ANNEXURES

ANNEXURE I: UNIT-LEVEL DATA FOR COAL AND LIGNITE FIRED PLANTS (2008-09)

Plant	Capacity (MW)	Net Generation (GWh)	No of unit	2006-07 emissions factor (kg/kWh)	2007-08 emissions factor (kg/kWh)	2008-09 emissions factor (kg/kWh)	Net Efficiency HHV (per cent)	Net Efficiency LHV (per cent)
Andhra Pradesh Power Generation Co Ltd	**3,382.5**	**23,314**	**21**	**1.02**	**1.01**	**1.00**	**32.63**	**33.80**
Kothagudem	720	4,052	8	1.14	1.11	1.15	28.28	29.29
Kothagudem New	500	3,286	2	0.99	0.98	0.98	33.46	34.65
Vijaywada	1260	9,445	6	0.99	0.98	0.96	33.87	35.08
Ramagundem B	62.5	421	1	1.16	1.10	1.11	29.28	30.33
Rayalseema	840	6,109	4	0.98	0.98	0.95	34.39	35.62
Bihar State Electricity Board	**310**	**91**	**4**	**2.34**	**1.95**	**1.79**	**18.24**	**18.89**
Barauni	310	91	4	2.34	1.95	1.79	18.24	18.89
Calcutta Electricity Supply Company	**1035**	**7,242**	**12**	**1.14**	**1.1**	**1.15**	**28.38**	**29.39**
Newcossipore	160	402	4	2.04	1.97	2.09	15.60	16.15
Titargarh	240	1,770	4	1.23	1.21	1.21	26.95	27.91
Southern Repl.	135	1,019	2	1.20	1.19	1.21	27.05	28.02
Budge Budge	500	4,051	2	0.99	1.02	1.01	32.37	33.53
Chhattisgarh SEB	**1,780**	**12,067**	**12**	**1.17**	**1.16**	**1.14**	**28.63**	**29.65**
Korba East	940	6,238	8	1.17	1.21	1.15	28.42	29.43
Korba West	840	5,829	4	1.16	1.12	1.12	29.07	30.10
Durgapur Projects Ltd.	**690**	**2,703**	**7**	**1.45**	**1.49**	**1.39**	**23.54**	**24.38**
Damodar Valley Corporation	**3,060**	**13,469**	**17**	**1.23**	**1.18**	**1.22**	**26.75**	**27.70**
Chandrapura	750	2,212	6	1.37	1.18	1.29	25.24	26.15
Durgapur	340	1,728	2	1.35	1.26	1.28	25.50	26.41
Bokaro B	630	3,087	3	1.39	1.36	1.43	22.75	23.56
Mejia	1,340	6,442	6	1.07	1.07	1.07	30.46	31.55
Gujarat State Electricity Corporation Ltd.	**3,645**	**22,307**	**22**	**1.16**	**1.14**	**1.14**	**28.82**	**29.85**
Ukai	850	4,406	5	1.16	1.18	1.14	28.58	29.60
Gandhinagar	870	5,388	5	1.25	1.14	1.12	29.19	30.23
Wanakbori	1,470	10,161	7	1.06	1.07	1.09	30.06	31.13
Sikka Rep.	240	1,253	2	1.29	1.33	1.35	24.13	24.99
Kutch Lignite	215	1,099	3	1.59	1.52	1.65	21.87	22.66
Gujarat Industrial Power Corporation Ltd	**250**	**1,547**	**2**	**1.21**	**1.21**	**1.23**	**29.45**	**30.51**
Surat Lignite	250	1,547	2	1.21	1.21	1.23	29.45	30.51
Gujrat Mineral Development Corporation Ltd.	**250**	**954**	**2**	**1.23**	**1.35**	**1.41**	**25.69**	**26.62**
Akrimota Lignite	250	954	2	1.23	1.35	1.41	25.69	26.62
Neyveli Lignite Corporation	**2,490**	**14169**	**18**	**1.46**	**1.43**	**1.46**	**24.77**	**25.66**
Neyveli ST 1	600	3,141	9	1.86	1.86	1.88	19.27	19.96
Neyveli ST2	1470	8,170	7	1.34	1.34	1.37	26.32	27.27
Neyveli FST Ext	420	2,858	2	1.26	1.26	1.26	28.74	29.78
Haryana Power Generation Corporation Ltd.	**2,125**	**11,945**	**13**	**1.22**	**1.23**	**1.16**	**28.13**	**29.14**
Faridabad Extn.	165	418	3	1.92	2.13	2.04	15.98	16.55
Panipat	1,360	8,673	8	1.18	1.17	1.16	28.09	29.09
Yamunanagar	600	2,853	2	0.00	0.00	1.04	31.23	32.34
Indra Prastha Power Generators Corporation Ltd	**382.5**	**1,575**	**6**	**1.57**	**1.45**	**1.49**	**21.90**	**22.68**
IP Station	247.5	817	4	1.70	1.57	1.56	20.86	21.61
Rajghat	135	758	2	1.38	1.31	1.40	23.24	24.06
Jindal Steel and Power Ltd.	**1,000**	**5,510**	**4**	**0**	**1.03**	**1.02**	**31.89**	**33.02**
Raigad	1,000	5,510	4	0.00	1.03	1.02	31.88	33.02
Jharkhand State Electricity Board	**770**	**890**	**10**	**1.85**	**2.04**	**1.85**	**17.68**	**18.31**
Patratu	770	890	10	1.85	2.04	1.85	17.68	18.31
Kanti Bijli Utpad Nigam Ltd.	**220**	**189**	**2**	**0**	**0**	**1.56**	**20.89**	**21.63**
Muzaffgarpur	220	189	2	0.00	0.00	1.56	20.89	21.63

