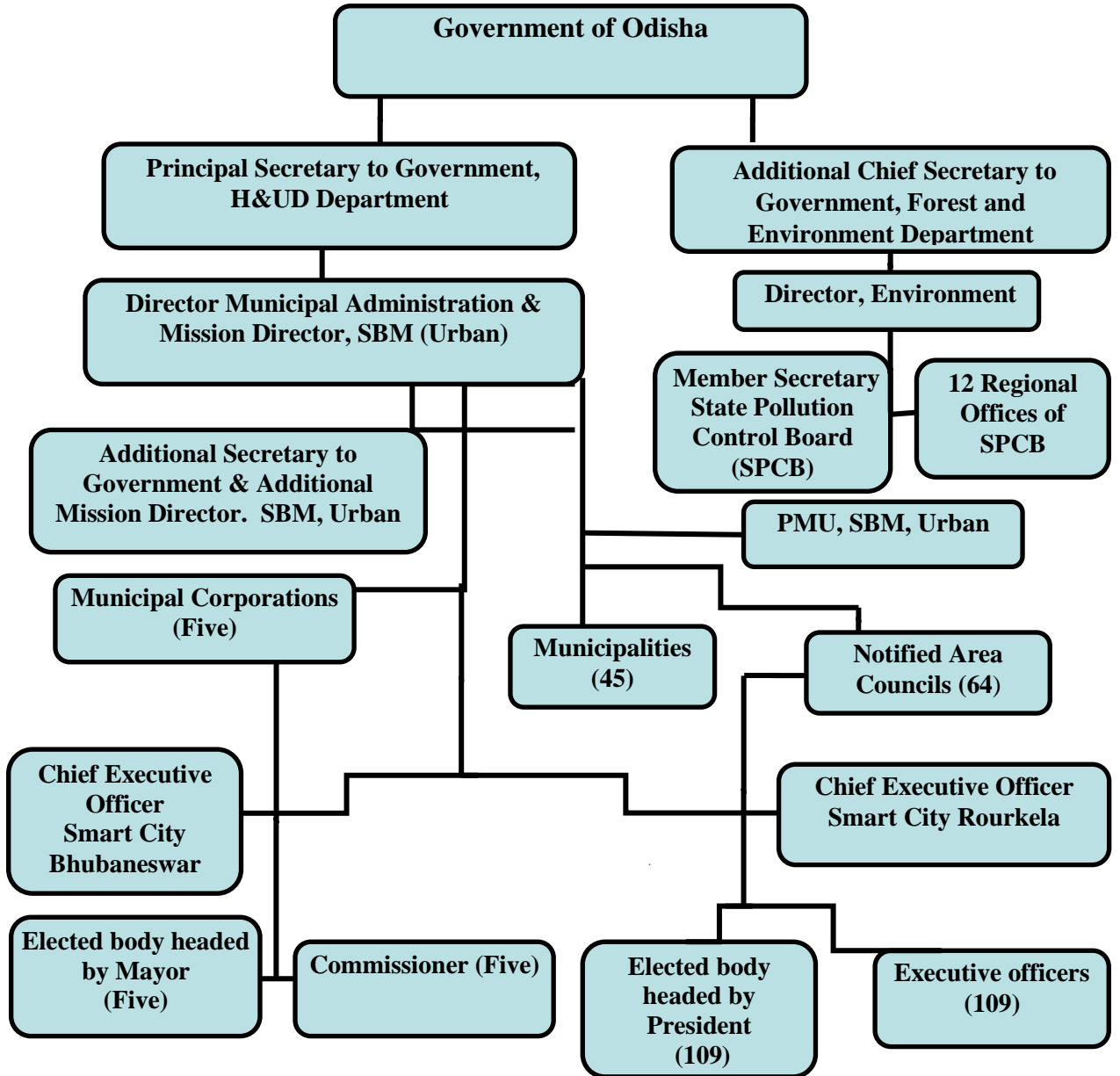


APPENDICES

Appendix- I

(Refer paragraph 1.3 at page 3)

Organisational structure with respect to functioning of ULBs in the State for Waste Management in Urban Areas



Appendix-II
(Refer paragraph 1.5 at page 4)

Regulatory framework governing the management of different types of waste

Municipal solid waste	<ul style="list-style-type: none">• MSW (Management and Handling) Rules, 2000• Manual on MSW management and handling Rules, 2000• Manual on MSW (Management and Handling) Rule 2016• Solid Waste Management Rules, 2016
Biomedical waste	<ul style="list-style-type: none">• The Bio-medical Waste (Management and Handling) Rules, 1998• The Bio-medical Waste (Management and Handling) Rules, 2016
Plastic waste	<ul style="list-style-type: none">• Plastic Waste (Management & Handling) Rules, 2011• Plastic Waste Management Rules, 2016
E-waste	<ul style="list-style-type: none">• E-waste (Management & Handling) Rules, 2011• E-waste (Management) Rules, 2016
Construction & Demolition Waste	<ul style="list-style-type: none">• Construction and Demolition Waste Management Rules, 2016

Appendix-III
(Refer paragraph 2.2 at page 8)

Details of utilisation of funds in test checked ULBs during the period from 2015-16 to 2019-20

(₹ in crore)

