

Table 1.0 : Sector wise energy demand in GTA (Base, 2006)

Sector	Total Energy Consumption (MWh)	Coal	Oil	Gas	Electricity	Coke, etc.	Crude Petroleum Products	Gasoline (Natural Gas, Fuel Oil, Kerosene)			Lube Oil	Other Petroleum Products	Railway Oil	UPG	Natural Gas	LPG	City Gas	Total District Power	Commercial Power	Domestic Power	Factor
								Gasoline	Natural Gas	Fuel Oil											
1	30,335	27,377	86	248	0	0	0	1,895	3,238	3,138	0	0	843	761	17,028	2,958					
2	16,754	12,911	26	248	0	0	0	374	2,070	2,248	0	0	943	138	3,328	0	0	0	0	0	
3	10,254	14,551	85	248	0	0	0	374	2,070	2,248	0	0	943	138	3,328	0	0	0	0	0	
4	2,394	2,273	0	0	0	0	0	210	940	247	0	0	0	26	790	0	0	0	0	0	
5	1,372	882	0	0	0	0	0	46	190	130	0	0	0	11	514	0	0	0	0	0	
6	109	74	0	0	0	0	0	9	29	151	0	0	0	0	21	0	0	0	0	0	
7	395	312	0	0	0	0	0	3	41	29	0	0	0	1	180	0	0	0	0	0	
8	1,315	1,227	4	2	0	0	0	3	186	55	0	0	0	8	610	0	0	0	0	0	
9	3,500	3,414	43	5	0	0	0	36	244	1,999	0	0	0	169	6	1,272	0	0	0	0	
10	4,949	4,368	41	234	0	0	0	2,124	1,892	336	0	0	0	29	3,706	0	0	0	0	0	
11	1,431	1,108	1	234	0	0	0	47	207	78	0	0	0	54	918	0	0	0	0	0	
12	931	813	0	4	0	0	0	4	6	6	0	0	0	2	450	0	0	0	0	0	
13	12,050	10,805	0	4	0	0	0	1,328	1,027	207	0	0	0	823	7,314	0	0	0	0	0	
14	19,830	9,644	0	0	0	0	0	1,459	942	0	0	0	0	561	6,683	0	0	0	0	0	
15	1,436	1,181	0	0	0	0	0	66	106	207	0	0	0	47	802	0	0	0	0	0	
16	2,011	2,011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	1,029	1,040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	981	981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	6,925	7,700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Table 3.1 : District wise SOx emission quantity (Best, 2005)

District	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
<b>1 Gandhinagar</b>																						
Industrial Non-Ferrous Unit	17	3.3	3.5	22.2	17.7	8.0	3.9	4.2	21.8	1.7	7.0	5.1	3.9	20.2	5.1	3.9	20.2	5.1	3.9	20.2	184.5	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Energy Conversion (Sub-total)	4.7	1.3	3.5	22.2	17.7	8.0	3.9	4.2	21.8	1.7	7.0	5.1	3.9	20.2	5.1	3.9	20.2	5.1	3.9	20.2	184.5	
<b>2 Sakinaka</b>																						
Industrial Non-Ferrous Unit	26.6	10.6	53.6	109.7	118.2	64.0	10.2	33.4	170.7	12.2	51.9	69.3	51.9	17.3	49.7	54.6	21.4	106.6	42.7	190.2	1,374.0	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Households	277.7	370.5	215.9	45.6	395.3	254.7	223.8	321.8	195.2	273.3	731.7	729.9	179.7	338.0	441.0	239.8	298.8	241.0	173.1	257.1	2,571.1	5,407.0
Energy Conversion (Sub-total)	203.5	331.1	206.1	590.6	427.8	329.7	269.5	364.3	224.9	265.6	233.6	333.2	222.6	346.4	460.7	314.9	260.2	437.6	219.8	447.3	3,623.4	
<b>3 One Od</b>																						
Industrial Non-Ferrous Unit	80.4	22.1	107.5	239.0	209.0	153.9	35.2	81.1	295.2	21.0	80.4	100.0	119.3	29.3	104.6	104.6	47.8	442.6	173.1	437.3	2,482.7	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Households	56.9	82.9	99.7	120.0	60.1	69.3	73.9	64.9	62.9	71.9	64.9	62.9	65.3	89.8	117.9	99.3	71.5	99.0	48.3	54.3	1,471.9	
Energy Conversion (Sub-total)	177.9	105.1	150.2	357.9	349.4	289.2	108.8	145.6	354.7	84.0	145.3	189.8	164.6	119.1	234.8	179.4	119.2	578.1	148.6	475.1	4,457.7	
<b>4 Haveri</b>																						
Industrial Non-Ferrous Unit	96.9	88.4	1,501.3	4,739.7	8,256.5	3,548.4	1,722.6	1,079.0	6,432.6	608.0	1,072.0	2,781.0	2,781.0	744.6	6,601.2	6,654.2	1,319.7	22,871.7	10,739.2	36,453.9	1,72,801.9	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Households	248.7	342.0	371.6	954.1	375.1	917.2	877.4	654.3	422.4	654.3	422.4	410.0	410.0	734.6	1,205.1	673.1	673.1	703.2	498.6	617.7	13,774.4	
Energy Conversion (Sub-total)	1,273.7	1,248.4	1,872.9	4,664.8	8,632.7	4,465.6	2,600.7	2,722.3	6,888.1	1,292.1	2,488.8	6,000.2	2,444.3	1,479.4	8,173.8	17,289.2	1,002.0	23,431.4	10,672.5	64,377.0	174,148.6	
<b>5 Raichur</b>																						
Industrial Non-Ferrous Unit	4.1	2.2	9.0	30.2	33.5	17.6	5.2	7.5	43.6	2.2	8.6	13.0	19.6	2.7	13.4	9.4	53.2	12.2	45.9	12.2	349.7	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Households	65.1	81.6	61.0	130.9	84.4	70.9	79.4	92.4	98.2	78.9	66.3	86.1	49.3	97.6	127.7	73.1	77.7	70.0	50.2	74.2	1,600.8	
Energy Conversion (Sub-total)	69.2	83.7	70.6	170.6	120.9	88.7	84.6	99.9	98.8	81.2	77.0	98.7	68.3	100.4	145.1	84.5	85.1	130.7	62.3	110.8	1,644.5	
<b>6 Bidar</b>																						
Industrial Non-Ferrous Unit	2.0	1.6	7.6	33.8	20.6	14.9	3.3	4.2	38.6	1.5	8.4	10.6	19.2	1.7	13.0	8.3	7.5	67.2	16.0	69.2	331.4	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial Households	65.1	81.6	61.0	130.9	84.4	70.9	79.4	92.4	98.2	78.9	66.3	86.1	49.3	97.6	127.7	73.1	77.7	70.0	50.2	74.2	1,600.8	
Energy Conversion (Sub-total)	67.1	83.2	68.6	170.6	120.9	85.7	84.6	99.9	98.8	81.2	77.0	98.7	68.3	100.4	145.1	84.5	85.1	130.7	62.3	110.8	1,644.5	
<b>7 Bellary</b>																						
Industrial Non-Ferrous Unit	73.3	237.4	340.4	4,616.5	2,325.1	1,139.1	379.8	919.8	2,612.7	283.0	606.5	1,345.0	1,043.5	219.4	994.1	734.1	817.5	4,246.4	1,190.9	4,620.0	29,331.2	
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Commercial Households	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Energy Conversion (Sub-total)	73.3	237.4	340.4	4,616.5	2,325.1	1,139.1	379.8	919.8	2,612.7	283.0	606.5	1,345.0	1,043.5	219.4	994.1	734.1	817.5	4,246.4	1,190.9	4,620.0	29,331.2	
<b>8 Mysore</b>																						
Industrial Non-Ferrous Unit	1,165.4	1,161.6	2,019.6	9,237.6	11,053.8	4,974.9	1,689.4	2,659.0	9,872.0	690.3	2,704.9	4,301.7	3,534.9	1,094.2	7,157.1	7,270.3	2,226.1	11,518.1	44,809.4	197,294.4		
Industrial Big Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Commercial Households	607.9	884.4	772.5	1,684.9	875.0	1,211.0	1,269.8	1,139.7	736.1	1,094.0	1,441.9	3,783.1	684.7	1,279.6	1,916.2	1,067.4	1,105.7	1,142.6	778.8	1,031.6	7,429.3	
Energy Conversion (Sub-total)	1,816.3	2,046.0	2,792.1	10,922.5	11,927.2	6,285.9	2,959.2	3,798.0	10,608.6	2,027.7	4,116.6	8,084.8	4,219.7	2,383.9	9,086.8	19,616.0	3,333.2	29,972.0	17,293.9	70,340.7	2,71,493.5	

Table 3.2 : District wise NOx emission quantity (Best, 2005)

Sl. No.	District	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
1	Gwalior	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
2	Kanpur	96.0	19.4	96.7	194.7	217.6	184.6	29.6	61.5	206.9	22.6	86.9	111.0	85.7	31.9	91.6	100.7	36.4	362.4	78.6	359.3	2,491.4	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
3	Mathura	297.3	193.6	490.9	1,179.4	1,261.6	786.1	164.9	289.6	1,383.5	96.7	377.9	473.0	590.1	138.4	490.4	490.3	229.3	2,074.9	443.3	2,049.6	13,329.9	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
4	Meerut	139.0	115.9	198.9	534.9	1,084.2	499.9	165.9	219.8	892.3	69.8	268.0	366.8	391.8	86.2	862.6	899.2	174.9	2,870.2	1,348.3	924.4	19,290.8	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
5	Muzaffarnagar	146.3	135.7	218.7	566.7	1,144.7	520.0	207.3	748.3	895.1	116.3	268.8	547.2	574.2	138.8	688.2	2,104.0	211.9	3,028.1	3,378.4	8,873.7	22,407.9	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
6	Noida	142.4	111.9	639.2	2,369.2	2,089.9	1,046.4	229.8	264.9	2,649.8	108.1	447.3	741.4	1,142.2	116.2	811.9	879.5	825.6	4,014.3	1,123.7	4,149.3	23,227.0	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
7	Rohtak	29.8	194.7	138.5	1,959.2	945.8	463.4	154.5	374.1	1,692.8	115.1	499.6	547.1	424.3	85.9	399.4	276.6	332.0	1,792.8	472.2	1,879.3	11,931.3	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						
8	Total	679.0	492.0	1,473.0	6,302.3	5,711.2	2,993.2	792.7	1,232.0	9,215.1	439.4	1,944.8	2,745.0	2,574.5	482.1	2,799.5	2,335.2	1,319.2	17,344.9	3,925.6	19,690.5	96,375.1	
	Industrial Non-Big Unit																						
	Industrial Big Unit																						
	Commercial/Household																						
	Energy Conversion																						
	(Sub-total)																						



Table 3.4 : District wise HC emission quantity (Bart, 2005)

District	Year																			Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1 Ghazipur	Industrial Non-Bio Unit	13.5	19.8	28.5	178.1	142.8	71.9	30.6	33.9	173.0	19.3	87.8	13.4	56.6	41.0	210.7	55.9	207.2	1,517.2	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Electric Connection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	13.5	19.8	28.5	178.1	142.8	71.9	30.6	33.9	173.0	19.4	87.9	13.4	56.6	41.0	210.7	55.9	207.2	1,517.2	
	Total	13.5	19.8	28.5	178.1	142.8	71.9	30.6	33.9	173.0	19.4	87.9	13.4	56.6	41.0	210.7	55.9	207.2	1,517.2	
2 Kanpur	Industrial Non-Bio Unit	3.7	1.1	5.8	11.1	12.4	6.8	1.7	3.5	13.8	1.3	5.4	1.6	5.2	5.7	2.2	20.9	4.5	19.9	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	78.1	41.0	27.2	54.2	36.9	21.0	35.0	41.2	35.0	29.6	21.6	49.4	59.4	53.2	34.4	30.8	22.1	34.8	
	Electric Connection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	81.8	42.1	32.8	65.3	49.3	26.8	36.7	44.7	38.8	31.2	27.3	50.0	64.6	58.2	34.4	30.8	22.1	34.8	
	Total	81.8	42.1	32.8	65.3	49.3	26.8	36.7	44.7	38.8	31.2	27.3	50.0	64.6	58.2	34.4	30.8	22.1	34.8	
3 Shimoga	Industrial Non-Bio Unit	17.0	5.9	27.5	64.0	74.1	43.8	9.4	18.4	79.1	5.8	23.8	7.9	28.0	28.0	12.8	118.6	37.8	117.2	
	Industrial Bio Unit	0.0	0.1	0.0	1.0	0.1	0.0	0.0	0.1	4.8	0.1	0.1	0.0	0.0	0.0	0.7	0.0	0.0	0.0	
	Commercial/Residential	7.0	9.9	9.8	15.3	8.5	7.9	6.6	10.1	6.1	8.0	7.2	10.4	5.4	10.7	14.0	9.3	7.7	5.9	
	Electric Connection	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	24.0	15.9	37.3	79.4	82.7	51.8	16.1	28.5	90.1	14.0	29.3	18.3	43.3	42.0	21.3	131.6	33.2	129.1	
	Total	24.0	15.9	37.3	79.4	82.7	51.8	16.1	28.5	90.1	14.0	29.3	18.3	43.3	42.0	21.3	131.6	33.2	129.1	
4 Haveri	Industrial Non-Bio Unit	7.0	0.1	10.7	28.6	58.6	28.2	8.7	11.8	49.7	4.3	13.0	8.3	47.2	46.8	9.4	159.1	72.2	279.9	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	0.8	1.2	1.2	3.9	3.2	2.8	2.6	1.9	1.3	2.1	3.5	10.5	1.3	2.3	2.1	2.4	1.8	1.9	
	Electric Connection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	7.8	1.3	11.9	32.5	61.8	31.0	11.3	13.7	47.0	6.4	16.5	17.8	48.5	49.1	11.5	164.1	73.8	283.7	
	Total	7.8	1.3	11.9	32.5	61.8	31.0	11.3	13.7	47.0	6.4	16.5	17.8	48.5	49.1	11.5	164.1	73.8	283.7	
5 Udupi	Industrial Non-Bio Unit	0.1	0.1	0.3	1.3	1.1	0.6	0.2	0.2	1.4	0.1	0.3	0.4	0.8	0.1	0.2	0.2	0.4	1.5	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	3.2	4.5	3.0	8.4	4.3	3.5	3.9	4.8	2.8	3.4	4.2	2.4	4.8	5.3	3.7	3.8	3.4	2.3	
	Electric Connection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	3.3	4.6	3.3	9.7	5.4	4.1	4.1	4.8	4.2	3.5	4.5	2.8	5.6	6.1	4.1	4.1	3.6	2.7	
	Total	3.3	4.6	3.3	9.7	5.4	4.1	4.1	4.8	4.2	3.5	4.5	2.8	5.6	6.1	4.1	4.1	3.6	2.7	
6 Mysore	Industrial Non-Bio Unit	2.0	1.0	7.8	32.8	29.8	14.9	3.2	4.2	36.4	1.5	6.4	1.7	33.0	6.3	7.5	57.2	18.0	59.2	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	37.1	52.1	54.9	75.2	59.4	41.3	48.9	52.8	32.3	45.4	40.0	52.9	58.1	73.7	43.3	44.7	40.5	28.0	
	Electric Connection	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	174.1	0.0	0.0	0.0	
	(Sub-total)	39.1	100.1	42.7	108.0	89.2	56.2	49.2	57.2	74.1	47.0	46.5	52.9	60.0	77.7	218.6	47.5	49.5	76.5	
	Total	39.1	100.1	42.7	108.0	89.2	56.2	49.2	57.2	74.1	47.0	46.5	52.9	60.0	77.7	218.6	47.5	49.5	76.5	
7 Solapur	Industrial Non-Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Industrial Bio Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Electric Connection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	(Sub-total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8 Total	Industrial Non-Bio Unit	43.4	25.8	60.2	317.9	318.8	166.2	54.0	69.6	352.0	23.2	92.0	15.2	139.2	179.1	63.1	988.2	179.2	3,691.4	
	Industrial Bio Unit	0.0	0.1	0.0	1.3	0.1	0.0	0.0	0.1	20.9	0.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Commercial/Residential	77.4	109.7	72.9	157.1	109.0	69.9	99.3	110.6	67.3	64.9	54.2	113.0	59.3	117.2	54.2	60.6	64.9	69.7	
	Electric Connection	0.0	47.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	174.1	0.0	0.0	0.0	
	(Sub-total)	120.8	182.6	133.1	475.3	427.9	226.2	153.3	180.2	639.5	118.2	158.1	155.2	312.0	343.3	507.4	1,163.7	244.1	4,432.8	
	Total	120.8	182.6	133.1	475.3	427.9	226.2	153.3	180.2	639.5	118.2	158.1	155.2	312.0	343.3	507.4	1,163.7	244.1	4,432.8	