Continued...

ANNEXURE I (CONTINUED)

Plant	Capacity (MW)	Net Generation (GWh)	No of unit	2006-07 emissions factor (kg/kWh)	2007-08 emissions factor (kg/kWh)	2008-09 emissions factor (kg/kWh)	Net Efficiency HHV (per cent)	Net Efficiency LHV (per cent)
Karnataka Power Corporation Ltd	**1,970**	**10,714**	**8**	**1.06**	**1.06**	**1.06**	**30.79**	**31.89**
Raichur	1,470	9,608	7	1.06	1.06	1.04	31.50	32.62
Bellary	500	1,106	1	0.00	0.00	1.31	24.83	25.71
Maharashtra State Power Generation Company Ltd.	**6,800**	**38,069**	**34**	**1.13**	**1.16**	**1.21**	**26.97**	**27.93**
Nasik	880	5,019	5	1.28	1.33	1.28	25.53	26.44
Koradi	1,040	5,061	7	1.26	1.29	1.35	24.11	24.97
Khaperkheda	840	5,828	4	1.09	1.08	1.17	27.86	28.85
Paras	305	1,144	2	1.38	1.41	1.36	24.00	24.85
Bhusawal	475	2,724	3	1.11	1.14	1.23	26.47	27.42
Parli	920	4,496	6	1.12	1.17	1.28	25.56	26.48
Chandrapur	2,340	13,798	7	1.02	1.06	1.12	29.26	30.31
Madhya Pradesh Power Generating Co. Ltd.	**2,992.5**	**13,668**	**19**	**1.34**	**1.35**	**1.37**	**23.82**	**24.67**
Satpura	1,142.5	6,578	9	1.34	1.31	1.40	23.36	24.19
Amarkantak	510	961	5	1.66	1.74	1.65	19.73	20.43
Sanjay Gandhi	1,340	6,129	5	1.27	1.31	1.29	25.23	26.13
NTPC Ltd.	**23,905**	**1,70,539**	**79**	**0.98**	**0.98**	**0.98**	**33.30**	**34.49**
Kahalgaon	1,840	8,398	6	1.01	1.01	0.99	32.99	34.17
Talcher	470	3,365	6	1.23	1.22	1.21	27.04	28.00
Talcher STPS	3,000	21,303	6	0.95	0.94	0.95	34.51	35.74
Farakka STPS	1,600	10,012	5	0.99	0.98	0.98	33.19	34.37
Badarpur	705	4,989	5	1.13	1.14	1.16	28.04	29.04
Singrauli STPS	2,000	14,763	7	0.98	0.98	0.98	33.40	34.59
Rihand	2,000	15,950	4	0.96	0.96	0.95	34.32	35.55
Unchahar	1,050	7,925	5	1.00	0.99	0.98	33.15	34.34
Dadri	840	6,773	4	0.98	0.98	0.98	33.37	34.56
Tanda	440	3,041	4	1.18	1.17	1.17	27.85	28.85
Korba STPS	2,100	16,659	6	0.96	0.96	0.95	34.18	35.40
Vindhyachal	3,260	24,964	10	0.97	0.97	0.96	33.99	35.21
Sipat	1,000	4,033	2	0.00	0.00	0.96	33.82	35.03
Ramagundem STPS	2,600	20,284	7	0.96	0.96	0.95	34.20	35.42
Simhadri	1,000	8,080	2	0.95	0.95	0.94	34.64	35.88
Orissa Power Generation Corporation	**420**	**2,856**	**2**	**1.02**	**1.03**	**1.03**	**31.84**	**32.97**
I.B. Valley	420	2,856	2	1.02	1.03	1.03	31.84	32.97
Punjab State Electricity Board	**2,620**	**15,381**	**14**	**1.12**	**1.11**	**1.13**	**28.88**	**29.91**
GNDTP Bhatinda	440	2,516	4	1.29	1.30	1.35	24.16	25.03
GHTP Leh. Moh.	920	4,055	4	1.01	1.02	1.02	31.95	33.09
Ropar	1,260	8,809	6	1.11	1.09	1.11	29.41	30.46
Reliance Energy Ltd.	**500**	**4,025**	**2**	**0.94**	**0.95**	**0.96**	**34.05**	**35.26**
Dahanu	500	4,025	2	0.94	0.95	0.96	34.05	35.26
Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	**2,420**	**17,046**	**12**	**1.06**	**1.06**	**1.08**	**30.30**	**31.38**
Kota	1,045	7,856	6	1.09	1.09	1.10	29.60	30.66
Suratgarh	1,250	8,845	5	1.03	1.03	1.04	31.29	32.40
Giral Lignite	125	345	1	0.00	1.92	1.74	20.74	21.49
Tata Power Company Ltd.	**927.5**	**6,835**	**5**	**1.03**	**1.06**	**1.06**	**30.79**	**31.89**
Jojobera	427.5	2,688	4	1.09	1.13	1.14	28.74	29.77
Trombay	500	4,147	1	0.99	1.02	1.01	32.30	33.45
Tamilnadu Electricity Board	**2,970**	**19,181**	**17**	**1.06**	**1.07**	**1.07**	**30.50**	**31.59**
Ennore	450	1,656	5	1.42	1.47	1.44	22.58	23.39
Tuticorin	1,050	7,227	5	1.03	1.05	1.05	31.00	32.11
Mettur	840	5,937	4	1.04	1.03	1.04	31.52	32.65
North Chennai	630	4,361	3	1.02	1.02	1.02	32.02	33.16