Sl. No	Name of the ULB	13th Finance Commission				14th Finance Commission				SBM			
		OB	R	E	CB	OB	R	E	CB	OB	R	E	CB
1	Bhubaneswar (MC)	14.26	1.47	12.47	3.26	0.00	188.92	136.28	52.64	0.00	0.00	0.00	0
2	Bhadrak (M)	4.20	5.87	8.15	1.92	0.00	26.78	13.72	13.06	0.00	6.07	3.66	2.41
3	Raygada (M)	1.42	0.00	1.29	0.13	0.00	18.65	9.67	8.98	0.00	4.52	1.49	3.03
4	Hinjilicut (NAC)	0.39	0.00	0.19	0.2	0.00	0.00	0.00	0	0.00	1.25	1.25	0
5	Cuttack (MC)	0.00	0.00	0.00	0	0.00	137.66	98.64	39.02	0.00	0.00	0.00	0
6	Chhatrapur (NAC)	0.00	0.00	0.00	0	2.32	5.83	6.25	1.9	0.00	0.38	0.26	0.12
7	Jeypore (M)	3.89	0.17	3.33	0.73	0.00	19.77	9.29	10.48	0.00	2.82	1.57	1.25
8	Sundargarh (M)	0.00	0.00	0.00	0	0.00	11.33	7.12	4.21	0.00	1.00	0.00	1
9	Rourkela (MC)	0.00	0.00	0.00	0	8.90	87.36	41.50	54.76	0.00	12.39	0.00	12.39
10	Sambalpur (MC)	5.15	10.99	12.57	3.57	0.00	66.07	19.80	46.27	4.37	16.24	9.51	11.1
11	Gunupur (NAC)	0.03	0.05	0.08	0	0.00	6.16	3.26	2.9	0.00	3.99	1.15	2.84
12	Puri (M)	3.03	0.36	3.39	0	0.00	44.84	19.08	25.76	0.00	14.63	3.24	11.39
13	Ranapur (NAC)	0.00	0.00	0.00	0	0.00	3.00	2.12	0.88	0.00	0.78	0.35	0.43
14	Jharsuguda (M)	0.00	0.00	0.00	0	0.00	21.83	12.38	9.45	0.00	5.67	2.18	3.49
15	Choudwar (M)	1.03	0.09	1.12	0	0.00	11.38	9.38	2	0.00	5.94	1.81	4.13
16	Chandabali (NAC)	0.00	0.00	0.00	0	0.00	3.94	1.90	2.04	0.00	2.42	1.06	1.36
17	Berhampur (MC)	8.74	18.01	26.75	0	0.00	90.37	68.11	22.26	0.00	8.05	5.91	2.14
18	Baragarh (M)	1.84	6.90	8.74	0	0.00	12.70	6.92	5.78	0.00	10.34	4.14	6.2
19	Balangir (M)	1.97	2.89	4.48	0.38	0.00	16.85	11.47	5.38	0.00	2.14	1.91	0.23
20	Baripada (M)	1.51	0.00	1.36	0.15	0.00	28.74	19.64	9.1	0.00	8.48	3.06	5.42
21	Nuapada (NAC)	0.07	0.00	0.07	0	0.00	3.62	1.64	1.98	0.00	0.82	0.57	0.25
	Total	47.53	46.80	83.99	10.34	11.22	805.80	498.17	318.85	4.37	107.93	43.12	69.17

Sl. No	Name of the ULB	Municipality Fund				4 th SFC-Entry tax devolution				State Grant/SWM			
		OB	R	E	CB	OB	R	E	CB	OB	R	E	CB
1	Bhubaneswar (MC)	0.00	144.07	124.40	19.67	7.80	115.22	122.42	0.6	0.70	345.96	334.02	12.64
2	Bhadrak (M)	0.39	19.22	13.37	6.24	2.68	15.99	5.57	13.1	1.65	155.61	48.61	108.65
3	Raygada (M)	0.00	0.00	0.00	0	0.00	13.99	10.10	3.89	0.00	2.90	0.58	2.32
4	Hinjilicut (NAC)	0.30	3.29	3.49	0.1	1.70	10.12	11.61	0.21	1.34	4.18	2.93	2.59
5	Cuttack (MC)	0.00	0.00	0.00	0	0.00	83.62	75.25	8.37	0.00	64.69	7.75	56.94
6	Chhatrapur (NAC)	1.83	4.90	6.54	0.19	0.36	3.04	3.00	0.4	0.00	1.60	0.47	1.13
7	Jeypore (M)	0.00	0.00	0.00	0	1.34	42.89	20.38	23.85	0.00	6.47	0.63	5.84
8	Sundargarh (M)	0.00	0.00	0.00	0	0.00	18.40	18.40	0	0.00	4.12	0.37	3.75
9	Rourkela (MC)	0.00	0.00	0.00	0	0.00	0.00	0.00	0	0.20	11.91	0.30	11.81
10	Sambalpur (MC)	0.00	30.72	28.94	1.78	1.41	46.79	22.56	25.64	0.00	221.49	190.82	30.67
11	Gunupur (NAC)	0.00	0.00	0.00	0	0.00	4.87	2.78	2.09	0.00	3.08	0.32	2.76
12	Puri (M)	0.00	0.00	0.00	0	0.00	159.89	129.87	30.02	3.73	25.33	5.25	23.81
13	Ranapur (NAC)	0.50	1.39	0.00	1.89	0.00	1.77	1.00	0.77	0.55	0.00	0.00	0.55
14	Jharsuguda (M)	0.00	13.30	7.70	5.6	0.00	60.69	49.32	11.37	0.00	27.58	13.74	13.84
15	Choudwar (M)	0.73	7.74	7.56	0.91	0.82	8.90	6.63	3.09	0.00	3.45	0.58	2.87
16	Chandabali (NAC)	0.00	12.32	2.12	10.2	0.00	2.22	2.10	0.12	0.00	13.75	5.03	8.72
17	Berhampur (MC)	0.00	0.00	0.00	0	5.45	51.33	41.18	15.6	0.00	118.31	72.36	45.95
18	Baragarh (M)	3.94	87.99	83.33	8.6	0.00	12.81	10.11	2.7	1.57	18.49	12.11	7.95
19	Balangir (M)	0.00	10.75	10.61	0.14	0.00	10.03	5.87	4.16	0.00	6.99	3.10	3.89
20	Baripada (M)	0.00	0.00	0.00	0	0.84	14.97	6.65	9.16	0.00	2.21	0.75	1.46
21	Nuapada (NAC)	0.03	4.16	1.40	2.79	0.27	2.22	1.23	1.26	0.65	8.18	5.02	3.81
	Total	7.72	339.85	289.46	58.11	22.67	679.76	546.03	156.4	10.39	1046.30	704.74	351.95

