formation of local governing body in such a manner so that people lying at the grass root level can participate in the democratic process of planning and implementation of development works. In this process of democratic participation, this Act emphasises on “adequate representation of SC/ST and women in the elected bodies.” It envisages three general categories of ULBs, based on ‘demographic and other characteristics’, which may vary across states:

1. Nagar Panchayat – for settlements, in transition from rural to urban areas
2. Municipal Council – for relatively small-sized urban centres
3. Municipal Corporation – for relatively large-sized urban centres

This Act is basically a broad guideline provided to states, which can assign powers and functions to ULBs, look at the duration and election of ULBs as well as fix financial issues (i.e. income-expenditure categories), so that these perform smoothly. This Act is also concerned with district/metropolitan planning framework, as rural areas transform into urban areas due to a number of socio-economic and political factors.

So far as powers and functions of ULBs, as The Constitution (74<sup>th</sup> Amendment) Act (1992) suggests, one can have a look at the “illustrative list” of 18 functions as proposed

in 12<sup>th</sup> Schedule (Article 243 W), and there the thrust areas maybe clubbed in the following way-

- A. Provision of physical (e.g. water supply and sanitation) infrastructure and amenities/facilities (e.g. parks and playgrounds)
- B. Regulation/Maintenance of urban environment (e.g. through urban forestry and land use control)
- C. Inclusion (to help poor and weaker section of urban society)

According to The West Bengal Municipal Act, 1993 (and further amendments), a 'Municipal Area' is constituted when it adheres to following criteria-

- 1. A minimum size of 30,000 inhabitants
- 2. A minimum population density of 750 persons per square kilometre
- 3. Engagement of more than 50 percent of the adult population in non-agricultural economic activities

The West Bengal Municipal Act, 1993 (and further amendments) also classifies municipal areas into following categories, on the basis of population size-

- 1. Group A – more than 2,15,000
- 2. Group B – 1,70,000 – 2,15,000
- 3. Group C – 85,000 – 1,70,000
- 4. Group D – 35,000 – 85, 000
- 5. Group E – less than 35, 000

As per this Act, municipalities have (A) Obligatory Functions and (B) Discretionary Functions. 'Obligatory functions' are mainly in the spheres of

- I. Public works (like construction and maintenance of streets, drains, latrines),
- II. Public Health and Sanitation (like disposal of solid and liquid waste, immunisation)
- III. Town Planning and Development (like building regulations, laying out public parks)

IV. Administration (like survey and boundary delimitation, registration of birth and death)

‘Discretionary functions’ also cover the broad spheres mentioned above, and a new sphere as well. This is the sphere of ‘Development’ which may include many functions like provision of shelter for homeless, organisation of flower shows, assistance to small industries and crafts, promotion of income-generating economic activities for women belonging to disadvantaged groups.

It is already observed in the preceding chapters that water supply and sanitation are the focus of this study. These two components are part of ‘obligatory functions’, that means municipalities should “make reasonable and adequate provision” within its territorial boundaries and financial opportunities. The component of water supply comes under the first sphere. The component of ‘sanitation’ as already discussed in preceding chapters, covers the second and fourth spheres. If one looks at the functions more carefully, then ‘sanitation’ includes – collection, removal and disposal of solid wastes, disposal of liquid wastes, and conversion of ‘service privies’ into ‘sanitary latrines.’

The Act also provides a detailed account of civic services – the nitty-gritty of powers and the modalities through which ULBs can exert these powers. As the provision of supplying water for domestic purpose is very important, this Act gives all rights of sub-soil water to ULBs. Water supply involves the construction of waterworks (e.g. reservoirs) and laying/carrying pipes through public/private land and permitting individual house connections. ULBS may also supply water through Hydrants/Public Stand-posts. In case water is supplied to premises, the owner will bear expenses related to repairing of waterworks. House owners also have to apply for individual connections from municipal water-mains, and they will have to provide connection equipment (like pipes of a specific diameter) and materials. This Act explicitly points out the owner's responsibility in not allowing water wastage, through regular maintenance of pipes and other fittings. It also lays down few conditions, in which ULBs can exert their powers to cut off the water supply to premises. One of the conditions is non-payment of taxes/rates, and another is under-maintenance of waterworks leading to serious wastage/contamination of water.

ULBs are also supposed to provide and maintain drains/sewer lines, and also their 'safe and sufficient outfall'. The Chairman-in-Council (CIC) of the concerned ULB is supposed to make arrangement to clean, flush and empty drains/sewers from time to time. Private owners, after obtaining written permission from the CIC, can empty liquid waste carrying drains onto public drains. This Act also lays down rules and regulations for demolishing drains constructed without consent and stopping the encroachment of public drains.

Another is provisioning of solid waste management. It involves the functions of collection, removal and disposal of solid wastes, so that "efficient scavenging and cleansing of all streets, public places and premises" (Datta ed., 2015: 141) can be secured. Household owners are supposed to sweep/cleanse their respective premises and deposit the rubbish into designated receptacles. ULBs are supposed to arrange receptacles/depots/places where solid waste can be temporarily deposited before disposal. This Act stipulates daily surface-cleansing of roads and removal of solid waste by vehicles/covered vessels, and then disposal of such waste at places inside/outside ULB boundary in a suitable manner. As total generated solid waste is the property of ULB, its method of disposal and further processing is to be chosen by the concerned ULB according to suitability. In fact, this Act significantly acknowledges the cooperation that can come from individuals/public in maintaining cleanliness.

In West Bengal, Census Towns are mostly governed by Gram Panchayats. West Bengal Panchayat Act (1973), and amendments therein, clearly mention that Gram Panchayats shall perform following 'obligatory' duties (Roy, 2015: 44):

1. Construction and Maintenance of tube-wells, wells, tanks and the cleansing and disinfecting the sources of supply and storage of water.
2. Maintenance of environmental sanitation including promotion of solid and liquid waste and prevention of public nuisance.

In the list of 'regulatory duties', it is also mentioned that Gram Panchayat shall undertake schemes and adopt measures relating to "provide for prevention of water-logging and drainage of rain water" and "motivation and spreading awareness on environmental and social issues" (ibid. 48-49).

In the 74<sup>th</sup> Constitutional Amendment Act (1992), it is explicitly asserted that 'Nagar Panchayats' can be constituted for areas with transitional nature (i.e. a transition from rural to an urban area). Different states have their own criteria for selecting and notifying such 'transitional' areas. As for example, Tamil Nadu has a well-evolved system of Town Panchayats<sup>2</sup>. These are constituted to provide civic services to residents living in places of administrative or economic importance. Its population size ranges between 5000 and 30000, and these are graded according to average annual income. In Jharkhand, the range of population size for Nagar Panchayats is 28000 (highest 40000 and lowest 12000). Otherwise, the state government of Jharkhand may also notify areas as Nagar Panchayats which have some 'economic importance'. But, if one looks at the allocation and designation of officers, there is no difference between 'Municipal Councils' (that govern smaller urban centres) and 'Nagar Panchayats'. In both categories, due importance to administrative work (Executive Officer and Secretary), finance (Finance or Accounts Officer) and development work (Engineers) are given. In Himachal Pradesh, 'Nagar Panchayats' are formed for areas exceeding 2000 people and having annual revenue exceeding five lakhs for local administration. In Karnataka, population size varies in between 10000 and 20000. Apart from this, the factors of 'population density' and 'non-agricultural employment' and 'location of administrative centre' are also taken into account<sup>3</sup>. In Andhra Pradesh (Manikyam and Sujatha, 2002:70), 'Nagar Panchayats' are formed when urban areas match five criteria – 1) population size in between 25000 and 40000, 2) population density of minimum 1000 persons per square kilometer, 3) non-agricultural employment, at least 50 percent, 4) availability of market facilities and 5) revenue of 40 lakhs and above. Looking at Rajasthan's case, it is found that Sadiq Ali Study Team (1964) also suggested the creation of Nagar Panchayats for human settlements with population size lying between 5000 and 10000. This team also recommended that Nagar Panchayats should be equipped with greater financial power and a functional domain, especially for 'civic amenities' and 'social services' (Mathew, 1995: 179). In general, as Sachdeva (2011:79) notes, Nagar Panchayats are supposed to perform two categories of functions-

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<sup>2</sup><http://www.tn.gov.in/dtp/introduction.htm> (as on 19.11.2017)

<sup>3</sup> See a detailed list of criteria in <http://janaagraha.org/asics/data-tables/dt7.pdf> (as on 10.04.2018)



- I. Obligatory functions – water and sanitation, street lighting etc.
- II. Discretionary functions – primary education, arrangement and management of fairs, development planning for society and economy etc.

Nagar Panchayats are also important part and parcel of regional development plans. As for example, regional development plans for Patna in Bihar not only incorporates Patna Urban Agglomeration, but also Maner and Fatwah – two separate Nagar Panchayats also (Singh, 2016:71). Rao and Prasad (2007:135) comment that there is not much difference between Nagar Panchayats and small-town governing Municipalities. In terms of 'staff pattern' and a functional domain, these two categories work under same Act and legal provisions. The only difference lies in the distinguishing character i.e. transitional nature of Nagar Panchayats – from rural to urban areas.

## **5.4 INSTITUTIONAL OPPORTUNITIES:**

### **5.4.1 SILIGURI:**

Siliguri may be considered as an important example, where co-existence of a democratically-elected local governing body (Siliguri Municipal Corporation) and a Statutory development authority (Siliguri-Jalpaiguri Development Authority, SJDA), leads to a plethora of opportunities through which basic service provisioning can be ensured in an inclusive manner.

One of the milestones, in this direction, is the drainage project planned under Mahananda Action Plan. In and around Siliguri, five rivers (Mahananda, Fuleshwari, Jorapani, Mahismari and Chamta) are flowing. Sometimes, municipal drains and private household drains empty into these rivers. Siliguri-Jalpaiguri Development Authority (SJDA) is the executing agency of Mahananda Action Plan. This plan, funded by the Japan Bank of International Development (JBIC), is a part of National River Conservation Plan (NRCP) mooted by Ministry of Environment and Forests (MoEF). After launching in 2005, this plan aims to create three Sewerage Treatment Plants (STPs). As per the plan proposal, municipal drains will be connected to two major drains located along the right and left banks of Mahananda, and the wastewater carried through these two drains will be treated

in the concerned two STPs. Another STP is to be constructed for treating intercepted cum diverted wastewater that pollutes Jorapani and Fuleshwari rivers. As per the information available up to March 2013, 75 percent of the work has been done.<sup>4</sup> As a matter of fact, construction and maintenance of STPs is not an easy task, and often day-to-day work of service provisioning keep ULBs so busy that major purpose of any large project remains mismanaged and half-done. As SJDA is supportive in this regard, the role of SMC is specific i.e. operation and maintenance of drains through proper cleaning.

Apart from this, several projects undertaken by SJDA fall under SMC area. If one looks at the details of ‘ongoing’ and completed’ projects in last five years, such projects include physical infrastructural works on construction and repairing/strengthening of bituminous roads, and concrete drains and culverts.

#### **5.4.2 JAIGAON**

Like Siliguri, Jaigaon also presents a co-existence of local democratic body (Jaigaon Gram Panchayat-II) and a development authority (Jaigaon Development Authority, JDA). JDA, established in 1987, is also an outcome of The West Bengal Town and Country Planning Act. Jaigaon Planning Area consists of three Gram Panchayats, among which Jaigaon Gram Panchayat-II looks more like an urban centre due to sprawling commercial activities<sup>5</sup>. Unlike Siliguri, Jaigaon is a ‘Census Town’, and is governed by ‘rural’ local body. Given the limited financial and infrastructural base, the local body is not in a position to provide basic services to its residents. On the other hand, the development authority seems more like an ‘external actor’ in the whole process of socio-economic development. Although the concerned elected Member of Legislative Assembly (MLA) is the Chairperson of this authority, it consists of beaurocrats, engineers and officials who undertake and implement projects usually following top-to-bottom orders coming from the state i.e. Department of Urban Development. Local residents, through concerned MLA, also put forward their demands, which is initially approved by JDA and later

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<sup>4</sup><http://www.moef.nic.in/sites/default/files/NRCD/Mahananda.htm> (as viewed on 22.03.2017); Siliguri-Jalpaiguri Development Authority; the concerned Assistant Engineer of PWD section, SMC in a personal interview (dated 23.04.2013);

<sup>5</sup>[https://www.wbdma.gov.in/HTM/MUNI\\_JDA.htm](https://www.wbdma.gov.in/HTM/MUNI_JDA.htm) (as accessed on 23.03.2017); Jaigaon Development Authority office

### **Development Authorities in West Bengal**

In West Bengal (as per [www.wburbandev.gov.in](http://www.wburbandev.gov.in) on January, 2018), Development Authorities are integral part and parcel of regional development, in which nodal urban centres and adjacent villages play significant roles. These authorities are generally regulated by the West Bengal Town and Country Planning Act (1979). The broad functional domain of these authorities not only covers preparation of land use maps but also perspective plans and sectoral development plans. In addition to it, large infrastructural projects – both physical and social – are implemented by such bodies. In this way, economic growth is aimed to be fostered, which is one of the primary keys to development.

In total, 15 development authorities are presently functional. Some of them have special functions, depending on the geographical location and nature of development issues. As for example, Digha-Sankarpur Development Authority (DSDA) aims to develop this region as a popular beach tourist spot; Jaigaon Development Authority (JDA) seeks to promote cross-border trade with Bhutan through establishment of a land port; Asansol-Durgapur Development Authority (ADDA) and Haldia Development Authority (HDA) plans to boost industrial development; Furfura Sharif Development Authority (FSDA) proposes to attract religious or faith tourists.

In general, the administrative structure of Development Authorities include both executives/government officials and local elected political leaders as people's representatives. Development Authorities and Urban Local Bodies sometimes work in coordination with each other. But effective planned urban development only possible when plans are made with inputs from both sides (LGAF, 2014:70). Sivaramakrishnan (2006:27) points out that development authorities do not interact with Ward Committees formed in Urban Local Bodies which they are supposed to do when physical works take place at concerned wards. Chatterjee also notes that “conflicts of priorities and interests and lack of coordination, sometimes lead to inefficiency in serving the population”. She adds that these authorities are ‘heterogeneous’ in terms of geographical area, nature and power.

higher levels of authorities in state. This process of decision-making, therefore, sees daylight only when adequate funds are made properly available to these projects.

This institutional structure and decision-making process is a bit fragmented in nature. One can find physical infrastructural facilities like metalled main roads, parking lot,

market complex and bus stand. But provisioning of basic services, especially in terms of water and sanitation, lies in the hands of concerned Gram Panchayat, where institutions like JDA can only lend external technical support.

This conspicuous situation can be illustrated through the example of water supply system present in Jaigaon. In Jaigaon, one can find public stand-posts, from where people fetch drinking water. Pump machines and pipelines connecting these stand-posts are operated and maintained by the Public Health Engineering Directorate, through Jaigaon Water Supply Scheme. At present, Jaigaon has three pump houses. But, due to technical reasons, this water supply system is facing many problems<sup>6</sup>:

“The pump, operating in this house, is having a capacity of 20 horsepower. But, it has been repaired a number of times. Technically, it should yield 10,000 gallons of water per hour, but actually, it yields 5000 gallons per hour. Jaigaon looks urbanised, but people are still rural in nature. From one tap, they start creating many connection points to avail free drinking water. Stop-cocks fitted to public stand-posts are often broken. The concerned Gram Panchayat does not look into such problems.”

Given such challenges, residents file mass petitions to JDA. Depending on the availability of funds, JDA digs rig bore wells, where an underground filter is fitted. Operation cost of these bore wells is borne by JDA, whereas maintenance cost is borne by the concerned beneficiary. Continuous use of underground water is also posing a key challenge these days. Mainly during the summer season, the groundwater layer significantly declines. This trend, over the years, is a bit problematic<sup>7</sup>. As per the information available with PHED, a major scheme of piped water supply is ongoing in Jaigaon Development Area. It aims to utilise sub-surface water of Torsa River. The estimated project cost is Rs. 9372 lakhs<sup>8</sup>. Another key issue is the financial structure. The Jaigaon Gram Panchayat-II, within the existing taxation system, does not have much revenue of its own. JDA’s own fund is very limited (as it collects parking fees and shop rents only). Hence, the dependence on external funds like the BADP, MPLADS and BMS.

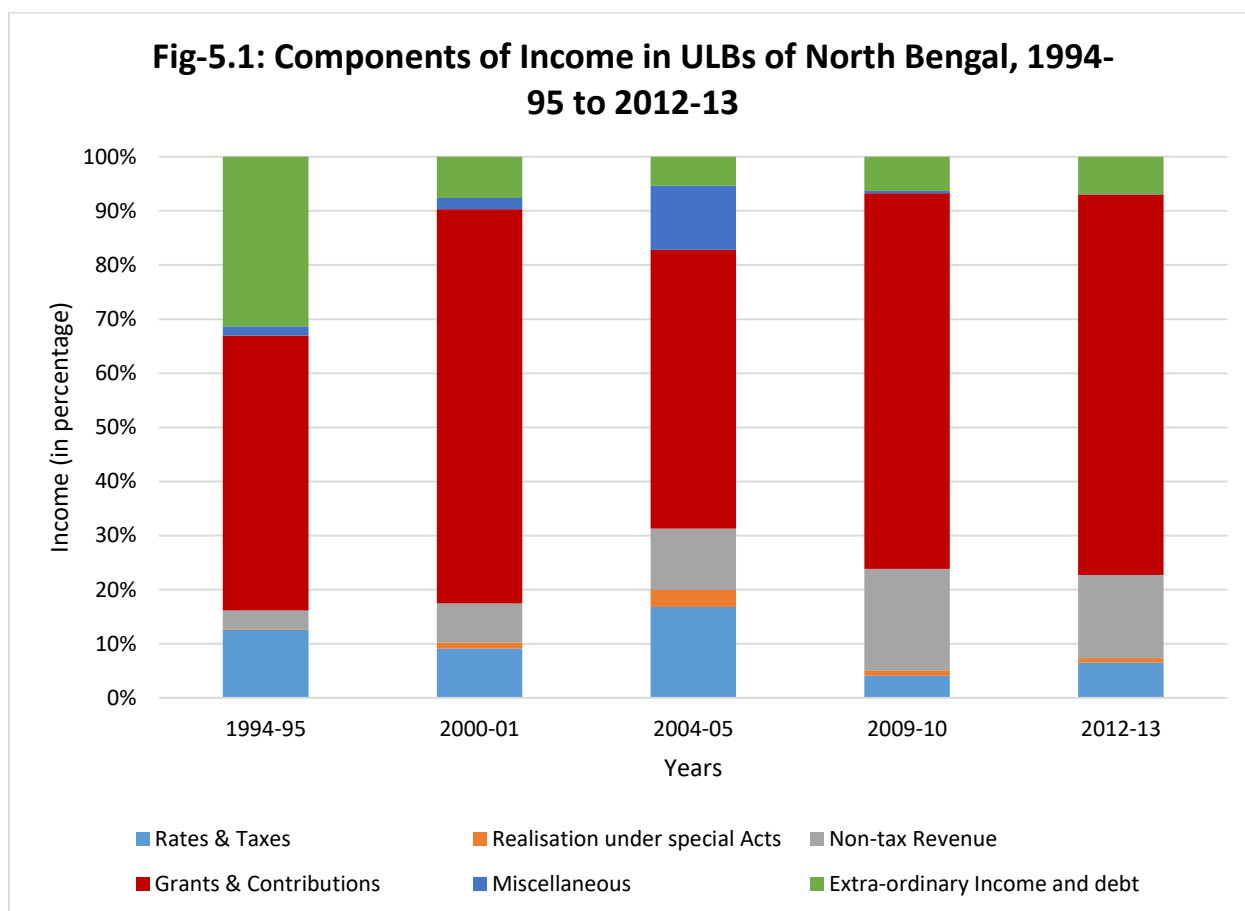
<sup>6</sup> A senior pump operator in Jaigaon (as interviewed on 30.03.2016)

<sup>7</sup> Assistant Engineer, Jaigaon Development Authority (as interviewed on 30.03.2017)

<sup>8</sup> <http://www.wbphed.gov.in/main/index.php/major-projects> (as accessed on 23.03.2017)

## 5.5 FINANCIAL IMBALANCES:

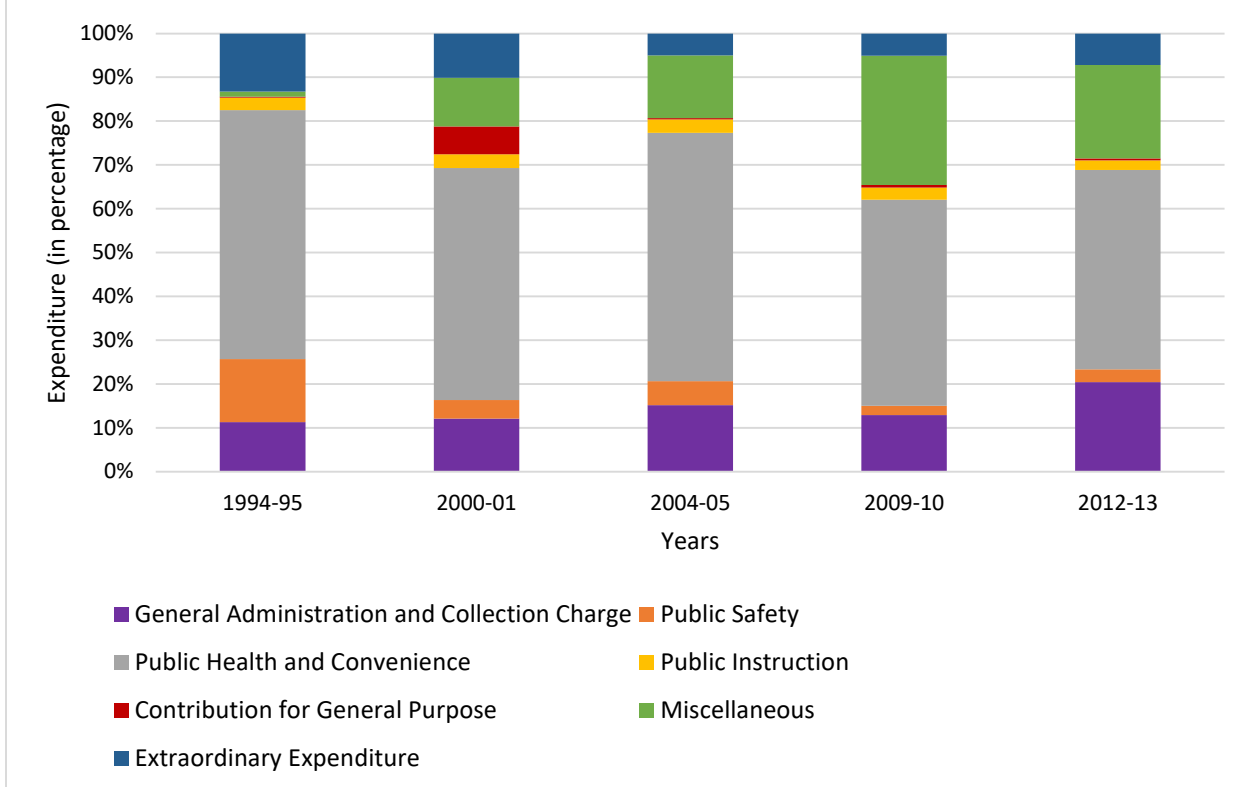
It must be told at this very outset that the detailed budgets of Gram Panchayats, showing the components of income and expenditure, are not available in a published secondary dataset format. Even at the fieldwork stage, none of the Gram Panchayats provided detailed budgets. Therefore, this discussion on ‘financial imbalances’ basically pertains to ULBs of North Bengal.



*Source:* Computed from ‘Municipal Statistics of West Bengal’

One can detect certain changes in the components of municipal revenue over the years. Although in between 1994-95 to 2004-05, ‘Rates & Taxes’ constitute around 12 percent of revenue, its shares are lower in subsequent two years. There is an increasing trend of ‘Non-tax Revenue’, whereas shares of ‘Extra-ordinary Income and Debt’ has almost remained constant (i.e. less than 10 percent) in between 2000-01 and 2012-13. In all these years, ‘Grants & Contributions’ hold the major chunk of municipal revenue.