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ANNEXURE I (CONTINUED)

Plant	Capacity (MW)	Net Generation (GWh)	No of unit	2006-07 emissions factor (kg/kWh)	2007-08 emissions factor (kg/kWh)	2008-09 emissions factor (kg/kWh)	Net Efficiency HHV (per cent)	Net Efficiency LHV (per cent)
Torrent Power Ltd.	**390**	**3,085**	**5**	**1.26**	**1.23**	**1.22**	**26.77**	**27.72**
Sabarmati	390	3,085	5	1.26	1.23	1.22	26.77	27.72
Tenughat Vidyut Nigam Ltd.	**420**	**2,026**	**2**	**1.33**	**1.42**	**1.44**	**22.62**	**23.43**
Tenughat	420	2,026	2	1.33	1.42	1.44	22.62	23.43
Uttar Pradesh Rajya Vidyut Utpad Nigam Ltd.	**4,022**	**19,936**	**23**	**1.22**	**1.16**	**1.19**	**27.42**	**28.40**
Obra A	1,322	4,529	9	1.46	1.33	1.43	22.83	23.65
Panki	210	1,179	2	1.48	1.37	1.41	23.19	24.02
Harduaganj	220	675	3	1.54	1.80	1.55	20.99	21.74
Paricha	640	2,764	4	1.60	1.32	1.35	24.17	25.03
Anpara	1,630	10,789	5	1.03	1.00	1.00	32.54	33.70
West Bengal Power Development Corporation	**3,880**	**16,065**	**22**	**1.38**	**1.42**	**1.35**	**24.17**	**25.04**
Bandel	450	2,256	5	1.34	1.25	1.38	23.63	24.48
Santaldih	730	1,416	5	1.60	1.69	1.78	18.31	18.97
Kolaghat	1,260	6,155	6	1.45	1.61	1.29	25.25	26.15
Bakreshwar	840	4,470	4	1.24	1.11	1.29	25.36	26.26
Sagardighi	600	1,768	2	0.00	0.00	1.32	24.64	25.52
STCMS Electric Company Ltd.	**250**	**1,642**	**1**	**1.22**	**1.23**	**1.24**	**29.17**	**30.22**
Neyveli TPS (Z) Lignite	250	1,642	1	1.22	1.23	1.24	29.17	30.22
All India	**75,877**	**4,59,036**	**397**	**1.1**	**1.1**	**1.1**	**30.19**	**31.19**