(Source: Information furnished by test-checked ULBs)

OB: Opening balance; R: Receipts; E: Expenditure, CB : Closing Balance,

Source of funds	OB During 2015-16	Receipts During 2015-20	Total fund	Total Expenditure under scheme	Closing balance	Percentage of unspent amount
13 th FC	47.53	46.80	94.33	83.99	10.34	10.96
14 th FC	11.22	805.80	817.02	498.17	318.85	39.03
Swachha Bharat Mission (SBM)	4.37	107.93	112.30	43.12	69.18	61.61
4 th SFC-Entrytax devolution	22.67	679.76	702.43	546.03	156.40	22.27
Municipal Fund	7.72	339.85	347.57	289.46	58.11	16.72
Others (SFC tied, State grant and SWM)	10.39	1,046.30	1,056.69	704.74	351.95	33.30
Total	103.9	3,026.44	3,130.34	2,165.51	964.83	

Appendix-IV
(Refer paragraph 2.3 at page 8)

Status of levy and collection of user charges for SWM (2017-18 to 2020-21) in test checked ULBs
(₹in crore)

Sl. No.	Name of the ULB	No of households in number	Rate of user fee for SWM (per Year)	Total demand for the year 2017-2020	SWM user charges collected	Loss of revenue due to non-collection
1	Bhubaneswar (MC)	211538	600	50.76	0	50.76
2	Cuttack (MC)	164233	720	47.29	0	47.29
3	Bhadrak (M)	19636	300	2.04	0.01	2.03
4	Rayagada (M)	16362	300	1.96	0	1.96
5	Jeypore (M)	19973	300	2.39	0.00	2.39
6	Puri (M)	41140	300	4.93	0	4.93
7	Chhatrapur (NAC)	6089	300	0.73	0	0.73
8	Hinjilicut (NAC)	6004	180	0.43	0.04	0.39
9	Ranapur (NAC)	1710	240	0.16	0.00	0.16
10	Baripada (M)	24718	360	3.56	0.00	3.56
11	Balangir (M)	21980	540	4.75	0.00	4.75
12	Baragarh (M)	20441	420	3.43	0.01	3.42
13	Berhampur (MC)	70760	360	10.19	0.00	10.19
14	Chandabali (NAC)	5052	360	0.73	0.01	0.72
15	Choudwar (M)	9172	600	2.20	0.27	1.93
16	Gunupur (NAC)	4700	264	0.50	0.01	0.49
17	Jharsuguda (M)	22146	264	2.34	0.00	2.34
18	Nuapada (NAC)	3794	300	0.45	0.03	0.42
19	Rourkela (MC)	69609	360	10.02	0.32	9.70
20	Sambalpur (MC)	78803	360	11.35	0.00	11.35
21	Sundargarh (M)	10107	264	1.20	0.00	1.20
	Total	827967		161.41	0.70	160.71

(Source: Information furnished by test-checked ULBs)

Appendix-V
(Refer paragraph 2.3 at page 9)

Increase in resource- expenditure gap in test checked ULBs from 2015-16 to 2019-20

(₹in crore)

