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Appendices

Appendix A

Carbon footprint of Electricity of the Department of Environmental Engineering

A-1 Calculation of carbon footprint from electricity (Oct' 06- Sep'07)

Month	Energy consumption(kWh)	Emissions(kgCO ₂ e)
October 2006	14,003	7,856
November 2006	11,223	6,296
December 2006	9,948	5,581
January 2007	11,615	6,516
February 2007	12,525	7,027
March 2007	12,105	6,791
April 2007	12,105	6,791
May 2007	17,643	9,898
June 2007	13,498	7,572
July 2007	15,553	8,725
August 2007	10,864	6,095
September 2007	12,826	7,195
Total	153,908	86,342

A-2 Calculation of carbon footprint from electricity (Oct '07 – Sep'08)

Month	Energy consumption(kWh)	Emissions(kgCO ₂ e)
October 2007	12,356	6,932
November 2007	11,670	6,547
December 2007	11,499	6,451
January 2008	11,742	6,587
February 2008	12,267	6,881
March 2008	12,406	6,959
April 2008	11,509	6,457
May 2008	11,335	6,359
June 2008	12,983	7,283
July 2008	12,914	7,245
August 2008	12,737	7,145
September 2008	12,494	7,009
Total	145,917	81,859

A-3 Calculation of carbon footprint from electricity (Oct'08 – Sep'09)

Month	Energy consumption(kWh)	Emissions(kgCO ₂ e)
October 2008	13,257	7,437
November 2008	13,199	7,405
December 2008	12,984	7,284
January 2009	12,731	7,142
February 2009	17,145	9,618
March 2009	16,910	9,487
April 2009	8,765	4,917
May 2009	9,190	5,156
June 2009	9,975	5,596
July 2009	12,600	7,069
August 2009	12,600	7,069
September 2009	12,600	7,069
Total	151,955	85,247

A-4 Calculation of carbon footprint from electricity (Oct'09 – Sep'10)

Month	Energy consumption(kWh)	Emissions(kgCO ₂ e)
October 2009	15,430	8,656
November 2009	14,133	7,928
December 2009	12,812	7,187
January 2010	12,703	7,126
February 2010	14,200	7,966
March 2010	13,522	7,586
April 2010	11,226	6,298
May 2010	10,237	5,743
June 2010	16,234	9,107
July 2010	N/A	N/A
August 2010	N/A	N/A
September 2010	N/A	N/A
Total	N/A	N/A

Appendix B

Carbon footprint of Energy use of the Department of Environmental Engineering

B-1 Carbon footprint of Laboratory of the department of Environmental Engineering

Laboratory	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
Water Laboratory	Air-conditioner	1856	1	9	16.70	3507.22	1967.548
	Light	45	24	9	9.81	2059.34	1155.292
	Computer	120	1	6	0.72	151.20	84.823
	Spectrophotometer	40	1	4	0.16	33.60	18.823
	Shaker	30	1	4	0.12	25.20	14.137
	Hot plate	450	1	4	1.80	378.00	212.058
	Notebook	20	3	8	0.48	100.80	56.549
Wastewater Laboratory	Air-conditioner	3093	1	8	24.74	5195.88	2914.887
	Light	45	26	8	9.44	1983.07	1112.503
	Vacuum pump	186	1	4	0.74	156.24	87.651
	Centrifuge	1200	1	2	2.40	88.80	49.817
	UV-VIS Spectrophotometer	250	1	4	1.00	210.00	117.810
	Oven	1200	1	4	4.80	1008.00	565.488
	Notebook	20	3	8	0.48	100.80	56.549
	Refrigerator	120	3	24	8.64	3153.60	1769.170
Biological Laboratory	Air-conditioner	3093	1	6	18.56	686.60	385.181
	Light	45	36	6	9.81	362.84	203.551
	Water bath	660	1	4	2.64	97.68	54.798
	Shaking water bath	660	1	4	2.64	97.68	54.798

