表Ⅲ－ 4　取水口地点における日流量データ (1972)

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.3	10.2	8.4	4.7	4.4	4.4	5.9	3.0	2.8	28.9	3.6	5.8
2	16.3	8.0	7.9	4.7	6.3	4.4	5.5	2.9	39.0	17.4	3.6	5.7
3	10.5	7.9	7.4	4.7	4.5	4.3	5.1	2.9	24.4	8.2	3.6	5.7
4	7.9	7.7	7.0	4.7	4.5	4.3	4.7	2.8	19.2	5.0	3.6	5.5
5	7.7	7.3	6.6	4.7	4.6	4.3	4.4	2.8	12.4	4.8	3.5	5.5
6	7.5	6.9	6.2	4.7	4.7	4.3	4.1	2.8	25.0	4.6	3.5	5.4
7	7.1	6.8	6.2	4.6	5.1	4.3	3.9	2.7	101.2	4.2	3.5	5.4
8	6.9	6.9	6.1	4.6	23.6	4.2	3.9	2.7	33.3	3.8	3.5	5.4
9	6.7	6.8	6.0	4.6	12.5	4.2	3.9	2.6	22.2	3.7	3.6	5.4
10	6.6	8.0	5.6	4.6	52.1	4.1	3.8	2.6	13.2	3.6	6.1	5.3
11	6.4	8.1	5.3	4.6	29.6	4.1	3.8	2.5	7.4	3.6	21.6	5.3
12	6.0	8.2	5.2	4.6	16.1	4.0	3.8	2.5	5.7	3.5	11.1	19.4
13	5.7	11.2	5.1	4.5	8.8	4.0	3.7	2.5	5.5	3.2	6.5	10.5
14	5.6	35.7	5.1	4.5	8.7	4.0	3.7	2.4	5.3	2.8	6.7	7.2
15	5.3	32.3	5.1	4.5	9.9	4.0	3.6	2.4	5.2	2.8	14.1	5.6
16	5.0	30.3	5.1	8.8	8.4	3.9	3.6	2.3	5.1	21.3	9.4	6.0
17	4.8	20.6	5.1	6.2	6.8	3.9	3.6	2.3	4.9	18.9	9.5	10.5
18	4.8	61.9	5.0	5.9	6.7	3.9	3.5	2.3	4.4	14.7	17.1	10.0
19	5.0	92.7	5.0	70.1	6.4	3.9	3.5	2.2	4.0	9.1	51.1	9.2
20	6.6	142.7	5.0	24.4	6.0	19.9	3.4	2.2	3.6	5.5	34.5	7.1
21	74.5	45.1	4.9	13.1	5.6	68.3	3.4	2.1	3.5	4.1	18.5	5.9
22	23.3	41.5	4.9	7.3	10.3	79.6	3.4	2.1	3.4	4.0	12.9	5.7
23	13.0	24.1	5.3	6.1	6.6	29.0	3.3	2.1	3.2	3.7	8.2	5.6
24	21.2	17.0	4.9	6.0	5.8	15.4	3.3	2.1	2.9	3.5	6.2	6.7
25	17.1	12.1	4.8	6.0	6.1	7.6	3.2	2.1	2.6	3.5	6.7	10.0
26	16.8	10.2	4.8	5.8	5.9	7.7	3.2	3.8	2.6	3.5	6.6	16.7
27	27.6	9.9	4.8	5.5	5.8	9.0	3.1	17.8	6.6	3.6	9.9	9.3
28	26.6	9.4	4.8	5.1	5.7	7.5	3.1	8.2	22.4	3.7	7.9	6.8
29	15.4	8.9	4.8	4.8	5.3	6.3	3.1	4.4	33.6	3.7	6.1	5.9
30	27.0		4.9	4.5	5.0	6.2	3.1	2.9	42.9	3.7	5.9	5.8
31	15.7		4.7		4.6		3.0	2.8		3.6		5.8
Average	13.9	24.1	5.5	8.3	9.6	11.2	3.8	3.3	15.6	6.8	10.3	7.4

ANNUAL AVERAGE = 9.9 cms

表Ⅲ－5　取水口地点における日流量データ（1974）

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7.0	5.7	18.5	16.1	6.8	4.4	4.2	5.6	6.0	8.3	11.8	6.0
2	6.9	5.7	12.5	10.2	6.6	4.3	3.9	10.2	5.9	8.2	11.3	5.8
3	32.5	5.5	9.7	9.4	6.3	4.3	13.5	22.6	5.8	11.0	12.4	5.5
4	27.0	5.4	7.3	7.3	6.1	4.3	6.8	32.4	5.7	9.1	10.8	5.5
5	18.8	5.3	7.0	6.2	5.8	4.3	5.2	17.4	46.0	68.5	52.3	5.5
6	11.3	5.0	6.9	9.7	5.4	4.3	4.5	30.2	125.6	93.8	23.0	5.5
7	8.3	5.0	6.7	8.8	5.3	4.3	4.6	16.5	127.1	32.9	39.1	5.5
8	7.6	5.0	6.4	7.2	5.0	4.3	4.6	32.2	175.0	18.9	22.9	5.5
9	7.6	5.0	6.0	6.3	5.7	4.3	4.5	17.7	51.5	10.7	13.7	5.4
10	7.4	5.0	5.7	6.2	5.1	4.2	4.3	10.2	28.4	34.3	12.1	5.4
11	7.2	4.9	5.3	5.9	5.1	4.2	4.0	7.4	34.9	19.7	10.1	5.4
12	6.9	4.7	5.0	10.5	5.2	4.2	3.9	18.6	26.5	12.4	9.8	5.4
13	6.7	4.7	4.7	13.5	18.4	4.2	6.3	10.9	19.6	9.3	9.5	5.3
14	6.6	4.7	4.6	11.0	10.0	4.1	4.0	8.6	22.5	14.3	9.0	5.3
15	11.8	7.1	4.6	9.2	7.2	4.1	4.1	7.3	18.9	19.1	8.5	5.3
16	8.9	6.1	4.6	6.9	106.8	4.0	4.5	7.1	20.8	17.0	8.0	5.2
17	7.4	5.1	4.5	6.3	28.6	4.0	5.9	6.9	16.2	12.0	7.9	5.2
18	6.8	5.1	4.5	6.2	15.7	4.0	6.0	6.8	12.0	11.2	7.7	5.2
19	6.7	5.1	4.5	5.8	8.5	16.6	4.6	6.7	11.7	10.1	7.3	5.2
20	6.4	5.1	4.4	5.7	6.9	8.3	4.6	6.5	9.6	9.0	7.2	5.1
21	9.6	8.4	4.4	5.6	6.7	6.0	11.0	6.1	9.1	18.0	7.1	5.1
22	8.7	7.0	4.4	5.7	6.4	4.5	11.2	5.6	40.9	12.0	7.0	5.1
23	7.7	18.2	4.4	5.7	9.4	4.4	55.0	5.6	24.5	9.7	6.8	5.3
24	6.6	12.1	4.3	5.6	6.5	4.4	21.2	5.5	17.0	22.7	6.4	5.3
25	6.6	8.9	4.3	5.6	6.4	12.0	11.2	13.5	11.4	13.7	6.4	5.4
26	6.7	17.4	4.3	45.9	6.3	6.8	9.0	8.2	9.0	30.2	6.4	5.5
27	6.7	10.0	4.3	61.7	6.0	5.2	6.7	6.3	8.8	17.6	6.4	14.7
28	6.5	9.0	4.3	24.4	5.6	4.9	6.1	6.6	8.7	34.5	6.4	8.9
29	6.4		12.7	13.2	5.3	4.8	6.0	6.7	8.6	96.5	6.3	6.9
30	6.2		120.4	7.6	4.9	4.5	5.9	6.3	8.5	33.1	6.1	7.3
31	6.1		30.6		4.6		5.7	6.0		19.5		19.6
Average	9.3	7.0	10.7	11.6	10.9	5.3	8.2	11.6	30.5	23.8	12.0	6.4

ANNUAL AVERAGE = 12.3 cms

表Ⅲ－6　取水口地点における日流量データ（1975）

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10.4	30.4	107.5	8.9	7.1	33.6	6.3	8.6	51.3	12.2	8.5	20.6
2	8.0	17.6	35.9	52.6	7.0	33.4	6.3	8.3	32.0	11.2	8.5	12.4
3	9.8	12.3	75.2	21.5	6.8	88.0	6.2	7.8	21.3	9.8	8.4	9.2
4	10.0	11.9	46.6	38.5	6.4	53.1	6.2	7.4	12.7	9.6	8.3	8.8
5	89.2	9.8	30.3	21.9	6.1	30.5	6.1	7.0	10.6	9.4	8.1	8.6
6	28.0	8.5	29.5	12.8	6.1	21.7	6.1	6.6	62.5	9.2	8.0	8.2
7	21.6	24.5	17.6	9.5	6.1	14.2	6.0	6.5	31.8	9.0	8.0	8.1
8	16.4	14.6	11.5	9.3	13.5	11.6	6.0	6.2	26.0	8.8	7.9	8.0
9	10.7	27.1	9.6	9.0	8.4	11.2	6.0	5.9	47.0	8.6	7.9	7.9
10	13.4	16.1	9.4	40.0	96.0	11.0	6.0	5.7	26.0	8.4	7.9	7.9
11	30.4	10.9	9.1	55.4	27.8	10.8	5.9	5.7	15.6	8.2	7.8	7.7
12	30.9	8.8	8.8	38.7	18.3	10.6	5.9	5.7	10.9	7.9	7.7	7.6
13	18.1	8.6	8.5	28.1	26.4	10.3	5.8	5.6	11.1	7.8	7.7	7.5
14	11.3	8.3	8.2	19.6	15.3	10.0	5.8	5.6	10.2	9.8	7.6	11.2
15	8.8	7.8	31.0	66.0	10.1	9.5	8.2	5.5	10.0	8.2	7.6	10.4
16	8.6	7.4	20.3	27.6	8.3	9.3	20.4	31.2	9.8	95.9	7.6	11.0
17	8.3	7.2	120.6	16.5	8.1	9.5	11.2	18.9	9.7	33.1	7.6	15.0
18	7.8	7.0	38.9	11.0	12.6	9.2	20.9	10.4	9.5	21.2	7.5	21.2
19	7.4	6.6	22.3	10.2	9.1	10.0	30.6	7.1	16.4	12.1	7.4	19.3
20	7.0	25.2	12.3	9.9	32.0	9.1	37.5	19.2	15.0	10.5	11.5	15.5
21	6.9	12.4	9.5	9.6	23.3	9.0	40.9	20.4	11.7	10.2	8.6	57.3
22	6.8	9.3	9.2	9.1	25.4	8.8	43.5	16.4	9.4	9.0	7.6	44.4
23	23.0	8.0	9.1	8.9	88.2	8.6	45.5	15.6	9.6	8.9	7.5	41.8
24	13.3	7.1	9.0	8.6	51.4	8.2	25.2	10.2	10.7	8.8	7.5	36.2
25	9.6	7.0	12.6	8.1	28.7	7.8	17.3	7.4	81.5	8.6	7.6	51.4
26	7.3	6.8	10.4	7.7	22.1	7.4	11.1	63.6	27.0	8.5	7.6	46.4
27	7.3	32.5	9.9	7.5	13.5	7.1	10.5	21.9	21.4	8.3	7.5	102.5
28	7.3	13.7	10.1	7.4	36.3	6.8	9.7	15.9	16.4	26.8	12.8	54.1
29	17.2		9.7	7.3	36.3	6.7	9.0	15.8	12.9	14.3	9.1	42.8
30	10.8		8.8	7.2	21.4	6.5	9.0	33.7	12.7	10.7	19.3	33.0
31	102.0		8.7		29.8		8.8	87.1		8.6		24.9
Average	18.3	13.1	24.5	19.6	22.8	16.1	14.3	15.9	21.8	14.0	8.6	24.5

ANNUAL AVERAGE = 17.9 cms

表Ⅲ－7　取水口地点における日流量データ（1984）

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11.0	20.2	49.9	13.3	20.2	12.4	18.4	12.3	10.4	7.7	11.6	9.8
2	9.6	32.4	105.7	30.7	18.1	34.4	13.7	20.3	9.7	9.7	10.5	9.6
3	17.2	25.1	142.2	20.5	19.1	21.9	11.3	15.6	9.6	9.3	12.3	19.6
4	90.3	30.1	62.0	19.3	19.5	175.9	11.7	14.7	9.5	8.5	26.9	16.1
5	37.2	40.7	37.6	15.1	15.3	62.9	10.9	12.4	10.9	22.7	19.9	14.5
6	22.2	27.5	28.1	15.7	13.2	94.5	14.5	12.0	10.6	13.5	17.5	25.3
7	109.3	45.9	28.7	14.2	13.5	40.0	12.3	11.8	10.4	107.3	15.3	28.7
8	87.0	74.4	21.3	13.1	14.0	29.7	11.2	11.5	10.7	32.3	13.9	32.8
9	43.5	111.0	17.0	25.2	14.0	24.6	11.3	11.0	9.7	20.2	11.7	23.9
10	29.7	48.6	53.7	51.1	14.8	16.7	19.1	10.5	9.6	41.0	10.7	19.5
11	21.6	28.7	30.1	30.5	13.7	15.6	17.1	10.1	9.4	29.7	16.7	13.5
12	30.0	29.2	21.0	41.8	12.1	15.9	28.3	9.6	9.0	20.7	12.7	33.2
13	20.7	32.2	18.3	45.2	12.7	14.5	27.5	9.6	8.9	15.4	11.2	22.0
14	17.2	24.3	15.4	46.7	12.9	14.1	18.6	9.5	8.7	11.9	10.5	19.2
15	13.4	33.5	13.2	46.1	11.8	12.8	15.0	9.4	8.6	10.6	10.4	20.8
16	22.3	213.4	37.0	45.6	11.6	14.3	12.6	9.0	8.5	10.4	10.3	14.5
17	32.4	57.5	28.0	31.5	11.5	13.6	40.6	8.7	8.4	10.3	10.2	11.6
18	19.5	36.1	27.2	21.7	17.8	14.6	42.8	8.4	8.2	11.4	10.5	11.2
19	17.9	47.3	21.3	15.2	16.5	13.1	45.2	8.3	16.6	11.7	11.1	11.0
20	12.9	33.2	15.9	13.1	13.7	12.2	31.7	8.2	11.1	10.3	21.3	12.0
21	10.1	37.0	15.1	12.9	12.5	12.0	123.5	8.2	9.7	10.1	20.8	30.6
22	162.1	33.4	12.9	12.6	12.3	11.7	50.6	8.1	8.7	10.0	25.6	20.0
23	42.5	37.4	20.8	153.9	11.3	11.3	30.0	10.6	8.6	9.9	16.2	59.6
24	27.2	24.6	15.3	49.8	11.1	15.0	22.2	8.4	8.3	9.9	12.5	27.7
25	17.1	16.8	30.6	29.4	10.9	13.5	16.6	17.2	8.0	19.7	10.6	17.3
26	16.0	13.5	25.9	18.7	10.7	12.3	13.5	12.4	7.7	22.3	10.4	15.1
27	53.3	12.8	24.8	39.3	10.5	11.1	13.1	10.0	7.6	16.0	10.3	20.5
28	36.8	17.7	20.4	24.2	14.3	11.0	12.7	11.4	7.5	15.3	10.2	14.7
29	30.8	133.0	20.7	16.3	25.3	10.9	21.9	33.1	8.7	25.2	10.1	11.9
30	22.3		15.8	22.4	17.2	12.5	15.4	19.3	8.3	17.0	9.9	13.5
31	15.0		14.1		12.9		13.3	12.4		12.4		58.6
Average	35.4	45.4	31.9	31.2	14.4	25.8	24.1	12.1	9.4	18.8	13.7	21.2

ANNUAL AVERAGE = 23.5 cms

表Ⅲ－８　取水口地点における日流量データ（1985）

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	25.9	12.6	11.4	15.2	9.9	11.3	7.9	8.4	11.1	69.0	19.3	19.3
2	36.8	57.0	11.1	13.1	9.5	10.8	7.8	8.3	9.6	41.5	24.6	36.3
3	36.1	68.2	159.4	30.7	9.1	10.3	7.8	8.1	9.4	30.3	20.3	36.9
4	22.4	31.3	141.2	19.7	20.9	10.1	7.8	7.8	9.0	20.3	111.7	45.0
5	15.7	29.9	125.9	17.6	12.7	10.0	7.8	7.5	8.8	57.5	106.2	51.1
6	12.9	25.1	52.0	14.5	11.0	9.9	7.7	7.4	8.5	27.3	43.4	30.5
7	11.9	38.2	94.6	12.8	10.3	9.9	7.8	7.4	8.1	18.8	39.2	19.4
8	13.9	43.7	51.3	12.5	9.7	57.9	7.7	7.4	8.0	15.7	24.5	36.5
9	13.9	30.1	32.0	12.2	9.7	26.3	7.7	7.3	7.9	18.7	23.7	117.4
10	25.5	108.2	19.8	11.9	9.7	16.4	7.8	7.3	7.9	21.4	19.2	78.2
11	17.8	111.3	14.4	11.5	9.7	11.7	7.9	7.3	7.8	18.1	34.2	54.1
12	13.7	46.0	13.9	11.0	9.6	10.6	8.0	7.2	7.7	13.7	24.1	52.3
13	11.6	28.1	13.5	10.7	11.0	10.4	8.1	7.2	7.7	11.5	17.9	32.8
14	11.4	30.2	13.2	10.4	10.4	10.2	78.5	7.2	29.6	13.0	14.5	22.8
15	11.1	34.7	13.0	75.9	9.8	12.1	32.9	7.1	14.8	15.6	14.5	24.5
16	10.6	22.4	12.8	53.9	9.7	10.2	43.7	7.1	10.6	25.6	14.4	30.3
17	10.2	35.0	12.5	27.7	9.6	11.3	54.3	7.1	11.0	16.2	15.8	41.0
18	9.7	41.9	15.9	25.7	69.8	10.2	28.6	15.3	9.3	22.4	15.6	25.8
19	9.6	30.7	13.7	35.2	27.8	10.1	18.6	9.2	8.5	38.4	14.3	21.4
20	9.4	20.4	24.6	24.8	74.6	9.9	13.3	187.3	8.4	57.3	13.5	17.1
21	9.2	15.2	25.7	32.6	32.2	9.8	11.8	54.6	13.8	29.3	23.1	15.0
22	9.1	13.6	26.2	20.3	23.0	9.6	13.1	32.4	10.9	24.1	38.6	14.1
23	8.8	13.2	40.2	14.9	51.8	9.3	12.8	18.7	10.2	39.3	30.7	16.6
24	158.8	13.0	24.5	12.2	28.6	8.9	10.8	10.8	9.1	43.4	24.5	15.9
25	36.1	12.7	42.4	12.1	21.9	8.6	10.5	11.2	9.9	28.4	42.0	24.0
26	26.1	12.4	42.9	11.8	19.6	8.4	10.3	10.9	25.8	35.4	41.9	16.9
27	47.4	12.2	27.3	11.5	16.7	8.1	10.1	9.5	15.4	23.1	25.6	14.3
28	43.7	11.9	17.4	11.0	16.1	8.0	9.9	9.3	103.0	33.4	18.4	13.2
29	27.0		24.8	10.7	13.6	7.9	9.5	12.2	44.0	30.5	53.3	12.8
30	19.7		28.1	10.3	11.9	7.9	9.2	23.6	30.7	20.6	29.5	12.6
31	13.6		18.6		11.6		8.8	14.5		17.6		38.3
Average	23.5	33.9	37.6	19.8	19.4	12.2	15.8	17.6	15.9	28.3	31.3	31.8