Sl. No	Name of the ULB	Year	Own revenue , expenditure and resource gap for SWM						
			Collection of cess for SWM	Auction sale on SWM	Sale on products like Mo khata	Sale on compost	Total revenue receipt	Total expenditure on SWM	Resource gap
1	Bhubaneswar (MC)	2015-16	0.00	0.00	0.00	0.00	0.00	49.19	49.19
2	Bhadrak (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.84	0.84
3	Raygada (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.53	0.53
4	Hinjilicut (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0.12	0.12
5	Cuttack (MC)	2015-16	0.00	0.00	0.00	0.00	0.00	13.1	13.10
6	Chhatrapur (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0.7	0.70
7	Jeypore (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.78	0.78
8	Sundargarh (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.38	0.38
9	Rourkela (MC)	2015-16	0.00	0.00	0.00	0.00	0.00	3.81	3.81
10	Sambalpur (MC)	2015-16	0.00	0.00	0.00	0.00	0.00	2.13	2.13
11	Gunupur (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0.17	0.17
12	Puri (M)	2015-16	0.00	0.00	0.00	0.24	0.24	1.16	0.92
13	Ranapur (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0	0.00
14	Jharsuguda (M)	2015-16	0.00	0.00	0.00	0.00	0.00	2.1	2.10
15	Choudwar (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0	0.00
16	Chandabali (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0	0.00
17	Berhampur (MC)	2015-16	0.00	0.00	0.00	0.00	0.00	5.08	5.08
18	Bargarh (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.44	0.44
19	Balangir (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.66	0.66
20	Baripada (M)	2015-16	0.00	0.00	0.00	0.00	0.00	0.12	0.12
21	Nuapada (NAC)	2015-16	0.00	0.00	0.00	0.00	0.00	0.26	0.26
	Total (A)		0.00	0.00	0.00	0.24	0.24	81.57	81.33
1	Bhubaneswar (MC)	2016-17	0.00	0.00	0.00	0.00	0.00	60.88	60.88
2	Bhadrak (M)	2016-17	0.00	0.00	0.00	0.00	0.00	1.71	1.71
3	Raygada (M)	2016-17	0.00	0.00	0.00	0.00	0.00	1.86	1.86
4	Hinjilicut (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0.16	0.16
5	Cuttack (MC)	2016-17	0.00	0.00	0.00	0.00	0.00	20.74	20.74
6	Chhatrapur (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0.78	0.78
7	Jeypore (M)	2016-17	0.00	0.00	0.00	0.00	0.00	0.89	0.89
8	Sundargarh (M)	2016-17	0.00	0.00	0.00	0.00	0.00	0.63	0.63
9	Rourkela (MC)	2016-17	0.00	0.00	0.00	0.00	0.00	9.75	9.75
10	Sambalpur (MC)	2016-17	0.00	0.00	0.00	0.00	0.00	4.42	4.42
11	Gunupur (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0.17	0.17
12	Puri (M)	2016-17	0.00	0.00	0.00	0.27	0.27	2.96	2.69
13	Ranapur (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0.15	0.15
14	Jharsuguda (M)	2016-17	0.00	0.00	0.00	0.00	0.00	3.13	3.13

Sl. No	Name of the ULB	Year	Own revenue , expenditure and resource gap for SWM						
			Collection of cess for SWM	Auction sale on SWM	Sale on products like Mo khata	Sale on compost	Total revenue receipt	Total expenditure on SWM	Resource gap
15	Choudwar (M)	2016-17	0.00	0.00	0.00	0.00	0.00	0.83	0.83
16	Chandabali (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0	0.00
17	Berhampur (MC)	2016-17	0.00	0.00	0.00	0.00	0.00	5.67	5.67
18	Bargarh (M)	2016-17	0.00	0.00	0.00	0.00	0.00	0.68	0.68
19	Balangir (M)	2016-17	0.00	0.00	0.00	0.00	0.00	2.05	2.05
20	Baripada (M)	2016-17	0.00	0.00	0.00	0.00	0.00	0.19	0.19
21	Nuapada (NAC)	2016-17	0.00	0.00	0.00	0.00	0.00	0.38	0.38
	Total (B)		0.00	0.00	0.00	0.27	0.27	118.03	117.76
1	Bhubaneswar (MC)	2017-18	0.00	0.00	0.00	0.00	0.00	61.03	61.03
2	Bhadrak (M)	2017-18	0.00	0.00	0.00	0.00	0.00	2.37	2.37
3	Raygada (M)	2017-18	0.00	0.00	0.00	0.00	0.00	0.28	0.28
4	Hinjilicut (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.3	0.30
5	Cuttack (MC)	2017-18	0.00	0.00	0.00	0.00	0.00	24.35	24.35
6	Chhatrapur (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.79	0.79
7	Jeypore (M)	2017-18	0.00	0.00	0.00	0.00	0.00	2.11	2.11
8	Sundargarh (M)	2017-18	0.00	0.00	0.00	0.00	0.00	0.76	0.76
9	Rourkela (MC)	2017-18	0.00	0.00	0.00	0.00	0.00	11.83	11.83
10	Sambalpur (MC)	2017-18	0.00	0.00	0.00	0.00	0.00	7.94	7.94
11	Gunupur (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.17	0.17
12	Puri (M)	2017-18	0.00	0.00	0.00	0.08	0.08	1.48	1.40
13	Ranapur (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.38	0.38
14	Jharsuguda (M)	2017-18	0.00	0.00	0.00	0.00	0.00	2.33	2.33
15	Choudwar (M)	2017-18	0.00	0.00	0.00	0.00	0.00	1.14	1.14
16	Chandabali (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.33	0.33
17	Berhampur (MC)	2017-18	0.00	0.00	0.00	0.00	0.00	11.98	11.98
18	Bargarh (M)	2017-18	0.00	0.00	0.00	0.00	0.00	1.03	1.03
19	Balangir (M)	2017-18	0.00	0.00	0.00	0.00	0.00	1.79	1.79
20	Baripada (M)	2017-18	0.00	0.00	0.00	0.00	0.00	0.36	0.36
21	Nuapada (NAC)	2017-18	0.00	0.00	0.00	0.00	0.00	0.58	0.58
	Total (C)		0.00	0.00	0.00	0.08	0.08	133.33	133.25
1	Bhubaneswar MC)	2018-19	0.00	0.00	0.00	0.00	0.00	65.5	65.50
2	Bhadrak (M)	2018-19	0.00	0.00	0.00	0.00	0.00	2.46	2.46
3	Raygada (M)	2018-19	0.00	0.00	0.00	0.00	0.00	0.66	0.66
4	Hinjilicut (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0.87	0.87
5	Cuttack (MC)	2018-19	0.00	0.00	0.00	0.00	0.00	23.91	23.91
6	Chhatrapur (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0.85	0.85
7	Jeypore (M)	2018-19	0.00	0.00	0.00	0.00	0.00	2.22	2.22
8	Sundargarh (M)	2018-19	0.00	0.00	0.00	0.00	0.00	1.4	1.40
9	Rourkela (MC)	2018-19	0.00	0.00	0.00	0.00	0.00	5.93	5.93
10	Sambalpur (MC)	2018-19	0.00	0.00	0.00	0.00	0.00	7.18	7.18
11	Gunupur (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0	0.00
12	Puri (M)	2018-19	0.00	0.00	0.00	0.07	0.07	7.25	7.18