Note: Entries in bold are companies, plants follow
Source: Green Rating Project, 2009, Centre for Science and Environment, New Delhi.

ANNEXURE II: UNIT LEVEL DATA FOR GAS FIRED PLANTS (2008-09)

Plant	Capacity (MW)	Number of unit	Net Generation (GWh)	2006-07 emissions factor	2007-08 emissions factor	2008-09 emissions factor	Net Efficiency (per cent)
ABAN Power Company	**119.8**	**2**	**806**	**0.42**	**0.40**	**0.40**	**49.46**
Karupur	119.8	2	806	0.42	0.40	0.40	49.46
Assam Power Generation Corporation Ltd	**120**	**7**	**643**	**0.83**	**0.82**	**0.78**	**25.23**
Lakwa	120	7	643	0.83	0.82	0.78	25.23
Andhra Pradesh Power Generation Co Ltd	**272.3**	**5**	**1,441**	**0.47**	**0.45**	**0.41**	**48.24**
Vijeswaran	272.3	5	1,441	0.47	0.45	0.41	48.24
Assam State Electricity Board	**118**	**6**	**553**	**0.74**	**0.69**	**0.72**	**27.34**
Namrup	118	6	553	0.74	0.69	0.72	27.34
Eastern India Powertech Ltd.	**24.5**	**2**	**82**	**0.63**	**0.74**	**0.77**	**25.58**
DLF	24.5	2	82	0.63	0.74	0.77	25.58
Essar Power Ltd.	**515**	**1**	**2,877**	**0.43**	**0.50**	**0.46**	**42.44**
Essar	515	1	2,877	0.43	0.50	0.46	42.44
Gujarat Industrial Power Corporation Ltd	**305**	**6**	**2,138**	**0.45**	**0.45**	**0.45**	**43.79**
GIPCL	305	6	2,138	0.45	0.45	0.45	43.79
GMR Energy Ltd.	**220**	**5**	**778**	**0.57**	**0.58**	**0.55**	**35.94**
Tanir Bavi	220	5	778	0.57	0.58	0.55	35.94
Gujarat Pauthan Energy Corporation Ltd	**655**	**4**	**3,897**	**0.41**	**0.41**	**0.46**	**42.39**
Paguthan	655	4	3,897	0.41	0.41	0.46	42.39
Gujarat State Electricity Corporation Ltd.	**362.62**	**8**	**1,957**	**0.46**	**0.47**	**0.45**	**43.79**
Utran	144	4	831	0.47	0.48	0.47	42.01
Dhuvaran	218.62	4	1,126	0.42	0.46	0.44	44.79

Continued...

ANNEXURE II (CONTINUED)