Laboratory	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
	Incubator	1600	1	4	6.40	236.80	132.845
	Oven	400	1	4	1.60	59.20	33.211
	Laminar flow	80	1	4	0.32	11.84	6.642
	Hot plate	450	1	4	1.80	66.60	37.363
	Vacuum pump	186.5	1	4	0.75	27.60	15.485
Air Laboratory 1	Air-conditioner	1856	1	9	16.70	3507.22	1967.548
	Light	45	24	9	9.81	2059.34	1155.292
	Computer	120	2	8	1.92	384.00	215.424
Laboratory for Bachelor degree	Air-conditioner	1856	2	6	22.27	823.92	462.218
	Light	45	48	6	13.08	483.78	217.402
	Incubator	680	1	4	2.72	100.64	56.459
	Hot Plate Magnetic Stirrer	450	3	4	5.40	199.80	112.088
	Over-head Stirrer	500	2	4	4.00	148.00	83.028
	Spectrophotometer	40	3	4	0.48	17.76	9.963
	UV-VIS Spectrophotometer	250	2	4	2.00	74.00	41.514
	Vacuum Pump	186.5	1	4	0.75	27.60	15.485
	Oven	1600	1	4	6.40	236.80	132.845
	Water Bath	660	1	4	2.64	97.68	54.798
	Carbolite Furnace	2330	1	2	4.66	172.42	96.728
	Serial Flask Heater	2700	9	2	48.60	2430.00	1363.230
	Steam Bath (Big)	2000	2	4	16.00	592.00	332.112
	Steam Bath (Small)	1000	2	4	8.00	296.00	166.056
	Vertical Scrubber	218	1	4	0.87	32.26	18.100

Laboratory	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
Laboratory for master degree research	Light	45	62	9	25.32	5319.97	2984.230
	Ceiling Fan	50	8	9	3.60	756.00	424.116
	Jar Test Equipment	110	2	4	0.88	184.80	103.673
	Vacuum Pump	186.5	3	4	2.24	469.98	263.659
	Refrigerator	120	1	24	2.88	1051.20	589.723
Waste Laboratory	Air-conditioner	1320	1	4	5.28	1108.45	621.842
	Light	45	34	4	6.17	1296.62	727.406
	Ceiling Fan	50	3	4	0.60	126.00	70.686
	Bomb Calorimeter	300	1	4	1.20	252.00	141.372
	Muffle Furnace	1750	1	4	7.00	1470.00	824.670
	Oven	2200	1	4	8.80	1848.00	1036.728
	Refrigerator	120	1	24	2.88	1051.20	589.723
	Vacuum Pump	186.5	1	4	0.75	156.66	87.886
	Notebook	20	3	8	0.48	100.80	56.549
OECF Laboratory (Waste Treatment Center)	Air-conditioner	1856	1	4	7.42	1558.76	874.466
	Light	45	16	4	2.91	610.18	342.309
	Gas Chromatography (GC)	4100	2	4	32.80	1312.00	736.032
	Inductively coupled plasma (ICP)	1200	1	4	4.80	1008.00	565.488
	High-performance liquid chromatography (HPLC)	1400	1	4	5.60	140.00	78.540
	Particle Size Analysis	6500	1	4	26.00	5460.00	3063.060
	Furnace	1750	1	4	7.00	1470.00	824.670

Laboratory	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
ADB Laboratory (Hazardous Waste Lab)	Air-conditioner	1320	2	4	10.56	2261.91	1243.685
	Light	45	16	4	2.91	610.18	342.309
	Oven	1200	2	4	9.60	2016.00	1130.976
	Freezer	146	1	24	3.50	1278.96	717.497
	Thermogravimetric and Differential Thermal Analysis (TGA/DTA)	3300	1	4	13.20	2772.00	1555.092
	Gas Chromatography (GC)	4100	1	8	32.80	1312.00	736.032
	High-performance liquid chromatography (HPLC)	1400	1	4	5.60	207.20	116.239
	Ion Chromatography	2550	2	4	20.40	754.80	423.443
	Atomic Absorption Spectrophotometry (AAS)	220	2	4	1.76	369.60	207.346
	Deionization (DI) system	700	2	4	5.60	1176.00	659.736
	Water Bath	660	1	4	2.64	554.40	311.018
	Shaker	30	2	4	0.24	50.40	28.274
	Vacuum Pump	170	2	4	1.36	50.32	28.230
	Microwave Digester	2120	1	2	4.24	890.40	499.514
	Hot Plate	450	1	4	1.80	378.00	212.058
	Stirrer	500	1	4	2.00	420.00	235.620
	Fourier Transform Infrared Spectroscopy (FTIR)	1150	1	4	4.60	170.20	95.482
	Particle Size Analysis	6500	1	4	26.00	650.00	364.650
	Notebook	20	3	8	0.48	100.80	56.549