Sl. No	Name of the ULB	Year	Own revenue , expenditure and resource gap for SWM						
			Collection of cess for SWM	Auction sale on SWM	Sale on products like Mo khata	Sale on compost	Total revenue receipt	Total expenditure on SWM	Resource gap
13	Ranapur (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0.39	0.39
14	Jharsuguda (M)	2018-19	0.00	0.00	0.00	0.00	0.00	3.25	3.25
15	Choudwar (M)	2018-19	0.00	0.00	0.00	0.00	0.00	1.41	1.41
16	Chandabali (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0.38	0.38
17	Berhampur (MC)	2018-19	0.00	0.00	0.00	0.00	0.00	17.02	17.02
18	Bargarh (M)	2018-19	0.00	0.00	0.00	0.00	0.00	1.73	1.73
19	Balangir (M)	2018-19	0.00	0.00	0.00	0.00	0.00	2.74	2.74
20	Baripada (M)	2018-19	0.00	0.00	0.00	0.00	0.00	0.98	0.98
21	Nuapada (NAC)	2018-19	0.00	0.00	0.00	0.00	0.00	0.63	0.63
	Total (D)		0.00	0.00	0.00	0.07	0.07	146.76	146.69
1	Bhubaneswar MC)	2019-20	0.00	0.00	0.00	0.00	0.00	74.86	74.86
2	Bhadrak (M)	2019-20	0.00	0.00	0.00	0.00	0.00	3.16	3.16
3	Raygada (M)	2019-20	0.00	0.00	0.00	0.00	0.00	1.29	1.29
4	Hinjilicut (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	1.18	1.18
5	Cuttack (MC)	2019-20	0.00	0.00	0.00	0.00	0.00	24.04	24.04
6	Chhatrapur (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	1.39	1.39
7	Jeypore (M)	2019-20	0.00	0.00	0.00	0.00	0.00	2.9	2.90
8	Sundargarh (M)	2019-20	0.00	0.00	0.00	0.00	0.00	0.83	0.83
9	Rourkela (MC)	2019-20	0.00	0.00	0.00	0.00	0.00	10.48	10.48
10	Sambalpur (MC)	2019-20	0.00	0.00	0.00	0.00	0.00	8.92	8.92
11	Gunupur (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	0.32	0.32
12	Puri (M)	2019-20	0.00	0.00	0.00	0.01	0.01	6.68	6.67
13	Ranapur (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	0.38	0.38
14	Jharsuguda (M)	2019-20	0.00	0.00	0.00	0.00	0.00	3.85	3.85
15	Choudwar (M)	2019-20	0.00	0.00	0.00	0.00	0.00	1.83	1.83
16	Chandabali (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	0.83	0.83
17	Berhampur (MC)	2019-20	0.00	0.00	0.00	0.00	0.00	20.09	20.09
18	Bargarh (M)	2019-20	0.00	0.00	0.00	0.00	0.00	1.48	1.48
19	Balangir (M)	2019-20	0.00	0.00	0.00	0.00	0.00	1.32	1.32
20	Baripada (M)	2019-20	0.00	0.00	0.00	0.00	0.00	1.84	1.84
21	Nuapada (NAC)	2019-20	0.00	0.00	0.00	0.00	0.00	1.07	1.07
	Total (E)		0.00	0.00	0.00	0.01	0.01	168.74	168.73

(Source: Information furnished by test-checked ULBs)

Appendix-VI
(Refer paragraph 3.8.1 at page 17)

Variations in per capita estimation indicated by ULBs and as worked out by Audit for 2019-20