ANNUAL AVERAGE = 23.9 cms

表Ⅲ－9　取水口地点における日流量データ（1986）

(Unit : cms)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	21.2	15.4	12.2	35.3	23.1	14.0	18.1	31.3	31.0	14.9	15.6	30.1
2	44.9	15.1	12.1	33.7	20.4	12.2	15.9	29.1	23.0	15.1	15.9	28.2
3	57.0	14.7	12.4	22.7	17.8	12.1	14.5	20.4	16.7	13.1	16.0	19.4
4	141.9	14.1	17.5	17.3	145.2	11.8	14.2	13.8	12.2	87.9	14.5	16.8
5	89.2	13.5	15.2	15.6	45.6	11.4	13.9	11.3	10.6	30.0	13.8	20.3
6	42.4	13.3	20.3	15.2	142.8	11.0	13.3	11.2	10.5	30.7	106.3	16.7
7	198.4	13.1	159.0	14.6	47.9	12.2	12.8	10.9	11.7	35.6	47.5	14.1
8	74.3	13.0	49.5	14.0	32.8	102.1	12.3	13.2	12.0	27.3	35.2	13.9
9	51.0	13.0	73.1	13.8	22.8	50.4	11.9	10.9	11.4	26.8	26.2	23.7
10	38.9	16.1	148.0	13.6	17.3	29.4	11.4	10.9	10.5	17.6	22.3	45.6
11	88.4	20.4	114.1	13.3	16.0	98.6	11.0	10.8	10.5	14.8	17.7	29.5
12	78.2	30.1	50.5	13.0	15.6	40.2	17.4	10.5	10.4	12.6	21.0	19.6
13	86.1	21.4	52.2	172.7	15.1	27.4	13.1	10.1	10.4	12.4	19.0	18.0
14	60.5	16.6	133.2	41.1	14.5	84.4	11.7	9.7	10.3	12.1	25.0	16.9
15	58.5	14.8	58.7	25.4	13.9	36.2	12.7	9.7	10.3	11.9	32.8	14.6
16	70.0	13.0	96.1	16.1	13.4	44.4	11.4	9.5	10.2	11.6	28.7	26.3
17	72.0	12.9	86.4	25.4	12.9	42.6	11.3	9.2	10.1	15.6	19.1	20.1
18	56.9	12.7	46.1	18.9	14.4	86.4	11.2	9.1	10.3	12.7	18.5	15.8
19	48.6	12.5	29.6	17.7	14.2	36.9	11.0	9.1	10.1	12.0	17.8	14.2
20	39.5	71.4	30.2	47.9	13.3	46.6	10.8	9.0	10.1	12.1	34.4	33.0
21	37.2	26.5	24.9	37.0	12.7	28.9	10.4	9.0	10.0	17.1	37.1	21.2
22	27.0	20.8	24.8	86.8	12.5	34.0	10.1	8.9	9.8	20.0	45.1	30.8
23	20.3	28.5	20.9	36.0	12.4	129.8	10.0	8.9	9.8	14.4	31.8	21.5
24	20.1	18.9	18.5	23.1	12.3	43.3	9.8	8.8	141.1	11.6	57.6	20.4
25	18.7	14.6	23.1	37.7	12.2	27.6	9.6	15.8	35.4	61.7	54.4	17.6
26	16.3	12.9	20.3	26.1	12.0	18.0	9.6	10.3	21.1	63.1	72.9	15.9
27	42.0	12.7	17.4	18.2	12.0	17.2	9.6	8.8	13.8	42.1	36.3	13.4
28	35.5	12.5	110.0	68.2	12.0	15.6	9.5	8.9	26.1	26.9	25.1	13.3
29	31.3		37.1	30.7	11.9	15.2	15.8	10.0	35.2	21.3	17.1	13.1
30	23.0		38.0	32.8	26.9	15.0	13.0	9.4	21.3	15.5	68.6	12.9
31	17.6		36.1		17.5		22.6	70.0		14.8		12.6
Average	55.1	18.4	51.2	32.8	26.2	38.5	12.6	13.8	19.2	23.7	33.1	20.3

ANNUAL AVERAGE = 28.8 cms

表Ⅲ－10　降雨確率解析

(Unit:mm)

STORM DURATION (DAYS)	RETURN PERIOD (YEAR) 2	5	10	20	50	100	200
A. Gumbel method							
1	96	139	168	196	232	258	285
2	129	190	229	268	317	354	391
3	159	223	265	305	358	397	436
5	211	296	353	408	478	531	584
B. Iwai method							
1	96	125	142	159	179	195	210
2	129	171	198	223	255	280	304
3	159	211	245	278	317	347	376
5	210	276	316	352	396	428	458
C. Log-Pearson Type-III method							
1	88	117	143	176	231	283	346
2	122	165	202	242	305	361	425
3	159	212	247	280	323	355	387
5	207	278	326	372	436	485	536

表Ⅲ－11　クチンにおける豪雨記録

No	Period From	To	Amount (mm)
(1)	Jan. 8, 1971	Jan. 9, 1971	355
(2)	Jun. 22, 1972	Jun. 23, 1972	247
(3)	Dec. 24, 1973	Dec. 25, 1973	198
(4)	Dec. 28, 1975	Dec. 29, 1975	193

表Ⅲ－12　24時間降雨に対する3時間降雨の割合

Duration (hr)	Accumulated (%)	Ratio (%)
0 - 3	9.7	9.7
3 - 6	24.4	14.7
6 - 9	40.0	15.6
9 - 12	60.5	20.5
12 - 15	82.3	21.8
15 - 18	89.5	7.2
18 - 21	95.3	5.8
21 - 24	100.0	4.7

表Ⅲ－13　計 画 降 雨

(Unit:mm)

RETURN PERIOD (YEARS)	DURATION (HRS) 3	6	9	12	15	18	21	24	TOTAL
2	9	13	14	18	19	6	5	4	89
5	13	19	20	27	28	9	7	6	129
10	15	23	24	32	34	11	9	7	156
20	18	27	28	37	40	13	11	9	182
50	21	32	34	44	47	16	13	10	216
100	23	35	37	49	52	17	14	11	240
200	26	39	41	54	58	19	15	12	265

表Ⅲ－14　類似プロジェクトにおける損失雨量

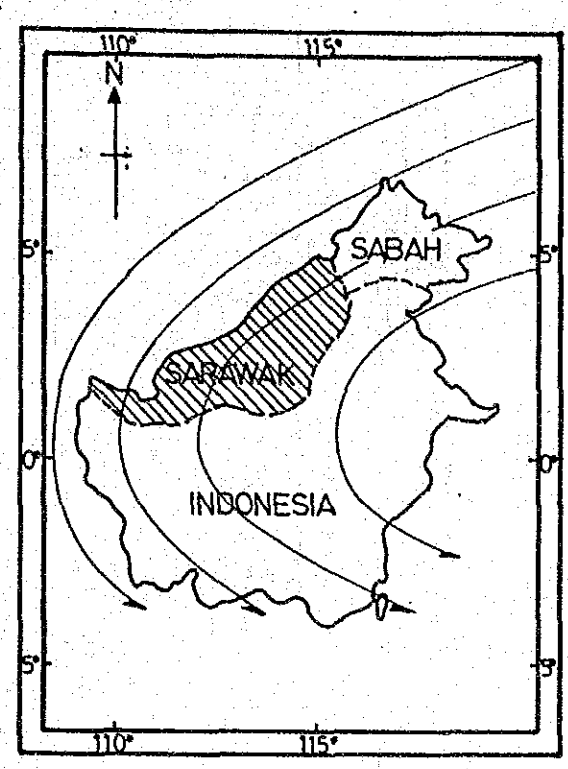
Project	Location	Catchment Area (sq.km)	Loss Rate (mm/hr)
Klang Gates Dam	P. Malaysia	74	5.1
Jor Dam	"	123	7.2
Batang Ai	Sarawak	1,200	3.0
Pergau Dam	P. Malaysia	1,290	2.5
Temengor Dam	"	3,400	2.5
Kenyir Dam	"	4,580	2.5
Bakun	Sarawak	14,750	4.0

表Ⅲ－15　確率洪水ピーク流量と洪水量

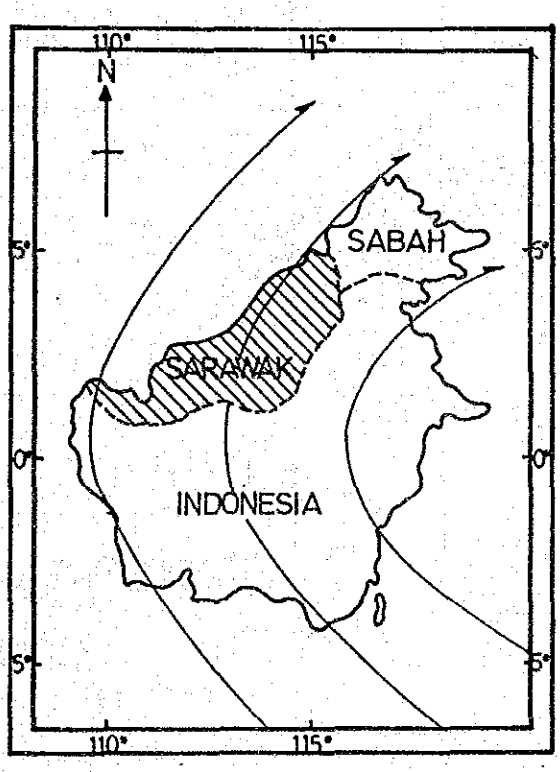
CATCHMENT AREA (sq.km)	RETURN PERIOD (years)	FLOOD VOLUME (mcm)	PEAK DISCHARGE (cms)	SPECIFIC DISCHARGE (cms/sq.km)
	2	10.3	273	0.9
	5	20.3	469	1.6
	10	27.7	601	2.1
292	20	35.1	705	2.4
	50	44.8	895	3.1
	100	51.7	1,012	3.5
	200	58.9	1,135	3.9

表Ⅲ－16　ムコ河における水質分析結果

Description	Unit	1	2	3	4	5	6
PH (22 C)		6.32	6.88	6.91	6.75	6.95	7.01
Colour (Hasen unit)		5	5	5	5	5	5
Hardness, total $CaCO_3$	ppm	12.5	12.5	10.0	10.0	10.0	12.5
Oxygen dissolved (O_2)	ppm	6.5	9.4	9.2	9.6	10.0	10.0
Carbon dioxide, dissolved (CO_2)	ppm	12	8	5	7	6	5
Solids, dissolved	ppm	4.4	4.2	3.9	3.7	3.8	4.2
suspended	ppm	89.1	58.9	52.4	35.2	42.9	1.4
Ammonical Hitrogen (N)	ppm	0.02	0.01	0.01	0.01	0.01	0.01



Rainy Season
(Oct. – Apr.)



Dry Season
(Apr. - Oct.)

図Ⅲ－ 1　貿易風の吹送パターン

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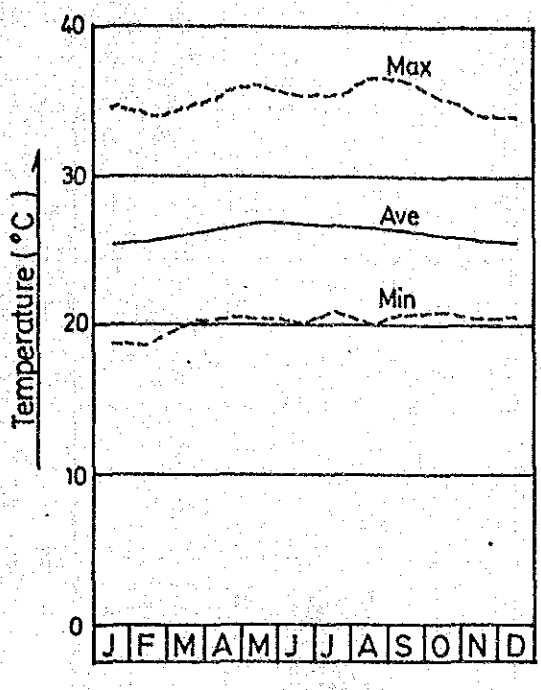
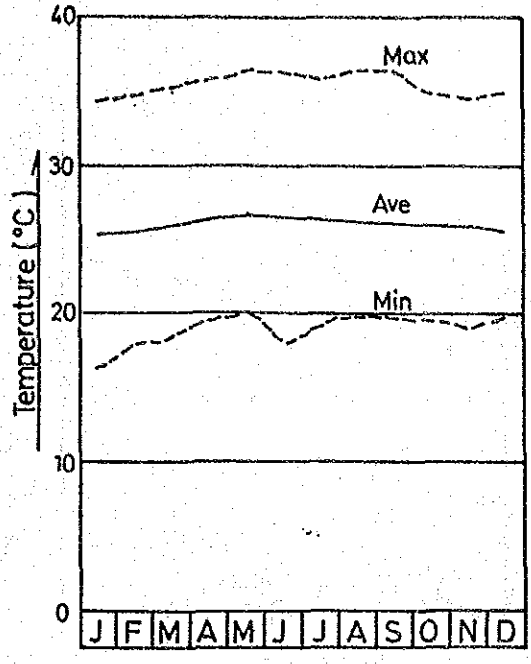


KUCHING
(1968 - 1981)



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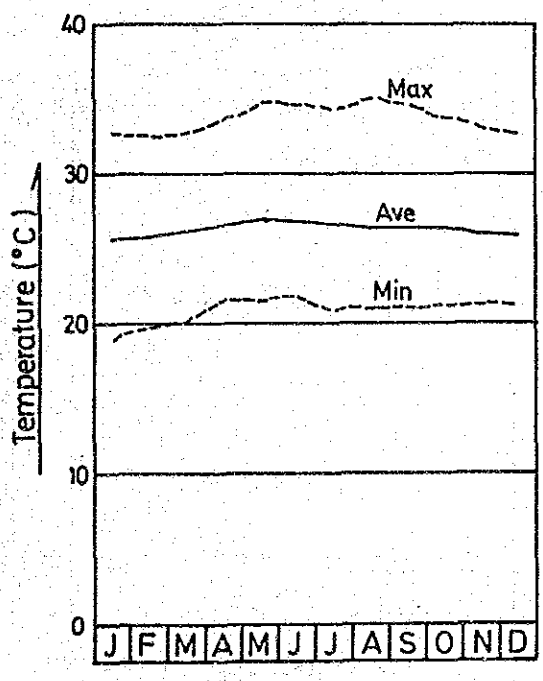

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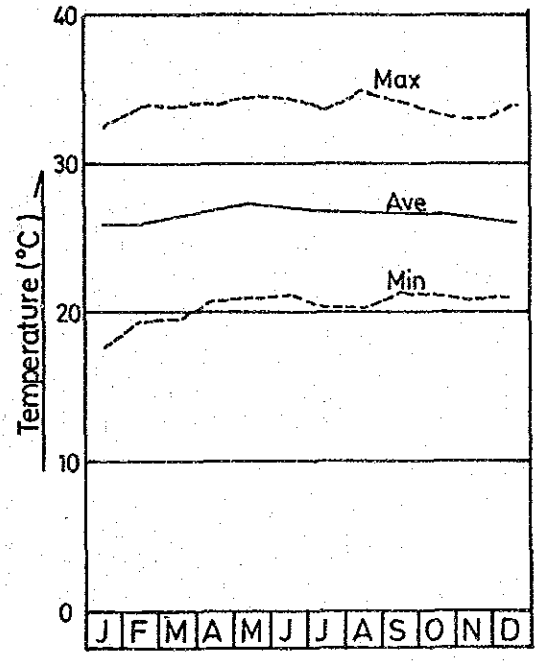

MIRI
(1968 - 1981)

図Ⅲ－ 2　月平均、最大および最低気温

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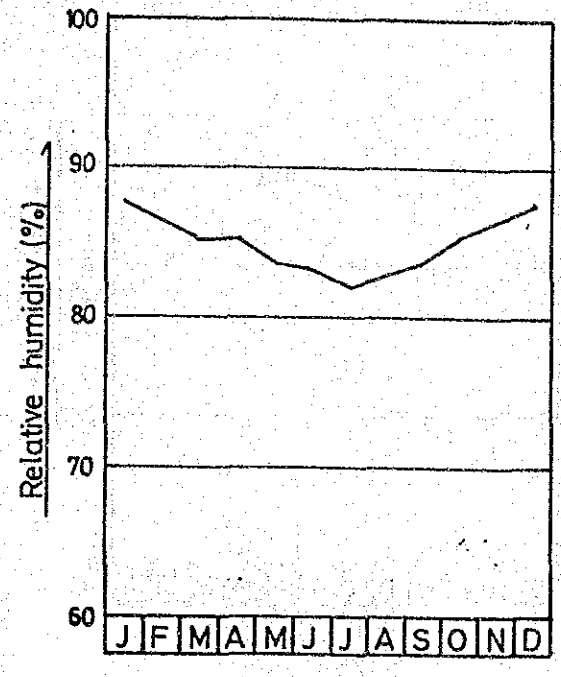
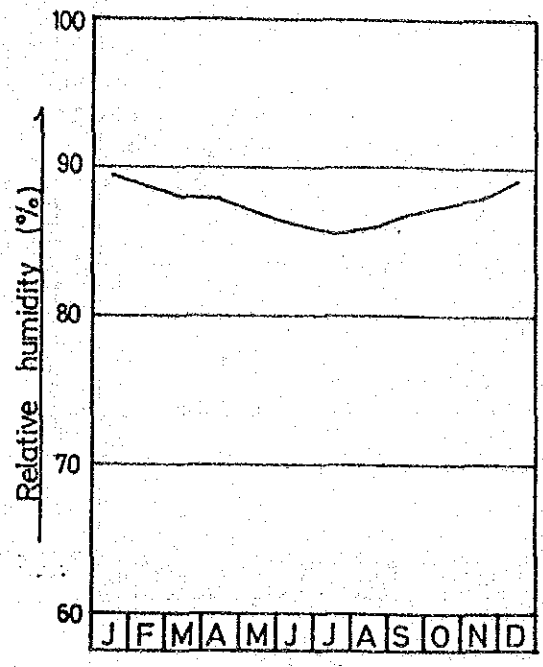
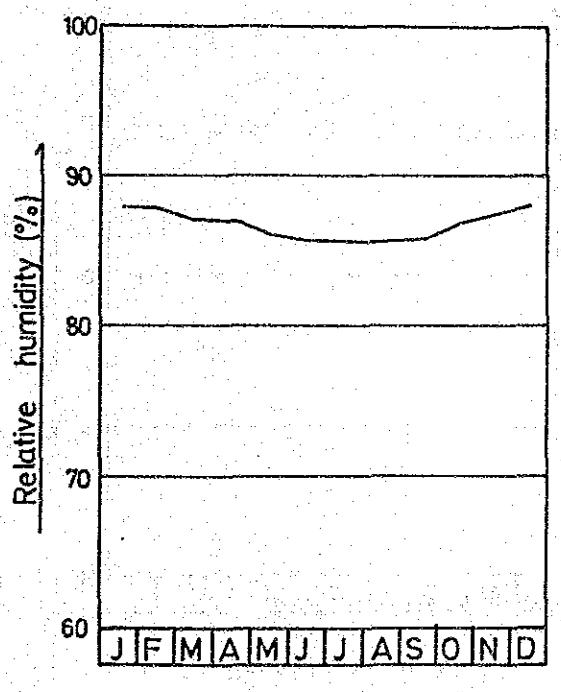


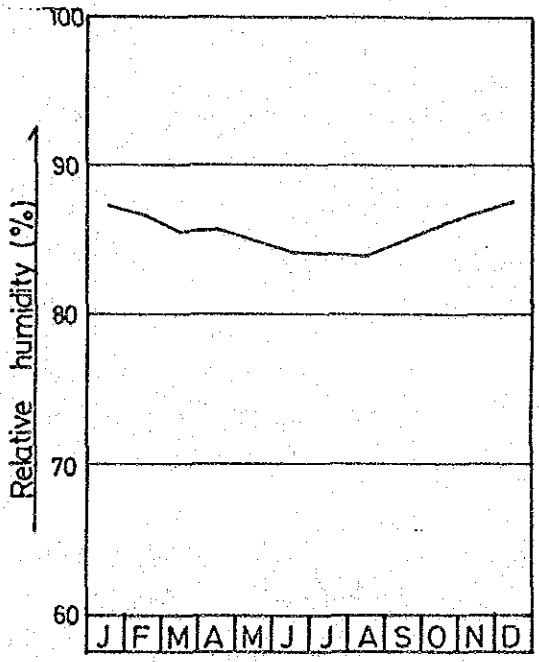
KUCHING (EL 21.7m)
(1968 - 1980)



SIBU (EL 7.5m)
(1968 - 1980)



BINTULU (EL 3.1m)
(1968 - 1980)