B-2 Carbon footprint of office of the department of Environmental Engineering

Office	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
#1	Air-conditioner	3093	1	9	27.84	6680.41	3747.711
	Light	45	20	9	8.17	1961.28	1100.278
	Computer	120	3	8	2.88	691.20	387.763
	Copy machine	4000	1	1	4.00	960.00	538.560
	Television	70	1	3	0.21	50.40	28.274
	Refrigerator	120	1	24	2.88	1051.20	589.723
#2	Air-conditioner	1320	1	8	10.56	1646.85	923.880
	Light	45	16	8	5.18	906.55	508.573
	Computer	120	3	8	2.88	449.28	252.046
#3	Air-conditioner	1320	1	6	7.92	1662.68	932.764
	Light	45	4	6	1.09	228.82	128.366
	Computer	120	1	6	0.72	151.20	84.823
	Laser jet printer	300	1	1	0.30	63.00	35.343
#4	Air-conditioner	1856	1	7	12.99	2727.84	1530.315
	Light	45	8	7	2.54	533.90	299.520
	Computer	120	2	7	1.68	352.80	197.921
	Kettle	1400	1	2	2.80	588.00	329.868
#5	Air-conditioner	1320	1	6	7.92	1662.68	932.764
	Light	45	1	6	0.27	57.20	32.091
	Computer	120	1	6	0.72	151.20	84.823
	Notebook	20	1	6	0.12	25.20	14.137

Office	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
#6	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	2	8	1.92	403.20	226.195
	Laser jet printer	300	2	1	0.60	126.00	70.686
#7	Air-conditioner	1320	1	7	9.24	1939.79	1088.224
	Light	45	3	7	0.95	200.21	112.320
	Computer	120	1	5	0.60	126.00	70.686
#8	Air-conditioner	1320	1	7	9.24	1939.79	1088.224
	Light	45	2	7	0.64	133.48	74.880
	Computer	120	2	7	1.68	352.80	197.921
	Laser jet printer	300	1	1	0.30	63.00	35.343
	Ceiling fan	74	1	1	0.07	15.54	8.718
	Air-conditioner	1320	1	6	7.92	1662.68	932.764
#9	Light	45	3	6	0.82	171.61	96.274
	Computer	120	1	6	0.72	151.20	84.823
	Air-conditioner	1320	1	6	7.92	1662.68	932.764
#10	Light	45	3	6	0.82	171.61	96.274
	Computer	120	1	6	0.72	151.20	84.823
	Notebook	20	1	3	0.06	12.60	7.069
#11	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	2	8	1.92	403.20	226.195
	Copy machine	1000	1	1	1.00	210.00	117.810
	Laser jet printer	300	2	1	0.60	126.00	70.686
	Refrigerator	120	1	24	2.88	1051.20	589.723

Office	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
	Kettle	1400	1	2	2.80	588.00	329.868
#12	Air-conditioner	1320	1	4	5.28	195.30	109.563
	Light	45	3	2	0.27	10.08	5.654
	Notebook	20	1	4	0.08	2.96	1.661
#13	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	1	8	0.96	201.60	113.098
	Laser jet printer	300	1	1	0.30	63.00	35.343
#14	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	1	8	0.96	201.60	113.098
	Laser jet printer	300	1	1	0.30	63.00	35.343
#15	Air-conditioner	1320	1	4	5.28	585.90	328.688
	Light	45	3	8	1.09	40.32	22.617
	Computer	120	1	8	0.96	35.52	19.927
	Laser jet printer	300	1	1	0.30	11.10	6.227
#16	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	1	8	0.96	201.60	113.098
	Laser jet printer	300	1	1	0.30	63.00	35.343
#17	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	1	8	0.96	201.60	113.098
	Laser jet printer	300	1	1	0.30	63.00	35.343

