

Attachment C3

Estimated Daily Discharges at Dong Nai No.3 Dam site



Attachemnt-C3: Estimated Mean Daily Discharges at Dong Nai No.3 Dam Site (C.A.=2,441 km2)

River : Dong Nai													At : Dong Nai No.3 Dam Site													Year: 1979													(Unit : m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	18.13	9.38	7.59	6.31	10.64	18.13	198.74	218.50	142.99	193.15	95.82	49.22	1	24.15	16.97	8.45	7.32	7.83	23.23	67.62	81.19	238.00	193.15	174.02	66.84	1	24.15	16.97	8.45	7.32	7.83	23.23	67.62	81.19	238.00	193.15	174.02	66.84	1	24.15	16.97	8.45	7.32	7.83	23.23	67.62	81.19	238.00	193.15	174.02	66.84
2	17.73	10.45	7.83	6.47	10.45	18.13	206.31	224.60	139.47	188.37	94.76	47.89	2	22.77	16.62	8.45	7.32	7.51	24.61	63.71	83.55	227.03	196.74	158.47	64.49	2	22.77	16.62	8.45	7.32	7.51	24.61	63.71	83.55	227.03	196.74	158.47	64.49	2	22.77	16.62	8.45	7.32	7.51	24.61	63.71	83.55	227.03	196.74	158.47	64.49
3	17.32	10.45	7.59	6.47	12.23	18.54	231.91	238.00	138.30	201.53	94.76	45.89	3	22.31	15.91	8.46	7.32	7.27	28.64	60.03	82.11	214.84	217.28	145.34	63.71	3	22.31	15.91	8.46	7.32	7.27	28.64	60.03	82.11	214.84	217.28	145.34	63.71	3	22.31	15.91	8.46	7.32	7.27	28.64	60.03	82.11	214.84	217.28	145.34	63.71
4	17.32	10.10	7.43	6.62	10.82	32.38	230.69	248.40	133.61	193.15	109.25	45.22	4	21.39	15.21	8.35	7.32	7.18	28.64	57.82	76.77	233.13	214.84	145.34	62.24	4	21.39	15.21	8.35	7.32	7.18	28.64	57.82	76.77	233.13	214.84	145.34	62.24	4	21.39	15.21	8.35	7.32	7.18	28.64	57.82	76.77	233.13	214.84	145.34	62.24
5	16.97	9.74	7.18	6.47	10.82	30.22	220.94	325.22	131.26	216.06	100.05	45.89	5	20.58	14.50	8.45	7.18	7.18	28.11	63.71	70.75	228.25	209.97	158.47	62.24	5	20.58	14.50	8.45	7.18	7.18	28.11	63.71	70.75	228.25	209.97	158.47	62.24	5	20.58	14.50	8.45	7.18	7.18	28.11	63.71	70.75	228.25	209.97	158.47	62.24
6	16.26	9.38	7.08	6.47	12.23	28.11	304.58	325.22	125.40	229.47	95.82	50.65	6	19.76	13.80	8.58	7.08	7.32	30.22	68.40	69.97	261.28	194.35	168.04	63.71	6	19.76	13.80	8.58	7.08	7.32	30.22	68.40	69.97	261.28	194.35	168.04	63.71	6	19.76	13.80	8.58	7.08	7.32	30.22	68.40	69.97	261.28	194.35	168.04	63.71
7	15.91	9.27	6.99	6.31	12.49	30.22	331.66	326.83	120.75	206.31	91.59	53.50	7	19.35	13.28	8.45	6.99	7.99	30.22	69.97	62.97	265.56	199.13	172.82	67.62	7	19.35	13.28	8.45	6.99	7.99	30.22	69.97	62.97	265.56	199.13	172.82	67.62	7	19.35	13.28	8.45	6.99	7.99	30.22	69.97	62.97	265.56	199.13	172.82	67.62
8	15.21	9.15	6.90	7.32	15.91	33.49	326.83	304.58	116.15	188.37	86.71	45.55	8	18.95	12.75	8.35	6.81	10.10	35.80	75.03	57.82	257.60	217.28	182.39	62.97	8	18.95	12.75	8.35	6.81	10.10	35.80	75.03	57.82	257.60	217.28	182.39	62.97	8	18.95	12.75	8.35	6.81	10.10	35.80	75.03	57.82	257.60	217.28	182.39	62.97
9	14.50	8.92	6.81	7.75	16.62	37.95	341.60	301.59	108.10	176.41	83.95	42.55	9	18.54	11.96	8.23	6.62	10.82	47.22	96.88	60.03	255.76	213.62	171.63	61.50	9	18.54	11.96	8.23	6.62	10.82	47.22	96.88	60.03	255.76	213.62	171.63	61.50	9	18.54	11.96	8.23	6.62	10.82	47.22	96.88	60.03	255.76	213.62	171.63	61.50
10	14.50	8.81	6.72	7.89	15.91	36.80	300.50	294.52	103.50	156.08	81.19	42.55	10	18.54	11.18	8.23	6.47	15.21	65.27	100.05	57.82	253.92	211.19	153.69	56.35	10	18.54	11.18	8.23	6.47	15.21	65.27	100.05	57.82	253.92	211.19	153.69	56.35	10	18.54	11.18	8.23	6.47	15.21	65.27	100.05	57.82	253.92	211.19	153.69	56.35
11	14.15	8.69	6.90	8.58	14.15	36.80	276.99	293.02	100.05	145.34	76.77	39.10	11	18.13	11.00	8.35	6.39	16.62	62.97	96.88	61.50	261.28	207.33	139.47	53.50	11	18.13	11.00	8.35	6.39	16.62	62.97	96.88	61.50	261.28	207.33	139.47	53.50	11	18.13	11.00	8.35	6.39	16.62	62.97	96.88	61.50	261.28	207.33	139.47	53.50
12	13.80	8.45	7.18	9.38	14.50	32.38	239.22	296.01	94.76	135.95	73.28	37.95	12	17.32	10.82	8.23	6.31	18.13	39.29	93.29	61.50	259.29	217.28	196.74	49.93	12	17.32	10.82	8.23	6.31	18.13	39.29	93.29	61.50	259.29	217.28	196.74	49.93	12	17.32	10.82	8.23	6.31	18.13	39.29	93.29	61.50	259.29	217.28	196.74	49.93
13	13.28	8.23	7.32	9.38	13.80	31.28	219.62	284.23	97.93	126.57	69.18	36.80	13	17.32	10.64	8.23	6.18	19.76	52.79	81.19	62.24	257.60	187.17	130.09	47.89	13	17.32	10.64	8.23	6.18	19.76	52.79	81.19	62.24	257.60	187.17	130.09	47.89	13	17.32	10.64	8.23	6.18	19.76	52.79	81.19	62.24	257.60	187.17	130.09	47.89
14	13.01	8.23	7.59	8.46	12.23	35.14	209.97	271.26	93.70	119.60	68.40	35.14	14	16.62	10.46	8.07	7.18	20.58	52.07	106.95	57.09	250.24	180.00	123.05	45.89	14	16.62	10.46	8.07	7.18	20.58	52.07	106.95	57.09	250.24	180.00	123.05	45.89	14	16.62	10.46	8.07	7.18	20.58	52.07	106.95	57.09	250.24	180.00	123.05	45.89
15	12.75	8.23	7.75	7.38	12.49	40.25	200.33	281.34	91.59	152.49	68.40	33.49	15	16.26	10.28	8.07	7.59	21.39	52.07	101.20	60.03	242.88	169.23	116.15	45.55	15	16.26	10.28	8.07	7.59	21.39	52.07	101.20	60.03	242.88	169.23	116.15	45.55	15	16.26	10.28	8.07	7.59	21.39	52.07	101.20	60.03	242.88	169.23	116.15	45.55
16	12.23	8.81	7.74	7.75	15.91	37.95	189.57	265.56	94.76	234.35	71.33	32.38	16	15.91	10.10	7.91	7.59	25.99	62.24	83.95	81.19	233.13	155.65	109.25	46.55	16	15.91	10.10	7.91	7.59	25.99	62.24	83.95	81.19	233.13	155.65	109.25	46.55	16	15.91	10.10	7.91	7.59	25.99	62.24	83.95	81.19	233.13	155.65	109.25	46.55
17	12.23	8.46	10.46	7.83	16.62	40.83	182.39	261.28	100.05	241.66	68.40	32.38	17	15.21	9.92	7.75	7.89	34.59	78.52	75.03	90.53	218.50	158.47	115.00	49.22	17	15.21	9.92	7.75	7.89	34.59	78.52	75.03	90.53	218.50	158.47	115.00	49.22	17	15.21	9.92	7.75	7.89	34.59	78.52	75.03	90.53	218.50	158.47	115.00	49.22
18	11.70	8.07	9.15	7.23	22.31	40.25	171.63	241.66	111.55	223.38	64.49	31.28	18	14.50	9.92	7.91	7.59	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22	18	14.50	9.92	7.91	7.59	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22	18	14.50	9.92	7.91	7.59	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22
19	11.70	7.91	8.15	7.59	21.39	54.21	156.08	231.91	118.45	199.13	81.19	31.28	19	14.50	9.74	8.35	7.38	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22	19	14.50	9.74	8.35	7.38	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22	19	14.50	9.74	8.35	7.38	35.70	81.19	141.82	73.28	202.72	153.69	123.05	47.22
20	11.44	7.75	7.59	7.75	31.28	92.64	152.49	220.94	116.15	176.41	141.82	30.22	20	13.80	9.74	8.69	9.27	31.83	127.74	83.95	166.84	168.04	144.16	121.90	39.10	20	13.80	9.74	8.69	9.27	31.83	127.74	83.95	166.84	168.04	144.16	121.90	39.10	20	13.80	9.74	8.69	9.27	31.83	127.74	83.95	166.84	168.04	144.16	121.90	39.10
21	11.18	7.75	7.32	9.15	37.95	148.90	146.51	231.91	123.05	157.27	144.16	29.16	21	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	21	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	21	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80
22	11.00	7.67	7.18	10.46	42.55	150.10	137.13	240.44	123.05	145.34	109.25	28.64	22	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	22	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	22	13.01	9.15	8.23	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80
23	10.82	7.59	7.32	11.44	46.55	169.23	140.65	229.47	131.26	141.82	83.03	28.11	23	12.23	9.38	8.35	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	23	12.23	9.38	8.35	8.58	30.75	84.87	105.82	137.13	172.82	144.16	96.88	36.80	23	12.23											

Attachemnt-C3: Estimated Mean Daily Discharges at Dong Nai No.3 Dam Site (C.A.=2,441 km2)

River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1985 (Unit: m3/sec)													River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1986 (Unit: m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	20.54	12.65	11.18	10.01	51.98	29.21	75.90	66.93	106.95	140.76	97.98	51.98	1	26.91	14.05	9.80	9.48	6.46	35.19	40.02	87.40	191.59	234.60	114.54	56.58
2	20.10	12.12	11.18	9.71	63.71	29.21	68.54	66.01	106.95	177.10	93.61	49.22	2	25.99	13.78	9.48	9.94	6.10	47.15	40.71	86.48	174.80	255.30	104.19	54.28
3	19.69	11.64	12.35	8.65	53.59	24.15	68.06	70.84	103.50	208.15	87.63	47.15	3	25.07	13.50	9.48	10.44	5.98	42.32	61.64	82.80	171.81	255.30	101.20	57.73
4	19.25	11.18	13.50	8.44	41.40	31.74	65.70	66.93	101.89	239.20	84.87	47.84	4	25.07	13.50	8.60	10.26	5.73	32.20	77.28	100.05	170.43	257.60	104.19	81.88
5	19.25	11.18	13.80	8.06	32.43	39.10	64.85	61.41	123.97	228.16	86.71	56.35	5	24.15	13.50	8.60	9.48	6.46	29.21	72.91	132.94	207.00	241.50	104.19	87.40
6	18.65	10.97	13.80	7.89	26.45	38.64	68.31	60.72	132.45	218.04	83.03	59.34	6	23.23	13.25	8.05	8.60	7.91	28.98	64.17	172.73	223.10	225.85	105.11	78.20
7	18.65	10.97	12.65	8.88	22.31	36.80	85.79	57.73	133.63	192.74	87.63	59.34	7	22.72	13.02	8.05	7.91	8.83	27.14	56.12	269.10	212.29	227.24	96.14	75.44
8	18.47	10.76	10.97	9.71	20.54	34.04	97.98	66.93	129.49	178.02	97.98	50.60	8	22.29	12.77	8.19	7.91	9.04	24.15	57.73	262.20	201.71	215.05	91.31	67.62
9	18.10	10.76	9.84	9.71	25.99	31.28	103.50	105.80	142.60	171.58	87.63	49.22	9	21.83	12.54	8.60	7.50	8.74	22.49	55.20	299.00	193.89	217.58	85.56	59.34
10	18.10	10.58	9.13	9.27	29.67	30.82	103.50	121.90	182.62	173.19	85.79	51.98	10	21.39	12.08	8.46	7.36	8.33	21.62	72.91	331.20	188.60	213.67	80.04	54.51
11	17.71	10.58	8.65	8.88	26.45	35.65	101.20	121.90	185.38	163.30	81.19	53.59	11	20.49	11.64	8.05	7.77	8.48	22.29	66.70	349.60	180.78	196.42	74.75	50.14
12	17.32	10.37	8.35	9.02	25.05	34.27	109.25	119.60	181.24	156.40	81.19	56.35	12	20.49	11.64	8.05	8.46	12.08	22.06	71.07	305.90	174.34	172.95	71.76	47.15
13	16.95	10.37	8.23	9.13	26.45	36.57	102.35	115.00	164.22	162.15	78.43	53.59	13	19.67	11.20	8.05	11.20	12.77	21.62	62.56	303.60	172.95	180.78	71.99	45.31
14	16.58	10.01	8.05	9.27	30.82	37.62	90.62	128.80	153.87	184.69	77.74	46.46	14	19.67	11.20	8.33	12.08	10.26	19.67	64.17	310.50	174.34	172.95	71.76	47.15
15	16.24	10.01	7.88	9.38	29.21	31.19	90.62	141.91	154.56	193.65	78.43	42.55	15	19.67	11.02	8.60	10.83	9.18	20.49	44.64	345.00	206.77	184.69	87.63	42.55
16	15.87	9.71	7.91	10.58	30.81	69.46	82.11	137.08	157.55	172.96	73.37	39.10	16	19.67	11.02	8.46	10.26	9.93	24.15	103.27	363.40	201.71	188.60	102.12	39.56
17	15.50	9.71	7.73	11.18	36.34	72.28	86.71	127.65	147.66	157.32	76.82	37.95	17	19.67	10.83	8.88	9.64	13.02	26.91	114.54	349.60	191.36	209.76	110.86	39.10
18	15.16	9.38	7.65	10.76	34.50	129.03	85.33	121.90	154.79	145.82	76.82	36.80	18	18.81	10.83	8.88	8.74	30.59	33.81	106.26	328.90	183.31	191.36	140.53	37.72
19	14.81	9.38	7.57	10.37	35.65	122.06	105.05	116.15	164.68	144.44	69.92	35.65	19	18.81	10.63	8.74	8.33	63.94	53.13	103.27	331.20	178.25	193.89	146.05	36.11
20	14.49	9.71	7.50	10.37	35.19	150.42	98.90	133.63	174.80	143.52	66.93	35.19	20	18.03	11.20	9.48	7.91	56.12	47.84	109.25	354.20	183.31	191.36	124.20	35.42
21	14.15	9.71	7.50	11.41	43.50	138.92	87.63	137.08	163.76	133.40	62.33	36.34	21	17.57	11.20	10.26	8.60	50.60	50.14	126.73	335.80	191.36	170.43	116.84	34.50
22	13.80	9.71	7.43	15.87	43.93	143.06	96.83	132.48	153.64	122.82	60.03	37.95	22	17.57	11.41	10.63	8.88	50.14	45.31	116.84	319.70	199.18	152.72	101.66	33.81
23	13.80	9.24	7.36	21.31	43.93	156.40	98.90	139.38	143.75	118.45	58.65	36.80	23	16.88	12.54	10.10	9.48	48.30	57.04	96.14	322.00	204.47	147.89	92.23	33.35
24	14.49	9.71	7.31	22.31	39.10	143.29	91.54	131.33	143.75	119.60	58.65	35.65	24	16.51	13.50	10.10	10.10	48.30	85.56	85.56	299.00	220.34	154.10	82.34	32.20
25	14.15	9.38	7.27	28.06	37.95	127.88	83.95	120.75	142.14	121.90	54.97	34.04	25	16.19	12.77	9.80	9.48	45.00	80.96	83.72	271.40	218.96	142.83	75.44	31.28
26	14.49	9.38	7.31	30.82	40.92	112.70	70.84	160.77	136.85	125.35	57.37	32.43	26	15.87	11.64	9.48	8.60	42.55	74.75	83.72	271.40	205.62	132.25	72.68	31.28
27	15.16	9.38	7.43	37.95	44.62	111.78	65.32	174.81	135.45	128.80	60.03	31.28	27	15.23	10.83	9.18	8.05	42.78	66.01	83.72	262.20	204.47	127.88	70.38	34.96
28	15.87	10.17	7.57	39.10	41.40	110.86	65.32	153.64	131.56	120.75	60.03	30.23	28	15.23	10.26	9.18	7.77	53.36	59.34	80.04	243.80	215.05	128.80	66.70	34.96
29	15.16	9.71	7.73	41.40	37.95	97.52	65.32	140.76	127.42	108.10	61.41	29.21	29	14.63	9.18	7.22	36.18	50.83	75.44	228.39	239.20	128.80	62.79	31.74	
30	14.15	9.38	7.89	39.56	35.58	84.87	71.53	127.65	131.79	58.90	57.37	28.52	30	14.35	8.74	6.72	27.14	42.44	76.36	224.71	248.40	124.43	59.57	30.82	
31	13.23	9.13	9.13	30.82	33.37	116.15	73.37	157.32	97.98	78.06	28.06	28.06	31	14.05	9.80	9.80	41.40	41.40	82.80	206.08	116.84	116.84	29.67	29.67	
Mean	16.45	10.31	9.10	11.91	25.70	79.53	84.55	114.29	143.87	156.36	74.82	42.60	Mean	19.54	12.05	9.01	8.55	25.95	40.52	79.85	262.91	197.65	185.93	93.00	46.69
Max.	20.54	12.65	11.80	11.40	63.71	156.40	109.25	174.11	185.38	239.20	97.98	59.34	Max.	26.91	14.05	10.63	12.08	63.94	85.56	126.73	363.40	248.40	257.60	146.05	87.40
Min.	13.23	9.38	7.27	7.89	20.54	24.15	62.33	57.73	101.89	97.98	54.97	28.06	Min.	14.05	10.26	8.05	6.72	5.73	19.67	40.02	82.80	170.43	116.84	59.57	29.67