MIRI (EL 16.8m)
(1968 - 1980)

図 III － 3　　月平均相対湿度

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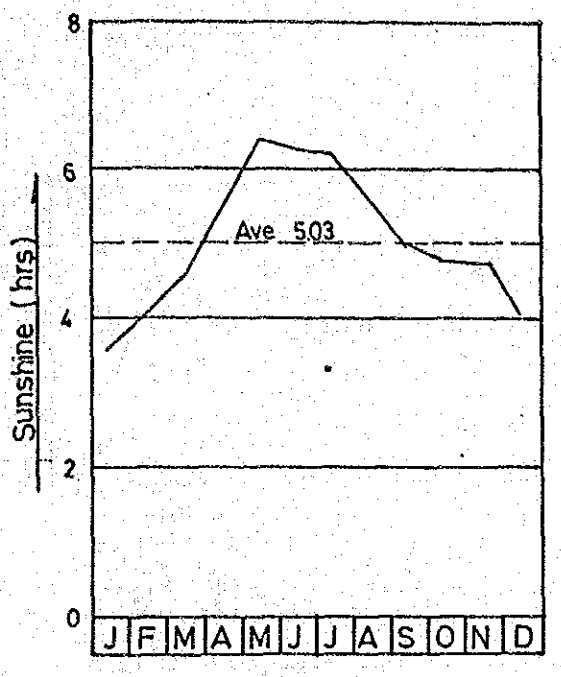
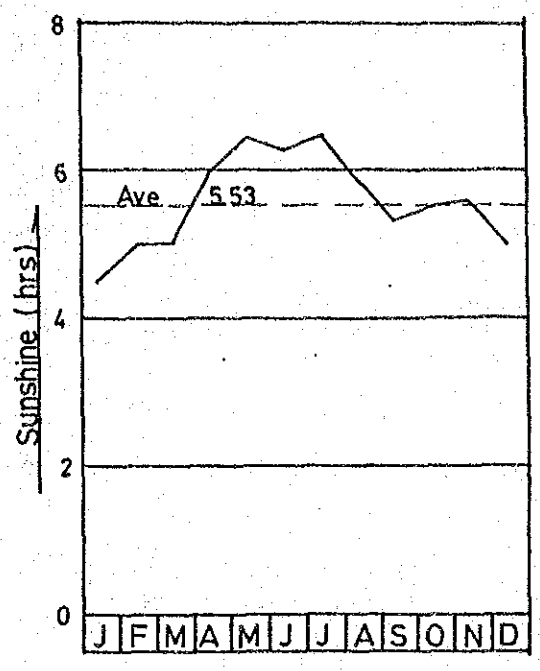


KUCHING



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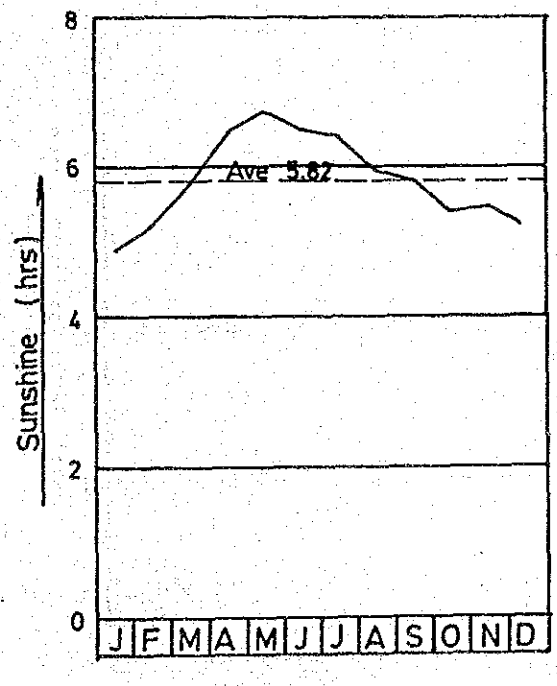

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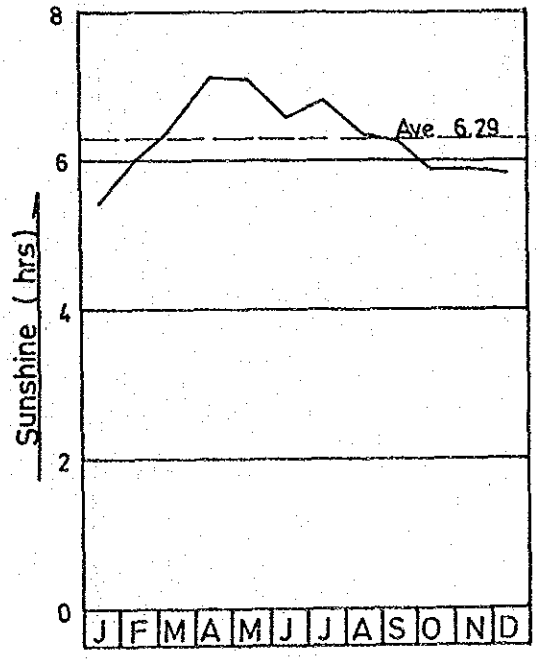

MIRI

図Ⅲ－ 4　月平均日照時間

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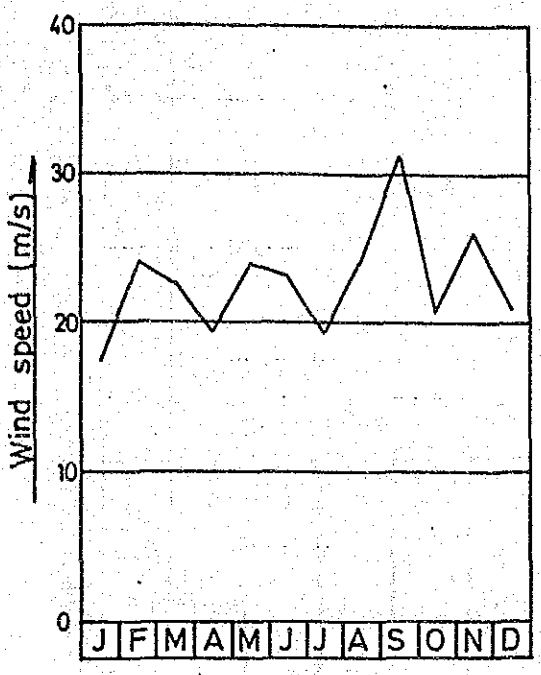
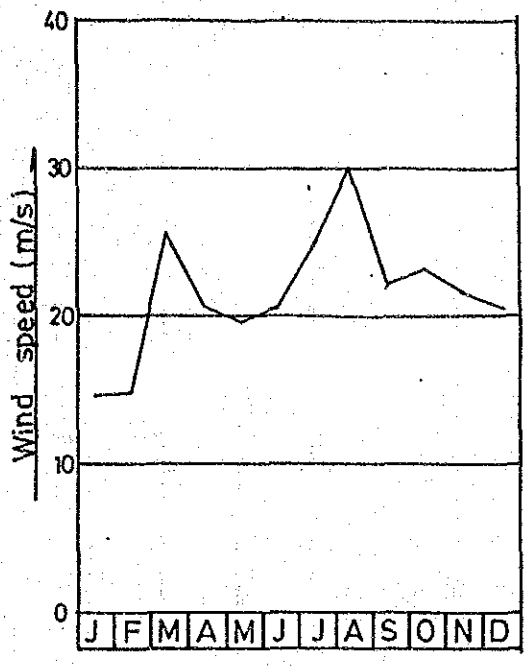


KUCHING
(1968 - 1981)



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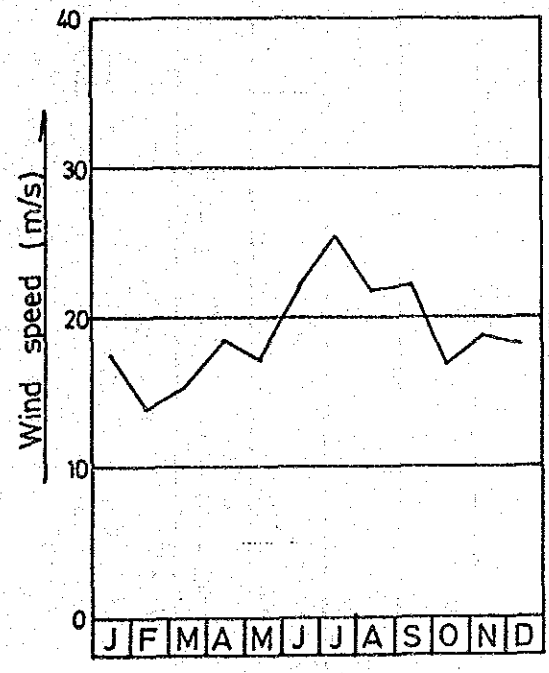

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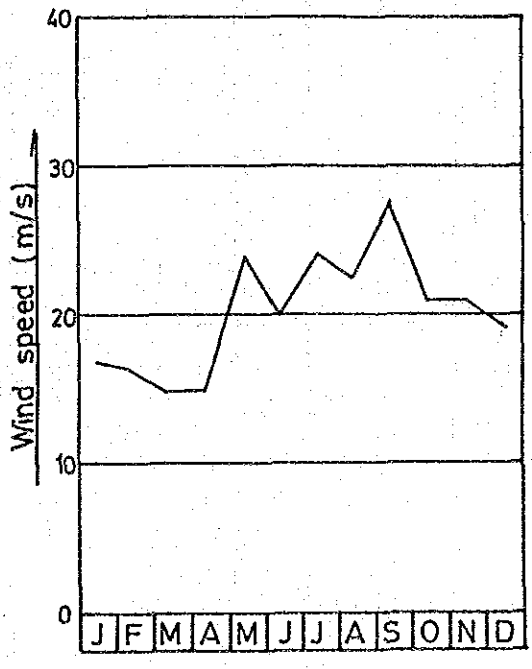

MIRI
(1968 - 1981)

図Ⅲ－ 5　月最大地上風速

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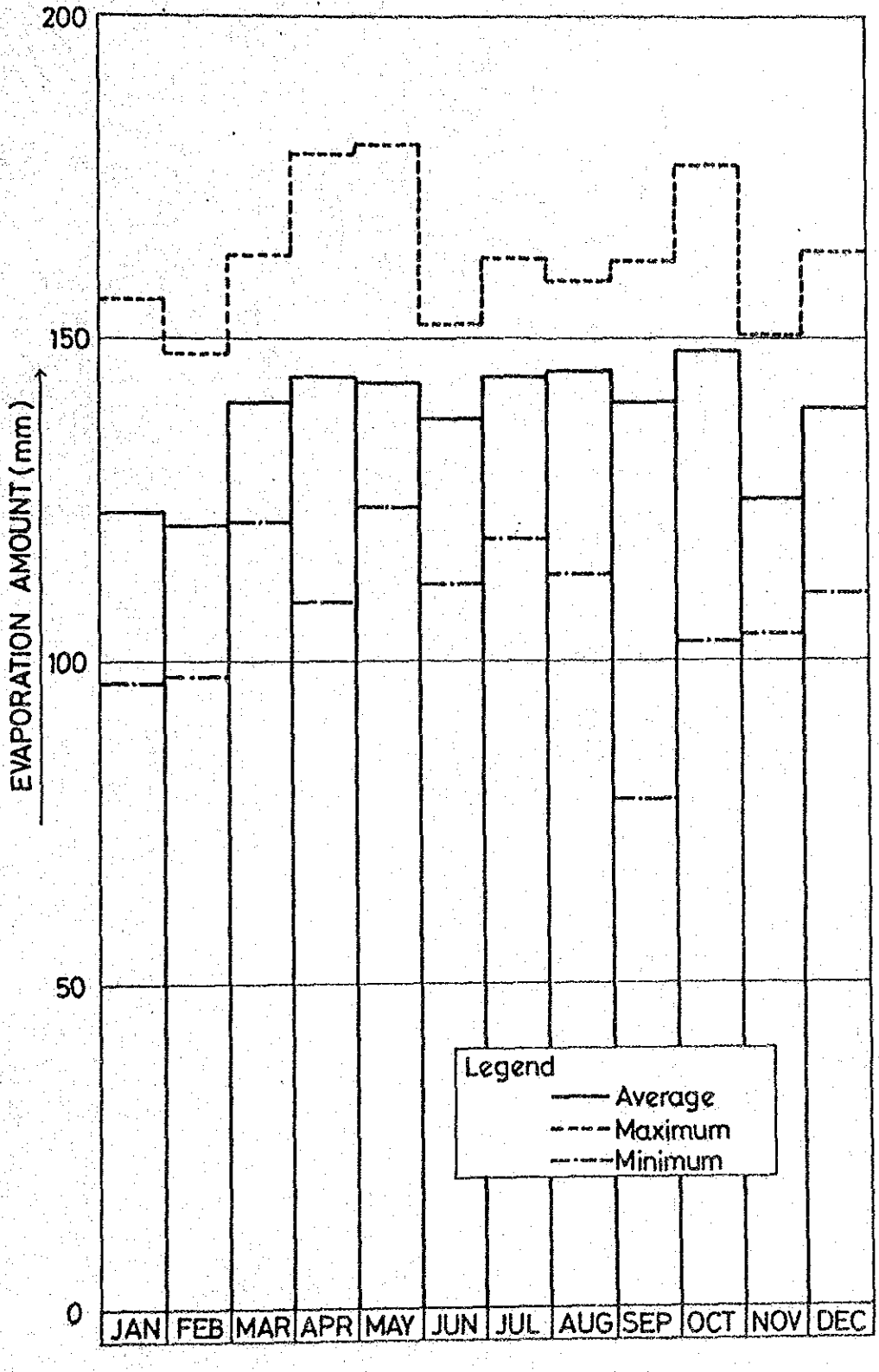

(period of records : 1963 - 1977)

図Ⅲ－ 6　カピットにおる月平均蒸発量

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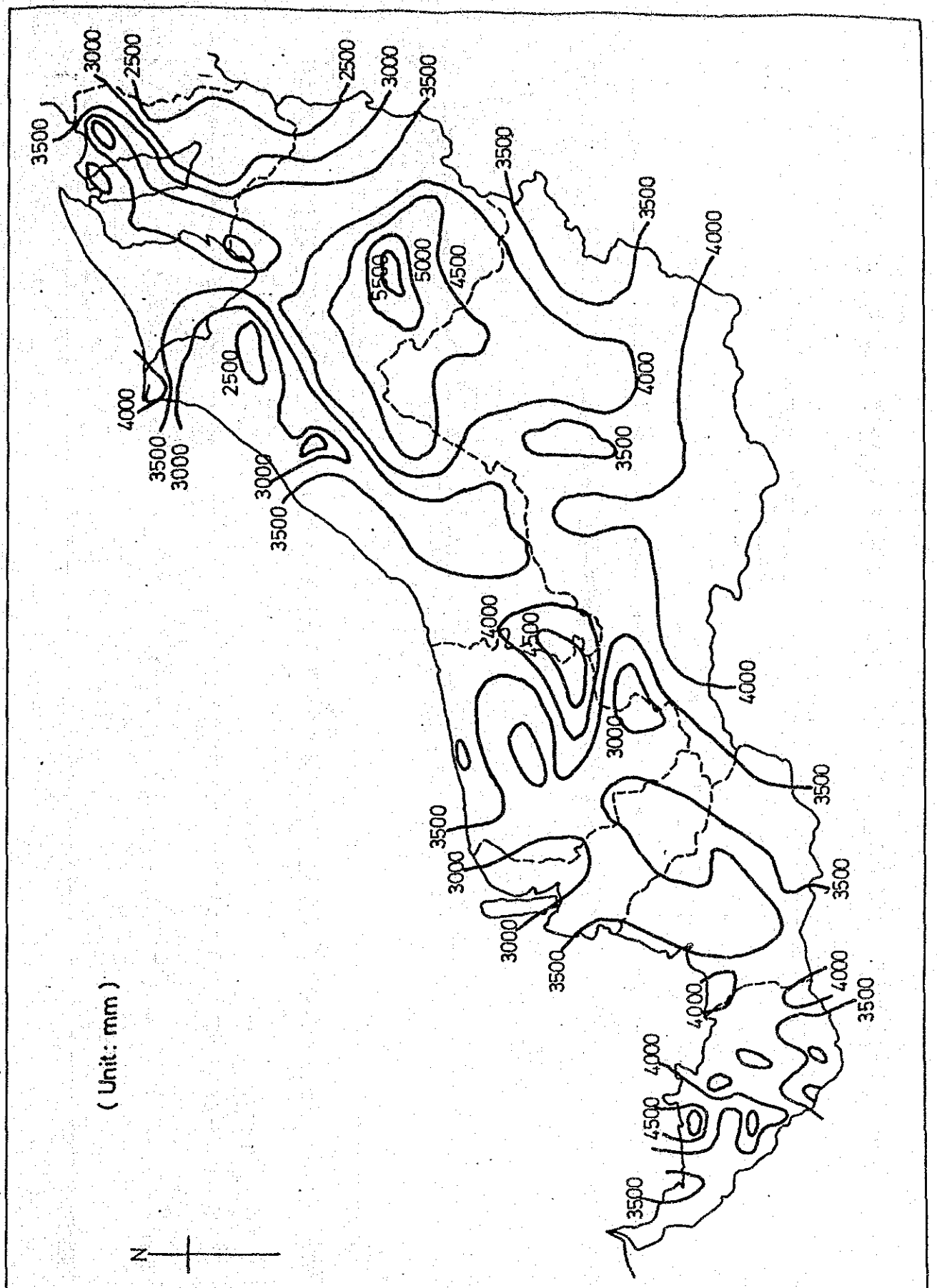

図Ⅲ－ 7　　等雨量線図（年平均降雨量）

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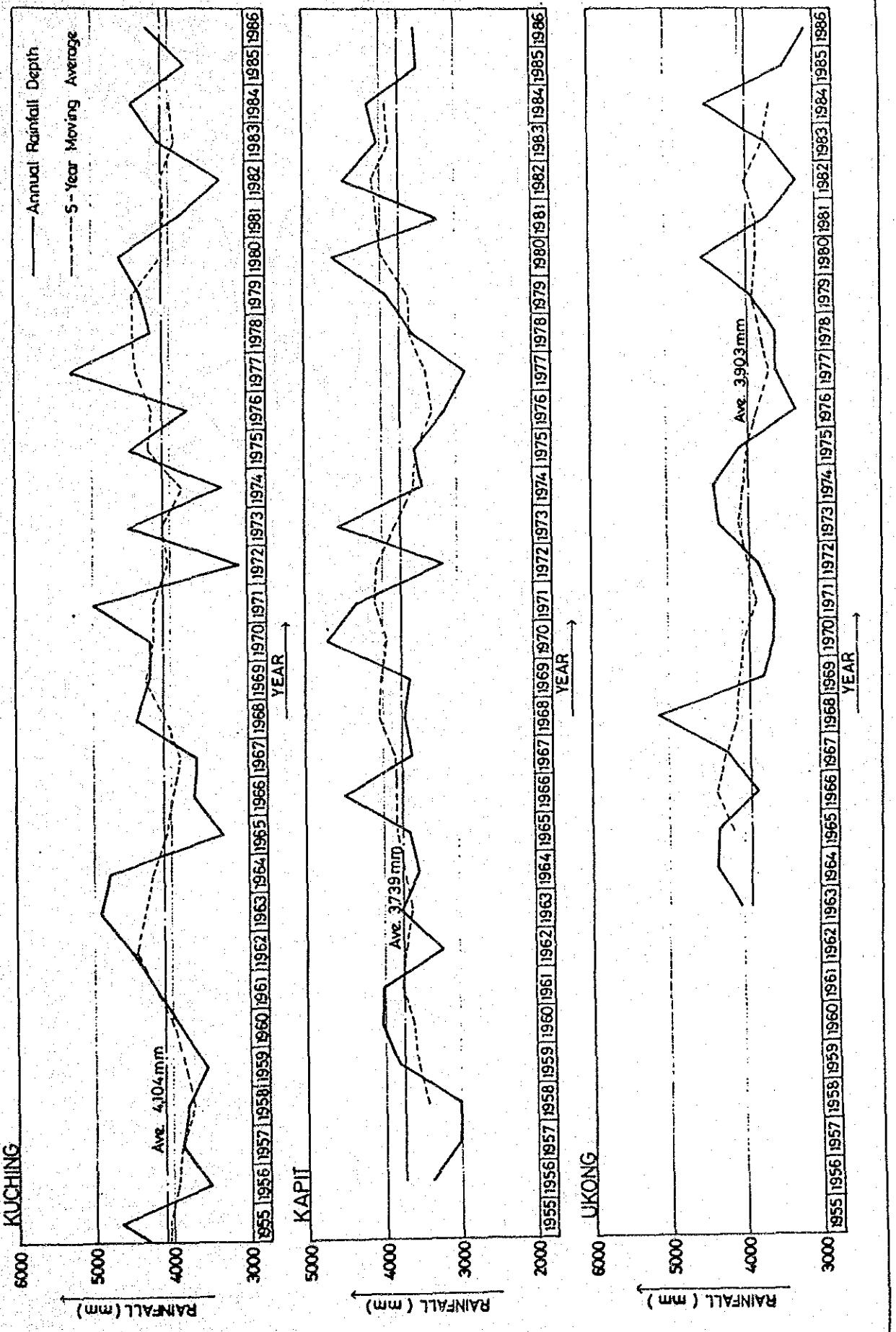