Plant	Capacity (MW)	Number of unit	Net Generation (GWh)	2006-07 emissions factor	2007-08 emissions factor	2008-09 emissions factor	Net Efficiency (per cent)
Gujarat State Energy Generation Limited	**156.1**	**3**	**954**	**0.43**	**0.43**	**0.43**	**46.13**
Hazira	156.1	3	954	0.43	0.43	0.43	46.13
GVK Power and Infrastructure Ltd.	**235.4**	**4**	**1,267**	**0.43**	**0.44**	**0.45**	**43.57**
Jegurupadu	235.4	4	1,267	0.43	0.44	0.45	43.57
Indra Prastha Power Generators Co Ltd	**600.4**	**12**	**3,571**	**0.5**	**0.49**	**0.48**	**41.05**
I.P.	270	9	1,237	0.58	0.61	0.58	33.93
Pragati	330.4	3	2,334	0.44	0.43	0.43	45.72
Lanco Kodapalli Power Pvt Ltd.	**350**	**3**	**2,293**	**0.47**	**0.45**	**0.48**	**41.43**
Kondapalli	350	3	2,293	0.47	0.45	0.48	41.43
Maharashtra State Power Generation Company Ltd	**912**	**10**	**4,340**	**0.46**	**0.46**	**0.42**	**47.02**
Uran	912	10	4,340	0.46	0.46	0.42	47.02
North Eastern Electric Power Corporation Ltd	**375**	**13**	**2,370**	**0.6**	**0.61**	**0.61**	**32.30**
Kathalguri	291	9	1,723	0.56	0.57	0.57	34.85
Agartala	84	4	648	0.71	0.72	0.71	27.65
NTPC Ltd.	**4,008**	**32**	**23,077**	**0.44**	**0.45**	**0.45**	**43.79**
Faridabad	431.59	3	2,320	0.43	0.47	0.45	43.37
Anta	419.33	4	2,456	0.45	0.49	0.46	43.28
Auraiya	663.36	6	3,655	0.47	0.50	0.52	37.91
Dadri	829.78	6	5,154	0.36	0.35	0.33	59.84
Kawas	656.2	6	3,428	0.45	0.46	0.48	41.05
Gandhar	657.39	4	4,074	0.44	0.45	0.44	44.92
Kayam Kulam	350	3	1,990	0.59	0.59	0.58	33.88
Penna Electricity Ltd.	**67.6**	**2**	**337**	**0.56**	**0.48**	**0.48**	**41.25**
Valantharvi	67.6	2	337	0.56	0.48	0.48	41.25
Pondichery Power Corporation Ltd.	**32.5**	**1**	**242**	**0.50**	**0.50**	**0.50**	**39.02**
Karaikal	32.5	1	242	0.50	0.50	0.50	39.02
PPN Power Generating Company Pvt. Ltd.	**330.5**	**1**	**2,144**	**0.50**	**0.49**	**0.51**	**38.49**
Nallur	330.5	1	2,144	0.50	0.49	0.51	38.49
Reliance Energy Ltd.	220	1	979	0.47	0.45	0.48	41.40
Peddapuram	220	1	979	0.47	0.45	0.48	41.40
Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	**443.8**	**7**	**2,545**	**0.56**	**0.59**	**0.43**	**45.83**
Ramgarh	113.8	4	315	0.59	0.69	0.58	34.09
Dholpur	330	3	2,229	0.00	0.55	0.41	47.91
Spectrum Power Generation Ltd.	**208**	**4**	**1,404**	**0.44**	**0.44**	**0.46**	**43.10**
Godavari	208	4	1,404	0.44	0.44	0.46	43.10
Tata Power Company Ltd.	**180**	**2**	**979**	**0.41**	**0.42**	**0.44**	**44.93**
Trombay	180	2	979	0.41	0.42	0.44	44.93
Tamilnadu Electricity Board	**454**	**8**	**2,242**	**0.4**	**0.41**	**0.41**	**48.06**
Valuthur	246	5	895	0.40	0.41	0.41	47.72
Kuttalam	101	2	682	0.40	0.41	0.39	50.04
Kovilkalappal	107	1	666	0.41	0.42	0.41	47.57
Torrent Power	**483.5**	**4**	**806**	**0.48**	**0.49**	**0.41**	**48.06**
Vatwa	101	3	621	0.48	0.49	0.41	48.43
Sugen	382.5	1	184	0.00	0.00	0.43	45.83
Tripura State Electricity Coporation Ltd	**111**	**9**	**602**	**0.82**	**0.76**	**0.77**	**25.59**
Baramura	21	1	158	0.76	0.76	0.75	26.11
Rokhia	90	8	444	0.85	0.76	0.78	25.30
Vemagiri	**388.5**	**2**	**654**	**0.51**	**0.38**	**0.39**	**50.93**
Vemagiri	388.5	2	654	0.51	0.38	0.39	50.93
All India	**12,268.17**	**164**	**65,979**	**0.46**	**0.47**	**0.47**	**41.93**

Source: Green Rating Project, 2009, Centre for Science and Environment, New Delhi.