Sl.No	Name of the ULB	Base year Population as of 2011 census	Year	Population	Residual refuse (0.3)	Commercial refuse (0.10)	Street sweeping (0.05)	Institutional refuse (0.05)	Total in Kg/day (f+g+h+i)	Total in TPD k=j/1000	Waste generation by ULB in TPD	Difference M=I-k
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	Bhubaneswar (MC)	840834	2019-20	1107217.81	332165.34	110721.78	55360.89	55360.89	553608.90	553.61	520	-33.61
2	Cuttack (MC)	610189	2019-20	803502.40	241050.72	80350.24	40175.12	40175.12	401751.20	401.75	174.68	-227.07
3	Bhadrak (M)	107463	2019-20	141508.20	42452.46	14150.82	7075.41	7075.41	70754.10	70.75	90.00	19.25
4	Jeypore (M)	84830	2019-20	111704.90	33511.47	11170.49	5585.25	5585.25	55852.45	55.85	27.00	-28.85
5	Raygada (M)	71208	2019-20	93767.34	28130.20	9376.73	4688.37	4688.37	46883.67	46.88	27.00	-19.88
6	Puri (M)	200564	2019-20	264104.50	79231.35	26410.45	13205.23	13205.23	132052.25	132.05	110.00	-22.05
7	Hinjilicut (NAC)	24671	2019-20	32487.00	9746.10	3248.70	1624.35	1624.35	16243.50	16.24	18.00	1.76
8	Chhatrapur (NAC)	22027	2019-20	29005.35	8701.61	2900.54	1450.27	1450.27	14502.68	14.50	10.63	-3.87
9	Rourkela (MC)	272721	2019-20	359121.50	107736.45	35912.15	17956.08	17956.08	179560.75	179.56	120.00	-59.56
10	Sundargarh (M)	45036	2019-20	59303.81	17791.14	5930.38	2965.19	2965.19	29651.91	29.65	13.50	-16.15
11	Sambalpur (MC)	184000	2019-20	242292.86	72687.86	24229.29	12114.64	12114.64	121146.43	121.15	110.00	-11.15
12	Gunupur (NAC)	24162	2019-20	31816.74	9545.02	3181.67	1590.84	1590.84	15908.37	15.91	13.00	-2.91
13	Nuapada(NAC)	16208	2019-20	21342.84	6402.85	2134.28	1067.14	1067.14	10671.42	10.67	4.96	-5.71
14	Balangir (M)	98238	2019-20	129360.69	38808.21	12936.07	6468.03	6468.03	64680.34	64.68	26.02	-38.66
15	Bargarh (M)	80625	2019-20	106167.73	31850.32	10616.77	5308.39	5308.39	53083.86	53.08	42.00	-11.08
16	Ranapur (NAC)	21865	2019-20	28792.03	8637.61	2879.20	1439.60	1439.60	14396.01	14.40	2.00	-12.40
17	Baripada (M)	109743	2019-20	144510.57	43353.17	14451.06	7225.53	7225.53	72255.29	72.26	45.00	-27.26
18	Chandabali (NAC)	12515	2019-20	16479.87	4943.96	1647.99	823.99	823.99	8239.93	8.24	7.50	-0.74
19	Berhampur (MC)	356598	2019-20	469571.47	140871.44	46957.15	23478.57	23478.57	234785.73	234.79	143.00	-91.79
20	Choudwar (M)	42784	2019-20	56338.36	16901.51	5633.84	2816.92	2816.92	28169.18	28.17	12.84	-15.33
21	Jharsuguda (M)	97730	2019-20	128691.75	38607.52	12869.17	6434.59	6434.59	64345.87	64.35	28.82	-35.53

NB: minimum consideration taken as per Para 3.3.6.2 of MSW Manual 2000 and para 1.4.3.3 MSW Manual 2016 for 3.5 percent population growth, Source: Information furnished by test checked ULBs

Appendix-VII
(Refer paragraph 3.10 at page 18)

Design capacity requirement and provided for MCCs in test checked ULBs

Sl. No	Name of the ULB	Population in base year 2011	Population in 2019-20	No of house holds	Per capita waste generation in gm/day	Bio degradable waste in gm/day	Design capacity required in TPD	Design capacity provided in TPD	Excess (+)/ Less (-) provision in TPD
A	B	C	D	E= D/4.5	F	G=F/2	H=(1.5*G*E)/(150*2220)	I	J=I-H
1	Bhubneswar (MC)	840834	1107217.81	246048.40	580	290	321.41	207	-114.41
2	Cuttack (MC)	610189	803502.39	178556.09	234	117	94.10	81	-13.10
3	Sambalpur (MC)	184000	242292.86	53842.86	280	140	42.44	65	22.56
4	Rourkela (MC)	309689	359121.48	69609.00	350	175	54.87	45	-9.87
5	Berhampur (MC)	356598	469571.47	104349.22	370	185	86.96	0	-86.96
6	Puri (M)	200564	264104.49	58689.89	589	294.5	77.86	65	-12.86
7	Jeypore (M)	84830	111704.91	24823.31	300	150	16.77	10	-6.77
8	Jharsuguda (M)	97730	128691.75	28598.17	300	150	19.32	10	-9.32
9	Rayagada (M)	71208	93767.34	20837.19	245	122.5	11.50	15	3.50
10	Bolangir (M)	98238	129360.69	28746.82	264	132	17.16	15	-2.16
11	Baragada (M)	80625	106167.73	23592.83	350	175	18.60	10	-8.60
12	Bhadrak (M)	107463	141508.25	19636.00	214	107	9.46	8	-1.46
13	Sundargarh (M)	45036	57298.37	12732.97	300	150	8.60	15	6.40
14	Baripada (M)	109743	144510.57	32113.46	300	150	32.91	25	-7.91
15	Choudwar (M)	42784	56338.36	12519.64	300	150	8.46	8	-0.46
16	Chhatrapur (NAC)	22027	29005.35	6445.63	135	67.5	1.96	15	13.04
17	Hinjilicut (NAC)	24671	32487.00	7219.33	250	125	4.06	15	10.94
18	Chandabali NAC	12515	16479.87	3662.19	350	175	2.89	2	-0.89
19	Ranpur (NAC)	21865	28792.03	6398.23	150	75	1.01	3	1.99
20	Nuapada (NAC)	16208	21342.84	4742.85	250	125	2.67	3	0.33
21	Gunupur (NAC)	24162	31816.74	7070.39	450	225	7.17	10	2.83

(Source: information furnished by test checked ULBs and DMA)

NB1: 1.5 TPD capacity of MCC project could cater 10000 population or 2222 households (population= 4.5 times of households) for bio degradable waste of 150 gram/day as per SOP

NB:2 : Bio degradable waste taken as 50 percent of per capita waste generation (50 percent of waste generation) as per SOP