図Ⅲ－ 8　代表雨量観測所における年降雨量

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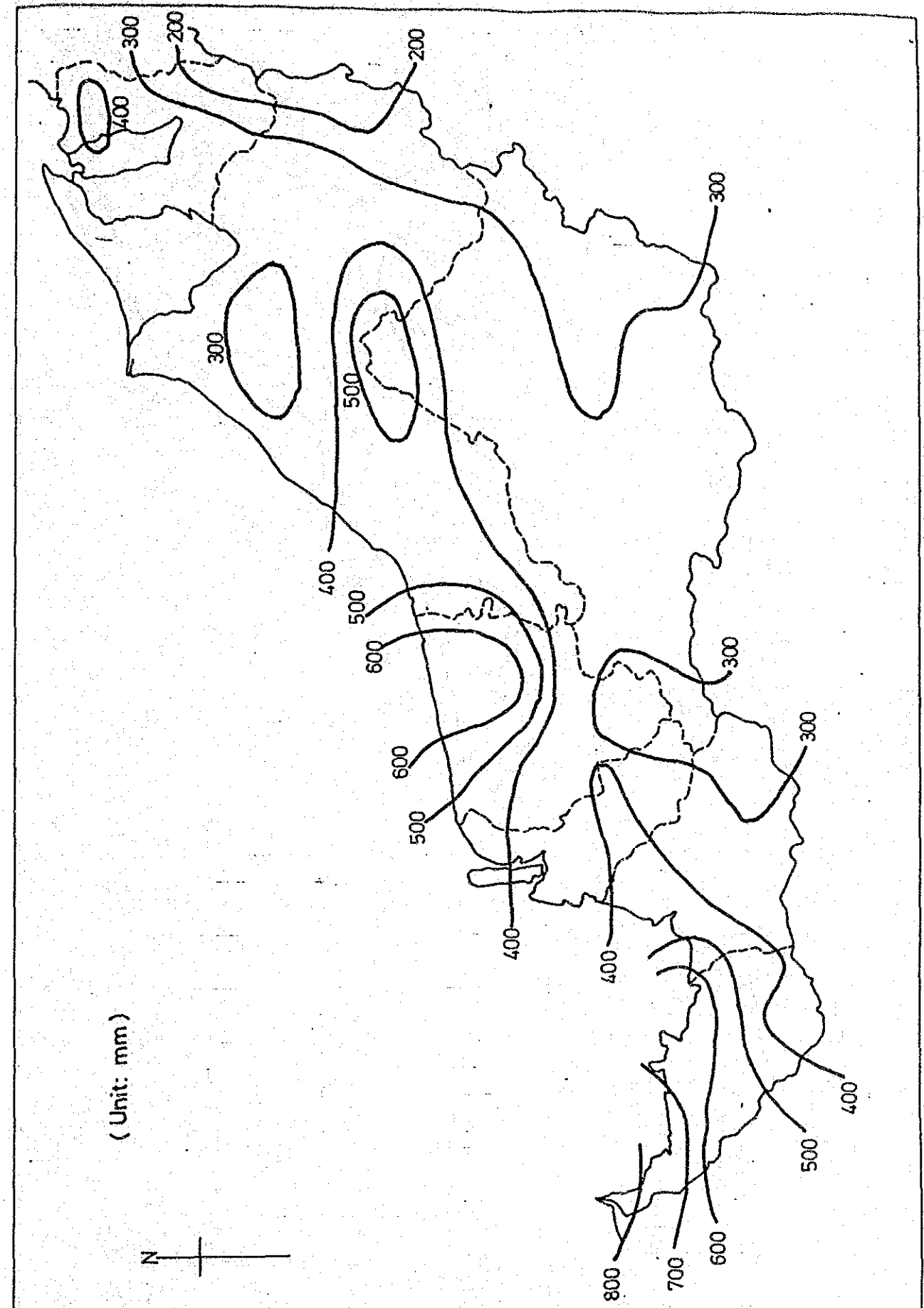

図Ⅲ－ 9　　等雨量線図（1月降雨量）

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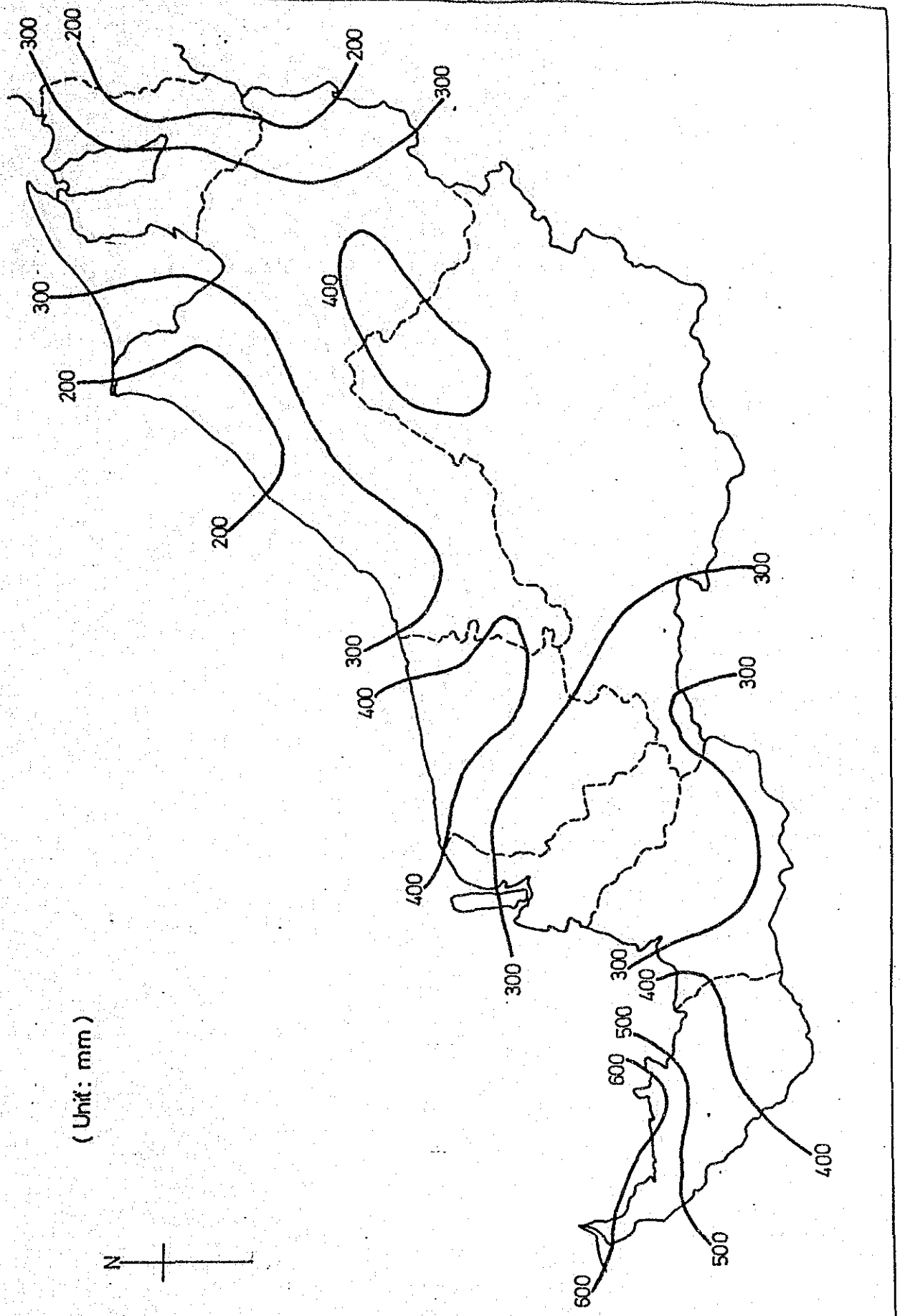

図Ⅲ－10　等雨量線図（2月降雨量）

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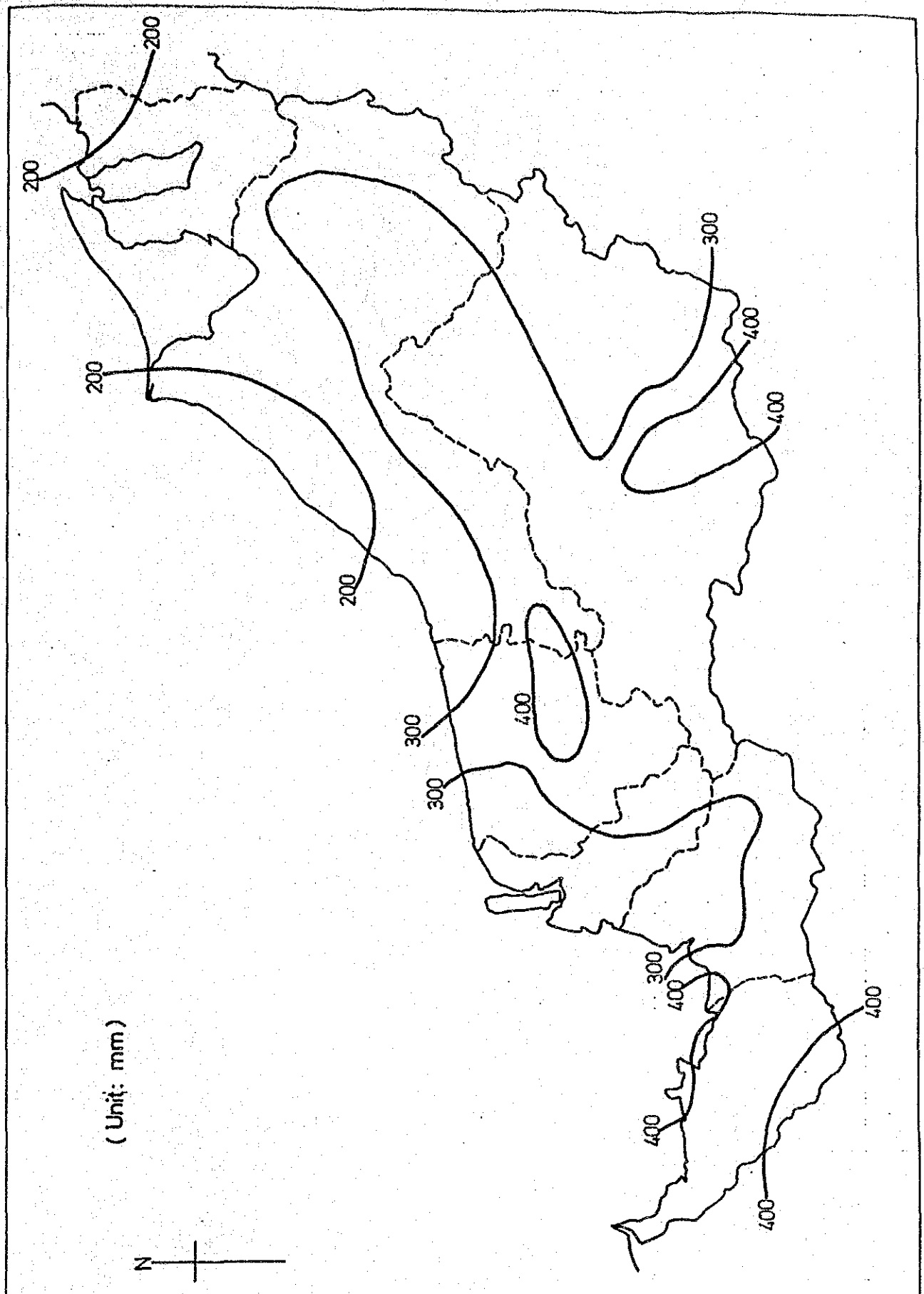

図Ⅲ－11　等雨量線図（3月降雨量）

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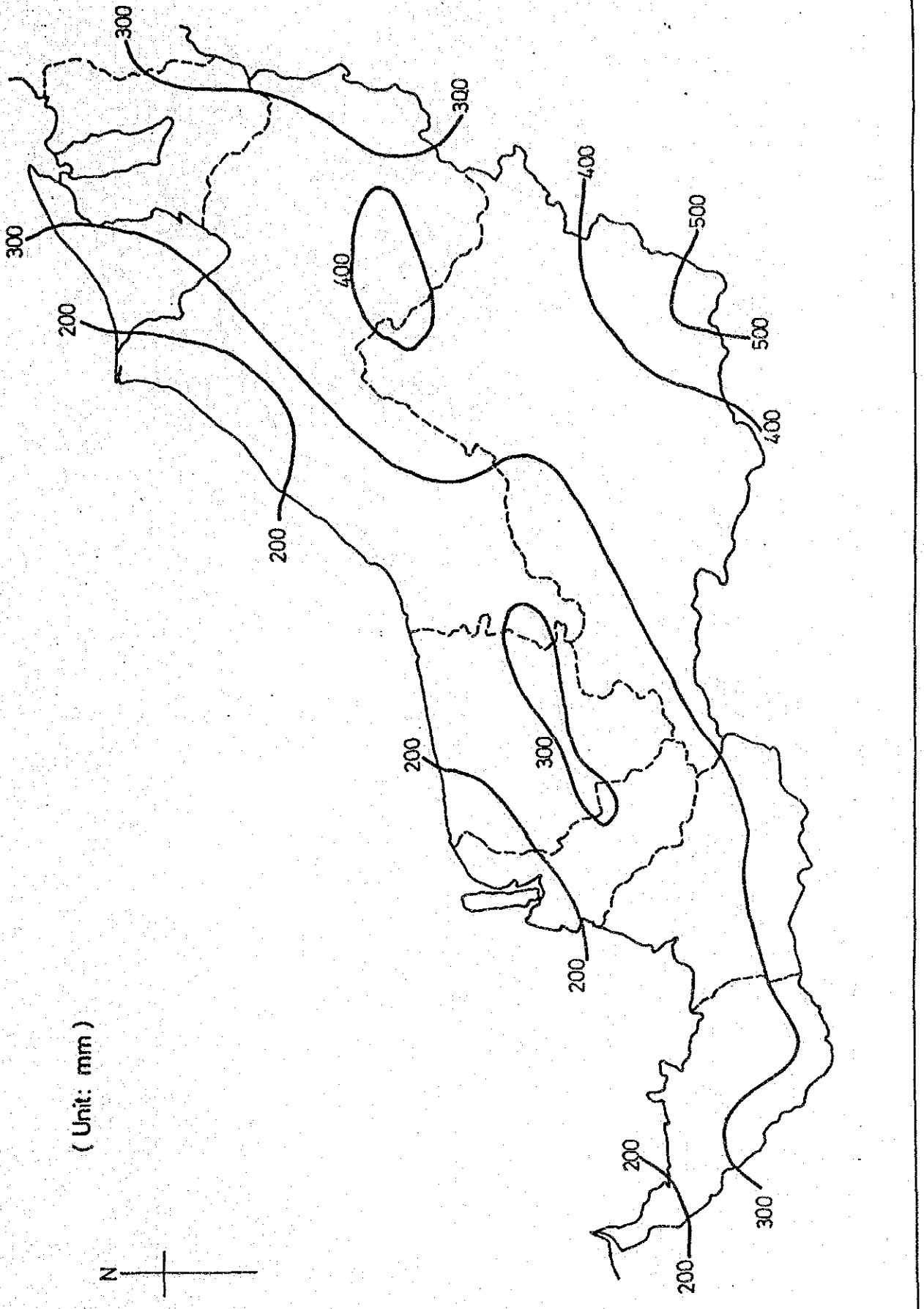

図Ⅲ－12　等雨量線図（4月降雨量）

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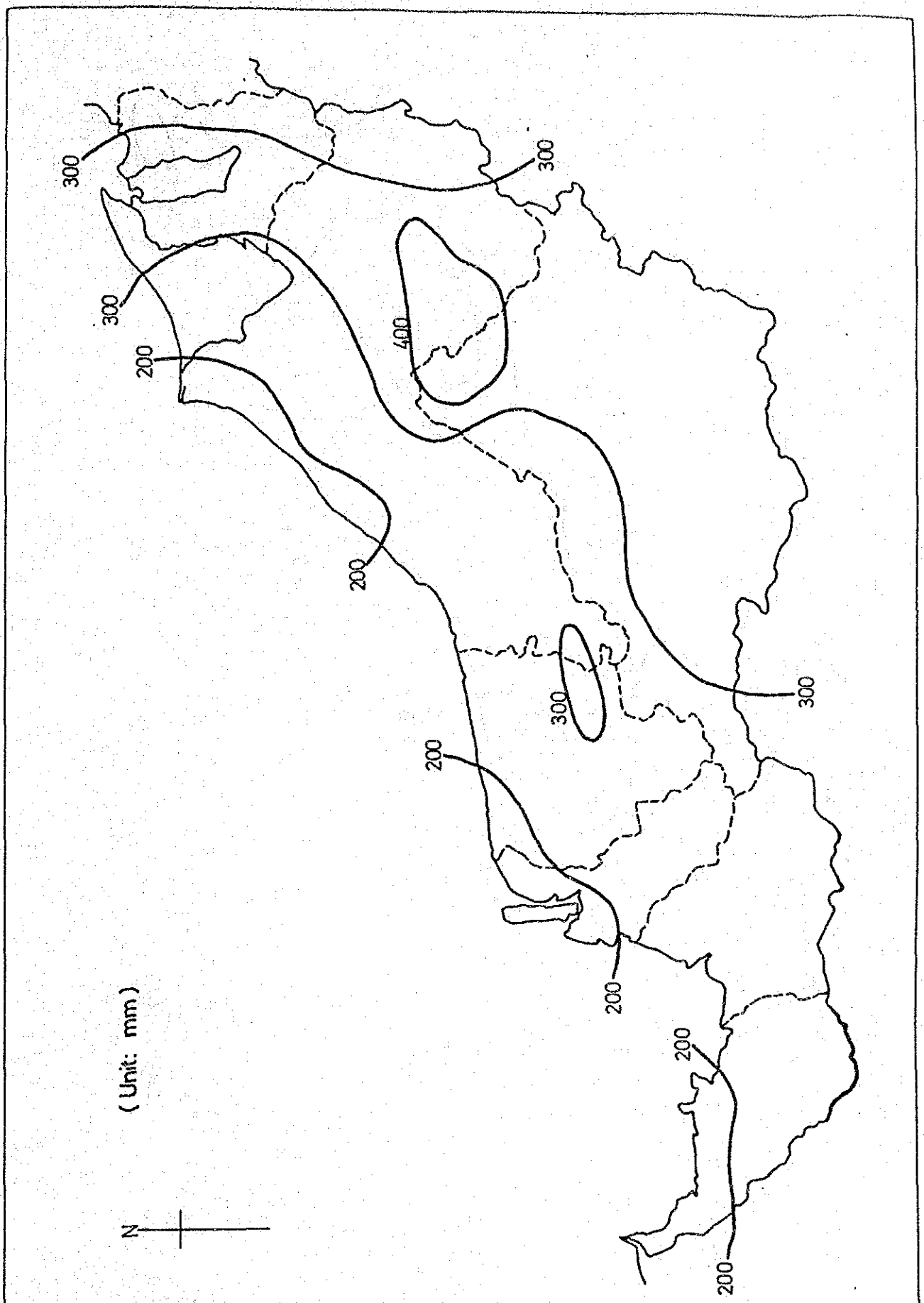

