

9909

2.5 Slum Population (no. of slum pockets and approximate population, ward-wise list of slums and the area occupied by them, population)

S.No.	Asmbly No.	Asmbly Name	Ward No.	Location (Cluster Name)	Revenue Distt.	Nos Jhugis	Land Owning Agency
1	55	Trilok Puri (Reserved)	211	Indira Camp Surrounded By Block-28,29&19 Trilok Puri Site-I	East	1200	DUSIB
2	55	Trilok Puri (Reserved)	209	Sanjay Camp Block-27 Trilok Puri	East	300	DUSIB
3	55	Trilok Puri (Reserved)	209	Indira Nagar Block-22,23 Trilok Puri	East	19	DUSIB
4	55	Trilok Puri (Reserved)	210	Sanjay Shakha Camp Block-15,16 Trilok Puri	East	105	DUSIB
5	55	Trilok Puri (Reserved)	210	Shastri Camp Block-6,7&8 Trilok Puri	East	58	DUSIB
6	55	Trilok Puri (Reserved)	210	Indira Camp Block-1, 2&3 Trilok Puri	East	215	DUSIB
7	55	Trilok Puri (Reserved)	209	Rajiv Camp Block-26 Trilok Puri	East	79	DUSIB
8	55	Trilok Puri (Reserved)	211	Harijan Camp Block-31 Tirlok Puri	East	67	DUSIB
9	55	Trilok Puri (Reserved)	211	Ambedekar Camp Block-32&34 Trilok Puri	East	950	DUSIB
10	55	Trilok Puri (Reserved)	209	Block-24 Tirlok Puri	East	29	DUSIB
11	56	Kondli (SC)	213	Block-17 & 21 Kalyan Puri	East	1300	DUSIB
12	56	Kondli (SC)	213	Block-19,20 Kalyan Puri	East	341	DUSIB
13	56	Kondli (SC)	213	Indira Camp Block-11,12 Kalyan Puri	East	167	DUSIB
14	56	Kondli (SC)	213	JJC Block-18 Indira Camp Kalyan Puri	East	1019	DUSIB
15	56	Kondli (SC)	213	Block-1,6,7 Khichripur near Gaji Pur Drain-II	East	150	DUSIB
16	56	Kondli (SC)	213	Bus Stand Khichripur Block-13,14	East	94	DDA
17	56	Kondli (SC)	216	Mulla colony, Village Gharoli	East	287	DDA
18	56	Kondli (SC)	213	JJ Cluster Gazipur adjoining NH24	East	650	DDA
19	57	Patparganj	220	Pandit Bismil Camp Shashi Garden Patpar Ganj	East	1159	DDA
20	57	Patparganj	217	NH-24, Patpar Ganj (Nehru Camp)	East	603	PWD
21	57	Patparganj	219	Indira Jhugie Jhompri Camp Kalyanvas Khichripur	East	50	DDA
22	57	Patparganj	217	Sangarsh Morcha,	East	177	DDA

				Ravidas Camp Pandav Nagar Mother Diary			
23	57	Patparganj	219	Jai Bharti Camp East Vinod Nagar	East	250	DDA
24	57	Patparganj	219	J-Block, East Vinod Nagar	East	166	DDA
25	57	Patparganj	213	Block 6,7,8 Khichri Pur Near Gazi Pur Drain Phase-II	East	482	DUSIB
26	57	Patparganj	220	Hr. Sec. School behind Patpar Ganj	East	1624	DDA
27	57	Patparganj	219	D-Block, West Vinod Nagar.	East	33	DDA
28	58	Laxmi Nagar	224	Sonia Camp near Dispensary Mandavali	East	357	DDA
29	58	Laxmi Nagar	221	Sayeed Peerwala ki Mazar, Ramesh Park Laxmi Nagar	East	184	DDA
30	58	Laxmi Nagar	221	Indira Camp Flood Deptt. Office Kishan Kunj Extension	East	307	DDA
31	58	Laxmi Nagar	224	Harizan Samiti Near Dispensary Mangal Bazar Mandavali	East	200	DDA
32	59	Vishwas Nagar	227	Mazboor Camp Near Police Chowcki Mandavli Fazalpur	Shahadar a	248	DDA
33	59	Vishwas Nagar	227	Indira Camp Madhu Vihar Phase-II	Shahadar a	221	DDA
34	59	Vishwas Nagar	227	Madhu Vihar Phase-I behind Patpar Ganj Depot	Shahadar a	345	DDA
35	59	Vishwas Nagar	228	AGCR Shahdara	Shahadar a	35	DDA
36	59	Vishwas Nagar	228	Rajiv Gandhi Camp Chitra Vihar	Shahadar a	375	DDA
37	59	Vishwas Nagar	228	EAST GURU ANGAD NAGARD, NEAR RADHU PLACE	Shahadar a	177	DDA
38	59	Vishwas Nagar	228	C-Block, Jaina Tower Preet Vihar	Shahadar a	63	DDA
39	59	Vishwas Nagar	226	New Sanjay Amar Colony Vishwas Nagar	Shahadar a	3309	DDA
40	59	Vishwas Nagar	226	18 Quarters Vishwas Nagar.	Shahadar a	67	DDA
41	59	Vishwas Nagar	225	Jhuggies Adjoining Railway Line Anand Vihar	Shahadar a	528	DDA
42	60	Krishna Nagar	230	Rani Garden Opposite Hr. Sec. School Shastri Nagar	East	935	DDA
43	60	Krishna Nagar	230	Infront of Block-12 Geeta Colony	East	130	DDA

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44	60	Krishna Nagar	229	JJ Indira Camp Budh Bazar Block-B Geeta Colony	East	135	DDA
45	60	Krishna Nagar	229	Shakar Pur Chungi Thokar 16 Lalita Park, Laxmi Nagar & Shamshan Ghat Thokar No.16 (For Pocket at Thokar No.16)	East	593	DDA
46	61	Gandhi Nagar	236	Block-G Gurdawra Park New Seelampur	East	283	DUSIB
47	61	Gandhi Nagar	234	Chander Puri Railway Lines Old Seelam Pur	East	445	RLY
48	61	Gandhi Nagar	234	Along Railway Lanes Kailash Lanes Gali No.-17	East	929	RLY
49	61	Gandhi Nagar	236	Ajit Nagar Old Seelampur	East	604	RLY
50	61	Gandhi Nagar	233	Pusthta Buland Masjid	East	2500	DDA
51	61	Gandhi Nagar	233	Block-C Shashtri Park, New Seelampur	East	400	DDA
52	61	Gandhi Nagar	233	Syamii Chirga, Near Police Check Post, Bihari Building Yaumna Bridge	East	87	DDA
53	61	Gandhi Nagar	236	Taj Colony G.T. Road Railway Line New Seelam Pur	East	173	DDA
54	62	Shahdara	240	Old Seema Puri near Cremation Ground & Sun Light Colony	Shahadara	545	DUSIB
55	62	Shahdara	240	Pushta between Old Seemapuri, DIF Dilshad Garden (Indira Nehru Camp Part-I)	Shahadara	333	DDA
56	62	Shahdara	240	Pushta Between Old Seemapuri, DLF Dilshad Garden (Indira Nehru Camp Part-II)	Shahadara	0	PWD
57	62	Shahdara	239	Aradhik Nagar, Dehi U.P. Border G.T. Road Shahdara	Shahadara	365	DDA
58	62	Shahdara	238	Behind Krishna Market Jhilmil Colony	Shahadara	1108	DUSIB
59	62	Shahdara	239	Block-B Jhilmil Colony (Balmiki Basti)	Shahadara	125	DUSIB
60	62	Shahdara	239	A&B-Block Jhilmil Industrial Area Raj Nagar Sonia Colony (Sonia Camp)	Shahadara	509	DDA
61	62	Shahdara	239	A&B-Block Jhilmil Industrial Area Raj Nagar	Shahadara	295	DDA

				Sonia Colony (Rajiv Camp)			
62	62	Shahdara	239	A&B-Block Jhilmil Industrial Area Raj Nagar Sonia Colony (Dr. Ambedkar Camp)	Shahadara	713	DDA
63	62	Shahdara	239	Deepak Colony Dilshad Garden Behind D.D.A. Office	Shahadara	195	DDA
64	62	Shahdara	239	H-Block Kalender Colony, Dilshad Garden Part-I	Shahadara	3500	DDA
65	62	Shahdara	239	H-Block Kalender Colony, Dilshad Garden Part-II	Shahadara	0	DDA
66	62	Shahdara	239	Dilshad Vihar Julfi Bengal Dilshad Garden Shahdara	Shahadara	219	DDA
67	62	Shahdara	239	Dr. Rajinder Parsad Colony at Dilshad Garden	Shahadara	110	DDA
68	62	Shahdara	239	Dilshad Garden E-120 Near Gurudwara	Shahadara	77	DDA
69	62	Shahdara	239	E-39, Jhugiee Colony Dilshad Garden	Shahadara	250	DDA
70	63	Seema Puri	242	E-Block Seema Puri	Shahadara	175	DUSIB
71	63	Seema Puri	242	D-Block New Seema Puri (Part-1)	Shahadara	470	DUSIB
72	63	Seema Puri	242	D-Block, New Seema Puri Part-II	Shahadara	0	DUSIB
73	63	Seema Puri	242	Sarhad Puri Road No.64 (Near Shanti Samiti) Opposite New Seema Puri Part-II	Shahadara	0	DDA
74	63	Seema Puri	242	Sarhad Puri Road No.64 Near Shanti Simiti Opposite New Seema Puri Part-I	Shahadara	239	PWD
75	63	Seema Puri	242	New Janta Quaters New Seemapuri (Shanti Samiti)	Shahadara	320	DDA
76	63	Seema Puri	242	Road No.64 Tahir Pur (Leprosy Camp)	Shahadara	1517	DDA
77	63	Seema Puri	242	Opposite OSPD-Block, New Seema Puri	Shahadara	488	DDA
78	63	Seema Puri	242	Jain Mandir Block-B-1/35 Dilshad Garden	Shahadara	841	DDA
79	63	Seema Puri	242	Block-F New Seema Puri	Shahadara	1107	DDA
80	63	Seema Puri	241	Gram Khara Mansarover Park	Shahadara	557	MCD
81	63	Seema Puri	241	Tahir Pur Road No.64	Shahadara	0	DDA

82	63	Seema Puri	244	Block.G-3,G-5 Sunder Nagri	Shahadara	999	DUSIB
83	63	Seema Puri	244	F2 Block Sunder Nagari	Shahadara	188	DDA
84	63	Seema Puri	244	E-2 Block Nand Nagri	Shahadara	93	DUSIB
85	63	Seema Puri	244	F1 Block, Sunder Nagari	Shahadara	290	DDA
86	63	Seema Puri	243	Block-D 1&2 Nand Nagari	Shahadara	492	DUSIB
87	64	Rohtas Nagar	247	Lal Bagh Shriram Nagar, A-Block G.T Road Shahdara	North East	346	RLY
88	64	Rohtas Nagar	245	C-Block, Nand Nagri	North East	168	DUSIB
89	64	Rohtas Nagar	245	Railway Quarters Colony Mandoli Road Delhi	North East	0	DDA
90	65	Seelam Pur	250	CPJ-Block New Seelam Pur	North East	753	DUSIB
91	65	Seelam Pur	250	Along With Pushta EIJ Block, New Seelam Pur	North East	0	DUSIB
92	65	Seelam Pur	250	Block.3/4K Brahampuri Road New Seelampur	North East	0	DUSIB
93	65	Seelam Pur	250	Block-D, Seelampur	North East	1000	DUSIB
94	65	Seelam Pur	250	Block C-1 Imbira Pushta New Seelm Pur Market.	North East	107	DUSIB
95	67	Babarpur	259	Janta Mazdoor Camp Zafrabad Part-I	Shahadara	3943	DDA
96	67	Babarpur	259	Janta Mazdoor Camp Zafrabad Part-II	Shahadara	5000	DDA
97	68	Gokalpur	262	Block-C Sanjay Camp Gokal Puri-I	North East	735	DDA