Office	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
#18	Air-conditioner	1320	1	4	5.28	585.90	328.688
	Light	45	3	8	1.09	40.32	22.617
	Computer	120	1	8	0.96	35.52	19.927
	Laser jet printer	300	1	1	0.30	11.10	6.227
#19	Air-conditioner	1320	1	3	3.96	617.57	346.455
	Light	45	3	8	1.09	169.98	95.357
	Computer	120	1	8	0.96	149.76	84.015
	Laser jet printer	300	1	1	0.30	46.80	26.255
#20	Air-conditioner	1320	1	8	10.56	2216.91	1243.685
	Light	45	3	8	1.09	228.82	128.366
	Computer	120	1	8	0.96	201.60	113.098
	Laser jet printer	300	1	1	0.30	63.00	35.343
#21	Air-conditioner	3093	1	9	27.84	5845.36	3279.247
	Light	45	12	9	4.90	1029.67	577.646
	Computer	120	1	9	1.08	226.80	127.235
	Laser jet printer	300	1	1	0.30	63.00	35.343
#22	Air-conditioner	1320	1	7	9.24	1939.79	1088.224
	Light	45	4	7	1.27	305.09	171.154
	Computer	120	1	7	0.84	201.60	113.098
	Laser jet printer	300	1	1	0.30	72.00	40.392
#23	Air-conditioner	3093	1	9	27.84	6680.41	3747.711
	Light	45	20	9	8.17	1961.28	1100.278
	Computer	120	3	8	2.88	691.20	387.763
	Copy machine	4000	1	1	4.00	960.00	538.560

B-3 Carbon footprint of other part of the department of Environmental Engineering

Other	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
Bachelor Degree Room	Air-conditioner	1856	1	2	3.71	779.38	437.233
	Light	45	42	2	3.81	800.86	449.280
	Notebook	20	3	2	0.12	25.20	14.137
Master Degree Room	Air-conditioner	1856	1	9	16.70	3507.22	1967.548
	Light	45	22	9	8.99	1887.73	1059.018
	Notebook	20	3	9	0.54	113.40	63.617
Hallway	Ceiling Fan	50	2	1	0.10	24.00	13.464
	Light	45	12	5	2.72	653.76	366.759
Men Restroom	1 Light	45	1	5	0.23	54.48	30.563
	2 Light	45	1	5	0.23	54.48	30.563
	3 Light	45	1	5	0.23	54.48	30.563
	4 Light	45	1	5	0.23	54.48	30.563
	5 Light	45	1	5	0.23	54.48	30.563
Women Restroom	1 Light	45	1	5	0.23	54.48	30.563
	2 Light	45	1	5	0.23	54.48	30.563
	3 Light	45	1	5	0.23	54.48	30.563
	4 Light	45	1	5	0.23	54.48	30.563
	5 Light	45	1	5	0.23	54.48	30.563
Library	Air-conditioner	1320	1	2	2.64	97.65	54.781
	Light	45	30	2	2.72	100.79	56.542
Seminar/Classroom 2 nd Fl.	Air-conditioner	1320	1	8	10.56	390.60	219.125
	Light	45	24	8	8.72	322.52	180.935
	Overhead	150	2	8	2.40	88.80	49.817

Other	Major Energy Consumers	Energy Consumption (W)	Units	Duration (hrs./d)	Estimated Energy Consumption (kWh/d)	Estimated Annual Energy Consumption (kWh)	GHG Emissions (kgCO ₂ e)
	Loudspeaker	60	2	8	0.96	35.52	19.927
Seminar/Classroom 4 th Fl.	Air-conditioner	1320	1	8	10.56	390.60	219.125
	Light	45	24	8	8.72	322.52	180.935
	Computer	120	1	8	0.96	35.52	19.927
	Ceiling Fan	50	1	8	0.40	14.80	8.303
	Projector	210	1	8	1.68	62.16	34.872

Appendix C

Carbon footprint of Transportation in the Department of Environmental Engineering