図Ⅲ－13　　等雨量線図（5月降雨量）

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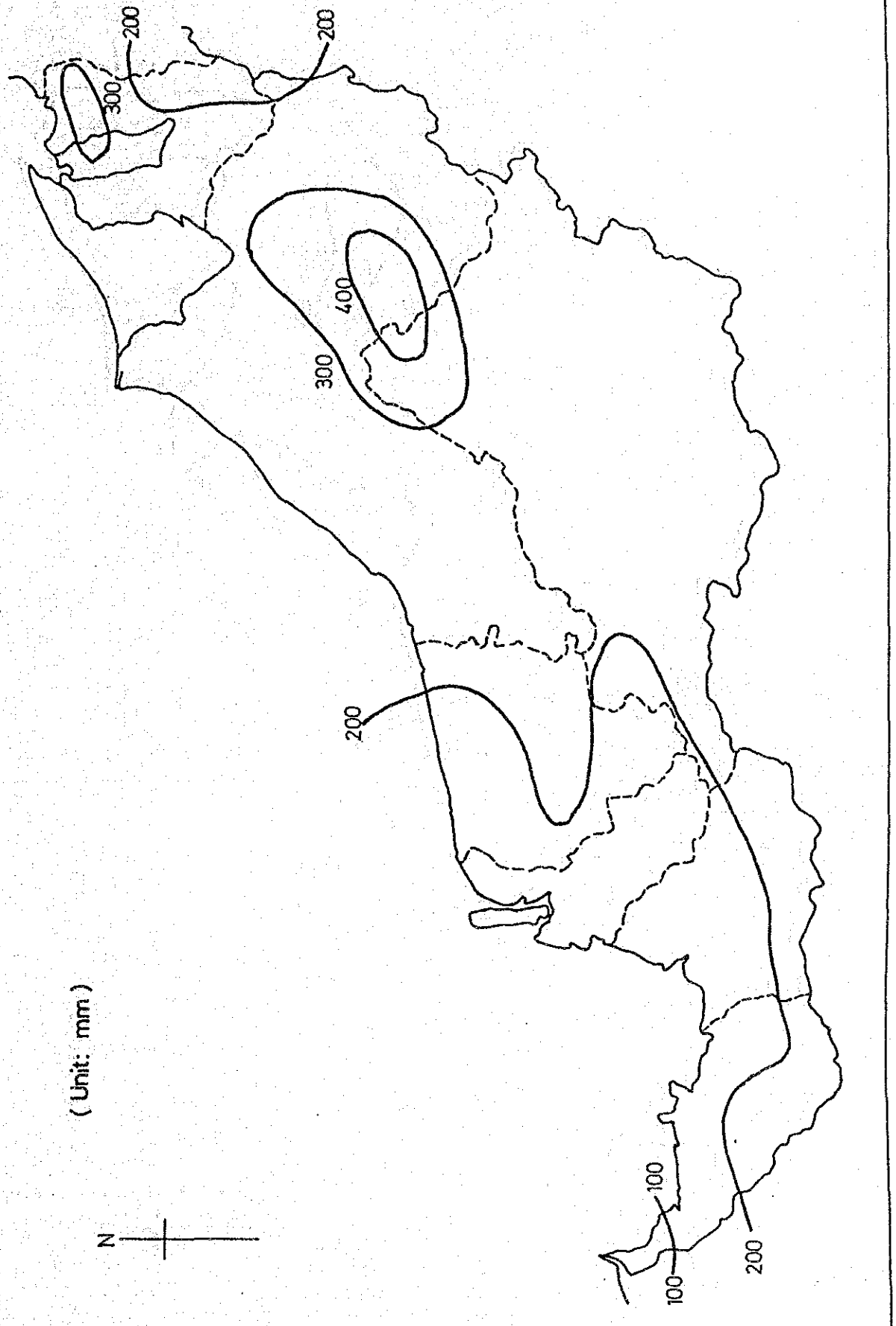

図Ⅲ－14　　等雨量線図（6月降雨量）

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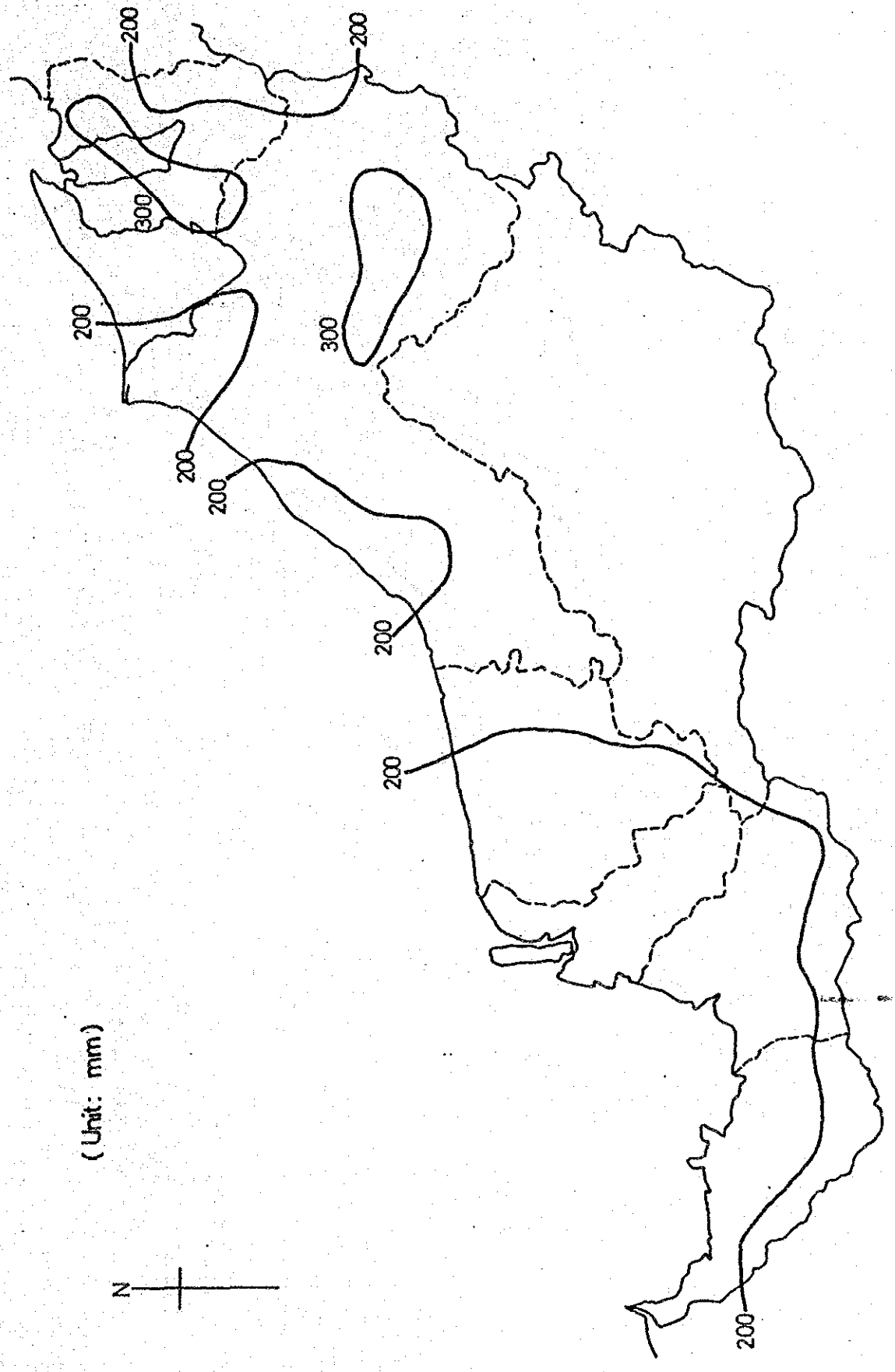

図Ⅲ－15　等雨量線図（7月降雨量）

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FEASIBILITY STUDY
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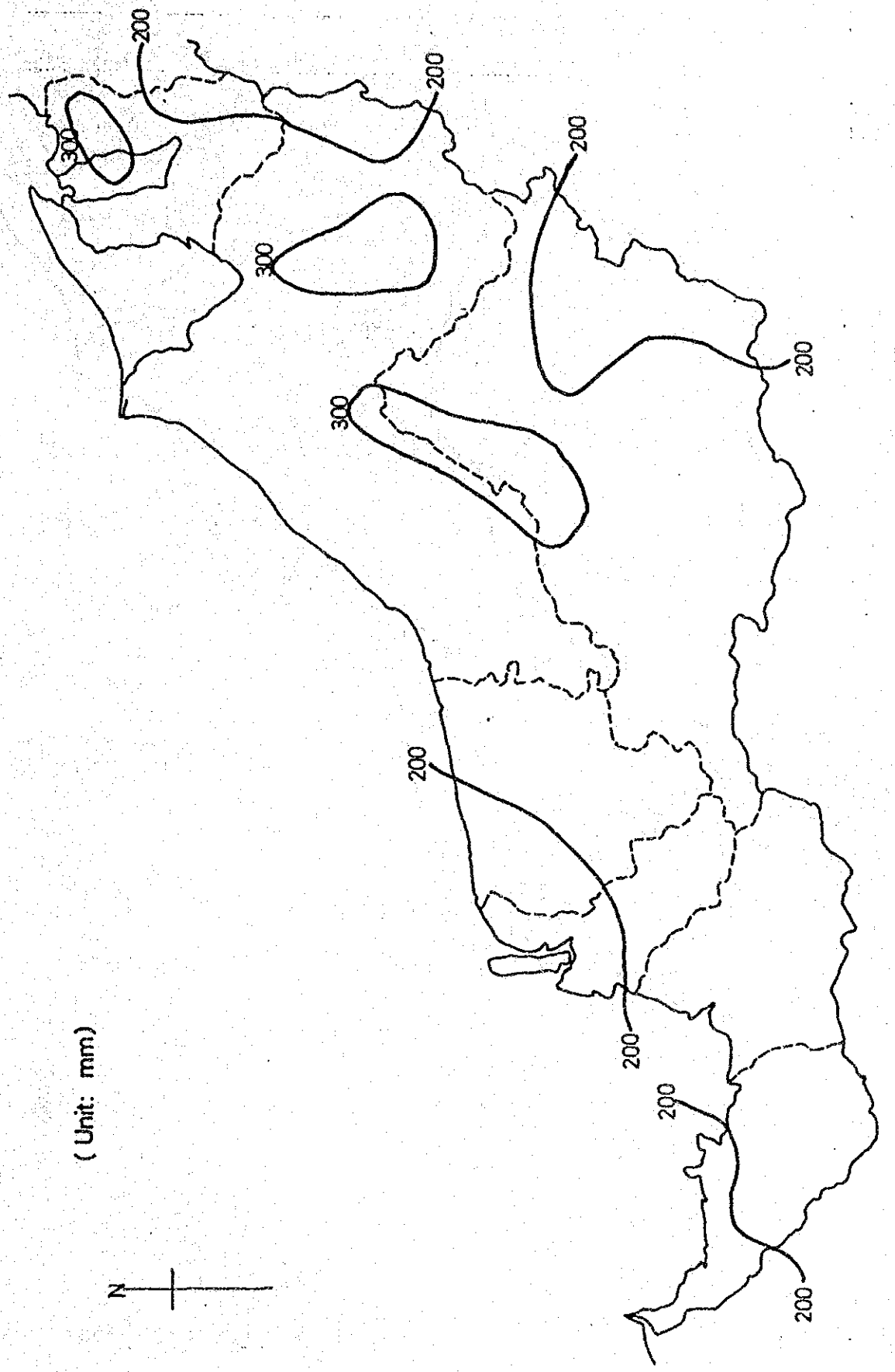
JAPAN INTERNATIONAL COOPERATION AGENCY



図Ⅲ－16　等雨量線図（8月降雨量）

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FEASIBILITY STUDY
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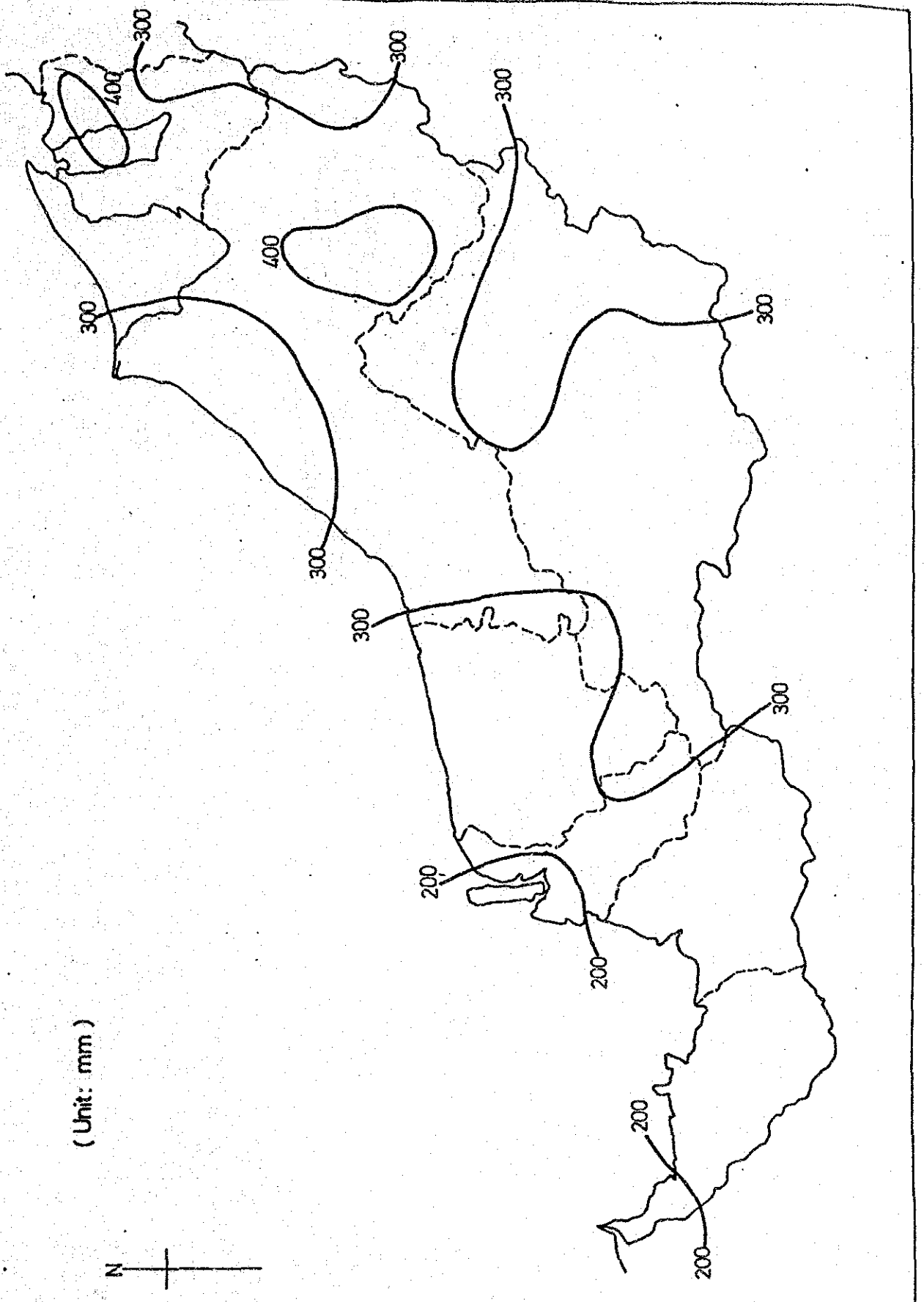
JAPAN INTERNATIONAL COOPERATION AGENCY



図Ⅲ－17　等雨量線図（9月降雨量）

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FEASIBILITY STUDY
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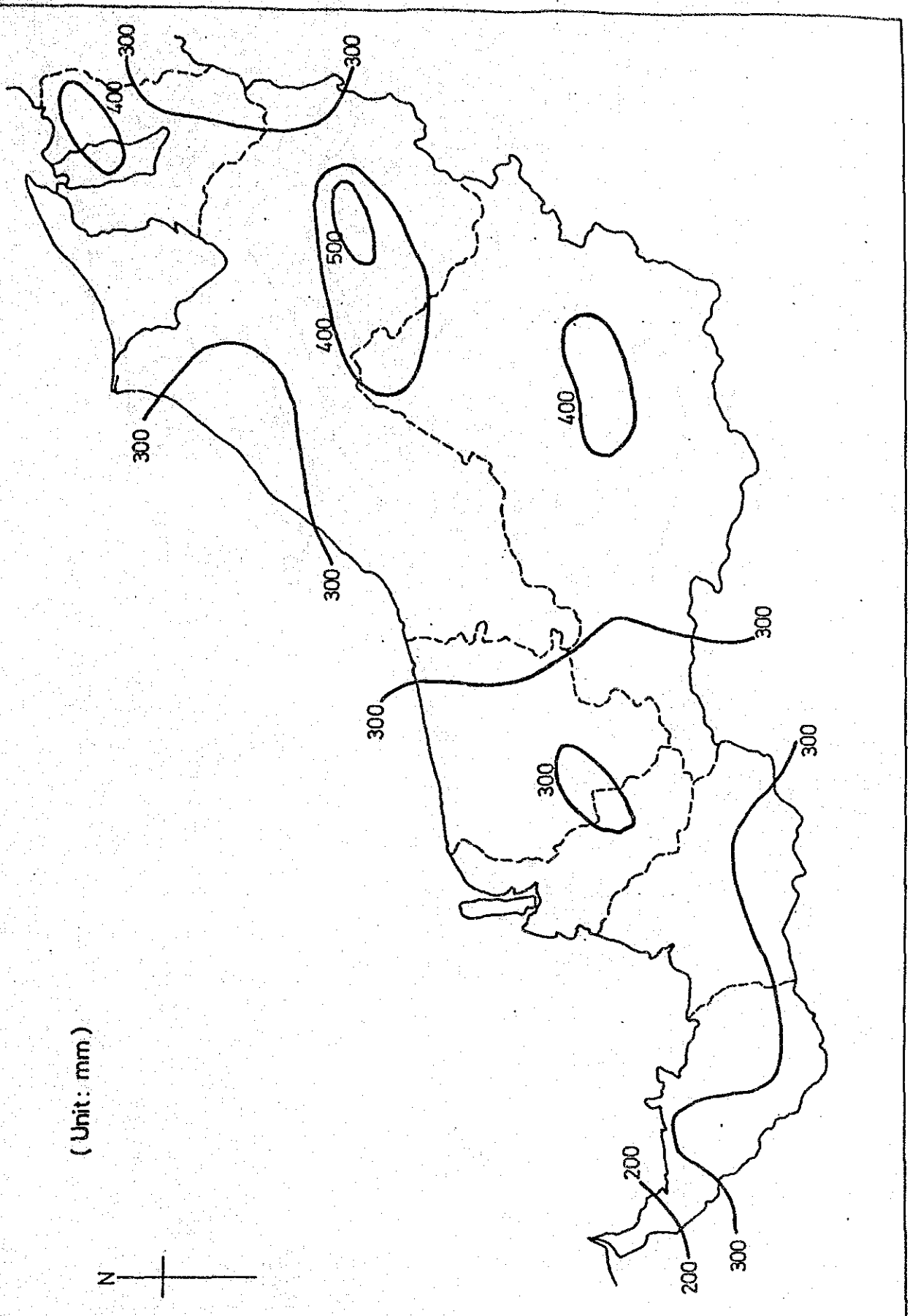