**Fig-5.2: Components of Expenditure in ULBs of North Bengal, 1994-95 to 2012-13**

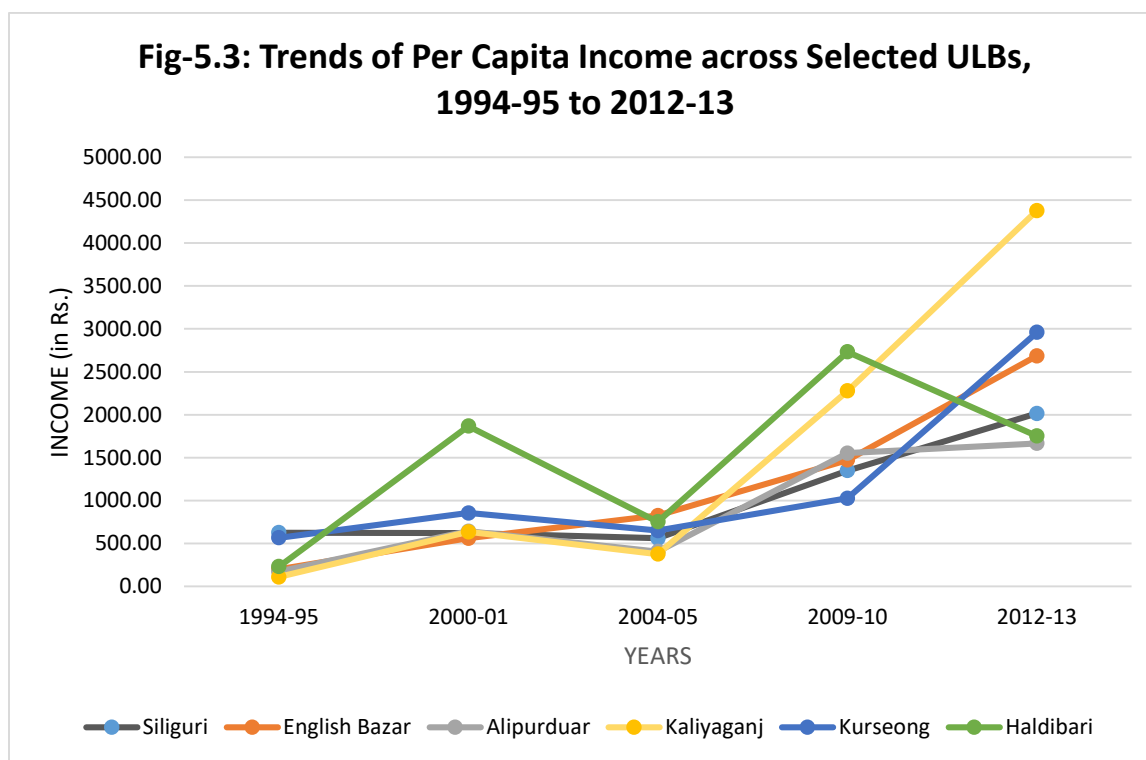


*Source:* Computed from ‘Municipal Statistics of West Bengal’

There have been temporal changes in the components of municipal expenditure also. ‘General Administration and Collection Charge’ which is found to be mostly around 10 percent in first four years, see a jump to 20 percent in 2012-13. This is explained by the fact that expanding ULB in terms of infrastructural and human resources need to bear additional costs. Expenditure shares on ‘Public Safety’ component are certainly reduced in last two years, and shares of ‘Public Instruction’ are almost same over all these years. This is partly explained by the fact once most of the streetlights are put in place, ULBs just need regular maintenance, which does not involve increasing expenditure. Another explanation may also be put forward. Recently, ULBs are switching over to energy efficient street lights, thereby reducing total electricity bills to a certain extent. As Municipal schools and libraries are limited in number and resource inventory, expenditure on ‘Public Instruction’ is bound to remain more or less constant. ‘Miscellaneous’ expenditure, over these years, show a sign of certain increase. What is

common in all these years, is the large shares of municipal expenditure on ‘Public Health and Convenience’. It happens because the building, operating, maintaining and upgrading this component requires a huge lot of capital investment at least in the initial phase.

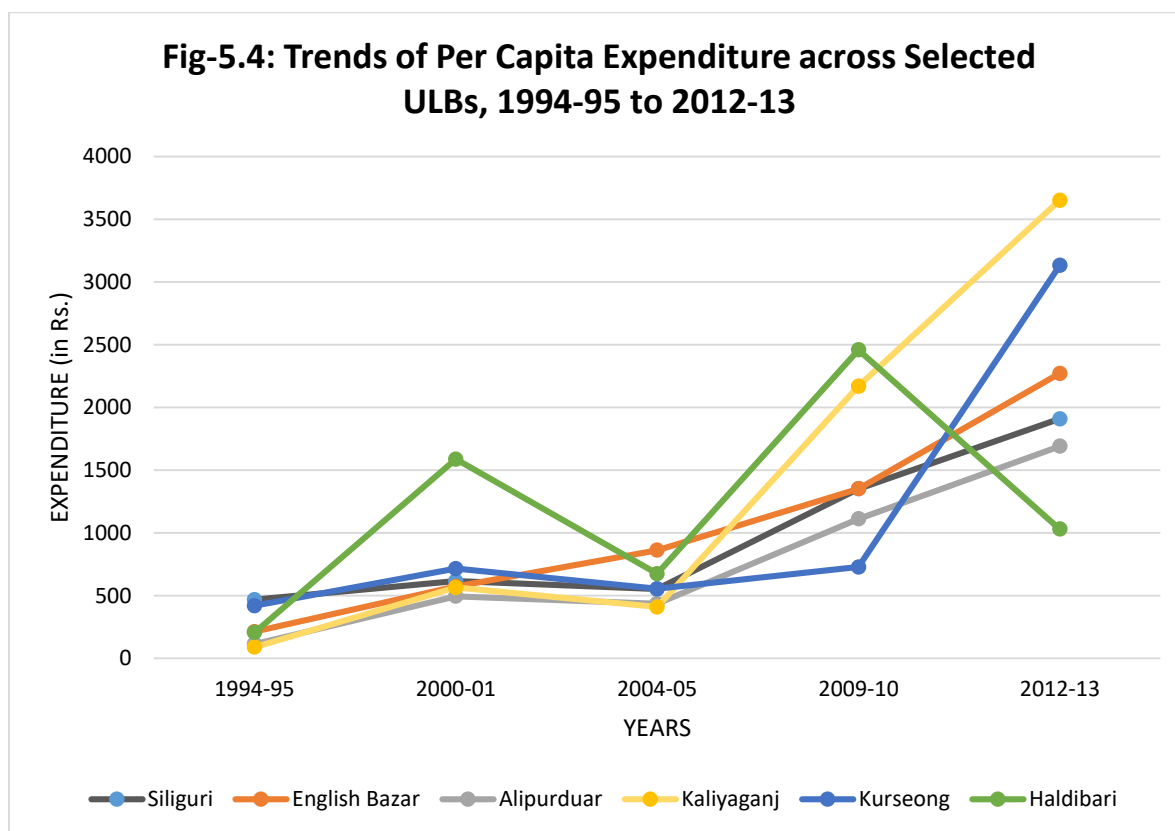
Given this general backdrop, it would be interesting to analyse the trends in per capita (see Appendix-II for population figures) income and expenditure across sampled ULBs. In case of income as well as expenditure, Haldibari does not have any regular pattern, and the corresponding lines fluctuate to a great extent. In the initial year (1994-95), per capita income of Siliguri and Kurseong is on a higher side, whereas for Alipurduar and Kaliyaganj this is on a lower side. The year of 2004-05 shows a breakpoint, as all ULBs show jump in per capita income after this point of time. Except for Haldibari, all sampled ULBs show rising per capita income in between 2009-10 and 2012-13.



*Source:* Computed from ‘Municipal Statistics of West Bengal’

On the expenditure side, Siliguri and Kurseong also show higher values in 1994-95, and Alipurduar and Kaliyaganj show lower values. Since 2004-05, there is a sharp jump in expenditure in case of Kaliyaganj, Siliguri and Alipurduar. English Bazar shows a consistent increase in the expenditure side. From 1994-95 to 2009-10, Kurseong’s per

capita expenditure lies in between Rs. 400 and Rs. 750, however, a sharp jump to Rs. 3100 is observed in 2012-13. It seems impossible to comment on the reasons behind the trends of individual ULBs, but the general trend shows that both income and expenditure have gone up since 2004-05.



*Source:* Computed from 'Municipal Statistics of West Bengal'

In fact, the correspondent Table-5.1 also reveals that income-expenditure gap has also increased to a great extent after 2004-05. While the per capita expenditure has steeply jumped, the jump in income is relatively gentler. This might have happened due to the fact that local area development and service provisioning has got momentum through a mesh of government-sponsored schemes. However, as own sources of income are still limited, and population growth is moderate to higher, per capita income has not grown at a rapid pace. It may be due to the possibility that new properties are yet to be evaluated



and taxed accordingly, property valuation is not done regularly<sup>9</sup>, and a considerable chunk of residents of such urban centres neither pay taxes willingly nor is local level mobilisation present to make them aware and abide by civic rules of regular tax payments.

Table-5.1: Per Capita Income-Expenditure Gap across Selected ULBs

ULB	Per Capita Income-Expenditure Gap (in Rs.)				
	1994-95	2000-01	2004-05	2009-10	2012-13
Siliguri	157.24	6.28	9.67	-1.88	105.29
English Bazar	-12.34	-12.70	-36.24	121.38	413.62
Alipurduar	58.65	147.53	-29.92	440.75	-25.47
Kaliyaganj	19.82	70.51	-34.01	109.22	727.63
Kurseong	147.76	139.96	94.82	298.02	-173.70
Haldibari	24.60	279.32	78.82	273.76	721.54

*Source:* Calculated from 'Municipal Statistics of West Bengal', 1994-95, 2000-01, 2004-05, 2009-10, 2012-13

## 5.6 LOCAL PROBLEMS:

### 5.6.1 ADMINISTRATIVE SHACKLES -- WATER SUPPLY IN KALIYAGANJ:

The formal emergence of Kaliyaganj as a Statutory town, like many other smaller urban centres in North Bengal, has happened through the transition from rural area to urban area. In Kaliyaganj, this transition is fuelled by cross-border migration from Bangladesh and subsequent expansion of trade and commercial activities, transport and communication system, educational institutions and service sector. In order to provide safe drinking water, PHED<sup>10</sup> made some arrangement, through construction of one OHR and associated layout of pipelines for stand-posts. A water supply project, titled as 'Kaliyaganj Water Supply Scheme' was sanctioned well back in 1972 at a cost of 12.34 lakhs of Rupees, for a design population of only 20000. If one analyzes the Town Directory data, as given in datasets of Census 1991 and 2001, per capita water availability through this reservoir, has gone down over the decade. Over these years, this

<sup>9</sup> In an in-depth interview, the former Chairperson of Kaliyaganj Municipality, who was in the Chair for nearly two decades, pointed out that due to political reasons and civic indifference, revision of property valuation could not be done in his entire tenure.

<sup>10</sup> PHED, albeit its technical expertise, does not have accountability to local people

town has also experienced gradual increase in terms of population size, mainly due to natural increase and rural-urban migration. At the household level, the major sources of drinking water ‘Hand Pump/Tube Well’ and ‘Borewell’ (as per the Census dataset, 1991-2011).

To cater to the growing demand for safe drinking water, a project was mooted which got sanctioned by JNNURM, and specifically through UIDSSMT. The project planned to divide this town into three water supply zones with each one having an OHR. The aim of the project was to supply piped drinking water to household premises. In 2008, this project was started, and as per quarterly progress report, 31<sup>st</sup> December, 2013, 57 percent of the fund was utilised. In terms of physical work, more or less substantial progress was also made. By March 2014, all the physical works were completed, and the project was ready to be commissioned. Local site problems like labour dispute, change of contractor and seasonal rainfall made this progress slower than expected.

Even as the situation stands in December 2017, this project has not been properly commissioned yet<sup>11</sup>. As of now, old pipelines are being checked if water is flowing properly. For an eyewash, only a handful of households have been provided with official house connections. However, the issue of engagement of labourers is still in limbo. One of the major problems, as reported by almost all stakeholders, is the administrative dilly-dallying arising out of politically motivated differences. Kaliyaganj, a bastion of Indian National Congress (hometown of late Priya Ranjan Das Munshi, a well-known top-level leader of INC) was standing opposite to former i.e. CPI (M) and present ruling party i.e. AITC. Now, AITC holds the power of authority in Kaliyaganj Municipality. There has been a series of interaction between Kaliyaganj Municipality and Department of Municipal Affairs, but the core problem remains same. For commissioning of this project, approximately 60 staff needs to be recruited who will look after daily operation and maintenance needs. The concerned department has not recruited such staff even now. On the other hand, Kaliyaganj Municipality is not in a sound financial position to recruit ad-hoc staff and make payments to them. It should be noted that the concerned project

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<sup>11</sup> Although the Administrative Calendar of Government of West Bengal (2014) targeted to commission this comprehensive scheme by February, see <https://wbxpress.com/wp-content/uploads/2014/03/Administrative-Calendar-2014.pdf> (as on 21.11.2017)

also involved ULB share, and for that, the concerned municipality did not have its own fund. It borrowed money from the West Bengal Municipal Development Fund Trust, which has to be repaid sooner or later.

#### **5.6.2 SHORTAGE OF LAND FOR SOLID WASTE MANAGEMENT IN ALIPURDUAR:**

Alipurduar generates 18 MT/day solid waste as on 2012-13, and it is estimated to increase up to 22 MT/day. Alipurduar Municipality is operating and maintaining a system in which solid waste is collected from households three days per week. An estimated number of 200-250 workers (both regular and contractual) are doing this job. There is no segregation of household waste either at the source or at the primary collection points, even in the dumping place. In fact, this old municipality does not have its own dumping ground. Solid waste is dumped in open spaces within the municipal boundary (for instance, Radhamadhab Mandir, Ward-4; National Highway 31 C). This ULB does not have any user charge system. However, households contribute Rs. 50 per month, which goes directly to sweepers and not to the ULB.

As per the information available with Department of Municipal Affairs, Government of West Bengal, Alipurduar was selected in the Italian Assistance Project. Through this project, Rs. 1.83 crores were kept for improving solid waste management system in the town. However, several local problems kept on happening in a chained manner: absence of permanent dumping ground – temporary dumping of waste at certain residential places – protests made by local people affected due to foul smell and other micro-environmental problems – negotiations at the administrative level – hunt for a new temporary dumping place<sup>12</sup>.

Therefore, an absence of designated dumping ground has been a major challenge. Apart from this, the suitable municipal land is also occupied. However, a new site for dumping ground (5 acres plot, Chapatali, Alipurduar-I C.D. Block) has been selected, and some funds (approximately Rs. 1 crore) have also been made available<sup>13</sup>. Newly available

<sup>12</sup>[https://www.telegraphindia.com/1120810/jsp/siliguri/story\\_15837130.jsp#.WOpzQ2mGPiw](https://www.telegraphindia.com/1120810/jsp/siliguri/story_15837130.jsp#.WOpzQ2mGPiw); [http://www.nswai.in/News\\_Details?id=215](http://www.nswai.in/News_Details?id=215) (as on 09.04.2017)

<sup>13</sup><http://siliguritimes.com/rubbish-relief-alipurduar-town-to-get-garbage-dump/> (as on 09.04.2017); Urban Planner, Alipurduar Municipality

compactor vehicle is also being used, which can compact and reduce loads of solid waste to a certain extent.

## **5.7 COMBATTING CHALLENGES AND EXPLORING OPTIONS:**

### **5.7.1 SOLID WASTE MANAGEMENT MISSION, SILIGURI:**

With growing population size and spreading of economic activities, piles of solid waste and its management became a key challenge before SMC. In 2005, Solid Waste Management Mission was initiated. As per the WBPCB Annual Report (2005-06), it was a part of West Bengal Waste Management Mission. This project was technically supported by The Financial Institution Reforms and Expansion (Debt) FIRE-D programme of United States Agency for International Development (USAID). SJDA also extended its supporting hand through preparing a Detailed Project Report (DPR) on segregation, collection, transportation and disposal of solid waste. It involved a due process of information, education and communication as an integral part of civic awareness spreading. Even now one can see old graffiti, in some residential walls, which is something like:

*Aborjonar Gari Ese*

*Paray Jei Bajalo banshi*

*Sob Kaj Fele Dourolo Masi*

(Whenever trash-collecting van whistles in the neighbourhood, domestic servant leaves all other works aside and runs to dispose of garbage)

In this project, a system was operated in which there are three steps (See Plates 5.1-5.3):

1. *Door-to-door waste collection from households:* For this work, ULBs utilised manually driven three wheeler van-rickshaws. Each van-rickshaw has six bins, on an average, four black-coloured bins are meant for inorganic trash and rest two green-coloured bins are supposed to collect organic trash.
2. *Primary Collection Points (PCPs):* As part of the second step, these van-rickshaws carry segregated trash to Primary Collection Points, where large vats are stationed. Usually, PCPs consist of two large vats – one black-coloured and another green-coloured.

3. *Carrying and Dumping:* Vats are either emptied and stored into or directly carried by trucks. These trucks finally move towards the dumping ground. Roadside garbage is also collected and carried away by trucks.

At the trenching ground near Don Bosco School, compostable waste is transformed into manures. This is done through a PPP agreement between SMC and M/S *Hindustan Jaiba Rasayan* (Hindustan Organic Chemistry), Kanchrapara. For the non-compostable waste, there is an agreement between SMC and North Bengal Plastic Federation.



*Plate 5.1-2-3 (from Left to Right) Stages of Solid Waste Collection and Transfer – Door-to-Door Collection; Storage in Primary Collection Points; Transfer in Trucks, SMC, 2016*

To maintain this system, there is a hierarchy of manpower. At the top, one sanitary inspector is present in SMC, who regulates Supervisors and Assistant Supervisors placed in each ward. At the Ward level, Supervisors and Assistant Supervisors execute cleaning work through a team of sweepers.

Sweepers are categorised into two groups – one cleans the drains and the other group sweeps road and collect trash from households. Ward Councillors, Ward Committee Members and other ULB officials are indirectly involved with this entire manpower hierarchy. In some wards, Solid Waste Management Committees (including Ward Councillor and Ward Committee Members) are also present. In case any resident/a group of residents complain about mismanagement of solid waste, these stakeholders get involved.

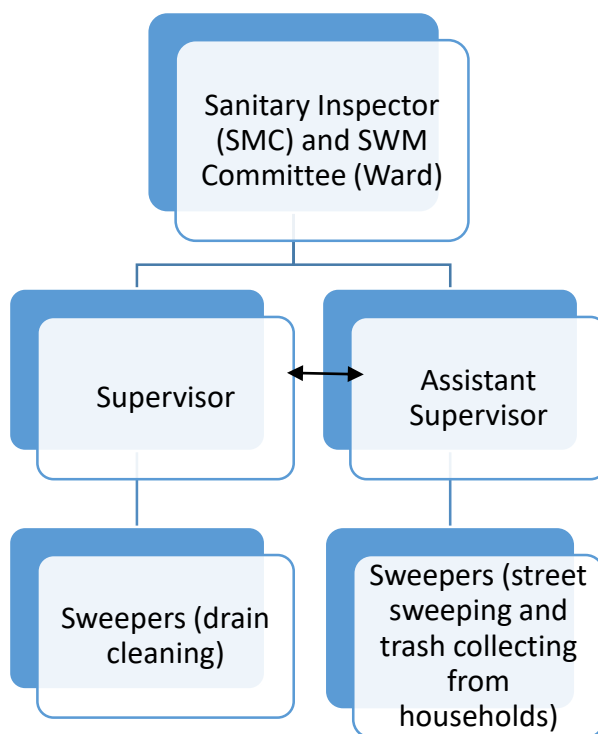


Fig-5.5: Hierarchy of Manpower involved in Solid Waste Management Mission, Siliguri Municipal Corporation, 2016

On the financial front, this project runs through the assistance of ULB's own fund as well as grants and contributions from the State Government. Residents also pay user charges (Rs. 10 per household per month). To make this system more strong, in few wards, it has been made mandatory to regularly pay user charges, if those household members need any formal help (e.g. the issue of certificates) from the concerned Ward Councillor.

As a whole, this system is working well across wards of Siliguri. However, one needs to note some of the challenges this project is facing. *Firstly*, when the project was initiated, local people took so much interest that door-to-door collection of solid waste became a regular phenomenon. But, after few years, this participatory process has weakened a bit. *Secondly*, due to limited infrastructural and manpower in a bustling city, some peripheral areas are not served properly through this project, leading people to throw garbage into open spaces, drains and road corners. *Thirdly*, the time gap between storage of garbage in PCPs and lifting of garbage sometimes get longer. As a result, foul stench prevails in some parts of the neighbourhood, and leads to micro-environmental pollution and spreading of diseases. *Fourthly*, its dumping ground, like any other, has a limited capacity. While first two issues might get resolved after a long-term, S.M.C is emphasising on the third issue. It has tied up with one organisation led by a scientist<sup>14</sup> which is trying to spray chemicals on solid waste piles, so that the foul stench vanishes away. To tackle the fourth challenge, another plan is placed, i.e. to identify another dumping ground at Sahudangi near the city (<http://www.siligurismc.com/conservancy.pdf> as on 21.11.2017). In a recent interview, the Commissioner of SMC has pointed out that it “has not been able to sustain doorstep segregation of solid waste it once initiated and could have taken forward by generating more awareness” and now a DPR is finalised in January, 2017 to sustain and improve this system<sup>15</sup>.

### **5.7.2 WATER SUPPLY IN ENGLISH BAZAR:**

First of all, it needs to be noted that English Bazar is located in such a zone, where arsenic contamination in groundwater is quite prominent. As many as 7 C.D. Blocks, i.e. English Bazar, Manickchak, Kaliachak-I, Kaliachak-II, Kaliachak - III, Ratua-I, Ratua-II are affected by Arsenic contamination above 0.5mg/L<sup>16</sup>. Therefore, time and again, the government has attempted to implement and expand safe drinking water supply through different projects funded under various schemes. As per the figures available in Census

<sup>14</sup> Dr. S. R. Maley, a renowned expert on SWM in India

<sup>15</sup> <http://southasia.iclei.org/newsdetails/article/spotlight-on-siliguri-interview-with-mr-sonam-w-bhuttia-wbcs-exe-commissioner-siliguri-municipa.html> (as on 21.11.2017)

<sup>16</sup> <http://www.wbphed.gov.in/main/index.php/water-quality/background-wq> (as on 29.03.2017)



tables (2011), 'Tap' is the main source (76.4 percent households) of drinking water, followed by 'Tube well/ 'Borehole' (14.9 percent) and 'Hand Pump' (7.1 percent). The government-funded projects have contributed a lot in making 'Tap' water available to a majority of the households. As the primary survey database reveals, 'borehole' is utilised by only middle and upper echelons of income class, whereas people belonging to lower income class is primarily dependent upon hand pumps. In the survey, it has been found that houses in many areas, especially where low-income class residents live, are devoid of safe drinking water through piped supply. In these areas, one can find few public stand-posts, some of which are in bad condition.

At present, English Bazar Municipality is dependent on groundwater, which is extracted, treated and supplied to individual taps (for those opting house connection system through user charges) and public stand-posts. Apart from this, 57 purified water reservoirs are present within this municipal boundary, from which local residents collect safe drinking water (Plate-5.4).



*Plate-5.4: Safe and Treated Drinking Water Reservoir, for community use, Ward-3, English Bazar Municipality*



In some parts of this city, one can also find purified water reservoirs owned and maintained by individuals and private organisations. However, the ULB is trying to sort out some of the challenges. One of the biggest challenges is growing population size and the consequent demand for water vis-à-vis fluctuations in the groundwater table. Another problem is operation and maintenance of a huge network of 57 deep tube wells/small water reservoirs, approximately 22400 house connection tap pipelines and 815 hand pumps. Given the shortage of manpower, this is really challenging. Another challenge is surface and groundwater contamination. In an already arsenic-affected zone, this is very alarming, as many drains carrying household waste empty into Mahananda River (Plate-5.5)



*Plate-5.5: Cemented Main Drain, collecting household wastewater, is debouching into Mahananda River, English Bazar Municipality*

As solutions to this problems, some initiatives have been already taken. To cater to the additional demand of drinking water, a project (with a capacity of 22.8 MLD) is running funded through UIDSSMT, which aims to build 5 new OHRs, renovate 2 OHRs and

construct one water treatment plant at the revised cost of Rs. 91.25 crores<sup>17</sup>. It may be hoped that once this project is commissioned, an additional pool of manpower will be able to handle operation and maintenance functions smoothly.

Apart from this institutional system of drinking water supply, Small-Scale Private Water Providers (SSPWP) have their own niche. In the fieldwork phase, it has been observed in few slum localities that even poor residents are aware of benefits of drinking purified water. They have pointed out that drinking unsafe water leads to diseases, morbidity, loss of working capacity and income, and in the long run, affects livelihood to a certain extent. It also increases their out-of-pocket expenditure. That is why these residents are opting for bottled drinking water, which is having at least four visible benefits:

- *Firstly*, this treated water is available at the doorsteps on a regular basis. Private water vendors regularly supply these containers to their customers. It makes household members free from hassles like long waiting time and quarrels that arise near stand-posts. It allows them to do some extra work or do whatever they feel free.
- *Secondly*, this water containers having a capacity of 20 litres is available at a cheaper rate (approximately Rs. 35-40 per container). In addition to it, they instantly pay water suppliers after delivery of barrels. At times, a section of urban poor finds it convenient to pay in a shorter frequency, as a total monthly sum hits their overall budget.
- *Thirdly*, this water supply system is quite flexible. In case of a household demands either additional quantity of water or say delivery of water containers in the convenient time slots, a simple phone call to the service provider satisfies its demand.