River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1987 (Unit: m3/sec)													River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1988 (Unit: m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	29.21	15.32	9.57	7.89	5.45	11.73	73.37	73.60	165.14	180.32	119.83	83.49	1	24.38	13.11	10.56	7.77	11.22	19.76	35.88	131.33	66.01	167.44	118.22	47.84
2	28.29	15.02	10.05	7.52	5.34	14.42	89.70	69.92	153.64	206.08	108.72	71.53	2	23.92	12.93	10.40	9.61	12.14	17.50	33.58	131.33	60.95	144.50	113.16	46.46
3	26.68	14.42	10.63	7.25	6.49	20.49	87.17	73.14	147.66	191.59	99.82	60.25	3	23.46	12.72	10.21	12.33	11.94	20.19	35.88	138.46	60.95	139.61	96.83	44.16
4	26.22	14.42	10.42	6.99	8.21	24.38	84.30	80.04	140.30	187.22	93.38	53.15	4	23.92	12.33	9.61	11.57	10.88	24.38	41.40	130.18	57.50	138.46	87.17	42.78
5	25.76	13.82	9.73	6.99	9.41	22.33	113.16	78.89	149.50	191.59	92.45	50.37	5	25.30	12.33	9.61	10.49	9.89	26.22	47.84	114.54	55.20	153.18	80.73	41.40
6	25.30	13.27	9.11	6.74	10.42	10.49	79.35	69.23	148.58	185.84	96.14	45.68	6	25.76	11.94	9.36	9.36	9.22	54.28	52.67	96.60	54.28	154.10	77.74	39.56
7	25.30	13.27	8.97	6.74	10.05	20.49	79.35	69.23	148.58	185.84	96.14	45.68	7	23.46	11.94	9.11	8.86	8.86	73.83	45.77	87.63	54.28	184.69	125.35	38.18
8	24.38	13.27	8.81	6.74	9.57	19.76	66.70	66.47	147.20	171.81	89.70	42.78	8	21.48	11.94	9.36	8.86	8.86	69.95	45.08	79.12	53.59	241.50	152.50	37.03
9	23.92	13.02	8.53	6.99	8.53	19.29	60.95	64.63	137.08	166.29	90.62	41.17	9	21.48	11.94	9.89	8.86	8.37	47.15	45.77	72.91	56.12	328.90	188.60	35.88
10	23.46	13.02	8.53	8.42	8.28	22.75	55.35	67.16	143.52	170.43	97.98	39.79	10	21.05	11.94	9.61	11.57	8.72	38.18	47.84	71.07	60.26	260.60	172.96	35.19
11	22.75	12.74	8.28	11.22	8.28	23.46	50.37	72.91	137.19	159.82	102.81														

Attachemnt-C3: Estimated Mean Daily Discharges at Dong Nai No.3 Dam Site (C.A.=2,441 km2)

River : Dong Nai		At : Dong Nai No.3 Dam Site Year: 1991 (Unit: m3/sec)											
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
1	26.91	14.81	9.78	6.56	7.84	17.65	72.22	119.83	225.17	266.80	117.53	36.34	
2	26.91	14.21	9.45	6.56	7.52	17.66	79.35	135.01	234.60	248.40	112.01	35.19	
3	28.06	14.21	9.45	6.56	7.36	16.70	73.14	120.98	234.60	226.32	106.49	33.81	
4	26.91	14.21	9.29	6.26	9.45	16.38	63.02	114.06	215.05	208.15	102.35	32.66	
5	25.30	13.69	9.29	6.56	11.78	17.34	54.97	144.90	213.44	199.64	96.14	31.51	
6	23.46	13.32	9.13	6.88	11.78	16.38	50.14	154.79	221.49	201.94	93.38	30.36	
7	22.52	13.16	8.97	7.52	9.78	17.66	47.84	139.84	217.81	201.48	91.31	29.21	
8	22.52	12.81	8.81	9.61	10.76	19.87	47.24	126.73	234.50	188.83	85.56	29.21	
9	21.97	12.63	8.97	13.50	10.44	20.36	51.06	115.23	243.80	177.79	82.80	29.21	
10	21.44	12.47	8.81	15.92	10.76	23.46	53.36	106.34	262.20	207.92	80.96	29.21	
11	20.36	12.31	8.81	17.66	10.76	25.76	50.14	115.23	264.50	211.14	78.43	28.52	
12	19.41	12.12	8.49	15.23	10.44	29.21	94.76	106.34	292.10	215.31	74.98	28.52	
13	18.47	12.12	8.17	12.81	10.60	26.91	158.14	130.18	294.40	230.00	71.53	28.06	
14	18.47	11.78	8.17	11.27	10.76	23.00	188.60	133.86	303.60	226.09	68.08	26.91	
15	17.66	11.78	8.00	10.10	10.10	19.41	189.52	123.28	303.60	215.31	64.86	25.76	
16	17.66	11.78	7.84	9.52	11.45	17.66	145.59	117.53	289.80	212.52	62.33	25.30	
17	17.66	11.45	8.17	8.49	15.02	42.78	114.54	115.00	271.40	209.53	61.41	26.22	
18	17.66	11.45	8.33	8.17	15.46	46.46	97.29	123.05	253.00	198.03	59.80	24.61	
19	17.02	11.78	8.17	7.52	15.92	40.94	87.40	162.84	253.00	200.79	56.58	23.46	
20	17.02	12.12	8.17	7.20	15.92	34.50	113.15	222.64	262.20	199.41	54.28	22.52	
21	16.38	11.78	8.65	7.04	19.41	29.21	147.20	229.31	257.60	200.79	52.44	21.44	
22	17.34	11.45	7.98	17.66	30.36	135.01	236.90	250.70	198.03	50.14	20.88	22	
23	21.44	11.11	9.78	8.33	17.02	44.16	137.54	333.50	243.80	185.38	48.76	20.88	
24	21.97	10.76	9.13	10.44	17.02	47.84	148.58	335.80	232.30	175.72	47.15	21.44	
25	18.47	10.10	9.13	11.62	17.66	39.56	152.26	308.20	223.31	166.29	45.77	21.44	
26	17.02	9.78	8.81	10.60	22.52	35.19	142.37	276.00	202.63	162.61	43.47	20.88	
27	16.38	9.78	8.33	9.78	28.06	29.21	139.84	255.30	198.95	170.43	42.78	20.36	
28	16.15	9.78	7.84	9.13	26.91	25.30	132.71	269.10	214.82	152.26	40.94	20.36	
29	15.46		7.20	8.49	23.30	23.00	146.05	282.90	248.40	140.99	38.87	21.44	
30	15.46		7.20	8.17	22.52	35.19	130.18	262.20	278.30	131.56	37.49	23.46	
31	15.02		6.88		19.41		120.98	243.80		125.58		23.00	
Mean	19.85	12.10	8.61	9.51	14.73	27.64	109.51	182.54	248.04	195.34	68.95	26.20	
Max.	28.06	14.81	9.78	17.66	28.06	47.84	189.52	335.80	303.60	266.80	117.53	36.34	
Min.	15.02	9.78	6.88	6.26	7.36	16.38	47.84	105.34	198.95	125.58	37.49	20.36	

River : Dong Nai		At : Dong Nai No.3 Dam Site Year: 1992 (Unit: m3/sec)											
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
1	23.46	11.96	7.02	9.38	9.18	22.15	149.04	113.85	269.10	152.26	131.56	37.95	
2	22.15	11.96	6.67	8.35	8.76	19.87	124.89	116.15	266.80	158.47	119.37	37.26	
3	21.37	11.52	6.67	7.75	8.14	17.99	107.64	120.52	262.20	151.23	110.63	36.11	
4	20.59	11.75	6.67	7.75	8.97	19.23	97.06	118.22	265.80	159.39	100.97	35.65	
5	19.87	11.75	7.02	9.38	12.42	19.55	96.14	120.52	273.70	156.86	91.77	34.96	
6	19.55	11.52	7.02	8.97	15.80	17.99	99.82	118.22	271.40	158.47	88.78	33.81	
7	19.55	11.32	6.67	8.97	15.27	22.52	82.80	132.71	255.30	159.28	83.72	33.81	
8	19.23	11.09	6.67	8.76	13.29	31.74	73.14	116.15	239.20	168.36	82.80	32.69	
9	19.23	11.32	6.33	8.76	13.06	34.50	69.46	105.80	222.87	161.69	85.71	32.20	
10	19.23	11.09	6.33	8.56	15.80	34.96	62.68	119.37	220.57	163.07	77.28	32.89	
11	18.58	11.09	6.33	8.14	16.05	31.74	78.20	129.03	217.35	165.60	70.84	33.35	
12	17.99	11.09	6.14	7.75	16.33	30.13	79.12	160.31	204.70	154.79	66.24	31.74	
13	17.41	10.65	5.98	8.97	16.86	29.44	73.60	162.84	234.60	147.43	64.40	30.59	
14	17.11	10.21	5.66	11.96	14.74	29.44	69.00	152.26	208.61	139.38	62.10	29.90	
15	16.33	9.80	5.34	13.78	17.11	31.97	62.79	163.99	177.45	134.09	62.10	28.98	
16	15.80	9.59	5.18	16.58	15.02	40.71	61.18	184.00	182.50	133.40	63.48	28.52	
17	15.80	9.38	5.01	21.76	14.26	68.31	61.18	197.34	172.50	146.97	70.84	27.83	
18	15.02	9.18	4.88	26.22	15.27	72.91	65.32	205.39	167.67	140.30	66.24	27.37	
19	14.74	8.97	5.01	23.46	18.91	85.33	68.06	212.29	171.54	128.57	57.95	27.14	
20	14.26	8.56	5.01	20.19	19.23	124.20	68.06	250.70	166.75	119.60	57.96	27.14	
21	14.26	8.14	5.34	19.55	20.98	116.84	69.00	334.30	168.82	110.85	56.35	25.76	
22	14.26	8.14	5.50	19.23	26.22	98.90	72.68	349.60	185.53	106.80	52.67	24.84	
23	14.26	8.35	5.50	17.99	29.90	89.70	95.68	331.20	202.40	99.82	50.37	24.38	
24	13.78	8.76	5.34	17.71	25.76	91.77	107.41	342.70	190.21	107.41	47.61	23.92	
25	13.29	8.76	5.34	18.58	26.68	134.09	106.26	317.40	181.70	142.83	45.54	23.46	
26	12.99	8.56	5.34	16.86	29.90	292.10	110.63	292.10	167.67	161.69	44.39	23.92	
27	12.86	7.94	5.34	13.78	28.29	266.80	117.07	285.20	160.31	168.36	43.01	23.92	
28	12.86	7.75	5.66	11.96	25.30	229.77	123.74	287.50	157.32	173.42	42.32	23.30	
29	12.86	7.38	7.57	10.65	23.92	204.47	132.71	276.00	154.56	159.62	40.48	25.76	
30	12.42		9.80	9.80	23.92	179.40	136.16	278.30	154.10	149.96	39.10	25.76	
31	12.42		9.80		21.37		130.64	271.40		140.76		24.84	
Mean	16.57	9.92	6.20	13.39	18.28	82.95	92.30	205.01	205.84	145.70	69.25	29.42	
Max.	23.46	11.96	9.80	26.22	29.90	292.10	149.04	349.60	273.70	173.42	131.56	37.95	
Min.	12.42	7.38	4.88	7.75	8.14	17.99	61.18	105.80	154.10	99.82	39.10	23.46	

River : Dong Nai		At : Dong Nai No.3 Dam Site Year: 1993 (Unit: m3/sec)											
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
1	22.24	13.36	9.18	11.48	11.48	22.63	53.13	117.30	162.84	200.56	123.97	83.26	
2	21.48	13.36	9.48	11.48	11.48	20.70	48.53	112.70	165.14	195.50	117.07	82.34	
3	20.70	12.95	9.18	11.29	12.77	19.02	45.08	113.85	166.06	193.20	109.71	69.92	
4	20.03	12.77	9.18	11.48	12.95	18.15	46.46	112.70	175.03	198.72	104.42	62.33	
5	19.37	12.95	9.18	11.29	11.48	17.85	51.52	115.55	167.21	209.53	99.36	55.43	
6	19.37	12.58	9.78	10.42	11.11	19.02	67.16	109.02	152.95	212.43	94.67	51.52	
7	19.02	12.58	8.33	10.10	11.11	21.48	69.00	149.27	144.44	234.60	95.22	49.91	
8	18.72	12.40	8.33	9.80	11.48	21.48	63.94	136.27	138.46	241.50	93.70	48.81	
9	18.72	12.40	8.05	9.64	12.21	21.09	66.47	139.84	139.84	266.80	85.25	47.37	
10	18.15	12.40	8.05	9.64	12.58	22.24	67.16	146.74	132.48	278.30	85.25	47.22	
11	17.85	12.11	7.80	8.88	16.24	25.07	79.58	152.95	130.87	266.80	86.02	45.13	
12	17.85	12.11	7.80	8.88	16.24	25.07	79.58	152.95	130.87	266.80	86.02	45.13	
13	17.55	11.48	7.54	8.05	21.09	29.44	100.74	175.95	114.77	234.60	77.05	45.79	
14	17.55	11.29	7.54	7.84	19.02	26.22	94.99	186.07	119.83	230.00	72.68	45.79	
15	17.55	11.29	7.54	7.80	18.72	22.24	85.10	171.81	146.05	214.36	69.45	40.49	
16	17.55	11.29	7.54	8.88	17.55	22.63	105.11	160.08	146.31	200.10	66.70	37.96	
17	17.42	10.95	7.34	10.95	16.49	31.28	100.74	167.21	146.28	193.66	69.92	65.55	
18	17.42	10.42	7.34	12.40	16.24	34.50	86.25	159.16	155.25	213.36	63.60	63.94	
19	17.55	10.42	7.73	11.45	16.01	39.10	74.06	150.42	161.00	193.20	63.37	59.34	
20	17.02	10.42	7.02	13.78	16.49	39.56	72.45	144.67	163.53	187.68	69.46	56.12	
21	16.49	10.42	14.97	17.30	18.15								