C-1 Carbon footprint of Daily Commuting

Staff	Fuel Type	People in car (person)	Distance (km/d)	Total annual distance traveled by employee (km)	Distance/ person	Approximate fuel used (l)	Approximate fuel use attributable to employee (l)	EF (kgCO ₂ e/km)	GHG emission (kgCO ₂ e)
#1	Diesel/2000	3	30	7780	2593	571.69	190.56	2.708	417.2540
#2	Gasohol 95/1600	2	35	9080	4540	536.29	268.15	2.1896	587.1312
#3	Gasoline 95/1800	4	20	5180	1295	375.47	93.87	2.1896	205.5329
#4	Gasohol 95/1800	1	20	5180	5180	337.92	337.92	2.1896	739.9185
#5	Gasohol 91/1600	1	24	6220	6220	405.77	405.77	2.1896	888.4735
#6	Gasoline 91/1500	1	10	2580	2580	145.19	145.19	2.1896	317.9048
#7	Gasohol 91/2000	1	5	1280	1280	104.51	104.51	2.1896	228.8282
#8	Gasohol 95/1600	1	15	3880	3880	229.16	229.16	2.1896	501.7773
#9	Gasohol 91/1600	2	30	7780	3890	459.51	229.75	2.1896	503.0706
#10	Gasohol 95/2000	2	25	6480	3240	476.16	238.08	2.1896	521.2993
#11	Gasohol 95/2000	4	40	10380	2595	762.74	190.68	2.1896	417.5221
#12	Gasohol 91/2000	1	20	5180	5180	380.63	380.63	2.1896	833.4353
#13	Gasohol 95/2000	1	5	1280	1280	104.51	104.51	2.1896	228.8282
#14	Gasohol 95/1600	1	70	18180	18180	1073.76	1073.76	2.1896	2351.1114
#15	Diesel/2000	1	28	7260	7260	592.75	592.75	2.708	1297.8850
#16	Gasohol 95/1600	1	6	1540	1540	90.96	90.96	2.1896	199.1590
#17	Gasohol 95/1600	1	10	2580	2580	152.38	152.38	2.1896	333.6561

Staff	Fuel Type	People in car (person)	Distance (km/d)	Total annual distance traveled by employee (km)	Distance/ person	Approximate fuel used (l)	Approximate fuel use attributable to employee (l)	EF (kgCO ₂ e/km)	GHG emission (kgCO ₂ e)
#18	Gasohol 91/1500	2	65	16880	8440	854.92	427.46	2.1896	935.9708
#19	Gasohol 95/1800	2	20	5180	2590	337.92	219.13	2.1896	396.9592
#20	Gasohol 95/2000	2	26	6740	3370	495.26	247.63	2.1896	542.2156
#21	Gasohol 95/1500	3	50	12980	4327	657.40	219.13	2.1896	479.8144
#22	Gasohol 91/1500	2	40	10380	5190	525.72	262.86	2.1896	575.5555
#23	Gasoline 95/1500	1	40	10380	10380	584.13	584.13	2.1896	1279.0123

C-2 Carbon footprint of research ground travel

Staff	Van			Car			GHG emissions (kgCO ₂ e)
	Frequency (round/year)	Distance (km/round)	Total distance (km)	Frequency (round/year)	Distance (km/round)	Total distance (km)	
#1						2000	3504
#2	4	250	1000	50	40	2000	
#3	10	300	3000				
#4	5	200	1000	5	200	1000	
#5	5	50	250	20	20	400	
#6	6	66.66	400				
#7			4000				
#8	2	200	400				

C-3 Carbon footprint of research air travel

staff	Domestic air travel			International air travel			EF (kgCO ₂ e/ km)	GHG emissions (kgCO ₂ e)
	Frequency (round/year)	Distance (km/round)	Total distance (km)	Frequency (round/year)	Distance (km/round)	Total distance (km)		
#1		5000	5000				0.126	25038
#2	2	2000	4000	1	15000	15000		
#3	4	1800	7200	1	12000	12000		
#4	4	1250	5000	1	10000	10000		
#5	2	2000	4000	2	10000	20000		
#6	2	1000	2000	2	12000	24000		
#7	2	1000	2000	1	5000	5000		
#8	1	2000	2000	1	5000	5000		
#9	2	1000	2000					
#10	10		12000	2	9200	18400		