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<sup>17</sup>[https://infrastructureindia.gov.in/view-project?p\\_p\\_id=viewproject\\_WAR\\_Projectportlet&p\\_p\\_lifecycle=0&p\\_p\\_col\\_id=column-1&p\\_p\\_col\\_count=1&viewproject\\_WAR\\_Projectportlet\\_jspPage=%2Fhtml%2Fviewproject%2Fview.jsp&viewproject\\_WAR\\_Projectportlet\\_ppp=Government+Infrastructure+Projects+\(Traditional+Procurement\)&viewproject\\_WAR\\_Projectportlet\\_projectId=15394](https://infrastructureindia.gov.in/view-project?p_p_id=viewproject_WAR_Projectportlet&p_p_lifecycle=0&p_p_col_id=column-1&p_p_col_count=1&viewproject_WAR_Projectportlet_jspPage=%2Fhtml%2Fviewproject%2Fview.jsp&viewproject_WAR_Projectportlet_ppp=Government+Infrastructure+Projects+(Traditional+Procurement)&viewproject_WAR_Projectportlet_projectId=15394) (as on 29.03.2017)

### **Small Scale Private Water Providers (SSPWPs)**

In many developing countries, urban authorities like municipalities and water utilities fail to serve a section of urban poor. The main reason behind this failure is the demand-supply gap - as existing services cannot cover growing demand of safe drinking water, and augmentation of services often require a lot of administrative willingness, manpower, financial resources and technical knowhow.

In such a context, the role of SSPWPs is strongly felt. According to Conan, these are "independent small companies, cooperatives, or individuals, that supply water to users". These include vendors, tanker truck operators and managers of small-scale piped networks. They have multiple systems of water provision – (a) customer's own collection from selected outlets/water points, (b) transport to customer's house by truck/push cart, (c) piped connection to customer's house, (d) treatment and sell of water in bottles/barrels. This business thrives due to an assurance of (a) convenience, (b) reliability, (c) quantity, (d) quality and (e) affordability.

World Bank connects this as a mechanism for 'striking poverty' and feels that a model of Public Private Partnership can further improve SSPWPs. A government can "promote competition and transparency while ensuring a quality service at an affordable service", and help small business units to know about market intelligence and handle bureaucratic procedures. SSPWPs can also seek sources of investment finance and security from the government. A relevant study on Kenya and Ethiopia (Ayalew *et al*, 2014) also expresses the need of 'regulation' of such vendors, so that healthy competition can ensure supply of good quality water at affordable prices. Such regulation includes registration, inspection, education and training of service providers. Solo (2013) argues that rather than depending on a monopolised service provider, it is imperative to chalk out plans for allowing 'competition', 'open entry' and 'open sharing of information' so that multiple entrepreneurs i.e. SSPWPs can lead towards ensuring water supply.

- *Fourthly*, even if a household is located in remote or less accessible areas, say beside a trash dumping yard, vendors provide water barrels as they are equipped with bicycles/push carts.

From the service provider's angle, it offers them some form of employment and consequent income. To retain its own customers in a competitive arena, they attempt to make sure that every customer remains satisfied with flexibility, regularity, quantity and quality of drinking water. As a result of this system operated and maintained by SSPWPs, a substantial chunk of households reveal that they use stand-post water for non-drinking purposes like bathing, cooking, washing utensils and so on.

### **5.8 CONCLUSION:**

Local Bodies – both rural and urban -- work within the stipulated constitutional boundaries, Statutory norms and project guidelines. In this framework, these bodies do face some challenges in operating, maintaining, delivering and augmenting water and sanitation related services. Such challenges are somewhat general, say the prominence of administrative bottlenecks (for example, in Kaliyaganj), an absence of proper land use plan (in Alipurduar) and the paucity of own funds (all ULBs). But some are area specific too, say Arsenic contamination in Malda. However, it has been also found that, area-specific interventions (like sound management of manpower in SWM Mission, SMC) can also lead to few pathways that can push away those challenges and allow better service provisioning. This chapter also points to the necessity of clearly defined coordination between local governing bodies and parastatal Development Authorities. Both types of bodies have their own powers and functional domains, but integration and coordination posit a suitable way to lead consistent and better service provisioning. The case study of Siliguri demonstrates that the problems of drained liquid waste can be well managed if the action plan gets implemented through proper cooperation between SMC and SJDA.

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# Chapter-6.

## People's Experiences and Involvement in Accessing Services

### 6.1 INTRODUCTION:

As the last chapter focuses on the perspectives of local bodies in service provisioning, this chapter attempts to bring out the perspectives of other counterpart, i.e. the perspectives of residents who actually avail and access services. The core objective of governance centric infrastructural development and service provisioning is to satisfy the demand of residents, and this is the reason why it is important to explore their felt needs, awareness and demand for services, nature of utilisation, and their perception on service delivery. Sometimes, people directly or through the NGOs/CBOs interact with local bodies to share their problems in availing and accessing services, to get their problems solved and to suggest ways through which such solutions can be arrived at. There are formal and informal spaces, in which people can participate. Therefore, the role of individual residents and community as a whole is pretty important, and this interaction is a part of collective decision-making for which decentralised governance stands for.

The structured plan of the article is as follows. Following this introduction, the second section provides a brief account of the database and methodology. The third section presents case-study based discussions on people's felt needs-awareness and demand of services. The next section points out people's perception on basic services provided by ULBs. The fifth section outlines the various mechanisms of the interaction between people and local bodies. The sixth section elaborates how the other stakeholders like NGOs and consultancy agencies get situated in between people and local bodies. The seventh section deals with an assessment of the gaps between Service Level Benchmarks (SLBs) and actual levels of services delivered. The last section is a summary of findings.

## **6.2 DATABASE AND METHODOLOGY:**

This chapter takes recourse to mixed method approach – using quantitative as well as qualitative data gathered during fieldwork. On the quantitative front, ordinal logit regression model (Gujarati, 2014) is used to explore whether background variables (like social group, religious group, education and monthly per capita expenditure) can explain variations in perception-based scores on municipal services. It should be noted that perception-based score is the score given by household respondents in a scale of 10, and the values mostly vary in between 3 and 7. There is some kind of ‘ordering’, as households who are hardly benefitted by municipal services give a rating of 3, and households which are benefitted and satisfied with the performance of the concerned ULB, give a rating of 7. Here, importance is given on household’s response, because they are the end users of municipal services.

On the qualitative front, methods like In-depth Interviews and Group Discussions with key-informants have been used. The key-informants include Ward Councillor and Ward Committee members, Anganwadi workers and Self-Help Group members, NGO representatives, youth club members and so on in Statutory Towns. In case of Census Towns, this list of key-informants includes Gram Panchayat member, Anganwadi workers and Self-Help Group members, school teachers and so on. In-depth interviews with Ward Councillors, for example, enables a more detailed and nuanced understanding of people-centric grass root governance – its key issues and priorities, challenges and solutions. Group discussions with Anganwadi workers leads one to understand why awareness campaign for improved sanitation entails a component of behavioural changes. There are many issues that are involved when a local body aims to provide water and sanitation related services to residents. All these issues cannot be quantified, and in this context, qualitative research methods like in-depth interviews and group discussions enable a better understanding of dynamics of service provisioning system – its need, utilisation, bottlenecks, formal and informal platforms of possible solutions and so on.

To substantiate these methods, notes and photographs taken during fieldwork are also used. Besides, secondary sources of information like relevant literature and media reports are also consulted.



### **6.3 FELT NEEDS, AWARENESS AND DEMAND OF SERVICES:**

Felt needs of citizens, their level of awareness related to basic service provisioning and demand for such services vary across urban centres in the study area. It may be illustrated through two small case studies:

#### **6.3.1 Curbing Mosquito-borne Diseases in Siliguri:**

One of the examples of felt needs is eradication of mosquitoes in Siliguri. In this Municipal Corporation area, a substantial segment of wards is covered by drainage system. However, a large part of this is 'open' type of drainage, which is often found to be stagnant and clogged with solid waste. Stagnant polluted water is a typical breeding ground of mosquitoes, which in turn causes spreading of diseases and degrading micro-environment. Therefore, as the primary survey reveals, a majority of the respondent citizens want some action from SMC to eradicate this mosquito menace. Their felt needs are echoed in the voices of Ward Councillors, who admit that irregular spreading of mosquito-curbing cannon gas or larvicidal oil is a major concern. Another serious challenge is limited manpower and paucity of inputs. In some of the cases, sanitation supervisors and workers of SMC. argue that they have to mix water with larvicidal oil to cater to growing demand of people in general. But, mixing of water actually dilutes the mosquito-curbing power of the larvicidal oil. Another issue, as some of them have pointed out, is the lack of cooperation among citizens and sanitation workers. Sanitation workers argue that once cannon fogging/larvicidal oil spreading is done, residents should close doors and windows of their respective houses. In this context, residents contradict and point out that cannon fogging/ larvicidal oil spreading leads to an uncomfortable situation in which mosquitoes from drains fly into the houses. This situation can be improved when both the parties come into a dialogue, mediated by respective Ward Councillors and municipal officials. But, on the ground, such things are rare. Therefore, one can see two outcomes in Siliguri: *one*, residents are affected by mosquito-borne diseases, and being aware they try to control this through precautionary measures like using mosquito curtains and repellants at household level; *second*, mosquito menace continues as SMC fails, to a certain extent, in taking local people into confidence at the community/neighbourhood level in the whole exercise of cannon fogging/larvicidal oil spreading, coupled with diluted disinfectants and limited manpower.



*Plate-6.1: An old vehicle, parked near SMC office, was used for cannon fogging*

### **6.3.2 Neighbourhood Facilities – Balurghat and Chak Bhrigu/Raiganj and Kasba:**

Balurghat, the district head quarter of Dakshin Dinajpur, is an important urban centre. In the primary survey, it is observed that some residents of Chak Bhrigu have opted for water tankers from nearby Balurghat Municipality. These tankers carry a substantial quantity of water, which can be used by a household for a socio-cultural gathering. To obtain this tanker, the concerned household needs to pay user charge to Balurghat Municipality.

The same observation is found in case of Raiganj and Kasba. Raiganj, the district headquarter of Uttar Dinajpur, is a sprawling city in North Bengal. Kasba, a small Census Town, governed by Maraikura Gram Panchayat, is just adjacent to this city. As the primary survey reveals, some of the well-to-do or middle class households in Kasba has access to flush latrines, which are connected to closed cemented cesspool. Sometimes, when such cesspools get totally filled-up, these households contact Raiganj Municipality. Raiganj Municipality, after obtaining a user charge, sends its cesspool cleaning vehicle and empties that. Another example is the use of water tankers and garbage trollies, when some festivals/occasions take place in Kasba. The concerned household/organiser contacts Raiganj Municipality. In the same way, through obtaining user charges, the Municipality provides non-drinking water supply and garbage lifting tractors. In such a way, some residents of Kasba are functionally dependent on Raiganj Municipality. Therefore, as the survey reveals, some residents are aware of services as they utilise it and they want Kasba

to be incorporated within the boundary of Raiganj Municipality. They also feel once Kasba gets included within ULB boundary, other services like drinking water supply, solid waste collection and drainage system will be put in place. As a result, Kasba will have proper infrastructural system for providing civic services and it will look more urbanised as well.

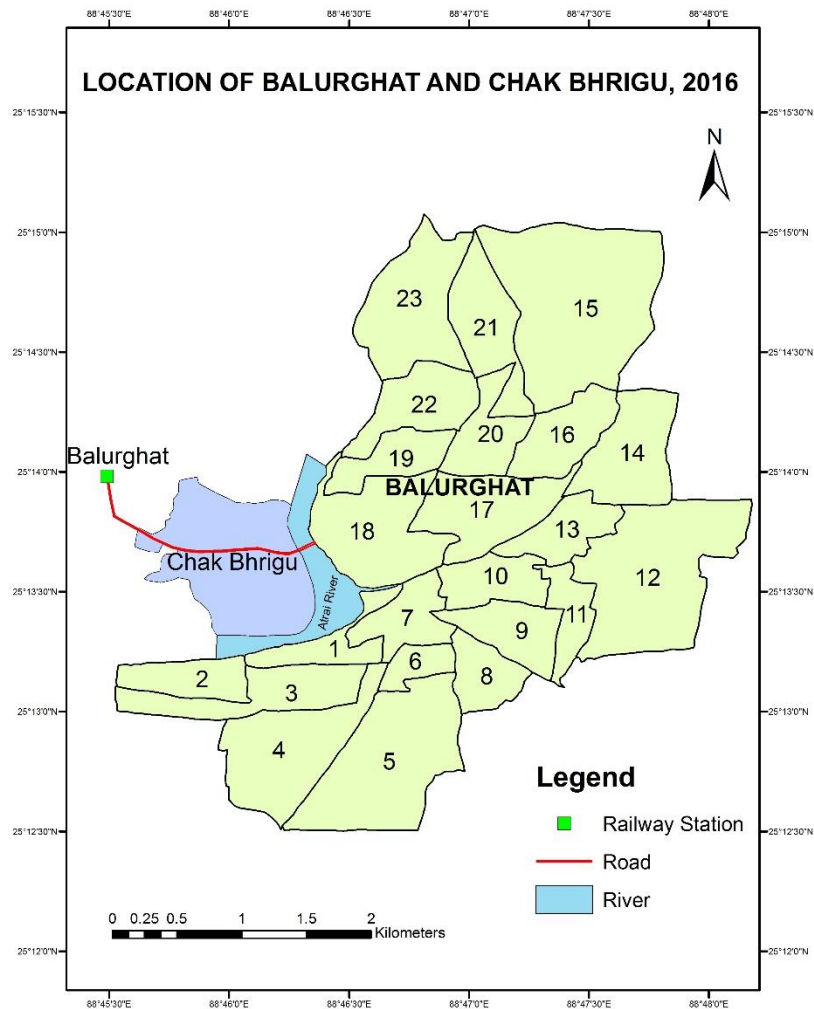


Fig-6.1: Location of Balurghat and Chak Bhrigu, 2016

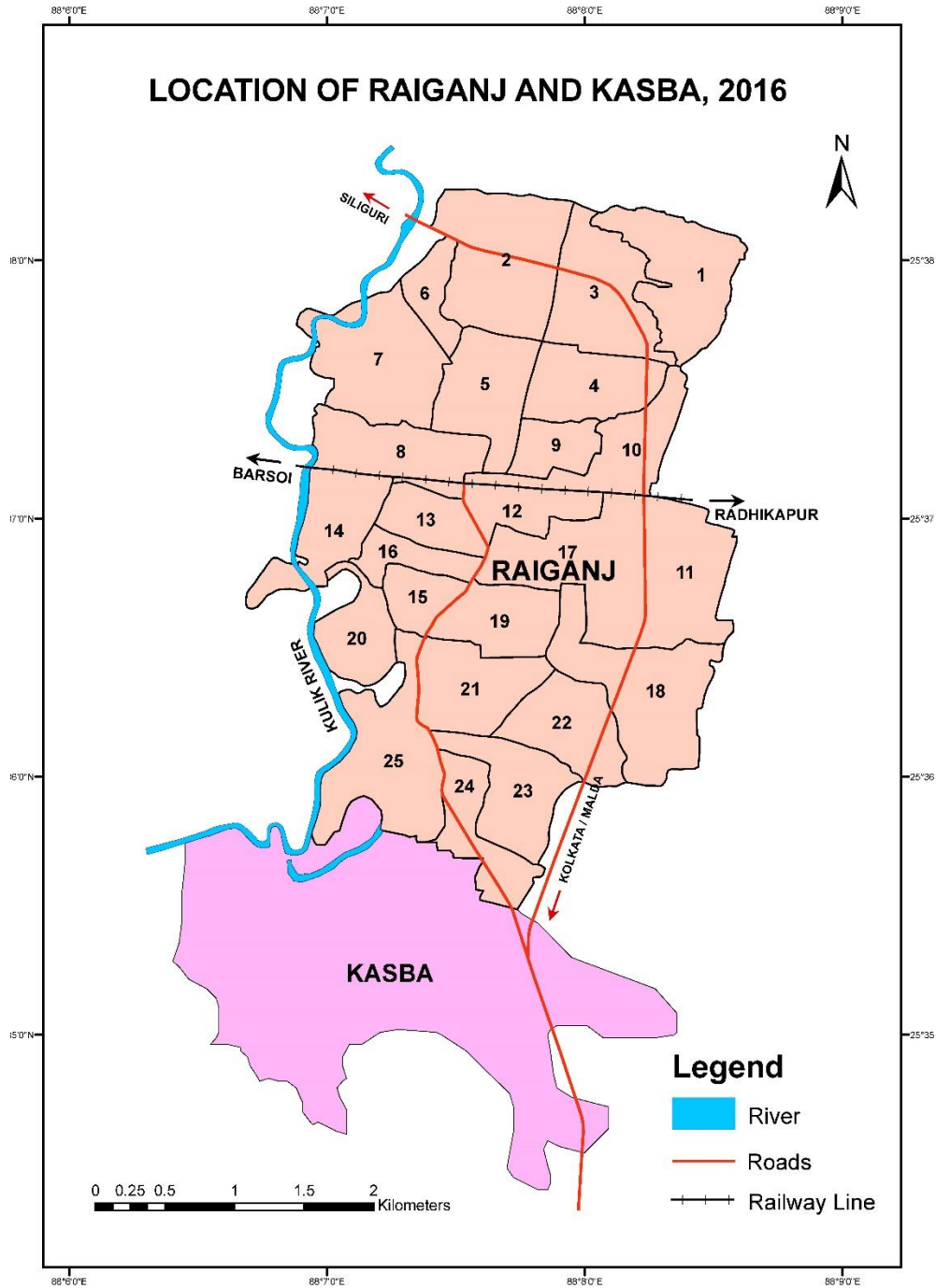


Fig. 6.2: Location of Raiganj and Kasba, 2016





*Plate-6.2: Water tanker is supplied by Balurghat Municipality to a Chak Bhrigu household, where the front gate indicates a marriage function.*



*Plate-6.3: As this black top road and street lights indicate, Raiganj adjacent parts of Kasba looks more urbanised. One can also see how solid waste is littered just beside the road and no drains are present. Therefore, some of the residents demand incorporation of this part within the boundary of Raiganj Municipality, so that basic service provisioning like operation and maintenance of roads, street lights, SWM, drinking water supply is routed through Raiganj Municipality.*

## 6.4 PERCEPTION REGARDING MUNICIPAL SERVICES:

### Ordinal Logit Model (OLM) Estimation of the LB Services Rating Model, Statutory Towns, 2016

Software used: STATA 12.0 Version

Ordered logistic regression                      Number of observation =     544

LR chi<sup>2</sup>(4)     =     21.39

Prob > chi<sup>2</sup>     =     0.0003

Log likelihood = -672.77674                      Pseudo R<sup>2</sup>     =     0.0157

rating_LB	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
social_gr	.9182884	.0774066	-1.01	0.312	.7784443	1.083255
relg_gr	.804949	.1159477	-1.51	0.132	.6069576	1.067526
edu_lev	1.133689	.0563415	2.52	0.012	1.028469	1.249673
MPCE	1.000072	.0000434	1.66	0.096	.9999872	1.000157
/cut1	-1.753627	.3249643			-2.390545	-1.116709
/cut2	.6756884	.3110729			.0659968	1.28538
/cut3	1.936532	.3217994			1.305816	2.567247

*Note:* rating\_LB – Rating of Municipal Services; social\_gr – Social Group; relg\_gr – Religious Group; edu\_lev- Education Level of the Household Head; MPCE – Monthly Per Capita Consumption Expenditure

*Source:* Calculated from Primary Dataset, collected in Fieldwork, January-April, 2016

All the regression coefficients, except social\_gr and relg\_gr, are individually statistically significant. Odds in favour of higher rating category of municipal services over a lower

rating category are greater for higher education level. Again, higher odds have been obtained in favour of higher rating category of municipal services for higher MPCE class.

Similar exercise has been done for Census Towns. However, no statistical significance for the independent variables have been obtained.

## **6.5 INTERACTION BETWEEN LOCAL BODY AND PEOPLE:**

### **6.5.1 Election of Local Bodies:**

One of the ways through which people make a space to participate in the framework of urban governance is the general election of ULBs/RLBs. As per the West Bengal State Election Commission (WBSEC), West Bengal has a ‘tradition’ of regular frequency of elections in local bodies<sup>1</sup>. This election seems very important to a majority of residents, as local issues are discussed in the electoral manifesto of each participating political party. Each candidate also attempts to hold local level meetings, walk along the lanes and bi-lanes and highlight local issues like repairing of roads, provision and maintenance of street lights, provision of safe drinking water, maintenance of parks and playgrounds, collection of garbage, arrangement and disbursal of loans for self-help groups and so on. This phase of campaigning also provide an opportunity to residents to review, question and decide on whom to vote and for what purpose.

What catches attention is again the kind of ‘informality’ that is an integral part of the interaction process happening in between local bodies and people. Municipal election, at the ward level, is often considered to be a friendly match between opposing political parties, as they field candidates who are popular in the neighbourhoods of that particular ward. As one of the ward councillors appears candid:

Parar meye-bou era bollo ei toke jitiye anlam, ei bar e ontoto rasta ta paka kore de. Ami o bollam sob समय nijer barir samner rasta age paka korar kotha bolle ki hoy..parar onnyo rasta gulor hal o to dekhte hobe

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<sup>1</sup> [http://www.wbsec.gov.in/\(S\(2atwdhyvzvhwge45zero4i55\)\)/Home.aspx](http://www.wbsec.gov.in/(S(2atwdhyvzvhwge45zero4i55))/Home.aspx) as on 08.01.2018; as per constitutional rules, WBSEC is the responsible agency which looks at delimitation of constituencies and conducts general elections in Local Bodies like Gram Panchayats and Municipalities.



[Young girls and ladies of my neighbourhood says that we have elected you to victory, at least now make an effort to convert the road into a concrete/black top one. I have also asked is it not judicious to think always about the road in front your houses..the condition of other roads existing in our neighbourhood should also be looked into]



*Plate-6.4: A wall poster, written during the last municipal election in Kaliyaganj, shows how local level issues are highlighted. While the left one highlights the need of forming a corruption-free municipal board, the right one advertises the candidate as she attempts to safeguard the interests of urban poor.*

Therefore, ‘door-to-door campaign’ is the most preferred mode of campaigning for almost all the ward-level representatives seeking votes. This is not unnatural, as many of the residents to whom they are seeking vote are part of the same community. As this community has multiple platforms to share socio-economic and cultural life, the political



arena does not differ to a large extent. The daughter-in-law, who is present in almost all possible social gatherings or cultural programmes or the veteran uncle who have made a substantial contribution in making the ward clean, become the obvious choices to the political parties because these candidates can utilise the popularity and rapport that they share with the community. So, it's no wonder when one senior citizen recognises local body member as "*Tarar Byatar Bou*" (The Wife of Tara's Son). Such an informality entails a situation where ward councilors/panchayat members pacify residents in such a way that even when provisioning of basic services get delayed or not get implemented at all, residents don't complain rather continue to rely and depend on them.

### **6.5.2 Ward Committee/Gram Sansad and Sabha:**

#### **Ward Committee:**

As per The West Bengal Municipal Act (1993), "each ward of a Municipality shall have a Ward Committee; the Councillor elected from a ward shall be the Chairperson of the Ward Committee for that ward". The West Bengal Municipal (Ward Committee) Rules, 2001 stipulate that the concerned Ward Councillor may nominate other members of this committee. For a ward, population size of which is 2500, should have four committee members. One additional member shall be nominated for every 500 persons residing in the ward. Maximum number of Ward Committee members should be fourteen. Few members of Community Development Society (CDS)<sup>2</sup> should be nominated in the committee. In case, CDS members are not found in that ward, women from BPL households should be nominated. Apart from this, "engineers, physicians, educationists, social workers, cultural activists, sports-persons, women, persons from economically backward section of society" should also be properly represented in the Ward Committee. Ward Committee members are supposed to meet once in every month. It should also convene an Annual General Meeting, where all residents of the ward concerned should be invited, so that they are apprised of "the activities of the Municipality/ Notified Area Authority in general, and the ward in particular, during the preceding year and to assess the popular needs of the ward

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<sup>2</sup> Constituted for implementation of *Swarna Jayanti Shahari Rojgar Yojana*, a scheme that boosts employment in urban areas through self-employment ventures and wage employment

for the current year”. This kind of meeting is usually held in public places like playgrounds. On the water and sanitation front, Ward Committee has following *general* functions-

- I. To supervise and monitor, and thereby check “wasteful uses of tap water and street hydrants”
- II. “collection and removal of garbage”
- III. “removal of accumulated water on streets, public places due to rain, and other causes”

Concerned ULBs can also direct Ward Committees to supervise and monitor-

- I. “maintenance and repair of roads and drains”;
- II. “maintenance of sanitation and public health”<sup>3</sup>;
- III. “the prevention and control of dangerous diseases”

One of the general functions of Ward Committee is “redressal of public grievances.” Therefore, this is one of the formal platforms in which residents can participate and interact with representatives of ULBs. In fact, the municipal employees (say, sanitation workers

#### **Unique Features of Ward Committees in Siliguri Municipal Corporation (SMC)**

- “SMC is probably the only ULB in the country under which ward committees were in operation even before 74<sup>th</sup> Amendment, though not in all wards” (Ghosh and Mitra, 2006: 310)
- *Ward Committee Convention*: a common platform of Ward Councillors who share their achievements and problems and also learn from each other (ibid. 322)
- *Sub-Committees*: within Ward Committees, like Conservancy, Water and Health (ibid. 315)
- *Beneficiary Committee*: in wards where slum population is large, such committees comprise selected beneficiaries who supervise concerned poverty alleviation schemes (ibid. 315)
- Fieldwork (March, 2016): *Solid Waste Management Committee* of Ward No. 35 issues Enrolment Cards (name and address), based on which a beneficiary regularly pays user charges. Otherwise he/she will not be able to receive any formal assistance from the concerned Ward Committee.