図Ⅲ－18　等雨量線図（10月降雨量）

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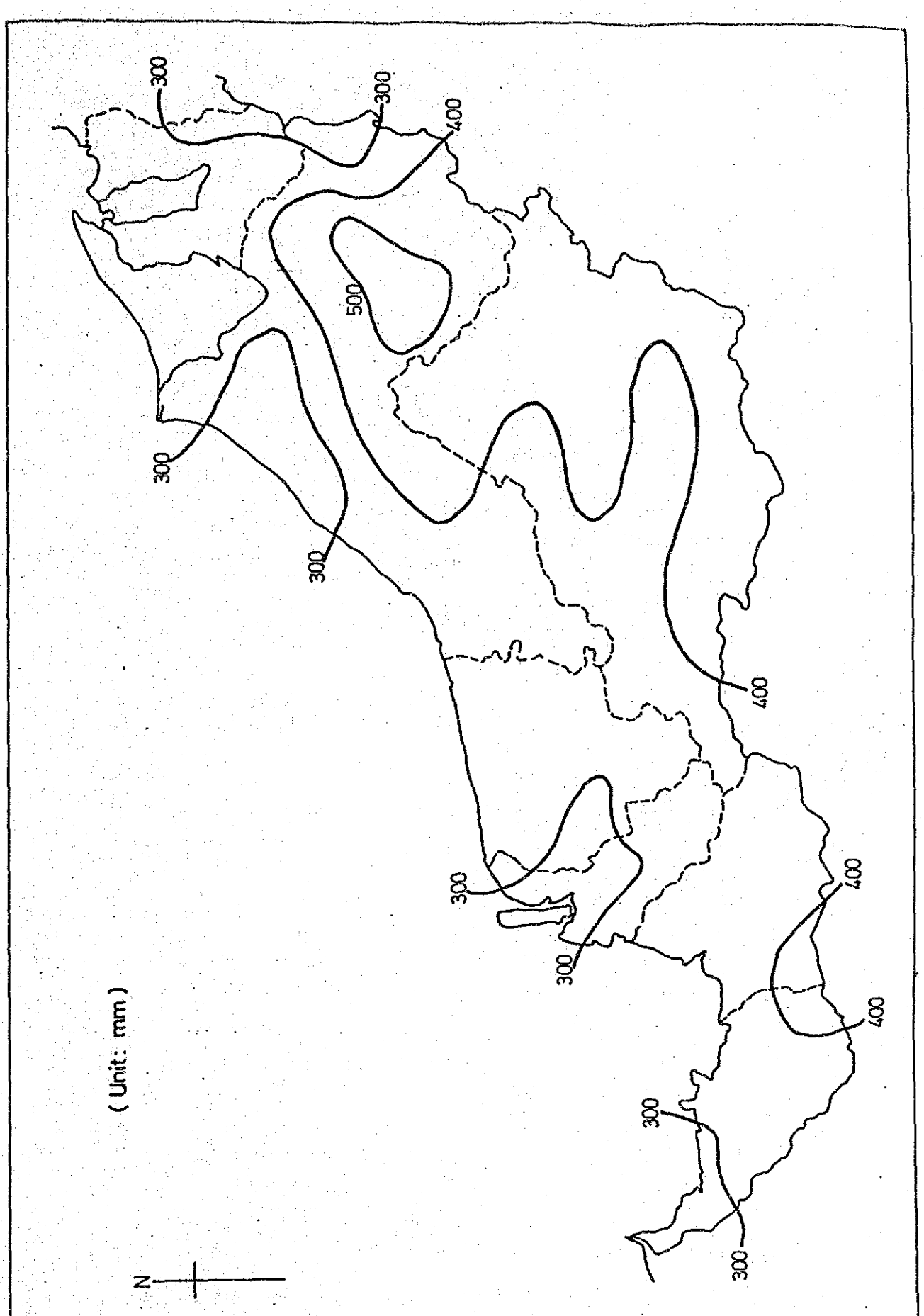

図Ⅲ－19　等雨量線図（11月降雨量）

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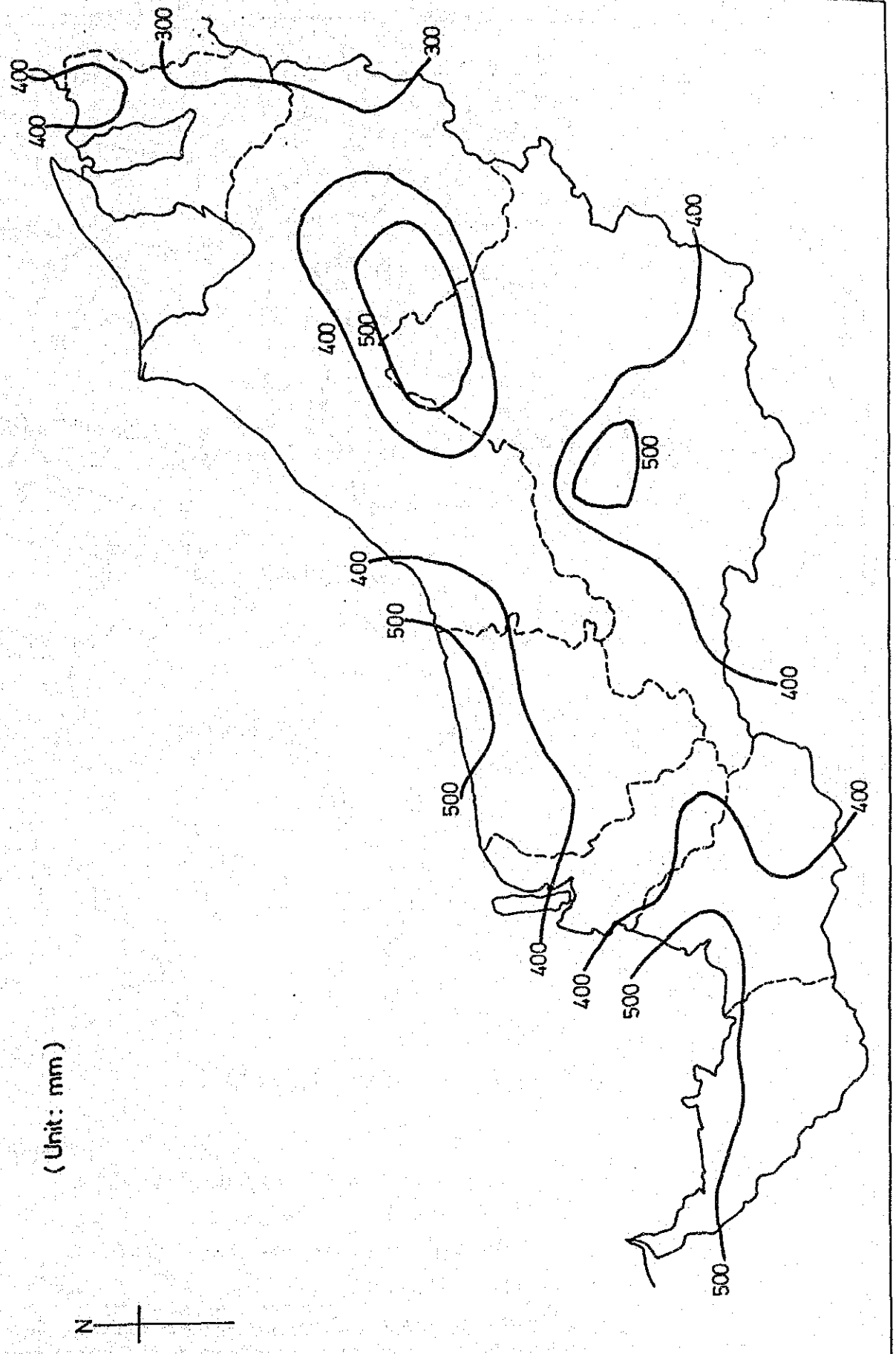

図Ⅲ－20　等雨量線図（12月降雨量）

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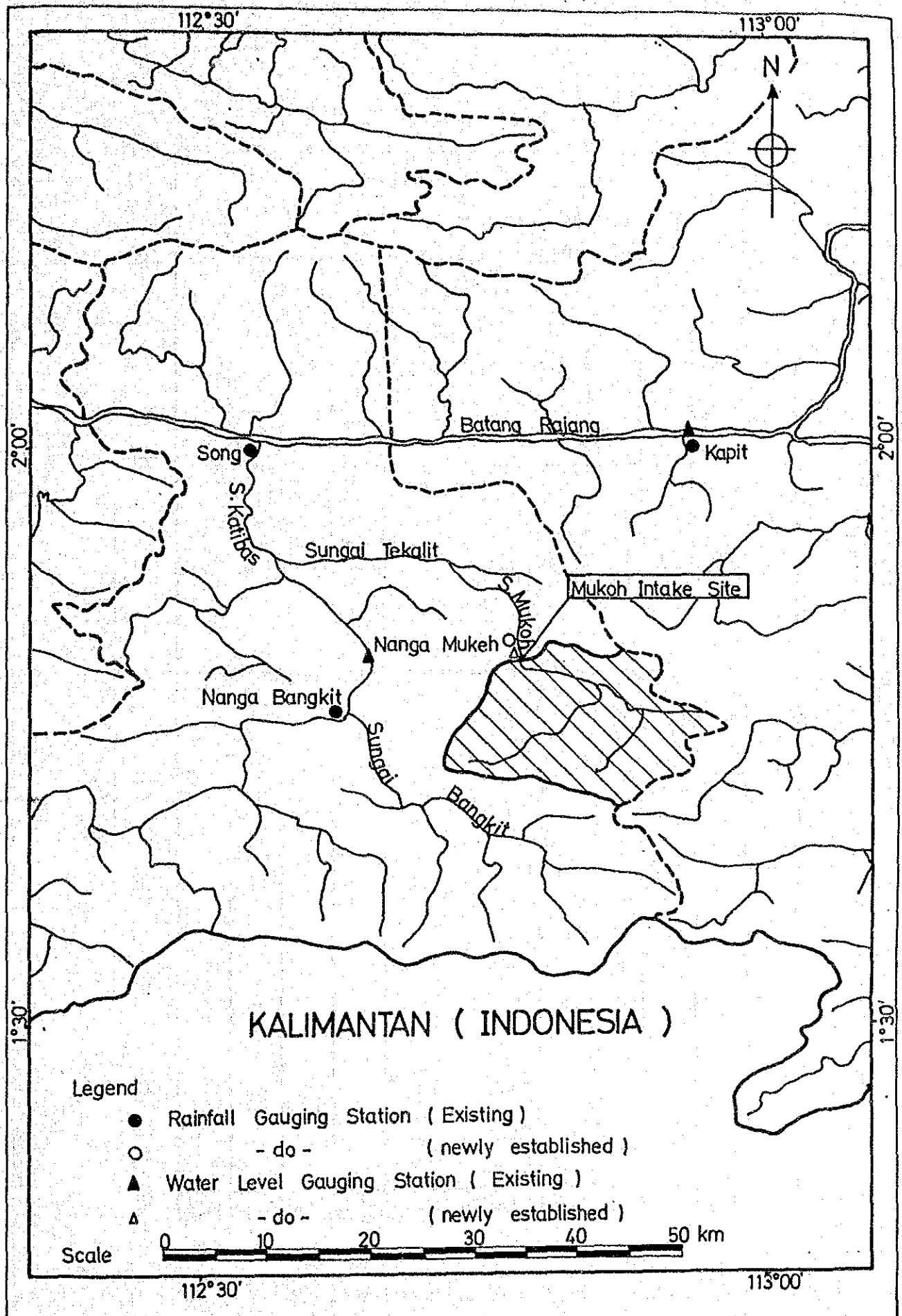

図 III － 21　　計画区域位置図

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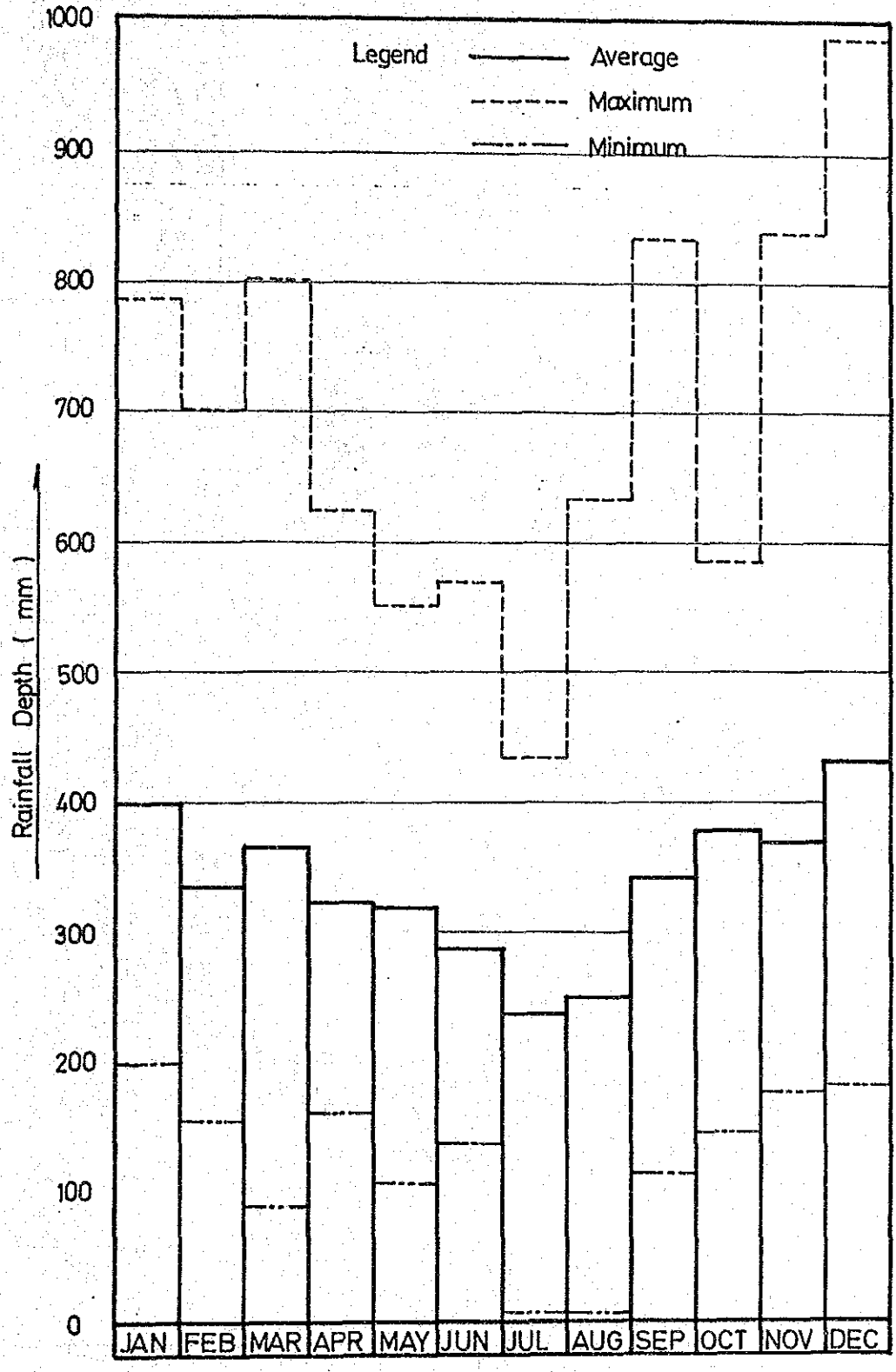

図Ⅲ－22　ナンガ・バッキットにおける月平均、最大および最小降雨量

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図Ⅲ－23　水文観測所位置図

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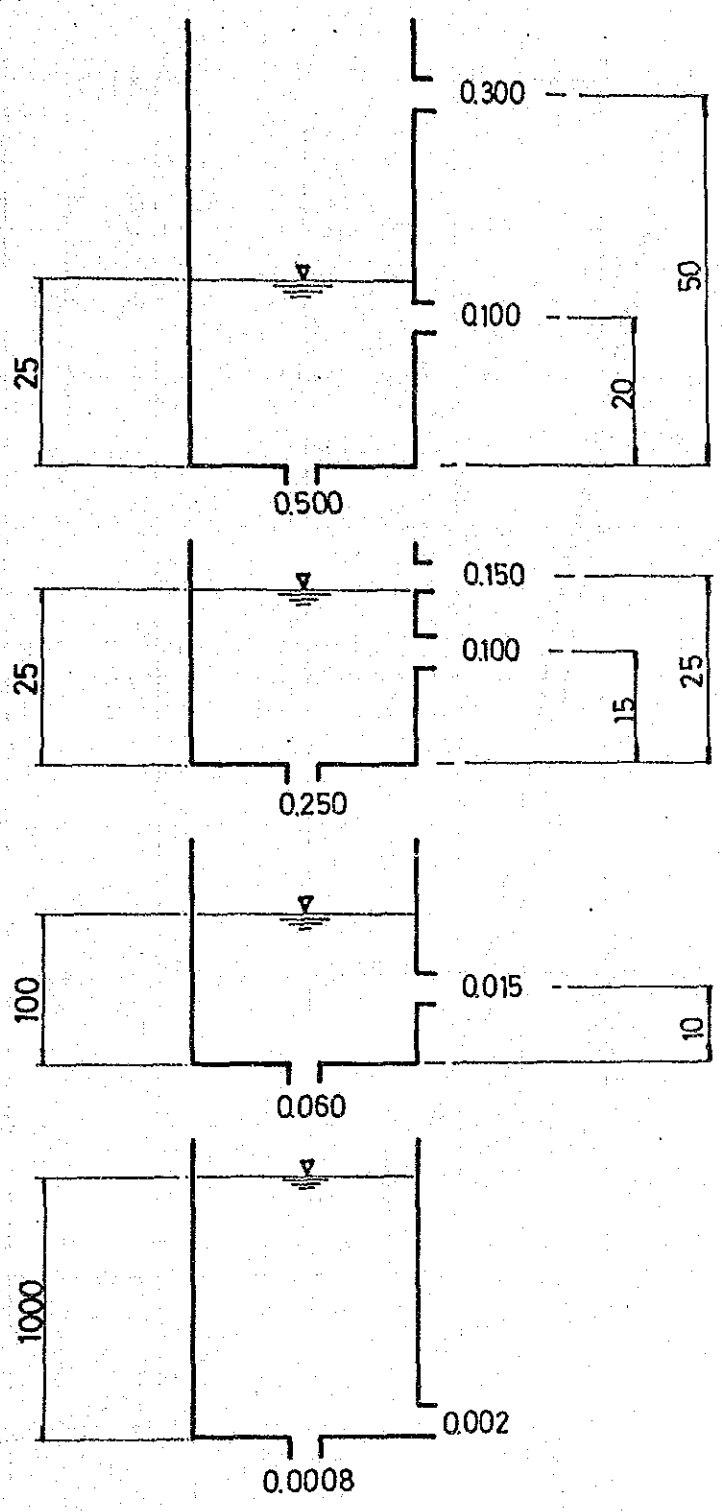