Attachemnt-C3: Estimated Mean Daily Discharges at Dong Nai No.3 Dam Site (C.A.=2,441 km2)

River: Dong Nai At: Dong Nai No.3 Dam Site Year: 1997 (Unit: m ³ /sec)													River: Dong Nai At: Dong Nai No.3 Dam Site Year: 1998 (Unit: m ³ /sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	41.63	18.45	13.39	12.56	31.51	57.50	79.12	331.20	216.66	172.27	59.36	45.77	1	19.76	13.09	11.39	4.97	10.67	44.62	65.09	34.27	86.25	239.20	106.72	140.59
2	39.56	18.10	14.84	12.33	26.91	57.50	69.92	347.30	201.02	179.40	94.30	43.01	2	19.76	13.09	10.67	4.90	10.79	33.81	57.96	31.97	85.56	236.90	101.66	139.38
3	37.03	19.16	14.31	11.91	23.92	61.18	92.46	331.20	192.05	210.68	95.22	40.25	3	19.09	12.83	10.01	4.90	18.45	30.82	53.36	34.96	79.12	223.56	97.75	132.48
4	35.65	19.16	14.31	12.33	23.45	63.48	85.10	312.80	180.09	212.29	115.00	38.87	4	19.09	12.35	9.13	4.81	16.63	26.45	47.84	41.63	69.92	206.77	94.76	129.26
5	34.50	19.50	13.78	12.33	29.21	59.80	102.35	296.70	180.78	206.54	123.97	37.72	5	18.45	12.10	8.74	4.76	15.50	23.23	53.82	38.18	78.43	185.38	91.77	119.60
6	33.12	21.78	13.78	12.81	33.81	52.90	89.47	278.30	166.98	188.26	102.35	37.03	6	18.15	11.85	8.37	4.81	15.50	21.85	77.74	38.87	84.64	168.36	99.59	106.49
7	32.20	23.46	13.52	13.29	33.12	48.53	83.26	271.40	158.93	190.44	87.63	37.72	7	17.83	11.62	7.84	4.97	14.93	23.23	74.29	46.69	85.56	162.38	109.71	99.36
8	31.51	25.99	13.52	12.81	34.96	44.39	77.74	264.50	148.12	180.09	47.63	40.25	8	17.20	11.39	7.68	4.97	13.34	23.69	68.08	57.96	82.80	167.90	116.15	98.21
9	29.21	22.66	13.52	12.81	34.96	63.48	83.03	236.90	143.06	166.29	83.26	38.87	9	17.20	11.39	7.41	5.01	10.90	25.53	60.26	54.97	74.06	160.06	122.59	95.91
10	28.66	21.39	13.29	14.58	31.51	54.51	80.96	214.82	142.83	161.69	96.37	36.34	10	17.20	10.90	7.25	5.08	9.55	21.48	57.50	51.98	74.75	152.72	122.59	89.93
11	26.91	25.99	13.04	15.96	25.99	44.39	115.00	198.72	140.76	155.48	85.10	34.50	11	16.63	10.44	7.11	5.08	8.37	19.09	48.76	50.37	69.92	146.97	112.93	90.85
12	25.99	29.90	12.81	21.00	24.84	38.87	120.98	193.65	133.63	154.79	76.13	32.66	12	16.35	10.90	6.83	4.97	7.68	20.10	43.47	47.61	76.36	159.39	97.75	164.91
13	25.30	33.81	12.81	22.20	25.99	36.34	118.91	180.32	128.11	151.80	76.13	31.51	13	16.05	10.90	6.69	4.90	7.18	28.98	43.93	40.94	95.22	172.73	92.46	192.28
14	24.84	41.63	12.56	40.25	24.84	34.96	142.14	168.36	123.74	155.48	75.21	31.51	14	16.05	10.67	6.83	4.92	7.41	34.27	48.99	40.25	227.24	171.35	168.36	186.53
15	23.92	40.25	13.78	38.87	27.60	37.03	241.50	169.05	122.13	149.73	70.61	29.21	15	16.05	10.44	6.83	5.15	8.28	31.97	47.61	40.94	191.66	154.33	255.30	181.24
16	23.92	36.34	15.39	32.66	29.90	34.50	253.00	156.63	131.80	148.58	65.32	28.06	16	16.05	10.01	7.11	5.27	12.24	28.06	46.69	46.00	217.12	155.48	257.60	166.52
17	23.46	29.21	15.96	26.91	30.82	34.96	222.87	171.35	175.26	146.28	67.16	28.06	17	15.50	10.01	8.03	6.58	22.77	23.69	43.01	51.98	201.02	146.97	227.01	145.36
18	23.00	24.84	16.26	24.84	30.36	36.34	193.20	166.29	169.74	133.63	66.24	27.60	18	15.50	9.78	8.03	9.55	47.15	21.85	38.87	51.29	187.45	143.29	189.98	133.63
19	23.00	22.22	16.34	21.39	30.36	37.72	184.00	178.71	161.69	125.12	61.18	25.99	19	15.50	9.78	8.37	11.85	46.92	20.77	37.72	54.97	187.91	147.89	163.30	118.22
20	22.66	20.63	17.16	19.16	30.36	34.50	170.66	219.42	210.68	121.67	57.50	25.30	20	15.50	9.55	7.68	14.38	45.08	19.09	41.62	60.95	173.88	158.01	191.13	128.11
21	22.22	19.16	17.16	19.50	32.66	34.96	171.12	248.40	269.10	121.67	54.51	24.84	21	14.93	9.55	7.11	14.93	37.72	19.09	43.93	74.75	188.14	148.12	266.80	120.29
22	22.22	18.45	16.86	24.84	30.36	34.73	177.10	248.40	262.20	129.49	55.20	24.38	22	14.93	10.21	6.58	15.50	42.55	19.44	40.94	85.56	169.05	145.82	276.09	116.15
23	21.39	17.78	15.39	26.91	33.81	40.48	179.40	315.10	264.50	128.34	58.88	23.92	23	14.38	10.21	6.44	14.38	48.99	40.94	38.18	83.72	189.04	176.87	241.50	109.71
24	21.00	17.16	14.58	25.99	39.56	41.63	255.30	317.40	243.80	131.56	56.58	23.00	24	14.12	10.90	6.19	12.35	55.20	28.06	38.18	74.75	188.83	182.39	215.28	93.84
25	20.63	17.16	14.31	22.22	34.96	49.45	239.20	322.00	227.01	116.15	53.59	23.00	25	13.87	11.85	5.87	10.90	38.18	26.45	33.12	70.61	215.74	156.06	221.95	85.56
26	20.24	17.16	13.78	21.78	36.34	58.42	215.28	303.60	218.04	108.56	52.21	22.22	26	13.55	11.62	5.66	10.44	28.98	24.84	28.98	73.14	191.36	148.12	206.08	82.80
27	19.85	16.54	13.29	26.91	39.56	68.34	211.37	278.30	206.31	110.63	52.90	21.39	27	13.55	11.85	5.66	12.58	24.38	24.84	29.67	79.12	189.98	138.69	195.96	76.59
28	19.50	15.96	12.81	29.21	41.63	90.62	241.50	257.60	190.90	106.49	51.52	20.63	28	13.87	12.10	5.43	13.34	23.69	38.41	30.13	88.09	189.98	136.16	166.29	73.14
29	19.16		12.33	30.36	54.51	97.29	264.50	243.80	177.56	106.49	47.84	20.24	29	13.87		5.34	13.87	33.81	53.36	34.27	87.17	188.37	133.86	149.73	69.00
30	19.16		11.91	33.81	72.45	90.62	271.40	239.20	174.57	106.56	45.77	19.85	30	13.55		5.15	11.85	40.25	73.83	38.87	83.72	207.00	117.07	141.22	65.78
31	18.79		12.10		71.53	266.80	241.50		109.48		19.50		31	13.09		5.08		40.94		38.18	81.88		109.71		62.56
Mean	26.12	23.35	14.23	22.08	34.57	51.32	164.47	248.48	182.74	148.32	73.82	30.10	Mean	16.92	11.12	7.31	8.40	24.65	29.06	46.91	58.04	143.61	163.31	163.33	116.60
Max.	41.63	41.63	17.16	40.25	72.45	97.29	271.40	347.30	269.10	212.29	123.97	45.77	Max.	19.76	13.09	11.39	15.50	55.20	73.83	77.74	88.09	227.24	239.20	276.00	192.28
Min.	18.79	15.96	11.91	11.91	23.46	34.50	69.92	156.63	122.13	106.49	45.77	19.50	Min.	13.09	9.55	5.08	4.76	7.18	19.09	28.98	31.97	69.92	109.71	91.77	62.56

Attachment C4

**Estimated Daily Discharges at Dong Nai No.4 Dam site
(for Catchment Intervening between the Dong Nai
No.3 and No.4 Dam Sites : 149 km²)**

Attachenmt-C3: Estimated Mean Daily Discharges at Dong Nai No.3 Dam Site (C.A.=2,441 km2)

River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1997 (Unit: m3/sec)													River: Dong Nai At: Dong Nai No.3 Dam Sit Year: 1998 (Unit: m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	41.63	18.45	15.39	17.56	31.51	57.50	79.12	331.20	216.66	172.27	99.36	45.77	1	19.76	13.09	11.39	4.97	10.67	44.62	65.09	34.27	86.25	239.20	106.72	140.99
2	39.56	18.10	14.84	12.33	26.91	57.50	69.92	347.30	201.02	179.40	94.30	43.01	2	19.76	13.09	10.67	4.90	10.79	33.81	57.96	31.97	85.56	236.90	101.66	139.38
3	37.03	19.16	14.31	11.91	23.92	61.18	92.46	331.20	192.05	210.68	95.22	40.25	3	19.09	12.83	10.01	4.90	18.45	30.82	53.36	34.96	79.12	223.56	97.75	132.48
4	35.65	19.16	14.31	12.33	23.46	63.48	85.10	312.80	180.09	212.29	115.00	38.87	4	19.09	12.35	9.13	4.81	16.63	26.45	47.84	41.63	69.92	206.77	94.76	129.26
5	34.50	19.50	13.78	12.33	29.21	59.80	102.35	296.70	180.78	206.54	123.97	37.72	5	18.45	12.10	8.74	4.76	15.50	23.23	53.82	38.18	78.43	185.38	91.77	119.60
6	33.12	21.78	13.78	12.81	33.81	52.90	89.47	278.30	166.98	198.26	102.35	37.03	6	18.15	11.85	8.37	4.81	15.50	21.85	77.74	38.87	84.64	168.36	99.59	106.49
7	32.20	23.46	13.52	13.29	33.12	48.53	83.26	271.40	158.93	190.44	87.63	37.72	7	17.83	11.62	7.84	4.97	14.93	23.23	74.29	46.69	85.56	162.38	109.71	99.36
8	31.51	25.99	13.52	12.81	34.96	44.39	77.74	264.50	148.12	180.09	87.63	40.25	8	17.20	11.39	7.68	4.97	13.34	23.69	68.08	57.96	82.80	167.90	116.15	98.21
9	29.21	22.66	13.52	12.81	34.96	63.48	83.03	236.90	143.06	166.29	83.26	38.87	9	17.20	11.39	7.41	5.01	10.90	25.53	60.26	54.97	74.06	160.06	122.59	95.91
10	28.06	21.39	13.29	14.58	31.51	54.51	80.96	214.82	142.83	161.69	96.37	36.34	10	17.20	10.90	7.25	5.08	9.55	21.48	57.50	51.98	74.75	152.72	122.59	89.93
11	26.91	25.99	13.04	15.96	25.99	44.39	115.00	193.72	140.76	155.48	85.10	34.50	11	16.63	10.44	7.11	5.08	8.37	19.09	48.76	50.37	69.92	146.97	112.93	90.85
12	25.99	29.90	12.81	21.00	24.84	38.87	120.98	193.66	133.63	154.79	76.13	32.66	12	16.35	10.90	6.83	4.97	7.68	20.10	43.47	47.61	76.36	159.39	97.75	164.91
13	25.30	33.81	12.81	32.70	25.99	36.34	118.91	180.32	128.11	151.80	76.13	31.51	13	16.06	10.90	6.69	4.90	7.18	28.98	43.93	40.94	95.22	172.73	92.46	192.28
14	24.84	41.63	12.56	40.25	24.84	34.96	142.14	168.36	123.74	155.48	75.21	31.51	14	16.06	10.67	6.83	4.92	7.41	34.27	48.99	40.25	227.24	171.35	168.36	186.53
15	23.92	40.25	13.78	38.87	27.60	37.03	241.50	169.06	122.13	149.73	70.61	29.21	15	16.06	10.44	6.83	5.15	8.28	31.97	47.61	40.94	193.66	154.33	255.30	181.24
16	23.92	36.34	15.39	32.66	29.90	34.50	253.00	156.63	151.80	148.58	65.32	28.06	16	16.06	10.01	7.11	5.27	12.24	28.06	46.69	46.00	217.12	155.48	257.60	166.52
17	23.46	29.21	15.96	26.91	30.82	34.96	228.47	171.35	175.26	146.28	67.16	28.06	17	15.50	10.01	8.03	6.58	22.77	23.69	43.01	51.98	201.02	146.97	227.01	145.36
18	23.00	24.84	16.26	24.84	30.36	36.34	193.20	166.29	169.74	133.63	66.24	27.60	18	15.50	9.78	8.03	9.55	47.15	21.85	38.87	51.29	187.45	143.29	189.98	133.63
19	23.00	22.22	16.54	21.39	30.36	37.72	184.00	178.71	161.69	125.12	61.18	25.99	19	15.50	9.78	8.37	11.85	46.92	20.77	37.72	54.97	187.91	147.89	163.30	118.22
20	22.66	20.63	17.16	19.16	30.36	34.50	170.66	219.42	210.68	121.67	57.50	25.30	20	15.50	9.55	7.68	14.38	45.08	19.09	44.62	60.95	173.88	158.01	191.13	128.11
21	22.22	19.16	17.16	19.50	33.66	34.96	171.12	248.40	269.10	121.67	54.51	24.84	21	14.93	9.55	7.11	14.93	37.72	19.09	43.93	74.75	188.14	145.12	266.80	120.29
22	22.22	18.45	16.86	24.84	30.36	34.73	177.10	248.40	262.20	129.49	55.20	24.38	22	14.93	10.21	6.58	15.50	42.55	19.44	40.94	85.56	169.06	145.82	276.00	116.15
23	21.39	17.78	15.39	26.91	33.81	40.48	179.40	315.10	264.50	128.34	58.88	23.92	23	14.38	10.21	6.44	14.38	48.99	40.94	38.18	83.72	149.04	176.87	241.50	109.71
24	21.00	17.16	14.58	25.99	39.56	41.63	255.30	317.40	243.80	131.56	56.58	23.00	24	14.12	10.90	6.19	12.35	55.20	28.06	38.18	74.75	188.83	182.39	215.28	93.84
25	20.63	17.16	14.31	22.22	34.96	49.45	239.20	322.00	227.01	116.15	53.59	23.00	25	13.87	11.85	5.87	10.90	38.18	26.45	33.12	70.61	215.74	166.06	221.95	85.56
26	20.24	17.16	13.78	21.78	36.34	58.42	215.28	303.60	218.04	168.56	52.21	22.22	26	13.55	11.62	5.66	10.44	28.98	24.84	28.98	73.14	191.36	148.12	206.08	82.80
27	19.85	16.54	13.29	26.91	39.56	68.54	211.37	278.30	206.31	110.63	52.90	21.39	27	13.55	11.85	5.66	12.58	24.38	24.84	29.67	79.12	189.98	138.69	195.96	76.59
28	19.50	15.96	12.81	29.21	41.63	90.62	241.50	257.60	190.90	106.49	51.52	20.63	28	13.87	12.10	5.43	13.34	23.69	38.41	30.13	88.09	189.98	136.16	166.29	73.14
29	19.16	12.33	30.36	54.51	97.29	264.50	243.80	177.56	106.49	47.84	20.24	19.16	29	13.87	11.85	5.34	13.87	33.81	53.36	34.27	87.17	188.37	133.86	149.73	69.00
30	19.16	11.91	33.81	72.45	90.62	271.40	239.20	174.57	108.56	45.77	19.85	30	13.55	11.62	5.15	11.85	40.25	73.83	38.87	83.72	207.00	117.07	141.22	65.78	
31	18.79	12.10	11.91	71.53	266.80	241.50	109.48	19.50					31	13.09	9.55	5.08	40.94				38.18	81.88	109.71		62.56
Mean	26.12	23.35	14.23	22.08	34.57	51.32	164.47	248.48	182.74	148.37	73.82	30.10	Mean	16.02	11.12	7.31	8.40	24.65	29.06	46.91	58.04	143.61	163.31	163.33	116.60
Max.	41.63	41.63	17.16	40.25	72.45	97.29	271.40	347.30	269.10	212.29	123.97	45.77	Max.	19.76	13.09	11.39	15.50	55.20	73.83	77.74	88.09	227.24	239.20	276.00	192.28
Min.	18.79	15.96	11.91	11.91	23.46	34.50	69.92	156.63	122.13	106.49	45.77	19.50	Min.	13.09	9.55	5.08	4.76	7.18	19.09	28.98	31.97	69.92	109.71	91.77	62.56