<sup>3</sup> Honorary Health Workers (HHWs) should coordinate with CDS and Ward Committees (Urban Health Strategy, Government of West Bengal, 2008)

who sweep roads, collects trash and cleans drain) are supposed to work in coordination with Ward Committees. Ward Committees usually meet at the designated ward office. Many residents, who either don't wish or don't get time to participate in Annual General Meeting, verbally channelise their complaints and suggestions to Ward Councillors through Ward Committee members. In case some serious issue emerges, a resident/group of residents approach concerned individual Ward Councillor/ entire or a section of Ward Committee through written application letters and supporting documents. Moreover, Ward Committees are also mandated to prepare ward level development plan – after identification of problems and priority issues. Ward Committees can also generate own revenue using resources like public land for commercial purposes and construction of market or shops. In short, the functional domain of Ward Committees is: (a) supervision and monitoring; (b) financial; (c) planning and (d) execution of development schemes (Ghosh and Mitra, 2006; TERI, 2010).



*Plate-6.5: This Wall Writing, put into place by SWM Committee, Ward-15, spreads awareness from the perspective of a citizen: “If I can dispose my own waste in the right place, then why can't I throw my household waste into a designated container/dustbin”?*

Undoubtedly, this initiative made by Government of West Bengal is a landmark, as devolution of powers, drawing of functional domain and allocation of funds enable Ward Committees to work in an effective way. In fact, West Bengal, apart from Kerala, has really transformed decentralisation into devolution (de Wit, 2005 cited in Shah and Bakore, 2006: 20). But there are few serious issues that one needs to note. *Firstly*, it is important that Ward Committee members are properly nominated. As this power of nomination lies in the hands of concerned Ward Councillor and ULB, vested interests might allow political patronage, corruption and biased view of local area planning and development. *Secondly*, Ward Committees need to be functional throughout its tenure, and conduct regular meetings. *Thirdly*, all functions of Ward Committees need to be in coordination with not only concerned ULBs but also local level community bodies/organisations like youth clubs, resident welfare associations and welfare societies<sup>4</sup>. It should not cross its functional boundaries and enter into ‘moral policing’ kind of jobs like solving family disputes in neighbourhoods.

#### ***Perspectives of Ward Councillors:***

Table-6.1: Perspectives of Ward Councillors, Siliguri Municipal Corporation, 2016

<b>Particulars</b>	<b>Ward</b>					
	<b>1</b>	<b>4</b>	<b>15</b>	<b>31</b>	<b>35</b>	<b>37</b>
<i>Mode of Campaigning</i>	Door-to-door	Door-to-door	Door-to-door	Door-to-door	Door-to-door; booth level meetings	Door-to-door
<i>Conducting Ward Committee Meetings</i>	Yes	Yes	Yes	Yes	No remarks	Yes
<i>Prioritisation of Issues</i>	No remarks	No remarks	Through discussions made in Ward Committee meetings	Through discussions made in Ward Committee meetings	Through discussions made in Ward Committee meetings; Receiving feedbacks from party	Through discussions made in Ward Committee meetings

<sup>4</sup> M. Bardhan Roy’s case study (in Shah and Bakore ed. 2006:185-206) on Salt Lake cites a tough situation when concerned Ward Committee tussles with established welfare society – thereby leading to chaos in grass root level democracy, public participation and local area planning and development.

						followers and activists	
<i>Supervision of Civic Services</i>	Yes, physical supervision	No remarks	No	Yes	Yes	Yes	Yes
<i>Approach towards Resolving Citizen's Problems</i>	Verbal and Written	Verbal	Discussion	Verbal and Written	Verbal	Verbal	No remarks
<i>Key Issues</i>	SWM drains in slums	and in	Roads, Drains, widow and old age allowances	Upgrading SWM services	Conversion of kachha drains into pucca drains; culvert,	Stand-post, drain repair	Water pipe line; drain
<i>Major Challenges</i>	Land authorisation	Absence of land	Politics, fund crunch, lack of monitoring	Lack of cooperation of State Government due to political differences			Political differences

*Note:* Councillors of Ward 16 and 43 were not willing to attend in-depth interview sessions.

*Source:* In-depth Interviews conducted in respective Ward Offices / Councillor's Residences, Siliguri, 2016

Table-6.2: Perspectives of Ward Councillors, English Bazar Municipality, 2016

<b>Particulars</b>	<b>Ward</b>				
	<b>3</b>	<b>9</b>	<b>11</b>	<b>12</b>	<b>22</b>
<i>Mode of Campaigning</i>	No remarks	Door-to-door	Door-to-door	Mobilisation of followers and personal relations	Door-to-door; flag and festoons
<i>Conducting Ward Committee Meetings</i>	Yes	No	Yes	Yes	Yes
<i>Prioritisation of Issues</i>	No remarks	No remarks	Through discussions made in Ward Committee meetings	Receiving feedbacks from party followers and activists	Through discussions made in Ward Committee meetings;
<i>Supervision of Civic Services</i>	No	No	No remarks	Yes, physical supervision	Yes
<i>Approach towards Resolving Citizen's Problems</i>	No remarks	No remarks	Verbal and Written	Verbal	No remarks

<i>Key Issues</i>	Regular cleaning of drains; Improving SWM and water supply	Piped water supply, SWM, Latrines for Poor	Piped water supply	Piped water supply	Drainage System
<i>Major Challenges</i>	Political differences	Political differences, nepotism	Slums and latrines	– Land authorisation	Land authorisation and land use planning

*Note:* Councillors of Ward 8 and 10 were not available to attend in-depth interview sessions. In case of Ward 23, the Councillor asked her husband to attend the interview. Therefore, her own perspectives could not be obtained and tabulated.

*Source:* In-depth Interviews conducted in respective Ward Offices / Councillor's Residences, English Bazar, 2016

Table-6.3: Perspectives of Ward Councillors, Alipurduar Municipality, 2016

<b>Particulars</b>	<b>Ward</b>			
	<b>2</b>	<b>11</b>	<b>13</b>	<b>17</b>
<i>Mode of Campaigning</i>	No remarks	Door-to-door	Door-to-door; wall writing	No remarks
<i>Conducting Ward Committee Meetings</i>	Yes	Yes	Yes	No
<i>Prioritisation of Issues</i>	Through discussions made in Ward Committee meetings	Following residents' demands	Own judgement (20+ years' experience)	Through discussions with local people and Anganwadi workers
<i>Supervision of Civic Services</i>	Yes, through SHG	Yes, physical supervision	No	Yes, physical supervision
<i>Approach towards Resolving Citizen's Problems</i>	No remarks	Verbal	No remarks	Verbal and Written
<i>Key Issues</i>	Drain	Door-to-door collection of solid waste	Drain	No remarks

<i>Major Challenges</i>	Fund crunch	Land use planning; political differences	Fund crunch	Fund crunch
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Source: In-depth Interviews conducted in respective Ward Offices / Councillor's Residences, Alipurduar, 2016

Table-6.4: Perspectives of Ward Councillors, Kaliyaganj Municipality, 2016

<b>Particulars</b>	<b>Ward</b>			
	<b>3</b>	<b>5</b>	<b>9</b>	<b>17</b>
<i>Mode of Campaigning</i>	Door-to-door; wall writing; pamphlets	Door-to-door; wall writing	Door-to-door; speech; pamphlets	Door-to-door;
<i>Conducting Ward Committee Meetings</i>	Yes	Yes	Yes	Yes
<i>Prioritisation of Issues</i>	Through discussions made in Ward Committee meetings	Following residents' demands; discussions made in Ward Committee meetings	Discussions made in Ward Committee meetings	Discussions made in Ward Committee meetings
<i>Supervision of Civic Services</i>	Yes	Yes, physical supervision	Yes	Yes, physical supervision
<i>Approach towards Resolving Citizen's Problems</i>	Verbal	Verbal and written	Physical verification; written letter	No remarks
<i>Key Issues</i>	Drain	Drain	Water, SWM	Drain
<i>Major Challenges</i>	Land use planning	Fund crunch	No remarks	Illegal occupying of land; fund crunch

Source: In-depth Interviews conducted in respective Ward Offices / Councillor's Residences, Kaliyaganj, 2016

Table-6.5: Perspectives of Ward Councillors, Haldibari and Kurseong Municipality, 2016

<b>Particulars</b>	<b>Haldibari</b>		<b>Kurseong</b>
	<b>Ward 3</b>	<b>Ward 6</b>	<b>Ward 20</b>
<i>Mode of Campaigning</i>	No remarks	No remarks	No remarks
<i>Conducting Ward Committee Meetings</i>	Yes	Yes	Yes
<i>Prioritisation of Issues</i>	No remarks	Through discussions made in Ward Committee meetings	No remarks
<i>Supervision of Civic Services</i>	No	Yes, through Ward Committee	No remarks
<i>Approach towards Resolving Citizen's Problems</i>	No remarks	No remarks	No remarks
<i>Key Issues</i>	Latrines	Nothing specific	Water, SWM, Drain
<i>Major Challenges</i>	No remarks	Land use planning; quality of work done by contractors	Land use planning; fund crunch

*Source:* In-depth Interviews conducted in respective Ward Offices / Councillor's Residences, Haldibari and Kurseong, 2016; The Councillor of Ward-8, Kurseong Municipality, was not willing to attend interview.

### **Gram Sansad and Gram Sabha:**

Census Towns in West Bengal are mainly governed by the Gram Panchayats. Gram Panchayat operates at level three of Panchayati Raj hierarchy. At the first (district) and second (Community Development Block) level, one can find Zilla Parishad and Panchayat Samiti. The West Bengal Panchayat Act (1973) empowers state government in declaring



“any *mauza*<sup>5</sup> or part of a *mauza* or group of contiguous mauzas or parts thereof to be a *Gram*” (Roy, 2015:7). For administrative purpose, a local governing body i.e. Gram Panchayat is formed for every Gram. For electoral convenience, every Gram Panchayat is divided into constituencies, known as *Gram Sansad*. *Gram Sansad* meetings (an annual meeting and one half-yearly meeting every year) are supposed to “guide and advise the *Gram Panchayat* in regard to the schemes for economic development and social justice undertaken or proposed to be undertaken in its area” (ibid. 37).

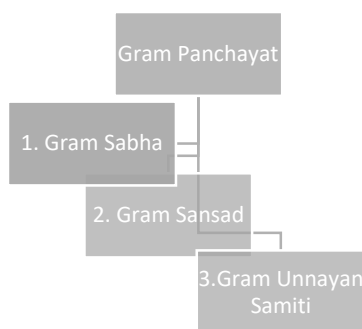


Fig-6.3: Hierarchy in Gram Panchayat, West Bengal. Gram Unnayan Samiti (with all its functional committees) is accountable to Gram Sansad. Resolutions of all Gram Sansad meetings are placed at the annual meeting of the Gram Sabha. Gram Sabha meeting is an important component of decision-making process in a Gram Panchayat.

It means that a *Gram Sansad* is involved in preparing perspective planning and annual planning. Its functional domain is following-

1. It prioritises schemes for economic development,
2. It prepares a list of beneficiaries to be served by poverty alleviation schemes
3. It constitutes *Gram Unnayan Samiti*<sup>6</sup>;
4. It promotes people’s participation for ‘community welfare programmes’;
5. It encourages social harmony;

As one can note, resolutions of all Gram Sansad meetings are placed in the annual public meeting at the Gram Panchayat level. This is known as *Gram Sabha*. Its members include voters enlisted in electoral rolls. In this meeting, a discussion on ‘actions taken’ and

<sup>5</sup> *Mauza* means Revenue Village

<sup>6</sup> *Gram Unnayan Samiti* is formed to motivate people’s participation in implementation of poverty alleviation and other schemes, i.e. to help beneficiaries.

‘proposed to be taken’ for socio-economic development of the concerned Gram Panchayat takes place. Action Reports of Gram Panchayats are submitted to Panchayat Samiti (working at the Community Development Block level).

### ***Perspectives of Gram Panchayat Members***

In-depth interviews with thirteen Gram Panchayat members, in all four Census Towns, help to understand their perspectives. Following points emerge out of these interviews-

- Modes of campaigning for Panchayat elections are varied, unlike Statutory Towns, where ‘door-to-door campaigning’ is the most preferred mode. Apart from door-to-door campaigning, these members have opted for other modes also, and these include posters/banners/flags/festoons; mobilisation of followers and activists. Apart from this, ‘personal request’ is also a preferred mode, because these members are often neighbours or relatives in the concerned community.
- Gram Sansad meetings, as the members point out, are common. A considerable number of local people participate, and obtaining quorum on decision-making processes are relatively easier in such meetings.
- Prioritisation of issues related to development works is mediated through discussions made in Gram Sansad meetings, mainly in a follow-up of residents’ demands. Besides, some G.P. members also admit that they use their own judgments.
- Supervision of civic works and services are physically supervised by some G.P. members. Most of them take G.P. officials like *Nirman Sahayak* into board. Local residents at ‘*para*’ level are also asked to supervise, so that they can directly report to concerned G.P. member.
- Key issues related to water and sanitation vary from one place to another. For instance, in Jaigaon, issues of drain and SWM are significant. All four Census Towns, in general, lack SWM and drainage system.
- All of them point out that lack of funds is a major challenge. Another issue is absence or improper use of land, for which implementation of development projects (e.g. extension or new layout of drains) get hampered. Local issues like labour problems, faulty BPL survey and political bias are also present.

### **6.5.3 Self-Help Group/Anganwadi Worker:**

#### **Self-Help Group:**

Self-help groups are formed in municipal towns and cities, as well as villages, so that some form of employment can be generated through a formal channel of financial support and skill development. The basic objective behind the formation of SHGs is poverty alleviation, and to fulfill the objective such groups attempt to make judicious use of loan and emphasize upon timely loan repayment. Government of West Bengal has a dedicated department, named as Department of Self-Help Group and Self Employment<sup>7</sup>, which looks after self-employment of unemployed young persons, interest subsidy for loans, skill up-gradation training and vocational training, marketing of products made by SHG members and so on. These SHGs often act as pillars of participation, as some of the SHG members are close to Gram Panchayat member/Ward Councillors/Ward Committee members/local body officials. Therefore, some residents prefer to lodge complaints/seek suggestions through members of such groups. In certain occasions, SHGs are formed by a group of women, and few of them also become Ward Committee members in statutory urban centres.

#### **Anganwadi Workers:**

Anganwadi workers are human resources in the Integrated Child Development Services (ICDS) Scheme, a major flagship programme of Government of India since 1975<sup>8</sup>. Primarily, this scheme thrusts on care of children and mother – from the aspect of health and nutrition to some basic forms of education. It should be noted that health and nutrition is strongly linked to drinking water and sanitation. Therefore, Anganwadi workers receive first-hand information whether a child or a mother is ill due to poor quality of drinking water or unhygienic sanitation conditions. Hence, hygiene education is a very important function of Anganwadi Centres. That's why such workers often help in designing and implementing schemes and projects undertaken by local bodies. In this context, it is significant to note three points. *Firstly*, if one looks at the details of Total Sanitation

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<sup>7</sup> <https://wb.gov.in/portal/web/guest/self-help-group-and-self-employment> on 12.01.2018

<sup>8</sup> <http://icds-wcd.nic.in/icds/icds.aspx> on 12.01.2018

Campaign in rural areas, Anganwadis are found to be at important. It is often said that “Charity begins at home”, and therefore, special emphasis was given on construction and use of toilets in Anganwadis. In this campaign, Anganwadi workers were considered an important agent of Information-Education-Communication (IEC) component. *Secondly*, these workers act as *swachhata doots* (messengers of cleanliness), who advocate and spread the message on importance of cleanliness among residents at the neighbourhood level. This message may circulate through children and mothers visiting local Anganwadi Centres. *Thirdly*, another major work done by them is the survey and implementation of public hygiene outreach programmes. *Swachh Bharat Abhiyan* (Clean India Mission), which aims to free India from open defecation though building toilets for each household, largely depends on the capability of such workers. They not only conduct door-to-door survey to get an estimated figure of the requirement of toilets, but also keeps a tab on whether constructed toilets are used or not. In case the toilets remain unutilised, they attempt to convince household members through explaining the benefits of individual and public hygiene maintenance. In this entire framework of governance, Anganwadi workers often bridge the gap between local residents and local body officials/elected members<sup>9</sup>.

#### **6.5.4 Local Youth Club:**

Another informal platform, on which residents interact with representatives of local bodies, is the local youth clubs. Such clubs are basically formed for recreational purposes, such as sports and socio-cultural programmes. Members of these clubs include local young persons, and some of them are politically active also. In a few cases, it has been observed

#### **Perspectives of Anganwadi Workers, Chak Bhrigu**

Households make own arrangement of small drains which do not have proper outlets for disposal. Open defecation happens due to bad habits of some people. They go for bath in a pond, and often defecates in nearby bushes, although have toilets are present in their houses. People, in general, are not conscious about cleanliness of neighbourhood. Experiences in attending Gram Sansad meetings tell that residents are more interested to obtain benefits like subsidised houses through government schemes.

<sup>9</sup> Their role is also acclaimed with praise in popular media, see for instance, <http://swachhindia.ndtv.com/heroes-of-swachh-bharat-how-pivotal-are-anganwadi-workers-in-implementing-the-campaigns-objectives-8094/> on 12.01.2018

that Ward Councillors/Ward Committee Members regularly visit local youth clubs at some

### **Interaction between Ward Councillor and People in a Youth Club**

Place: Ward 12, English Bazar Municipality

Event: To distribute shawls among poor slum residents

An event is organised to distribute warm shawls in the local youth club. The concerned Ward Councillor is invited for the same. Some of the club members are politically active, and they are also Ward Committee members. When the Councillor arrives, a substantial number of local residents (who have been waiting for a long time) also try to enter into the club room. A Ward Committee member intervenes and asks them to wait patiently. Another Ward Committee member holds the list of shawl recipients. Initially, this distribution begins *smoothly*, as residents come one by one, according to the list. But, after a point of time, when only few shawls are left, rest of the residents become anxious, whether all of them will receive shawls or not. Then, Ward Councillor *slowly* starts consulting with other two members. These members start calling name of non-enlisted recipients one by one, introduce him or her to the Councillor, show a positive sign by nodding head, and facilitate shawl distribution. Moments after the distribution of all shawl, few residents begin complaining to the Councillor/Ward Committee member that they have not received shawls. They are assured that warm shawls will be distributed to them in the next winter on first priority basis. After this event, a young couple enters into the club room. The concerned Ward Councillor and Ward Committee members listen their stories of domestic violence and marriage disputes, and chalk out an informal solution. Finally, the Ward Councillor, some Ward Committee members and young persons associated with the club move outside to solve a local law and order issue.

point of time in a day. Residents take this opportunity to meet them there and lodge their complaints or give/take suggestions. Residents also indirectly interact with them through politically active club members. Apart from this, young persons usually aspire to live in a clean and healthy environment (United Nations<sup>10</sup>). If they participate in campaigning for a clean and healthy environment at the local level, one can see a visible impact within a short period of time. So far as rural sanitation in India is concerned, a number of case studies across states show that youth clubs, along with NGOs and women's organisations, bring a

<sup>10</sup>[http://www.un.org/waterforlifedecade/waterandsustainabledevelopment2015/pdf/OP\\_CivilSociety\\_4themes\\_FORMAT.pdf](http://www.un.org/waterforlifedecade/waterandsustainabledevelopment2015/pdf/OP_CivilSociety_4themes_FORMAT.pdf) as on 12.01.2018

positive change in maintaining and improving clean, healthy and hygienic environment (MDWS, 2010).



*Plate-6.6: The Chairperson of English Bazar Municipality and the concerned Ward Councillor wish all residents of Ward-12 a happy Diwali and Chhat Puja, courtesy the local youth club.*

In this context, attention can be drawn towards to the case of Ward-10, English Bazar Municipality. This is one of the core and old wards of English Bazar. The Councillor of the Ward is the Chairperson of the ULB, and at the time of fieldwork (January, 2016), he is the Minister-in-Charge in the Food Processing and Horticulture Department of Government of West Bengal. Due to his busy schedule, the day-to-day affairs of Ward-10 is dealt by one Ward Committee Member who is reportedly very close to the Ward Councillor-cum-Chairperson. Almost all respondents, in which household survey is done, point out that whenever any need arises, they directly visit a local youth club, where the concerned Ward Committee member is available in the evening. In that sense, the relationship between Ward Committee member and the respondents is interpersonal in nature. All households reportedly participate in municipal elections. Be it water supply, or



solid waste management or drainage facilities, this ward shows a satisfactory scenario. One respondent from a household comments:

*Councillor roje morning walk koren, nijei swochokkhe dekhe nen pourosobhar kajkormo thikthak hochhe kina.*

[The concerned Councillor daily walks around the ward in the morning. He himself verifies whether civic works and services are implemented properly on the ground or not]

However, none of the respondents from surveyed households attend Annual General Meeting of the ward. Either they are not interested to attend such meeting or they are not informed about the same.

#### **6.5.5 Citizens' Convention:**

Citizens' Convention is a platform where selected group of residents get an opportunity to interact with concerned local bodies. These conventions are organised by local bodies, mainly to apprise citizens about the development work done and the proposed work to be done. In this platform, citizens also draw attention to certain problems and provide their suggestions related to provisioning of services and development works.

In Siliguri, such conventions are quite common. In Ward-37, the concerned Councillor points out that ward level decisions like infrastructural development, upgradation of civic services and other matters are discussed in citizen's convention.



*Plate-6.7: Citizens of Ward-37, SMC congratulate the concerned Ward Councillor for converting kachha drains and roads into pucca ones*

Siliguri Municipal Corporation arranges such conventions to deliberate upon many issues related to Siliguri city as a whole<sup>11</sup>. Siliguri-Jalpaiguri Development Authority also organizes such events to inform citizens about its development works in and around Siliguri city<sup>12</sup>.

In Kaliyaganj Municipality, the concerned Chairperson and board of Councillors organize a Citizens' Convention after the end of their five-year tenure<sup>13</sup>. This convention begins with the launching of *Nagarayan* - a short report on the development works carried out by the Municipality in last five years. This report consists a set of information on socio-economic and demographic figures of Kaliyaganj as a whole; budget table with income-expenditure details; list of roads and drains with supporting schemes and expenditures incurred and so on. After that, the concerned Chairperson and few Councillors share their views on development works. Invited dignitaries like Head Master of local High School and a veteran local journalist also deliver speeches on the problems and prospects of this town, and the possible role of Kaliyaganj Municipality in infrastructural development, basic service provisioning, poverty alleviation and so on. The Convention ends with taking note of these suggestions and a pledge for improving civic services and development works in future. This meeting is attended by selected invited residents, in which participation of women involved in SJSRY-supported SHGs, is noteworthy. This meeting brings up some informal discussions as well, for instance, the concerned Chairperson lightly complains to the participants:

Apnara majhei majhei bolen je pasher shohor Raiganj e koto unnoyon er kaj hochhe..ami boli je amader sathe ki Raiganj er tulona hoy...amra choto shohor e thaki, ko taka e ba pai sorkar theke!

[People like you tell me, now and then, so many development works are going in Raiganj, our nearby urban centre..I ask you that are we (Kaliyaganj) comparable to Raiganj..we live in a small town...don't we receive a small amount of grants from government!]

<sup>11</sup> <http://siliguritimes.com/municipality-convention-concludes-siliguri/> as on 15.01.2018

<sup>12</sup> [https://www.telegraphindia.com/1150223/jsp/siliguri/story\\_4961.jsp](https://www.telegraphindia.com/1150223/jsp/siliguri/story_4961.jsp) as on 15.01.2018

<sup>13</sup> Participation of researcher in Citizens' Convention, 2014 at Kaliyaganj Municipality Hall



## **6.6 ROLE OF OTHER STAKEHOLDERS:**

In the entire framework of urban governance, relevant stakeholders like NGOs and CBOs play a very important role. The role appears to vary from one place to another, but one of its major focus is amelioration of living environment. Many a times, these organisations are associated with local people in such a way that these bridges the gaps between local bodies and residents. These organisations, for instance, support the cause of urban poor and negotiate with local bodies, so that basic services are provided to the needy residents. In some cases, local bodies take the help of NGOs in spreading awareness on public health and hygiene, civic rights and duties etc.