図 III－24　　タンクモデル（カンボン・ギット）

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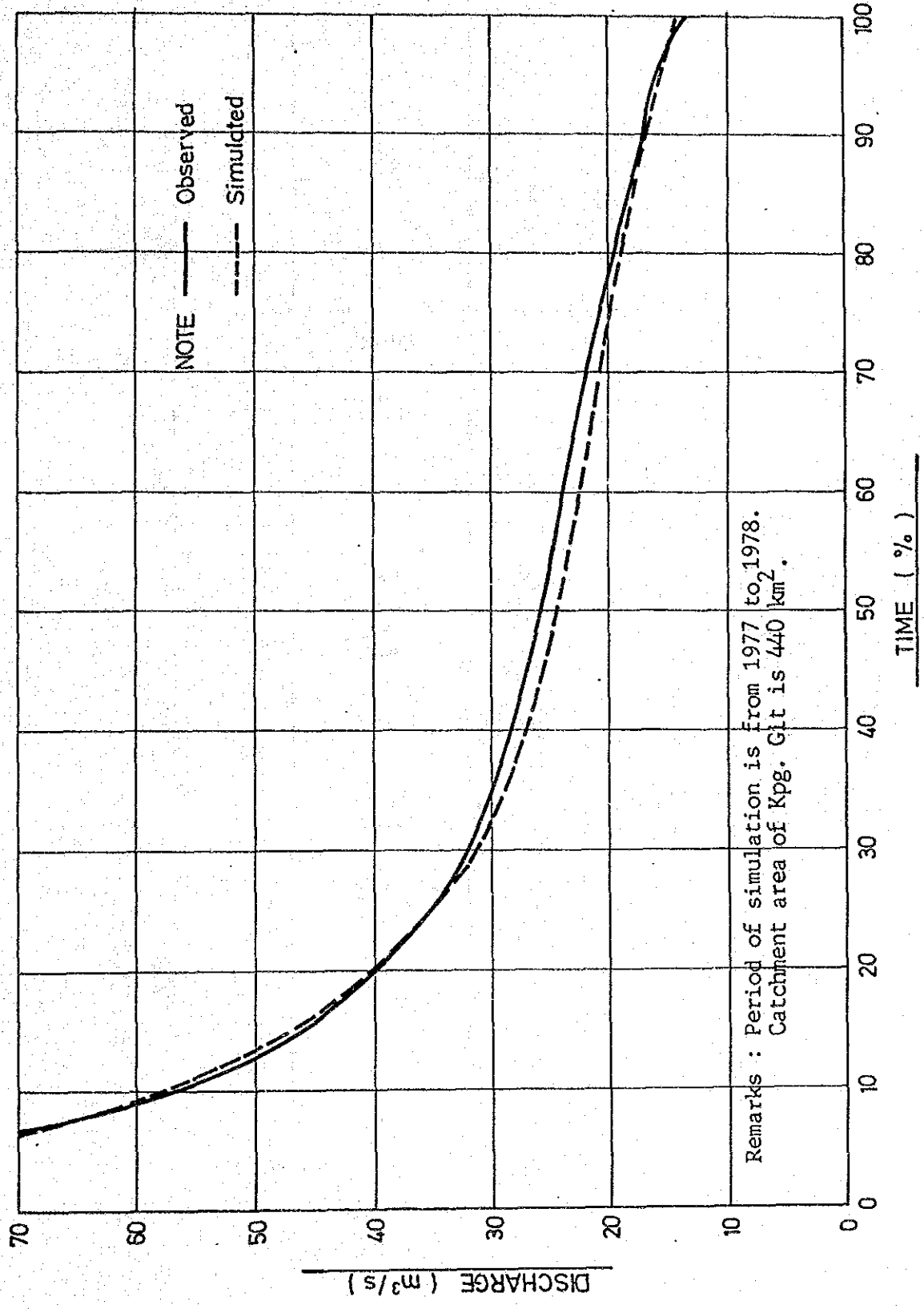

図Ⅲ－25　代表流量曲線（カンポン・ギット）

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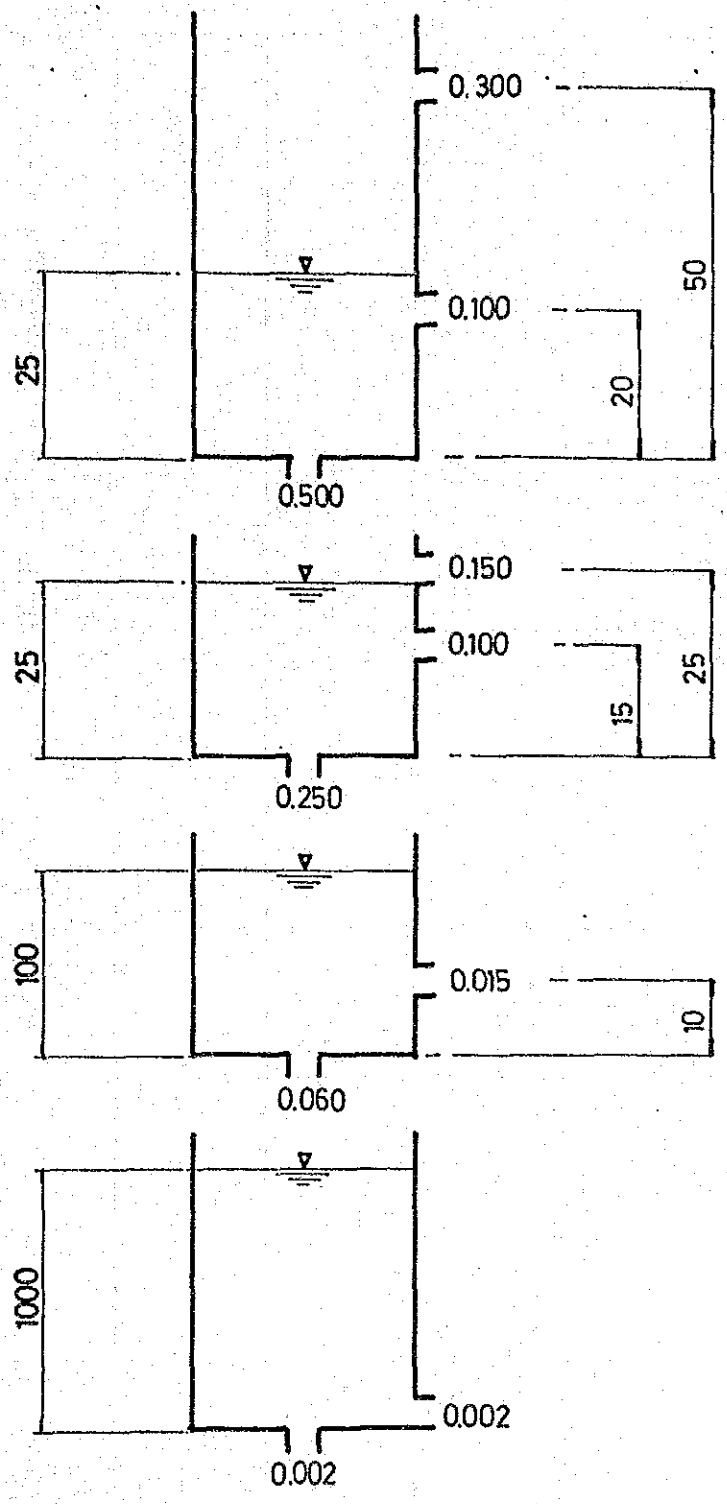

図 III－26　タンクモデル（ブアン・ビディ）

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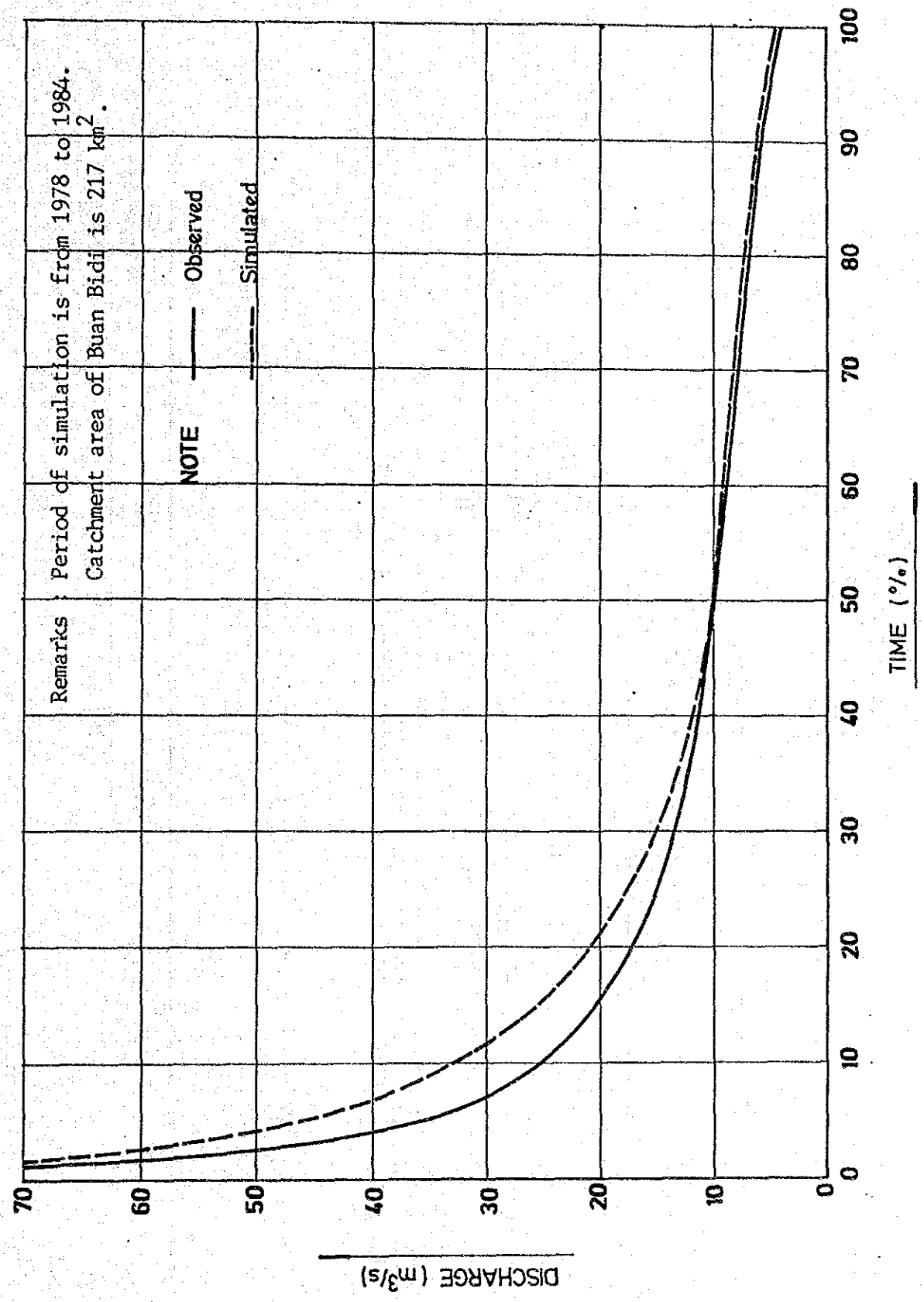

図Ⅲ－27　代表流量曲線（ブアン・ビディ）

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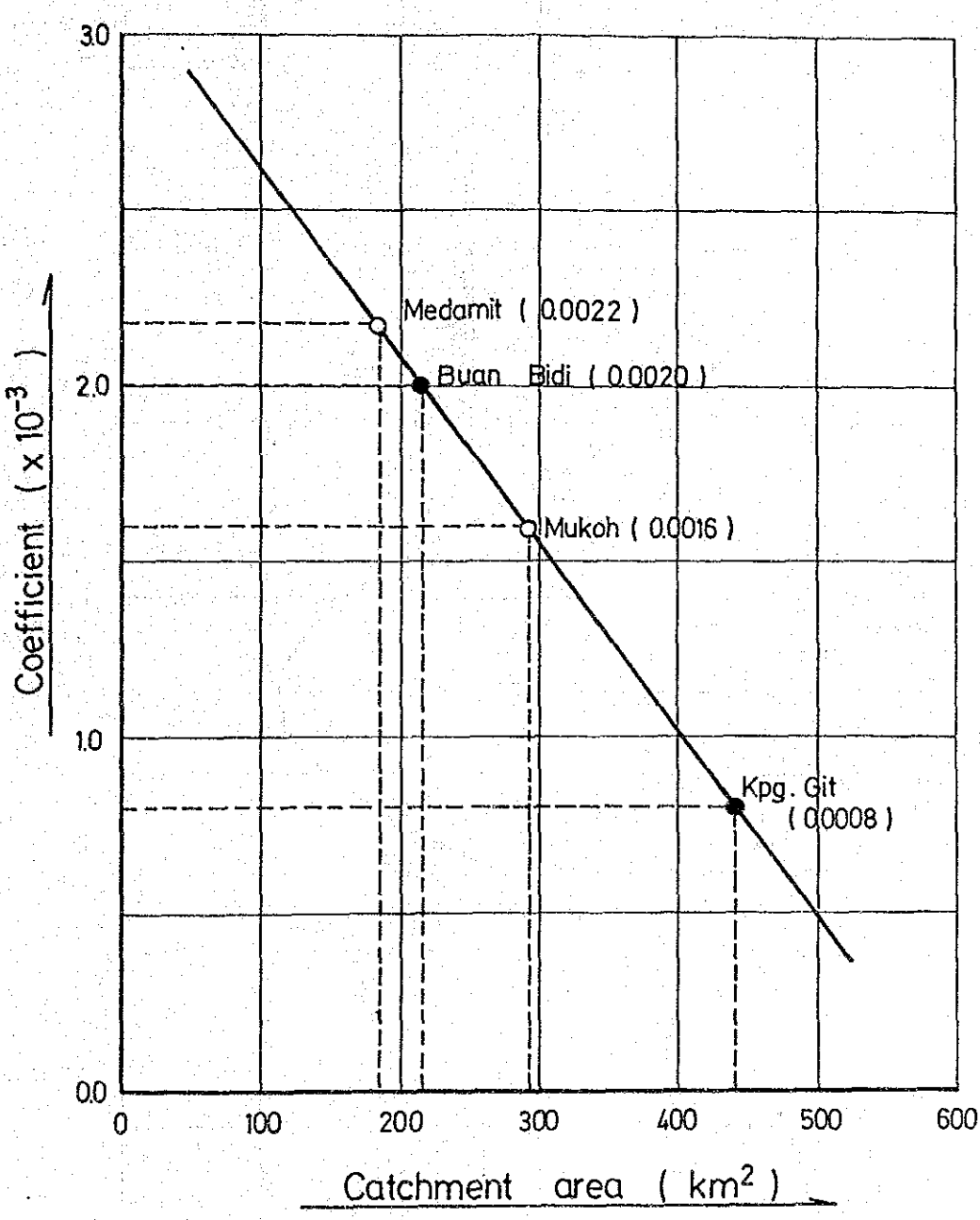

図Ⅲ－28　タンクモデル定数と流域面積との関係

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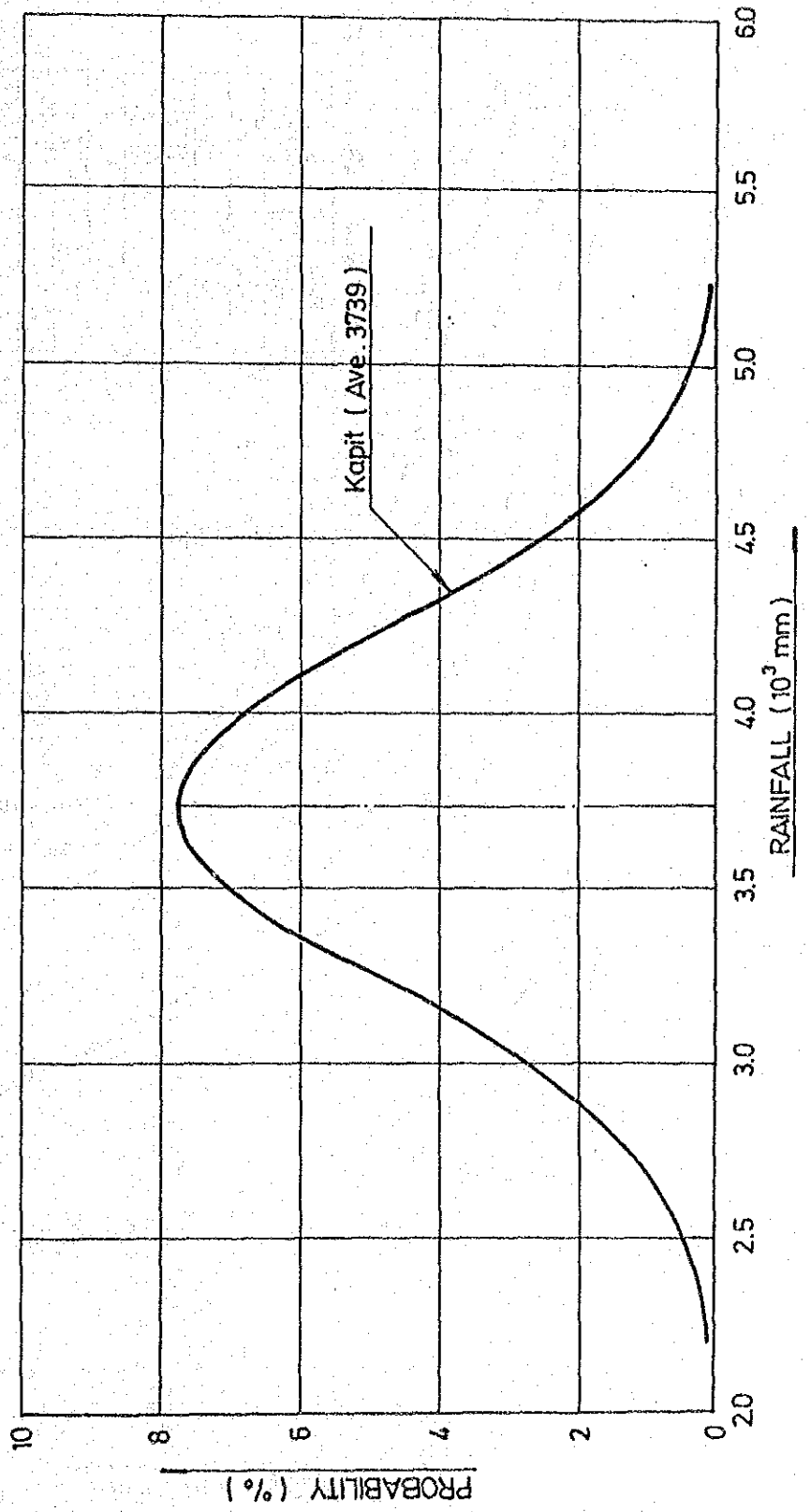

図Ⅲ－29　カピットにおける年降雨量の正規分布

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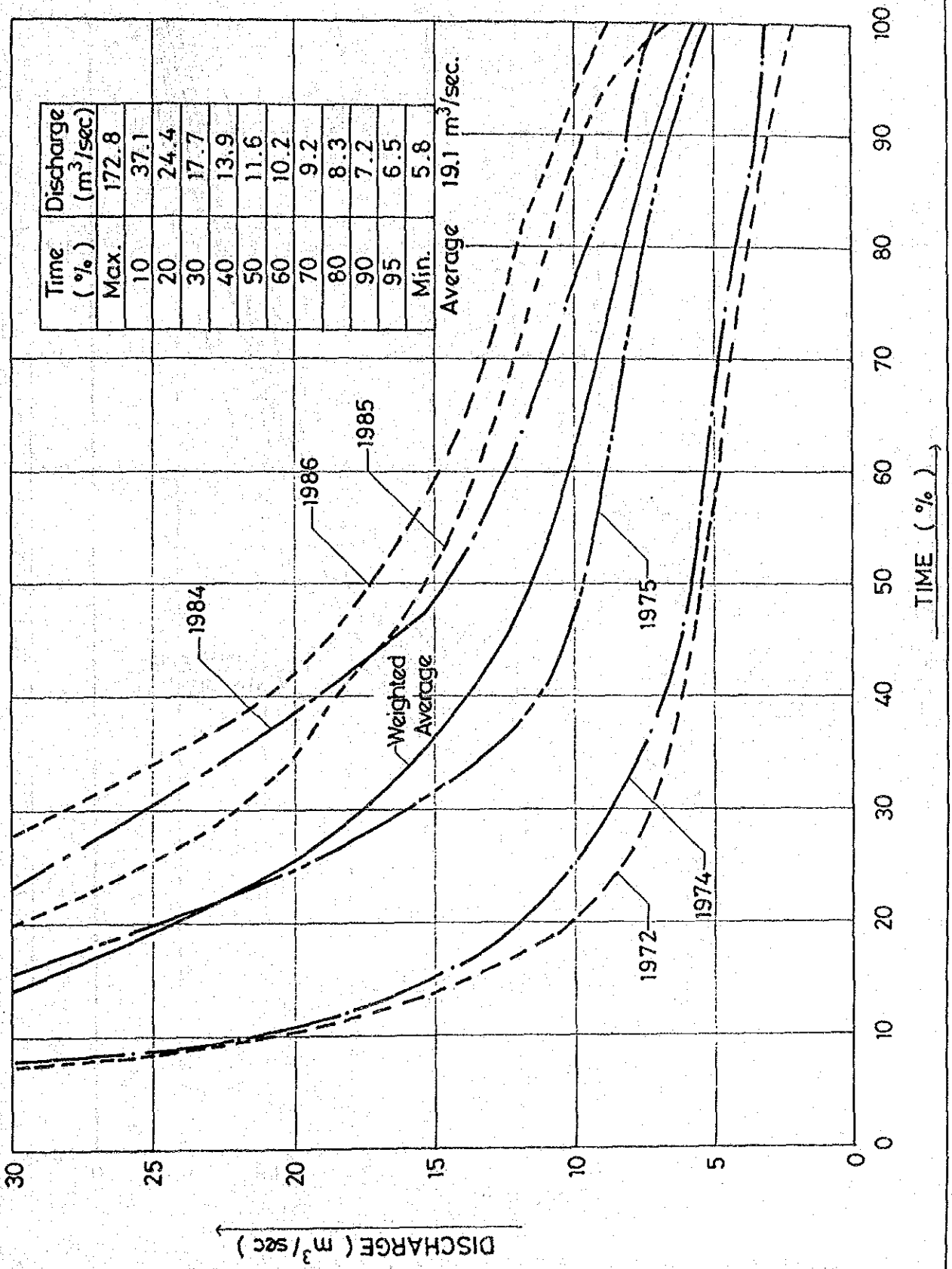