ANNEXURE III: WATER AND LAND REQUIREMENTS

	Type	Land requirement	Water requirement	Remarks
1. POWER SECTOR				
a	Coal & Lignite Thermal power plant (TPP)	0.35 ha/MW (Range: 0.25-0.6 ha/MW)	5.5 m^3/MWh gross generation (Range: 4-14 m^3/Mwh)	30 per cent of the capacity assumed to be coastal plants using sea water; water requirement for supercritical plants likely to be higher but not considered in the analysis
b	Gas TPP	0.2 ha/MW	2.5 m^3/MWh gross generation	Based on the analysis of new existing plants
c	Hydropower plant	5.0 ha/MW		Average of storage and run-of-the-river; evaporation losses not considered
d	Concentrating Solar Power	3.5 ha/MW without storage and 10 ha/MW with storage	6 m^3/MWh gross generation	Most likely to be located in arid areas
e	Solar PV	4.0 ha/MW		Most likely to be located in arid areas and as decentralized distribution applications
f	Nuclear power plant	1.0 ha/MW	7.5 m^3/MWh gross generation	Land requirement higher because of security fencing; assumption is that 50 per cent will be coastal plants
g	Biomass-based TPP	0.7 ha/MW (Range: 0.5 -1.2 ha/ MW)	5.5 m^3/MWh gross generation	Land requirement for raising biomass (plantation wood) assumed at 20 tonne/ha/year with 5 year rotation period. Biomass required is 1.5 tonnes per MWh generation. The PLF assumed for the biomass plants is 46 per cent
h	On-shore wind power	1 ha/MW (Estimated range 1.6 - 14 ha/MW)		No land for off-shore wind power
2. OTHER SECTORS				
a	Iron & Steel plant	270 ha/million tonnes installed capacity (Range: 58-600 ha/million tonnes)	11 m^3/tonne (Range: 2-25 m^3/tonne)	The land and water required is an average of all types of iron and steel plants (integrated BF-BOF, integrated DRI-EF, integrated gas-based DRI-EF, Scrap-EF, stand-alone DRI plants and so on). The calculation assumes that integrated plants will have captive power plants
b	Integrated aluminium complex	5000 ha/million tonnes installed capacity (Range: 1870-8240 ha/million tonnes)	120 m^3/tonne aluminium (Range: 72-173 m^3/tonne)	The land and water required is a combination of alumina refinery, aluminium smelter and captive power plant. There is no such plant in India and, therefore, land and water requirement of individual plants (refinery, smelter and captive power plant) have been extrapolated
c	Integrated cement plant	40 ha/million tonnes installed capacity (Range: 15-80 ha/million tonnes)	0.5 m^3/tonne cement	The land and water required is a combination of clinker production, grinding units and captive power plant. Small plants coming up in north-eastern states have also been included
d	Integrated paper and pulp plant	1000 ha/million tonnes installed capacity for integrated wood and agro-residue based plants; 500 ha/million tonnes for wastepaper-based plants	75 m^3/tonne paper from wood and non-wood; 25 m^3/tonne paper from wastepaper; 50 m^3/tonne newsprint	No data is available on Greenfield plants. Assumptions have been made based on expert opinion. The figures for Brownfield expansion when extrapolated is about 115-500 ha/million tonnes installed capacity
e	Integrated Urea complex	1000 ha/million tonnes installed capacity	5 m^3/tonne urea	Data on land is available for only one proposed new plant
3. MINING				
a	Coal	7.5 ha/million tonnes recoverable deposit over the life of the mine (Range: 5-15 ha/million tonnes)	0.1 m^3/tonne	Mine seepage not considered; land requirement for lignite and low grade coal deposits is much higher; so land and water requirements are underestimations
b	Iron ore	12 ha/million tonnes recoverable deposit over the life of the mine (Range: 3-30 ha/million tonnes)	0.1 m^3/tonne	Mine seepage not considered; land requirement for low grade iron deposits is much higher; so land and water requirements are underestimations
c	Bauxite	60 ha/million tonnes recoverable deposit over the life of the mine (Range: 30-250 ha/million tonnes)	0.1 m^3/tonne	Mine seepage not considered; land requirement for low grade deposits is much higher; so land and water requirements are underestimations
d	Limestone	6 ha/million tonnes recoverable deposit over the life of the mine (Range: 2-17 ha/million tonnes)	0.1 m^3/tonne	Mine seepage not considered

Source: Green Rating Project, 2009, Centre for Science and Environment, New Delhi.