Table 2.5 : District wise SPM emission quantity (Best, 2005)

Sl. No.	District	Year																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	Chandigarh																					
2	Haryana																					
3	Delhi																					
4	UP																					
5	MP																					
6	Madhya Pradesh																					
7	West Bengal																					
8	India																					
9	Industrial																					
10	Commercial																					
11	Domestic																					
12	Transport																					
13	Other																					
14	Total																					





Table 4.0 : District wise TOTAL emission quantity by combustion & evaporation (Best, 2006)

Emission	Year																				Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
<b>1 Combustion</b>																					
50%	1,816.2	2,059.1	2,231.0	10,976.6	11,971.2	6,266.9	2,690.2	3,790.0	10,466.6	2,023.7	4,419.6	6,094.6	4,219.2	2,268.9	9,996.6	16,619.0	3,330.2	29,072.0	12,269.6	70,390.7	217,693.3
10%	1,496.6	2,190.9	2,223.2	7,996.2	9,787.6	3,969.3	1,799.2	2,392.4	7,269.7	1,418.4	2,497.7	3,894.9	3,199.3	1,779.9	4,744.8	7,814.1	2,299.0	17,559.9	4,177.3	29,863.9	109,795.9
CO	604.0	664.6	1,129.9	6,799.6	6,099.1	2,817.1	1,166.4	1,579.8	6,212.7	602.6	1,640.0	3,119.2	2,392.1	721.3	2,229.8	1,659.1	1,269.9	7,777.9	2,177.9	9,972.8	59,469.3
HC	120.7	181.4	193.1	476.3	471.9	251.6	150.2	190.3	439.2	118.4	179.1	299.2	197.5	148.0	313.6	500.3	199.7	693.4	237.0	1,032.1	4,692.4
SPM	491.4	531.2	697.1	2,159.6	1,800.7	1,339.4	571.6	729.0	1,890.6	470.9	700.2	1,029.6	643.9	973.4	1,419.9	1,977.4	669.7	3,409.6	1,242.2	9,073.2	29,419.9
(Sub-total)	4,900.2	6,017.4	6,800.2	26,399.5	26,070.6	14,460.7	6,639.6	9,487.4	26,418.1	4,624.3	9,726.8	19,216.1	10,644.1	5,937.2	18,801.0	30,181.0	7,789.6	53,842.5	29,128.4	119,874.1	421,263.7
<b>2 Evaporation/Admitt.</b>																					
50%																					
10%																					
CO																					
HC																					
SPM																					
(Sub-total)																					
<b>3 Total Emission</b>																					
50%	1,816.2	2,059.1	2,231.0	10,976.6	11,971.2	6,266.9	2,690.2	3,790.0	10,466.6	2,023.7	4,419.6	6,094.6	4,219.2	2,268.9	9,996.6	16,619.0	3,330.2	29,072.0	12,269.6	70,390.7	217,134.4
10%	1,496.6	2,190.9	2,223.2	7,996.2	9,787.6	3,969.3	1,799.2	2,392.4	7,269.7	1,418.4	2,497.7	3,894.9	3,199.3	1,779.9	4,744.8	7,814.1	2,299.0	17,559.9	4,177.3	30,067.4	109,878.9
CO	604.0	664.6	1,129.9	6,799.6	6,099.1	2,817.1	1,166.4	1,579.8	6,212.7	602.6	1,640.0	3,119.2	2,392.1	721.3	2,229.8	1,659.1	1,269.9	7,777.9	2,177.9	9,972.8	59,469.3
HC	120.7	181.4	193.1	476.3	471.9	251.6	150.2	190.3	439.2	118.4	179.1	299.2	197.5	148.0	313.6	500.3	199.7	693.4	237.0	1,032.1	4,692.4
SPM	491.4	531.2	697.1	2,159.6	1,800.7	1,339.4	571.6	729.0	1,890.6	470.9	700.2	1,029.6	643.9	973.4	1,419.9	1,977.4	669.7	3,409.6	1,242.2	9,073.2	29,419.9
(Total)	5,094.5	6,076.4	7,417.4	29,184.6	27,172.0	15,372.2	7,497.3	8,253.1	27,189.9	5,192.0	10,723.3	19,392.2	11,268.5	6,040.4	19,469.6	30,344.2	8,037.1	54,914.3	20,328.0	121,877.0	451,144.4



Table 2.1: SOx emission of big factories (Best, 2005)

No	Industrial Code	District	Location		Emission amount by Factory						Total emission (ton/year)
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)	LPG (ton/year)	
1	3120	9	51°27'40"	35°42'31"	0.1	0.0	1.2	0.0	0.0	0.0	1.3
2	3130	9	51°28'54"	35°44'35"	0.0	0.0	2.1	0.0	0.0	0.0	2.2
3	3112	9	51°18'40"	35°40'45"	0.5	0.0	0.0	0.0	0.0	0.0	0.5
4	3135	9	51°19'08"	35°42'29"	0.3	0.0	5.3	0.0	0.0	0.0	5.6
5	3130	10	51°23'48"	35°42'20"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
6	3119	10	51°22'24"	35°42'00"	0.0	0.0	0.2	0.0	0.0	0.0	0.2
7	3140	11	51°23'10"	35°42'28"	0.1	232.7	0.3	0.0	0.0	0.0	233.1
8	3118	10	51°25'10"	35°28'48"	1.7	0.0	2.3	0.0	0.0	0.0	4.0
9	3130	10	51°20'20"	35°40'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3135	10	51°17'24"	35°45'24"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
11	3119	10	51°16'08"	35°40'32"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	3117	10	51°15'10"	35°40'28"	0.8	0.0	2.4	0.0	0.0	0.0	3.3
(Total)	31				3.6	232.7	14.1	0.0	0.0	0.0	247.6
13	3130	4	51°25'00"	35°43'24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3111	9	51°18'00"	35°42'24"	0.0	52.8	1.6	0.0	0.0	0.0	54.4
15	3143	9	51°14'54"	35°42'45"	0.5	0.0	0.3	0.0	0.0	0.0	0.8
16	3111	9	51°08'58"	35°37'47"	0.0	0.0	1.4	0.0	0.0	0.0	1.4
17	3210	10	51°16'18"	35°38'59"	0.1	7.5	0.2	0.0	0.0	0.0	7.8
18	3211	20	51°25'10"	35°27'54"	0.5	0.0	3.4	0.0	0.0	0.0	3.9
(Total)	35				1.1	60.3	7.3	0.0	0.0	0.0	68.7
19	3513	2	51°23'40"	35°21'11"	0.0	0.0	0.2	0.0	0.0	0.0	0.2
20	3526	0	61°13'20"	35°13'40"	0.0	0.0	0.5	0.0	0.0	0.0	0.5
21	3513	13	51°27'20"	35°29'24"	0.0	0.0	0.8	0.0	0.0	0.0	0.8
(Total)	35				0.0	0.0	1.5	0.0	0.0	0.0	1.5
22	3116	10	51°17'50"	35°40'24"	0.1	231.1	0.0	0.0	0.0	0.0	231.2
(Total)	35				0.1	231.1	0.0	0.0	0.0	0.0	231.2
23	3522	4	51°34'36"	35°43'22"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
24	3522	9	51°12'18"	35°42'28"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
25	3521	9	51°13'20"	35°43'04"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
26	3569	9	51°18'54"	35°42'48"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
27	3522	8	51°13'30"	35°42'30"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	3521	8	51°14'54"	35°42'22"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	3521	8	51°14'30"	35°42'22"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	3521	9	51°17'40"	35°44'00"	0.0	33.3	0.0	0.0	0.0	0.0	33.3
31	3523	9	51°17'20"	35°42'45"	0.3	0.0	0.3	0.0	0.0	0.0	0.6
32	3522	9	51°08'58"	35°44'10"	0.2	0.0	0.2	0.0	0.0	0.0	0.4
33	3551	9	51°18'44"	35°42'24"	0.4	34.8	0.1	0.0	0.0	0.0	35.2
34	3529	10	51°17'28"	35°40'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	3525	10	51°17'24"	35°42'42"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
36	3523	10	51°18'24"	35°40'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	3522	10	51°18'24"	35°40'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	3521	10	51°18'24"	35°40'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	3521	10	51°17'28"	35°40'24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	3520	10	51°16'50"	35°44'19"	0.0	0.0	2.1	0.0	0.0	0.0	2.1
41	3523	10	51°17'00"	35°42'18"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	3530	20	51°25'20"	35°43'11"	0.2	856.3	4.2	0.0	0.0	0.0	860.7
(Total)	351				1.6	128.5	13.5	0.0	0.0	0.0	144.1
43	3410	9			0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	3420	0	51°18'44"	35°45'13"	1.5	10.0	0.2	0.0	0.0	0.0	11.7
45	3432	15			1.2	0.0	0.0	0.0	0.0	0.0	1.2
46	3432	15	51°29'08"	35°50'48"	2.2	307.8	0.0	0.0	0.0	0.0	310.0
47	3439	20	51°25'20"	35°53'08"	1.0	0.0	7.8	0.0	0.0	0.0	8.8
(Total)	38				6.0	117.8	8.0	0.0	0.0	0.0	131.8
48	3710	0	51°20'44"	35°42'34"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
49	3710	9	51°26'58"	35°44'24"	0.0	0.0	1.0	0.0	0.0	0.0	1.0
50	3710	10	51°20'30"	35°38'58"	0.1	0.0	7.2	0.0	0.0	0.0	7.3
51	3710	10	51°18'18"	35°50'32"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52	3710	10	51°18'24"	35°50'32"	0.2	0.0	0.1	0.0	0.0	0.0	0.3
53	3710	10	51°18'48"	35°50'58"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	37				0.3	0.0	8.3	0.0	0.0	0.0	8.6
54	3413	4	51°24'24"	35°43'44"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	3419	4	51°24'48"	35°44'00"	0.0	0.0	0.8	0.0	0.0	0.0	0.8
56	3427	4	51°24'58"	35°42'24"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
57	3418	5	51°18'18"	35°42'11"	0.1	0.0	0.2	0.0	0.0	0.0	0.3
58	3443	8	51°13'10"	35°43'14"	0.0	0.0	0.5	0.0	0.0	0.0	0.5
59	3451	9	51°17'20"	35°40'40"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
60	3443	9	51°17'16"	35°43'28"	0.2	0.0	0.9	0.0	0.0	0.0	1.1
61	3426	9	51°12'58"	35°42'45"	0.1	0.0	0.2	0.0	0.0	0.0	0.3
62	3427	9	51°16'00"	35°42'28"	0.3	1.2	0.4	0.0	0.0	0.0	1.9
63	3443	9	51°10'20"	35°43'36"	0.5	0.0	1.2	0.0	1.1	0.0	2.8
64	3443	9	51°12'32"	35°42'48"	0.4	0.0	0.0	0.0	0.0	0.0	0.4
65	3427	14	51°21'46"	35°41'01"	1.2	0.0	0.0	0.0	0.0	0.0	1.2
66	3418	15	51°28'20"	35°58'45"	0.0	0.0	1.1	0.0	0.0	0.0	1.1
67	3436	15	51°28'08"	35°47'28"	0.3	0.0	11.1	0.0	0.0	0.0	11.4
68	3439	16	51°28'18"	35°44'32"	0.0	0.5	0.1	0.0	0.0	0.0	0.6
69	3429	18	51°18'30"	35°40'13"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
70	3443	16	51°17'48"	35°50'54"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	3436	18	51°13'08"	35°42'13"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72	3419	18	51°15'45"	35°42'06"	0.0	117.9	0.0	0.0	0.0	0.0	117.9
73	3427	19	51°18'52"	35°40'14"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74	3443	10	51°05'00"	35°44'48"	0.2	0.0	0.3	0.0	0.0	0.0	0.5
75	3443	18	51°18'58"	35°27'28"	0.2	0.0	1.8	0.0	0.0	0.0	2.0
(Total)	30				3.7	118.1	18.7	0.0	1.1	0.0	139.6
(Grand Total)					17.1	1,800.1	88.9	0.0	1.1	7.1	1,907.3

Table 2.1: SOx emission of big factories (Best, 2005)

No	Name	District	Location		Emission amount by Factory						Total emission (ton/year)
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)	LPG (ton/year)	
1	Tehran Refinery	2008	51°25'40"	35°52'40"	25.7		21,843.5		20.0		21,769.2
2	Power Plant				33.3	10,141.0	149.2				10,323.5
2.1	- Bestal	10	51°25'40"	35°52'40"	33.0	10,141.0	11.3				10,185.3
2.2	- Foruzan	7	51°21'17"	35°43'24"	0.3	0.0	0.9				1.2
2.3	- Ray	2008	51°24'35"	35°21'20"	19.7	0.0	136.2				156.9
(Total)					58.7	33,034.8	176.8	0.0	0.0	0.0	34,037.3

Table 2.2 : NOx emission of big factories (Best, 2005)