図Ⅲ－30　取水口予定地点における流況曲線

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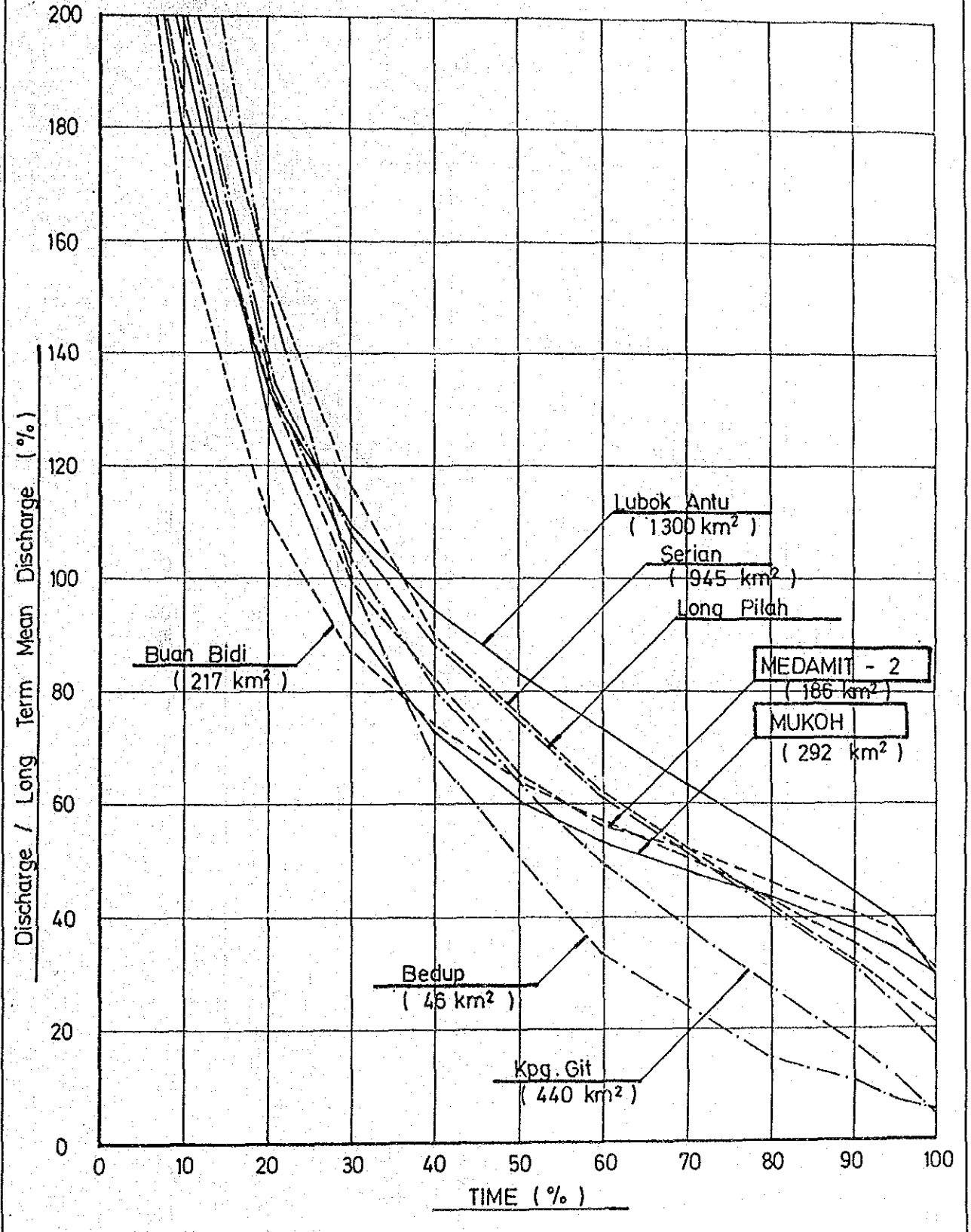

図Ⅲ－31　比較的小流域における代表流量観測所の流況曲線

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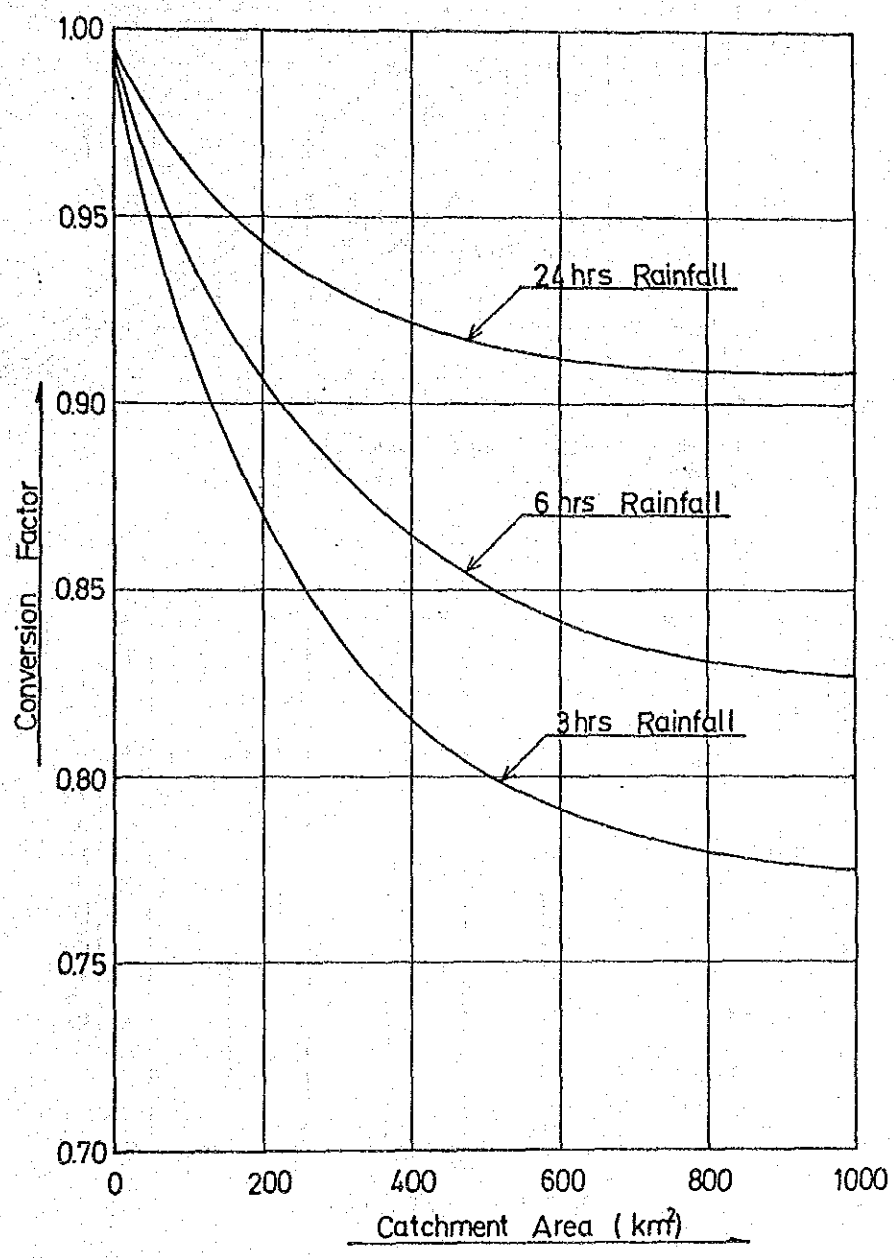

図Ⅲ－32　流域平均雨量への変換係数

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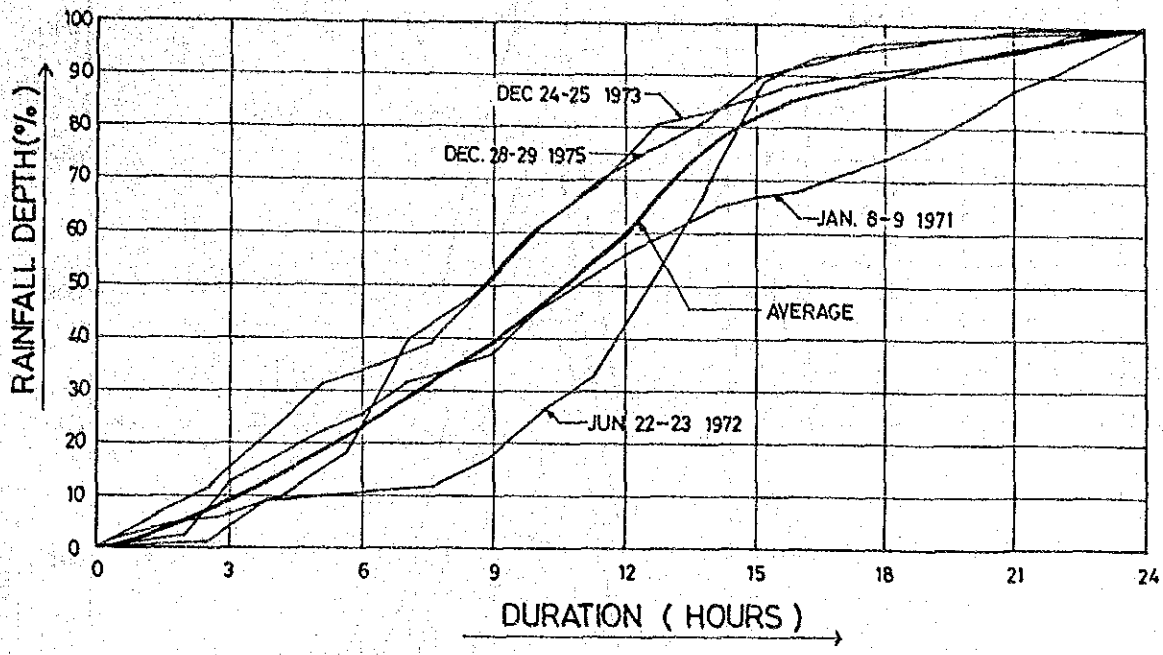

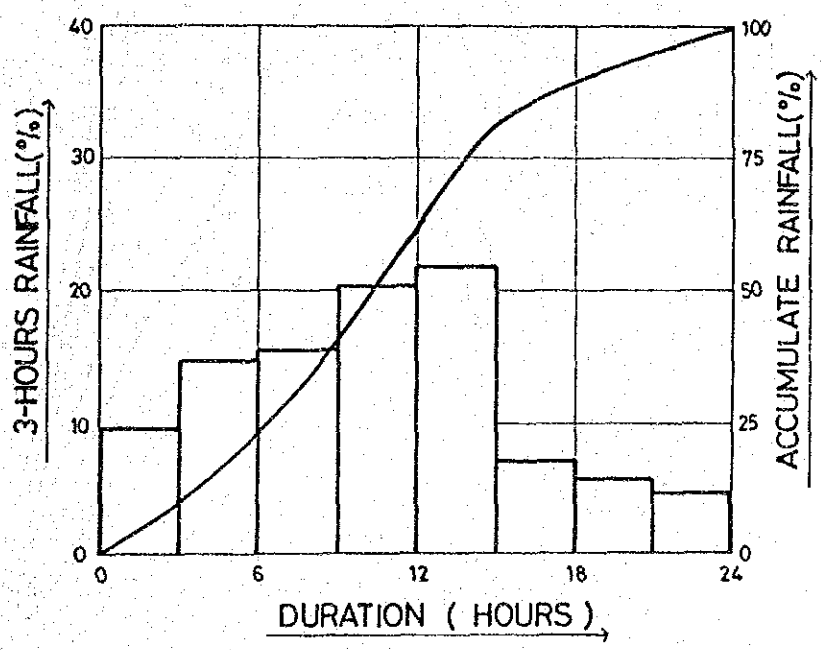

図Ⅲ－33　時間雨量分布曲線

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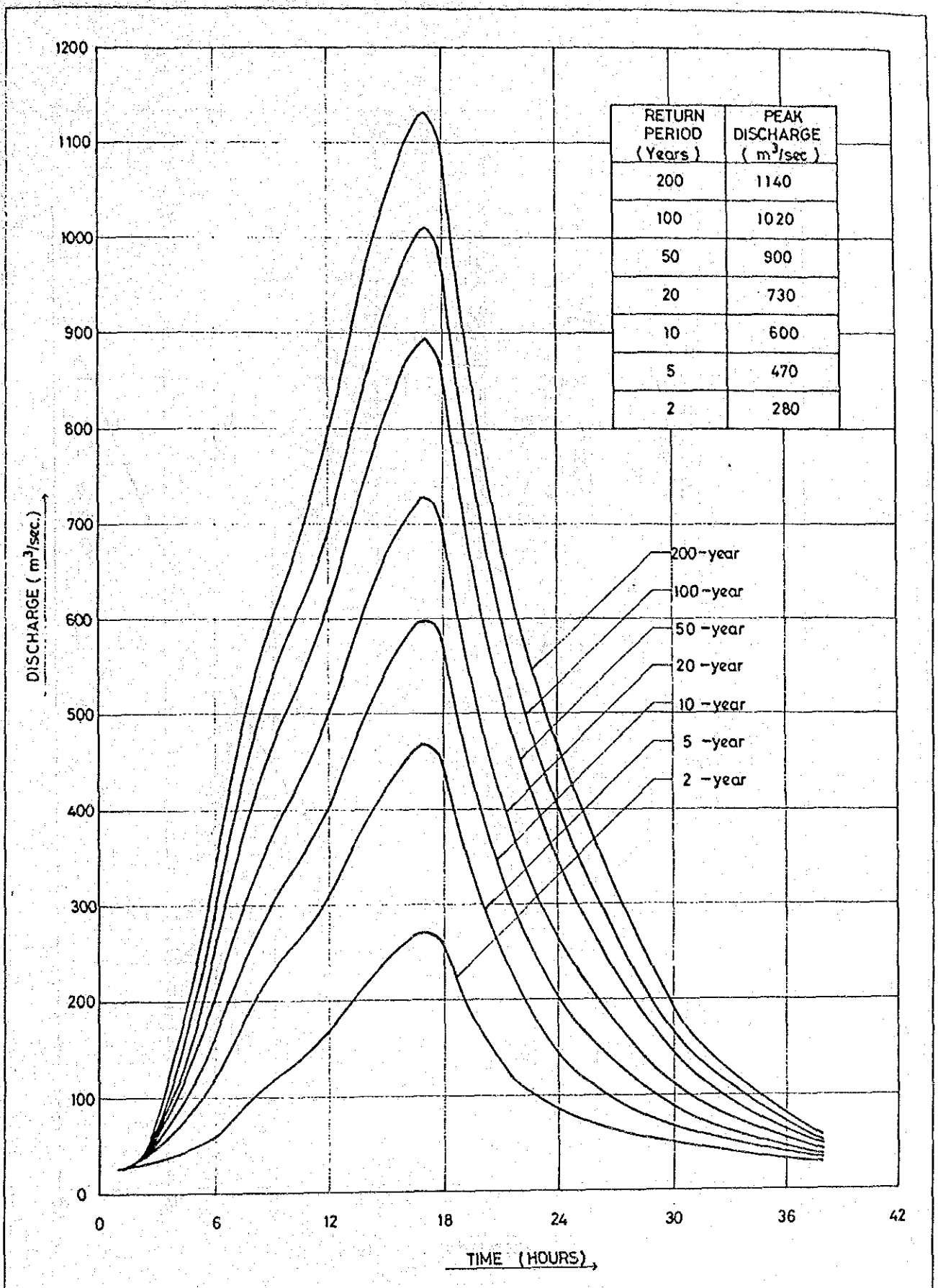

図Ⅲ－34　取水口地点における確率洪水ハイドログラフ

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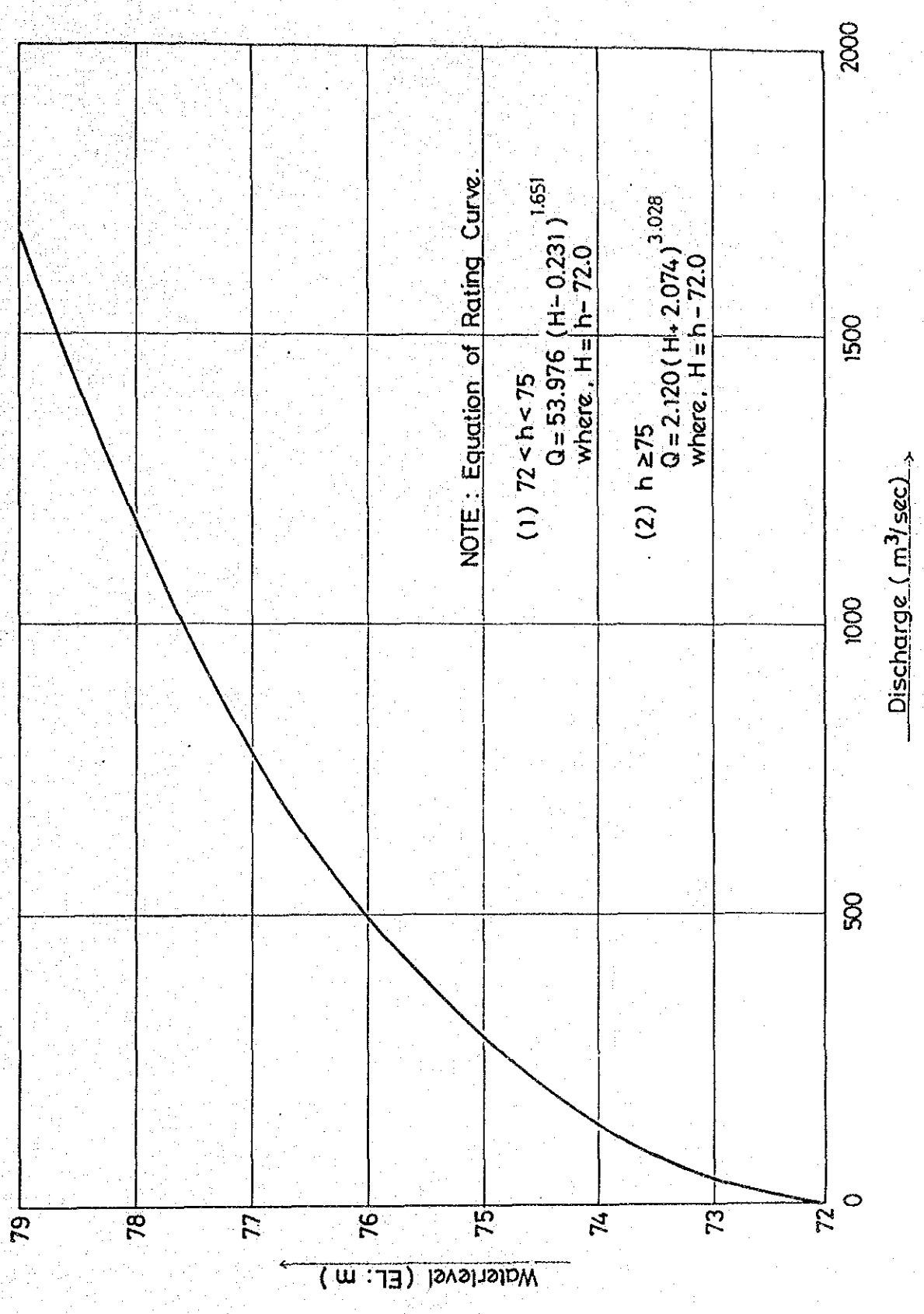

図Ⅲ－35　発電所予定地点における水位流量曲線

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