2.6 Main tourist spots in the city:-

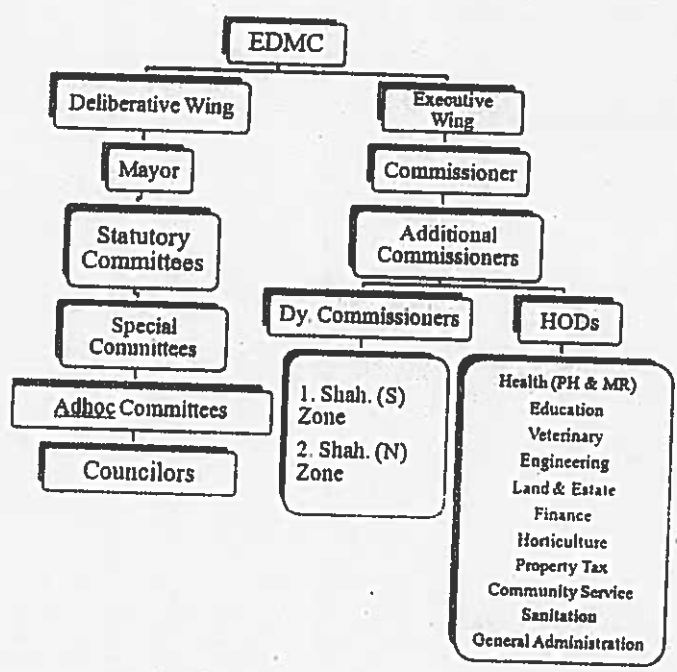
- I. Akshardham Temple
- II. Common Wealth Village
- III. Yamuna Sport Complex
- IV. Sanjay Lake

2.7 Climate:

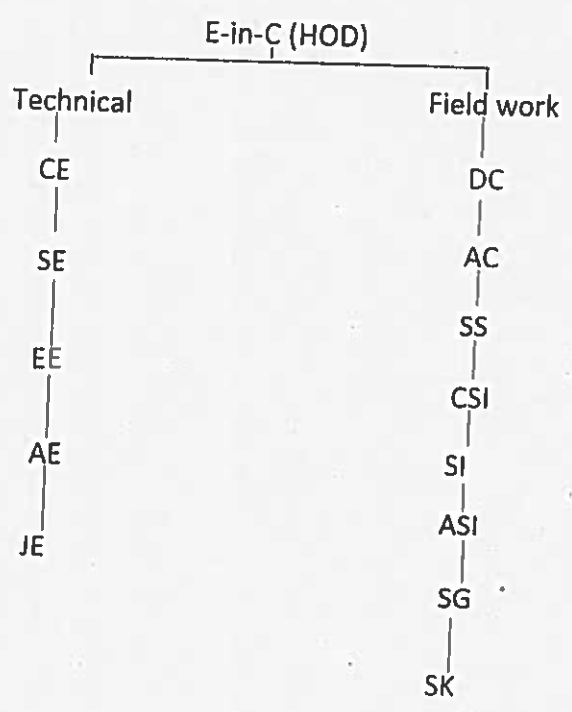
In general, the climate in Delhi is extreme. During the summer months of April, May & June temperature can rise to 40-45 Degree Celsius; winters are typically cold. The mean rainfall in Delhi is 784.5mm. May is the hottest months with average maximum temperature touching 39.5 degree Celsius. Most humid conditions are found in the monsoon, followed by winter, post monsoon and summer in that order. Wind directions vary with season.

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2.8 Political & Administrative Set up of EDMC



2.9 Administrative Set up for Solid Waste Management of EDMC:



Supervisory staff:-

SS :-04

CSI :- 02

SI:- 60

ASI :-181

SG:- 174

9915

Ward wise detail of area, population, number of SKs and Garbage generation;

Sr.No	WARD No	Ward Name	Area (Sq Km)	Population	SKs	Garbage generation (kg per day)
1	209	Mayur Vihar Phase-I	1.250	43532	321	24400
2	210	Dallupura .	0.881	34826	249	19520
3	211	Trilok Puri .	0.940	60945	175	34160
4	212	New Ashok Nagar .	1.954	60945	133	34160
5	213	Kalyan Puri .	0.645	43532	202	24400
6	214	Khichripur .	5.235	52239	213	29280
7	215	Kondli .	2.143	60945	168	34160
8	216	Gharoli .	2.134	43532	194	24400
9	217	Vinod Nagar .	1.017	87065	132	48800
10	218	Mandawali .	0.834	52239	183	29280
11	219	Mayur Vihar Phase - II .	2.630	69652	216	39040
12	220	Patpar Ganj .	2.602	121891	210	68320
13	221	Kishan Kunj .	1.544	87065	211	48800
14	222	Laxmi Nagar .	0.930	182837	194	102480
15	223	Shakarpur .	1.600	104478	241	58560
16	224	Pandav Nagar .	1.563	56592	210	31720
17	225	Anand Vihar .	5.567	69652	254	39040

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Supervisory staff:-
 SS :-04
 CSI :- 02
 SI:- 60
 ASI :-181
 SG:- 174

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Ward wise detail of area, population, number of SKs and Garbage generation;

Sr.No	WARD No	Ward Name	Area (Sq Km)	Population	SKs	Garbage generation (kg per day)
1	209	Mayur Vihar Phase-I	1.250	43532	321	24400
2	210	Dallupura .	0.881	34826	249	19520
3	211	Trilok Puri .	0.940	60945	175	34160
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11	219	Mayur Vihar Phase - II .	2.630	69652	216	39040
12	220	Patpar Ganj .	2.602	121891	210	68320
13	221	Kishan Kunj .	1.544	87065	211	48800
14	222	Laxmi Nagar .	0.930	182837	194	102480
15	223	Shakarpur .	1.600	104478	241	58560
16	224	Pandav Nagar .	1.563	56592	210	31720
17	225	Anand Vihar .	5.567	69652	254	39040

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Supervisory staff:-

SS :-04

CSI :- 02

SI:- 60

ASI :-181

SG:- 174

9917

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Ward wise detail of area, population, number of SKs and Garbage generation;

Sr.No	WARD No	Ward Name	Area (Sq Km)	Population	SKs	Garbage generation (kg per day)
1	209	Mayur Vihar Phase-I	1.250	43532	321	24400
2	210	Dallupura .	0.881	34826	249	19520
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5	213	Kalyan Puri .	0.645	43532	202	24400
6	214	Khichripur .	5.235	52239	213	29280
7	215	Kondli .	2.143	60945	168	34160
8	216	Gharoli .	2.134	43532	194	24400
9	217	Vinod Nagar .	1.017	87065	132	48800
10	218	Mandawali .	0.834	52239	183	29280
11	219	Mayur Vihar Phase - II .	2.630	69652	216	39040
12	220	Patpar Ganj .	2.602	121891	210	68320
13	221	Kishan Kunj .	1.544	87065	211	48800
14	222	Laxmi Nagar .	0.930	182837	194	102480
15	223	Shakarpur .	1.600	104478	241	58560
16	224	Pandav Nagar .	1.563	56592	210	31720
17	225	Anand Vihar .	5.567	69652	254	39040

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18	226	Vishwash Nagar .	1.259	69652	299	39040
19	227	I.P. Extention .	5.238	87065	179	48800
20	228	Preet Vihar .	4.019	30472	293	17080
21	229	Krishna Nagar .	1.979	60945	325	34160
22	230	Geeta Colony .	1.402	104478	217	58560
23	231	Ghondli .	1.054	56592	217	31720
24	232	Anarkali .	1.061	78358	274	43920
25	233	Dharam Pura .	1.151	87065	270	48800
26	234	Gandhi Nagar .	1.064	87065	361	48800
27	235	Azad Nagar .	0.996	130597	260	73200
28	236	Raghubar Pura .	1.178	52239	299	29280
29	237	Shahdara .	1.126	87065	285	48800
30	238	Jhilmil .	1.268	104478	337	58560
31	239	Vivek Vihar .	2.847	130597	389	73200
32	240	Dilshad Colony .	1.012	60945	235	34160
33	241	Dilshad Garden .	2.370	78358	260	43920
34	242	New Seema Puri .	1.065	78358	213	43920
35	243	Nand Nagri .	0.679	43532	331	24400
36	244	Sunder Nagari .	0.879	65298	253	36600
37	245	Durga Puri .	0.905	60945	281	34160
38	246	Ashok Nagar .	1.002	78358	231	43920
39	247	Ram Nagar .	1.809	69652	489	39040
40	248	Welcome Colony .	1.083	78358	356	43920
41	249	Chauhan Bangar .	0.679	34826	279	19520

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42	250	Zaffrabad .	0.696	34826	193	19520
43	251	New Usmanpur .	2.192	78358	256	43920
44	252	Mauj Pur .	0.709	34826	283	19520
45	253	Bhajanpura .	2.693	52239	193	29280
46	254	Brahampuri .	0.672	60945	182	34160
47	255	Ghonda .	0.463	52239	208	29280
48	256	Yamuna Vihar .	1.292	26119	281	14640
49	257	Subhash Mohalla .	0.559	121891	239	68320
50	258	Kardampuri .	1.341	34826	248	19520
51	259	Janta Colony .	0.659	69652	221	39040
52	260	Babar pur .	0.727	26119	151	14640
53	261	Jiwanpur .	1.748	34826	182	19520
54	262	Gokalpur .	1.182	30472	274	17080
55	263	Saboli .	1.851	13059	180	7320
56	264	Harsh Vihar .	2.636	17413	224	9760
57	265	Shiv Vihar .	1.703	21766	198	12200
58	266	Karawal Nagar East	1.505	26119	200	14640
59	267	Nehru Vihar .	0.225	34826	176	19520
60	268	Mustafabad .	1.198	43532	174	24400
61	269	Khajoori Khas .	1.536	34826	179	19520
62	270	Tukhmir Pur .	0.533	26119	280	14640
63	271	Karawal Nagar West	2.050	8706	254	4880
64	272	Sonia Vihar .	7.217	13059	182	7320

2.10 GENERAL INFORMATION TO BE COLLECTED AND UPDATED FROM TIME TO TIME

1. Area of the city :- 105.98 sq km
2. Population of the city:- 40 Lacs
3. Decadal growth of population :- 14.00 Lacs
4. Number of wards, their area and population:- As above
5. Ward-wise information in regard to:

S. No	Types	Shah (S)	Shah (N)	Total
1	Area	59.92 Sq.Km	46.06 sq km	105.98 Sq. Km.
2	Population	2237772	1720156	3957928
3	No. of Households, shops and Establishments	532939	549991	1082930
4	Vegetable/fruit/meat/fish markets	46	42	88
5	Number of Hotels & Restaurants	757	559	1316
6	Number Of Hospitals and Nursing Homes	182	117	299
7	Nos. of lanes	19498	28472	47970
8	Percentage of area covered with under-Ground sewage system	Mostly covered except unauthorized colonies		
9	Drains	262.5km	242.8km	505.30 Km
10	Number of slaughter houses	1		
11	Public toilets	50	52	102
12	Public urinals	167	122	289

CHAPTER - 3: PRESENT PRACTICES OF SOLID WASTE MANAGEMENT IN THE CITY

- 3.1 Waste generation rate: (MSW generated in MT per day)
2000-2200 MT Per Day
- 3.2 Break-up of waste generation (domestic, markets, industrial etc.)
80% : 10% : 10%
- 3.3 Storage of Domestic Waste at Source:
(existing system of storage and segregation of waste at source at the household level)
- 3.4 Storage of market and trade waste at source: (existing system of storage and segregation of waste in the vegetable, fruit, meat or fish market)

About 300 dhalaos exist

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S. No	Types	Shah (S)	Shah (N)	Total
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2	Population	2237772	1720156	3957928
3	No, of Households, shops and Establishments	532939	549991	1082930
4	Vegetable/fruit/meat/fish markets	46	42	88
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3.3 Storage of Domestic Waste at Source:
(existing system of storage and segregation of waste at source at the household level)

About 300 dhalaos exist

3.4 Storage of market and trade waste at source: (existing system of storage and segregation of waste in the vegetable, fruit, meat or fish market)

3.5 Storage at slums

3.6 Segregation of Recyclable wastes

The segregation of waste is done in every house hold by the occupier by segregating papers, metals, plastic etc which can fetch some money to them. The next segregation is done by the rag pickers at Dhalao / Dustbins segregating polythene, papers, plastic, metals etc. which are left over by the occupier and earn some money from them. Thus 20 to 30% segregation of the garbage is done before it reaches the sanitary landfill site in the informal way.