NB3: Population growth 3.5 percent per year considered as per MSW manual 2016

NB 4: For Berhampur Municipal Corporation, no MCC projects taken since the ULB has one centralised plant for waste processing

Hence Required capacity of MCC in TPD= $\frac{1.5 \text{ TPD} \times \text{No of Households required Bio degradable waste}}{2220 \times 150}$

Appendix-VIII
(Refer paragraph 4.2.1 at page 24)

Coverage of daily sweeping of roads by the test checked ULBs

Sl. No	Name of the ULB	No of wards	Total road distance KM	Daily coverage of road sweeping (in KM)	Percentage of Road sweeping made on daily basis	Percentage of non-coverage of roads for daily sweeping
1	Bhubaneswar (MC)	67	915.12	640.58	70	30
2	Bhadrak (M)	30	210	105.00	50	50
3	Raygada (M)	24	192	192.00	100	0
4	Hinjilicut (NAC)	21	82.8	57.96	70	30
5	Cuttack (MC)	59	860.57	774.51	90	10
6	Chhatrapur (NAC)	14	40	40.00	100	0
7	Jeypore (M)	28	45	11.25	25	75
8	Puri (M)	32	246.46	221.81	90	10
9	Sundargarh (M)	19	60.01	60.01	100	0
10	Rourkela (MC)	40	470.67	353.00	75	25
11	Sambalpur (M)	41	484	484.00	100	0
12	Gunupur (NAC)	17	201.54	185.42	92	8
13	Ranapur (NAC)	15	26.91	26.91	100	0
14	Baripada (M)	28	271	245.00	90	10
15	Chandabali (NAC)	15	52	19.00	37	63
16	Nuapada (NAC)	14	7.8	7.02	90	10
17	Balangir (M)	21	427	385.00	90	10
18	Bargarh (M)	19	425	300.00	70	30
19	Berhampur (MC)	40	439.78	439.78	100	0
20	Choudwar (M)	19	112	112.00	100	0
21	Jharsuguda (M)	24	397.5	149.35	37.57	62
	Total	587	5967.16	4809.6		

(Source: Information furnished by test-checked ULBs and ARs)

Uncovered KM = 5967.16 km – 4809.60 km = 1157.56 km being 19.39 percentage

Appendix-IX
(Refer paragraph 4.3.1 at page 29)

Details of BOVs/LCVs available with test checked ULBs for door to door collection of waste

Sl. No.	Name of the ULB	Total number of house holds	No of BOVs available with ULB	House holds covered by BOVs	No of LCVs available with ULB	Households covered by LCVs	Total house holds covered	Percentage of Shortfall in coverage
1	Bhubaneswar (MC)	211538	100	60000	150	150000	210000	0.73
2	Cuttack (MC)	164233	6	3600	25	25000	28600	82.59
3	Puri (M)	41140	20	12000	0	0	12000	70.83
4	Bhadrak (M)	19636	10	6000	4	4000	10000	49.07
5	Rayagada (M)	16362	5	3000	0	0	3000	81.66
6	Jeypore (M)	19973	20	12000	6	6000	18000	9.89
7	Hinjilicut (NAC)	6004	3	1800	2	2000	3800	36.71
8	Chhatrapur (NAC)	6089	0	0	3	3000	3000	50.73
9	Sundargarh (M)	11372	6	3600	10	10000	13600	Excess
10	Rourkela (MC)	69609	44	26400	15	15000	41400	20.05
11	Sambalpur (MC)	78803	0	0	63	63000	63000	19.18
12	Gunupur (NAC)	4700	6	3600	2	2000	5600	Excess
13	Ranapur (NAC)	1710	3	1800	0	0	1800	Excess
14	Baripada (M)	24718	10	6000	6	6000	12000	51.45
15	Chandabali (NAC)	5052	6	3600	0	0	3600	28.74
16	Nuapada (NAC)	3794	2	1200	4	4000	5200	Excess
17	Balangir (M)	21980	8	4800	0	0	4800	78.16
18	Bargarh (M)	20441	7	4200	5	5000	9200	54.99
19	Berhampur (MC)	70760	0	0	40	40000	40000	43.47
20	Choudwar (M)	9172	6	3600	0	0	3600	60.75
21	Jharsuguda (M)	22146	37	22200	0	0	22200	Excess
	Total	829232	299	179400	335	335000	514400	

(Source: Information furnished by test checked ULBs)

NB: As per the SOP, each BOV and LCV will cover 600 and 1000 households for door to door collection

To cover balance 314832 households= 314832/600=525 BOVs required

Total requirement= 299+335+525= 1,159 vehicles Total available vehicles= 299+335= 634

Appendix-X
(Refer paragraph 4.3.2.4 at page 31)

Excess quantity of solid waste transported to landfill due to non-adherence of 3R approaches

Year	Population	Per capita waste as per norms per day (350-400 gm/day) in kg	Per capita waste generated per day in gm as per report of BMC in kg	Waste generated in a year as per capita generation in MT as per BMC report E=B*D*365/1000	Waste to be generated as per norms in year in MT F=B*C*365/1000	Actual Transported quantity of waste to TTS in year MT during 2017-20	Amount paid in crore	Excess quantity in MT during the year I=G-F
A	B	C	D	E	F	G	H	I
2017-18	1033600	0.413	0.45	169768.80	155810.03	201948.35	47.04	46138.32
2018-19	1069776	0.418	0.45	175710.71	163215.72	228359.70	53.06	65143.98
2019-20	1107218	0.423	0.58	234398.05	170948.92	245644.60	56.69	74695.68
Total				579877.56	489974.68	675952.65	156.79	185977.97