Attachment C4

**Estimated Daily Discharges at Dong Nai No.4 Dam site
(for Catchment Intervening between the Dong Nai
No.3 and No.4 Dam Sites : 149 km²)**



Attachment-C4: Estimated Mean Daily Discharges at Dong Nai No.4 Dam Site (C.A.=159 km2)

River : Dong Nai													At : Dong Nai No.4 Dam Site													Year: 1979													(Unit: m ³ /sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1.58	0.82	0.65	0.55	0.93	1.58	17.11	19.00	12.43	16.80	8.33	4.28	1	2.10	1.48	0.74	0.64	0.65	2.02	5.88	7.06	20.70	16.80	15.13	5.81	1	2.10	1.48	0.74	0.64	0.65	2.02	5.88	7.06	20.70	16.80	15.13	5.81	1	2.10	1.48	0.74	0.64	0.65	2.02	5.88	7.06	20.70	16.80	15.13	5.81
2	1.54	0.91	0.68	0.56	0.91	1.58	17.94	19.53	12.13	16.38	8.24	4.16	2	1.98	1.44	0.74	0.64	0.65	2.14	5.54	7.30	19.74	17.11	13.78	5.61	2	1.98	1.44	0.74	0.64	0.65	2.14	5.54	7.30	19.74	17.11	13.78	5.61	2	1.98	1.44	0.74	0.64	0.65	2.14	5.54	7.30	19.74	17.11	13.78	5.61
3	1.51	0.91	0.66	0.56	1.06	1.61	20.17	20.70	12.03	17.52	8.24	3.99	3	1.94	1.38	0.74	0.64	0.63	2.49	5.22	7.14	18.68	18.89	12.64	5.54	3	1.94	1.38	0.74	0.64	0.63	2.49	5.22	7.14	18.68	18.89	12.64	5.54	3	1.94	1.38	0.74	0.64	0.63	2.49	5.22	7.14	18.68	18.89	12.64	5.54
4	1.51	0.88	0.65	0.58	0.94	2.82	20.06	21.60	11.82	16.80	9.50	3.93	4	1.85	1.32	0.73	0.64	0.62	2.49	5.03	6.68	20.27	18.68	12.64	5.41	4	1.85	1.32	0.73	0.64	0.62	2.49	5.03	6.68	20.27	18.68	12.64	5.41	4	1.85	1.32	0.73	0.64	0.62	2.49	5.03	6.68	20.27	18.68	12.64	5.41
5	1.48	0.85	0.62	0.56	0.94	2.63	19.21	28.28	11.41	18.79	8.70	3.99	5	1.79	1.26	0.74	0.62	0.62	2.44	5.54	6.15	19.85	18.26	13.78	5.41	5	1.79	1.26	0.74	0.62	0.62	2.44	5.54	6.15	19.85	18.26	13.78	5.41	5	1.79	1.26	0.74	0.62	0.62	2.44	5.54	6.15	19.85	18.26	13.78	5.41
6	1.41	0.82	0.62	0.55	1.06	2.44	26.52	28.28	10.90	19.95	8.33	4.40	6	1.72	1.20	0.75	0.62	0.64	2.63	5.95	6.08	22.72	16.90	14.61	5.54	6	1.72	1.20	0.75	0.62	0.64	2.63	5.95	6.08	22.72	16.90	14.61	5.54	6	1.72	1.20	0.75	0.62	0.64	2.63	5.95	6.08	22.72	16.90	14.61	5.54
7	1.38	0.81	0.61	0.55	1.09	2.63	28.84	28.42	10.50	17.94	7.96	4.65	7	1.68	1.15	0.74	0.61	0.70	2.63	6.08	5.48	23.09	17.32	15.03	5.88	7	1.68	1.15	0.74	0.61	0.70	2.63	6.08	5.48	23.09	17.32	15.03	5.88	7	1.68	1.15	0.74	0.61	0.70	2.63	6.08	5.48	23.09	17.32	15.03	5.88
8	1.32	0.80	0.60	0.64	1.38	2.91	28.42	26.52	10.10	16.38	7.54	4.05	8	1.65	1.11	0.73	0.59	0.88	3.20	6.52	5.03	22.07	18.89	15.85	5.48	8	1.65	1.11	0.73	0.59	0.88	3.20	6.52	5.03	22.07	18.89	15.85	5.48	8	1.65	1.11	0.73	0.59	0.88	3.20	6.52	5.03	22.07	18.89	15.85	5.48
9	1.26	0.78	0.59	0.67	1.44	3.20	29.70	26.26	9.40	15.34	7.50	3.70	9	1.61	1.04	0.72	0.58	0.91	4.11	8.42	5.22	22.24	18.58	14.92	5.35	9	1.61	1.04	0.72	0.58	0.91	4.11	8.42	5.22	22.24	18.58	14.92	5.35	9	1.61	1.04	0.72	0.58	0.91	4.11	8.42	5.22	22.24	18.58	14.92	5.35
10	1.26	0.77	0.58	0.70	1.38	3.20	26.13	25.61	9.00	13.57	7.06	3.70	10	1.58	1.07	0.72	0.56	1.32	5.68	8.70	5.52	22.08	18.35	13.35	4.90	10	1.58	1.07	0.72	0.56	1.32	5.68	8.70	5.52	22.08	18.35	13.35	4.90	10	1.58	1.07	0.72	0.56	1.32	5.68	8.70	5.52	22.08	18.35	13.35	4.90
11	1.23	0.76	0.60	0.75	1.23	3.20	24.09	25.48	8.70	12.64	6.68	3.40	11	1.58	0.96	0.73	0.55	1.44	5.48	8.42	5.35	22.72	18.06	12.13	4.65	11	1.58	0.96	0.73	0.55	1.44	5.48	8.42	5.35	22.72	18.06	12.13	4.65	11	1.58	0.96	0.73	0.55	1.44	5.48	8.42	5.35	22.72	18.06	12.13	4.65
12	1.20	0.74	0.62	0.82	1.26	2.82	20.80	25.74	8.24	11.82	6.37	3.30	12	1.51	0.94	0.72	0.55	1.58	5.16	8.15	5.16	23.59	17.11	11.72	4.34	12	1.51	0.94	0.72	0.55	1.58	5.16	8.15	5.16	23.59	17.11	11.72	4.34	12	1.51	0.94	0.72	0.55	1.58	5.16	8.15	5.16	23.59	17.11	11.72	4.34
13	1.15	0.72	0.64	0.82	1.20	2.72	18.58	24.72	8.52	11.01	6.02	3.20	13	1.51	0.93	0.72	0.59	1.72	4.59	7.06	5.41	22.40	16.28	11.31	4.16	13	1.51	0.93	0.72	0.59	1.72	4.59	7.06	5.41	22.40	16.28	11.31	4.16	13	1.51	0.93	0.72	0.59	1.72	4.59	7.06	5.41	22.40	16.28	11.31	4.16
14	1.13	0.72	0.66	0.74	1.06	3.06	18.26	23.59	8.15	10.40	5.95	3.06	14	1.44	0.91	0.70	0.62	1.79	4.53	9.30	4.96	21.76	15.65	10.70	3.99	14	1.44	0.91	0.70	0.62	1.79	4.53	9.30	4.96	21.76	15.65	10.70	3.99	14	1.44	0.91	0.70	0.62	1.79	4.53	9.30	4.96	21.76	15.65	10.70	3.99
15	1.11	0.72	0.67	0.64	1.09	3.50	17.42	24.46	7.96	13.26	5.95	2.91	15	1.41	0.89	0.70	0.66	1.86	4.53	8.80	5.22	21.12	14.72	10.10	3.59	15	1.41	0.89	0.70	0.66	1.86	4.53	8.80	5.22	21.12	14.72	10.10	3.59	15	1.41	0.89	0.70	0.66	1.86	4.53	8.80	5.22	21.12	14.72	10.10	3.59
16	1.06	0.77	0.65	0.67	1.38	3.50	16.48	23.09	8.24	20.38	6.22	2.82	16	1.38	0.88	0.69	0.88	2.26	5.41	7.30	7.06	20.27	14.40	9.50	4.05	16	1.38	0.88	0.69	0.88	2.26	5.41	7.30	7.06	20.27	14.40	9.50	4.05	16	1.38	0.88	0.69	0.88	2.26	5.41	7.30	7.06	20.27	14.40	9.50	4.05
17	1.06	0.74	0.91	0.68	1.44	3.55	15.85	22.72	8.70	21.01	5.95	2.82	17	1.32	0.86	0.67	0.85	3.01	6.83	6.52	7.87	19.00	13.78	10.60	4.28	17	1.32	0.86	0.67	0.85	3.01	6.83	6.52	7.87	19.00	13.78	10.60	4.28	17	1.32	0.86	0.67	0.85	3.01	6.83	6.52	7.87	19.00	13.78	10.60	4.28
18	1.02	0.70	0.80	0.67	1.94	3.50	14.92	21.01	9.70	19.42	5.61	2.72	18	1.32	0.86	0.66	0.85	3.10	7.06	6.22	11.52	17.63	13.36	10.70	4.11	18	1.32	0.86	0.66	0.85	3.10	7.06	6.22	11.52	17.63	13.36	10.70	4.11	18	1.32	0.86	0.66	0.85	3.10	7.06	6.22	11.52	17.63	13.36	10.70	4.11
19	1.02	0.69	0.71	0.65	1.86	4.71	13.57	20.17	10.30	17.32	7.06	2.72	19	1.26	0.86	0.69	0.89	3.10	8.70	6.15	15.24	16.38	13.26	11.72	3.82	19	1.26	0.86	0.69	0.89	3.10	8.70	6.15	15.24	16.38	13.26	11.72	3.82	19	1.26	0.86	0.69	0.89	3.10	8.70	6.15	15.24	16.38	13.26	11.72	3.82
20	0.99	0.67	0.66	0.67	2.72	8.06	13.26	19.21	10.10	15.34	12.33	2.63	20	1.26	0.85	0.73	0.82	3.10	12.33	6.75	14.82	15.44	12.54	10.60	3.60	20	1.26	0.85	0.73	0.82	3.10	12.33	6.75	14.82	15.44	12.54	10.60	3.60	20	1.26	0.85	0.73	0.82	3.10	12.33	6.75	14.82	15.44	12.54	10.60	3.60
21	0.97	0.67	0.64	0.80	3.25	12.95	12.74	20.17	10.70	13.68	12.54	2.54	21	1.20	0.85	0.76	0.81	2.77	11.11	7.30	14.51	14.61	12.54	10.60	3.40	21	1.20	0.85	0.76	0.81	2.77	11.11	7.30	14.51	14.61	12.54	10.60	3.40	21	1.20	0.85	0.76	0.81	2.77	11.11	7.30	14.51	14.61	12.54	10.60	3.40
22	0.96	0.67	0.62	0.91	3.70	13.06	11.92	20.91	10.70	12.64	9.50	2.49	22	1.20	0.85	0.74	0.76	2.58	9.60	8.24	11.92	14.40	12.64	9.70	3.30	22	1.20	0.85	0.74	0.76	2.58	9.60	8.24	11.92	14.40	12.64	9.70	3.30	22	1.20	0.85	0.74	0.76	2.58	9.60	8.24	11.92	14.40	12.64	9.70	3.30
23	0.94	0.66	0.64	0.99	4.05	14.72	12.23	19.95	11.41	12.33	7.22	2.44	23	1.15	0.82	0.73	0.75	2.67	7.38	8.33	11.92	15.03	12.54	8.70	3.20	23	1.15	0.82	0.73	0.75	2.67	7.38	8.33	11.92	15.03	12.54	8.70	3.20	23	1.15	0.82	0.73	0.75	2.67	7.38	8.33	11.92	15.03	12.54	8.70	3.20
24	0.94	0.65	0.65	1.06	3.70	13.06	11.52	18.35	10.30	11.62	6.52	2.44	24	1.13	0.80	0.72	0.76	2.49	6.83	8.90	12.23	15.34	12.74	7.78	3.15	24	1.13	0.80	0.72	0.76	2.49	6.83	8.90	12.23	15.34	12.74	7.78	3.15	24	1.13	0.80	0.72	0.76	2.49	6.83	8.90	12.23	15.34	12.74	7.78	3.15
25	0.91	0.65	0.67	1.11	3.30	14.40	12.33	16.80	10.50	10.90	5.95	2.35	25	1.11	0.78	0.70	0.72	2.10	6.75	7.96	13.16	15.34	12.84	7.30	3.10	25	1.11	0.78	0.70	0																					

Attachment-C4: Estimated Mean Daily Discharges at Dong Nai No.4 Dam Site (C.A.=159 km2)