Most of the recyclable waste is segregated at household level, which is being collected by kabadiwalas. Further, residence are being educated through workshop, holdings distribution of leaflets, print and electronic media. Segregation of MSW is being done by rag pickers available at dhalaos.

3.7 Primary Collection of Domestic, Trade and Institutional Wastes: (existing system of door-to-door collection, adequacy of community bin facilities etc.)

The EDMC is working in accordance with the section 352 of DMC Act 1957. In order to facilitate the owners and occupiers for dumping their rubbish, garbage, filth in the receptacles provided by the EDMC in their vicinity and near to their premises, the EDMC has deployed 1364 wheelbarrows, 320 Cycle Rickshaw, 61 Tractor trolley, 302 Auto Tippers which go in the lanes collecting garbage from the houses / lanes. There is no provision in the DMC Act 1957 for door to door collection of the garbage so it is not mandatory for EDMC to implement this scheme. However, the EDMC is under obligation for efficient collection of the garbage which is being performed by deploying the above said vehicles in the area / lanes. X

3.8 Hospital and Nursing Home Waste: (no. of hospitals and nursing homes, estimated bio-medical wastes generation, existing processing and disposal system)
This pertains to DPCC.

3.9 Hotels and Restaurants waste (nos. of hotels and system of primary collection)
No separate collection from Hotel & Restaurant is being carried out. However waste is dumped at dhalao by the establishment.

3.10 Construction Waste (system of storage and its primary collection):

Solid Waste Management, which includes management of Construction & Demolition (C&D) Waste, is one of the most challenging issues being faced by a rapidly developing country like India. C&D waste consists of waste that is generated during new construction, remodeling, renovation, repair and alteration of residential, commercial, government or institutional buildings, industrial, commercial facilities and demolition of buildings, roads, bridges, dams, tunnels, railways and airports.

EDMC is in process of setting up a C&D waste processing plant of 500 TPD capacity at Shastri Park. In accordance to the Concession Agreement signed between East Delhi Municipal Corporation (EDMC) and IL&FS Environmental Infrastructure & Services Limited (IEISL) on 28.03.2013, IEISL will set up the Construction and

Demolition (C&D) Waste Processing Facility at Shastri Park, Delhi. The capacity of the project will be 500 Tons per Day (TPD) based on wet processing of C&D waste. Land ownership will be of EDMC. Concession period of the project will be 15 years. EDMC has allocated 2.5 ha. of land (28°40'10.86"N 77° 15'49.37"E) for the project in Shastri Park. Land has been handed over to IEISL on 30.04.2013

This processing plant shall sufficiently reduce the quantity of C&D waste at SLF Ghazipur sites and thus will help in increasing the life of Ghazipur SLF site, which has already out lived its life.

- 3.11 Street Sweeping: (Work norms and frequency of street sweeping, circle/ ward wise road length)

Frequency of street cleaning	Wards covered or % of street covered
Daily	100%
Alternate day	NA
Once a week	NA
Occasionally	NA

- 3.12 Tools Used: (availability of traditional/ containerized handcarts, long handled brooms etc.)
Wheel Barrow, Richshaw, Auto Tipper, Tractor Trolleys, Belcha, Phawda, LH Brooms, Tokri etc.

- 3.13 Waste Storage Depots: As per annexure-A

- 3.14 Transportation of Waste: (frequency of transportation, mode of loading- manual/ mechanized loader, vehicles- tractor, trucks, autos etc.)

Name of the Circle/ Ward	Frequency of lifting	Types of vehicle\$	No. of vehicles		
			Total	Functional	Out of order
Shah (N) Zone 240 to 272	Daily	Tipper Trucks & Loaders	70	70	-
			12	12	
Shah (S) Zone 209 to 239	Daily	Tipper Trucks & Loaders	70	70	-
			12	12	

- 3.15 Waste Processing and Disposal Facilities:

PHYSICAL COMPOSITION OF MUNICIPAL SOLID WASTE IN DELHI

Parameters	Percentage (%)
Biodegradable	38.6
Paper	5.6

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Plastic	6.0
Metal	0.2
Glass and Crockery	1.0
Non-biodegradable (leather, rubber, bones and other synthetic material)	13.9
Inert (stones, bricks, ashes etc.)	34.7

CHEMICAL COMPOSITION OF MIXED MUNICIPAL SOLID WASTE IN DELHI

Parameters	Percentage (%)
Moisture	43.8%
Organic Carbon	20.5%
Nitrogen as N	0.9%
Phosphorus as P2O2	0.3%
Potassium as K2O	0.7%
C/N ratio	24.10
Calorific value	713 kCal/kg

- **Setting up of construction and demolition waste plant**

EDMC has issued a work order in the month of March, 2013 to M/s IL&FS for setting up a C&D waste processing plant of 500 TPD capacity at Shastri Park, New Delhi. The firm after obtaining all environmental clearances shall complete the work of Const. and installation of various machinery in this plant within 8 months period. Thereafter, the firm shall lift the C&D waste lying in various parts of the EDMC area and bring it to the processing plant where this waste shall be processed to produce various useful products. The operation of this plant shall not only result in cleanliness in the area, reduction in quantity of waste to be dumped at SLF Ghazipur but shall also result in saving of our natural resources. The clearance from DPCC has been obtained, work of the setting up the facility is in progress and plant is likely to be put in operation by September 2015.

Setting up of Automated Garbage Treatment Plant

A project to generate power from city garbage was awarded to M/s East Delhi Waste Processing Co. Pvt. Ltd. by Delhi Govt. at a piece of land measuring about 5.7 acres at Ghazipur dairy farm. EDMC is responsible for supplying 1300 TPD Municipal Solid waste at the entry gate of the plant. The trial run of the Waste to Energy plant, a project of Delhi Govt. has

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already undertaken. After successful trial, the plant shall start receiving 1300TPD of fresh garbage for its processing. During 1st phase, the garbage shall be processed to produce RDF (refused derived fuel) and will be sold to various industries to use it as a fuel. The work of construction of IInd phase of the plant i.e. production of 12 MW power from RDF is in progress and likely to be started by September 2015. The salient feature of the projects are:-

- The facility will be a totally enclosed facility to process 1300 TPD of MSW per day through RDF route.
- Generation of 12 MW of green electricity using RDF and biogas
- Treated sewage to be used as main source of process water
- Project to meet air quality norms that are even better than applicable statutory norms.

The operation of the plant not only consume 1300 TPD MSW but also result in reduction of MSW to be dumped at landfill as well as reduction in emission of green house gases into ambient environment.

Proper segregation system has been installed at waste to energy plant to ensure that only dry waste is fed into the boiler. EDMC is pursuing for increase of capacity of waste to energy plant from 1300 MT to 2000 MT per day. Green cover has been provided around the waste to energy plant. However, plantation around SLF is being carried out regularly. All the site / plants are centralized in EDMC e.g. SLF at Ghazipur and waste to energy plant.

3.16 Financial Aspects:

Budget Provision 2013-14 = 40133 lacs
Actual Expenditure 2013-14= 36850 lacs.

3.17 GENERAL INFORMATION OF MSW TO BE COLLECTED AND UPDATED FROM TIME TO TIME

Waste generation

1. Average quantity of waste produced each day:- 2000 to 2200
2. Seasonal variations in daily waste generation:- 150 to 200 tonne MT
3. Total quantity of waste produced annually last 2 years.

2013-14	=	708688 MT
2014-15 (Up to 11 th March)	=	727085 MT

Staff Position

1. Number of sanitation workers deployed in the city for the collection of waste :- 15397
2. Number of sanitation workers deployed for the transportation of waste: Appx. 1500
3. Ward wise allocation of sanitation workers :- As above
4. Sweeper population ratio in EDMC :- 1 Sk per 259 persons.

Waste storage depots

1. Number of sites designated/notified for temporary of waste (Dust bins) : 300 Nos.
2. Type and size of Dustbin provided in each ward: Average size 10mtr x 5mtr, height 6mtr
3. Ward-wise Quantum of waste generated each day:- As above

Transportation

1. Number Of vehicles available with the local body for the transportation of waste, their types, size and age.:- As above
2. Number of trips made by each vehicle per day. :- 550-600
3. Qty. of waste transported per day :- 2000-2200MT

Waste processing and disposal

1. Number of waste disposal sites in the city.:- 01
2. Their distances from the Centre of the city. :- 15km
3. The area of these sites :- 70 acres
4. The qty. of waste disposed of at each site :- 2000-2200 MT
5. The expected life of each land filled site :- Already saturated
6. Processing Unit :- 02 under construction

Financial aspects

1. Operating cost
 - a. Cost of collection per ton :- 1066/-
 - b. Cost of transportation per ton:-1155/-
 - c. Cost of disposal per ton :- 150/-

CHAPTER-4: PROPOSED ACTION PLAN FOR MSW MANAGEMENT (In accordance with the Municipal Solid Wastes (Management and Handling) Rules, 2000):

4.1 Storage of Waste at Source:

- Present door to door collection of MSW from households will be persisted with in both North and South Zones of EDMC since the performance of door to door system in the existing scenario is observed to be satisfactory.
- EDMC intends to improve the prevailing system of primary MSW collection and transportation to dhalaos in EDMC by improving the required infrastructure such as providing adequate number of vehicles, equipment (cycle rickshaws, wheelbarrows etc) and labour. EDMC intends to revise the current fleet size of vehicles and equipment engaged in collection and transportation of MSW.
- Large area is required for aerobic composting. There is scarcity of space in EDMC. However, efforts shall be made to treat MSW with latest available technology.
- Commercial: The association of markets, shops and establishments should be requested to keep dustbins of adequate capacity deposit their waste in a designated

place in the market area or within the premises of their shop which shall be collected at a fixed time in a day. Since they are bulk generators, they shall be charged a certain amount for collection of waste.