### **6.6.1 HNAF, Siliguri:**

Himalayan Nature and Adventure Foundation (HNAF) is a well-known NGO in Siliguri. It works for the conservation of nature and promotion of adventure related activities. As far as water and sanitation related sector is concerned, it plays more of an advocacy role. Over the time, this organisation has achieved a repute, and it has ground-level information on many issues that are directly linked to natural environment of Siliguri and adjoining areas. Some years back, it started a campaign which promoted judicious use of water resources. This organisation doubts over sustainability of present ground water based system of water supply system in SMC.

The local governing authorities of this expanding city, where a number of new high rise buildings are coming up rapidly, needs to monitor ground water levels very closely. It also points out the fact many stand-posts are stolen/broken, and therefore, it is important to involve local people/community in operating and maintaining these important sources. Given the nature of half-done physical works done under Mahananda Action Plan, dreams of achieving a good sanitation system is a far-flung reality. To some extent, river banks have been concretised and some of the service toilets have been shifted elsewhere. As has been learned, new migrants (coming from Bangladesh, Nepal, Bihar and Assam) often settle on the river bed. Due to lack of awareness and prevalence of bad habits, night soil is usually disposed into river by people using service toilets. As minimum 50,000 residents are living over there, provision of hygienic toilets is a key challenge. Another challenge is dumping of solid waste into open spaces and rivers in many parts of Siliguri.



*Plate-6.8: SMC- The poster hanging on a wall urges citizens to conserve water, and not to waste water and as well as to deter others from doing so, for the interest of life and environment.*

One needs to note that although HNAF has the repute and power of consultancy/advocacy, its focus is more on the activities like organising nature camps and checking man-animal conflicts. Although it promoted the cause of water conservation across many wards in the city at some point of time, it has now discontinued it. One of the reasons, as it appears, is the lack of capital and manpower. Another reason could be the overwhelming role of SMC and other bodies of government, in which HNAF could only be a part of, and its suggestions may not be very welcoming as it entail serious political implications.

### 6.6.2 Green Revolution, Jaigaon:

Jaigaon, due to the growth in economic activities like trade and commerce and consequent population influx, is grappling with the pain of mismanagement of solid waste. The plan to manage solid waste in Jaigaon is not new<sup>14</sup>, and this has been reiterated as the Government of West Bengal is willing to convert it into a ‘planned city’<sup>15</sup>. However, on the ground, there is hardly any progress so far<sup>16</sup>. A substantial load of solid waste is generated from households, shops and trading establishments. But there is no full-fledged institutional mechanism placed to manage this load of solid waste. Jaigaon Gram Panchayat-II does not have the capacity (in terms of physical infrastructure and manpower) to provide services that can manage solid waste. It has been observed, in the previous chapter, that it is the only Census Town among the four surveyed, where at least door-to-door collection of solid waste is present. 40 out of 48 households report using such system of garbage disposal. The elected members of Jaigaon Gram Panchayat-II have revealed that they act as intermediaries between households and trash collectors. Trash collectors

#### *Perspectives of Elected Members, Jaigaon Gram Panchayat-II*

Three elected members, who were interviewed as a part of this survey, reveal few common points. All three of them agree that regular cleaning of drains and good management of solid waste are priority issues of development. But they also point out major limitations: first of all, lack of civic awareness is a major hindrance. Secondly, even if the Gram Panchayat follows its will power, lack of dustbins, absence of sweepers and paucity of own funds pose substantive challenges before it. Drains, where local people often throw solid wastes, are not regularly cleaned. It’s mainly through appointing casual labourers in MGNREGS, drains are cleaned two-three times in a year.

visit households two-three days on weekly basis, collect unsegregated trash in tied plastic carry bags and then dispose these off along the bank of Torsha River. In case trash collectors fail to regularly visit households, concerned residents informally complain concerned G.P. members.

<sup>14</sup> [https://www.telegraphindia.com/1041228/asp/siliguri/story\\_4181710.asp](https://www.telegraphindia.com/1041228/asp/siliguri/story_4181710.asp);

<sup>15</sup> Mamata for developing Jaigaon into ‘planned city’, *The Statesman*, 4<sup>th</sup> November, 2015; <http://indianexpress.com/article/india/india-news-india/west-bengal-mamata-dumps-centres-smart-city-project-to-develop-cities-on-its-own-2983994/> 19<sup>th</sup> August, 2016

<sup>16</sup> During the interview (February, 2016), the concerned Additional Executive Officer, while admitting non-implementation of such works on ground, refused to take any responsibility, and passed the buck to HIDCO



*Plate 6.9 and 6.10: (Left to Right side) Solid waste choking a major roadside drain; (Right side) Heaps of solid waste thrown at the side of road*

*Such pictures are very common almost everywhere in Jaigaon. Irregular collection of solid waste coupled with bad habits of local residents make the residential areas very dirty. Both pictures reveal how unsegregated solid waste are thrown into a common place.*

Then, these members ask trash collectors to visit households regularly. This entire process is very informal, and the concerned Gram Panchayat does not have any mechanism of regulation in place. At most, the elected members can choose other trash collectors replacing irregular ones. Therefore, when trash collectors work irregularly, residents throw solid waste onto roadside, road corners, drains and open spaces.



In this context, the importance of Green Revoultion<sup>17</sup>, a local NGO dealing with solid waste management issues, is immense. The role of this local NGO<sup>18</sup> is more restricted to cleaning of main roads and solid waste collection from roadside shops, trading establishments and markets. Jaigaon Gram Panchayat-II has also extended its supporting hand to this NGO by providing 1 Truck and 1 Tractor on monthly hiring charges. With a team of eighteen workers, these two vehicles are used to lift solid waste and carry it to the dumping place. Local people and the Merchant Association of Jaigaon also lend support to this organisation. It divides users into four groups with specific monthly charges – (1) Industries Rs. 1500, (2) Hotels, Restaurants and Eateries, Rs. 500, (3) Shops, Rs. 75 and (4) Households, Rs. 50. Street hawkers are charged Rs. 5 on a daily basis.

The Chairman of Green Revolution has pointed out the hourly need of coordination between people-merchants & traders-Gram Panchayat and Development Authority. As of now, a project of SWM is being taken up, for which tender has been invited for the construction of boundary wall.

### **6.6.3 Rural Sanitary Marts:**

According to *Swachh Bharat Abhiyan (Gramin)* or Clean India Movement (Rural) guidelines, “The Rural Sanitary Mart (RSM) is an outlet dealing with the material, hardware and designs required for the construction of sanitary latrines, soakage and compost pits, vermi-composting, washing platforms, certified domestic water filters and other sanitation and hygiene accessories etc”. In some villages, it is difficult for a beneficiary to obtain good quality sanitary hardware at reasonable rates and less labour. RSMs attempt to fill this gap, as it offers a variety of sanitary fittings. These usually supply bulk quantity of sanitary materials to 5-6 households, and that is why per household expenditure for constructing toilet gets reduced. RSMs also supply trained masons for constructing toilets. These are supposed to be owned and operated by Gram Panchayat/SHG/NGO/Women Organisations. Citing the case of Nadia district of West Bengal, it has been argued that RSMs have played crucial roles not only to provide

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<sup>17</sup> Detailed information on the nature and modus operandi of this NGO is done through An in-depth interview, as on 01.03.2016

<sup>18</sup> <http://principalsecretarysblog.blogspot.in/2015/11/second-gate-at-jaigaon.html> as the Principal Secretary, Department of Urban Development, hopes to streamline SWM through NGO efforts

necessary sanitation materials to beneficiaries but also creating employment opportunities

### **Perspectives of Rural Sanitary Marts**

#### **Case-I: Uttar Matiali Rural Development Organisation, Lataguri**

This NGO was registered as the first SHG in 2004-05. Since 2010, it has been involved in toilet construction under *Swachh Bharat Abhiyaan*. Although it is primarily a Rural Sanitary Mart, other functions include organisation of health camp and book donation to poor needy children. Under the Total Sanitation Campaign, few toilet seats, pans and tanks were constructed at household level. But, beneficiaries mostly used bamboo fencing for privacy. After such fencing got broken, household members again started defecating at open places like nearby forests and railway tracks. Some households did not have own land, and they could not construct toilets. Now, *Swachh Bharat Abhiyaan* envisages construction of individual toilets, where a beneficiary contributes Rs. 900 and government provides a subsidy of Rs. 10000. For this construction work, this RSM buys sanitary materials directly from market. Zilla Parishad arranges mason training. It has to work within a stipulated model of toilet construction, which fails to meet expectation of some households. One of the important components is IEC – awareness campaign (including whistle blowing in forests and open spaces) for curbing the ill practice of open defecation and convincing households to utilise constructed latrines. Another important component is monitoring physical progress of toilet construction. SHG members act as motivators at villages. Gram Panchayat member also looks at this component. Payment of RSM depends on actual photographs of constructed toilets. This RSM asserts that minimum cost of one individual toilet should be Rs. 13000 to maintain certain quality standards. It also points out that *Swachh Bharat Abhiyaan*, apart from toilet construction, should also give emphasis on SWM in rural areas.

*Source:* In-depth Interview with the Organiser/Supervisor of RSM, February, 2016

of different stakeholders. Capacity building of RSMs in two permanent training centres is a milestone in this regard (NITI Aayog, 2015).

### Case-II Ankur Gram Unnayan Society, Kasba

This NGO is working since 8-10 years on the areas of education, donation of winter garments, arrangement of National Bank for Agriculture and Rural Development (NABARD) training, and so on. This organisation is working as the RSM in Maraikura Gram Panchayat. Fund allocation for individual household toilet is routed through: Central Government-State Government- Zilla Parishad- C. D. Block- RSM. Zilla Parishad provides mason training also. The concerned RSM buys sanitation materials like bricks and cement sacks from market. It recruits motivators who encourage villagers to apply for individual subsidised toilets and collects Rs. 900 per beneficiary household. They also monitor whether constructed toilet gets properly utilised by concerned beneficiary. It also works in coordination with the concerned Gram Panchayat. Concerned Block Officials make an enquiry on toilet construction, and only after their due approval, bill furnished by the RSM gets cleared from the concerned Block Development Office. The RSM points out two major challenges. It is not willing to work in remote villages, even if villagers are aware about health and hygiene related issues. The main reason is administrative lag and irregular payment. It also notes that no institutional effort is placed for digging 'compost pits' in which organic wastes could have been thrown. It could have partly solved the problems of SWM in semi-urban areas like Kasba.

*Source:* In-depth Interview with the Organiser/Supervisor of RSM, January, 2016

The RSM Supervisor is a one-time member of Maraikura Gram Panchayat (2003-08). Now, his wife is a member. Therefore, this RSM holds sufficient local knowledge on how *Swachh Bharat Abhiyaan* is actually implemented.

In fact, the concept of RSM is not new. While evaluating the Total Sanitation Campaign, it is found by Planning Commission (2013) that RSMs are more or less functional in almost all the C. D. Blocks, although these mostly play the role of production centres. They are usually run by private NGOs. Their main work was limited to the construction of individual toilets in BPL households and some institutional toilets. But their work was completely dependent on government funds and conditions. As no funds were available, such RSMs usually did not take up repair/maintenance work of already constructed toilets.

## 6.7 ASSESSMENT OF MUNICIPAL SERVICES:

It is already discussed (see Chapter-3) that a researcher should look at the gaps between the Service Level Benchmarks (SLBs) and actual levels of services. Benchmarks broadly refer to desired levels that the services need to achieve and deliver. The SLBs related to urban water supply and sanitation was standardised by the Central Public Health and Environmental Engineering Organisation (CPHEEO), a technical annex of the approving authority of the Ministry of Urban Development (MoUD).

As the following table (Table-6.6) reveals, SLBs are mostly the highest possible values in every parameter, except ‘Per capita water supply’. Therefore, it is technically and practically quite obvious that the selected towns mostly fail to provide services to that ambitious extent leading to certain gaps. Although MoUD proposed this SLB, the state of West Bengal has also preferred to follow it blindly, perhaps without taking a serious note of practical scenario of ULBs present in the state.

Table-6.6: SLBs and Actual Levels of Services of Selected Statutory Towns, 2016-17

Parameter	SLB	English		
		Siliguri	Bazar	Kaliyaganj
Coverage of Water Supply connections (%)	100	85	80	100
Per capita water supply (lpcd)	135	100	70	70
HH level coverage of SWM services (%)	100	85	80	60
Collection efficiency (%)	100	70	90	100
Extent of segregation (%)	100	25	0	10
Extent of scientific disposal (%)	100	20	0	10
Coverage of storm water drainage network (%)	100	90	80	35
Coverage of toilets (%)	100	80	80	80

Source: 4<sup>th</sup> SFC Report, West Bengal

It is analysed that even the above table does not capture the actual levels of services. In the fieldwork stage (see Chapter-4), it is observed that ‘coverage of water supply connections’ is limited in Kaliyaganj. Stand-post based water supply network is actually limited to a certain stretch, along major roads. In this medium-sized town, house connection-based supply system is at a very initial stage of operation. Therefore, the reported figure of 100 percent coverage of water supply connections is misleading. Similar argument is applicable to ‘Collection efficiency’ of solid waste. Door-to-door collection system does not cover the



entire area of Kaliyaganj Municipality. A substantial chunk of solid waste is thrown here and there – mainly into water bodies and open spaces. Therefore, it appears that 100 percent collection efficiency is applicable to a limited system to door-to-door collection. On the other hand, door-to-door collection system is extensively operated in Siliguri through a dedicated SWM Mission. Even then, the city managing local body is unable to reach the concerned SLB.

## **6.8 CONCLUSION:**

This chapter reiterates the importance of ‘people’ in grass root level governance for ensuring relatively satisfactory service provisioning. Their role is important because they not only utilise services provided by local bodies, they can specifically share their lived experiences so that services can be improved. Instances of Siliguri show how Households demand improved services related to curbing of mosquito-borne diseases, although the partial non-cooperation of residents with sanitation workers, due to absence of a mutual dialogue, lead to irregular spraying of mosquito larvicidal oil and cannon fogging. Instances of Kasba and Chak Bhriku show how civic services from adjacent ULBs help residents of Census Towns governed by Gram Panchayats, thereby formulating a functional bridge. Ordinal Logit Regression Model reveals that with higher MPCE and higher levels of education, households in Statutory Towns tend to obtain better water and sanitation related services and give higher perception rating. It could be because of their awareness – both personal and public hygiene related knowledge as well as interaction with municipal workers and officials and Ward Councillors/Ward Committee Members. People’s participation through formal platforms of ‘Ward Committee’ and ‘Gram Sansad’ is partially present. Interaction of local bodies and people often mediates through Anganwadi workers/ SHG members/youth club members. These group of people possess close interaction with people at neighbourhood<sup>19</sup> level and they have access to officials and people’s representatives attached to local bodies as well. Therefore, both top-down approach of governance (e.g. curbing unhygienic practice of open defecation) and bottom-top approach (e.g. demand of stand-posts and regular cleaning of drains) are mediated by these groups. Citizens’ Convention is also a key initiative in this regard. Role of other

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<sup>19</sup> In West Bengal, a neighbourhood is referred to as ‘Para’

stakeholders like HNAF in Siliguri as a Consultants and Green Revolution in Jaigaon for better management of solid wastes is also very important. These bodies bridge the interaction of people and local governing bodies with context-specific support mechanisms. However, in general, the selected ULBs are not able to reach ambitious SLBs, in most of the parameters.

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## Chapter 7.

# Policies: Critical Review and Evaluation

### 7.1 INTRODUCTION:

As all the chapters, based on the secondary and primary database, have already pointed out some of the existing issues- problems and prospects, stories of success and failure, challenges and opportunities, this is important to adjoin such issues with the existing policy framework. The government of India, state governments and local governing bodies have time and again formulated some policies, chalked out some strategies, launched and implemented many schemes, and monitored and evaluated them, and this chapter attempts to link all these with existing and specific issues in the context of North Bengal. For doing this, it looks at the planning perspectives, government policies, guidelines and funding patterns of relevant schemes/programmes, and reviews them with the help of some literature and dataset.

The structured plan of this chapter is as follows. Following this introduction, the second section explores the database and methodological issues. The third section presents a detailed account of policy perspectives – priorities given in different five-year plans, various schemes and programmes related to water supply and sanitation , for both statutory and census towns. In the fourth section, such policies are reviewed by intertwining fieldwork-based insights. The fifth section analyses the role of background variables which influence the utilisation of basic services. The last section is a concluding one.

### 7.2 DATABASE AND METHODOLOGY:

This chapter is primarily dependent on literature sources. Apart from traditional academic books and journals, a review of reports, circulars and tender documents associated with some government funded schemes or programmes have been done. In this regard, official websites of Ministry of Housing and Urban Affairs, Government of India, and Department of Municipal Affairs as well as Department of Panchayats and Rural Development, Government of West Bengal, and other relevant web sources (like Planning Commission and NITI Aayog) have been scanned and reviewed. This is also supplemented with the

content analysis of media reports. Photographs taken during fieldwork and field notes are also utilised to strengthen the analysis.

Evaluation of policies, strategies, schemes or programmes is mainly done through the application of qualitative methodologies like in-depth interviews with key-informants. They are involved in actual planning, decision making and implementation of government-funded schemes and programmes. In ULBs, concerned Chairpersons, Ward Councillors, Ward Committee members, Urban Planners, Sanitary Inspectors, SWM Supervisors, Civil Engineers and other officials are interviewed. In RLBs, concerned Gram Panchayat Pradhan, Gram Panchayat Members and *Nirman Sahayaks* have been interviewed.

On the quantitative front, a Binary Logistic Regression is done to explore whether background variables like social group, education level and MPCE have any influence on the incidence of households' getting benefits from the local body.

### **7.3 POLICY PERSPECTIVES:**

#### **7.3.1 Water Supply and Sanitation – A Historical Overview of Five Year Plan Initiatives:**

As the First Five Year Plan document notes, massive rural-urban migration led to rapid urban growth and consequent upon this was the haphazard erection of houses and slums often without the presence of basic amenities like water supply and sanitation. It is observed that in first three Five Year Plans (from 1951 to 1966), 'water supply' and 'sanitation' sector is perceived as something integrated to the 'housing' and 'land use planning'. Through master plans, the government aimed to achieve a good quality of life in urban centres – cities as well as small and medium towns. In such a policy framework, 'slums' were considered an eyesore, and that is why demolition and relocation of slums as well as checking the growth of slums were prescribed. Another key issue was the provision of essential civic amenities in slums to protect minimum environmental hygiene.

Fourth Five Year Plan (1969-74) document recognised the importance of safe drinking water in parts of metropolitan areas where water-borne diseases cause a havoc. It also pointed out that there should be a change in the perception of considering 'water supply' as a 'service', and its provision should be self-financed by the concerned beneficiaries. In the sanitation sector, this document noted the significance of transforming dry latrines into

more hygienic sanitary latrines. It also planned the provision of sanitary conveniences at public institutions and public places. Fifth (1974-78) and Sixth Plan (1980-1985) continued with almost same policy perspectives, in which emphasis was laid upon the completion of ongoing water supply schemes in urban areas.

Seventh Five Year Plan (1985-1990) emphasised on simple and low-cost methods of water supply; community participation in the formulation, execution and maintenance of water supply; the building of an organizational structure for water supply by the States; completion of ongoing projects; water supply and sanitation in small and medium towns. In Eighth Five Year Plan (1992-97), this emphasis got continued in a new format, as for instance, improving sanitation conditions involved policies like the elimination of manual scavenging and creation of physical infrastructures like drains and sewers, pay and use community baths-cum-latrines.

Ninth Five Year Plan (1997-2002) stressed on strengthening ongoing programme of AUWSP in small towns; integrating sanitation and drinking water facilities; management of groundwater exploitation; recycling of waste; strengthening NGO effort in sanitation campaign (e.g. Midnapore Model, WB); Sanitation facilities to pavement dwellers.

Eleventh Five Year Plan (2002-07) talked about infrastructural development schemes in water supply, sewerage and solid waste management. It also advocated consolidation of small fragmented programmes into an umbrella programme to streamline faster and more inclusive economic growth.

Twelfth Five Year Plan (2007-12) reemphasised on 'affordable' and 'sustainable' water and waste management. To fulfil this, it envisaged re-allocation of water from agriculture to industrial/urban sector, maintenance of a database on water usage, monitoring groundwater levels and arrangement of its recharge, curbing groundwater contamination by estimating sewerage load and installing sewerage treatment plants and providing hygienic sanitation system to all. Time and again, it talked about the minimal use of precious water, the revival of local water bodies, and reuse of wastewater to all possible extent. This Plan outlined five thrust areas of reforms related to water and sanitation:

1. *Investments in Water Supply Will Focus on Demand Management, Reducing Intra-City Inequity and on Quality of Water Supplied*
2. *Protection of Water Bodies*
3. *No Water Scheme Will be Sanctioned without a Sewage Component, Which Joins the Dots with Pollution of Rivers and Waterways*
4. *Plan Deliberately for Recycling and Reuse of Treated Wastewater*
5. *Plan on a Regional Scale*

### **7.3.2 NITI Aayog:**

The government of India, in 2015, has constituted NITI (National Institute for Transforming India) Aayog, in replacement of Planning Commission of India. At the core, it aims to serve citizens of India in a better way. For this, it envisages the policy of ‘cooperative federalism’, in which states will play a significant role in multidimensional aspects of development. NITI Aayog is given the mandate to collect quantitative data on various parameters of SDGs and actively monitor the achievement of high-quality standards<sup>1</sup>.

While making an appraisal of 12<sup>th</sup> Five Year Plan, NITI Aayog reiterates the importance of water and sanitation in the urban transformation of India. Looking at the fund allocation of JNNURM (as discussed in Section 7.3.4), in which water and sanitation sector has received almost 57 percent of central government's assistance, the Aayog feels that the successor urban development schemes should continue to focus on these. *Swachh Bharat Abhiyaan (Urban)*, following this appraisal, has taken a number of key initiatives in this regard (as discussed in Section). Apart from this, NITI Aayog looks water sector as a nationally important issue, and therefore, seeks to construct a ‘Composite Water Management Index’. Through this index, it aims to rank states, so that states put forward all efforts to systematically collect water-related data, and prepare policies and identify strategies for sound management of water resources<sup>2</sup>. Here, nine sectors get priorities, and one of these is ‘Urban Water Supply and Sanitation’. Within this, the list of key performance indicators includes the percentage of urban population with drinking water supply, generation-capacity-level of wastewater treatment and so on.

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<sup>1</sup> Refer to Chapter-3, where the importance of water supply and sanitation is elaborated.

<sup>2</sup> <https://economictimes.indiatimes.com/news/economy/policy/niti-aayog-to-rank-states-on-managing-water/articleshow/59151516.cms> as on 16.01.2018

### 7.3.3 Schemes related to Water Supply and Sanitation:

#### 7.3.3.1 Statutory Towns:

##### *Integrated Development of Small and Medium Towns (IDSMT)*

After its inception in 1979-80, and continuation up to 2004-2005, IDSMT is the only scheme which focused on the infrastructural development of small and medium towns to usher economic growth and employment. In this way, this scheme envisaged a reduction of population pressure on large cities, thereby allowing a dispersed and balanced spatial pattern of urbanisation. Initially, this scheme was covering urban areas having less than one lakh population; then it was extended up to five lakh population. The major objective of this scheme was to fund selected urban centres that act as regional growth centres – like district headquarter, market towns, pilgrim or tourist centres and so on. It aimed to provide grants to ULBs through shares of the central government, state government and HUDCO/financial institutional loan/other sources. IDSMT didn't have any particular component of 'water supply'<sup>3</sup>, but it covered 'solid waste management', 'construction/upgradation of Master Plan drains including stormwater channels' and 'pay-and-use public toilets' in the sanitation sector.

To evolve a good system of governance, through which this scheme aimed to move forward in coordination with the Town and Country Planning organisation (TCPO) is following:

1. Department of Urban Development, Ministry of Urban Affairs and Employment, Government of India
2. State Urban Development Agency, Department of Municipal Affairs/Urban Development, concerned State Government (following Urban Development Strategy of the respective state)
3. Urban Local Bodies

One should note the limitations of this scheme also. *Firstly*, it kept the burden of arrangement, and acquisition of land on the shoulder of state government. *Secondly*, it did

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<sup>3</sup> "Schemes for water supply in the IDSMT towns are to be undertaken/supported under the HUDCO/LIC/Externally-aided infrastructure lending programmes and the Centrally-sponsored AUWSP Accelerated Urban Water Supply Programme (applicable to towns having less than 20,000 population)" (IDSMT Revised Guidelines, 1995)



not involve wage employment component and costs incurred for human resources engaged. *Thirdly*, considering a ‘basket-type approach’ in expenditure front, it expected that non-remunerative projects (e.g. projects catering to the weaker section of society) were to be supported by the monetary returns arising out of remunerative projects (e.g. markets, shopping centres etc).