River: Dong Nai At: Dong Nai No.4 Dam Site Year: 1985 (Unit: m3/sec)													River: Dong Nai At: Dong Nai No.4 Dam Site Year: 1986 (Unit: m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	1.79	1.10	0.97	0.87	4.52	2.54	6.60	5.82	9.30	12.24	8.52	4.52	1	2.34	1.22	0.85	0.82	0.56	3.06	3.48	7.60	16.66	20.40	9.96	4.92
2	1.75	1.05	0.97	0.84	5.54	2.54	5.96	5.74	9.30	15.40	8.14	4.28	2	2.26	1.20	0.82	0.85	0.53	4.10	3.54	7.52	15.20	22.20	9.06	4.72
3	1.71	1.01	1.07	0.77	4.66	2.10	5.92	6.16	9.00	18.10	7.62	4.10	3	2.18	1.17	0.82	0.91	0.52	3.68	5.36	7.20	14.94	22.20	8.80	5.02
4	1.67	0.97	1.17	0.73	3.60	2.76	5.80	5.82	8.86	20.80	7.38	4.16	4	2.18	1.17	0.75	0.89	0.50	2.80	6.72	8.70	14.82	21.40	9.06	7.12
5	1.67	0.97	1.20	0.70	2.82	3.40	5.64	5.34	10.78	19.84	7.54	4.90	5	2.10	1.17	0.75	0.82	0.56	2.54	6.34	11.56	18.00	21.00	9.06	7.60
6	1.64	0.95	1.20	0.69	2.30	3.36	5.94	5.28	11.52	18.96	7.22	5.16	6	2.02	1.15	0.70	0.75	0.69	2.52	5.58	15.02	19.40	19.64	9.14	6.80
7	1.64	0.95	1.10	0.77	1.94	3.20	7.46	5.02	11.62	16.76	7.62	5.16	7	1.98	1.13	0.70	0.69	0.77	2.56	4.88	23.40	18.46	19.76	8.36	6.56
8	1.61	0.94	0.95	0.84	1.79	2.96	8.52	5.82	11.26	15.48	8.52	4.40	8	1.94	1.11	0.71	0.65	0.79	2.10	5.02	22.80	17.54	18.70	7.94	5.88
9	1.57	0.94	0.86	0.84	2.26	2.72	9.00	9.20	12.40	14.92	7.62	4.28	9	1.90	1.09	0.75	0.65	0.76	1.96	4.80	26.00	16.86	18.92	7.44	5.16
10	1.57	0.92	0.79	0.81	2.58	2.68	9.00	10.60	15.88	15.06	7.46	4.52	10	1.86	1.05	0.74	0.64	0.72	1.88	6.34	28.80	16.40	18.58	6.96	4.74
11	1.54	0.92	0.75	0.77	2.30	3.10	8.80	10.60	16.12	14.20	7.06	4.66	11	1.78	1.01	0.70	0.68	0.82	1.94	5.80	30.40	15.72	17.08	6.50	4.36
12	1.51	0.90	0.73	0.78	2.18	2.98	9.50	10.40	15.76	13.60	7.14	4.90	12	1.75	1.01	0.70	0.74	1.05	1.92	6.18	26.60	15.16	15.94	6.34	4.10
13	1.47	0.90	0.72	0.79	2.30	3.18	8.90	10.10	14.28	14.10	6.82	4.66	13	1.71	0.97	0.70	0.97	1.11	1.88	5.44	26.40	15.04	15.72	6.26	3.94
14	1.44	0.87	0.70	0.81	2.68	5.88	7.88	11.20	13.38	16.06	6.76	4.04	14	1.71	0.97	0.72	1.05	0.89	1.71	5.58	27.00	15.16	15.04	6.24	3.76
15	1.41	0.87	0.69	0.82	2.54	7.06	7.88	12.34	13.44	16.84	6.82	3.70	15	1.71	0.96	0.75	0.94	0.80	1.78	7.36	30.00	17.98	18.06	7.62	3.66
16	1.38	0.84	0.69	0.92	2.62	6.04	7.14	11.92	13.70	15.04	6.38	3.40	16	1.71	0.95	0.74	0.89	0.87	2.10	8.98	31.60	17.54	16.40	8.88	3.40
17	1.35	0.84	0.67	0.97	3.16	6.72	7.54	11.10	12.84	13.68	6.68	3.30	17	1.71	0.94	0.77	0.84	1.13	2.34	9.96	30.40	16.84	18.24	9.64	3.40
18	1.32	0.82	0.67	0.94	3.00	11.22	7.70	10.60	13.46	12.68	6.68	3.20	18	1.64	0.94	0.77	0.76	2.66	2.94	9.24	28.60	15.94	16.64	12.22	3.28
19	1.29	0.82	0.66	0.90	3.10	13.24	8.70	10.10	14.32	12.56	6.08	3.10	19	1.64	0.92	0.76	0.72	5.56	4.62	8.98	28.80	15.50	16.86	12.70	3.14
20	1.26	0.84	0.65	0.90	3.06	13.08	8.60	11.62	15.20	12.48	5.82	3.06	20	1.57	0.97	0.82	0.69	4.88	4.16	9.50	30.60	15.94	16.64	10.80	3.08
21	1.23	0.84	0.65	0.99	3.00	13.08	7.62	11.92	14.24	11.60	5.42	3.16	21	1.53	0.97	0.89	0.75	4.40	4.36	11.02	29.20	16.64	14.82	10.16	3.00
22	1.20	0.84	0.65	1.38	3.82	12.44	8.42	11.52	13.36	10.68	5.22	3.30	22	1.50	0.99	0.92	0.77	4.36	3.94	10.16	27.80	17.32	13.28	8.84	2.94
23	1.20	0.86	0.64	1.86	3.82	13.60	8.80	12.12	12.50	10.30	5.10	3.20	23	1.47	1.09	0.88	0.82	4.20	4.96	8.36	28.00	17.78	12.86	8.02	2.90
24	1.26	0.84	0.64	1.94	3.40	12.46	7.96	11.42	12.50	10.40	4.90	3.10	24	1.44	1.17	0.88	0.88	4.20	7.44	7.44	26.00	19.16	13.40	7.16	2.80
25	1.23	0.82	0.63	1.94	3.30	11.12	7.30	10.50	12.36	10.60	4.78	2.96	25	1.41	1.11	0.85	0.82	4.00	7.04	7.28	23.60	19.04	12.42	6.56	2.72
26	1.26	0.82	0.64	2.68	3.56	9.80	6.16	13.58	11.90	10.90	5.02	2.82	26	1.38	1.01	0.82	0.75	3.70	6.50	7.28	23.60	17.88	11.50	6.32	2.72
27	1.32	0.82	0.65	3.30	3.88	9.72	5.68	15.14	12.04	11.20	5.22	2.72	27	1.32	0.94	0.80	0.70	3.72	5.74	7.28	22.80	17.78	11.12	6.12	3.04
28	1.38	0.88	0.66	3.40	3.60	9.64	5.42	13.36	11.44	10.50	5.28	2.62	28	1.32	0.89	0.80	0.68	4.64	5.16	6.96	21.20	18.70	11.20	5.80	3.04
29	1.32	0.82	0.67	3.60	3.30	8.48	5.68	12.24	11.08	9.40	5.34	2.54	29	1.27	0.80	0.80	0.63	3.32	4.42	6.56	19.86	20.80	11.20	5.46	2.76
30	1.23	0.69	0.69	3.44	2.92	7.38	6.22	11.10	11.46	8.60	5.02	2.48	30	1.25	0.76	0.58	0.58	3.64	3.76	6.64	19.54	21.60	10.82	5.18	2.68
31	1.15	0.79	0.63	2.68	6.38	10.10	6.38	10.10	8.52	2.44	2.44	2.44	31	1.22	0.85	0.65	0.58	3.60	7.20	7.20	17.92	10.16	10.16	2.58	2.58
Mean	1.43	0.90	0.72	1.33	3.10	6.92	7.35	9.54	12.31	13.60	6.31	3.70	Mean	1.70	1.06	0.78	0.78	2.26	3.52	6.94	22.85	17.19	16.17	8.09	4.06
Max.	1.79	1.10	1.20	1.36	5.54	13.60	9.50	15.14	16.12	20.80	8.52	5.16	Max.	2.34	1.22	0.92	1.06	5.56	7.44	11.02	31.60	21.60	22.40	12.70	7.60
Min.	1.15	0.82	0.63	0.69	1.79	2.10	5.42	5.02	8.85	8.52	4.78	2.44	Min.	1.22	0.89	0.70	0.58	0.50	1.71	3.48	7.20	14.82	10.16	5.18	2.58

River: Dong Nai At: Dong Nai No.4 Dam Site Year: 1987 (Unit: m3/sec)													River: Dong Nai At: Dong Nai No.4 Dam Site Year: 1988 (Unit: m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	2.54	1.33	0.83	0.69	0.47	1.02	6.38	6.40	14.36	15.68	10.42	7.26	1	2.12	1.14	0.92	0.68	0.98	1.72	3.12	11.42	5.74	14.55	10.28	4.16
2	2.46	1.31	0.87	0.65	0.46	1.25	7.80	6.08	13.36	17.92	9.28	6.22	2	2.08	1.12	0.90	0.84	1.06	1.52	2.92	11.42	5.30	12.60	9.84	4.04
3	2.32	1.25	0.92	0.63	0.55	1.78	7.58	6.36	12.84	16.66	8.68	5.24	3	2.04	1.11	0.89	1.07	1.04	1.76	3.12	12.04	5.30	12.14	8.42	3.84
4	2.28	1.25	0.91	0.61	0.72	2.12	8.20	6.56	12.20	16.28	8.12	4.64	4	2.08	1.07	0.84	1.01	0.95	2.12	3.60	11.32	5.00	12.04	7.58	3.72
5	2.24	1.20	0.85	0.61	0.82	1.94	9.84	6.86	13.00	16.66	8.04	4.38	5	2.20	1.07	0.84	0.90	0.86	2.28	4.16	9.96	4.80	13.32	7.02	3.60
6	2.20	1.15	0.79	0.59	0.91	1.75	8.60	6.46	13.36	17.16	8.52	4.18	6	2.24	1.04	0.81	0.81	0.80	4.72	4.58	8.40	4.72	13.60	6.76	3.44
7	2.20	1.15	0.78	0.59	0.87	1.78	6.90	6.02	12.92	16.16	8.36	3.92	7	2.04	1.04	0.79	0.77	0.77	6.42	3.98	7.62	4.72	16.06	10.90	3.32
8	2.12	1.15	0.77	0.59	0.83	1.72	5.80	5.78	12.80	14.94	7.80	3.72	8	1.87	1.04	0.81	0.77	0.74	5.30	3.92	6.88	4.66	21.00	11.00	3.22
9	2.08	1.13	0.74	0.61	0.74	1.69	5.30	5.62	11.92	14.46	7.88	3.58	9	1.87	1.04	0.86	0.86	0.73	4.10	3.98	6.34	4.88	21.60	16.40	3.12
10	2.04	1.13	0.74	0.73	0.72	1.98	4.90	5.84	12.48	14.82	8.44	3.46	10	1.83	1.04	0.84	1.01	0.76	3.32	4.16	6.18	5.24	24.40	15.04	3.06
11	1.98	1.11	0.72	0.98	0.74	2.04	4.38	6.34	15.06	13.88	8.54	3.42	11	1.83	1.06	0.81	1.14	0.86	4.04	4.16	5.88	6.16	24.00	11.76	2.92
12	1.98	1.08	0.71	0.89	0.72	2.04	4.44	6.36	14.24	12.72	9.56	3.30	12	1.79	1.04	0.79	1.09	0.99	3.92	4.30	5.44	7.50	17.44	10.28	2.86
13	1.91	1.11	0.70	0.79	0.70	2.28	6.00	7.12	13.52	12.14	8.94	3.24	13	1.72	1.01	0.77	1.02	1.22	3.78	4.58	5.58	7.54	15.76	9.30	2.76
14	1.91	1.08	0.68	0.77	0.72	2.28	21.80	7.92	14.58	12.60	8.78	3.14	14	1.65	0.98	0.75	0.92	1.46	4.24	5.14	7.20	7.70	14.56	9.20	2.72
15	1.85	1.06	0.66	0.75	0.72	2.82	19.78	10.28	15.42</																

Attachment-C4: Estimated Mean Daily Discharges at Dong Nai No.4 Dam Site (C.A.=159 km2)

River : Dong Nai												At : Dong Nai No.4 Dam Site												Year: 1991																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
												(Unit: m ³ /sec)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1	2.34	1.29	0.85	0.57	0.68	1.54	6.28	10.42	19.58	23.20	10.22	3.16	1	2.04	1.04	0.61	0.82	0.80	1.93	12.96	9.50	23.40	13.24	11.44	3.30	2	2.34	1.24	0.82	0.57	0.65	1.54	6.90	11.74	20.40	21.60	9.74	3.06	2	1.93	1.04	0.58	0.73	0.76	1.73	10.85	10.10	23.20	13.78	10.38	3.24	3	2.44	1.24	0.82	0.57	0.64	1.45	6.36	10.52	20.40	19.68	9.26	2.94	3	1.85	1.00	0.58	0.67	0.71	1.56	9.36	10.48	22.80	14.02	9.62	3.14	4	2.34	1.24	0.81	0.54	0.82	1.42	5.48	9.92	18.70	18.10	8.90	2.84	4	1.79	1.02	0.58	0.67	0.78	1.67	8.44	10.28	23.20	13.85	8.78	3.10	5	2.20	1.19	0.81	0.57	1.02	1.51	4.78	12.60	18.56	17.36	8.35	2.74	5	1.73	1.02	0.61	0.82	1.08	1.70	8.38	10.48	23.80	13.64	7.98	3.04	6	2.04	1.16	0.79	0.60	1.02	1.42	4.36	13.46	19.26	17.56	8.12	2.64	6	1.70	1.00	0.61	0.78	1.17	1.56	8.20	10.48	23.80	13.64	7.98	3.04	7	1.96	1.14	0.78	0.65	0.85	1.54	4.16	12.16	18.94	17.52	7.94	2.54	7	1.70	0.98	0.58	0.78	1.33	1.96	7.20	11.54	22.20	14.72	7.28	2.94	8	1.96	1.11	0.77	0.84	0.94	1.73	4.16	11.02	20.40	16.42	7.44	2.54	8	1.67	0.96	0.58	0.76	1.16	2.76	6.36	10.10	20.80	14.64	7.20	2.86	9	1.91	1.10	0.78	1.17	0.91	1.77	4.44	10.02	21.20	15.46	7.20	2.54	9	1.67	0.98	0.55	0.76	1.14	3.00	6.04	9.20	19.38	14.66	7.54	2.80	10	1.86	1.08	0.77	1.38	0.94	2.04	4.64	9.16	22.80	18.08	7.04	2.54	10	1.67	0.96	0.55	0.74	1.37	3.04	6.32	10.38	19.18	14.18	6.72	2.86	11	1.77	1.07	0.77	1.54	0.94	2.24	4.36	10.02	23.00	18.36	6.82	2.48	11	1.62	0.96	0.55	0.71	1.40	2.76	6.80	11.22	18.90	14.40	6.16	2.90	12	1.69	1.05	0.74	1.32	0.91	2.54	4.24	9.16	25.40	18.74	6.52	2.48	12	1.56	0.96	0.53	0.67	1.47	2.62	6.88	13.94	17.80	13.46	5.76	2.76	13	1.61	1.05	0.71	1.11	0.92	2.34	16.36	11.32	25.60	20.00	6.22	2.44	13	1.51	0.93	0.52	0.78	1.47	2.56	6.40	14.16	20.40	12.82	5.60	2.66	14	1.61	1.02	0.71	0.98	0.94	2.00	16.40	11.64	26.40	19.66	5.92	2.34	14	1.49	0.89	0.49	1.04	1.28	2.56	6.00	13.24	18.14	12.12	5.40	2.60	15	1.54	1.02	0.70	0.88	0.88	1.60	16.48	10.72	26.40	18.74	5.64	2.24	15	1.42	0.85	0.46	1.20	1.49	2.78	5.46	14.26	16.30	11.66	5.40	2.52	16	1.54	1.02	0.68	0.83	1.00	1.54	12.66	10.22	25.20	18.48	5.42	2.20	16	1.37	0.83	0.45	1.44	1.31	3.54	5.32	16.00	15.00	11.60	5.52	2.48	17	1.54	1.00	0.71	0.74	1.31	3.72	9.96	10.00	23.60	18.22	5.34	2.28	17	1.37	0.82	0.44	1.89	1.24	5.94	5.32	17.16	15.00	12.78	6.16	2.42	18	1.54	1.00	0.72	0.71	1.34	4.04	8.46	10.70	22.00	17.22	5.20	2.14	18	1.31	0.80	0.42	2.28	1.33	6.34	5.68	17.86	14.58	12.20	5.76	2.38	19	1.48	1.02	0.71	0.65	1.31	3.56	7.60	14.16	22.00	17.46	4.92	2.04	19	1.28	0.78	0.44	2.04	1.64	7.42	5.92	18.46	14.92	11.38	5.04	2.36	20	1.48	1.02	0.71	0.63	1.38	3.00	9.24	13.96	22.80	17.34	4.72	1.96	20	1.24	0.74	0.44	1.76	1.67	10.80	5.92	21.80	14.50	10.40	5.04	2.36	21	1.42	1.02	0.75	0.61	1.69	2.54	12.80	19.94	22.40	17.46	4.56	1.86	21	1.24	0.71	0.45	1.70	1.82	10.16	6.00	28.20	14.68	9.64	4.90	2.24	22	1.51	1.00	0.85	0.67	1.54	2.64	11.74	20.60	21.80	17.22	4.36	1.82	22	1.24	0.71	0.48	1.67	2.28	8.60	6.32	30.40	16.22	9.20	4.58	2.16	23	1.86	0.97	0.85	0.72	1.48	3.84	11.96	29.00	21.20	16.12	4.24	1.82	23	1.24	0.73	0.48	1.56	2.60	7.80	6.32	28.80	17.60	8.68	4.38	2.12	24	1.91	0.94	0.79	0.91	1.48	4.16	12.92	29.20	20.20	15.28	4.10	1.86	24	1.20	0.76	0.46	1.54	2.24	7.98	9.34	29.80	16.54	9.34	4.14	2.08	25	1.61	0.88	0.79	1.01	1.54	4.44	13.24	26.80	19.42	14.46	3.98	1.86	25	1.16	0.76	0.45	1.62	2.32	11.66	9.24	27.60	15.80	12.42	3.96	2.04	26	1.48	0.85	0.77	0.94	1.96	3.06	12.38	24.00	17.62	14.14	3.78	1.82	26	1.16	0.74	0.46	1.47	2.60	25.49	9.62	25.40	14.58	14.74	3.86	2.08	27	1.42	0.85	0.72	0.85	2.44	2.54	12.16	22.20	17.30	14.82	3.72	1.77	27	1.12	0.69	0.46	1.20	2.46	23.20	10.18	24.80	13.94	14.64	3.74	2.08	28	1.40	0.85	0.68	0.79	2.34	2.20	11.54	23.40	18.68	13.24	3.56	1.77	28	1.12	0.67	0.49	1.04	2.20	19.98	10.76	25.00	13.68	15.08	3.68	2.20	29	1.34	0.86	0.63	0.74	2.20	2.20	12.70	24.60	21.60	12.26	3.38	1.86	29	1.12	0.64	0.66	0.93	2.08	17.78	11.54	24.00	13.44	13.88	3.52	2.24	30	1.34	0.83	0.63	0.71	1.96	3.06	11.32	22.80	24.20	11.44	3.26	2.04	30	1.08	0.85	0.85	0.85	2.08	15.60	11.84	24.20	13.40	13.04	3.40	2.24	31	1.31	0.60	0.60	1.69	10.52	21.20	10.92	2.00	23.60	12.24	2.16	31	1.08	0.85	0.85	1.85	1.85	11.36	23.20	13.40	13.04	3.40	2.24	Mean	1.73	1.05	0.75	0.83	1.28	2.40	9.52	15.87	21.57	16.59	6.00	2.28	Mean	1.41	0.86	0.54	1.16	1.59	7.21	8.03	17.83	17.90	12.76	6.02	2.56	Max.	2.44	1.29	0.85	1.54	2.44	4.16	16.48	29.20	26.40	20.22	10.22	3.16	Max.	2.04	1.04	0.85	2.28	2.60	25.40	12.96	30.40	23.80	15.08	11.44	3.30	Min.	1.31	0.85	0.60	0.54	0.64	1.42	4.16	9.16	17.30	10.92	3.26	1.77	Min.	1.08	0.64	0.42	0.67	0.71	1.56	5.32	9.20	13.40	8.68	3.40	2.04