No.	Industrial Code	District	Location		Emission amount by Factory				Gasoline (ton/year)	LPG (ton/year)	Total emission (ton/year)
			Longitude (DAVS)	Latitude (DAVS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)			
1	3129	4	512749	354531	5.1	0.0	5.7	0.0	0.0	10.8	
2	3130	4	512644	354433	1.4	0.0	9.8	0.0	0.1	11.3	
3	3112	9	511840	354045	35.3	0.0	0.0	0.0	0.0	35.3	
4	3130	9	511809	354026	18.0	0.0	15.5	0.0	0.0	33.5	
5	3130	10	512148	354200	3.5	0.0	9.4	0.0	0.0	12.9	
6	3119	10	512224	354200	0.2	0.0	1.2	0.0	0.1	1.4	
7	3140	11	512310	354826	4.5	30.8	1.3	0.0	0.1	36.7	
8	3115	18	512510	354248	119.4	0.0	11.8	0.0	0.0	131.2	
9	3129	18	512020	354500	0.0	0.0	0.1	0.0	0.0	0.1	
10	3130	18	511734	354524	4.1	0.0	27.8	0.0	0.0	31.9	
11	3119	18	511608	354937	0.7	0.0	0.0	0.0	0.0	0.7	
12	3115	18	511840	354026	83.4	0.0	11.2	0.0	0.0	94.6	
(Total)		31			255.8	30.8	14.8	0.0	0.1	297.5	
13	3240	4	512300	354354	0.2	0.0	0.0	0.0	0.0	0.2	
14	3211	9	511609	354024	2.6	7.0	8.8	0.0	0.0	18.4	
15	3240	9	511464	354243	29.7	0.0	1.4	0.0	0.0	31.1	
16	3211	9	510958	354307	3.3	0.0	6.7	0.0	0.0	10.0	
17	3211	18	511618	352858	8.7	1.0	1.1	0.0	0.0	10.8	
18	3211	20	512510	354248	3.7	0.0	18.0	0.0	0.0	21.7	
(Total)		32			68.1	8.0	34.0	0.0	0.0	110.1	
19	3313	2	512940	354211	0.2	0.0	1.1	0.0	0.0	1.3	
20	3326	9	511320	354240	1.5	0.0	6.2	0.0	0.0	7.7	
21	3313	18	511720	354024	0.5	0.0	1.8	0.0	0.0	2.3	
(Total)		33			2.2	0.0	9.1	0.0	0.0	11.3	
22	3419	11	511750	354924	5.3	30.8	0.0	0.0	0.0	36.1	
(Total)		34			5.3	30.8	0.0	0.0	0.0	36.1	
23	3522	4	512456	354323	3.9	0.0	0.0	0.0	0.0	3.9	
24	3522	9	511210	354259	6.1	0.0	0.2	0.0	0.0	6.3	
25	3521	9	511326	354304	4.8	0.0	0.0	0.0	0.0	4.8	
26	3559	9	511454	354248	1.8	0.0	0.0	0.0	0.0	1.8	
27	3522	9	511350	354238	1.4	0.0	0.0	0.0	0.0	1.4	
28	3521	9	511454	354222	0.8	0.0	0.0	0.0	0.0	0.8	
29	3552	9	510740	354455	0.8	4.4	0.1	0.0	0.0	5.2	
30	3523	9	511720	354045	18.2	0.0	29.7	0.0	0.0	47.9	
31	3522	9	510858	354410	18.8	0.0	1.5	0.0	0.0	20.3	
32	3521	9	511844	354224	28.4	4.9	0.3	0.0	0.0	33.6	
33	3529	18	511720	354000	0.3	0.0	0.2	0.0	0.0	0.5	
34	3523	18	511404	354242	4.0	0.0	0.0	0.0	0.0	4.0	
35	3522	18	511824	354320	9.8	0.0	0.0	0.0	0.0	9.8	
36	3541	18	511014	354300	0.5	0.0	0.0	0.0	0.0	0.5	
37	3522	18	511720	354024	1.8	0.0	0.0	0.0	0.0	1.8	
38	3530	18	510910	354318	2.7	0.0	9.8	0.0	0.0	12.5	
39	3523	18	511030	354318	1.0	0.0	0.0	0.0	0.0	1.0	
40	3530	20	512520	354311	1.0	87.4	19.8	0.0	0.0	108.2	
(Total)	College Tehran Refinery	35			109.0	99.8	80.9	0.0	0.0	289.7	
41	3610	9			2.9	0.0	0.0	0.0	0.0	2.9	
42	3620	9	511844	354313	105.9	1.3	1.1	0.0	0.0	108.3	
43	3592	15			84.7	0.0	0.0	0.0	0.0	84.7	
44	3592	15	512806	352848	15.6	49.7	0.0	0.0	0.0	65.3	
45	3592	20	512520	354320	11.3	0.0	13.3	0.0	0.0	24.6	
(Total)		36			476.5	51.0	14.1	0.0	0.0	537.6	
46	3710	8	512024	354388	0.2	0.0	1.4	0.0	0.0	1.6	
47	3710	9	510858	354424	8.3	0.0	4.9	0.0	0.0	13.2	
48	3710	18	512050	352422	8.3	0.0	34.9	0.0	0.0	43.2	
49	3715	18	511818	352627	1.1	0.0	0.0	0.0	0.0	1.1	
50	3710	18	511824	352627	15.9	0.0	0.7	0.0	0.0	16.6	
51	3710	18	511840	352654	0.0	0.0	0.0	0.0	0.0	0.0	
(Total)		37			24.2	0.0	46.8	0.0	0.0	71.0	
52	3813	4	512424	354344	0.7	0.0	0.0	0.0	0.0	0.7	
53	3819	4	512456	354306	0.4	0.0	2.8	0.0	0.0	3.2	
54	3823	4	512456	354274	8.1	0.0	0.0	0.0	0.0	8.1	
55	3819	9	511818	354314	4.9	0.0	1.0	0.0	0.0	5.9	
56	3845	9	511350	354314	1.7	0.0	1.5	0.0	0.0	3.2	
57	3831	9	511720	354040	0.9	0.0	0.4	0.0	0.0	1.3	
58	3843	9	511118	354328	13.0	0.0	4.0	0.0	0.0	17.0	
59	3829	9	511258	354245	8.3	0.0	1.0	0.0	0.0	9.3	
60	3827	9	511800	354229	18.5	0.2	1.9	0.0	0.0	20.6	
61	3843	9	511020	354320	37.7	0.0	5.9	0.0	4.7	48.3	
62	3843	9	511202	354248	30.5	0.0	0.9	0.0	0.0	31.4	
63	3827	14	512840	354131	82.8	0.0	0.0	0.0	0.0	82.8	
64	3819	15	512420	353845	0.0	0.0	5.9	0.0	0.0	5.9	
65	3834	15	512808	354128	20.8	0.0	51.9	0.0	0.0	72.7	
66	3829	18	510518	354402	0.1	0.0	0.4	0.0	0.0	0.5	
67	3829	18	511820	354013	0.1	0.0	0.7	0.0	0.0	0.8	
68	3843	18	511748	353806	8.9	0.0	0.0	0.0	0.0	8.9	
69	3829	18	511308	354313	0.4	0.0	0.0	0.0	0.0	0.4	
70	3819	18	511046	354206	3.5	15.6	0.0	0.0	0.0	19.1	
71	3827	18	511652	354014	2.0	0.0	0.0	0.0	0.0	2.0	
72	3843	18	510500	354448	12.3	0.0	1.4	0.0	0.0	13.7	
73	3843	18	511856	354328	12.0	0.0	7.5	0.0	0.0	19.5	
(Total)		38			258.1	15.8	85.1	0.0	4.7	363.7	
(Grand Total)					1290.4	225.9	323.0	0.0	4.8	1754.1	

Table 2.2 : NOx emission of big factories (Best, 2005)

No.	Name	District	Location		Emission amount by Factory				Gasoline (ton/year)	LPG (ton/year)	Total emission (ton/year)
			Longitude (DAVS)	Latitude (DAVS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)			
1	Tehran Refinery	2008	512540	352840	5302.8	4228.2	158.0			9689.0	
2	Power Plant				7020.2		1812.0			8832.2	
3	- Bafal	19	512540	352840	2291.3	1812.0	86.0			4189.3	
4	- Forand	2	512110	354324	618.2	0.0	1.4			619.6	
5	- Ray	2008	512420	353120	4119.0	0.0	1051.9			5170.9	
(Total)					12322.7	6040.2	1268.3	0.0	0.0	19631.2	

Table 2.3 : CO emission of big factories (Best, 2006)

No	Industrial Code	District	Location		Natural Gas (Ton/year)	Heavy Oil (Ton/year)	Emission amount by Factory (Ton/year)				Total emission (Ton/year)
			Longitude (DMS)	Latitude (DMS)			Gas Oil	Kerosene	Gasoline	LPG	
1	3129	4	35°21'45"	55°45'21"	0.3	0.0	0.0	0.0	0.0	0.0	1.0
2	3130	4	35°29'54"	55°44'25"	0.1	0.0	0.0	0.0	0.0	0.0	1.0
3	3132	9	35°18'40"	55°40'45"	3.5	0.0	0.0	0.0	0.0	0.0	2.5
4	3130	9	35°16'58"	55°40'29"	1.8	0.0	1.3	0.0	0.0	0.0	3.1
5	3130	10	35°21'48"	55°42'00"	0.3	0.0	0.0	0.0	0.0	0.0	0.4
6	3119	10	35°22'24"	55°42'00"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
7	3140	10	35°23'10"	55°40'29"	0.4	2.2	0.1	0.0	3.1	0.0	5.9
8	3119	10	35°25'10"	55°32'48"	11.9	0.0	1.0	0.0	0.0	0.0	12.9
9	3129	10	35°20'20"	55°40'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3130	18	35°17'04"	55°45'24"	0.4	0.0	2.3	0.0	0.0	0.0	2.7
11	3119	18	35°18'58"	55°40'37"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
12	3112	18	35°18'10"	55°43'29"	8.3	0.0	0.0	0.0	0.0	0.0	7.3
(Total)	31				24.5	2.2	7.0	0.0	3.1	0.0	37.9
13	3140	4	35°23'00"	55°43'24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3111	9	35°17'00"	55°40'24"	0.5	0.0	0.7	0.0	0.0	0.0	1.5
15	3140	9	35°14'54"	55°42'43"	2.1	0.0	0.1	0.0	0.0	0.0	2.2
16	3111	9	35°08'58"	55°43'47"	0.3	0.0	0.0	0.0	0.0	0.0	0.9
17	3111	18	35°18'18"	55°43'59"	0.9	0.1	0.1	0.0	0.0	0.0	1.0
18	3111	20	35°28'10"	55°37'04"	3.4	0.0	1.3	0.0	0.0	0.0	4.7
(Total)	32				6.9	0.8	2.8	0.0	0.0	0.0	12.3
19	3513	2	35°29'49"	55°42'11"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
20	3520	2	35°17'20"	55°37'46"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	3513	18	35°17'20"	55°40'34"	0.0	0.0	0.1	0.0	0.0	0.0	0.2
(Total)	33				0.0	0.0	0.3	0.0	0.0	0.0	0.6
22	3419	18	35°17'50"	55°40'24"	0.3	2.2	0.0	0.0	0.0	0.0	2.7
(Total)	34				0.3	2.2	0.0	0.0	0.0	0.0	2.7
23	3522	4	35°34'00"	55°45'23"	0.4	0.0	0.0	0.0	0.0	0.0	0.4
24	3522	9	35°21'10"	55°42'58"	0.9	0.0	0.0	0.0	0.0	0.0	0.6
25	3521	9	35°13'29"	55°43'04"	0.9	0.0	0.0	0.0	0.0	0.0	0.5
26	3559	9	35°18'54"	55°42'45"	0.4	0.0	0.0	0.0	0.0	0.0	0.4
27	3522	9	35°13'59"	55°42'38"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
28	3521	9	35°14'54"	55°42'27"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
29	3552	9	35°07'40"	55°44'00"	0.1	0.0	0.0	0.0	0.0	0.0	0.4
30	3529	9	35°17'20"	55°43'45"	1.8	0.0	2.5	0.0	0.0	0.0	4.3
31	3527	9	35°08'58"	55°43'50"	1.7	0.0	0.1	0.0	0.0	0.0	1.7
32	3521	9	35°18'44"	55°42'24"	2.8	0.3	0.0	0.0	0.0	0.0	3.8
33	3529	18	35°17'28"	55°40'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	3523	18	35°14'54"	55°42'42"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
35	3522	18	35°18'24"	55°40'20"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
36	3561	18	35°10'14"	55°43'30"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
37	3522	18	35°17'28"	55°40'24"	0.2	0.0	0.0	0.0	0.0	0.0	0.2
38	3536	18	35°06'10"	55°44'18"	0.3	0.0	0.0	0.0	0.0	0.0	1.1
39	3523	18	35°19'20"	55°42'18"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	3530	20	35°23'20"	55°37'11"	1.5	8.2	1.8	0.0	0.0	0.0	11.4
(Total)	35				12.1	6.9	3.0	0.0	0.0	0.0	22.7
41	3610	9	35°18'44"	55°40'13"	0.2	0.0	0.0	0.0	0.0	0.0	0.3
42	3620	9	35°18'44"	55°40'13"	10.8	0.1	0.1	0.0	0.0	0.0	11.0
43	3692	15	35°22'00"	55°40'48"	8.5	0.0	0.0	0.0	0.0	0.0	8.5
44	3692	15	35°22'00"	55°40'48"	15.1	2.9	0.0	0.0	0.0	0.0	18.0
45	3699	20	35°23'20"	55°37'26"	13.1	0.0	1.1	0.0	0.0	0.0	14.2
(Total)	36				47.8	3.0	1.2	0.0	0.0	0.0	51.8
46	3710	8	35°29'24"	55°42'50"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
47	3710	9	35°08'58"	55°44'24"	0.1	0.0	0.4	0.0	0.0	0.0	0.5
48	3710	18	35°20'50"	55°40'58"	0.4	0.0	2.9	0.0	0.0	0.0	2.8
49	3710	18	35°18'18"	55°40'22"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
50	3710	18	35°18'54"	55°40'37"	1.8	0.0	0.1	0.0	0.0	0.0	1.8
51	3710	19	35°13'48"	55°38'58"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	37				2.6	0.0	3.4	0.0	0.0	0.0	6.0
52	3813	4	35°24'24"	55°43'14"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
53	3819	4	35°24'40"	55°44'00"	0.0	0.0	0.2	0.0	0.0	0.0	0.3
54	3827	4	35°24'56"	55°42'24"	0.9	0.0	3.9	0.0	0.0	0.0	4.8
55	3819	5	35°18'18"	55°42'11"	0.3	0.0	3.1	0.0	0.0	0.0	3.4
56	3843	9	35°13'10"	55°43'14"	0.2	0.0	0.1	0.0	0.0	0.0	0.3
57	3831	9	35°17'20"	55°40'40"	0.1	0.0	2.9	0.0	0.0	0.0	3.0
58	3843	9	35°17'18"	55°43'28"	7.3	0.0	0.3	0.0	0.0	0.0	7.6
59	3825	9	35°12'58"	55°42'45"	0.9	0.0	0.7	0.0	0.0	0.0	1.6
60	3827	9	35°18'00"	55°42'22"	1.4	0.0	0.2	0.0	0.0	0.0	1.6
61	3843	9	35°13'29"	55°43'56"	2.9	0.0	0.5	0.0	0.0	0.0	3.4
62	3843	9	35°13'29"	55°42'48"	0.0	0.0	0.0	0.0	226.5	0.0	233.7
63	3827	14	35°12'45"	55°41'04"	8.3	0.0	0.0	0.0	0.0	0.0	9.3
64	3818	15	35°28'20"	55°38'45"	0.1	0.0	0.4	0.0	0.0	0.0	0.5
65	3830	15	35°28'06"	55°37'28"	2.1	0.0	4.3	0.0	0.0	0.0	6.4
66	3830	18	35°05'18"	55°46'52"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	3829	18	35°18'20"	55°40'13"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
68	3843	18	35°12'48"	55°48'58"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
69	3830	18	35°13'06"	55°42'13"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	3819	18	35°19'48"	55°42'08"	0.3	1.1	0.0	0.0	0.0	0.0	1.5
71	3827	18	35°18'52"	55°40'14"	0.2	0.0	0.0	0.0	0.0	0.0	0.2
72	3843	19	35°05'00"	55°44'48"	1.2	0.0	0.1	0.0	0.0	0.0	1.3
73	3843	16	35°18'56"	55°37'26"	1.2	0.0	0.6	0.0	0.0	0.0	1.8
(Total)	38				25.8	1.1	7.0	0.0	226.5	0.0	264.3
Grand Total					118.8	19.0	28.7	0.0	226.0	0.0	338.0