From the perspective of basic services, one should also point out the fact that towns having more than 20, 000 people got dependent on external aid-based funds/HUDCO/LIC. The MoUs with state government and external aid agencies work in a manner in which state government selects the ‘beneficiary’ towns. In case state governments fail to apply some standard criteria to select these towns, presence of political support base and subsequent patronage system emerge as the sole criteria before the ruling Party-governed administration. Other towns, not ‘benefitted’ under such external aid policy, find it difficult to carry out a survey, prepare Detailed Project Report (DPR), and ask for infrastructure projects due to limited technical expertise and a paucity of trained manpower.

#### ***Accelerated Urban Water Supply Programme (AUWSP)***

It was implemented in 1993-94 to cater to the felt needs of ‘safe’ and ‘adequate’ drinking water in smaller towns (having less than 20,000 population as per Census 1991 figures). This scheme was planned in the Eighth Five Year Plan and initiated in 1993-94. It aimed to enhance the quality of life of the vulnerable section of society i.e. urban poor. It also prioritised drought-prone, salinity-prone or water-borne disease affected small towns for this scheme. To finance this scheme, central government and state government planned to give 50 percent of funds each, including beneficiary/town contribution of 5 percent. In coordination with concerned ministry/department of central and state government and other important bodies like PHED/Water Supply and Sewerage Board, this scheme also envisaged the involvement of NGOs and the local community.

Among the 2151 small towns identified in Census 1991 dataset, MoUD sanctioned schemes for 1244 towns with a total grant of Rs. 1822.88 crores, and sent Rs. 884.46 crores to state governments (as on 22.11.2011).

Among its several limitations, the major one is the ‘cut-off’ considered in terms of population size and the associated local governing bodies. The scheme guideline document does not explicitly tell whether these ‘towns’ include both statutory and census towns. In states like West Bengal, such small towns are mostly governed by Gram Panchayats. In that case, engagement of ‘field level staff’ and NGOs for ensuring community participation is nearly impossible. Otherwise, as the document mentions ‘Urban Local Body’ time and again, one has to assume that ‘small towns’ necessarily mean ‘small statutory towns’. But, even in that case, an involvement of NGOs and field staff is weak. Another limitation is the issue of ‘land’, availability, accessibility and acquisition of which is left to the concerned ULB. Apart from this, the features of this programme include that “*The water supply sector has to be treated as public utility rather than a service and efforts have also to be made to bring about greater private sector participation and investment in this sector*” (AUWSP, MoUD, 1994:3). As a matter of fact, private players will not take any interest in investing capital in such non-remunerative projects operating in small towns with limited economic growth potential.

#### ***Integrated Low-Cost Sanitation (ILCS) Scheme***

Up to 1980s, a tradition of using dry latrines and disposal of night soil by manual scavengers (who were mostly considered as untouchable lower castes) prevailed in many parts of India. To free scavengers from such inhuman work, which affect their physiological and mental settings badly, Ministry of Home launched a Centrally Sponsored Scheme for Liberation of Scavengers. This scheme aimed to convert dry latrines into sanitary latrines, and provide alternative employment to the manual scavengers. After considering the suggestions given by a Planning Commission-appointed committee, the existing scheme was bifurcated – (1) ILCS and (2) National Scheme for Liberation and Rehabilitation of Scavengers and their Dependents (NSLRS) for stipulating alternative employment to the manual scavengers. In 1993, Parliament of India enacted Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act. It provided an additional safeguard in the sense that no one can employ or work as manual scavengers<sup>4</sup>.

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<sup>4</sup> Independence Day Special Feature *Freedom from Manual Scavenging*  
<http://pib.nic.in/newsite/mbErel.aspx?relid=126057> (as accessed on 15.04.2017)

Presently run by Ministry of Housing and Urban Poverty Alleviation (MoHUPA), ILCS aims to (1) convert dry latrines into sanitary ones and (2) construct new latrines in EWS households who do not have latrines or defecate openly. While prioritising towns having the prevalence of dry latrines, this scheme aimed to make a coordination between central government-state government-ULB- NGO. The concerned NGOs have a great role to play – starting from surveying and estimating the demand, to operating and managing constructed latrines. This scheme also gives due importance to MIS, monitoring, capacity building and IEC, by keeping 1 percent of total central allocation aside. This subsidised scheme followed a financing pattern like this: 75 percent central subsidy, 15 percent state subsidy and 10 percent beneficiary contribution. The ceiling of a newly constructed latrine is fixed at Rs.10, 000 (Rs. 12, 500 for difficult/hilly areas)<sup>5</sup>.

Even after spending a lot of money and constructing a lot many latrines, Census of India (2011) reported lakhs of insanitary latrines. This comes in contrast with the views of state governments which assert that there is no dry latrine in their respective states! However, Cabinet Committee on Economic Affairs approved MoHUPA to continue ILCS scheme in Twelfth Plan Period (2012-07) also, with a ceiling of Rs. 15, 000 for a new latrine, along with increased support for the use of eco-friendly technologies like bio-digesters<sup>6</sup>.

### ***Jawaharlal Nehru National Urban Renewal Mission (JNNURM)***

As a major chunk, estimated to be around 65 percent in 2011, of India's GDP comes from urban areas, Government of India felt the need of building sustainable urban infrastructure, improved urban governance and efficient system to attract a huge chunk of investment. In the Eleventh Plan, an emphasis was laid upon inclusiveness and sustainability. Keeping tune with National Common Minimum Programme and Millennium Development Goals, urban development and urban renewal emerged as important issues. In such a context, Government of India launched Jawaharlal Nehru National Urban Renewal Mission (JNNURM) on 3<sup>rd</sup> December 2005 with an investment of Rs. 50000 Crores in the mission period of seven years beginning 2005-06. JNNURM aimed to encourage *reforms and fast track planned development of identified cities; focus is to be on efficiency in urban*

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<sup>5</sup> Revised Guideline, ILCS, MoHUPA, 2008

<sup>6</sup> <http://pib.nic.in/newsite/PrintRelease.aspx?relid=89273> as on 10.04.2018

*infrastructure and service delivery mechanisms, community participation, and accountability of ULBs/ Parastatal agencies towards citizens.* The primary objective of this mission was to create economically productive, efficient, equitable and responsive cities (Kundu and Samanta, 2011).

The JNNURM had two sub- Missions for the Mission cities: (1) *Urban Infrastructure and Governance (UIG)*- mainly infrastructure projects like road construction, improvement of public transport, network building for water supply, sanitation, solid waste management, stormwater drainage, redevelopment of old city areas were covered; (2) *Basic Services to the Urban Poor (BSUP)* - the main focus of this sub-Mission was to carry out integrated development of slums for providing shelter and other basic amenities.

This Mission was also expected to cater to non-Mission towns and cities under two schemes: (1) *Urban Infrastructure Development Scheme for Small And Medium Towns (UIDSSMT)* - The existing programmes of Integrated Development Scheme for Small and Medium Towns (IDSMT) and Accelerated Urban Water Supply Programme (AUWSP) were colligated into it; (2) *Integrated Housing and Slum Development Programme (IHSDP)* - The existing programme of Valmiki Ambedkar Awas Yojana (VAMBAY) and discontinued National Slum Development Programme (NSDP) were subsumed under IHSDP.

To meet the objectives of JNNURM, following strategies were outlined: Preparation of City Development Plan (CDP) including policies, programmes and financing aspects; Preparation of Detailed Project Reports (DPRs) by ULBs or Parastatal agencies through optimizing life-cycle cost of projects; Release of funds through the chain: Central/State Government - State Level Nodal Agency- ULBs/Parastatal agencies, and SLNA/ULBs were supposed to leverage additional resources; Incorporating private sector efficiency in development, management, finance through Public Private Partnership (PPP).

From a critical perspective, number of scholars questioned the efficacy of this scheme. *Firstly*, Most of the projects undertaken in JNNURM were concentrated in relatively more developed states like Maharashtra, West Bengal, Tamil Nadu, Uttar Pradesh, Andhra Pradesh and Gujarat. *Secondly*, Out of total funding of JNNURM (Approximately Rs. 18462 crore), Basic Service for the Urban Poor (BSUP) component received only 22.7 percent and Urban Infrastructure and Governance (UIG) received 77.3 percent. *Thirdly*,

there was a systematic decline in percentage of population covered by JNNURM with size-class of urban centres (Kundu and Samanta, 2011). *Fourthly*, through advocating neo-liberal urban agenda, this scheme biased against poor people in number of ways. Construction of flyovers and roads often relocated them from demolished slums, and some of the prescribed reforms like full cost recovery and user charge policies along with participation of private agencies hit them hard. *Fifthly*, another issue was the limited technical and financial capacity of small and medium towns (Mahadevia, 2006; Mukhopadhyay, 2006; Chandran, 2010). Despite the fact that Operation and Maintenance of infrastructure and full cost recovery are emphasised in JNNURM, the progress is not very satisfactory. About 53 percent of total grant in JNNURM came from government exchequer, which indirectly did not incentivise large cities to generate own revenue through municipal bonds. That means the government has to ‘explicitly’ layout guidelines in which cities have to pull own resources, thereby not depending substantially on government grants (Sahasranaman and Prasad).

***Atal Mission for Rejuvenation and Urban Transformation (AMRUT)***

Learning from the above schemes/programmes, it has been realised that infrastructure creation has a direct bearing on the felt needs of people, and therefore a substantial amount of money needs to be invested. This mission, apart from capacity building and reform implementation, focuses on water supply, sewerage, stormwater drainage, urban greenery and public transport. It covers Class-I cities/towns, with particular emphasis on heritage and hill towns. With a total outlay of Rs. 50, 000 crores for five years, the funds are to be managed by a system where: 80 percent of budgetary outlay is kept for project fund, 10 percent for reforms incentives, 8 percent for state funds for Administrative and Office Expenses (A and OE), and 2 percent for MoUD A and OE. In case of ‘project fund’, the total outlay is to be shared by three tiers of government – central (50 percent), state (40-45 percent) and ULB (5-10 percent).

One major difference between AMRUT and other schemes is the way this mission is going to be implemented. AMRUT does not require project-by-project sanctioning by higher authorities of central government, rather state’s annual plan of action is scrutinised and approved. All the projects related to infrastructure development by AMRUT forms the

annual action plan of the state. Thus, this mission aims to make states an equal partner of development, thereby championing the cause of cooperative federalism. Another difference is the aim of achieving step-by-step incremental benchmarks. Other schemes used to target universal coverage and compliance with fixed Service Level Benchmarks (SLBs). Here, the gradual processes of incremental achievement of benchmarks are in tune with national priorities.

### **7.3.3.2 Census Towns:**

It has been observed that Census Towns in West Bengal are governed by Gram Panchayats, the lowest tier of Panchayati Raj system. Therefore, an attempt is made to outline few schemes/programmes that look after water supply and sanitation sectors:

#### ***Rajiv Gandhi National Drinking Water Mission (RGNDWM)***

The primary responsibility of providing water in rural areas remains on the shoulder of state government. However, central government also extends its helping hands. *Accelerated Rural Water Supply Programme (ARWSP)*, initiated in 1972-73, was the major scheme that aimed towards supplying safe drinking water to rural areas. It was targeting ‘problem villages’ (say, flood or drought affected, saline/alkaline soil affected), and remote areas, thereby uncovered by PHED projects implemented so far<sup>7</sup>. In 1986, to hasten the coverage of water supply, a *Technology Mission* was started. In 1991-92, this scheme got a new name i.e. *Rajiv Gandhi National Drinking Water Mission (RGNDWM)*. It has three components – coverage, sustainability and water quality. All these developments were happening under Department of Drinking Water and Sanitation, Ministry of Rural Development. Citing the importance of this department, it was converted and strengthened into a full-fledged Ministry, i.e. Ministry of Drinking Water and Sanitation (MoDWS) in 2011.

One should also note that in 1999, Sector Reform Project (SRP) was introduced. It ushered in a major paradigm shift from ‘Government-oriented supply-driven approach’ to the ‘People-oriented demand-responsive approach’ in water supply sector. As 73<sup>rd</sup>

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<sup>7</sup> In an evaluation, it is found that even after investing funds on installation of public stand posts and hand pumps, issues like less convenient location, malfunctioning, longer waiting time, lower yield and bad quality pose several question marks on the efficacy of this scheme. (PEO Study no. 165)

Constitutional Amendment in 1993 talked about the role of Panchayati Raj Institutions in ensuring water supply provisions, this SRP emphasised on community participation. SRP was started in a pilot project in 67 districts of 26 states. Its guidelines clearly mentioned that 10 percent of water supply infrastructure cost would be funded by the community itself, and the full O & M costs would be borne by the respective community. Emphasis was also laid upon enhancing community capacity and IEC components. This scheme was scaled up with a new name of *Swajaldhara*, as Tenth Five Year Plan aimed to cover the entire country. In the last three years of Tenth Plan and first two years of Eleventh Plan, drinking water supply in rural areas was an important component of Government of India's flagship programme- *Bharat Nirman*. Under this programme, coverage of drinking water supply increased substantially. However, it failed to serve most of the water quality-affected villages (11<sup>th</sup> Plan Document: 129-132).

In a sample study of 5 states (i.e. Himachal Pradesh, Rajasthan, Karnataka, West Bengal and Assam) over 2003-2008, the evaluation of RGNDWM reveals some important points (Planning Commission, 2010). On the positive side, this 'socially inclusive' scheme has done well in expanding the network of safe drinking water in the majority of the habitations. An effort has been made towards availing and accessing piped water supply through taps, and most of the respondents in respective household surveys were satisfied with the quality of the supplied water. Breakdown of taps or other water supply instruments is also not a common incident. Therefore, the impact is visible in terms of reduction in water-borne diseases and decline in the workload of women in general.

On the negative front, however, the supply of safe, round-the-year and sufficient water is still a key issue that needs to be addressed. Another point of concern is limited water-testing kit in Gram Panchayats and a paucity of trained staff. In general, neither the communities nor the Gram Panchayats are found to be willing or showing capability in terms of O & M of water supply facilities. Community level participation through Village Water and Sanitation Committees (VWSCs) is very limited, and whatever awareness campaigns/meetings are held, that too are also limited within four walls of Gram Panchayats. Installation of rainwater harvesting structures has not gained any popularity at all.

### ***Total Sanitation Campaign (TSC)***

Central Rural Sanitation Programme, launched in 1986, was targeting to improve sanitation conditions in rural areas. But this supply-driven, highly subsidised programme failed to create much impact. Therefore, Total Sanitation Campaign was promoted as a demand-driven community participation based programme, which attempted to improve rural sanitation scenario through curbing open defecation, building latrines in schools/anganwadis, converting dry latrines into cost-effective safe and hygienic latrines. As IEC remained one of the major components, various stakeholders like Panchayati Raj Institutions (PRIs), local NGOs, women groups, SHGs, cooperative societies were involved in the whole process. Cash incentives were made available to BPL households who constructed toilets in 60:28:12 ratio (central government: state government: beneficiary), and in case of toilets constructed in schools/anganwadis, the total cost between central and state government was shared in the ratio of 70:30. Supporting sanitary marts and management of solid and liquid waste were also included in the list of admissible components of TSC.

As per the views of scholars, derived out of several research studies, TSC brought mixed results. A study of rural Madhya Pradesh pointed out the increased availability of individual latrine availability and diminishing practice of open defecation, but the impact of improved sanitation on the betterment of child health parameters (diarrhoea, highly credible gastrointestinal illness, parasitic infections, anemia, growth) is not visible (Patil *et al*, 2014). Another study was done in Odisha (Barnard *et. al*, 2013) pointed out the lack of willingness among a substantial share of villagers to use constructed toilets, thereby continuing the unhygienic practice of open defecation and exposure to human excreta. Hueso and Bell (2013), after studying four states, namely Haryana, Himachal Pradesh, Uttar Pradesh and Madhya Pradesh, criticized it as a ‘policy failure’ as the programme mainly remained government-guided, supply-driven and infrastructure centric at the core. Along with that, issues like ‘low political priority’ and ‘corruption’ and absence of proper monitoring system paralysed the policy initiatives.

However, this scheme was renamed as ***Nirmal Bharat Abhiyaan (NBA)*** in 1999, and then still continuing as ***Swachh Bharat Abhiyaan (Clean India Mission)*** in 2014. One of the



most highlighted parts of NBA is the monetary support and other incentives (*Nirmal Gram Purashkar* or Clean Village Award) given to villages which get a tag of ‘open-defecation free’ (ODF) status.

#### **7.3.4 Swachh Bharat Abhiyaan (Clean India Mission):**

It should be noted that Swachh Bharat Abhiyaan has two components or Sub-Missions – SBA (Gramin) for rural areas and SBA (Urban) for towns and cities. While the first component is being implemented by the Ministry of Drinking Water and Sanitation, the second component is by the Ministry of Housing and Urban Affairs (MoHUA). This programme, launched in 2014, aims to clean India by 2019. For this, the estimated cost is Rs. 62009 crores. SBA (Gramin) and SBA (Urban) focus on solid and liquid waste management and open defecation free environment so that a clean and hygienic environment prevails in villages. Like other schemes also (as discussed above), SBA aims to increase sanitation coverage by cost-effective solutions and by creating more awareness towards health and hygiene related issues through positive change in behavioural aspects.

What is new is its emphasis on the following aspects:

- Sustainability of constructed toilets and waste management facilities;
- The flexibility given to states, following the ideas of cooperative federalism;
- Involvement of various stakeholders so that SBA no more remains a mere government programme, rather becomes a mass movement. For instance, a citizen can give his/her feedback on ‘*Swachh Sarvekshan 2018*’ (Cleanliness Survey, 2018), and help his/her city to improve levels of cleanliness.
- Apart from government shares, SBA (Urban) plans to mobilise funds from the private sector also as part of their Corporate Social Responsibility (CSR), and that is why ‘*Swachh Bharat Kosh*’ (Clean India Treasury) has been formed. Government’s seriousness towards SBA is evident from the introduction of ‘Swachh Bharat Cess’ (at the rate of 0.5 percent on all taxable services) since 2015.
- SBA is also emphasising upon the component of ‘monitoring’, even after a village gets ODF status.

In West Bengal, the major programme presently focusing on ‘sanitation’ is *Mission Nirmal Bangla*, and the broad objectives of this programme are also similar to SBA. This Mission was launched few months before the introduction of SBA by Government of India. Although this Mission utilises funds provided under SBA, the administrative framework and cleanliness strategies are more state specific. Rigorous administrative intent towards cleanliness helped Nadia to become the first ODF district in the entire country on April 2015<sup>8</sup>. The Mission runs under the Panchayats and Rural Development Department, Government of West Bengal. Surprisingly, The Department of Municipal Affairs still calls it *Swachh Bharat Mission (SBM)*. This department conducted a comprehensive house-to-house survey in statutory towns in 2015 for identification of houses with ‘insanitary latrines<sup>9</sup>’ and houses without latrines<sup>10</sup>. The Municipal Engineering Directorate (MED) formulated a model of the latrine, a unit of which costs an estimated amount of Rs. 10990. The concerned beneficiary contributes Rs. 1000 (approximately 9 percent), and the rest of which is shared by Government of India (36), Government of West Bengal (36) and the concerned ULB (18).

Apart from all these schemes and programmes, Government of West Bengal also provides funds to ULBs under *Basic Minimum Services (BMS)* Programme for specific purposes. For instance, SUDA sends funds for larvicidal oil and IEC (leaflet, hoarding, campaigning, sensitisation meeting and so on) for preventing the spread of vector-borne diseases like Dengue.

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<sup>8</sup> [http://www.business-standard.com/article/economy-policy/west-bengal-rolls-out-its-own-version-of-swachh-bharat-abhiyan-115050200450\\_1.html](http://www.business-standard.com/article/economy-policy/west-bengal-rolls-out-its-own-version-of-swachh-bharat-abhiyan-115050200450_1.html) as on 18.01.2018

<sup>9</sup> Census categories of ‘Service Latrines’, in which night soil is disposed into open drains; removed by human/animal

<sup>10</sup> Following guidelines of ‘The Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013, as retrieved from [http://www.wbdma.gov.in/compre\\_house/comprehensive\\_house\\_to\\_house\\_survey\\_ulbs.pdf](http://www.wbdma.gov.in/compre_house/comprehensive_house_to_house_survey_ulbs.pdf) as on 20.01.2018

## **7.4 POLICY REVIEWS – INSIGHTS FROM FIELDWORK:**

### **7.4.1 Water Supply:**

On the water supply front, the continuous efforts of government through different schemes have brought about more or less satisfactory outcomes in statutory and census towns covered under this sample study. ULBs governing large urban centres like Siliguri and English Bazar have own water supply system – through public stand posts and house connections. In small and medium-sized urban centres, technical support provided by PHED has been a key element. Gradually, operation and maintenance of water supply inventories like OHRs and pump houses are being transferred from PHED to concerned ULBs. If one looks at census towns also, PHED has been instrumental in providing piped water through public stand posts along major roads. On the basis of demands raised in Gram Sansad and Gram Sabha meetings, Gram Panchayats also install hand pumps (Mark-III tube wells) for public convenience.

However, local issues like administrative shackles are also evident in statutory towns (see in Chapter-5, Kaliyaganj’s case of almost non-functional water supply system even after its full completion in 2015).

### **7.4.2 Solid Waste Management:**

On the SWM front, some sort of proactive initiatives are found in all statutory towns. In the light of heightened awareness and publicity in *Mission Nirmal Bangla*, it has been observed how streamlined efforts are being geared up in small and medium-sized urban centres like Alipurduar, Kaliyaganj and Haldibari. In Alipurduar and Kaliyaganj, provisioning of one Movable Compactor vehicles is a key step towards reducing solid waste burden. In this vehicle, loads of solid waste is compacted and reduced, so that a relatively less quantity of waste is required to be disposed of in the dumping ground or landfill site. SMC (three) and English Bazar (two) have also been provided with such compactors<sup>11</sup>. SMC has also received funds (Rs. 30 lakhs) through SBM for the construction of workstation of stationary compactor<sup>12</sup>. Another area which has drawn a lot

<sup>11</sup> [https://www.wbdma.gov.in/new\\_release/sbm\\_december\\_2016.pdf](https://www.wbdma.gov.in/new_release/sbm_december_2016.pdf) (as on 20.01.2018)

<sup>12</sup> [https://www.wbdma.gov.in/new\\_release/sbm\\_mar\\_2016.pdf](https://www.wbdma.gov.in/new_release/sbm_mar_2016.pdf) (as on 20.01.2018)

of attention is the component of IEC. Through posters and festoons, concerned ULBs aware people about the benefits of good sanitation practices. The Urban Planner of Alipurduar Municipality has remarked that an initiative towards less use of plastic carry bags is being done. The ULB actively encourages citizens to make multiple uses of one plastic carry bag<sup>13</sup>. Even Haldibari, which is a small sized ULB, has taken positive strides to install dustbins in various neighbourhoods. Kurseong Municipality has also received funds for capacity building through SBM.

In statutory towns, a few Ward Councillors have raised issues of plastic waste. They remark that residents tend to throw plastic bags and items into drains, thereby leading to year-round choking and rainy season flooding. In a few statutory towns like Siliguri and Alipurduar, the concerned ULBs have attempted to curb plastic use, taking local merchants' bodies on board<sup>14</sup>. Another point of concern is delayed or irregular collection of solid waste from roadside or road corners in unplanned small and medium towns. Lack of manpower and transport facilities hinder ULBs from covering all the lanes and by-lanes. Apart from this, lack of designated land for collection and disposal of solid waste is a major challenge. Alipurduar's case is already discussed. In Siliguri, the Ward Councillor of 31, makes an observation that even if a land is designated, local residents start protests as bad smells and pollutants from the Primary Collection Points lead to micro-environmental problems. It must be noted that IEC materials, circulated under *Mission Nirmal Bangla*, reflect the association between clean drinking water and good sanitation system together in order to build up healthy cities and towns.

However, in census towns, all such initiatives are completely missing. Only during festivals like Durga Puja, Gram Panchayats make an effort to clean neighbourhoods by employing wage based labourers. This is done just to pacify local residents and to portray a better visual appeal. A number of reasons can be put forward to explain the absence of SWM initiatives. *Firstly*, management of solid waste is not a priority in such settlements. As there is ample open space available, people throw solid waste here and there. For instance, residents throw solid waste into drains in Chak Bhriagu. Rather, other community

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<sup>13</sup> In-depth interview with the Urban Planner, Alipurduar Municipality

<sup>14</sup> A policy and strategy report on Plastic Waste Management has been formulated by Department of Municipal Affairs, Government of West Bengal.

development issues like kachha road (that creates lots of problems during the rainy season) and individual issues like allotment of subsidised dwelling unit are more important for people. Their felt needs are also echoed by majority of the Gram Panchayat members surveyed as a part of this study. *Secondly*, there is no institutional mechanism and specific funding sources available that can look after the issue of SWM. For instance, some Gram Panchayat members in Kasba point out that under MGNREGS<sup>15</sup>, compost pits can be dug for a group of households together, where they can throw organic wastes. But, this work is not being taken up by the concerned Gram Panchayat so far. As per the *Swachh Bharat (Gramin)* Guidelines, the issue of SWM is in the hands of state government to make a decision on this, and nothing concrete is found in the field on the period of survey<sup>16</sup>. The Gram Panchayat Pradhan of Chak Bhriгу remarks that at the initial stage, there is a plan to install vats in market areas and provide buckets to households. But due to absence of designated land for solid waste disposal, no initiatives have been taken<sup>17</sup>.