- Religious places, Institutions, Restaurants & Hotels, Community centers: The quantity of MSW generated by Religious places, Institutions, Restaurants & Hotels, Community centers varies on a daily basis. They would be requested to keep a bin within their premises which can be lifted once or twice a day depending upon the quantity of garbage. Since they are bulk generators, they shall also be charged a certain amount.
- Dairies, Daily sweeps, desilting and floating materials, waste from roadside bins: The garbage generated by dairies, daily sweeps, desilting and floating materials and waste in roadside bins is proposed to be collected and transported up to the dhalao on daily basis.
- Un-authorized dumpsites: Un-authorized dumpsites should be kept garbage free; the person/household would be penalised found otherwise.
- Garbage is being regularly lifted through auto tippers, rickshaw and wheel barrows from Jhuggies / colonies and the same is transported to the nearby dhalaos
- Street sweeping: The street sweeping shall be done daily. The street sweeping waste will be collected in 100 L wheelbarrows. In order to improve the system, all the roads and lanes having habitation or commercial activities may be covered on a day to day basis. This may be done by employing one person per 350 m in highly congested areas, 500 m in medium density area and 750 m in low density areas and on an average one man may be allocated for 500 m of road length which will enable the sanitation worker to clean the streets and the drains conveniently. If most of the households, shops and establishments are covered through door to door collection, hardly any domestic waste is expected to be on the streets to be picked by the street sweepers. Street cleaning needs to be undertaken on all days including Sundays and public holidays with special focus on busy centres, markets, Parks & open spaces
- **Direct Collection System:** A direct and separate collection system is recommended for Large and Medium Hotels and Restaurants, Hospitals (non-infectious component of hospital waste only). Waste from these sources should be collected from the source and transported to the treatment/disposal site directly by tractor trolleys, auto tippers. The objective of the system is to eliminate this waste at the secondary storage area.

Section 352 of the Delhi Municipal Corporation Act, 1957 stipulate that the Municipal Corporation shall provide receptacles, depots or places or dustbins for the temporary deposit of the rubbish, filth and shall also provide vehicles or other suitable means for the removal of rubbish. Section 353 of the Delhi Municipal Corporation Act, 1957 makes its mandatory for the owners and occupiers of all the premises to have the premises swept and cleaned and to cause all filth and rubbish to be deposited in public receptacles depots or places provided or appointed under section 352 for the temporary deposit or final disposal thereof.

The EDMC is working in accordance with the section 352 of DMC Act, 1957. In order to facilitate the owners and occupiers for dumping their rubbish, garbage, filth in the receptacles provided by the EDMC in their vicinity and near to their premises, the EDMC has deployed 1364 wheel barrows, 320 Cycle Rickshaw, 61 Tractor trolley, 302 Auto Tippers which go in the lanes collecting garbage from the houses / lanes. There is no provision in the DMC Act 1957 for door to door collection of the garbage so it is not mandatory for EDMC to implement this scheme. However, the EDMC is under obligation for efficient collection of the garbage which is being performed by deploying the above said vehicles in the area / lanes.

d. Segregation of Recyclable/ non-biodegradable Waste:

The segregation of waste is done in every house hold by the occupier by segregating papers, metals, plastic etc which can fetch some money to them. The next segregation is done by the rag pickers at Dhalao / Dustbins segregating polythene, papers, plastic, metals etc. which are left over by the occupier and earn some money from them. Thus 20 to 30% segregation of the garbage is done before it reaches the sanitary landfill site though informal sector.

4.3 Primary collection of waste

Section 352 of the Delhi Municipal Corporation Act, 1957 stipulate that the Municipal Corporation shall provide receptacles, depots or places or dustbins for the temporary deposit of the rubbish, filth and shall also provide vehicles or other suitable

means for the removal of rubbish. Section 353 of the Delhi Municipal Corporation Act, 1957 makes it mandatory for the owners and occupiers of all the premises to have the premises swept and cleaned and to cause all filth and rubbish to be deposited in public receptacles, depots or places provided or appointed under section 352 for the temporary deposit or final disposal thereof.

The EDMC is working in accordance with the section 352 of DMC Act, 1957. In order to facilitate the owners and occupiers for dumping their rubbish, garbage, filth in the receptacles provided by the EDMC in their vicinity and near to their premises, the EDMC has deployed 1364 wheel barrows, 320 Cycle Rickshaw, 61 Tractor trolley, 302 Auto Tippers which go in the lanes collecting garbage from the houses / lanes. There is no provision in the DMC Act 1957 for door to door collection of the garbage so it is not mandatory for EDMC to implement this scheme. However, the EDMC is under obligation for efficient collection of the garbage which is being performed by deploying the above said vehicles in the area / lanes.

4.4 Sweeping of Streets and Public Spaces:

The street sweeping shall be done daily. The street sweeping waste will be collected in 100 L wheelbarrows. In order to improve the system, all the roads and lanes having habitation or commercial activities may be covered on a day to day basis. This may be done by employing one person per 350 m in highly congested areas, 500 m in medium density area and 750 m in low density areas and on an average one man may be allocated for 500 m of road length which will enable the sanitation worker to clean the streets and the drains conveniently. If most of the households, shops and establishments are covered through door to door collection, hardly any domestic waste is expected to be on the streets to be picked by the street sweepers. Street cleaning needs to be undertaken on all days including Sundays and public holidays with special focus on busy centres, markets, Parks & open spaces

4.5 Provision of Litterbins:

600 bins of 100 liter capacity are being procured for placing them in market areas under the jurisdiction of EDMC. In addition to this , request has been made to DSIIDC for providing dustbins under Corporate Social Responsibility (CSR) Scheme.

Garden Waste :- There are 2058 parks in EDMC area out of which 113 parks are having area above 1 acre. Manure pits are being made in these large size park for making of manure using green waste / leaves. There is also a proposal of processing green waste at two locations to produce manure / bio fuel.

Dairy Waste :- EDMC has planned to put up a 70 MT capacity paunch waste processing unit at Ghazipur which will utilized paunch / animal dung. Tender for the same has already been invited on PPP model. The output of the unit will be in the form of (i) Gas which will be utilized for Power generation and (ii) manure for agriculture purposes. The unit will be ready by the end of this year.

4.6 Temporary Waste Storage Depots for onward transportation of Waste

Garbage is collected from lanes/ roads and transported to nearby dhalao from where it is transported to sanitary landfill site. Being congested area, there is no need of placing large metallic containers.

4.7 Transportation of Waste

Secondary collection and transportation of MSW can be divided into two parts:

- i. Secondary collection of the garbage at dhalaos and its transportation to waste transfer stations (WTS)
 - Construction of dhalao at various location for collection of garbage from the area to the secondary point.
 - Lifting and transportation of garbage from dhalao to transfer station through mechanical means i.e. lifting of garbage through front end loaders an transportation through tipper truck.
 - The waste will be transported from dhalaos to the waste transfer stations. EDMC plans to construct two transfer stations each in Shahdara North and South zones. EDMC shall also operate and maintain these transfer stations.
- ii. Transportation of MSW from transfer stations to designated sanitary landfill/processing site at Gazipur

- EDMC will roll out RFP for transportation of MSW from transfer stations to landfill in the second phase
- MSW from transfer stations would be collected in mobile compactors. The mobile compactors would then transport the garbage to EDMC designated landfill site/ waste processing unit.

4.8 Waste Processing (Composting) and Disposal

It is proposed that suitable technologies or combination of technologies will be adopted for treatment of MSW so as to minimize the burden on land filling. The biodegradable waste shall be segregated at source and local level composting will be carried out. Mixed waste will be sent to Waste-to-energy plant. Waste containing recoverable material will be segregated and sent to recyclable industry. However, only inert / non process able waste and residue from the treatment of the waste shall be send to land fill. It is proposed that in future one waste-to-energy plant and one C&D waste processing plant will be required in Shah. (N) Zone area.

4.9 Intra-city Activity:

Wireless has been provided to Sanitation Superintendent, Chief Sanitary Inspector, Sanitary Inspector and higher officers for day to day monitoring of garbage lifting and its related issues for redressal without delay.

CHAPTER - 5: REQUIREMENT OF FUNDS FOR SETTING UP OF FACILITIES FOR MSW MANAGEMENT (Indicative equipments/ tools)

Requirement of funds is annexed as Annexure-B

Estimation of requirement of Sanitation workers, drivers etc. (indication)

The requirement of safari karamcharies for solid waste management as well as the sanitation services including road sweeping is 15000 numbers. The requirement of drivers to operate the tipper truck and loader is 150.

Land requirement to implement Aforesaid proposals

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Purpose	Locations	Area
Transfer Stations	MSW- 2 zones @ 2 per Zone C&D- 1 per zone	6 sites @ 1 acre = 6 acres
Workshops	1 per zone	2 sites @ 1 acre = 2 acres
C&D processing Plant	1 plant	1 site @ 10 acres = 10 acres
Waste Processing + Waste to Energy Plant	3 plant	3 plants @ 20 acres = 60 acres
Landfill for MSW Ash & Rejects	3 sites	3 sites @ 40 acres = 120 acres
Total		Approx. 198 Acres

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Annexure - "B"

Financial Implication

S. No	Description of resource	Resources required	Resources Available	Gap	rate	amount	Year wise financial requirement					TOTAL
							Year-1	Year-2	Year-3	Year-4	Year-5	
1	Wheel Barrow	1400*2	1500	1300	5000	6500000	3250000				3250000	
2	Tricycle Rickshaw	550*2	500	600	15000	9000000	4500000				4500000	
3	LMV's	640	302	338	300000	101400000	20280000	20280000	20280000		20280000	20280000
4	Tractor Trolley	55	60	-5		0	replaced by auto tippers					
5	Tipper Trucks	140	70	70	2100000	14700000	73500000					
6	Compactors	6	0	6	4000000	2400000	2400000					
7	Loaders	30	0	30	2000000	6000000	30000000					
8	Bulldozers	3	0	3	6500000	1950000	6500000	6500000				
9	Excavators	2	0	2	2500000	5000000	2500000					
10	JCB's	2	1	1	2500000	2500000	2500000					
11	Dalaos	300	275	25	1000000	25000000	8333333.333	8333333.333			8333333.333	
12	Bins	660	0	660	25000	16500000	16500000					
13	Safai Karamchari Shelter	300	60	240	1000000	240000000	80000000	80000000			80000000	
14	Ward Stores	64	0	64	2000000	128000000	42666666.67	42666666.67			42666666.67	
15	Sanitary Inspector Office	64	50	14	2000000	28000000	9333333.333	9333333.333			9333333.333	
16	Auto Workshop	2	1	1	5000000	5000000	16666666.67	16666666.67			16666666.67	
17	Transfer stations	2	0	2	10000000	20000000	66666666.67	66666666.67			66666666.67	
18	Compost plant	2	0	2	15000000	30000000	10000000	10000000			10000000	
19	C&D waste processing Plant	2	1	1	15000000	15000000	5000000	5000000			5000000	
20	Waste to Energy Plant	2	1	1	On BOOT basis							
						1512400000	554696666.7	508946666.7	40046666.7	28030000	20280000	1512400000

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Zero Garbage timing of Designated Garbage Collection Sites (DGCS) of Shahdara (South) Zone.