Table 2.3 : CO emission of big factories (Best, 2006)

No	Name	District	Location		Natural Gas (Ton/year)	Heavy Oil (Ton/year)	Emission amount by Factory (Ton/year)				Total emission (Ton/year)
			Longitude (DMS)	Latitude (DMS)			Gas Oil	Kerosene	Gasoline	LPG	
1	Tehran Refinery	2008	35°29'40"	55°32'40"	17.9	231.3	8.3				418.0
2	Power Plant				233.3	92.1	71.3				403.8
3	- Rasht	18	35°25'40"	55°33'40"	74.2	99.1	8.4				180.7
4	- Farash	2	35°21'30"	55°43'24"	20.9	0.0	0.1				20.8
5	- Ray	2008	35°24'30"	55°31'20"	158.8	0.0	65.8				202.5
(Total)					455.6	330.4	80.6	0.0	0.0	0.0	828.8

Table 2.4 : HC emission of big factories (Best, 2006)

No	Industrial Code	District	Location		Emission amount by Factory						Total emission (ton/year)
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)	LPG (ton/year)	
1	3129	4	31°27'40"	35°45'21"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
2	3130	4	31°29'54"	35°44'35"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3112	0	31°18'40"	35°42'45"	0.5	0.0	0.0	0.0	0.0	0.0	0.5
4	3130	0	31°19'26"	35°42'28"	0.3	0.0	0.0	0.0	0.0	0.0	0.3
5	3130	10	31°21'46"	35°42'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	3119	10	31°22'24"	35°42'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	3140	11	31°23'10"	35°40'28"	0.1	1.7	0.1	0.0	0.1	0.0	2.1
8	3115	15	31°25'10"	35°42'48"	1.7	0.0	0.0	0.0	0.0	0.0	1.7
9	3129	18	31°20'20"	35°40'00"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3130	18	31°17'34"	35°45'24"	0.1	0.0	1.6	0.0	0.0	0.0	1.7
11	3119	18	31°18'08"	35°40'37"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	3112	18	31°18'10"	35°43'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)		31			3.5	1.7	4.8	0.0	0.1	0.0	10.1
13	3240	4	31°33'00"	35°43'54"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3211	0	31°18'08"	35°40'37"	0.0	0.4	0.0	0.0	0.0	0.0	0.4
15	3240	0	31°16'54"	35°42'43"	0.3	0.0	0.1	0.0	0.0	0.0	0.4
16	3211	0	31°08'58"	35°43'47"	0.0	0.0	0.4	0.0	0.0	0.0	0.4
17	3211	18	31°18'18"	35°45'50"	0.1	0.1	0.1	0.0	0.0	0.0	0.3
18	3211	20	31°25'10"	35°47'04"	0.5	0.0	0.0	0.0	0.0	0.0	0.5
(Total)		32			1.0	0.4	1.0	0.0	0.0	0.0	2.4
19	3313	2	31°20'40"	35°42'11"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
20	3320	9	31°13'20"	35°42'40"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
21	3312	18	31°17'20"	35°40'34"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
(Total)		33			0.0	0.0	0.2	0.0	0.0	0.0	0.2
22	3419	18	31°17'50"	35°49'24"	0.1	1.6	0.0	0.0	0.0	0.0	1.7
(Total)		34			0.1	1.6	0.0	0.0	0.0	0.0	1.7
23	3522	4	31°44'36"	35°42'23"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
24	3522	9	31°12'10"	35°42'56"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
25	3521	0	31°13'28"	35°43'04"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
26	3539	0	31°18'54"	35°42'48"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
27	3522	5	31°13'50"	35°42'38"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	3521	9	31°14'54"	35°42'22"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	3552	9	31°02'40"	35°44'02"	0.0	0.2	0.0	0.0	0.0	0.0	0.2
30	3523	9	31°17'20"	35°40'45"	0.3	0.0	1.7	0.0	0.0	0.0	2.0
31	3522	9	31°08'58"	35°44'10"	0.2	0.0	0.1	0.0	0.0	0.0	0.3
32	3561	0	31°18'14"	35°42'24"	0.4	0.0	0.0	0.0	0.0	0.0	0.4
33	3529	18	31°17'28"	35°40'50"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	3523	18	31°14'04"	35°42'42"	0.1	0.0	0.0	0.0	0.0	0.0	0.1
35	3522	18	31°18'24"	35°40'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	3561	18	31°19'14"	35°43'20"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	3522	18	31°17'29"	35°40'24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	3530	18	31°08'10"	35°44'19"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	3533	18	31°10'30"	35°44'19"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	3530	20	31°25'20"	35°44'11"	0.2	4.7	1.1	0.0	0.0	0.0	6.0
(Total)		35			1.5	5.2	1.5	0.0	0.0	0.0	10.2
41	3610	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	3620	0	31°18'44"	35°40'13"	0.0	0.1	0.1	0.0	0.0	0.0	0.2
43	3692	15			1.2	0.1	0.0	0.0	0.0	0.0	1.3
44	3692	15	31°20'08"	35°39'48"	2.3	2.2	0.0	0.0	0.0	0.0	4.5
45	3620	20	31°25'20"	35°45'28"	1.6	0.0	0.0	0.0	0.0	0.0	1.6
(Total)		36			6.0	2.3	0.0	0.0	0.0	0.0	8.3
46	3710	0	31°30'54"	35°42'88"	0.0	0.0	0.0	0.1	0.0	0.0	0.1
47	3719	0	31°06'56"	35°44'24"	0.0	0.0	0.0	0.3	0.0	0.0	0.3
48	3710	10	31°20'50"	35°42'50"	0.1	0.0	1.8	0.0	0.0	0.0	2.1
49	3710	18	31°18'16"	35°46'21"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	3710	18	31°15'24"	35°45'51"	0.2	0.0	0.0	0.0	0.0	0.0	0.2
51	3710	19	31°16'48"	35°45'54"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)		37			0.4	0.0	2.3	0.0	0.0	0.0	2.7
52	3813	4	31°44'24"	35°42'44"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53	3819	4	31°44'00"	35°44'00"	0.0	0.0	0.0	0.2	0.0	0.0	0.2
54	3827	4	31°44'50"	35°44'24"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55	3819	4	31°19'18"	35°42'11"	0.1	0.0	0.1	0.0	0.0	0.0	0.1
56	3843	0	31°13'30"	35°43'24"	0.0	0.0	0.1	0.0	0.0	0.0	0.1
57	3851	0	31°17'20"	35°40'40"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	3843	0	31°11'38"	35°42'28"	0.2	0.0	0.0	0.0	0.0	0.0	0.2
59	3828	9	31°12'58"	35°42'45"	0.1	0.0	0.1	0.0	0.0	0.0	0.2
60	3827	0	31°16'00"	35°42'20"	0.3	0.0	0.1	0.0	0.0	0.0	0.4
61	3843	0	31°10'20"	35°41'30"	0.5	0.0	0.3	0.0	0.0	0.0	0.7
62	3843	0	31°12'32"	35°42'48"	0.4	0.0	0.0	0.0	0.0	0.0	0.4
63	3827	14	31°28'40"	35°41'01"	1.2	0.0	0.0	0.0	0.0	0.0	1.2
64	3419	15	31°29'20"	35°43'45"	0.0	0.0	0.3	0.0	0.0	0.0	0.3
65	3839	15	31°28'08"	35°42'28"	0.2	0.0	3.0	0.0	0.0	0.0	3.2
66	3839	18	31°09'10"	35°44'32"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	3829	18	31°14'20"	35°42'33"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68	3843	18	31°17'48"	35°40'36"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69	3839	18	31°13'08"	35°42'33"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	3819	18	31°12'46"	35°42'58"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	3827	18	31°18'52"	35°40'14"	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72	3843	18	31°05'00"	35°44'48"	0.2	0.0	0.1	0.0	0.0	0.0	0.3
73	3843	18	31°18'56"	35°43'28"	0.3	0.0	0.0	0.0	0.0	0.0	0.3
(Total)		38			3.7	0.0	4.8	0.0	0.0	0.0	8.5
(Grand Total)					17.1	12.0	18.5	0.0	0.0	0.0	47.6

Table 2.4 : HC emission of big factories (Best, 2006)

No	Name	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	Tehran Refinery	2008	31°25'40"	35°32'40"	402.0	221.3	9.3				632.6
2	Power Plant				533.3	99.1	69.9				692.3
2.1	- Basal	18	31°25'40"	35°32'40"	174.1	99.1	3.0				276.2
2.2	- Forouz	2	31°21'10"	35°43'24"	47.0	0.0	0.1				47.1
2.3	- Pay	2008	31°24'00"	35°31'20"	312.3	0.0	61.7				374.0
(Total)					937.3	320.4	79.2				1347.8

Table 2-5: SPM emission of big factories (Best, 2005)

No.	Industrial Code	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DAVS)	Latitude (DAVS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	3129	4	5172140	3545231	0.4	0.0	2.4	0.0	0.0	0.0	2.8
2	3130	4	5172154	3544735	0.1	0.0	4.0	0.0	0.0	0.0	4.2
3	3112	9	5171890	3549145	3.0	0.0	0.0	0.0	0.0	0.0	3.0
4	3130	9	5171806	3549276	1.5	0.0	0.4	0.0	0.0	0.0	1.9
5	3130	10	5172144	3542000	0.3	0.0	0.7	0.0	0.0	0.0	1.0
6	3119	10	5172224	3542000	0.0	0.0	0.5	0.0	0.0	0.0	0.5
7	3140	11	5172310	3540720	0.4	12.3	0.5	0.0	0.0	0.0	13.2
8	3115	18	5172910	3532745	10.2	0.0	4.8	0.0	0.0	0.0	15.0
9	3129	18	5172070	3540300	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3130	18	5171794	3545234	0.4	0.0	11.4	0.0	0.0	0.0	11.8
11	3119	18	5171858	3540271	0.1	0.0	0.0	0.0	0.0	0.0	0.1
12	3112	18	5171810	3540270	3.4	0.0	4.6	0.0	0.0	0.0	8.0
(Total)	31				21.9	12.3	34.9	0.0	0.0	0.0	49.1
13	3240	4	5173300	3541254	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3211	9	5171806	3540274	0.2	0.0	2.8	0.0	0.0	0.0	3.0
15	3240	9	5171454	3542743	1.8	0.0	0.0	0.0	0.0	0.0	1.8
16	3211	9	5171454	3543107	0.3	0.0	2.8	0.0	0.0	0.0	3.1
17	3211	18	5171810	3540271	0.7	0.4	0.4	0.0	0.0	0.0	1.5
18	3211	20	5172810	3537004	2.0	0.0	0.0	0.0	0.0	0.0	2.0
(Total)	32				5.0	0.8	14.0	0.0	0.0	0.0	20.8
19	3313	7	5172040	3542711	0.0	0.0	0.4	0.0	0.0	0.0	0.4
20	3320	9	5171306	3542740	0.1	0.0	0.1	0.0	0.0	0.0	0.2
21	3313	18	5171720	3543274	0.0	0.0	0.7	0.0	0.0	0.0	0.7
(Total)	33				0.1	0.0	1.2	0.0	0.0	0.0	1.3
22	5416	18	5171750	3543274	0.4	12.2	0.0	0.0	0.0	0.0	12.6
(Total)	34				0.4	12.2	0.0	0.0	0.0	0.0	12.6
25	3523	4	5173428	3543273	0.3	0.0	0.0	0.0	0.0	0.0	0.3
26	3523	9	5173216	3543256	0.5	0.0	0.1	0.0	0.0	0.0	0.6
27	3523	9	5171328	3543354	3.4	0.0	0.0	0.0	0.0	0.0	3.4
28	3554	9	5171854	3542748	0.3	0.0	0.0	0.0	0.0	0.0	0.3
29	3527	9	5171330	3542338	0.1	0.0	0.0	0.0	0.0	0.0	0.1
30	3523	9	5171454	3542722	0.9	0.0	0.0	0.0	0.0	0.0	0.9
31	3523	9	5171740	3544265	1.8	0.0	0.0	0.0	0.0	0.0	1.8
32	3523	9	5171720	3544345	1.8	0.0	13.1	0.0	0.0	0.0	14.9
33	3523	9	5171854	3542748	1.4	0.0	0.4	0.0	0.0	0.0	1.8
34	3523	9	5171854	3542748	2.3	1.9	0.1	0.0	0.0	0.0	4.3
35	3526	18	5171726	3540300	0.0	0.0	0.1	0.0	0.0	0.0	0.1
36	3523	18	5171404	3542742	0.4	0.0	0.0	0.0	0.0	0.0	0.4
37	3527	18	5171874	3540270	0.1	0.0	0.0	0.0	0.0	0.0	0.1
38	3581	18	5171814	3543272	2.0	4.0	0.1	0.0	0.0	0.0	6.1
39	3527	18	5171726	3540324	0.1	4.0	0.0	0.0	0.0	0.0	4.1
40	3530	18	5170910	3544719	0.3	0.0	4.0	0.0	0.0	0.0	4.3
41	3523	18	5171030	3542718	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	3530	20	5172320	3539411	1.3	34.8	8.1	0.0	0.0	0.0	44.2
43	3530	20	5172320	3539411	1.3	34.8	8.1	0.0	0.0	0.0	44.2
(Total)	35				9.7	38.8	25.1	0.0	0.0	0.0	73.6
44	3610	9	5171854	3542748	0.2	0.0	0.0	0.0	0.0	0.0	0.2
45	3620	9	5171854	3542748	9.1	0.0	0.0	0.0	0.0	0.0	9.1
46	3627	15	5172290	3539248	7.3	0.0	0.0	0.0	0.0	0.0	7.3
47	3627	15	5172290	3539248	11.0	18.7	0.0	0.0	0.0	0.0	29.7
48	3626	20	5172320	3539226	11.2	0.0	5.9	0.0	0.0	0.0	17.1
(Total)	36				40.8	18.7	6.0	0.0	0.0	0.0	65.5
49	3710	9	5170554	3541286	0.0	0.0	0.4	0.0	0.0	0.0	0.4
50	3710	9	5170556	3541274	0.1	0.0	2.0	0.0	0.0	0.0	2.1
51	3710	18	5172050	3540256	0.7	0.0	14.0	0.0	0.0	0.0	14.7
52	3710	18	5171919	3540272	0.1	0.0	0.0	0.0	0.0	0.0	0.1
53	3710	18	5171874	3540271	1.4	0.0	0.0	0.0	0.0	0.0	1.4
54	3710	19	5171848	3540256	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	37				2.2	0.0	16.4	0.0	0.0	0.0	18.6
55	3813	4	5174274	3543414	0.1	0.0	0.0	0.0	0.0	0.0	0.1
56	3819	4	5174440	3544000	0.0	0.0	1.2	0.0	0.0	0.0	1.2
57	3827	4	5174556	3544274	0.5	0.0	0.0	0.0	0.0	0.0	0.5
58	3819	5	5171916	3542811	0.4	0.0	0.4	0.0	0.0	0.0	0.8
59	3843	9	5171310	3543274	0.1	0.0	0.0	0.0	0.0	0.0	0.1
60	3851	9	5171700	3540340	0.1	0.0	0.2	0.0	0.0	0.0	0.3
61	3843	9	5171118	3543278	1.1	0.0	1.8	0.0	0.0	0.0	2.9
62	3826	9	5172556	3542745	0.7	0.0	0.4	0.0	0.0	0.0	1.1
63	3827	9	5171900	3542729	1.6	0.1	2.1	0.0	0.0	0.0	3.8
64	3843	9	5171920	3543356	3.2	0.0	2.3	0.0	1.3	0.0	6.8
65	3843	9	5172222	3542748	2.9	0.0	0.0	0.0	0.0	0.0	2.9
66	3827	14	5172840	3541671	7.1	0.0	0.0	0.0	0.0	0.0	7.1
67	3819	15	5172870	3538443	0.1	0.0	2.2	0.0	0.0	0.0	2.3
68	3839	15	5172858	3547228	1.6	0.0	21.4	0.0	0.0	0.0	23.0
69	3835	18	5170519	3544252	0.0	0.0	0.2	0.0	0.0	0.0	0.2
70	3829	18	5171920	3542713	0.0	0.0	0.3	0.0	0.0	0.0	0.3
71	3843	18	5171748	3540258	0.1	0.0	0.0	0.0	0.0	0.0	0.1
72	3839	18	5171306	3542713	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73	3819	18	5171030	3542708	0.9	0.7	0.0	0.0	0.0	0.0	1.6
74	3827	18	5171852	3542714	0.2	0.0	0.0	0.0	0.0	0.0	0.2
75	3843	18	5170506	3544248	1.1	0.0	0.8	0.0	0.0	0.0	1.9
76	3843	18	5171852	3542725	1.0	0.0	3.0	0.0	0.0	0.0	4.0
(Total)	38				22.1	0.7	35.1	0.0	1.3	0.0	65.9
Grand Total					122.8	88.3	133.3	0.0	1.7	0.0	312.6