#### **7.4.3 Drainage System:**

In case of drainage system, statutory towns and census towns show a contrasting picture. Even among statutory towns, there is a wide variation. In cities like Siliguri and English Bazar, wards located at the relatively well accessible, developed core parts have better drainage system than wards located at the peripheries which are less dense and less accessible. Residential neighbourhoods, where mainly middle and upper-middle class of people (according to MPCE) stay, show a better infrastructure in terms of drainage facilities, and drain cleaning services are also better. However, neighbourhoods with higher percentage of low expenditure category households exhibit a pale scenario. Small and medium-sized statutory towns mostly do not have proper master drainage plans. Due to the availability of some funds from different sources, ULBs have constructed open surface drains here and there, targeting natural outlets like river channels for wastewater discharge. For instance, according to officials of Kaliyaganj Municipality, construction of roadside drains are funded by the Basic Minimum Services Programme. Often, drains carrying

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<sup>15</sup> This major programme aims to guarantee at least 100 days of wage-based employment for those adults who seek to volunteer in unskilled manual work.

<sup>16</sup> *Mission Nirmal Bangla* aims to target 1000 World Bank supported ISGPP Gram Panchayats, like Chak Bhriгу, for a comprehensive plan on solid and liquid waste management.

<sup>17</sup> In-depth Interview with the Gram Panchayat Pradhan

waste water of lanes and bye-lanes of a neighbourhood do not meet a master drain along major road, rather these end into open spaces and water bodies. Unfortunately, such urban centres often lack technical manpower to prepare DPR for master drainage plan. Apart from this, as the above section shows, there is no specific scheme or programme for funding ULBs for preparing, executing and maintaining master drainage plans. Due to lack of urban planning, stormwater drains often carry wastewater released from household toilets. All ULBs, be it large-sized or smaller ones, have pointed out the issue of manpower shortage – which is leading to an irregular cleaning of drains and infrequent spraying of mosquito larvicidal oil and spreading of bleaching powder.



*Plate-7.1: Use of Movable Compactor for Solid Waste Management in Kaliyaganj*

In census towns, there is a partial coverage of drains at best. Some stretches of drains are kachha, and naturally these get washed out during heavy rains (for instance, in Kasba). The grave problems of pucca drains also showcase how incapacitated Gram Panchayats are. Such local bodies do not have designated scheme and allotted manpower for cleaning drains. In certain occasions, say for example in Jaigaon, drains are cleaned by wage-based workers hired under MGNREGS. Given a daily wage rate of approximately Rs. 160 per

day, hiring of labourers become a problem. Even if drains are cleaned, people throw solid wastes into drains – leading to choking problems. As there is no SWM arrangement placed by the concerned Gram Panchayat/Development Authority, people find it convenient to throw solid waste into neighbourhood drains.

#### **7.4.4 Latrine Facilities:**

Construction and use of toilets have gained momentum in all the sample urban centres. People have taken serious interest in applying for subsidised toilets, and they have contributed Rs. 900-1000 per household. Some households have also received sanctioned toilets, and started using these also. However, there is some question marks that have been posed by people. Some households located in census towns point out that they received toilets under Total Sanitation Campaign too, but after a few years, these got non-functional due to reasons like filling of toilet chambers or tanks and breaking of doors and walls. Some households made makeshift arrangements, but some resorted back to open defecation again. Open defecation is still a problem, especially in interior parts, where there is a very limited coverage of IEC component. For instance, as Gram Panchayat members and Anganwadi workers acknowledge, in the interior parts of Chak Bhriku, this unhygienic practice is still present. Another problem is shortage of land, especially in congested parts of cities like English Bazar. Hence, ULBs are unable to construct community sanitary complexes. As English Bazar has finally managed to find some land, an allocation of 43 community toilets with four seats each at the cost of Rs. 98000 per complex is sanctioned on December, 2017<sup>18</sup>. Same problem is also echoed by the Gram Panchayat Pradhan of Maraikura. Here, a few refugee colonies are present, mainly inhabited by immigrants coming from Bangladesh. Due to poverty and lack of civic awareness, around 40 percent of them still defecate openly. Another issue is the time period involved for the application of new toilets. At certain cases, the survey on ‘insanitary latrines’ and ‘non-availability of latrines’ is itself faulty, due to allegations of nepotism. Few households reported to be under financial stress during the period of application for new toilets. That is why they

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<sup>18</sup> [https://www.wbdma.gov.in/new\\_release/sbm\\_dec\\_17.pdf](https://www.wbdma.gov.in/new_release/sbm_dec_17.pdf) (as on 20.01.2018)



could not manage to apply, and hence they were eliminated from the final list. A Gram Panchayat member, residing in Kasba, comments:

Anganwadi kormi ba Block Office er kormochari thik moto BPL Survey koreni. Tai onek somoy dustho manush, ba boyosko, kimba bidhoba, tader BPL list e nam nei. Aschorjyo, eta dekha geche keu akjon Primary School Teacher, ba akjon 50 bigha jomir malik, tar nam BPL list e eseche...era sob sujog subidhe pachhe.

[Anganwadi workers or Block Office employees did not conduct BPL Survey properly. Hence, in a number of occasions, poor people, or aged, or widow, their names are not present in the BPL list. Surprisingly, it is observed that one Primary School Teacher, or someone owning 50 bighas of land, his name is in the BPL list...they are getting all the benefits]



Plate-7.2: A hoarding (Ward-17) reflects three wishes of Meena, the messenger girl of cleanliness. These three include – one, everyone uses toilets; two, everyone washes hands before eating and after using toilets; everyone drinks clean and safe water. Courtesy – Kaliyaganj Municipality



According to some Ward Councillors, bad habits arising out of lack of awareness lead many residents towards practising open defecation. This is prominent along railway tracks, and colonies situated in unauthorised railway lands (for instance, Siliguri and English Bazar). In such kind of lands, ULBs or RLBs do not have official permission for permanent construction of toilets. A component of IEC in *Swachh Bharat Mission* is very relevant. For instance, in Ward number 5, 9 and 17, Kaliyaganj, open defecation is partially present, especially in open spaces, agricultural fields and river banks. Hence, IEC component is emphasised through street plays organised by Kaliyaganj Municipality. The Councillor of Ward 35, Siliguri Municipal Corporation, has pointed out the significant role played by local girls benefitted through *Kanyashree Prakalpa*.<sup>19</sup> The girls aware and convince their parents about the importance of health and hygiene, and about the construction/use of toilets.

#### **7.4.5 Financial Issues:**

All these schemes and programmes basically have specific funding patterns and targets. Other than these, local bodies get grants from Finance Commissions. During fieldwork, it is observed that local bodies have just obtained and planned to utilise grants from the 14<sup>th</sup> Central Finance Commission. 14<sup>th</sup> CFC is formed for the period of 2015-20, which recommends the distribution pattern of net proceeds of taxes between the Union Government and state governments. It also suggests how a consolidated fund can be augmented for better financial strength of local bodies. Analysing the importance of local bodies and states in the pathway towards cooperative federalism, this CFC has recommended 42 percent of net tax proceeds should be transferred to states from the Union. For Local Bodies, it has prescribed grants to state governments on the basis of 'population' (90 percent weight) and 'area' (10 percent weight). The concerned state government will distribute grants on the basis of its rural and urban population (Census 2011). Each Gram Panchayat will get 'Basic Grants' (90 percent) and 'Performance Grants' (10 percent). Likewise, an ULB will get funds in 80:20 ratio, respectively. 'Performance Grants' are provided to give fillip to 'eligible' local bodies which emphasise on preparation of audited

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<sup>19</sup> This conditional cash transfer scheme, run by Govt. of West Bengal, seeks to enhance the education of girls, delay of their marriage for health security, empowerment and self-esteem ([https://www.wbkanyashree.gov.in/kp\\_4.0/kp\\_objectives.php](https://www.wbkanyashree.gov.in/kp_4.0/kp_objectives.php) (as on 20.01.2018))

annual budgets, showing details of receipt and expenditure of local bodies and augmentation of own revenue sources as well. It is provided to those 'eligible' ULBs which measure and publish Service Level Benchmarks (SLBs) for basic services they provide.

Similarly, these rural local bodies have utilised grants allocated through 3<sup>rd</sup> State Finance Commission (SFC). This grant includes two components, (1) Untied – 98 percent and (2) Performance i.e. own revenue collection based – 2 percent. Allocation of funds depends upon population size and degree of backwardness. Following the functions mandated in the concerned Panchayat Act, 3<sup>rd</sup> SFC asks Gram Panchayats to emphasise on creating livelihood opportunities, eliminating poverty, promoting human development, and ensuring basic services like drinking water and sanitation for the people. Most importantly, 20 percent of this fund is allowed to be used by RLBs for maintaining assets created so far.

Apart from these, local bodies are also benefitted by Member of Parliament Local Area Development (MPLAD) funds or Member of Legislative Assembly Local Area Development (MLALAD) funds. Local bodies send specific work proposals to concerned Member of Parliament and/or Member of Legislative Assembly. Based on the availability of funds and political priorities/willingness, such proposals are accepted and executed.

Moreover, being located in the border area, some local bodies of North Bengal also obtain funds from the BADP.

### **7.5 EVALUATION OF BASIC SERVICES:**

Binary Logistic Regression is done to understand the influence of background variables (social group, MPCE and educational level) on the utilisation of services provided by local bodies. Therefore, a binary categorical variable 'LB\_Benefits' is constructed for each household, in which '0' denotes 'Services not availing and/or utilising' and '1' denotes 'Services availing and/or utilising'. In case of statutory towns, none of the background variables is found to be significant, thereby indicating unbiased nature of municipal services. In that case, residents belonging to any social group, religious group, MPCE class and educational level at least have a chance of availing and utilizing municipal services. However, as field observations reveal, slum households located in the unauthorised land (say, land owned by Indian Railways) do not get benefitted by municipal services to a

considerable extent. As far as the following table, dealing with households of census towns, is concerned, the second MPCE class (i.e. Rs. 1001-2000) is more likely to avail and /or utilize civic services as compared to the reference category of MPCE class (i.e. <Rs. 1000).

Table-7.1 Census Towns: Binary Logistic Regression (Software: IBM SPSS Statistics 20)

	<b>Regression Coefficient B</b>	<b>Standard Error</b>	<b>Significance</b>	<b>Odds Ratio Exp (B)</b>
Social Group (GEN)			.433	
SC+ST	-.140	.342	.683	.869
OBC	-.718	.557	.198	.488
MPCE (<1000)			.338	
1001-2000	.664	.394	.092	1.943*
2001-3000	.536	.444	.228	1.709
3001-4000	.176	.536	.743	1.192
Education Level (Up to Primary)			.447	
Primary to Secondary	.026	.376	.946	1.026
Above Secondary	-.457	.468	.330	.633

*Note:* \*\*\* significant at 1 percent significance level (value less than 0.01); \*\* significant at 5 percent significance level (value less than 0.05); \* significant at 10 percent significance level (value less than 0.1)

*Source:* Calculated from Primary Dataset, collected in Fieldwork, January-April, 2016

## **7.6 EMERGING ISSUES FOR REDRESSAL:**

After analysing policies and programmes through literature and assessing these on the ground, following issues have emerged, that require a redressal -

### **7.6.1 Land Use:**

In almost all sampled urban centres, the absence of proper land use plan is a key factor associated with problems in service provisioning related to water and sanitation. Water pipelines are often laid out alongside waste water carrying drains. In case there is a leakage

in water pipeline, wastewater may contaminate drinking water. SWM vats are placed here and there, irregular cleaning of which may produce a foul smell and other sorts of public inconvenience. Some Ward Councillors have admitted that due to lack of land use plan at ward level, PCPs are absent, and SWM vans are forced to unload litter in a few road corners or vacant lands. In congested slums, due to the same reason, ULBs find it quite difficult to arrange land for constructing community sanitary complexes. Lanes and bye-lanes of most of the wards, covered under this survey, follow a zigzag or haphazard pattern – an indicator of unplanned urbanisation. Therefore, provisioning of services like laying out water pipelines or drains becomes very difficult, and ULBs tend to provide a sketchy service citing technical reasons and cost-benefit analysis. Behind this pale scenario, two reasons apparently flash out – historical (e.g. massive in-migration of people in Kaliyaganj from Bangladesh after post-independence) and administrative (e.g. unwillingness of ULBs in chalking out or implementing land use plan, say, in Alipurduar).

### **7.6.2 Civic Sense:**

In the sampled urban centres, there are few areas where local people possess a certain level of civic sense. Hence, they cooperate with ULB's service provisioning system. For instance, in few wards of Siliguri, residents regularly segregate and dispose of solid waste in designated tri-cycle vans. In case the concerned sweeper fails to clean drains properly, they informally criticise the worker or lodge a complaint with the concerned ward master. On the other hand, there are many areas where local people lack civic sense. They tend to throw solid waste into drains, road corners or other open places. Due to lack of civic sense, in census towns, some people still defecate openly even if they have toilets in their houses. Therefore, it becomes difficult for local bodies to give a clean look to the concerned urban centres.

### **7.6.3 Political Differences:**

In a number of cases, it is pointed out by key-informants that political differences are one of the biggest obstacles to service provisioning. For instance, Siliguri's Mayor claims that the ULB is deprived off its allotted grants. In Kaliyaganj, the completed UIDSSMT-funded water supply project and its very late formal service provisioning is another example. In English Bazar, a number of opposition Ward Councillors allege that they have been

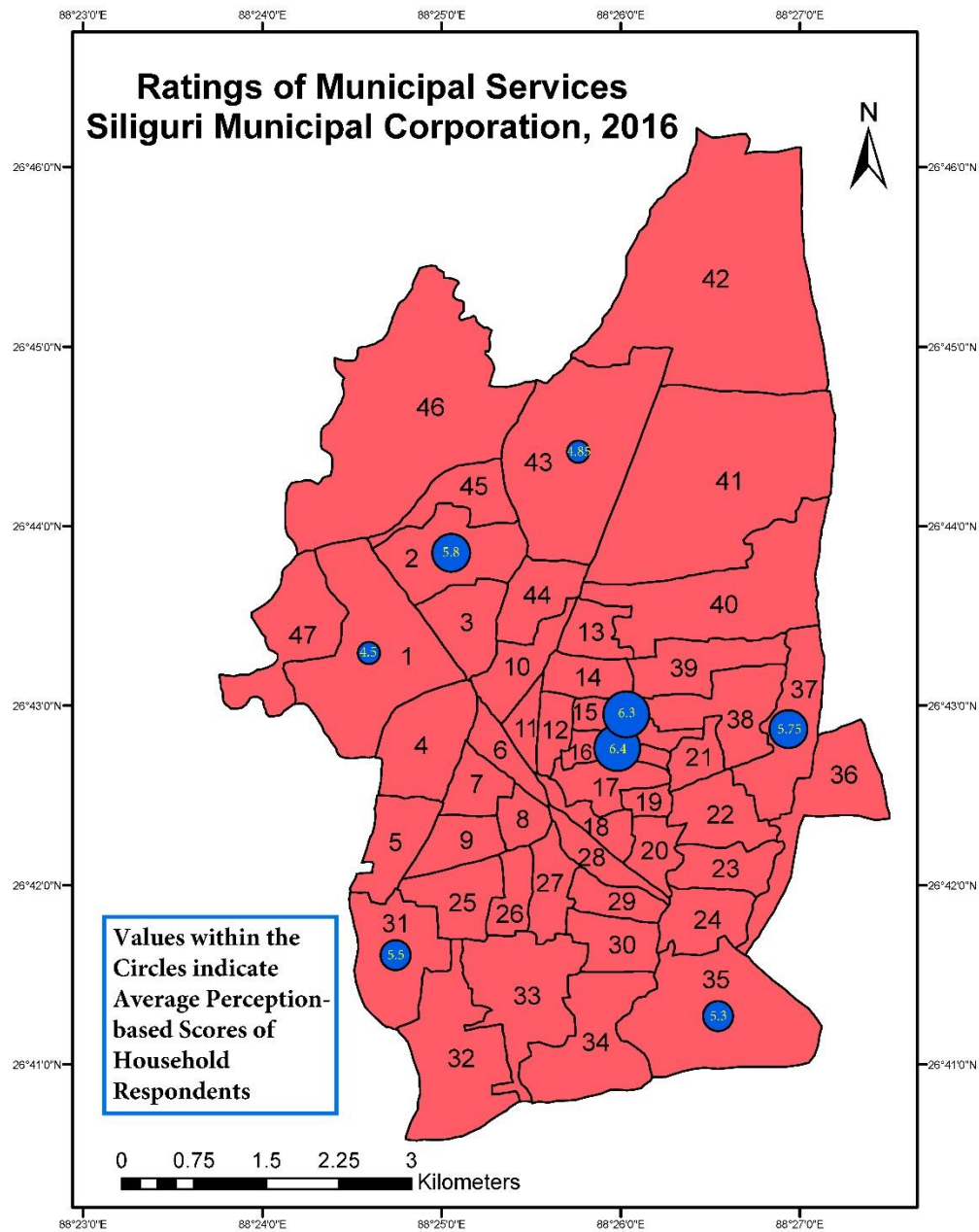


Fig-7.1: Ratings of Municipal Services, SMC, 2016; Core areas show higher ratings than peripheral areas.

bypassed. Neither the overseer nor the sweepers inform them anything regarding water and sanitation related services. However, it is also true that this political difference sounds like a rhetoric.

#### **7.6.4 Women's Empowerment:**

Across urban centres, SHGs and Anganwadis have enabled local women to participate in grass root governance. So far as political empowerment, i.e. formal participation in decision-making processes of local bodies is concerned, a mixed picture emerges out. In a few occasions, women members of Gram Panchayat or women Ward Councillors have played a significant role. But in a few cases, they are just positioned as 'rubber stamp holders'. Their husbands actually regulate their activities, because of more political experiences and patriarchal norms. Due to rules of reservation of seats for women in local bodies, the gendered role of constituencies also gets modified. In case the husband is winning from the concerned constituency for 10 years (say, 2005-15), he might project her wife as a candidate if the constituency happens to be reserved for women in the election of 2016. If her wife wins, then he again starts controlling all decision making and development activities just like before.

#### **7.7 CONCLUSION:**

Water supply and sanitation, since the early days of planned development framework, has gained priority. Different schemes and programmes have been launched and implemented to improve these services – in both statutory as well as census towns. While statutory towns are more or less benefitted through a holistic approach covering water supply, SWM, drainage system and latrine facilities, census towns are characterised by a limited coverage – that is in the areas of water supply and latrine facilities only. Broadly speaking, objectives of all schemes or programmes are more or less same, only the names have changed, by felicitating one prime minister to another. However, there has been gradual change in components and funding patterns. For instance, in the construction of individual household latrine through *Swachh Bharat Mission*, an emphasis is given on behavioural change through IEC for strengthening of awareness. On the ground, where sample surveys are done, this study finds that water supply system is more or less smoothly running (except Kurseong). So far as SWM and latrine facilities are concerned, urban centres are at different

stages – SMC is doing relatively better, small and medium-sized urban centres are partially providing such services, gradually building capacity and raising public awareness, although census towns are relatively laggard. In census towns, due to sustained initiatives mooted through TSC and SBM over two decades, public awareness is rising and functional use of latrines is increasing, thereby leading to decline in unhygienic practice of open defecation. Most of the sampled statutory towns do not have drainage master plans, let alone census towns. In the absence of specific project-based funding, construction of drainage network is sketchy and scattered. Regular cleaning of drains is a serious issue due to lack of manpower and funds in general; unwillingness and apathy of local bodies add more burdens.

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# Chapter-8. Summary of Findings and Conclusion

## 8.1 INTRODUCTION:

In the previous chapters, total seven in number, an attempt is made to highlight the roles played by the local bodies in the provisioning of basic services related to drinking water and sanitation. In the introductory course of this discussion, the processes, trends and patterns of urbanisation across different regions of West Bengal are elaborated, with a special focus on North Bengal. The prime importance of better service provisioning in terms of drinking water and sanitation is also widely felt. In continuation to this prelude, a sample study carried out in a few selected ULBs and RLBs of North Bengal, shows that the status of service provisioning is associated with a gamut of interrelated factors – the relationship between service ‘providers’ and ‘users’ being the most important one. In mediating this relationship, a host of actors – both formal and informal – play significant roles. Therefore, this relationship is explicated in a framework of governance and finance which involve both service ‘providers’ and ‘users’.

## 8.2 SUMMARY OF FINDINGS:

In this section, a chapter wise summary of findings are presented, so that specific issues get properly highlighted. **Chapter-1**, titled as ‘**Introduction**’, is truly introductory in nature. It begins with a brief profile of the study area, followed by a short discussion on the relevance of the topic of research. This chapter also provides a review of literature, where, an elaborate discussion of a few themes, viz. the processes of urbanisation and urban system, urban infrastructure and services, urban governance and finance, and urban poverty, have been presented followed by the gaps in literature. This present study endeavours to fill up this gap, through binding the concerned elements (i.e. urban processes, provisions of infrastructure and services, urban governance and financial framework) together in the ‘conceptual framework’. This study primarily seeks to answer the central research question as to why does the levels of service provisioning differ within and among different size-categories of urban centres. To find the answer in detail, the specific ‘objectives’ and ‘research questions’ are separately outlined. To address these objectives, a detailed account of the ‘database’ and a coherent explanation of suitable tools and techniques chosen for research is furnished in the ‘methodology’ section. The sampling framework is also discussed in the ‘methodology’

section at length. The chapter ends with a brief and pointed discussion on the 'limitations of the study' and the 'chapterisation scheme'.

The **Chapter-2** titled as '**Urban Processes and Provisioning of Basic Services**' focuses on the processes, trends and patterns of urbanisation across the regions of West Bengal, demarcated on the basis of levels of development. Particular emphasis is laid on North Bengal which shows a heterogeneous picture in terms of the levels of development. The first part of this chapter, dealing with the processes of urbanisation, is primarily based on a review of the literature. The second part, comprising trends and patterns, provides an analysis based on the application of a few quantitative techniques on relevant data sets provided by the Census of India. Some of the urban centres are dated back to the historical period, ranging from Pre-British Period to initial years of the Post-Independence period. During the Pre-British period, urbanisation was basically limited to the capitals of kingdoms with some economic functions. In the British period, administrative (i.e. the collection of revenues; maintenance of law and order) and economic factors transformed many human settlements from 'rural' into 'urban' ones, offering non-agricultural functions with some sort of infrastructural facilities like railway stations and post offices. In the post-independence phase, administrative factors have become quite important, and urban centres have developed at different levels of the administrative hierarchy. As a result, now one can see that the majority of the Class-I urban centres are District Headquarters, and medium towns are mostly Sub-Divisional Headquarters, and small towns are C. D. Block Headquarters. The processes of urbanisation vary over space and time, and that is why West Bengal has a distinct mesh of 'large' as well as 'small' and 'medium' sized urban centres, with varying functions like 'mining', 'manufacturing' and 'trade and transport'. Therefore, many workers get employed in such urban centres, for a longer period of more than 180 days in a year. While 'manufacturing' is the main economic activity in the Southern Region, 'trade and transport' is the major one in the Western Region and North Bengal. Kolkata's presence is gigantic, and the fast-growing adjacent metropolitan region reveals a great momentum of urbanisation. The analysis made in this chapter also exhibits that old and large urban centres have major economic activities, administrative significance and demographic dynamism. A substantive number of new Census Towns have also emerged, with prominent signs of economic shifts from farm to non-farm sector. However, the number of Statutory Towns has not increased much. Urban growth rates are mostly higher than rural growth rates across regions over the last two-three decades. Basically, the Class-I cities have a magnetic pull effect, as more and

more people are getting concentrated, whereas, some small and medium-sized urban centres are growing slowly.

**Chapter-3**, titled as ‘**Regional Profile of Urban Infrastructure and Amenities, West Bengal**’, is initially based on an exploration of existing literature so as to pinpoint why the provisions of potable drinking water and improved sanitation system are important in the domain of public health and hygiene. This chapter, mainly based on the different sources of secondary data, provides an introspection of the issues of availability and accessibility of infrastructure and amenities related to water and sanitation across regions at urban centre as well as household level. A comparative account of West Bengal and India reveals the need for better provisioning of concerned infrastructure and amenities. In general, comparatively less availability of drinking water sources within premises and waste water outlet connectivity to drains is a major issue in West Bengal. In comparison to other regions, Southern Region is in a better status, while North Bengal is in a transition. In North Bengal, a substantive chunk of households has ‘bathrooms’ and ‘latrines’, but not ‘Tap’ water. Urban centre-level datasets show that ‘open’ drains and some initiatives of SWM are present. Broadly speaking, over the last two decades, urban households of North Bengal are progressing towards availing and accessing amenities related to improved water and sanitation. A possible credit may be given to the concerned local bodies, and people's rising living standards also. Among all districts, Malda's case is a bit problematic. Although the household level availability of water and sanitation related amenities jumped in between 1991 and 2001, the next decade has seen some decline, perhaps due to a massive emergence of new Census Towns. In general, large cities and towns are in a better status as compared to smaller towns in North Bengal. Class-II towns also need attention, as a possible demand-supply gap has resulted in declining coverage of ‘Tap’ water and latrines within house/premises during the decade of 2001-11.