Sr No	WARD	DGCS No	LOCATION
1	209	1	Super Bazar, MV Police stn
2	209	2	13-block Trilok Puri
3	209	3	19-block Trilok Puri
4	209	5	21-block Trilok Puri
5	209	6	24-block Trilok Puri
6	209	7	25-block Trilok Puri
7	209	8	26-block Trilok Puri
8	209	9	Karbala Road
9	209	10	Main Road Kotla Village
10	209	11	Near MCP Schl Kotla Vill
11	210	12	Block-2, Near Gas Agency
12	210	13	6- Block
13	210	14	Block-7, DDA Flats
14	210	15	Block-9, Sanjay Disnsary
15	210	15/A	10 Block
16	210	16	Block-11/12 Sanjay Dispen
17	210	17	Block-15, MCD School
18	210	18	17 Block
19	210	19	Block-18, Main Rd Vasun
20	211	20	28-block, Central Road
21	211	21	28-block, JJ Cluster
22	211	22	29-block, Trilok Puri
23	211	23	31-block, Central Rd, Trilok
24	211	24	35-block, Trilok Puri
25	211	25	Wireless Road
26	211	26	32/33-block Ambedkar Rd
27	211	26/a	35-36 Block Wireless Road (Dustbin)
28	211	27	35/36-block, Wireless Rd
29	211	28	31-block, DDA Janta Flats
30	211	29	Petrol Pump, Pkt-III, M V-I
31	212	30	Chilla Chowk, Chilla Ville
32	212	31	ASN School
33	212	32	Samachar Apptt.
34	212	34	Upkar Apptt.
35	213	37	Block-11, Kalyan Puri
36	213	38	Behind Lal Bahadur Hotal
37	213	39	Block-14, Kalyan Puri
38	213	41	Block-16, Kalyan Puri
39	213	43	Block-17, Kalyan Puri
40	213	44	Block-18, Ambedkar Park
41	213	45	Blk - 18, JJ Cluster
42	213	48	Block-21, Kalyan Puri
43	213	49	Block-21, Hodi Kalyan Puri
44	213	50	Block-1, Khichri Pur
45	213	51	Block-1, Hodi Khichri Pur
46	213	52	Block-2 Khichri Pur
47	213	53	Block-2 Main rd Khichri Pur
48	213	54	Block-3 Khichri Pur
49	214	55	Block-5 Khichri Pur
50	214	56	Bock-5, Main Rd Khichri Pur
51	214	57	Block-4, Khichri Pur
52	214	58	Budh Singh Marg Dallu Pu
53	215	62	Main Bazar, Shiv mandir
54	215	63	Sulabha shochoyalay, Pkt- A3
55	215	64	Block - B, Nr ss school
56	215	65	Block C2, Nr SS School
57	215	66	Block-D-2, Janta Flats
58	216	67	A-3 LIG Flats DTC MV-III
59	216	70	A-3 148/A Near MV-III
60	216	71	B-2 Janta Flats Shiv Mndr
61	216	72	B-5 Janta Fl 37-FA, MV-III
62	216	75	Near 59-A Pkt-A/2, Ma Vihar-III
63	216	76	opp. C.R.P Camp A-3 Mayur Vihar
64	216	76/A	A-1 Flat. 73-A. Mayur Vihar
65	217	77	Dhalao Navkala Apptt.
66	217	78	Manglam Hospital
67	217	79	Near Mahesh Hospital,

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Zero Garbage timing of Designated Garbage Collection Sites (DGCS) of Shahdara (South) Zone.

Sr No	WARD	DGCS No	LOCATION
68	218	81	Sonia Vihar Open Side
69	218	82	Nr shatabdi park (lakad wala)
70	218	83	SBV Mandawali
71	219	85	Main Rd Khichripur Village
72	219	89	Durga Mndr East VinodNa
73	219	90	Kalyanvas Near Tanki
74	219	91	Main Road Near Kalyanvas Gate
75	219	92	Block-E Mayur Vihar-II
76	219	92/a	Pocket A. MCD School Near Mayur Vihar-2
77	219	93	Block-F Mayur Vihar-II
78	219	94	Block-B Mayur Vihar-II
79	219	95	Block-C Mayur Vihar-II
80	220	35	Parwana Apptt.
81	220	36	Nagarjuna Appt
82	220	96	Despansary Patparganj
83	220	96/A	Near Petrol Pump
84	220	97	Main Road Shahsi Garden
85	220	97/A	Shashi Garden
86	220	98	DDA Market Mayur Vihar-I
87	220	99	Mahatma Gandhi cpSashi
88	220	100	Chilla Chowk MayurVihar-I
89	220	101	Nr Akash dharshan
90	220	102	Opp. MaaVilla ApttPkt-IV
91	220	103	Pocket-4, Mother Dairy
92	221	104	Ramesh Park
93	221	105	Kishan Kunj
94	222	106	Near Radhu Palace
95	223	107	Main MarketShakar PurSa
96	223	108	Mother Dairy Open Side
97	224	109	School Blok Shakar Pur O
98	224	110	Ganesh Nagar
99	225	111	Taxi Satnd Karkardooma
100	225	112	Sani Enclave
101	225	113	Anand Vihar
102	225	114	C-block Yojna Vihar
103	225	116	Mahila Collage
104	225	117	D-block Vivek Vihar
105	226	120	60' Road
106	226	121	Shivam EnclaVishwasNag
107	226	123	Bhikam Singh Cny Open
108	226	124	Kiker Wala
109	226	125	Lehri colony near Zonal Office
110	226	127	Karan Gali Vishwas Nagar, 18 quarter
111	226	122	Nr Rd no 57, Nale ki uppar
112	227	128	Engg Appt, Nr Petrolpump
113	227	129	Milan Appt/ Max
114	227	130	Maitri Appt
115	227	131	Pariwar Appt
116	227	132	Balco Appt
117	227	128/A	Gazipur Open Site
118	227	128/B	Hasanpur Vill. Open Site
119	228	133	AGCR Enclave
120	229	135	Arjun Nagar
121	229	136	C-block Krishna Nagar
122	229	137	Raghu Nath Mandir
123	229	138	D-block Krishna Nagar
124	229	139	Multani Mohalla
125	229	140	8- BLOCK, Geeta colony
126	230	141	5-block, Geeta Colony
127	230	142	12-block Geeta Colony
128	230	143	Rani Garden
129	230	144	Kundan Nagar
130	230	146	Near DJB Office Shiv Puri
131	230	148	SDM chowk
132	231	145	Link road, Chander Nagar
133	231	147	Chawla Dharm Kanta Rasid Market
134	232	149	Parwana Road Jagat Puri(Jitar Nagar)

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Zero Garbage timing of Designated Garbage Collection Sites (DGCS) of Shahdara (South) Zone.

Sr No	WARD	DGCS No	LOCATION
135	233	150	Police Station Gandhi Ngr
136	233	151	Bihari Buildg Shastri Park
137	233	152	Buland Masd Shastri Park
138	233	153	DDA Flat Shastri Park
139	233	154	MarjinalBand RationOffice
140	233	155	Metro Station Seelam Pur
141	234	158	Kailash Nagar
142	235	159	Near DJB Office
143	236	160	Jheel Chowk
144	236	161	Mouj Pur Rd Guru Dwara New Seelam Pur
145	236	162	Lal Bati New Seelam Pur
146	237	163	Tikona Park, Jwala Nagar
147	237	164	Babu Ram School
148	237	165	Dalhai Mohalla
149	237	166	Teliwara
150	237	168	DCP Office, Nr Shalimar P
151	238	169	Dhobi Wala, Partap Khand
152	238	170	Mukesh Nagar
153	238	171	Kasturba Nagar
154	238	172	Udiya Mandir
155	238	173	DDA Market
156	238	174	Near ESI Hospital
157	238	175	Dear Park, Jhilmil Colony
158	238	176	Arya Samaj Mandir Jhilmil
159	238	177	C-84 Jhilmil
160	239	178	Jhilmil AUTO Work Shop
161	239	179	Ambedkar CampJhilmil In
162	239	180	NrDDA Office KalenderColony
163	239	181	B-45 Dilshad Garden
164	239	182	A-block MC Prmy School
165	239	183	Sonia Camp indl Area Jhilmil
166	239	184	A-block Vivek Vihar
167	239	185	Deepak Colony Kalender Col
168	239	186	Opp.-I Kalender ColonyDG
169	239	187	Friends ColonyIndl area Jhilmil
170	239	188	Green Way School DG
171	239	189	B-blcok Vivek Vihar
172	239	190	Nr ITI Vivek Vihar
173	239	191	Janta Quarter Vivek Vihar
174	239	192	B-block Jhilmil Colony

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WARD	UNAUTHORIZED	U/R COLONY	VILLAGES
209	10	1	1
210	0	1	0
211	0	3	0
212	1	0	0
213	3	0	0
214	0	0	2
215	0	0	1
216	3	1	1
217	1	0	0
218	5	0	1
219	1	0	0
220	0	5	1
221	2	12	0
222	1	9	0
223	2	0	1
224	6	4	1
225	0	0	2
226	4	4	0
227	3	0	2
228	0	1	0
229	0	0	0
230	3	5	0
231	0	0	2
232	0	5	0
233	7	0	0
234	2	0	0
235	5	0	0
236	1	10	1
237	0	4	1
238	0	5	1
239	2	0	0
240	2	0	0
241	1	0	1
242	1	0	0
243	0	0	1
244	0	0	0
245	1	0	0
246	4	4	0
247	0	12	0
248	8	0	1
249	0	2	0
250	2	1	0
251	5	0	1
252	0	10	0

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53	0	9	2
254	4	0	0
255	0	5	0
256	1	4	0
257	0	6	1
258	1	5	0
259	1	4	0
260	0	3	1
261	18	0	1
262	5	0	1
263	6	1	0
264	8	1	0
265	13	0	0
266	13	0	2
267	5	0	0
268	5	0	7
269	1	1	2
270	6	0	3
271	13	0	0
272	1	0	3
Total	187	138	45

Annexure 'D'

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**OFFICE OF THE MEDICAL OFFICER OF HEALTH
ROOM NO. 1002, 10TH FLOOR
HEALTH DEPARTMENT
NEW DELHI MUNICIPAL COUNCIL
PALIKA KENDRA, NEW DELHI**

No. D/256/CMO(N)

Dated : 29-7-15


To,

Sh. Alok Sharma
Dy. Secretary (MB)
Urban Development Department
10th Level, C-Wing, Delhi Secretariat
Govt. of NCT of Delhi
IP Estate, New Delhi-110001.

Sub. : Regarding - Status Report on Municipal Solid Waste Management and Waste to Energy Plant - in NDMC area.

Sir,

With reference to your letter No. 13/15/CC/MB/UD/2015/4885-4896 dt. 20-07-2015 and in the matter of OA No. 199/2014 titled as Almitra H. Patel & other and Union of India & Ors, the duly signed status report on Municipal Solid Waste Management and Waste to Energy Plant in New Delhi Municipal Council area are placed below for your kind information and necessary action please.


(Dr. P.K. Sharma)
Medical Officer of Health

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STATUS REPORT ON
MANAGEMENT OF MUNICIPAL SOLID WASTE
IN NEW DELHI MUNICIPAL COUNCIL AREA

CHAPTER - 1: INTRODUCTION

New Delhi Municipal Council has a fix population of around 2.0 lacs and floating population of around 25-30 lacs. The total area covered by NEW DELHI MUNICIPAL COUNCIL is around 42.76 sq. km. The Public Health Department, NEW DELHI MUNICIPAL COUNCIL is responsible for cleaning, sweeping, collection and transportation of the garbage from the roads, lanes, by-lanes, market, residential and other areas within its jurisdiction.

MISSION

The Health Department, New Delhi Municipal Council is providing green and clean environmental sanitation in its area and making utmost efforts to provide best possible standards of hygiene and sanitation.