Table 2-5: SPM emission of big factories (Best, 2005)

No.	Name	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DAVS)	Latitude (DAVS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	Tehran Refinery	2008	5172540	3532740	151.1	1011.9	41.6				1,204.6
2	Power Plant				200.0	433.8	204.2				838.0
3	- Refinery	18	5172540	3532740	85.3	433.8	22.2				541.3
4	- Refinery	2	5172110	3543274	17.8		0.4				18.2
5	- Ray	2008	5172430	3521120	117.1		271.8				388.9
(Total)					351.1	1,445.5	352.2	0.0	0.0	0.0	2,151.6

Table 1.0 : Sector wise energy demand in U.S.A. (base, 2010)

Sl. No.	Sector	Total Energy Consumed (10 <sup>12</sup> toe)	Coal, etc.	Crude Petroleum Oil	Gasoline	Jet Fuel	Kerosene	Gas Oil	Heavy Oil	Light Petroleum Products	Other Petroleum Products	Refinery Off-gas	Coal-gas	LPG	Urban Gas	City Gas	Test Electric Power	Commercial Power	Domestic Power	Factor
1	Total Energy Consumed	37,725	0	0	10,368	9,807	927	2,261	3,795	3,267	0	0	0	0	0	0	0	0	0	0
2	Industry	19,912	0	0	5,651	5,057	125	338	2,401	2,707	0	0	0	0	0	0	0	0	0	0
3	Agriculture	17,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Mining	17,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Construction	19,912	0	0	5,651	5,057	125	338	2,401	2,707	0	0	0	0	0	0	0	0	0	0
6	Total Manufacturing	19,912	0	0	5,651	5,057	125	338	2,401	2,707	0	0	0	0	0	0	0	0	0	0
7	1. Food Products	3,012	0	0	2,716	2,632	14	27	1,117	293	0	0	0	0	0	0	0	0	0	0
8	2. Textiles	1,486	0	0	430	416	18	54	169	156	0	0	0	0	0	0	0	0	0	0
9	3. Wood Products	137	0	0	61	61	4	6	34	18	0	0	0	0	0	0	0	0	0	0
10	4. Paper & Products	421	0	0	83	82	4	6	44	30	0	0	0	0	0	0	0	0	0	0
11	5. Industrial Chemicals	1,424	0	0	2,221	2,204	14	41	180	63	0	0	0	0	0	0	0	0	0	0
12	6. Non-metallic Minerals	4,275	0	0	406	375	15	4	231	1,029	0	0	0	0	0	0	0	0	0	0
13	7. Iron & Steel	5,843	0	0	569	518	52	10	315	64	0	0	0	0	0	0	0	0	0	0
14	8. Machinery	1,846	0	0	26	26	9	10	10	10	0	0	0	0	0	0	0	0	0	0
15	9. Other Industries	1,202	0	0	28	28	9	10	10	10	0	0	0	0	0	0	0	0	0	0
16	General Services and Houses	16,256	0	0	4,740	3,354	283	1,325	1,250	283	0	0	0	0	0	0	0	0	0	0
17	Households	13,727	0	0	3,944	2,804	174	1,156	1,056	230	0	0	0	0	0	0	0	0	0	0
18	Commercial & General	1,522	0	0	505	491	64	64	104	64	0	0	0	0	0	0	0	0	0	0
19	Transport	1,003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Passenger	1,003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Cargo	1,003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Energy Consumption	1,034	0	0	556	568	111	111	111	248	0	0	0	0	0	0	0	0	0	0
23	Power Plant	1,034	0	0	233	233	98	98	98	138	0	0	0	0	0	0	0	0	0	0
24	Industry	930	0	0	325	325	135	135	135	312	0	0	0	0	0	0	0	0	0	0
25	Total Value for Consumption (10 <sup>12</sup> toe)	19,912	0	0	5,651	5,057	125	338	2,401	2,707	0	0	0	0	0	0	0	0	0	0
26	Total Value for Consumption (10 <sup>12</sup> toe)	19,912	0	0	5,651	5,057	125	338	2,401	2,707	0	0	0	0	0	0	0	0	0	0





Table 3.1: District wise SOx emission quantity (Best, 2010)

District	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
<b>1 Ghazipur</b>																						
Industrial Non-Biogas Unit	1.0	1.5	4.1	25.8	20.2	10.2	4.4	5.0	25.2	1.5	7.0	12.7	9.8	1.9	0.2	5.9	4.5	30.3	9.0	29.7	312.8	
Industrial Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Energy Conversion (Sub-total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>2 Meerut</b>																						
Industrial Non-Biogas Unit	2.5	72.5	69.9	178.3	139.4	99.3	19.9	39.7	153.4	14.5	61.1	70.3	61.5	20.5	56.7	94.0	26.3	237.6	50.1	270.5	1,877.3	
Industrial Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	273.3	395.1	254.8	545.1	374.9	299.9	372.1	399.9	233.0	327.3	273.7	310.3	205.4	499.2	572.9	311.0	321.8	286.1	267.9	307.9	3,976.9	
Energy Conversion (Sub-total)	119.0	307.6	318.8	670.4	511.3	360.9	348.0	429.7	587.3	341.8	339.7	368.8	268.9	626.7	560.7	375.4	347.1	520.7	247.1	531.4	6,198.9	
<b>3 One Day</b>																						
Industrial Non-Biogas Unit	74.9	29.5	179.5	275.9	369.9	191.2	49.2	71.8	340.8	24.5	94.2	116.1	138.7	34.7	121.1	122.7	56.2	91.2	119.6	909.2	3,267.8	
Industrial Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	70.8	99.2	64.3	142.7	92.8	76.1	87.0	109.8	81.3	66.1	75.8	96.7	53.8	109.9	139.7	62.1	94.9	79.8	54.9	91.0	1,741.9	
Energy Conversion (Sub-total)	145.4	128.6	168.6	422.9	492.6	267.3	137.3	178.6	422.2	111.2	170.1	214.8	192.5	441.2	278.5	207.8	140.1	814.6	174.4	744.6	6,204.6	
<b>4 Meerut</b>																						
Industrial Non-Biogas Unit	1,153.0	1,000.0	1,759.9	6,949.7	9,514.1	4,104.3	1,498.4	1,864.2	2,421.7	703.1	1,898.3	3,178.6	2,832.1	989.9	7,497.2	7,463.8	1,632.6	28,876.9	11,729.2	49,578.9	141,862.9	
Industrial Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	285.0	377.2	368.9	842.9	370.4	908.6	817.4	848.8	417.0	643.6	1,090.9	3,277.2	404.6	728.3	1,189.8	686.2	686.6	743.7	490.2	909.9	16,972.9	
Energy Conversion (Sub-total)	1,438.1	1,377.6	2,117.7	8,500.7	9,884.5	5,009.9	2,322.8	2,460.0	7,848.0	1,351.9	3,179.0	6,459.7	3,236.9	1,408.8	9,297.9	17,483.4	2,187.3	27,079.9	12,229.4	68,172.1	168,832.3	
<b>5 UP</b>																						
Industrial Non-Biogas Unit	5.2	2.6	12.0	59.9	49.9	22.2	9.6	9.5	54.7	2.8	19.9	18.2	21.0	3.4	19.8	11.8	8.3	98.8	19.1	50.4	434.0	
Industrial Biogas Unit	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	9.1	9.4	
Commercial/Household	65.3	117.6	78.2	167.9	113.6	80.1	101.2	118.4	71.8	100.8	89.5	105.5	63.0	124.9	163.0	96.0	66.2	66.2	66.2	66.0	94.9	2,079.1
Energy Conversion (Sub-total)	88.6	120.4	90.2	217.7	154.1	112.4	107.8	128.0	126.6	103.7	97.3	121.7	64.0	128.4	179.7	107.8	108.5	184.7	79.1	151.4	2,472.2	
<b>6 National Gas</b>																						
Industrial Non-Biogas Unit	2.9	2.6	10.4	92.2	41.7	21.2	4.9	7.5	99.4	2.6	10.3	18.3	22.2	2.7	18.5	12.6	11.1	61.2	22.6	46.3	470.9	
Industrial Biogas Unit	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	16.2	22.8	15.2	32.8	22.1	17.6	19.9	23.1	14.1	19.8	17.2	22.1	12.3	24.4	32.0	16.8	19.5	17.6	12.6	16.6	360.1	
Energy Conversion (Sub-total)	18.2	25.4	25.6	65.3	63.8	39.1	24.9	30.7	71.2	22.4	27.6	36.4	34.6	28.7	56.1	44.6	30.5	101.5	35.4	131.9	999.1	
<b>7 Solid Fuel</b>																						
Industrial Non-Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Industrial Biogas Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Energy Conversion (Sub-total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>8 Total</b>																						
Industrial Non-Biogas Unit	1,400.5	1,048.4	1,991.5	5,177.5	10,026.0	4,448.6	1,498.5	2,027.7	9,049.1	732.7	1,991.9	3,119.1	2,865.2	992.8	7,917.9	7,463.8	1,632.6	29,401.6	11,993.8	49,378.2	142,690.9	
Industrial Biogas Unit	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	728.9	1,001.8	761.5	1,850.2	979.7	1,361.3	1,362.7	1,214.0	748.2	1,179.9	1,546.0	3,821.8	736.3	1,347.4	2,093.1	1,173.2	1,169.1	1,215.6	826.7	1,123.2	26,304.4	
Energy Conversion (Sub-total)	2,099.4	2,050.4	2,743.1	7,022.8	11,029.0	5,829.9	2,833.2	3,242.0	9,017.8	1,932.6	3,514.0	7,232.0	3,673.7	2,316.7	10,345.4	18,165.2	2,818.1	28,451.6	12,779.6	69,731.1	207,507.3	



Table 3.3 : District wise CO emission quantity (Best, 2010)

Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
1 Coal																						
Industrial Member Unit	499.7	330.1	499.1	5,498.2	4,291.2	2,196.4	939.9	1,972.0	5,279.2	319.8	1,492.0	2,648.0	2,048.0	499.5	1,748.1	1,241.4	697.7	9,379.7	1,673.6	9,209.9	49,672.2	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	270.5	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	290.2	
Commercial/Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Energy Conservation (Sub-total)	405.7	330.1	600.1	5,498.2	4,291.2	2,196.4	939.9	1,057.0	5,549.7	319.8	1,495.7	2,648.0	2,048.0	499.5	1,748.1	1,241.4	697.7	6,334.7	1,673.5	6,209.8	49,672.2	
2 Non-Coal																						
Industrial Member Unit	7.4	2.2	11.1	21.0	26.3	17.3	3.3	9.8	76.6	2.5	10.7	12.3	10.7	3.9	10.2	11.3	4.5	40.9	9.7	39.6	273.1	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	47.7	67.2	44.5	98.1	94.9	94.5	37.0	67.3	40.6	52.1	46.1	55.5	36.9	70.9	82.0	84.3	59.2	36.3	59.2	63.7	1,164.8	
Energy Conservation (Sub-total)	55.1	69.3	55.6	119.9	69.7	67.8	60.4	74.3	67.6	59.5	54.7	67.6	49.4	74.4	107.3	105.6	60.6	44.6	44.6	67.7	1,419.7	
3 Open-Cast																						
Industrial Member Unit	29.0	9.9	49.7	109.7	119.6	74.0	19.8	27.8	331.9	9.8	39.5	44.0	53.7	33.4	47.3	47.4	21.4	199.0	46.2	199.0	1,270.3	
Industrial Bag Unit	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	30.6	
Commercial/Household	31.9	44.3	29.6	62.7	52.8	34.9	34.9	44.9	27.4	38.5	33.8	44.1	24.0	47.5	62.4	30.7	37.6	24.3	24.5	39.2	777.9	
Energy Conservation (Sub-total)	60.5	54.3	79.3	172.2	192.5	108.9	54.4	72.9	167.0	48.2	70.3	88.0	77.7	81.0	115.3	60.0	59.3	242.4	70.8	301.7	2,154.6	
4 Heavy Oil																						
Industrial Member Unit	10.9	9.5	16.6	44.0	60.0	34.6	13.2	17.9	79.2	9.7	17.1	30.1	24.9	6.2	72.8	79.9	15.4	244.9	111.1	430.4	3,242.5	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	
Commercial/Household	3.4	4.5	4.5	11.1	4.4	10.7	9.7	6.9	4.8	7.6	12.9	36.8	4.6	8.6	14.1	7.9	7.9	6.6	6.6	7.7	184.2	
Energy Conservation (Sub-total)	14.3	13.9	20.9	55.1	64.4	45.3	23.0	24.9	76.5	14.3	32.6	66.6	29.7	16.8	90.7	87.6	22.3	247.4	119.9	602.9	1,044.0	
5 LPG																						
Industrial Member Unit	0.6	0.2	1.4	5.7	4.7	2.6	0.6	1.1	6.3	0.3	1.2	1.9	2.4	0.4	1.9	1.4	1.1	7.8	1.7	9.5	49.8	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	
Commercial/Household	12.5	17.3	11.5	24.7	16.8	13.3	14.9	17.5	10.8	14.9	12.8	16.8	9.3	18.4	24.0	14.2	14.6	13.2	9.4	14.0	209.4	
Energy Conservation (Sub-total)	12.9	17.5	12.9	30.5	21.4	15.9	15.7	18.6	16.6	15.2	14.0	17.4	11.7	18.8	26.0	19.6	15.7	21.6	11.7	20.5	200.2	
6 Natural Gas																						
Industrial Member Unit	20.4	18.1	72.0	399.2	292.2	148.5	34.6	82.8	392.7	18.2	70.5	115.4	156.1	18.9	129.3	87.3	77.2	599.1	199.9	699.9	3,397.4	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.9	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150.8	
Commercial/Household	179.9	162.7	122.0	292.2	176.5	152.8	159.3	185.0	113.9	158.1	137.9	178.9	99.7	199.9	256.2	199.7	199.7	149.7	190.7	190.7	2,190.9	
Energy Conservation (Sub-total)	190.3	221.1	194.9	629.9	469.3	291.3	194.1	237.7	512.2	178.6	212.1	201.1	264.9	225.1	418.0	351.1	233.2	777.9	290.7	1,091.9	7,113.1	
7 Solid Fuel																						
Industrial Member Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Industrial Bag Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Commercial/Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Energy Conservation (Sub-total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8 Total																						
Industrial Member Unit	474.0	390.1	1,098.4	5,806.9	4,291.0	2,437.7	965.4	1,153.5	5,856.2	396.1	1,600.9	2,651.5	2,209.8	499.0	1,777.9	1,499.4	1,099.4	2,994.5	7,994.0	2,994.3	7,477.5	31,900.4
Industrial Bag Unit	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	370.8	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	
Commercial/Household	225.8	318.0	211.9	458.9	305.5	252.2	290.0	321.8	198.3	278.2	249.4	330.7	172.5	341.0	448.7	297.2	272.2	247.2	178.9	299.9	6,599.1	
Energy Conservation (Sub-total)	608.8	709.1	1,220.3	6,410.5	5,097.9	2,689.9	1,265.4	1,483.3	6,393.1	672.6	1,653.5	3,402.2	2,407.2	607.7	2,407.9	1,913.1	1,328.6	7,675.2	2,177.9	8,364.3	58,784.3	