Appendix D

Data requirement for calculation of emission factor from Wastewater

D-1 includes default maximum CH₄ producing capacity (B₀) for domestic wastewater. (IPCC, 2006 Vol.6)

DEFAULT MAXIMUM CH ₄ PRODUCING CAPACITY (B ₀) FOR DOMESTIC WASTEWATER
0.6 kg CH ₄ /kg BOD
0.25 kg CH ₄ /kg COD
Based on expert judgment by lead authors and on Doorn <i>et al.</i> , (1997)

D-2 Default MCF values. (IPCC, 2006 Vol.6)

DEFAULT MCP VALUES FOR DOMESTIC WASTEWATER			
Type of treatment and discharge pathway or system	Comments	MCF ¹	Range
Untreated system			
Sea, river and lake discharge	Rivers with high organics loadings can turn anaerobic.	0.1	0 – 0.2
Stagnant sewer	Open and warm	0.5	0.4 – 0.8
Flowing sewer (open or closed)	Fast moving, clean. (Insignificant amounts of CH ₄ from pump stations, etc)	0	0
Treated system			
Centralized, aerobic treatment plant	Must be well managed. Some CH ₄ can be emitted from settling basins and other pockets.	0	0 – 0.1
Centralized, aerobic treatment plant	Not well managed. Overloaded.	0.3	0.2 – 0.4
Anaerobic digester for sludge	CH ₄ recovery is not considered here.	0.8	0.8 – 1.0

Type of treatment and discharge pathway or system	Comments	MCF ¹	Range
Anaerobic reactor	CH ₄ recovery is not considered here.	0.8	0.8 – 1.0
Anaerobic shallow lagoon	Depth less than 2 metres, use expert judgment.	0.2	0 – 0.3
Anaerobic deep lagoon	Depth more than 2 metres	0.8	0.8 – 1.0
Septic system	Half of BOD settles in anaerobic tank.	0.5	0.5
Latrine	Dry climate, ground water table lower than latrine. small family (3-5 persons)	0.1	0.05 – 0.15
Latrine	Dry climate, ground water table lower than latrine, communal (many users)	0.5	0.4 – 0.6
Latrine	Wet climate/flush water use. ground water table higher than latrine	0.7	0.7 – 1.0
Latrine	Regular sediment removal for fertilizer	0.1	0.1
¹ Based on expert judgment by lead authors of this section.			

D-3 Data collection of waste disposal of the department. (16/8/10-10/9/10)

Day (16/8/10 -20/8/10)/Floor	Mon (kg)	Tue (kg)	Wed (kg)	Thu (kg)	Fri (kg)
1	2.1	3.5	3.6	0.5	3.4
3	7	4	2.4	3.6	4.3
4	5.4	3.3	2.2	4.4	8
5	3.9	2.4	2.5	2.4	4
Other	0.1	0.5	0.4	0.9	0.7
Day (23/8/10 -27/8/10)/Floor					
1	1.4	2.7	4.4	1.2	3.8
3	3.4	2.8	2.6	3.4	2.5
4	3.9	4.1	2	2.9	6

	Mon (kg)	Tue (kg)	Wed (kg)	Thu (kg)	Fri (kg)
5	2.7	1.2	3.9	3.3	1.5
Other	1	0.2	0.1	0.9	0.8
Day (30/8/10 - 3/9/10)/Floor					
1	1.7	3.5	4	0.9	2.7
3	4	4	2.4	2.4	2.8
4	5.8	3.3	2	4.4	3.1
5	1.9	2.4	3.2	3.2	1.6
Other	0.5	0.5	0.3	0.6	0.6
Day (6/9/10 - 10/9/10)/Floor					
1	1.6	4.2	4	1	3
3	3.7	6.3	2.2	1.1	3.1
4	8	3.5	1.8	8	0.6
5	1.1	3.5	3.2	5	0.3
Other	0.5	0.7	0.3	0.1	0.3

BIOGRAPHY

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