Objectives/ Scope of DPR:

New Delhi Municipal Council has taken the following initiatives in regard to solid waste management:-

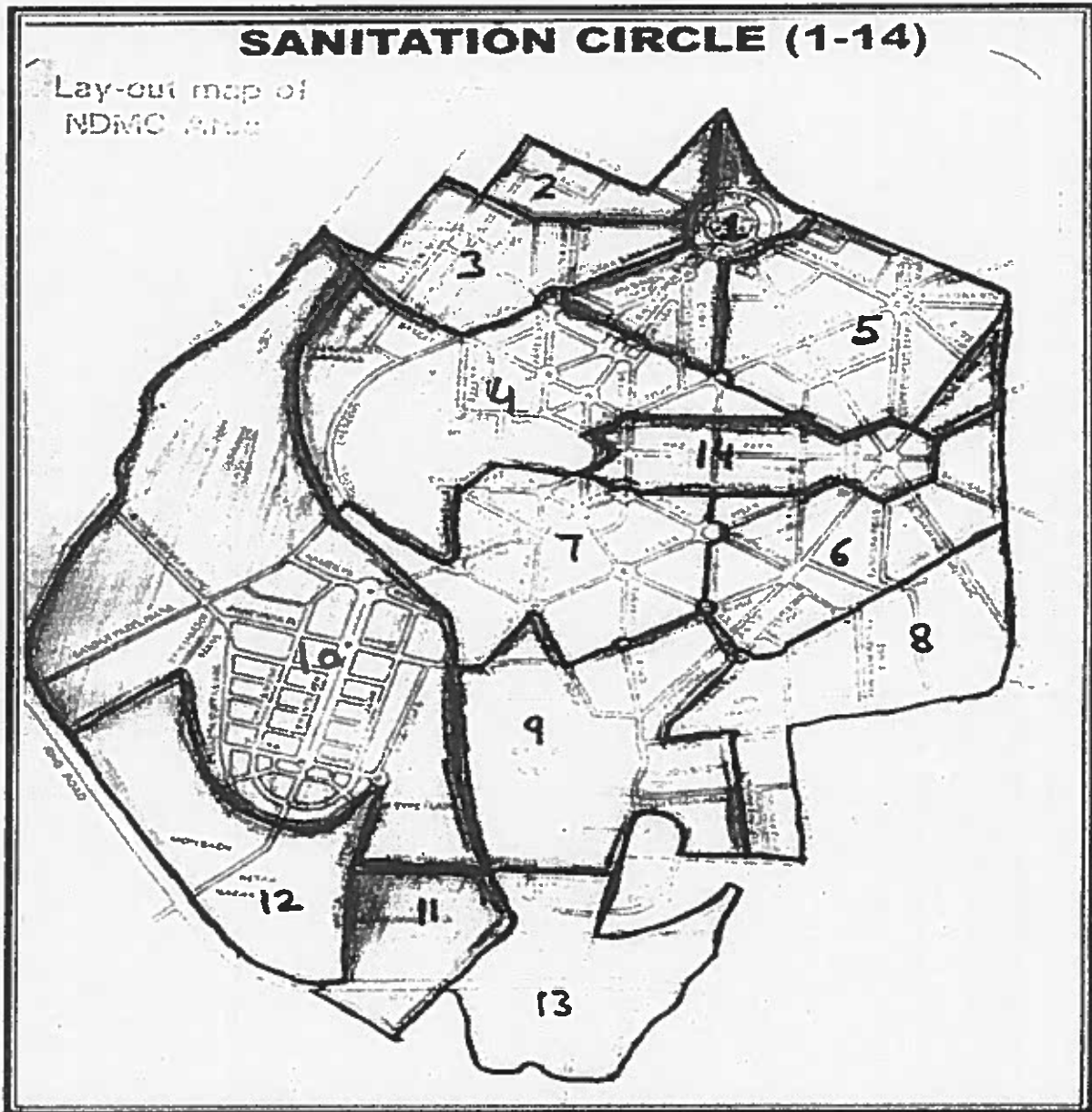
- a. Provide an 'end to end' solution to waste management as Integrated Solid Waste Management System.
- b. Increase efficiency and effectiveness of Solid Waste Management activities.
- c. Complying with Municipal Solid Waste (Management and Handling) Rules, 2000.
- d. Reduce the burden on landfills by recovering reusable and other resources.

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CHAPTER - 2: CITY PROFILE

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2.1 New Delhi Municipal Council area is divided into 14 sanitation circles which are outline in the NDMC map given below:



CIRCLE NO. 1	GONNAUGHT PLAGE
CIRCLE NO. 2	MANDIR MARG
CIRCLE NO. 3	GOLE MARKET
CIRCLE NO. 4	PT. PANT MARG
CIRCLE NO. 5	BENGALI MARKET
CIRCLE NO. 6	PANDARA ROAD
CIRCLE NO. 7	PM HOUSE
CIRCLE NO. 8	LODHI COLONY
CIRCLE NO. 9	JOR BAGH
CIRCLE NO. 10	CHANAKYA PURI
CIRCLE NO. 11	SAROJINI NAGAR
CIRCLE NO. 12	MOTI BAGH
CIRCLE NO. 13	KIDWAI NAGAR
CIRCLE NO. 14	CENTRAL VISTA

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2.2 Area and Population:

New Delhi Municipal Council has a fix population of around 2.0 lacs and floating population of around 25-30 lacs. The total area covered by NEW DELHI MUNICIPAL COUNCIL is around 42.76 sq. km.

2.3 Slum Population

Total no. of JJ Cluster in NDMC area is 26 in numbers. The areas occupied by these slums various from as big as 31200 sq. mtr. at Sanjay Camp part-I, Chankya Puri to small 400 sq. mtr. at Talkatora Park Lane. The total population of the 26 JJ Clusters of NDMC area are about 40000.

The organization structure of municipal solid waste in NDMC :-

The Municipal Solid Waste Management under New Delhi Municipal Council is headed by Medial Officer of Health. Under the Medical Officer of Health, two Chief Medical Officers (North and South), Sanitation Officer, Dy. Sanitation Officer, Chief Sanitary Inspectors, Sanitary Inspectors and Assistant Sanitary Inspectors and approx. 2880 Safai Karamcharis are working.

Municipal Solid Waste Management Department:

Total no. of sanitation circle	No. of Medical officer of Health	No. of CMO	No. of supervisors (SO, DSO, CSI)	No. of sanitary inspectors	No. of Assistant Sanitary Inspectors	No. of safai karamchari	Total area
14	1	2	7	20	58	2880	42.76 Sq. KM

CHAPTER - 3: PRESENT PRACTICES OF SOLID WASTE MANAGEMENT IN NEW DELHI MUNICIPAL COUNCIL

- A. COLLECTION OF GARBAGE
- B. TRANSPORTATION OF GARBAGE
- C. DISPOSAL OF GARBAGE

- COLLECTION OF THE GARBAGE

- a) Primary Collection - At present, under PPP Project, twenty six auto tipper trucks, ten small mechanical compactors, five big

size mechanical compactors and ten open tipper trucks are being deployed for collection and transportation of garbage / horticulture waste from NDMC area.

- Door to Door Garbage Collection carried out under the new PPP project for collection and transportation of garbage

26 auto tipper trucks are deployed for carrying out work of door to door garbage collection from all the residential colonies / market areas of NDMC.

These auto tipper trucks are fitted with Public Address System for carrying out awareness/announcement and informing the residents / market or the servant of the big kothies to deposit their household garbage directly into the auto tipper trucks so that there should not be any littering of garbage in above mentioned residential colonies. One helper along with driver for one auto tipper truck has also been deployed for smooth functioning of the door to door garbage collection system from these residential areas.

A team of health education unit has also been deployed along with the health education vehicle to carry out Information Education and Communication (IEC) activities at the above mentioned residential colonies / market areas.

SEGREGATION OF GARBAGE -

Under the scheme of Door to Door garbage collection, NDMC has also distributed twin bins to the residents of some of the identified residential colonies in NDMC area to keep dry and wet garbage separately in the year 2007-2008. In this scheme, NGO Chintan has been involved who employed sanitation volunteers who were previously working as rag pickers. NDMC has also given tricycle rickshaws to the said NGO which is having two compartment for keeping biodegradables and non-biodegradable garbage separately. They are charging some nominal fee in consultation with Resident Welfare Association from the residents for sustaining the door to door garbage collection scheme.

For removal of the dry leaves / horticulture waste, dedicated garbage vehicles have also been deployed for transportation of such green waste (horticulture waste) to the Okhla Compost Plant.

Health Education Unit of Health Department is also carrying out awareness activities by vehicle mounted PA System and organizing health talks / field meetings with the Resident Welfare Association / Market Traders Associations on the subject segregation of garbage into biodegradable and non-biodegradable separately at their houses / shops.

The Central Public Works Department (CPWD) is also being requested time to time to construct compost pit inside the big bungalows in the Lytuen area for IN SITU Composting.

- Cleaning & sweeping -

All the roads, lanes, by lanes, streets and other public areas are cleaned and swept every day by the NDMC. The garbage so evolved by this, is immediately taken to the nearest garbage collection points.

- Manpower -

Manpower for cleaning, sweeping and transportation of garbage to the nearest collection point has been increased as per the demand of the area.

- Conservancy Articles / Aprons -

Adequate stock of conservancy article are being maintained at Sanitary Store as well as adequate articles are being provided to the various sanitation circles.

The fluorescent aprons and caps are provided to the safai karamchari. Green colored aprons with NDMC logo and fluorescent strip have been provided to all the safai karmacharis for their identification, protection and safety. The fluorescent strips preventing any roadside accidents during the execution of cleaning work.

- Roadside twin bin set:-

The Blue and Green colour twin bins have been provided on the sides of the roads, market areas and other busy places to check littering by the general public.

- Medical Facilities -
Medical and treatment facilities have been provided to the safai karmacharis to increase their efficiency.
- Complaint Redressal/ Feedback Mechanism -
The complaints related to Solid Waste Management being received at Central Control Room at Palika Kendra, Sanitation Circle Offices (Circle 1 to 14), CMOs Offices, MOH Office, through telephone, online to higher officer of NDMC. The complaints received attended promptly with utmost efficiency.
- Legal Action -
All the SIs, CSIs, DSOs and SO have been empowered to challan the offenders. Municipal Magistrates are available to prosecute the offenders produced in their court through challans by various inspectorate staff and action is taken against officers as per the NDMC Act.
- Mechanical Road Sweepers -
At present, NDMC has deployed six nos. mechanical road sweepers for efficiently clean the surface of roads, lanes etc. This mechanical sweeper sweeps with the help of rotating brushes located underneath or behind the chassis and can suck dry, wet, solid and semi solid waste through high pressure suction system even from road side gutters.
- Evening / Night Sweeping-
The Health Department is carrying out evening / night sweeping in the commercial areas by deploying adequate number of safai karamcharis. At present this activity is being carried out in Connaught Place, Khan Market, Bengali Market, Sarojini Nagar Market, Gole Market, Delhi Haat, Gandhi Smriti, Tees January Marg, Indira Gandhi Museum Safdarjung Road, Nehru Taramandal, Race Course Road, Prime Minister House and other busy places of NEW DELHI MUNICIPAL COUNCIL area.

b. Secondary collection

- Garbage station/ pucca masonry dustbin- About 116 masonry dustbin / garbage station are situated at various locations in NDMC area for collection and deposition of the garbage.
- Deployment of New Garbage Iron Trolleys - About 1275 new garbage iron trolleys of 1100 liter capacity have already been placed at various locations of 14 sanitation circles at the

identified garbage collection points. In addition to above mentioned trolleys, about 203 old garbage iron bin trolleys are also placed.