Table 3.4 : District wise HC emission quantity (Best, 2010)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
<b>1 Gandhinagar</b>																					
Industrial Non-Res. Unit	19.6	12.3	35.1	206.0	187.8	69.0	36.4	39.9	303.0	1.2	96.3	101.9	79.9	59.0	57.8	36.1	243.8	84.1	0.0	0.0	3,754.8
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
Commercial Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	19.6	12.3	35.1	206.0	187.8	69.0	36.4	39.9	303.0	1.2	96.3	101.9	79.9	59.0	57.8	36.1	243.8	84.1	0.0	0.0	3,765.6
<b>2 Madhavnagar</b>																					
Industrial Non-Res. Unit	4.4	1.3	6.7	93.1	14.6	10.4	2.6	4.4	16.1	1.8	9.4	7.4	6.5	2.1	6.1	0.8	24.3	24.3	0.0	0.0	109.1
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	36.0	46.3	32.8	68.7	47.8	31.0	41.8	48.4	28.9	41.2	36.2	40.7	28.1	62.0	67.5	36.6	41.2	36.6	0.0	0.0	836.4
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	40.4	50.6	39.5	161.8	62.4	41.4	44.6	53.8	45.0	43.4	45.7	48.1	34.6	64.1	73.5	48.4	65.5	60.9	0.0	0.0	1,004.5
<b>3 Baniya</b>																					
Industrial Non-Res. Unit	20.1	6.8	30.3	73.9	82.6	51.2	10.8	10.2	91.3	9.9	25.2	21.1	27.2	9.2	32.7	32.8	14.6	12.8	0.0	0.0	943.9
Industrial Bkg Unit	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	8.4	11.6	7.9	17.0	11.4	9.3	18.4	12.0	7.3	10.3	9.0	11.8	9.4	12.7	16.0	9.4	10.1	9.1	0.0	0.0	207.4
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	28.5	18.5	46.2	91.0	94.0	60.5	21.1	22.2	98.6	19.9	34.2	32.9	46.6	21.9	48.7	42.2	24.7	21.9	0.0	0.0	1,151.3
<b>4 Madhav</b>																					
Industrial Non-Res. Unit	8.2	7.1	12.4	33.0	67.5	29.1	19.0	13.4	59.7	9.0	19.8	24.9	18.7	9.2	34.9	33.0	10.8	16.2	0.0	0.0	2,882.8
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	0.9	1.2	1.2	3.0	1.2	2.9	2.6	1.8	1.3	2.0	3.4	10.3	1.3	2.3	3.8	2.1	2.1	2.2	1.5	1.9	40.1
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	9.1	8.3	15.6	36.0	68.7	32.0	21.6	15.3	61.0	11.0	23.2	35.2	20.0	11.5	38.7	35.1	12.9	18.4	0.0	0.0	2,922.9
<b>5 LKO</b>																					
Industrial Non-Res. Unit	0.2	0.1	0.4	1.6	1.2	0.7	0.2	0.3	1.6	0.1	0.4	0.6	0.7	0.1	0.6	0.4	0.2	2.2	0.0	0.0	14.2
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	4.1	5.8	3.8	8.2	5.8	4.4	5.0	3.8	3.5	5.9	4.9	9.2	3.1	6.1	8.0	5.7	4.9	4.4	3.1	4.7	98.8
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	4.3	6.1	4.2	9.8	7.0	5.1	5.2	4.1	5.1	0.1	5.3	9.8	3.8	6.2	6.6	6.1	7.1	6.6	3.6	6.5	114.3
<b>6 Madhav</b>																					
Industrial Non-Res. Unit	2.9	2.6	10.4	52.2	41.7	21.2	4.9	7.9	50.4	2.6	10.5	19.3	22.3	2.7	16.5	14.5	11.1	61.2	22.9	0.0	479.9
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	46.7	66.5	46.7	98.3	69.2	59.5	59.8	69.4	42.2	59.2	51.7	69.3	37.0	73.2	66.1	59.5	58.4	58.8	37.8	0.0	1,187.2
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	51.6	71.1	57.1	150.5	110.9	80.7	64.7	77.3	92.6	61.8	62.2	89.6	59.3	75.9	82.6	84.0	79.5	120.0	60.6	0.0	2,667.1
<b>7 Solid Fuel</b>																					
Industrial Non-Res. Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	51.4	30.2	94.2	391.8	370.6	196.7	69.5	84.6	415.3	26.1	111.6	178.9	162.8	36.0	178.9	159.2	79.7	672.9	396.3	0.0	6,301.2
Industrial Non-Res. Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industrial Bkg Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Household	97.1	134.5	87.2	199.3	131.9	107.2	119.6	118.4	64.3	118.4	109.7	124.3	74.0	146.4	141.1	111.1	111.1	122.2	0.0	0.0	1,110.4
Energy Generation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(Sub-total)</b>	148.5	217.2	181.4	591.1	502.5	302.9	189.1	223.1	523.3	149.5	217.5	314.2	237.8	164.0	301.6	243.9	192.3	793.6	396.6	0.0	8,075.4





Table 4.0 : District wise TOTAL omission quantity by combustion & evaporation (Best, 2010)

Emission	District																				Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1 Combustion	2099.4	2099.4	2733.1	7032.8	11039.0	5829.9	2833.2	3242.9	9017.8	1932.9	3814.0	7232.0	3072.7	2319.7	10343.4	19195.2	2819.1	28451.5	12779.9	9973.1	207007.3
SO <sub>2</sub>	1798.1	2213.6	2490.6	7977.2	7370.3	4777.0	2731.8	2648.4	7461.6	1999.1	2706.5	3896.7	3490.1	2145.9	5466.5	8189.3	2319.7	13443.3	4999.1	24314.9	199199.9
NO <sub>x</sub>	698.6	999.5	1203.3	9410.9	9067.9	2699.9	1708.4	1486.3	6369.1	932.9	1893.9	3182.2	2492.2	891.7	2497.8	1913.1	1329.9	7079.2	3177.8	6358.3	56756.3
CO	144.9	213.2	186.5	579.0	502.9	362.9	182.9	223.1	573.3	146.7	217.5	315.1	227.9	164.0	381.6	559.9	192.9	799.9	295.8	1973.9	80754.4
HC	583.0	924.0	782.8	1000.5	1076.6	1191.9	678.4	794.9	1852.9	527.2	788.8	1194.2	659.3	992.8	1626.5	1997.8	668.9	3574.9	1309.4	8074.9	29044.4
SPM	6294.6	5778.5	7503.2	20068.7	29095.6	14304.5	6942.7	8379.7	25794.0	4008.8	9380.2	15881.2	10007.2	8112.8	20217.9	28489.3	7544.2	53075.5	21353.7	110360.3	417046.2
(Sub-total)																					
2 Evaporation/Attrition																					
SO <sub>2</sub>																					
NO <sub>x</sub>																					
CO																					
HC																					
SPM																					
(Sub-total)																					
3 Total Emission	2099.4	2099.4	2733.1	7032.8	11039.0	5829.9	2833.2	3242.9	9017.8	1932.9	3814.0	7232.0	3072.7	2319.7	10343.4	19195.2	2819.1	28451.5	12779.9	9973.1	207007.3
SO <sub>2</sub>	1798.1	2213.6	2490.6	7977.2	7370.3	4777.0	2731.8	2648.4	7461.6	1999.1	2706.5	3896.7	3490.1	2145.9	5466.5	8189.3	2319.7	13443.3	4999.1	24314.9	199199.9
NO <sub>x</sub>	698.6	999.5	1203.3	9410.9	9067.9	2699.9	1708.4	1486.3	6369.1	932.9	1893.9	3182.2	2492.2	891.7	2497.8	1913.1	1329.9	7079.2	3177.8	6358.3	56756.3
CO	144.9	213.2	186.5	579.0	502.9	362.9	182.9	223.1	573.3	146.7	217.5	315.1	227.9	164.0	381.6	559.9	192.9	799.9	295.8	1973.9	80754.4
HC	583.0	924.0	782.8	1000.5	1076.6	1191.9	678.4	794.9	1852.9	527.2	788.8	1194.2	659.3	992.8	1626.5	1997.8	668.9	3574.9	1309.4	8074.9	29044.4
SPM	6294.6	5778.5	7503.2	20068.7	29095.6	14304.5	6942.7	8379.7	25794.0	4008.8	9380.2	15881.2	10007.2	8112.8	20217.9	28489.3	7544.2	53075.5	21353.7	110360.3	417046.2
(Total)	5045.2	6211.1	8045.2	24791.5	29097.0	15374.1	7067.5	8740.5	28560.0	6488.8	10403.8	19094.0	11144.2	8678.9	20779.7	28714.9	7605.0	44993.5	213063.5	129208.3	447449.3





Table 2.1 : SOx emission of big factories (Best, 2010)

No.	Industrial Code	District	Location		Emission amount by Factory							Total emission (ton/year)
			Longitude (DAFS)	Latitude (DAFS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)	LPG (ton/year)		
1	3128	4	5127740	3543391	0.1	0.0	1.4	0.0	0.0	0.0	1.5	
2	3130	4	5128754	3544355	0.0	0.0	2.9	0.0	0.0	0.0	2.9	
3	3112	0	5118140	3540945	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	3130	0	5118006	3540929	0.3	0.0	3.9	0.0	0.0	0.0	4.2	
5	3130	10	5121748	3542060	0.1	0.0	0.1	0.0	0.0	0.0	0.2	
6	3119	10	5122224	3542000	0.0	0.0	0.3	0.0	0.0	0.0	0.3	
7	3140	11	5123110	3543299	0.1	278.7	0.3	0.0	0.0	0.0	279.1	
8	3115	10	5125710	3543048	2.2	0.0	3.0	0.0	0.0	0.0	5.2	
9	3129	10	5126220	3543000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	3130	10	5117104	3543524	0.1	0.0	7.1	0.0	0.0	0.0	7.2	
11	3119	10	5115608	3543007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12	3112	10	5118710	3543229	1.2	0.0	1.8	0.0	0.0	0.0	3.0	
(Total)	31				4.7	278.7	11.5	0.0	0.0	0.0	294.9	
13	3140	1	5133000	3543544	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	3111	0	5118008	3543224	0.1	61.3	2.2	0.0	0.0	0.0	63.6	
15	3140	0	5114554	3543443	0.4	0.0	0.3	0.0	0.0	0.0	0.7	
16	3111	0	5108558	3543347	0.1	0.0	1.7	0.0	0.0	0.0	1.8	
17	3111	10	5108118	3543559	0.2	8.1	0.3	0.0	0.0	0.0	8.6	
18	3140	20	5128192	3543704	0.0	0.0	4.0	0.0	0.0	0.0	4.0	
(Total)	37				1.5	70.4	8.4	0.0	0.0	0.0	80.3	
19	3113	2	5129140	3543211	0.0	0.0	0.3	0.0	0.0	0.0	0.3	
20	3120	0	5119720	3542140	0.0	0.0	0.1	0.0	0.0	0.0	0.1	
21	3113	10	5117720	3543234	0.0	0.0	0.5	0.0	0.0	0.0	0.5	
(Total)	33				0.0	0.0	0.9	0.0	0.0	0.0	0.9	
22	3110	10	5117058	3543224	0.1	141.3	0.0	0.0	0.0	0.0	141.4	
(Total)	34				0.1	141.3	0.0	0.0	0.0	0.0	141.4	
25	3122	4	5124024	3543273	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
26	3122	0	5121210	3543269	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
27	3121	0	5121328	3543204	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
28	3120	0	5118554	3543248	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
29	3122	0	5113550	3543250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30	3121	0	5114254	3543222	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31	3122	0	5107140	3543405	0.0	33.7	0.0	0.0	0.0	0.0	33.7	
32	3123	0	5111720	3543045	0.3	0.0	6.4	0.0	0.0	0.0	6.7	
33	3122	0	5116558	3544110	0.3	0.0	0.2	0.0	0.0	0.0	0.5	
34	3121	0	5118144	3543224	0.4	37.2	9.1	0.0	0.0	0.0	46.7	
35	3122	10	5117120	3543000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
36	3121	10	5114794	3543242	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
37	3122	19	5118124	3543020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
38	3121	18	5119114	3543200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
39	3122	18	5117120	3543024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
40	3120	10	5116010	3544110	0.0	0.0	2.1	0.0	0.0	0.0	2.1	
41	3123	18	5119190	3543218	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
42	3130	20	5123220	3543411	0.3	608.1	4.2	0.0	0.0	0.0	612.6	
(Total)	35	Occide Tehran Refinery			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(Total)	34				1.7	737.0	13.1	0.0	0.0	0.0	751.8	
43	3110	0	5118144	3543013	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
44	3120	0	5118144	3543013	1.9	11.6	0.3	0.0	0.0	0.0	13.8	
45	3120	15	5125008	3543248	1.5	0.0	0.0	0.0	0.0	0.0	1.5	
46	3125	15	5125008	3543248	2.7	354.5	0.0	0.0	0.0	0.0	357.2	
47	3120	20	5125220	3543258	2.3	0.0	3.3	0.0	0.0	0.0	5.6	
(Total)	38				8.4	382.1	3.8	0.0	0.0	0.0	394.3	
48	3110	0	5115554	3543283	0.0	0.0	0.3	0.0	0.0	0.0	0.3	
49	3110	0	5116658	3544424	0.0	0.0	1.2	0.0	0.0	0.0	1.2	
50	3110	18	5123030	3543554	0.2	0.0	1.1	0.0	0.0	0.0	1.3	
51	3110	18	5118118	3543032	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
52	3110	10	5118124	3543037	0.3	0.0	0.2	0.0	0.0	0.0	0.5	
53	3110	10	5118148	3543055	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(Total)	37				0.5	0.0	2.6	0.0	0.0	0.0	3.1	
54	3113	4	5124224	3543344	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
55	3118	4	5124140	3544000	0.0	0.0	0.7	0.0	0.0	0.0	0.7	
56	3122	4	5124196	3542824	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
57	3119	5	5118118	3543011	0.1	0.0	0.2	0.0	0.0	0.0	0.3	
58	3143	0	5113110	3543114	0.0	0.0	0.4	0.0	0.0	0.0	0.4	
59	3151	0	5117720	3543040	0.0	0.0	0.1	0.0	0.0	0.0	0.1	
60	3143	0	5111118	3543328	0.2	0.0	1.0	0.0	0.0	0.0	1.2	
61	3126	0	5112258	3543245	0.2	0.0	0.2	0.0	0.0	0.0	0.4	
62	3127	0	5110906	3543279	0.3	1.5	0.5	0.0	0.0	0.0	2.3	
63	3143	0	5110920	3543330	0.7	0.0	1.4	0.0	1.3	0.0	3.4	
64	3143	0	5112222	3543248	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
65	3122	14	5128240	3541191	1.5	0.0	0.0	0.0	0.0	0.0	1.5	
66	3119	13	5128220	3543845	0.0	0.0	1.4	0.0	0.0	0.0	1.4	
67	3138	13	5128008	3540728	0.4	0.0	13.9	0.0	0.0	0.0	14.3	
68	3129	18	5105118	3544222	0.0	0.0	0.1	0.0	0.0	0.0	0.1	
69	3126	18	5118230	3543113	0.0	0.0	0.2	0.0	0.0	0.0	0.2	
70	3143	18	5117198	3543008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
71	3139	10	5113208	3543213	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
72	3118	10	5110740	3543200	0.1	142.0	0.0	0.0	0.0	0.0	142.1	
73	3127	18	5118552	3540214	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
74	3143	18	5105206	3544148	0.2	0.0	0.4	0.0	0.0	0.0	0.6	
75	3143	18	5118558	3540720	0.2	0.0	1.9	0.0	1.3	0.0	3.4	
(Total)	39				4.8	142.0	21.9	0.0	1.3	0.0	169.9	
(Grand Total)					21.3	1442.0	70.0	0.0	1.3	0.0	1931.1	