**Chapter-4**, entitled ‘**Status of Service Delivery: Case Studies of Statutory and Census Towns**’ is mainly based on the database derived out of the primary survey. This chapter only aims to gauge the status of service provisioning in the selected urban centres, through the technical database collected from local bodies and field-based observations from household and neighbourhoods. This study has some general findings. It finds that there is a mismatch between these two datasets. Small and medium towns have a paucity of updated and systematic datasets. Large cities (i.e. Siliguri and English Bazar) have some provisions of water supply, solid waste management, drains and latrine facilities. Even within large cities,

ward-wise variations are present. On the other hand, small and medium-sized Statutory Towns do not have extensive coverage of services. All four types of services are present, but only in bits and pieces. Some form of water supply system is present, but the status of drainage and SWM services are quite patchy. Relatively better status of service provisioning in large Statutory Towns indicates that cumulatively added Government-sponsored projects have benefitted these, along with the twin factors of ‘economic viability’ and ‘social necessity’. In the Census Towns, water supply and latrine facilities are present to a certain extent, but SWM and drainage systems are hardly found. Only in Jaigaon, the coordination between the concerned G.P. and a local NGO has resulted in a formal SWM system. Local level issues are also observed. These issues include irregular cleaning of drains in Siliguri and an absence of permanent dumping ground in Alipurduar. Such issues reveal that even if services are present in pen and paper, actually people are not properly benefitted.

**Chapter-5**, titled as ‘**Perspectives of Local Bodies in Service Provisioning**’, deals with the literature highlighting the constitutional and legal boundaries within which local bodies perform a variety of functions related to water and sanitation sector. A quantitative analysis of income and expenditure datasets over two decades (from 1993-94 to 2012-13) show that ULBs primarily depend on ‘Grants and Contributions’ provided by the Government, but the collection of ‘own’ revenue is yet to improve; and on the expenditure side, ULBs spend a lot of money on ‘Public Health and Convenience’ – largely covering the water and sanitation sector. By applying the qualitative techniques like in-depth interviews and group discussions, this chapter also delves into how institutional arrangement and coordination between local bodies and parastatal authorities lead to better management of service provisioning in Siliguri. Such techniques, using a case study-based approach, also reveals how problems like administrative bottlenecks (e.g. Kaliyaganj) and absence of land use plan (e.g. Alipurduar) hamper service provisioning. Few case studies (e.g. SWM Mission, Siliguri) also explain how problems associated with the service provisioning system can be solved. In areas where the services of local bodies are sketchy, the private sector plays a role to fill up the demands of residents (e.g. a few slums in English Bazar).

An attempt has been made to identify the issues of service provisioning from people’s perspectives in **Chapter-6**, titled as ‘**People’s Experiences and Involvement in Accessing Services**’. Adopting a mixed method approach, this chapter highlights people’s lived experiences. In Siliguri, a majority of the respondents have demanded actions from SMC to curb mosquito-borne diseases. However, partial non-cooperation between residents and

sanitation workers, amidst an absence of mutual dialogue, lead to the irregular use of larvicidal oil and cannon fogging. The case studies of Kasba and Chak Bhriugu reveal how these city-adjacent Census Towns functionally depend on neighbouring ULBs (Raiganj and Balurghat, respectively) for services like toilet chamber cleaning and water tanker facilities. The exercise of Ordinal Logit Regression Model finds out that with higher MPCE and higher levels of education, households in Statutory Towns are more likely to obtain better water and sanitation related services and give higher perception rating. It indicates the importance of ‘awareness’ factor – as higher MPCE and higher levels of education, people are more likely to remain concerned about public health and hygiene issues and to participate in a dialogue with functionaries of ULBs. In the sampled urban centres, the participation of people in the formal meetings of ‘Ward Committees’ and ‘Gram Sansads’ is at best partial. Rather, the interaction of local bodies and people has often interceded through Anganwadi workers/ SHG members/youth club members. As these group of people have rapports with both the parties – citizens at the neighbourhood level and the functionaries at the ULB level, the ‘top-down’ and ‘down-top’ approaches of governance are deeply associated with them. Citizens’ Convention is another such formal platform that facilitates the direct face-to-face conversation of people with ULB functionaries (Siliguri and Kaliyaganj). Role of other stakeholders (like HNAF in Siliguri as a Consultant and Green Revolution as a local NGO in Jaigaon) is also area-specific, and often significant in bringing context-based solutions to problems associated with basic service provisioning. However, in general, the selected ULBs are yet to reach SLBs, in most of the parameters.

**Chapter-7**, entitled as ‘**Policies: Critical Review and Evaluation**’ provides an introspection of how different policies designed in various five-year plans and consequent schemes have evolved, and then have further been altered to provide basic services (related to water and sanitation) to a huge number of urban residents in India. A historical overview of five-year plans shows how there has been a policy change, from a total Government plan and programme-based approach to a community-driven participatory approach, through involving private organisations, NGOs and CBOs. All such initiatives have resulted in a more or less holistic framework – covering water, SWM, drains and latrine facilities – in Statutory Towns. However, in Census Towns, only water and latrine facilities have been improved. It is also found that the broad objectives of the Government-sponsored schemes or programmes have remained more or less same, with a gradual change in the components and funding patterns. A review and evaluation, on the field, reveals that the Government-sponsored schemes on

water supply, with an able technical support of PHED, is running more or smoothly in all sampled urban centres (except Kurseong). In case of SWM, Siliguri is performing relatively better with an extensive coverage and supporting mechanism of physical and human resources. However, this service is partially provided in the selected small and medium-sized Statutory Towns. Provision of SWM is mostly absent in the selected Census Towns. Nowadays, some efforts are channelised towards capacity building and raising awareness related to SWM. Due to the absence of master plans, specific project-based funding, shortage of manpower and unwillingness of local bodies, the provision of drains is more or less scattered in both Statutory and Census Towns. Sustained efforts of Government-sponsored programmes and community participation have resulted in a considerable utilisation of latrine facilities.

To sum up, this study has tried to broadly address all the four objectives as outlined in the Chapter-1. A detailed review of literature and analysis of Census data have facilitated to provide an account of economic and politico-administrative processes of urbanisation operating in different regions of West Bengal, with a special focus on North Bengal. The trends and patterns of urbanisation, as the outcomes of such processes, are analysed through the application of a few quantitative techniques. To examine the different levels of infrastructure and amenities, this study not only restricts itself to Census figures, rather includes all possible relevant sources of secondary datasets (like NSSO Reports, NFHS Fact Sheets, NIUA Report, SFC Report and CPCB Annual Review Reports etc), so that a holistic profile of water and sanitation can be mapped – at the state, region and town level. The fieldwork-based primary survey done in selected six Statutory and four Census Towns, spreading across the vast geographical area of North Bengal, highlights the status of service provisioning related to water and sanitation. Presence of Development Authorities and technical bodies like PHED is also an additional factor, the role of which is explored along with the different governance and financial framework operating in ULBs/Statutory Towns and RLBs/Census Towns. An application of selected qualitative research methods like in-depth interviews with the key-informants and group discussions has enabled in highlighting people's perspectives – their felt needs, demands and perceptions regarding the utilisation of basic services, issues of availability and accessibility, and their involvement in the interactive or participatory governance.

### 8.3 CONSTRAINTS:

The study highlights following constraints related to the service provisioning by local bodies-

- *Unplanned Land Use* is one of the major constraints. None of the selected urban centres neither have strictly followed specific master plans, nor have future plans systematically placed. Therefore, residential areas have emerged along haphazard and zigzag patterned lanes and bye-lanes. As a result, it has become quite problematic for the local bodies to lay water pipelines or drains or find a suitable location of PCPs for SWM. Authorisation of land is another issue, due to which provisioning of services by local bodies get affected.
- *Lack of Funds* is another major constraint. Due to the administrative sloth and lack of manpower, coupled with political indifference, the selected local bodies have not geared up efforts to generate and collect revenues on a consistent and sustainable basis. Even in the present context of decentralised governance regime, these bodies primarily depend on Government grants and contributions. Apart from this, misutilisation of funds, due to reported allegations of corruption and nepotism, also leads to a paucity of required funds. This constraint largely affects routine O & M of services like repairing of water pipelines, maintenance of vehicles/equipment and regular payment of contractual wage-based workers like sweepers.
- *Shortage of Manpower* is found to be a grave problem. Cities like Siliguri and English Bazar have experienced rapid urban growth. However, to deliver services, concerned ULBs face the shortage of manpower. Therefore, services like cleaning of drains, spreading of mosquito larvicidal oil and collection of solid waste are either absent in certain parts of these urban centres or irregular in nature. In addition to that, a reported work culture prevails in which 'permanent' employees do not work properly, and 'contractual' employees remain overburdened but underpaid. Additionally, the important executive level staff is not recruited regularly thereby affecting decision-making processes at the local bodies. Lack of training and capacity building is also a key constraint.
- *An absence of Accountability* is something that is associated with both service providers and users. Some of the Ward Councillors and G.P. Members are more concerned about own political interests, and due to their lack of knowledge on legal and constitutional facts and project guidelines, service provisioning gets affected. Citizens' Charters are more or less existent only in pen and paper, and neither the

functionaries of local bodies nor the residents are very much bothered about it. Residents, to a great extent, lack political maturity and their participation is mostly restricted to casting votes in the general elections of local bodies. On the other hand, many of them lack 'civic sense' – as a result, they throw solid waste into drains rather than disposing of in designated receptacles placed by the concerned local bodies. Therefore, the absence of mutual accountability results in gaps in services provided by local bodies and utilised by residents. In short, it leads to the creation of some areas that remain unserved.

#### **8.4 POLICY IMPERATIVES:**

This study humbly puts forward a few suggestions on the emerging issues that need to be *redressed*:

- As far as *Land Use Planning* is concerned, it is quite difficult to alter the land use patterns in the existing haphazardly developed unplanned areas. Rather than changing the organic matrix, it seems viable that a mutual dialogue between the concerned local bodies and residents might come up with some solutions for the present set of problems (e.g. finding a suitable site of PCPs for SWM). This dialogue may be mediated by the local NGOs and CBOs. It can even pave a way towards preparing the neighbourhood level land use plan. The authorisation of land is a key issue that again needs to be solved through a discussion among the stakeholders. The local bodies need to think about the future trends of population growth as well, and for that, the urban centres might expand. Hence, these bodies need to begin chalking out plans, in fact now, to avoid further constraints ahead. These plans need to be in tune with the district level development plans.
- *Availability of Funds* is a major issue that needs to be highlighted. Local bodies are required to gear up for this. These bodies should focus on generating and collecting own revenues on a consistent and sustainable basis. Regular assessment of properties by the valuation board and an increase of property tax could be a possible solution. Affordable user charges need to be introduced for providing regular services to residents who remain in the upper levels in terms of living standards. However, residents belonging to lower levels should obtain free services or services at a nominal charge. It must be taken into account that this policy decision should precede a due consultation with the residents. After taking them into confidence, local bodies



should transparently initiate such measures, and that should subsequently get followed up by visible improvements in the provision and delivery of services. The Operation and Maintenance of assets already created under different projects must be given priority. Own funds should be utilised for this purpose. Given the existing financial framework, it might be little easier for large cities to generate own revenues, and hence the Government should focus on small and medium-sized urban centres.

- *Capacity Building* is another arena that requires considerable innovation and improvement. Provisioning of services, as mentioned in this study, largely depends on manpower. Therefore, regular recruitment of staff by the Government is of prime importance. Contractual workers need to be regularly paid and better performing individuals should be incentivised. For this purpose also, local bodies need to increasingly generate and collect own revenues. All the workers should be properly trained through workshops and training programmes. A workshop among different local bodies may be held regularly, so that peer learning and innovation can help in solving problems related to service provisioning. Necessary equipment should also be provided for their safety and dignity. In addition to that, people's representatives need to participate in the workshops and attend training programmes as well. Gradually, the use of modern types of machinery (e.g. compactors for SWM) needs to be enhanced.
- *Governance Structure* – specifically for Census Towns needs to be changed. The Government of West Bengal should recognise at least few of these as 'Nagar Panchayats', and chalk out an institutional mechanism to boost financial and development issues. The CTs, which have developed near large cities, should be brought within the city boundaries for better provisioning of services. In the process of recognition, some CTs may be selected on a priority basis, on the basis of development potential (say, a tourist spot; a rural node; a trading centre). In this regard, the state Government's initiative of ISGPP is a welcome step. In such prioritised CTs, or rather more specifically in the Nagar Panchayats, executives specialised on water and sanitation sector need to be employed.

Apart from this, there are a few issues that are found to be more or less *satisfactory*. In order to eliminate service provisioning constraints and maintain optimum service delivery, some sorts of *fine-tuning* steps are required. To give one instance, the Solid Waste Mission in SMC is running quite well. The entire system, [involving the segregation of households' solid waste at the doorstep, employment of manpower in a

hierarchical order, presence of physical infrastructure (like vehicles), PPP for proper disposal], is operating in most parts of SMC. This user-charge funded system also takes care of the Operation and Maintenance issues. Even then, the peripheral parts of this expanding city remain unserved. Therefore, SMC needs to fine-tune its IEC campaigning, create a platform for engaging the informal waste collectors/rag pickers, incentivise 'clean' wards (i.e. ULB workers, Ward Committee members as well as residents), employ additional manpower/vehicles in the unserved areas and adopt a 'polluter pays' principle for those violating norms (e.g. unauthorised plastic carry bag manufacturers and traders). Another instance is the coordination between institutions. In case of Siliguri and Jaigaon, such coordination has resulted in some positive outcomes. To continue this momentum, new vistas need to be explored. Given the present context of ground or surface water based piped water supply in most authorised parts of the urban centre, the coordination between a ULB and PHED may lead to the installation of water harvesting stations from where filled containers may be dispatched to unauthorised slums located on railway or on other Government land properties. Rather than leaving these unserved areas into the hands of a few SSPWPs, this new joint initiative may ensure a sustainable supply of safe and good quality water at an affordable price. In addition to it, the use of environment-friendly mechanisms like rainwater harvesting may help the concerned ULBs to clean roads and footpaths.

### **8.5 SCOPE OF RESEARCH – PRESENT AND FUTURE:**

Broadly, this study has endeavoured to answer the core research question, as outlined in the Chapter-1: *Why do variations in the provisioning of basic services occur within and among different urban centres across size-classes? How these service-related problems, emanating from such variations, are dealt by service providers and beneficiaries if they at all exist?*

The variations in the provisioning of basic services, regarding drinking water and sanitation, among different size-classes of urban centres happen mainly due to the 'governance' factor. Class-I cities are governed by Municipal Corporations/Municipalities, who have required Statutory power, functional responsibility, specific arrangement of finances, infrastructure and manpower to provide relatively improved services with a wider coverage. As the demand for such services are also on a higher side, it seems 'economically viable' for Governments and private players to take up projects. Even among the Statutory Towns, such variations occur due to the 'historical' factor. Over the years, the old and large towns have received

funds through different schemes, which have cumulatively added and benefitted these towns to reach the present status of service provisioning. Presence of Development Authorities and continuous technical support provided by PHED have also benefitted large urban centres. Small towns, on the other hand, are mainly governed by Gram Panchayats who generally lack financial, infrastructural and manpower related capabilities to provide services as compared to Statutory Towns. Residents living in these small Census Towns are also not very much aware about the modes of participatory community development. Rather given their socio-economic conditions, they are more interested about the schemes related to provisioning of individual benefits like subsidised housing.

Within the urban centres, variations in terms of service provisioning are also observed. Such variations take place due to a gamut of factors. One of such factors is 'social class' (as indicated by MPCE and level of education) – as the areas where the majority of the households having higher MPCE and higher levels of education are characterised by better provisioning and utilisation of basic services. As some of them pay civic taxes and a majority of them are aware of the benefits of participatory approaches to governance, the mutual engagement with the ULB is relatively stronger. On the other hand, the areas with a relatively poorer class of people having lower levels of education are generally not characterised with better service provisioning. Regular and adequate fund allocation and engagement of adequate workers are missing or partially present. Even if they demand better services, issues like unauthorised land possession deter ULBs to extend services. In addition to this, the prevalence of bad / unhygienic practices discourage ULBs to provide services. Another factor is the 'geographical location' – the 'core' and 'periphery' areas. The 'core' areas, i.e. the important and high-valued lands of the towns, are generally resided by middle or higher class of people who demand, utilise and perceive services in a better way. However, the 'periphery areas' are semi-urban/semi-rural in character with less dense population and mixed haphazard land use and are mostly resided by lower to middle class of people. These could include 'rural' areas recently incorporated within the newly demarcated ULB boundary. Therefore, in the cost-benefit analysis of service provisioning, the ULBs get discouraged. Even if they are mandated to provide such basic services, shortage of funds and manpower dissuade improvement or extension of existing sets and levels of services. Residents living in such wards, who mostly remain busy in earning their livelihoods, do not take much interest or have awareness and access to information regarding the 'community' issues like provisioning of drinking water and sanitation. They might be more interested to obtain individual benefits

like subsidised houses, rather than subsidised latrines. Variations in service provisioning also occur due to the factor of 'level of participation'. In the areas, where local Ward Councillors and Ward Committee members or Gram Panchayat Members take active interest in the sound operation and maintenance of services and involve people in a participatory manner, service provisioning usually remains better. Such stakeholders monitor how ULB workers are collecting solid waste or cleaning drains. Access to information and awareness on the various schemes implemented by the ULB is made easier to people by them. Political affinity (when the Chairperson/Gram Panchayat Pradhan and the Ward Councillor/Gram Panchayat Member belongs to a common political party), and active presence of intermediaries (like SHGs and Youth Clubs) also play influential roles.

Service related problems, emanating in such a context, is usually dealt by the local bodies through extending the services or emphasising on the operation and maintenance related aspects of existing services. This involves improvement in the aspects of 'governance', raising the active role of people's representatives, IEC campaigning, people's participation in the planning/decision-making processes, better utilisation of funds, and so on. Above all, it depends on the combined factors of political willpower and administrative efficiency. In the absence of this, other enabling factors remain unimplemented or implemented in an ad-hoc manner.

In case such service related problems are not dealt by the concerned ULBs, residents opt for various *coping strategies* that are not good for the micro-environment at all. In case, SWM services and drain cleaning services are absent/irregular, they throw solid waste here and there, and drains get choked with solid wastes. Alternatively, they try to depend on private services (e.g. solid waste collection in Jaigaon; SSPWPs in English Bazar; water tank suppliers in Kurseong). They also attempt to make own arrangements – as it has been observed that some households (not enlisted in the BPL list) construct low-cost latrines on their own. These households are found to be aware of the positive effects of latrine use but are not the recipients of the Government-sponsored schemes on household latrines. Rather than depending on the far-distant irregular supply of piped water, people obtain drinking water from own hand pumps (in Kaliyaganj) and bore well-connected wells (in Siliguri).

To sum up, the variations in service provisioning among and within the urban centres occur within the ambit of general governance and financial framework in which local bodies function. In addition to it, a host of spatial factors like presence of unauthorised land,

haphazard land use, administrative sloth, role of intermediaries, and private service providers play significant roles.

This study has attempted to point out the status of service provisioning, and associated it with the perspectives of local bodies and people in the current policy framework. However, this study has its own limitations. This research work may open up new vistas for further qualitative research into the areas of decision-making processes adopted in the bottom-up and top-bottom approaches of governance. It might involve an in-depth analysis of the bottom-up approach by detailing the minutes of Ward Committee/Gram Sansad and Gram Sabha meetings, follow-up decisions taken at the ULB/RLB, its reflections in the DPR, and final approval of Government departments at the district and state levels. On the other side, it may make an introspection of whether DPRs are tailor-made to suit the scheme guidelines that is recommended to ULBs by the concerned top-level ministries/departments of State and Central Government. This research work may encourage a researcher to inquire how spatial marginalisation is embedded in the socio-political and economic context – thereby analysing the caste, class and gender relations in the participatory decision-making processes. Another emerging area of research is to associate the issues of service provisioning with urban culture – how policy focus is shifting from the old haphazard unplanned and decayed parts of large cities to newly developed planned parts that explicitly advertise urban greens and leisure and further accentuates spatial inequalities.

## Appendices

### Appendix-I

#### **Industrial Categories, B-Series, Census of India, 2001**

**Services:** Electricity, Gas and Water Supply; Financial Intermediation; Real Estate, Renting and Business Activities; Public Administration and Defence, Compulsory Social Security; Education; Health and Social Work; Other Community, Social and Personal Service Activities; Private Households with Employed Persons; Extra-Territorial Organisations and Bodies.

**Trade & Transport:** Wholesale and Retail Trade; Hotels and Restaurants; Transport, Storage and Communications

**Manufacturing:** Mining and Quarrying; Manufacturing; Construction

#### **Industrial Categories, B-Series, Census of India, 2011**

**Services:** Electricity, Gas, steam and Air conditioning Supply; Water Supply; (Sewerage, Waste Management and remediation activities); Information and Communication; Financial and Insurance activities; Real Estate activities; Professional, Scientific and Technical activities; Administrative and support service activities; Public Administration and Defence, Compulsory Social Security; Education; Human Health and Social Work activities; Arts, Entertainment and recreation; Other Service Activities; Activities of Households as Employers: Undifferentiated Goods and Services; Activities of Extra-Territorial Organisations and Bodies

**Trade & Transport:** Wholesale and Retail Trade (Repair of motor vehicles and motor cycles); Transportation and Storage; Accommodation and food service activities

**Manufacturing:** Mining and Quarrying; Manufacturing; Construction

## Appendix-II

Table- Projected Population of Urban Local Bodies, 1991-2011

<b>District</b>	<b>Name of Urban Centre</b>	<b>Pop_1991</b>	<b>1994</b>	<b>Pop_2001</b>	<b>2004</b>	<b>2009</b>	<b>Pop_2011</b>
Darjeeling	Darjeeling	73062	79486	94475	101774	113939	118805
	Kalimpong	38832	38083	36336	40256	46790	49403
	Kurseong	26758	28853	33741	36353	40705	42446
	Mirik	NA	13645	12767	12391	11764	11513
	Siliguri*	216950	293577	472374	484641	505086	513264
Jalpaiguri	Jalpaiguri	68732	71596	78279	86998	101529	107341
	Mal	20395	21735	24862	24969	25147	25218
	Dhupguri	30375	30119	29523	34082	41680	44719
	Alipurduar	65241	63383	59047	60903	63995	65232
Cooch Behar	Cooch Behar	71215	70095	67482	70618	75844	77935
	Dinhata	17697	20724	27787	30288	34457	36124
	Mathabhanga	17336	19221	23619	23700	23836	23890
	Tufanganj	16418	17654	20538	20676	20906	20998
	Haldibari	10870	12038	14762	14655	14476	14404
	Mekhliganj	8205	10038	14314	12758	10164	9127
Uttar Dinajpur	Raiganj	151045	176588	236187	220415	194127	183612
	Islampur	45240	44551	42943	46362	52061	54340
	Kaliyaganj	37817	38362	39635	43804	50751	53530
	Dalkhola	10562	12280	16289	22481	32802	36930
Dakshin Dinajpur	Balurghat	119796	119285	118094	128091	144752	151416
	Gangarampur	31177	35995	47237	49931	54421	56217
Malda	English Bazar	139204	144680	157458	171877	195908	205521
	Old Malda	13021	24861	52486	61944	77707	84012

*Note:* Population projection (for 1994, 2004 and 2009) is done using the linear interpolation method. Rest of the years show actual figures.

\*Siliguri – the ULB boundary covers parts of Darjeeling as well as Jalpaiguri district

*Source:* Calculated from Primary Census Abstract, 1991, 2001 and 2011

**Appendix-III**

Table- Status of UIDSSMT Sanctioned Projects in Selected ULBs, North Bengal

<b>ULB</b>	<b>Components</b>	<b>Year of Sanctioning and Fund Release</b>	<b>Project Cost (Rs. in Crores)</b>	<b>Status (as on 30<sup>th</sup> April, 2016)</b>	<b>Remarks</b>
Siliguri Municipal Corporation	Water Supply and Drainage	2006-2007	22.71 and 33.86	Completed;	No
Kaliyaganj	Water Supply	2007-2008	11.68	Completed, but only officially functional;	Administrative sloth in appointing staff for O & M
Kurseong	Sewerage and Drainage	2007-2008	12.51	Not completed	Slow pace of work; local issues like burning of pipes

*Source:* Department of Municipal Affairs, Government of West Bengal;

Primary Survey, 2016



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