- Deployment of high capacity garbage collection bin:- at present, about 45 high capacity bins are to be deployed at the hot points where huge amount of the garbage comes like market areas, JJ Clusters etc in NDMC area.
- Washing of the Garbage Iron Trolleys - The cleaning and washing of the garbage iron trolleys of 1100 ltr. capacity with insecticide soap and water are being regularly carried out. Water jet machines and permitted chemical and soap are being used for thorough cleaning of garbage iron trolleys.
- Transfer Station at Old Arjun Das Camp, Raj Nagar, Sarojini Nagar:- Under the new system of collection and transportation of municipal solid waste in NDMC area, the concessionaire will built a transfer station having a ramp for the vehicle coming to climb and Silo, under which the large haulers would be placed, into which the vehicles would directly discharge the garbage for transfer to the Waste to Energy Plant/ Disposal site. This transfer station will be having static compactors, receiving hooper, hook loaders and roll on roll off container.

The construction of the transfer station at Old Arjun Dass Camp Raj Nagar is under process and will be constructed within six months.

B. TRANSPORTATION OF GARBAGE

- The collection and transportation of the garbage from all the 14 sanitation circles of NEW DELHI MUNICIPAL COUNCIL has been carried out by fleet of auto tipper trucks/ mechanical compactors and open tipper trucks on daily basis. From the hot garbage collection points, the garbage has been lifted out twice or thrice in a day to keep the area spic and span.
- In NDMC area on an average 250MT-300 MT. of garbage are being collected and transported to Waste to Energy Plant
- The auto tipper trucks are engaged for door to door garbage collection from residential / market of NDMC area. Once the auto

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tipper trucks (engaged for door to door garbage collection and removal of indiscriminate garbage) completely filled up with the garbage, it will directly transfer the garbage into the big size mechanical compactor which is compatible with the auto tipper trucks. Once the compactor completely filled up with garbage, it will go directly into the Waste to Energy (TOWMCL) Plant, Okhla.

- The department has already purchased 144 tricycle rickshaws for collection and removal of small-small dharies / garbage on the main road / lane / by-lane, market areas etc.

C. DISPOSAL OF GARBAGE

In this direction, NDMC has acted ahead of all others and envisaged establishing a chain of waste-to-energy plants of small sizes in various localities of NDMC using latest global technologies. NDMC going to not only have maximum recycling of our waste in eco-friendly manner, but will be offering a bouquet of WTE (Waste-to-Energy) Plants of various technologies, available to all the municipal bodies of the country, to choose from with following objectives:

- To achieve sustainable waste management:
- Waste segregation at source/process plant for recycling by:
- No fresh waste to landfills
- Waste should be diverted from existing landfills
- Recovering recyclables
- Processing plant of Compost/ROF for smaller clusters
- Waste-to-Energy plants with decentralised approach i.e. smaller compact plants within the colonies.
- Construction material from inert/ash

➤ WASTE TO ENERGY PLANT AT OKHLA

The NDMC is disposing garbage at Integrated Waste to Energy (TOWMCL) Plant, Okhla by fleet of garbage vehicles. On an average about 250-300 MT of garbage par day are being disposed at Waste to Energy Plant, Okhla by New Delhi Municipal Council. This plant is having capacity of 1300 Mt. MSW (950 mts. from MCD and 200-400 mts. from New Delhi Municipal Council) to generate 16 mega watts of power. NDMC is also disposing horticulture waste at MCD Compost Plant at Okhla.

NEW DE-CENTRALIZED INITIATIVE**➤ WASTE TO ENERGY PLANT AT WEST KIDWAI NAGAR**

- Compact plant on 1000 sqm area
- Utilization of 70 tonnes MSW per day
- Will generate 1.4 MW/hr
- Based on hybrid gasification techniques burning with hot with high temperature gases
- Project Period 25 years
- Public Private Partnership Model (PPP), land of NDMC
- Energy to be purchased by NDMC at the DERC determined tariff
- Successful bidder is G-20 Energy Solution Group Pvt. Ltd., a Singapore based company working through Indian Company Mis. Elephant Energy
- Concessionaire to establish fully equipped laboratory to monitor the quality of water, air, soil and impact of the project
- Letter of intent issued in July 2014
- Pollution/ air emission controlled system to meet standards and approvals and guidelines of DPCB
- Concessionaire shall install, operate and maintain the facility in accordance with applicable laws and approvals Project to be commissioned within 08 months of the signing of the agreement.

CURRENT STATUS

- Power Purchase Agreement being finalised and yet to be signed.
- Construction work is progress at site and likely to be commissioned by September 2015 after obtaining necessary environmental clearances.

**➤ Horticulture Waste Management Plants at Gardens-
Decentralized approach.**

- Horticulture Waste Management converts horticulture waste into bioFuels by grinding, steaming to remove the tar, compacting it and converting fuel pallets having less than 08% moisture content - can be used in designed smokeless cook stoves as a replacement of LPG at 50% cost and also converts

for

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wet de-compost waste to compost through aerobic micro organism assisted process.

- 2 ton horticulture waste processing per day yield is 40 to 50% compost.
- Installed at 04 major gardens in NDMC - Nehru Park, Lodhi Garden, Talkatora Garden, Purana Quila Nursery India Gate.
- The products are sold by the concessionaire in the open market.

New Delhi Municipal Council is also doing local composting in all the big gardens such as Lodhi Garden, Nehru Park, Talkatora Garden, NDMC horticulture nurseries. This has been done in view of IN SITU composting of horticulture waste.

OTHER ACTIVITIES:-

- New Delhi Municipal Council is also planning to convert the existing garbage stations / pucca masonry dustbins in a phase manner into the public toilet utilities for the general public and roll call shelters for the sanitation staff.
- The inspectorate staffs of Health Department are regularly interacting with officials of Resident Welfare Associations and Market Trade Associations of NDMC area and sorted out their grievances related to sanitation.
- Nukkad natak / Awareness through Vehicle Mounted PA System / Health Talks and other IEC activities on the subject "No Littering / No Spitting / Door to Door Garbage Collection" are being carried out by the health department.
- The health department is regularly organizing Sanitation Drive in NDMC area and is still continuing.
- Monitoring and supervision has been intensified by the Chief Sanitary Inspector, Dy. Sanitation Officer, CMOs, MOH. 14 Zonal officers of the rank of Director are also carrying out regular inspection of their concerned circles areas, who will monitor all the activities / work related to sanitation, civil, horticulture, enforcement department etc.
- Two teams have been constituted for inspecting the NDMC area to curb incidence of burning the dry leaves / garbage in NDMC area.

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29/11/15

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BY SPEED POST

Annexure E

9950

Telephone No.25693837

DCB/32/SN-1/NGT/2014-15
Office of the Delhi Cantonment Board
Delhi Cantt.10

Dated 25th July, 2015

To

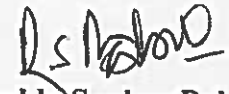
Sh. Alok Sharma
Deputy Secretary (MB)
Govt. Of NCT of Delhi
Urban Development Deptt.
10th Level, C- Wing, Delhi Secretariat
I.P. Estate. New Delhi-2

SUB:- Compliance of order of Hon'ble NGT dated 13.7.15 OA No. 199/2014 in the matter of Almitra H. Patel & Another V/s Union of India & Others regarding disposal of municipal solid waste.

Sir,

Reference your letter No. 13/15/CC/MB/UD/2015V 4885-4896 dt. 20.07.15.

The report in respect of Delhi Cantonment Board in Compliance of order to Hon'ble NGT dated 13.07.15 is forwarded here with for your perusal and submission before the Hon'ble NGT.


(B. Reddy Sankar Babu) (DES)
Chief Executive Officer
Delhi Cantonment Board

Copy to:

(Sh. B.L. Chawla)
Delhi Pollution Control Committee
Department of Environment,
Govt. Of NCT of Delhi
4th Floor, ISBT Building Kashmere Gate,
Delhi-6

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SUB : COMPLIANCE OF ORDER OF HON'BLE NGT DATED 13.7.2015 IN THE MATTER OF O.A NO 199/2014 TITLED AS ALMITRA H.PATEL & ANR VS UNION OF INDIA & ORS:

Chapter 1: Introduction

Delhi Cantonment Board is a deemed Municipality U/s 10 of the Cantonment Act, 2006 and is responsible for management of Municipal solid Waste of Delhi Cantonment area. Delhi Cantonment Board is giving due care in handling Municipal Solid Waste using best practices and Ministry of Urban Development, Govt. of India in December, 2014 Cantonment as Fifth cleanest city in India.

Objectives/Scope of DPR (Detailed project report)

As regards implementation of MSW processing/ treatment techniques are concerned, it is brought out that Delhi Cantonment is a small municipality and total population of Delhi Cantonment as per 2011 census is only 1,10,351 which comprises of both Army and Civilian population in almost equal proportion. Out of total area of Delhi Cantonment i.e. 10791 .988 acres the area under the management of the Board is only 265.951 acres. There are primarily two notified civil areas in Delhi Cantonment i.e. Sadar Bazar and Shastri Bazar and six urban villages. The rest of the area in Delhi Cantonment is under the control of local military authorities and these areas are restricted area for stay of troops. Delhi Cantonment Board is providing conservancy services for both civilian pockets and Army pockets. There is well established storage system in place for Municipal solid waste management including collection and storage in Army pockets and it is quite disciplined. The daily quantum of Municipal solid waste generation in Delhi Cantonment is quite less about fifty MT. Presently Delhi Cantonment not maintaining any trenching ground or landfill sites and Municipal waste of Delhi Cantonment being transported to Govt. of NCT of Delhi Approved land fill site at Okhla. Since the Quantum of Municipal solid waste Generated in Delhi Cantonment is quite less therefore, the scope for adopting MSW processing/ treatment techniques will neither be technically feasible nor economical.

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Chapter – 2 : City Profile

2.1 & 2.2 : General profile and historical profile.

The Delhi Cantonment is spread over in 10791.988 acres located in South-West Delhi. The Delhi Cantonment was established in 1914 by the then British Government to house the British Troops. In 1924 the Cantonment Act was enacted for Civic Administration of the Cantonment. Since the Cantonments are established for the purpose of housing troops, the civilian population in the Cantonment is always remains very less. The Cantonments are not growing townships as the limits are fixed and no new lands are included in the Cantonments. The entire land in the Cantonment is owned by Ministry of Defence, Govt of India. However two notified civil areas are there namely Gopinath Bazar (Shastri Bazar) and Sadar Bazar, in which land is allotted to the civilians on lease for residential as well as commercial purposes. The notified bazaar areas are never extended due to which the growth of population is very minimal.

2.3 Tourist Religious or Any Other Specific Profile Of The City

There are no tourist places in the Cantonment worth mentioning. However there are small temples, Mosque and few Churches. There is a Gurudwara located in Sadar Bazar, a religious place of Sikh community which is quite popular and number of devotees visit this place. Also Sanatan Dharma Mandir is located in Sadar Bazar where number of pilgrims keep visiting. Both Gurudwara and SD Mandir managements are running two Schools.

2.4 Area and Population: - 10791.99 acre area and population as per 2011 census 1,10,351.

	Population			Projected Population
Census year	1981	1991	2001	2011
Population	85166	94393	124917	110351
Decadal Growth	-	(+)9227	(+)30524	(-)14566

2.5 Slum population (No. of slum pockets and approximately population, ward-wise list of slum and the area occupied by them, population).