Table 2.1 : SOx emission of big factories (Best, 2010)

No.	Name	District	Location		Emission amount by Factory							Total emission (ton/year)
			Longitude (DAFS)	Latitude (DAFS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)	LPG (ton/year)		
1	Tehran Refinery	2008	5125540	3543240	24.3	21,370.8	14.0	0.0	0.0	0.0	21,414.6	
2	Power Plant - Basal	10	5125540	3543240	33.5	0,314.5	137.5	0.0	0.0	0.0	8,485.5	
3	Power Plant - Foroush	2	5121110	3543214	2.0	0.0	10.4	0.0	0.0	0.0	9,336.0	
4	Power Plant - Rey	2009	5124420	3543120	18.8	0.0	127.0	0.0	0.0	0.0	146.5	
(Total)					58.6	20,685.1	159.4	0.0	0.0	0.0	30,003.0	



Table 2.3: CO emission of big factories (Best, 2010)

No.	Industrial Code	District	Location		Emission amount by Factory						Total emission (ton/year)
			Longitude (GMS)	Latitude (GMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Coal Oil (ton/year)	Kerosene (ton/year)	Gasoil (ton/year)	LPG (ton/year)	
1	3126	4	512740	354321	0.7	0.0	0.0	0.0	0.0	0.0	0.7
2	3130	4	512754	354329	0.2	0.0	1.0	0.0	0.0	0.0	1.2
3	3112	8	517840	354045	4.5	0.0	0.0	0.0	0.0	0.0	4.5
4	3130	8	517806	354029	2.3	0.0	1.5	0.0	0.0	0.0	3.8
5	3130	10	512348	354200	0.4	0.0	0.0	0.0	0.0	0.0	0.4
6	3119	10	512224	354200	0.0	0.0	0.1	0.0	0.0	0.0	0.1
7	3140	11	512310	354029	0.7	2.8	0.1	0.0	3.7	0.0	7.2
8	3113	16	512510	354248	12.2	0.0	1.1	0.0	0.0	0.0	13.4
9	3129	18	512020	354000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3130	18	517724	354524	0.8	0.0	2.7	0.0	0.0	0.0	3.4
11	3119	18	517608	354037	0.1	0.0	0.0	0.0	0.0	0.0	0.1
12	3112	19	517810	354029	0.1	0.0	1.1	0.0	0.0	0.0	1.2
(Total)		31			33.0	2.8	4.3	0.0	3.7	0.0	43.6
13	3240	4	513300	354354	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3211	8	517809	354024	0.4	0.9	0.9	0.0	0.0	0.0	2.1
15	3240	8	517454	354243	2.8	0.0	0.1	0.0	0.0	0.0	2.9
16	3211	10	516658	354347	0.4	0.0	0.6	0.0	0.0	0.0	1.0
17	3211	18	517418	353958	1.1	0.1	0.1	0.0	0.0	0.0	1.3
18	3211	20	512910	352764	4.3	0.0	1.5	0.0	0.0	0.0	5.8
(Total)		32			8.1	0.7	3.3	0.0	0.0	0.0	12.1
19	3310	2	512040	354311	0.0	0.0	0.1	0.0	0.0	0.0	0.1
20	3320	9	517320	354246	0.2	0.0	0.0	0.0	0.0	0.0	0.2
21	3310	14	517720	354226	0.0	0.0	0.2	0.0	0.0	0.0	0.2
(Total)		33			0.2	0.0	0.3	0.0	0.0	0.0	0.5
22	3419	18	517750	354024	0.7	2.4	0.0	0.0	0.0	0.0	3.1
(Total)		34			0.7	2.4	0.0	0.0	0.0	0.0	3.1
23	3522	4	512424	354323	0.4	0.0	0.0	0.0	0.0	0.0	0.4
24	3522	9	512210	354259	0.7	0.0	0.0	0.0	0.0	0.0	0.7
25	3521	9	517329	354304	0.5	0.0	0.0	0.0	0.0	0.0	0.5
26	3559	9	517454	354248	0.4	0.0	0.0	0.0	0.0	0.0	0.4
27	3522	9	512350	354238	0.1	0.0	0.0	0.0	0.0	0.0	0.1
28	3521	9	517454	354222	0.1	0.0	0.0	0.0	0.0	0.0	0.1
29	3562	9	510740	354405	0.1	0.3	0.0	0.0	0.0	0.0	0.4
30	3523	9	517720	354045	2.1	0.2	2.3	0.0	0.0	0.0	4.6
31	3532	9	510856	354470	1.8	0.0	0.1	0.0	0.0	0.0	1.9
32	3561	9	517814	354224	2.9	0.4	0.0	0.0	0.0	0.0	3.3
33	3528	18	517728	354000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	3523	18	517404	354242	0.5	0.0	0.9	0.0	0.0	0.0	1.4
35	3532	18	517824	354026	0.1	0.0	0.9	0.0	0.0	0.0	1.0
36	3541	18	517014	354320	0.1	0.0	0.0	0.0	0.0	0.0	0.1
37	3532	18	517728	354024	0.2	0.0	0.0	0.0	0.0	0.0	0.2
38	3530	18	510916	354419	0.5	0.0	0.0	0.0	0.0	0.0	0.5
39	3529	18	517939	354271	2.8	0.3	1.8	0.0	0.0	0.0	4.9
40	3530	20	512520	353471	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	Octel Toluene Refinery	35			12.2	2.0	5.1	0.0	0.0	0.0	19.3
41	3610	8	517814	354013	6.4	0.0	0.0	0.0	0.0	0.0	6.4
42	3620	9	517814	354013	9.1	0.1	3.0	0.0	0.0	0.0	12.2
43	3592	15	512006	350548	10.5	0.0	0.0	0.0	0.0	0.0	10.5
44	3692	15	512006	350548	18.8	3.4	0.0	0.0	0.0	0.0	22.2
45	3692	20	512520	353356	16.3	0.0	1.3	0.0	0.0	0.0	17.6
(Total)		36			50.6	3.5	4.3	0.0	0.0	0.0	58.4
46	3710	8	512024	354289	0.0	0.0	0.1	0.0	0.0	0.0	0.1
47	3740	8	516856	354424	0.1	0.0	0.5	0.0	0.0	0.0	0.6
48	3740	18	512220	354250	0.1	0.0	3.1	0.0	0.0	0.0	3.2
49	3710	19	517818	354029	0.1	0.0	0.0	0.0	0.0	0.0	0.1
50	3710	19	517824	354027	1.9	0.0	0.1	0.0	0.0	0.0	2.0
51	3710	19	517840	354056	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)		37			3.3	0.0	3.8	0.0	0.0	0.0	7.1
52	3813	4	512424	354311	0.1	0.0	0.0	0.0	0.0	0.0	0.1
53	3819	4	512440	354400	0.1	0.0	0.3	0.0	0.0	0.0	0.4
54	3827	4	512450	354224	0.8	0.0	0.0	0.0	0.0	0.0	0.8
55	3819	5	517018	354211	0.5	0.0	0.1	0.0	0.0	0.0	0.6
56	3843	9	517310	354314	0.2	0.0	0.1	0.0	0.0	0.0	0.3
57	3851	9	517320	354045	0.1	0.0	0.0	0.0	0.0	0.0	0.1
58	3843	9	517318	354228	1.7	0.0	0.4	0.0	0.0	0.0	2.1
59	3828	9	512556	354245	1.1	0.0	0.1	0.0	0.0	0.0	1.2
60	3827	9	517600	354229	2.4	0.0	0.2	0.0	0.0	0.0	2.6
61	3843	9	517020	354304	4.9	0.0	0.6	0.0	27.5	0.0	33.0
62	3843	9	517232	354248	3.9	0.0	0.0	0.0	0.0	0.0	3.9
63	3827	14	512642	354121	10.7	0.0	0.0	0.0	0.0	0.0	10.7
64	3819	18	512920	352845	0.1	0.0	0.5	0.0	0.0	0.0	0.6
65	3838	18	512608	354702	2.9	0.0	3.2	0.0	0.0	0.0	6.1
66	3830	18	512518	354422	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	3820	18	517820	354012	0.0	0.0	0.1	0.0	0.0	0.0	0.1
68	3843	18	517168	353908	0.4	0.0	0.0	0.0	0.0	0.0	0.4
69	3830	18	513306	354313	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	3819	18	517048	354209	0.3	1.3	0.0	0.0	0.0	0.0	1.6
71	3827	18	517852	354014	0.3	0.0	0.0	0.0	0.0	0.0	0.3
72	3843	18	512520	354349	1.8	0.0	0.1	0.0	0.0	0.0	1.9
73	3843	19	517356	353728	1.8	0.0	0.7	0.0	0.0	0.0	2.5
(Total)		38			33.7	1.4	6.5	0.0	27.5	1.0	49.1
(Grand Total)					152.8	17.4	20.8	0.0	250.3	1.1	480.3

Table 2.3: CO emission of big factories (Best, 2010)

No.	Name	District	Location		Emission amount by Factory						Total emission (ton/year)
			Longitude (GMS)	Latitude (GMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Coal Oil (ton/year)	Kerosene (ton/year)	Gasoil (ton/year)	LPG (ton/year)	
1	Tehran Refinery	2008	512540	353240	177.3	298.8	8.4				344.5
2	Power Plant				234.5	81.0	65.5				381.0
2.1	- Best	16	512540	353240	77.9	81.0	4.9				163.8
2.2	- Faroud	2	512110	354324	20.7	0.0	0.1				20.8
2.3	- Ray	2008	512420	353120	136.0	0.0	60.5				196.5
(Total)					411.9	299.8	73.9	0.0	0.0	0.0	785.7

Table 2.4: HC emission of big factories (Base, 2010)

No.	Industrial Code	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	3129	4	51/27/42	35/43/31	0.1	0.0	0.4	0.0	0.0	0.0	0.5
2	3120	4	51/28/54	35/44/33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3112	9	51/18/42	35/40/19	0.4	0.0	0.0	0.0	0.0	0.0	0.4
4	3120	9	51/18/08	35/42/28	0.3	0.0	1.1	0.0	0.0	0.0	1.4
5	3120	10	51/21/43	35/43/00	0.1	0.0	0.0	0.0	0.0	0.0	0.1
6	3119	10	51/22/24	35/43/00	0.0	0.0	0.1	0.0	0.0	0.0	0.1
7	3143	11	51/23/10	35/42/11	0.1	2.0	0.1	0.0	0.1	0.0	2.3
8	3118	11	51/23/10	35/42/11	2.2	0.0	0.8	0.0	0.0	0.0	3.0
9	3129	18	51/20/20	35/40/20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3129	18	51/17/34	35/43/24	0.1	0.0	1.9	0.0	0.0	0.0	2.0
11	3119	18	51/16/08	35/40/32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	3112	18	51/16/10	35/40/29	1.2	0.0	0.0	0.0	0.0	0.0	1.2
(Total)					4.7	2.0	2.4	0.0	0.1	0.0	12.8
13	3240	4	51/33/00	35/43/54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3211	9	51/18/08	35/42/28	0.1	0.4	0.4	0.0	0.0	0.0	0.9
15	3240	9	51/18/54	35/42/28	0.4	0.0	0.1	0.0	0.0	0.0	0.5
16	3211	9	51/22/24	35/43/00	0.1	0.0	0.4	0.0	0.0	0.0	0.5
17	3211	18	51/18/18	35/40/55	0.2	0.1	0.1	0.0	0.0	0.0	0.4
18	3211	20	51/25/10	35/43/04	0.0	0.0	1.1	0.0	0.0	0.0	1.1
(Total)					1.3	0.5	2.1	0.0	0.0	0.0	4.0
19	3315	7	51/20/40	35/43/11	0.0	0.0	0.1	0.0	0.0	0.0	0.1
20	3320	9	51/18/20	35/43/40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	3315	18	51/17/20	35/40/24	0.0	0.0	0.1	0.0	0.0	0.0	0.1
(Total)					0.0	0.0	0.2	0.0	0.0	0.0	0.2
22	3419	18	51/17/50	35/40/24	0.1	1.8	0.0	0.0	0.0	0.0	1.9
(Total)					0.1	1.8	0.0	0.0	0.0	0.0	1.9
23	3522	4	51/04/00	35/43/23	0.1	0.0	0.0	0.0	0.0	0.0	0.1
24	3522	9	51/18/10	35/42/54	0.1	0.0	0.0	0.0	0.0	0.0	0.1
25	3521	9	51/18/20	35/43/04	0.1	0.0	0.0	0.0	0.0	0.0	0.1
26	3559	9	51/18/54	35/42/48	0.1	0.0	0.0	0.0	0.0	0.0	0.1
27	3522	9	51/18/55	35/42/38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	3521	9	51/18/54	35/42/22	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	3552	9	51/07/40	35/44/05	0.0	0.2	0.0	0.0	0.0	0.0	0.2
30	3523	9	51/17/20	35/40/45	0.3	0.0	0.0	0.0	0.0	0.0	0.3
31	3522	9	51/08/34	35/44/10	0.2	0.0	0.1	0.0	0.0	0.0	0.3
32	3551	9	51/18/24	35/42/24	0.4	0.3	0.0	0.0	0.0	0.0	0.7
33	3529	18	51/17/24	35/40/00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	3523	18	51/14/04	35/42/43	0.1	0.0	0.0	0.0	0.0	0.0	0.1
35	3523	18	51/18/24	35/42/20	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	3561	18	51/10/14	35/43/30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	3522	18	51/17/28	35/42/24	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	3520	18	51/06/10	35/44/19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	3523	18	51/09/20	35/42/18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	3559	20	51/25/20	35/43/11	0.3	4.7	1.1	0.0	0.0	0.0	6.1
(Total)	Oron Refinery				0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)					1.7	5.2	3.5	0.0	0.0	0.0	10.5
41	3410	9	51/18/42	35/42/13	0.1	0.0	0.0	0.0	0.0	0.0	0.1
42	3420	9	51/18/42	35/42/13	1.9	0.1	0.1	0.0	0.0	0.0	2.0
43	3402	15	51/20/00	35/43/00	1.5	0.0	0.0	0.0	0.0	0.0	1.5
44	3402	15	51/20/00	35/43/00	2.7	2.5	0.0	0.0	0.0	0.0	5.2
45	3409	20	51/22/20	35/43/26	2.3	0.0	0.0	0.0	0.0	0.0	2.3
(Total)					8.5	2.6	1.0	0.0	0.0	0.0	12.0
46	3710	9	51/00/54	35/43/30	0.0	0.0	0.1	0.0	0.0	0.0	0.1
47	3710	9	51/00/56	35/44/24	0.0	0.0	0.3	0.0	0.0	0.0	0.3
48	3710	18	51/20/50	35/40/20	0.2	0.0	2.2	0.0	0.0	0.0	2.3
49	3710	18	51/19/10	35/40/32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	3710	18	51/18/24	35/40/32	0.3	0.0	0.0	0.0	0.0	0.0	0.3
51	3710	19	51/18/42	35/40/58	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)					0.5	0.0	2.6	0.0	0.0	0.0	3.1
52	3410	4	51/24/24	35/43/44	0.0	0.0	0.0	0.0	0.0	3.0	3.0
53	3419	4	51/24/40	35/43/00	0.0	0.0	0.2	0.0	0.0	0.0	0.2
54	3427	4	51/24/58	35/42/24	0.1	0.0	0.0	0.0	0.0	0.0	0.1
55	3419	5	51/18/18	35/42/11	0.1	0.0	0.1	0.0	0.0	0.0	0.2
56	3443	9	51/13/10	35/43/14	0.0	0.0	0.1	0.0	0.0	0.0	0.1
57	3451	9	51/17/20	35/40/40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	3443	9	51/11/18	35/43/28	0.2	0.0	0.3	0.0	0.0	0.0	0.5
59	3426	9	51/12/58	35/42/45	0.2	0.0	0.1	0.0	0.0	0.0	0.3
60	3427	9	51/19/20	35/42/29	0.3	0.0	0.1	0.0	0.0	0.0	0.4
61	3443	9	51/12/20	35/43/08	0.7	0.0	0.4	0.0	0.0	0.0	1.1
62	3443	9	51/12/52	35/42/48	0.8	0.0	0.0	0.0	0.0	0.0	0.8
63	3427	14	51/22/30	35/41/04	1.8	0.0	0.0	0.0	0.0	0.0	1.8
64	3419	15	51/22/20	35/40/45	0.4	0.0	0.4	0.0	0.0	0.0	0.8
65	3439	18	51/28/58	35/47/28	0.4	0.0	3.8	0.0	0.0	0.0	4.0
66	3439	18	51/05/15	35/45/52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	3429	18	51/18/20	35/40/13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68	3443	18	51/17/48	35/40/08	0.0	0.0	4.0	0.0	0.0	0.0	4.0
69	3438	18	51/13/08	35/42/13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	3419	18	51/10/48	35/42/54	0.1	1.0	0.0	0.0	0.0	0.0	1.1
71	3437	18	51/18/52	35/40/14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72	3443	18	51/05/00	35/44/48	0.2	0.0	0.1	0.0	0.0	0.0	0.3
73	3443	18	51/18/58	35/37/28	0.2	0.0	0.5	0.0	0.0	0.0	0.7
(Total)					4.8	1.0	9.9	0.0	0.0	0.0	15.7
(Grand Total)					21.3	13.1	21.2	0.0	0.0	0.0	55.5