River : Dong Nai												At : Dong Nai No.4 Dam Site												Year: 1992																																																																																																																																																																																																																																																																																																																																																																									
												(Unit: m ³ /sec)																																																																																																																																																																																																																																																																																																																																																																																					
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.																																																																																																																																																																																																																																																																																																																																																											
1	2.04	1.04	0.61	0.82	0.80	1.93	12.96	9.50	23.40	13.24	11.44	3.30	1	2.42	1.39	1.00	0.94	1.00	3.68	8.40	22.40	23.80	22.00	9.56	3.38	2	2.38	1.39	1.00	0.94	1.00	3.68	8.40	22.40	23.80	22.00	9.56	3.38	3	2.34	1.36	0.97	0.94	0.99	4.34	3.90	23.40	22.60	20.80	8.72	3.44	4	2.34	1.34	0.94	0.92	1.09	4.48	8.84	28.40	26.00	20.20	8.12	3.72	5	2.24	1.34	0.93	0.92	1.09	3.90	7.96	28.00	31.20	20.20	7.60	3.22	6	2.16	1.29	0.92	0.89	1.16	3.90	7.44	24.80	35.00	19.68	7.46	3.10	7	2.12	1.24	0.90	0.89	1.50	4.48	7.88	23.00	32.40	18.14	7.02	3.04	8	2.08	1.24	0.90	0.89	1.63	4.16	9.16	21.20	27.40	17.60	6.64	3.26	9	2.02	1.34	0.90	0.89	2.42	3.72	9.82	18.96	23.60	16.92	6.36	3.78	10	2.02	1.47	0.92	0.94	2.52	3.72	12.90	17.34	21.60	16.54	6.10	4.16	11	2.16	1.39	0.97	1.26	2.16	3.66	18.92	16.48	24.70	16.76	5.94	4.54	12	2.24	1.39	0.99	1.60	1.88	3.66	16.82	15.56	25.00	17.96	5.62	4.48	13	2.08	1.44	0.97	1.63	1.63	3.54	16.02	14.18	25.20	17.08	5.52	4.54	14	2.02	1.50	0.97	1.63	1.55	3.66	19.12	13.12	24.80	16.02	5.56	4.04	15	1.95	1.50	0.94	1.56	2.04	3.26	19.46	12.38	23.60	14.78	5.30	3.54	16	1.88	1.44	0.92	1.39	2.56	3.10	19.54	11.90	26.80	13.70	5.04	3.22	17	1.88	1.34	0.92	1.22	2.76	3.50	19.70	12.36	30.40	13.32	4.78	3.00	18	1.82	1.24	0.89	1.11	4.92	3.38	17.90	13.26	29.80	12.94	4.60	2.80	19	1.76	1.18	0.92	1.16	6.22	4.28	12.20	13.32	28.40	12.00	4.44	2.60	20	1.72	1.12	0.97	1.24	6.30	5.56	18.92	13.02	25.60	11.88	4.24	2.52	21	1.69	1.12	1.02	1.50	4.76	6.00	17.40	11.76	23.80	11.12	4.16	2.42	22	1.63	1.11	1.03	1.53	3.48	5.28	15.86	11.12	22.00	10.78	4.08	2.34	23	1.60	1.12	1.05	1.69	3.00	5.08	14.90	11.32	24.00	9.72	3.96	2.30	24	1.56	1.12	1.16	1.79	2.98	6.60	14.16	12.04	24.00	9.20	3.80	2.24	25	1.53	1.12	1.14	1.60	3.46	6.22	13.36	12.06	23.20	8.82	3.72	2.16	26	1.53	1.09	1.60	1.39	4.26	5.56	12.84	11.60	22.40	10.28	3.66	2.12	27	1.53	1.06	1.50	1.29	5.54	5.08	12.48	12.32	22.00	11.12	3.54	2.08	28	1.47	1.06	1.29	1.16	6.64	5.08	14.02	13.16	21.20	10.88	3.54	2.06	29	1.47	1.16	1.09	6.22	8.94	14.80	14.14	21.

Attachment-C4: Estimated Mean Daily Discharges at Dong Nai No.4 Dam Site (C.A.=159 km2)

River : Dong Nai													River : Dong Nai												
At : Dong Nai No.4 Dam Sit													At : Dong Nai No.4 Dam Sit												
Year : 1997													Year : 1998												
(Unit : m3/sec)													(Unit : m3/sec)												
Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	3.62	1.60	1.34	1.09	2.74	5.00	6.88	28.80	18.84	14.98	8.64	3.98	1	1.72	1.14	0.99	0.43	0.93	3.88	3.66	2.98	7.50	20.80	9.28	12.26
2	3.44	1.57	1.29	1.07	2.34	5.00	6.08	30.20	17.48	15.60	8.20	3.74	2	1.72	1.14	0.93	0.43	0.94	2.94	5.04	2.78	7.44	20.60	8.84	12.12
3	3.22	1.67	1.24	1.04	2.08	5.32	8.04	28.80	16.70	18.32	8.28	3.50	3	1.66	1.12	0.87	0.43	1.60	2.68	4.64	3.04	6.83	19.44	8.50	11.52
4	3.10	1.67	1.24	1.07	2.04	5.52	7.40	27.20	15.65	18.45	10.00	3.38	4	1.66	1.07	0.79	0.42	1.45	2.50	4.16	3.62	6.08	17.98	8.24	11.24
5	3.00	1.70	1.20	1.07	2.54	5.20	8.90	25.80	15.72	17.96	10.78	3.28	5	1.60	1.05	0.76	0.41	1.35	2.02	4.68	3.32	6.82	16.12	7.98	10.40
6	2.88	1.89	1.20	1.11	2.94	4.60	7.78	24.20	14.52	17.24	8.90	3.22	6	1.58	1.03	0.73	0.42	1.35	1.90	6.76	3.58	7.36	14.64	8.66	9.26
7	2.80	2.04	1.18	1.16	2.88	4.22	7.24	23.60	13.82	16.56	7.62	3.28	7	1.55	1.01	0.68	0.43	1.30	2.02	6.46	4.06	7.44	14.12	9.54	8.64
8	2.74	2.26	1.18	1.11	3.04	3.86	6.76	23.00	12.88	15.66	7.62	3.50	8	1.50	0.99	0.67	0.43	1.16	2.06	5.92	5.04	7.20	14.60	10.10	8.54
9	2.54	1.97	1.18	1.11	3.04	5.52	7.22	20.60	12.44	14.46	7.24	3.38	9	1.50	0.99	0.64	0.44	0.95	2.22	5.24	4.78	6.44	13.92	10.66	8.34
10	2.44	1.86	1.16	1.27	2.74	4.74	7.04	18.68	12.42	14.06	8.38	3.16	10	1.50	0.95	0.63	0.44	0.83	1.87	5.00	4.52	6.50	13.28	10.66	7.82
11	2.34	2.26	1.13	1.39	2.26	3.86	10.00	17.28	12.24	13.52	7.40	3.00	11	1.45	0.91	0.62	0.44	0.73	1.66	4.24	4.38	6.08	12.78	9.82	7.90
12	2.26	2.60	1.11	1.83	2.16	3.38	10.52	16.84	11.62	13.46	6.62	2.84	12	1.42	0.95	0.59	0.43	0.67	1.75	3.78	4.14	6.64	13.66	8.50	14.34
13	2.20	2.94	1.11	2.80	2.26	3.16	10.34	15.68	11.14	13.20	6.62	2.74	13	1.40	0.95	0.58	0.43	0.62	2.52	3.82	3.56	6.08	15.02	8.04	16.72
14	2.16	3.62	1.09	3.50	2.16	3.04	12.36	14.64	10.76	13.52	6.54	2.74	14	1.40	0.93	0.59	0.43	0.64	2.98	4.26	3.50	19.76	14.90	14.64	16.22
15	2.08	3.50	1.20	3.38	2.40	3.22	21.00	14.70	10.62	13.02	6.14	2.54	15	1.40	0.91	0.59	0.45	0.72	2.78	4.14	3.56	16.84	13.42	22.20	15.76
16	2.08	3.16	1.34	2.84	2.60	3.00	22.00	13.62	13.20	12.92	5.68	2.44	16	1.40	0.87	0.62	0.46	1.06	2.44	4.06	4.00	18.88	13.52	22.40	14.48
17	2.04	2.54	1.39	2.34	2.68	3.04	19.38	14.90	15.24	12.72	5.84	2.44	17	1.35	0.87	0.70	0.57	1.98	2.06	3.74	4.52	17.48	12.78	19.74	12.64
18	2.00	2.16	1.41	2.16	2.64	3.16	16.80	14.46	14.76	11.62	5.76	2.40	18	1.35	0.85	0.70	0.83	4.10	1.90	3.38	4.46	16.30	12.46	16.52	11.62
19	2.00	1.93	1.44	1.86	2.64	3.28	16.00	15.54	14.06	10.88	5.32	2.26	19	1.35	0.85	0.73	1.03	4.08	1.81	3.28	4.78	16.34	12.86	14.20	10.28
20	1.97	1.79	1.49	1.67	2.64	3.00	14.84	19.08	18.32	10.58	5.00	2.20	20	1.35	0.83	0.67	1.25	3.92	1.66	3.88	5.30	15.12	13.74	16.62	11.14
21	1.93	1.67	1.49	1.70	2.84	3.04	14.88	21.60	23.40	10.58	4.74	2.16	21	1.30	0.83	0.62	1.30	3.28	1.66	3.82	6.50	16.36	12.88	23.20	10.46
22	1.93	1.60	1.49	1.70	2.64	3.02	15.40	21.60	22.80	11.26	4.80	2.12	22	1.30	0.89	0.57	1.35	3.70	1.69	3.56	7.44	14.70	12.68	24.00	10.10
23	1.86	1.55	1.34	2.34	2.94	3.52	15.60	27.40	23.00	11.16	5.12	2.08	23	1.25	0.89	0.56	1.25	4.26	3.56	3.32	7.28	12.96	15.38	21.00	9.54
24	1.83	1.49	1.27	2.26	3.44	3.62	22.20	27.60	21.20	11.44	4.92	2.00	24	1.23	0.95	0.54	1.07	4.80	2.44	3.32	6.50	16.42	15.86	18.72	8.16
25	1.79	1.49	1.24	1.93	3.04	4.30	20.80	28.00	19.74	10.10	4.66	2.00	25	1.21	1.03	0.51	0.95	3.32	2.30	2.88	6.14	18.76	14.44	19.30	7.44
26	1.76	1.49	1.20	1.89	3.16	5.08	18.72	26.40	18.96	9.44	4.54	1.93	26	1.18	1.01	0.49	0.91	2.52	2.16	2.52	6.36	16.64	12.88	17.92	7.20
27	1.73	1.44	1.16	2.34	3.44	5.96	18.38	24.20	17.94	9.62	4.60	1.86	27	1.18	1.03	0.49	1.09	2.12	2.16	2.58	6.88	16.52	12.06	17.04	6.66
28	1.70	1.39	1.11	2.54	3.62	7.88	21.00	22.40	16.60	9.26	4.48	1.79	28	1.21	1.05	0.47	1.16	2.06	3.34	2.62	7.66	16.52	11.84	14.46	6.36
29	1.67	1.07	1.07	2.64	4.74	8.46	23.00	21.20	15.44	9.26	4.16	1.76	29	1.21	0.46	1.21	2.94	4.64	2.98	7.58	16.38	11.64	13.02	6.00	
30	1.67	1.04	2.94	6.30	7.88	23.60	20.80	15.18	9.44	3.98	1.73	1.70	30	1.18	0.45	1.03	3.50	6.42	3.38	7.28	18.00	10.18	12.28	5.72	
31	1.63	1.05	6.22	23.20	21.00	9.52	1.70	1.70	1.70	1.70	1.70	1.70	31	1.14	0.44	0.44	3.56	6.42	3.32	7.12	9.54	9.54	9.54	5.44	
Mean	2.27	2.02	1.24	1.92	3.01	4.46	14.30	21.61	15.89	12.90	6.42	2.62	Mean	1.39	0.97	0.64	0.73	2.14	2.53	4.08	5.05	12.49	14.20	14.20	10.14
Max.	3.62	3.62	1.49	3.50	6.30	8.46	23.60	30.20	23.40	18.46	10.78	3.98	Max.	1.72	1.14	0.99	1.35	4.80	6.42	6.76	7.66	19.76	20.80	24.00	16.72
Min.	1.63	1.39	1.04	1.04	2.04	3.00	6.08	13.62	10.62	9.26	3.98	1.70	Min.	1.14	0.83	0.44	0.41	0.62	1.66	2.52	2.78	6.08	9.54	7.98	5.44