- Base year 2011 population taken as 840834 as per 2011 Census for arriving population of the city for 2017
- Year wise population growth at rate 3.5 *per cent* taken as per Section 1.4.3.3 of MSW Manual 2016
- Waste quantity generation increasing by 1.3 percent as per Section 1.4.3.3 of MSW Manual 2016
- Minimum per capital waste generation taken as 400-600 g/capita/day in cities with a population above 10,00,000 as per Section 1.4.3.3 of MSW Manual 2016

Appendix-XI
(Refer paragraph 8.1.2 at page 72)

Status of committees prescribed to oversee the implementation of SWM

Sl.No	Committee (Chairperson)	Purpose	Remarks
1	State High Powered Committee (Chief Secretary)	To guide implementation of waste management in cities	Constituted in April 2017.
2	State Level Advisory Body	To review the matters related to implementation of SWM rules, state policy and strategy on SWM and give advice to State Government	Constituted in October 2017 and conducted three meetings till March 2021 against 12 meetings from 2015-21.
3	State level Committee (Retired Judge of High Court)	To guide implementation of waste management in cities	Constituted in February 2019. Conducted six meetings till March 2021
4	State Level Technical Committee under SBM	To examine the technical feasibility of SWM projects	Not constituted as of March 2021
5	State level Monitoring cell	To monitor the MCC/MRF and wealth centres	Constituted in October 2020. No inspection note issued.
6	District Level Review and Monitoring Committee (Member of Lok Sabha from the district)	To ensure successful implementation and monitoring of sanitation outcomes at district level as required Odisha Urban Sanitation Strategy 2017	Constituted in May 2015 Despite a lapse of five years, District Level Review and Monitoring Committees were yet to be conduct any meeting for waste management.
7	District level Review Committee (PD, DRDA/ DUDA)	To implement and monitor the SWM activities at district level	Despite a lapse of four years, District Level Review and Monitoring Committees were yet to be formed. Although District collectors reviewed the waste management, action taken report of previous meetings not addressed. H&UD department issued instruction in April 2019 to form the committee, no such committee was formed in test checked ULBs.
8	City Level Task Force	To review action plans and to review progress of SWM projects	Issued instructions by H&UD department in March 2019 for constitution of Task Force Committee for plastic waste
9	Ward Committees	To monitor SWM service provision at committee level and publicise contact details of ward committee members	No ward committee constituted in test checked ULBs

(Source: Information furnished by DMA, H&UD Department)

Appendix-XII

(Refer paragraph 8.1.7 at page 76)

Staff position (sanctioned strength as per norms, men-in-position and vacancy) for SWM activities in test-checked ULBs as on March 2020

Sl. No	Name Of the ULB	Populati on as per annual report	No of house hold as per annual report	Environment Engineer			Health Inspector			Sweeper		
				SS as per SWM guide line	MIP	Vacancy (-) / Excess (+)	SS as per SWM guide line	MIP	Vacancy (-) /Excess (+)	SS as SWM guide line	MIP	Vacancy (-) /Excess (+)
1	Balangir (M)	98238	21980	0	0	0	0	0	0	275	251	-24
2	Baragarh (M)	80625	20441	0	0	0	1	1	0	226	287	61
3	Baripada (M)	109743	24718	0	0	0	0	0	0	307	281	-26
4	Berhampur (MC)	356598	70760	0	0	0	1	1	0	996	1118	122
5	Bhadrak (M)	107643	19636	0	0	0	0	0	0	301	222	-79
6	Bhubaneswar (MC)	840834	201873	3	3	0	11	10	-1	2354	3064	710
7	Chandabali (NAC)	26848	5041	0	0	0	0	0	0	75	44	-31
8	Chhatrapur (NAC)	23633	6089	0	0	0	0	0	0	66	84	18
9	Choudwar (M)	42784	9172	0	0	0	0	0	0	120	155	35
10	Cuttack (MC)	739048	164233	1	0	-1	3	1	-2	2069	1088	-981
11	Gunupur (NAC)	28870	4700	0	0	0	0	0	0	81	100	19
12	Hinjilicut (NAC)	25129	6004	0	0	0	0	0	0	70	75	5
13	Jeypore (M)	84830	19973	0	0	0	0	0	0	238	252	14
14	Jharsuguda (M)	97730	22146	0	0	0	1	1	0	274	261	-13
15	Nuapada (NAC)	16208	3794	0	0	0	0	0	0	45	63	18
16	Puri (M)	200564	41140	0	0	0	1	1	0	562	649	87
17	Ranapur (NAC)	19500	2960	0	0	0	0	0	0	41	48	7
18	Rourkela (MC)	309689	69609	0	0	0	0	0	0	867	771	-96
19	Rayagada (M)	71208	16362	0	0	0	0	0	0	199	160	-39
20	Sambalpur (MC)	335761	78803	0	0	0	1	1	0	940	1400	460
21	Sundargarh (M)	45036	10127	0	0	0	1	0	-1	126	259	133
	Total			4	3	-1	20	16	-4	10232	10632	400

(Source: Information furnished by test-checked ULBs SS: Sanctioned strength; MIP: Men -in-position)

NB- 1. Sweeper Excess in six ULB for 1696, Less sweeper in six ULBs 1519 numbers

2. No Environmental engineer in two ULBs and excess environmental engineer in two ULBs for four nos.

3. Vacancies of Health Inspection in eight ULBs for 27 numbers