Table 2.4: HC emission of big factories (Base, 2010)

No.	Name	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	Refinery	2008	51/25/43	35/32/40	405.4	204.8	8.4				622.7
2	Power Plant				538.1	81.0	61.4				680.5
2.1	- Refinery	18	51/25/40	35/32/40	178.1	81.0	4.8				272.8
2.2	- Power Plant	2	51/21/10	35/43/24	48.2	0.0	0.1				48.3
2.3	- Refinery	2008	51/24/20	35/31/20	311.7	0.0	56.7				368.4
(Total)					944.4	295.8	69.9	0.0	0.0	0.0	1311.2

Table 2.4 : SPM emission of big factories (Best 2010)

No.	Industrial Code	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	3129	4	512740	354531	0.0	0.0	2.0	0.0	0.0	0.0	2.0
2	3130	4	512854	354435	0.2	0.0	4.0	0.0	0.0	0.0	4.2
3	3132	9	517840	354945	3.9	0.0	0.0	0.0	0.0	0.0	3.9
4	3136	9	517800	354928	2.0	0.0	7.0	0.0	0.0	0.0	9.0
5	3130	10	517148	354200	0.4	0.0	0.2	0.0	0.0	0.0	0.6
6	3119	10	517224	354200	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	3140	11	512310	354920	0.0	14.0	0.0	0.0	0.0	0.0	14.0
8	3119	10	517210	354248	13.1	0.0	3.7	0.0	0.0	0.0	16.8
9	3129	10	517020	354900	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3130	10	517134	354524	0.5	0.0	13.7	0.0	0.0	0.0	14.2
11	3119	10	517600	354907	0.1	0.0	0.0	0.0	0.0	0.0	0.1
12	3112	10	517810	354920	7.0	0.0	3.5	0.0	0.0	0.0	10.5
(Total)	31				28.3	14.0	41.5	0.0	0.0	0.0	84.5
13	3240	4	513300	354354	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3211	9	517908	354024	0.3	3.2	4.3	0.0	0.0	0.0	7.8
15	3240	9	517454	354243	2.2	0.0	0.0	0.0	0.0	0.0	2.2
16	3211	9	510458	354347	0.4	0.0	3.7	0.0	0.0	0.0	4.1
17	3211	18	517818	354059	0.9	0.5	0.5	0.0	0.0	0.0	1.9
18	3211	20	512910	353704	3.0	0.0	7.7	0.0	0.0	0.0	11.3
(Total)	32				7.5	3.7	16.3	0.0	0.0	0.0	27.5
19	3313	21	512240	354211	0.0	0.0	0.5	0.0	0.0	0.0	0.5
20	3320	9	513320	354240	0.1	0.0	0.1	0.0	0.0	0.0	0.2
21	3313	18	517120	354034	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	33				0.2	0.0	0.6	0.0	0.0	0.0	0.8
22	3410	18	517150	354024	0.0	12.1	0.0	0.0	0.0	0.0	12.7
(Total)	34				0.0	12.1	0.0	0.0	0.0	0.0	12.7
23	3522	4	512438	354323	0.4	0.0	0.1	0.0	0.0	0.0	0.5
24	3522	9	517210	354259	0.0	0.0	0.1	0.0	0.0	0.0	0.1
25	3521	9	517328	354304	0.4	0.0	0.0	0.0	0.0	0.0	0.4
26	3550	9	517834	354248	0.3	0.0	0.0	0.0	0.0	0.0	0.3
27	3522	9	517330	354259	0.1	0.0	0.0	0.0	0.0	0.0	0.1
28	3521	9	517454	354222	0.1	0.0	0.0	0.0	0.0	0.0	0.1
29	3552	9	516740	354408	1.1	1.8	0.1	0.0	0.0	0.0	3.0
30	3523	9	517720	354045	1.1	0.0	4.5	0.0	0.0	0.0	5.6
31	3522	9	516858	354410	1.1	0.0	0.0	0.0	0.0	0.0	1.1
32	3551	9	517844	354224	1.9	3.0	0.1	0.0	0.0	0.0	5.0
33	3528	18	517128	354300	0.0	0.0	0.1	0.0	0.0	0.0	0.1
34	3523	18	517404	354242	0.5	0.0	0.0	0.0	0.0	0.0	0.5
35	3522	18	517826	354020	0.0	0.0	0.1	0.0	0.0	0.0	0.1
36	3541	18	517914	354330	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	3522	18	517128	354024	0.1	0.0	0.0	0.0	0.0	0.0	0.1
38	3530	18	510010	354419	0.3	0.0	4.0	0.0	0.0	0.0	4.3
39	3523	18	517030	354218	0.0	0.0	6.0	0.0	0.0	0.0	6.0
40	3520	20	512520	353411	1.7	35.2	8.2	0.0	0.0	0.0	45.1
(Total)	35				10.4	38.9	25.4	0.0	0.0	0.0	74.7
41	3610	9			0.3	0.0	0.0	0.0	0.0	0.0	0.3
42	3620	9	517814	354213	11.2	0.0	0.5	0.0	0.0	0.0	11.7
43	3621	15			0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	3621	15	512800	352848	18.1	0.0	0.0	0.0	0.0	0.0	18.1
45	3620	20	512520	353326	13.9	0.0	0.1	0.0	0.0	0.0	14.0
(Total)	36				50.5	0.0	0.6	0.0	0.0	0.0	51.1
46	3710	4	517934	354280	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	3710	9	516058	354424	0.1	0.0	2.2	0.0	0.0	0.0	2.3
48	3710	10	517930	353858	1.0	0.0	15.7	0.0	0.0	0.0	16.7
49	3710	18	517818	354307	0.1	0.0	0.0	0.0	0.0	0.0	0.1
50	3710	18	517824	354307	1.8	0.0	0.3	0.0	0.0	0.0	2.1
51	3710	19	517848	353858	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(Total)	37				2.8	0.0	18.9	0.0	0.0	0.0	21.7
52	3813	4	512424	354344	0.1	0.0	0.0	0.0	0.0	0.0	0.1
53	3818	4	512440	354400	0.1	0.0	1.4	0.0	0.0	0.0	1.5
54	3827	4	512458	354224	0.7	0.0	0.0	0.0	0.0	0.0	0.7
55	3819	5	517818	354211	0.5	0.0	0.5	0.0	0.0	0.0	1.0
56	3843	9	517310	354314	0.2	0.0	0.7	0.0	0.0	0.0	0.9
57	3851	9	517120	354340	0.1	0.0	0.2	0.0	0.0	0.0	0.3
58	3843	9	517118	354328	1.4	0.0	2.0	0.0	0.0	0.0	3.4
59	3826	9	517258	354245	0.9	0.0	0.5	0.0	0.0	0.0	1.4
60	3827	9	517600	354229	2.0	0.1	1.0	0.0	0.0	0.0	3.1
61	3843	9	517020	354328	4.2	0.0	2.9	0.0	0.0	0.0	7.1
62	3843	9	517232	354248	3.4	0.0	0.0	0.0	0.0	0.0	3.4
63	3827	14	512840	354101	0.2	0.0	0.0	0.0	0.0	0.0	0.2
64	3818	15	512820	353845	0.1	0.0	2.0	0.0	0.0	0.0	2.1
65	3839	15	512820	354728	2.5	0.0	25.8	0.0	0.0	0.0	28.3
66	3830	18	510518	354402	0.0	0.0	0.2	0.0	0.0	0.0	0.2
67	3820	18	517820	354010	0.0	0.0	0.3	0.0	0.0	0.0	0.3
68	3843	18	517748	353808	0.1	0.0	0.0	0.0	0.0	0.0	0.1
69	3830	18	517368	354310	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	3810	18	517048	354208	0.4	7.5	0.0	0.0	0.0	0.0	7.9
71	3827	18	517852	354014	0.2	0.0	0.0	0.0	0.0	0.0	0.2
72	3843	19	510500	354448	1.4	0.0	0.7	0.0	0.0	0.0	2.1
73	3843	19	517858	353728	1.4	0.0	3.9	0.0	0.0	0.0	5.3
(Total)	38				28.0	7.5	42.3	0.0	0.0	0.0	81.4
(Grand Total)					129.2	97.3	152.9	0.0	0.0	0.0	382.3

Table 2.5 : SPM emission of big factories (Best 2010)

No.	Name	District	Location		Emission amount by Factory					Total emission (ton/year)	
			Longitude (DMS)	Latitude (DMS)	Natural Gas (ton/year)	Heavy Oil (ton/year)	Gas Oil (ton/year)	Kerosene (ton/year)	Gasoline (ton/year)		LPG (ton/year)
1	Tarzan Refinery	2008	512540	353240	152.0	913.4	37.1				1,102.5
2	Power Plant				201.0	308.3	270.2				859.5
2.1	- Basal	10	512540	352840	60.8	368.3	20.4				455.5
2.2	- Forogl	2	512110	354324	17.3	0.0	0.3				17.6
2.3	- Ray	2008	512420	352120	116.9	0.0	249.5				366.4
(Total)					353.0	1,521.7	307.3	0.0	0.0	0.0	1,072.4

Annex : Variation of Fuel Consumption in a year & in a day (%)

(CH61 DM121) (Revised)

(%)

Fuel	Month	12-2	3-5	6-8	9-11	(Total)	Hour	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	(Total)						
1 Gasoline	Industrial Non-large Unit	25	25	25	25	100					10.0	20.0	20.0	20.0	20.0	10.0					100					
	Industrial Large Unit	25	25	25	25	100					10.0	20.0	20.0	20.0	20.0	10.0					100					
	Commercial/Household																									
	Thermal Power Plant																									
2 Kerosene	Industrial Non-large Unit	19	15	27	39	100					10.0	20.0	20.0	20.0	20.0	10.0					100					
	Industrial Large Unit	19	15	27	39	100					10.0	20.0	20.0	20.0	20.0	10.0					100					
	Commercial/Household	46	16	12	25	100			5.0							5.0					100					
	Thermal Power Plant																									
3 Gas Oil	Industrial Non-large Unit	28	17	22	33	100															5.0	5.0	2.5	2.5		
	Industrial Large Unit	28	17	22	33	100															5.0	5.0	2.5	2.5		
	Commercial/Household	46	16	12	25	100																				
	Thermal Power Plant	25	24	26	25	100																				
4 Heavy Oil	Industrial Non-large Unit	26	20	24	31	100																				
	Industrial Large Unit	26	20	24	31	100																				
	Commercial/Household	46	16	12	25	100																				
	Thermal Power Plant	25	24	26	25	100																				
5 LPG	Industrial Non-large Unit	28	25	24	24	100																				
	Industrial Large Unit	26	20	24	31	100																				
	Commercial/Household	46	16	12	25	100																				
	Thermal Power Plant	25	24	26	25	100																				
6 Natural Gas	Industrial Non-large Unit	46	16	12	25	100																				
	Industrial Large Unit	26	20	24	31	100																				
	Commercial/Household	46	16	12	25	100																				
	Thermal Power Plant	25	24	26	25	100																				
7 Solid Fuel	Industrial Non-large Unit	28	25	24	24	100																				
	Industrial Large Unit	26	20	24	31	100																				
	Commercial/Household	46	16	12	25	100																				
	Thermal Power Plant	25	24	26	25	100																				



Annex : Allocation of emission quantities Of pollutantsto district boundary (DB)  
(%)

	Industrial Non-large	Commercial/Household		Industrial Non-large	Commercial/Household
1	100	100	1DB	0	0
4	100	100	4DB	0	0
5	90	95	5DB	10	5
9	70	80	9DB	30	20
13	100	100	13DB	0	0
15	100	100	15DB	0	0
18	80	90	18DB	20	10
19	80	90	19DB	20	10
20	80	90	20DB	20	10