Appendix D :
Environmental Survey



Appendix D : Environmental Survey

Table of Contents

	Page
D1 INTRODUCTION	D-1
D2 ENVIRONMENTAL LAWS AND REGULATIONS	D-3
D2.1 Specific Legislation Applicable to EIAs.....	D-3
D2.2 Summary of Specific Environmental Laws	D-4
D2.2.1 The Law on Environmental Protection	D-4
D2.2.2 The Law on Compensating the Public for Loss of Owned Land and other Assets	D-4
D2.2.3 The Law on Land 1993	D-5
D3 RECONNAISSANCE SURVEYS UNDERTAKEN DURING THE FIRST FIELD INVESTIGATION	D-6
D3.1 General Information Concerning the Reconnaissance Surveys.....	D-6
D3.2 Reconnaissance Survey of the Dong Nai No. 3 Reservoir Area	D-6
D3.3 Reconnaissance Survey of the Dong Nai No.4 Reservoir Area.....	D-6
D3.4 Meetings held with Government Ministries and Provincial Authorities.....	D-7
D3.5 Reconnaissance of Fishing Activities in the Dong Nai River.....	D-7
D3.6 Reconnaissance Surveys in the Cat Tien National Park	D-7
D3.7 Reconnaissance Surveys of Water Abstraction Downstream of the Planned Dong Nai No.4 Powerhouse to the Tri An Reservoir.....	D-8
D3.8 Reconnaissance Surveys of Commune Households within the Planned Dong Nai No.3 Reservoir Impoundment Area.....	D-8
D3.9 Reconnaissance Survey of the Households' Perception about Resettlement.....	D-9
D3.9.1 The Households' Main Concerns about the Resettlement Area.....	D-10
D3.9.2 Opinions Concerning Replacement Communal Facilities	D-10
D3.9.3 The Households' Appreciation of Compensation.....	D-10
D3.9.4 The Households' Views on Farming Fish.....	D-10
D3.10 Reconnaissance Surveys of National Parks and their Buffer Zones.....	D-10
D3.11 Preparation of Tender Documents for the Detailed Field Investigation	D-11
D4 RESERVOIR POPULATION AND RESETTLEMENT PLAN	D-12
D4.1 Communes in the Dong Nai No.3 and No.4 Areas.....	D-12
D4.1.1 Communes with Boundaries Occupying the Planned Dong Nai No.3 Reservoir Area	D-12
D4.1.2 Communes with Boundaries Occupying the Planned Dong Nai No.4 Reservoir Area	D-12

D4.2	Demographic Characteristics of the Communes.....	D-13
	D4.2.1 Demographic and Ethnic Characteristics	D-13
	D4.2.2 Agricultural Production and Forest Cover	D-13
D4.3	Socio-economic Characteristics of the Communes.....	D-13
D4.4	Numbers of Households and Land Impacted by Impounding the Dong Nai No.3 Reservoir.....	D-15
D4.5	Area of Land Flooded by Impounding Dong Nai Reservoir No.4.....	D-15
D4.6	The Affected Households' Perception and Concerns about Resettlement.....	D-16
D4.7	Proposed Resettlement Areas.....	D-16
D4.8	The Baseline Resettlement Action Plan (RAP).....	D-18
D4.9	Entitlement to Compensation Measures.....	D-20
D4.10	Preparation of the Official Detailed RAP and its Schedule	D-22
D4.11	The Resettlement Action Committee (RAC).....	D-23
D5	NATURAL RESERVOIR ENVIRONMENT	D-25
D5.1	Natural Reservoir Environment	D-25
D5.2	Water Quality and Sediment Loads	D-25
	D5.2.1 Project's Possible Impacts on Water Quality.....	D-25
	D5.2.2 Proposed Mitigation Measures for Water Quality	D-26
D5.3	Natural and Managed Vegetation	D-26
	D5.3.1 Project's Possible Impacts on the Natural Vegetation.....	D-27
	D5.3.2 Proposed Mitigation Measures for the Natural Vegetation.....	D-27
D5.4	Mammals, Birds and Reptiles	D-28
	D5.4.1 Project's Possible Impacts on Animals	D-30
	D5.4.2 Proposed Mitigation Measures for the Natural Vegetation.....	D-30
D5.5	Aquatic Vegetation and Animals.....	D-30
	D5.5.1 Project's Possible Impacts on Aquatic Organisms.....	D-31
	D5.5.2 Proposed Mitigation Measures for Aquatic Animals	D-31
D5.6	Protection Areas and National Parks	D-31
D5.7	Archaeological, Historical and Cultural Assets	D-31
D5.8	The Transmission Line Route	D-32
D5.9	Quarry Areas and Borrow Pits	D-32
D6	THE CAT TIEN NATIONAL PARK	D-33
D6.1	Cat Tien National Park Location: The Core Zone	D-33
D6.2	The Core Zone Animals and Plants	D-33
D6.3	The Dong Nai River's Alignment with the Cat Tien National Park.....	D-34
D6.4	The Bau Sau Wetland	D-34
D6.5	Human Inhabitants of the Cat Tien National Park	D-35
D6.6	Human Inhabitants in the Cat Tien National Park Buffer Zone	D-35
D6.7	Current Measures Aimed at Improving Commune Living Standards in the Buffer Zone	D-36

D6.8	Possible Impacts of the Dong Nai No.3 and No.4 Combined Hydropower Project on the Buffer Zone.....	D-37
D7	DOWNSTREAM HYDROLOGICAL EFFECTS.....	D-39
D7.1	The Principal Downstream Hydrological Effects.....	D-39
D7.2	Water Flow between the Dam and its Powerhouse	D-39
D7.3	River Channel and River Bed Erosion.....	D-40
D7.4	Water Availability for Abstraction	D-40
D7.5	The Bau Sau Wetland in the Cat Tien National Park	D-41
D8	ENVIRONMENTAL MONITORING AND MANAGEMENT	D-43
D8.1	The Principles of Environmental Monitoring and Management.....	D-43
D8.2	Institutional Requirements for Monitoring and Mitigation.....	D-46
D8.3	Recommendations for Monitoring and Mitigation Planning.....	D-47
D8.4	Technological Requirements.....	D-47
D8.5	Watershed Management.....	D-47
D9	DEVELOPMENT OF FISH FARMING IN DONG NAI NO.3 RESERVOIR....	D-49
D10	RECOMMENDED ADDITIONAL ENVIRONMENTAL SURVEYS.....	D-51
D10.1	Additional Dong Nai No.4 Environmental Surveys.....	D-51
D10.2	Watershed Management.....	D-51
D10.3	Reviewing Potential Fish Farming for the Dong Nai No.3 Reservoir.....	D-51

List of Table

	Page
Table D3.1 Results of the Baseline RRA obtained from Interviewing 17 Households (comprising 119 persons) from the Dinh Trang Thuong and Dak Plao Communes living in the Planned Reservoir No.3 Impoundment Basin (1/3).....	D-53
Table D3.1 Results of the Baseline RRA obtained from Interviewing 17 Households (comprising 119 persons) from the Dinh Trang Thuong and Dak Plao Communes living in the Planned Reservoir No.3 Impoundment Basin (2/3).....	D-54
Table D3.1 Results of the Baseline RRA obtained from Interviewing 17 Households (comprising 119 persons) from the Dinh Trang Thuong and Dak Plao Communes living in the Planned Reservoir No.3 Impoundment Basin (3/3).....	D-55
Table D4.1 Communes with Boundaries Occupying the Planned Dong Nai No.3 and No.4 Reservoir Areas	D-56
Table D4.2 Demographic Characteristics of the Provinces and Communes	D-57
Table D4.3 Communes' Population Numbers and Densities.....	D-57
Table D4.4 Main Ethnic Groups within the Bao Lam, Di Ling and Dak Nong Districts.....	D-58
Table D4.5 Composition of Ethnic Groups within the 7 Communes Occupying Land within the Dong Nai No.3 and No.4 Planned Reservoir Areas.....	D-58
Table D4.6 Agricultural Production from the 7 Commune Occupying Land within the Proposed Dong Nai No.3 and No.4 Planned Reservoirs	D-59
Table D4.7 Agricultural Production within the Districts encompassing the 7 Communes	D-60
Table D4.8 Areas of Forest in the 7 Communes Occupying Land within the Dong Nai No.3 and No.4 Planned Reservoir Areas	D-61
Table D4.9 Socio-economical Data for the Dinh Trang Thuong and Dak Plao Communes...	D-62
Table D4.10 Socio-Economic Census Survey Data (20% Sample) Collected during February to August 1999 from the Dinh Trang Thuong and Dak Plao Households living within the Proposed Dong Nai No.3 Reservoir Area (1/3).....	D-63
Table D4.10 Socio-Economic Census Survey Data (20% Sample) Collected during February to August 1999 from the Dinh Trang Thuong and Dak Plao Households living within the Proposed Dong Nai No.3 Reservoir Area (2/3).....	D-64
Table D4.10 Socio-Economic Census Survey Data (20% Sample) Collected during February to August 1999 from the Dinh Trang Thuong and Dak Plao Households living within the Proposed Dong Nai No.3 Reservoir Area (3/3).....	D-65
Table D4.11 Summary of the Number of Households and Other Assets Impacted by Impounding the Dong Nai No. 3 Reservoir Area with a FSL of 590 m.....	D-66
Table D4.12 Summary of the Number of Households Impacted by Impounding the Dong Nai No.3 Reservoir Area with a FSL of 590 m	D-67
Table D4.13 Area of Land Flooded by Impounding Dong Nai No.3 Reservoir with a FSL of 590 m	D-67
Table D4.14 Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (1/9)	D-68
Table D4.14 Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (2/9)	D-69

Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (3/9)	D-70
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (4/9)	D-71
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (5/9)	D-72
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (6/9)	D-73
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (7/9)	D-74
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (8/9)	D-75
Table D4.14	Compensation and Resettlement Costs (in Vietnamese Dong) Evaluated in the RAP (9/9)	D-76
Table D4.15	Main Compensation Measures and Schedules for Implementation (1/2).....	D-77
Table D4.15	Main Compensation Measures and Schedules for Implementation (2/2).....	D-78
Table D5.1	Dong Nai River Water Quality : Upstream, Downstream and in the Mid Region of the Planned Dong Nai No.3 and No.4 Reservoirs.....	D-79
Table D5.2	Types of Vegetation and their Areas covering the Planned Dong Nai No. 3 and No.4 Reservoir Areas (all units are in hectares).....	D-80
Table D5.3	Comparison between the Floral Diversity within the Dong Nai No.3 and No.4 Regional Areas and the Cat Tien National Park	D-80
Table D5.4	Comparative Numbers of Recorded Animal Species in the Whole of Viet Nam, the Cat Tien National Park (CTNP) and the Dong Nai No.3 and No.4 Regional Areas	D-80
Table D5.5	Endangered (Red Book) Bird Species Recorded in the Planned Dong Nai No. 3 and No. 4 Areas	D-81
Table D5.6	Endangered (Red Book) Animal Species Historically Recorded in the Planned Dong Nai No.3 and No.4 Regional Areas.....	D-82
Table D5.7	Fish Species Recorded in the Dong Nai River at the Planed Dong Nai No.3 and No.4 Reservoir Locations.....	D-83
Table D5.8	National Parks and Nature Reserves within 100 km of the Proposed Dong Nai No.3 and No.4 Projects	D-84

List of Figures

Figure D3.1	Commune and Proposed Resettlement Areas.....	D-85
Figure D3.2	Location of Dong Nai No.3 and No.4 Reservoirs in Relation to CTNP and Buffer Zones	D-86
Figure D6.1	Dong Nai No.4 Reservoir with the Lam Dong Buffer Zone.....	D-87



Appendix D : Environmental Survey

D1 INTRODUCTION

The JICA Preliminary Study Team made a preliminary assessment for the initial environmental examination (IEE) of the proposed Dong Nai No.3 and No.4 Combined Hydropower Project (CHPP) area during 1998. The results of the preliminary assessment are summarized in the Inception Report to the Feasibility Study on Dong Nai No.3 and No.4 Combined Hydropower Project (January 1999). The preliminary assessment was further refined in the First Field Investigation performed between January and March 1999 in order to finalize the IEE. The IEE noted in particular the following checklist of possible environmental concerns:

- i) Resettlement of households living in and farming land within the proposed inundation area of Dong Nai No. 3 reservoir (the IEE noted that the Dong Nai No.4 reservoir would not result in the flooding of any homes or in the loss of any other household assets).
- ii) Preparing adequate compensation measures for the resettled households and any other persons affected by impounding the Dong Nai No.3 reservoir.
- iii) Evaluating impacts on the vegetation and animal resources arising from impounding the reservoirs.
- iv) Evaluating impacts on vegetation and wildlife occurring downstream of the Dong Nai No.4 powerhouse to the Cat Tien National Park and the Tri An reservoir.
- v) Ensuring the sustainability of the downstream Cat Tien National Park, its buffer zone and wider environs.
- vi) Ensuring adequate all-year-round water supply downstream of the Dong Nai No.4 powerhouse to meet the needs of the Cat Tien National Park and its buffer zone, as well any other purposes such as drinking, irrigation and industrial manufacture.
- vii) Assessing the potential to develop fish farming in the Dong Nai No. 3 reservoir.
- viii) Examining whether the impoundment of Dong Nai No.3 would lead to the losses of cultural, historical and archaeological assets.

During the First Field Investigation by the JICA Study Team between January 1999 and March 1999, reconnaissance surveys of the Dong Nai No.3 and No.4 areas and of the Cat Tien National Park were carried out. The results of this first field investigation and the reconnaissance surveys are described in Chapter D3 below. Briefly, the reconnaissance surveys and environmental screening confirmed the concerns expressed through the preliminary assessment by the JICA Preliminary Study Team. There were some minor differences. The households that would need to be resettled from the proposed impoundment area of the Dong Nai No.3 reservoir area are essentially agriculturists. Historically they practised slash and burn agricultural regimes on the south central highland's plateau. Following the cessation of war hostilities in 1975, the present occupiers

of the proposed Dong Nai No. 3 area migrated and entered the region from the south central highland's plateau. In less than a decade, considerable damage has occurred to the natural vegetation as a consequence of the settlers' shifting slash-and-burn agricultural regimes. The households are now by far large stable, but continuing immigration into the area, which is accompanied with forest clearance, is having a striking impact on the landscape and the remaining vestiges of forest. With regard to resettlement from the Dong Nai No. 3 proposed reservoir area, the households wish to preserve their livelihood, which is based on agricultural production. They showed no interest in farming fish and would oppose any forced measures to adopt a livelihood based on rearing fish in the reservoir. They wish to preserve and retain the existing agricultural livelihood, which is consistent with their culture and ethnic origins.

The proposed impoundment areas of the reservoirs do not contain any assets of cultural, archaeological or historical value. The absence of cultural assets reflects the initial shifting lifestyles of the inhabitants and the short period (less than 25 years) of land occupancy by the communes.

The other numbered points listed above were confirmed to be important aspects in assessing the potential environmental impacts from the Project. Subsequently during the First Field Investigation phase, meetings were held with the Ministry of Science Technology and the Environment (MoSTE), the Ministry of Agriculture and Rural Development (MoARD) and the Authorities of the Lam Dong and Dak Lak Provinces to gain their views and opinions concerning the Project. The MoSTE carries responsibilities for ensuring environmental protection and management and for regulating the content of EIAs (Environmental Impact Assessments) and examining EIAs. The MoARD carries responsibilities for regulating Resettlement Action Plans (RAPs) and for protecting forests. It shares its responsibilities with the Provincial Authorities, who also have powers to regulate resettlement action planning and to dictate compensation measures. Meetings were also held with the World Wide Fund for Nature (WWF). The MoSTE and the MoARD commented that the environmental and resettlement aspects numbered above should be addressed in an EIA. Mindful of the comments made by the MoARD and the MoSTE, Tender Specifications for the environmental surveys for the EIA and the Resettlement Action Plan (RAP), which would be carried out during the detailed field investigations (June to September 1999), were prepared (see Chapter D3 below). Mindful too of conditions to comply with the National and Provincial regulations governing reporting the EIA and RAP by the project proponents, the detailed field investigations were carried out through a sub-contract awarded to PECC2.

This Appendix contains a summary of the information that was collected during the First Field Investigation (January to March 1999), through to the Second and Third Field Investigations (June to September 1999). The collected information was subsequently evaluated and analyzed, as presented in this Appendix D. The Main Report contains a summary of the Appendix D conclusions, and a summary of the environmental field investigation studies.