Details of JJ Clusters:-

S. No.	New Cluster Code	Location	No. of Jhuggies	C. No.	Land owning Agency	Area of JJ Cluster in Sqm
1	79	Barar Square Railway Station	500	38	Cantt Board	15881
2	80	CB Area Naraina	300	38	Cantt Board	3809
3	81	Dhobi Ghat Kirby Place	1500	38	Cantt Board	12851
4	82	Village Jharera Delhi Cantt	1275	38	Cantt Board	81314
5	83	Kandhar Line Delhi Cantt	18	38	Cantt Board	2461
6	84	Behind General Hospital Sadar Bazar	18	38	Cantt Board	403
7	85	Sadar Bazar behind 32 staff Qtrs	145	38	Cantt Board	5625

2.6 Main tourist spots in the city:

There is no tourist spots in Delhi Cantonment Area worth mentioning.

2.7 Climate:

The mercury touches 42° C in peak summer and 3°C in the peak winter in Delhi Cantonment. It is submitted that the temperature in the Cantonment always remains 2 to 3 degree less in comparison with neighboring city.

2.8 Political set up of local body (no. of election ward etc.)

The entire Delhi Cantonment is divided into 8 Wards. One member from each ward is Elected to represent in the Cantonment Board. For the purpose of Conducting Elections a separate Cantonment Electoral Rules-

2007 are made under the Cantonment Act, 2006. Elections to the wards are conducted once in five years in accordance with CER-2007. The Cantonment Board prepares Electoral Rolls ward wise for the purpose of conducting the elections. Every year draft Electoral Rolls are published on 1st July and final rolls are published on 15th September. The Cantonment Act provides for nomination of three Army officers to the Board, one officer from the Jurisdictional District Magistrate, Station Commander, Chief Executive Officer, Executive Engineer and Senior Executive Medical officer are Ex-officio Members of the Board. The Station Commander is designated as Ex-officio President of the Cantonment Board. The Chief Executive Officer is the Ex-officio Member-Secretary of the Board. Therefore the Cantonment Board is headed by President Cantonment Board having 15 Members in all (16 including President, Cantt Board).

Recently Elections were conducted and the Board has been re-constituted in Feb, 2015.

2.9 Administrative set up of the local body

The Administration is headed by the Chief Executive Officer who is posted from Indian Defence Estates Service which is organized Civil Service. The Chief Executive Officer is posted by the Ministry of Defence, Govt of India. There are sections namely General Section, Engineering Section, Sanitary Section, Revenue Section, Tax Section, Establishment Section, Store Section and Account Section which are headed by Section Heads who directly report independently to the CEO. The Office Supdt who heads the General Section co-ordinates among all the Sections. The Cantonment Board also runs 8 Schools and 01 General Hospital. Out of 8 Schools one School is exclusively run for Special Children.

2.9 Municipal Solid Waste Management Department (health officer, assistant health officer, details of Supervision staff etc.)

Name of the Circle/ward	No. of AHOs	No. of Sanitary Inspectors	No. of supervisors	No. of Sweepers	Ward Area	Population
	1	2	21	1045	8	1,10,351
Total						

2.10 GENERAL INFORMATION TO BE COLLECTED AND UPDATED FROM TIME TO TIME.

1. Area of the Delhi Cantonment - 43.67 sq km
2. Population of the Cantonment - 1,10,351
3. Decadal of growth of population: - (-)14566
4. Number of wards their area and population: - 08 Wards

The Cantonment is divided into Eight Wards

Ward Number	Population	Area in sq km	Density
I	4816	1.595	3019.43
II	3218	4.543	708.34
III	41825	4.240	9864.38
IV	17900	7.657	237.73
V	10028	5.849	1714.48
VI	17133	11.534	1485.43
VII	7603	3.868	1965.61
VIII	7828	4.386	1784.76

Note: the above data of population is as per the 2011 census. However actual population in the Cantonment is being ascertained during the current year by conducting a thorough survey.

5. Ward wise information in regard to:

Number of Households	1494
Shops and Establishments	85
Vegetables/Fruit market	01
Meat/Fish Market	Nil (one small slaughter house and 3 retail meat shops are in the Cantonment)
Number of Hotels	01
Number of Restaurants	16
Number of Hospitals	03
Number of Nursing Homes	Nil
Number of Industries	Nil
Road area (Width/Length) being maintained by both Cantt Board, MES & PWD	The total roads in the Cantonment are being maintained by the Cantt Board and MES. The area under Cantt Board is 166 acres, the area under Army (MES) is 385 acres and under PWD is 71 acres.
Percentage of area covered with Under- Ground sewage system	95%
Percentage of area having surface Drains:-	100%
Percentage of area having no drainage facility	Nil
Number of slaughter houses	01
Total number of Public Toilets	15
Number of Toilet Seats	272
Number of Nuisance spots	Nil

Chapter – 3: PRESENT PRACTICES OF SOLID WASTE MANAGEMENT IN THE CITY

- 3.1 Waste generation rate (MSW generated in MT per day).
The Cantonment generates only 60 MT of Garbage daily.
- 3.2 Break-up of waste generation (Domestic, Markets, Industrial etc.)
Domestic waste- 50 MT
Market waste-10 MT
Industrial Waste- Nil (No industries waste are existing in the Cantonment)
- 3.3 Storage of Domestic Waste at Source (existing system of storage and segregation of waste at source at the household level)

Domestic Waste is being collected from the door to door in the morning and transported to the landfill site being maintained by the MCD. Door to door collection of garbage is being collected which is segregated into biodegradable and non-biodegradable at source itself. There are 545 number of dustbins constructed for collection of garbage. Some of the un-segregated garbage which is collected by the Sanitary Department is brought to a segregation point at Tigris Road. An agency has been engaged to segregate the garbage at this point before being transported to the landfill maintained by MCD.

- 3.4 Storage of market and trade waste at source: (existing system of storage and segregation of waste in vegetable, fruit meat or fish market)

:- There is only one very small vegetable/fruit market in Sadar Bazar, which generates very minimal waste. This waste is collected by the Safai Karamcharies through wheel barrows and handover to the nearest garbage point which will be collected by the garbage transporting trucks. This waste finally is transported to landfill being maintained by MCD in Okhla. The Cantonment Board maintains one small slaughter house in Old Nangal. The Meat waste generated in the slaughter house is being collected by an agency called the Best Meat Shop which has been engaged for this purpose by the Cantonment Board. The meat waste is being transported to MCD landfill at Ghazipur by the agency.

3.5 Storage at slum:- Nil

There are two notified slums in the Cantonment. The Garbage is being collected from the slums on day to day basis.

3.6 Segregation of Recyclable waste

:- The segregation of garbage into Bio-degradable and Non-Biodegradable is being done by engaging an NGO, at Tigris Road. The garbage being collected from door to door is being segregated at source itself.

3.7 Primary collections of Domestic Trade institutional Wastes (existing system of door to door collection, adequacy of community bin facilities etc.

:- The entire Cantonment is being cleaned by deploying sufficient number of Safai Karamcharies by sweeping the roads. The garbage collected through sweeping is being dumped properly in the nearby dustbins. The garbage collection vehicles which are deployed for collecting the garbage collect from the dustbins. A time schedule and route map has been fixed for the garbage vehicles. The Cantonment has been provided with 545 dustbins which are adequate.

3.8 Hospital and Nursing Home Waste: (no of hospitals and nursing homes, estimated bio-medical wastes generation, existing processing and disposal system).

:- The Cantonment Board maintains a 100 bedded multi-specialty Hospital in Sadar Bazar. The Hospital waste generated in this Cantonment is being collected by Synergy Waste Management Company Pvt Ltd which has been engaged for this purpose. The Army maintains two Hospitals namely Research and Referral Hospital and Base Hospital. Both the Hospital have their own systems to dispose off the Medical waste as per the established guidelines.

3.9 Hotels and Restaurants waste (nos. of hotels and system of primary collection)

:- There are only two notified civil areas in which commercial activities are allowed. There are only 16 small restaurants/sweet shops/eating establishments in the Cantonment. The Hotel waste is collected from door to door from each hotel and transported to the designated landfill maintained by MCD.

3.10 Construction Waste (system of storage and its primary collection)

:- Most of the constructions in the Cantonment are done by the Ministry of Defence, Govt of India through contracts. The contractors are responsible to dispose off the construction waste. However there are some unauthorize constructions taking place in the civilian pockets. The unauthorized dumps off construction waste is being collected from time to time by the Cantonment Board and is being dumped in the low lying/unused areas within the Cantonment. However efforts are being made to streamline the proper disposal of construction waste.

3.11 Street Sweeping: (Work norms and frequently of street sweeping circle/ward wise road length)

Frequently Of Street Cleaning	Ward Covered or % of Street Sovered
Daily ^s	100%
Alternate day	Not applicable
Once a week	Not applicable
Occasionally	In notified slum areas

3.12 Tools used: (Available of traditional containerized handcrafts, long handled brooms etc.)

:- Tools used for sanitation is as under :
1. brooms

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- 2. spades
- 3. kantas
- 4. kolchies
- 5. Wheel barrows

3.13 Waste storage Depots; (circle ward wise nos. of waste storage depots mode of transmission of waste upto depots, condition of depots, nos. of litter bins provided etc.)

:- There are no waste storage depots in the Cantonment. The garbage from all the dustbins is being picked up on daily basis and transported to the designated landfill maintained by MCD. However one garbage collection point is there at Tigris Road for the purpose of segregating the garbage into bio-degradable and non-biodegradable. From this point also the segregated garbage is being transported on daily basis.

3.14 Transportation of Waste: (frequency of transportation, mode of loading manual/ mechanized loader, vehicles-tractor, trucks, autos etc).

Name of the Circle/Ward	Frequency of lifting	Types of vehicles	No. of vehicles		
			Total	Function	Out of Order
1 to 8	Daily	Tippers and compactors	26	26	Nil

3.15 Waste processing and Disposal Facilities: Details of waste processing and disposal facility like – year of commissioning, designed life, design capacity (MT/day), operation capacity (MT/Day), Scientifically operated or haphazard dumping in low lying areas, daily soil coverage provided or not, availability of weigh bridge facility, buffer zone, road facilities, status of authorization from SPCB Etc.)

:- Delhi Cantonment Board is not having any waste processing plant. The garbage generated is being transported on daily basis to the landfill being maintained by the MCD. The necessary charges for this purpose is being made to the MCD.

3.16 Financial Aspects

Years	Actual Receipt including grant	Actual expenditure	Expenditure incurred on MSW management department	
			Expenditure on salary	Expenditure on infrastructure
2001-2002	Nil	13,74,14,768-	3,54,68,289-	
2002-2003	Nil	17,22,16,754-	4,32,87,377-	
2003-2004	Nil	19,09,74,432-	4,89,13,590-	

Note: Since the expenditure required pertains to 2001-2004, the break-up on salary and infrastructure could not be reflected.

3.17 General Information of MSW to be collected and updated from time to time.


The General information required to be updated under this head will be compiled from time to time as per the directions of the Hon'ble NGT.

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Chapter 4: Proposed action plan for MSW management (in accordance with Municipal Solid Wastes (Management and Handling) Rules, 2000):

The guidelines/instructions under this chapter will be followed in handling the management of Solid Waste as provided in the Municipal Solid Waste (Management and Handling) Rules, 2000.

Further it is clarified that MSW disposal plant either RDF or waste to energy or any other plants have not yet been set up by Delhi Cantonment Board. This office is using MCD Sanitary landfill Okhla, New Delhi, for disposal of MSW.


B. Reddy Sankar Babu (IDES)
Chief Executive Officer
Delhi Cantonment