D2 ENVIRONMENTAL LAWS AND REGULATIONS

D2.1 Specific Legislation Applicable to EIAs

The term Environment Impact Assessment (EIA) is legally defined within the Vietnamese legislation, as fully described below. The EIA procedure is therefore fully reinforced by significant statutes. Consequently wherever the term EIA is applied in a text referring to a particular Project, which would require the submission of an EIA prior to the project's approval for construction and operations, the full force of the EIA legislation would apply to that Project. In the discussion that follows, the main legislation governing the content of EIAs and the Central Government Ministry responsible for directing complementary legislation and monitoring the entire EIA process is discussed in some detail below. The principal statute enforcing EIA is the Law on Environmental Protection.

The National Assembly passed the Law on Environmental Protection on the 27 December 1993 and subsequently the President approved the legislation on 10 January 1994. Article 18 stipulates that "organizations constructing economical facilities must submit environmental impact assessment reports to the State Authority responsible for regulating environmental protection". The State Authority would then appraise the EIA and decide whether to grant planning permission for the Project. Furthermore Article 18 comments that EIAs should be objective, scientific, and comply with the international standards in effect at a given time. The Government Decree Number 175/CP of 18 October 1994 contains guidelines on implementing the Law on Environmental Protection. The guidelines require project proponents to:

- evaluate the existing environmental conditions;
- predict the range and the scales of environmental impacts;
- recommend mitigation measures to minimize environmental impacts; and
- recommend environmental monitoring programs.

The Government Decree Number 22/CP of 22 May 1993 defines the mandate and the authority vested in the Ministry of Science, Technology and the Environment (MoSTE) for enforcing environmental protection and for approving EIAs. The Decree also defines the responsibilities and the institutional organization of the MoSTE. In seeking to approve EIAs and granting permission for constructing and licensing major projects, the MoSTE is required to consult with and obtain the opinions of other government agencies such as the Ministry of Agriculture and Rural Development (MoARD) and Non-Government Organizations (NGOs).

In fulfillment of its statutory obligations defined within the Law on Environmental Protection 1993, and its authority for enforcing the EIA regulations, the MoSTE issued Circular Number 490/1998/TT-BKH CNMT (Circular Letter of Guidance on Setting up and Appraising the Environmental Impact Assessment (EIA) Report for Investment Projects) on 29 April 1998. This Circular lists those Projects where an EIA is a mandatory condition. Projects that require a mandatory EIA are grouped in the Category 1 List. Projects grouped in the Category 1 List are nominally defined as developments that may cause potentially and widely spread environmental impacts. The content for an Environmental Impact Assessment is more precisely defined in the Government Decree Number 175/CP of 18 October 1994.

The MoSTE also has powers to qualify and quantify any other criteria it considers relevant to the content of an EIA report.

The proposed projects for the Dong Nai No 3 and No.4 dams and reservoirs require an EIA report under item 18 of Annex 1 of the Circular 490/1998/TT-BKH CNMT: namely any hydropower plant with a reservoir of over 100 million m³.

D2.2 Summary of Specific Environmental Laws

D2.2.1 The Law on Environmental Protection

The Law on Environmental Protection gained National Assembly approval in December 1993 and the President subsequently issued it on 10 January 1994. The Law is contained within 7 Chapters and 55 Articles as follows:

Chapter Number	Chapter Title
I	General provisions.
II	Prevention of, and dealing with environmental degradation, environmental pollution and environmental accident.
III	Control of environmental degradation, environmental pollution, and environmental accident.
IV	State management of environmental protection.
V	International relations with respect to environmental protection.
VI	Rewards and dealing with breaches.
VII	Implementation provisions.

D2.2.2 The Law on Compensating the Public for Loss of Owned Land and other Assets

The principal legislation governing compensation for the compulsory purchase of land or other assets by the State, Non-Government Agencies and Foreign Organizations, is Decree Number 22/1998/ND-CP issued on 24 April 1998 (Compensation for Damage when the State Recovers Land for Use in National Defense, Security, National Interests and Public Interests). The Decree provides compensation measures, from the State, for land recovered for the purposes of national defense, security, national interests and public interests as stipulated in Article 27 of the Land Law of 1993. Article 1 of the law defines the type of land that may be compulsorily compensated in relation to recovery by the State for constructing specific classes of projects. Article 1 (2a), *inter alia*, concerns land used in the construction of hydroelectric power stations, electric transformer stations, reservoirs and power transmission lines.

The Ministry of Finance issued Circular Number 145/1998/TT-BTC on 4 November 1998 as guidance to the terms and provisions of the Decree Number 22/1998/ND-CP.

Other central government legislation concerning resettlement action planning and compensation are briefly listed below:

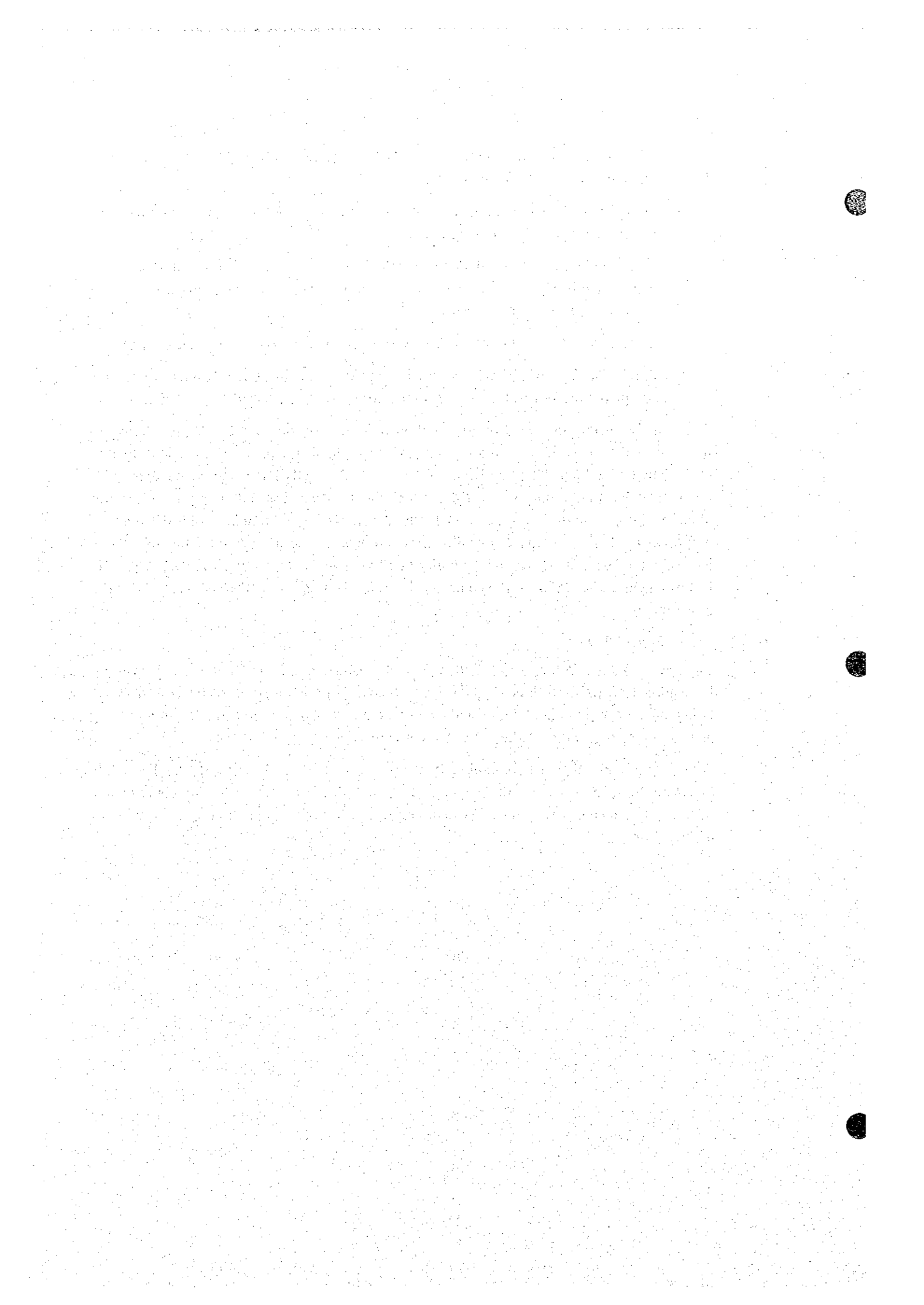
- Central Government Decree 54/1999/ND-CP dated 8 July 1999 (Safety protection from high voltage transmission lines).
- Decree No.64/CP dated 27 September 1993 on the distribution of agricultural land to households for long term agricultural purposes.
- Direction No. 87/CP dated 17 August 1994 for the compensation of land and fixed assets, identifying cases of land compensation by land, land compensation by cash, and issue of land use certificates.
- Circular No.05 BXD/DT of 9 February 1993 on the classification of house types.
- Provincial Authorities also possess powers to enact local regulations concerning compensation for assets acquired compulsorily by the State and other bodies.

The Lam Dong Province bases compensation measures on the Decree 22 provisions. It recently issued a new compensation policy, which replaces the previous Decision No.2383 of 19 November 1997. The updated policy is No. 2034/QN-UB dated September 1998 together with its guideline No. 627 dated 8 October 1998. The policy applies rules and methods for calculating compensation for land taken by government authorities, for the purposes of defense, security, national interest and public benefit. A comparable policy was issued by the Dak Lak Provincial Authority in 1998, namely: Decision No. 3079/1998/QN-UB dated December 1998 for the compensation rates for crops and other assets taken by the government.

D2.2.3 The Law on Land 1993

The Law on Land is relevant to resettlement and rehabilitation issues, and was approved by the National Assembly in July 1993. This law focuses on 6 main points of interest, namely: land tenure; changes in land tenure and land use; land use zoning; protecting land; recording and administering land; and alternative uses of land.

Article 27 provides that "where extremely necessary, the State shall regain the land which is under use from land users for the purposes of national defense, security, national and public interest". In which cases, "land users shall be entitled to enjoy compensation for the losses incurred".



D3 Reconnaissance Surveys Undertaken during the First Field Investigation

D3.1 General Information Concerning the Reconnaissance Surveys

Reconnaissance surveys of the Dong Nai No.3 and No.4 CHPP area were made during January 1999 to March 1999 and the landscape and the human commune living conditions were evaluated (Figure D3.1). Also visits were made to the Cat Tien National Park, and discussions were held with the Park's officers to record their concerns about possible impacts of the Dong Nai No.3 and No.4 HPP on the Park's ecosystem and on the integrity of its buffer zone (Figure D3.2). Discussions were held with non-government agencies, such as the WWF, and government ministries such as the Ministry of Science Technology and the Environment (MoSTE), the Ministry of Agriculture and Rural Development (MOARD) and the Ministry of Transport. Comparable discussions were held with the Lam Dong and Dak Lak Provincial Authorities to gain their views and opinions regarding the planned Dong Nai No.3 and No.4 HPP. An opinion poll ("hearing survey") was undertaken among the commune households living in the proposed impoundment area of the Dong No.3 reservoir to gain their views on resettlement. The initial survey of the Dong Nai No.4 reservoir area verified that no commune households would be affected by impounding this reservoir.

D3.2 Reconnaissance Survey of the Dong Nai No. 3 Reservoir Area

The Dong Nai No. 3 reservoir area has a gentle slope and a wide valley floor, which is dissected by the Dong Nai River. About 7 communes occupy land within the planned impoundment area, but only three communes would lose some homes and fields due to flooding the reservoir (Figure D3.1). The three communes are the Dinh Trang Thuong, the Dak Plao and Dak Som. The communes have destroyed vast areas of forest in the Dong Nai No. 3 reservoir area and replanted the land with coffee and other cash crops. The area is under aggressive forest clearance to meet needs for agricultural extension, the provision of wood for building homes and for home fires. Logging activities and forest fires were commonly observed during the reconnaissance surveys. The planned impoundment area is partially forested with mainly bamboo, but hardwood forest still persists along the banks of the Dong Nai River, but this too is a fast diminishing natural resource. The communes practise an agricultural regime that is essentially non-sustainable, being based on shifting slash-and-burn techniques.

As a result of immense pressure on the existing natural vegetation around Dong Nai No.3 from settlements living either within or besides the proposed impoundment area, it does not contain important natural wildlife. Most of the natural wildlife has been hunted to destruction or fled from the proposed reservoir area.

D3.3 Reconnaissance Survey of the Dong Nai No.4 Reservoir Area

The proposed Dong Nai No.4 reservoir area lies within a steeply sided gorge, with a maximum width of about 40 m. The steep sides of the gorge are covered with mixed bamboo and hardwood vegetation. Land adjacent to the gorge is covered with thick forest, with rugged slope. The forest comprises evergreen (*Dipterocarpaceae* spp. and various *Leguminosae* spp.) and semi-evergreen species (particularly *Lagerstroemia* spp.). Owing to the rugged slope of the land adjoining the planned reservoir area and the thick forest, households have not penetrated and settled in the forest. The forest, which is therefore "virgin", would contain important endangered species of wildlife that would need to be protected from future human intrusion and settlements. Owing to the great difficulty in

accessing the thick virgin forest, little is known about its wildlife species and their numbers. The general area of the planned Dong Nai No.4 HPP contains the boundaries of only two communes, namely the Loc Bao (living close to the proposed dam site) and the Quang Khe (living close to the proposed location of the powerhouse). Impounding the reservoir would submerge only government owned land, within the steeply sided gorge, amounting to about 4 km².

D3.4 Meetings held with Government Ministries and Provincial Authorities

Discussions were held with the MoSTE, MoARD and the MOT. Consultations were also made with the Dak Lak and Lam Dong Provincial Authorities. All of the consulted persons conveyed a positive attitude to the proposed Project, and recognized the urgent need to develop secure and reliable energy supplies to meet the growing demand in Vietnam.

D3.5 Reconnaissance of Fishing Activities in the Dong Nai River

Fishing is not an important occupation or source of income in the Project area. The great majority of the population is involved in agriculture. Fish are opportunistically caught by rod-and-line and by nets in pursuit of recreation.

D3.6 Reconnaissance Surveys in the Cat Tien National Park

The northernmost part of the Cat Tien National Park (namely Nam Cat Loc) lies about 50 km to the south of the proposed Dong Nai No.4 dam and powerhouse sites (Figure D3.2). The southernmost part of the Cat Tien National Park (namely, Nam Cat Tien) lies about 130 km to the south of the proposed Dong Nai No.4 dam and powerhouse sites. Nam Cat Loc is inhabited by a sub species of the javan Rhinoceros, namely *Rhinoceros sondaicus annamaticus*. The species is endemic to Vietnam, and it does not live elsewhere in the country. The Park's officers estimate that about 10 Rhinoceros live in the northernmost part of Nam Cat Loc.

The northeastern part of Nam Cat Tien contains a wetland, namely Bau Sau. This wetland is populated by many migrant species of over-wintering birds, namely waders and wildfowl. The Siamese Crocodile, *Crocodylus siamensis* inhabits the wetland. A large number of other animal and bird species inhabit the Cat Tien National Park, and these are listed in publications by the Park's staff (i.e. Bird List of Cat Tien National Park, March 1999; and Animal List of the Cat Tien National Park).

Initial deliberation and analyses indicated that the Dong Nai No.3 and No.4 Project would not have any adverse effect on the water relations of the Cat Tien National Park. The Park's mineral resources (e.g. sand and gravel) would not be exploited for construction purposes. However several of the Park's staff expressed a concern that the Project might have a negative effect on the Bau Sau wetland, which is in hydraulic connection with the Dong Nai River via a stream, namely the Dak Lua stream. The Park's officers added that the reservoirs would retain water in the wet season, and this water might be required to sustain the wetland. Reconnaissance hydrological investigations of the Bau Sau wetland, revealed that the habitat perennially drains into the Dong Nai River via the Dak Lua stream. However, during severe flood conditions, during the peak monsoon rains, in the months of June to October, the Dong Nai River flow reverses into the Dak Lua stream and enters the wetland. The preliminary hydrological analysis clarified that this reverse flow lasts for about 10 days in the year, as discussed in detail in Chapter C6 of Appendix C.