TABLES

Table 1 (1) CROP WATER REQUIREMENT

(Monthly basis)

(Unit : mm)

CROP	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1. Wet Season Paddy												
(1) Local Variety												
- Land preparation (LP)			19	113	38							
- Nursery (N)	0	0	9	9	1							
- Field crop (FC)				73	203	211	200	76				
- Crop water requirement (CWR)	0	0	28	195	242	211	200	76	0	0	0	0
(2) Improved Variety												
- Land preparation (LP)				76	94							
- Nursery (N)			3	12	3							
- Field crop (FC)				18	148	209	146	19				
- Crop water requirement (CWR)	0	0	3	106	245	209	146	19	0	0	0	0
2. Dry Season Paddy												
(1) Improved Variety												
- Land preparation (LP)									19	113	38	
- Nursery (N)									9	9	1	
- Field crop (FC)	94									75	210	271
- Crop water requirement (CWR)	94	0	0	0	0	0	0	0	28	197	249	271
3. Groundnuts												
- Land preparation (LP)									30	30		
- Field crop (FC)								30	9	78	115	105	47
- Crop water requirements	0	0	0	0	0	0	0	39	108	115	105	47
4. Mung Beans												
- Land preparation (LP)									30	30		
- Field crop (FC)								30	5	53	111	55	
- Crop water requirement (CWR)	0	0	0	0	0	0	0	35	83	111	55	0
5. Vegetables												
- Land preparation (LP)									20	40		
- Field crop (FC)								20	7	65	96	88	40
- Crop water requirement (CWR)	0	0	0	0	0	0	0	27	105	96	88	40
6. Tree Crops												
- Crop water requirement (CWR)	131	56	0	0	0	0	0	0	112	110	110	138

Table 1 (2) CROP WATER REQUIREMENT
(10-day basis)

(Unit : mm)

CROP	JUN.			JUL			AUG			SEP			OCT			NOV		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1. Wet Season Paddy																		
(1) Local Variety																		
- Land preparation (LP)			19	38	38	38	33	4										
- Nursery (N)	2	3	4	4	3	2	1											
- Field crop (FC)				8	23	43	55	70	80	69	70	71	71	68	60	42	25	8
- Crop water requirement (CWR)	2	3	23	50	64	83	89	74	80	69	70	71	70	68	60	42	25	8
(2) Improved Variety																		
- Land preparation (LP)				4	33	38	38	38	19									
- Nursery (N)		1	3	3	4	4	2	1										
- Field crop (FC)					2	17	31	48	71	69	70	71	63	47	34	17	2	
- Crop water requirement (CWR)		1	3	7	39	59	71	87	90	69	70	71	63	47	34	17	2	

CROP	NOV			DEC			JAN			FEB			MAR			APR		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
2. Dry Season Paddy																		
(1) Improved Variety																		
- Land preparation (LP)						19	38	38	38	33	4							
- Nursery (N)				2	3	4	4	3	2	1								
- Field crop (FC)							8	24	45	62	79	67	96	93	81	52	31	10
- Crop water requirement (CWR)				2	3	23	50	65	85	96	83	67	96	93	81	52	31	10
3. Groundnuts																		
- Land preparation (LP)		10	20	20	10													
- Field crop (FC)		1	8	17	27	35	35	37	42	40	38	27	27	15	5			
- Crop water requirement (CWR)		11	28	37	37	35	35	37	42	40	38	27	27	15	5			
4. Mung Beans																		
- Land preparation (LP)		10	20	20	10													
- Field crop (FC)		1	4	11	16	26	34	37	40	33	20	4						
- Crop water requirement (CWR)		11	24	31	26	26	34	37	40	33	20	4						
5. Vegetables																		
- Land preparation (LP)		8	13	13	13	13												
- Field crop (FC)		1	7	14	21	31	31	31	34	34	33	21	22	13	5			
- Crop water requirement (CWR)		9	20	27	34	44	31	31	34	34	33	21	22	13	5			

CROP	DEC			JAN			FEB			MAR			APR			MAY		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
6. Tree Crops																		
- Crop water requirement (CWR)	36	36	40	35	35	39	39	39	31	45	45	49	44	44	44	37	18	

Table 2 (1) CROP AREA FACTOR

(Monthly basis)

CROP	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1. Wet Season Paddy												
(1) Local Variety												
a. Land preparation (kl)			0.037	0.222	0.074							
b. Nursery (km)			0.017	0.029	0.004							
c. Field crop (kf)				0.334	0.917	1.000	0.917	0.334				
d. Total (kt)			0.054	0.585	0.995	1.000	0.917	0.334				
(2) Improved Variety												
a. Land Preparation (kl)				0.149	0.184							
b. Nursery (km)			0.004	0.029	0.017							
c. Field crop (kf)				0.083	0.667	1.000	0.667	0.083				
d. Total (kt)			0.004	0.261	0.868	1.000	0.667	0.083				
2. Dry Season Paddy												
(1) Improved Variety												
a. Land preparation (kl)									0.037	0.222	0.074	
b. Nursery (km)									0.017	0.029	0.004	
c. Field crop (kf)	0.334									0.334	0.917	0.917
d. Total (kt)	0.334								0.054	0.585	0.995	0.917
3. Groundnuts								0.125	0.875	1.000	1.000	0.500
4. Mung Beans								0.125	0.875	1.000	0.500	
5. Vegetables								0.083	0.667	1.000	0.917	0.333
6. Tree Crops	1.000	0.500							1.000	1.000	1.000	1.000

Table 2 (2) CROP AREA FACTOR

(10-day basis)

CROP	Jun			July			Aug			Sep			Oct			Nov		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1. Wet Season Paddy																		
(1) Local Variety																		
- Land preparation (kl)			0.111	0.222	0.222	0.222	0.195	0.028										
- Nursery (kn)	0.006	0.017	0.028	0.033	0.032	0.022	0.012											
- Field crop (kf)				0.111	0.333	0.556	0.778	0.972	1.000	1.000	1.000	1.000	1.000	0.972	0.778	0.556	0.333	0.111
- Total (kt)	0.006	0.017	0.139	0.366	0.587	0.800	0.985	1.000	1.000	1.000	1.000	1.000	1.000	0.972	0.778	0.556	0.333	0.111
(2) Improved Variety																		
- Land preparation (kl)				0.028	0.195	0.222	0.222	0.222	0.111									
- Nursery (km)		0.001	0.011	0.022	0.032	0.033	0.028	0.023										
- Field crop (kf)					0.028	0.222	0.444	0.667	0.889	1.000	1.000	1.000	0.889	0.667	0.444	0.222	0.028	
- Total (kt)		0.001	0.011	0.050	0.255	0.477	0.694	0.912	1.000	1.000	1.000	1.000	0.869	0.667	0.444	0.222	0.028	

CROP	Nov			Dec			Jan			Feb			Mar			Apr		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	33	1	2	3
2. Dry Season Paddy																		
(1) Improved Variety																		
- Land preparation (kl						0.111	0.222	0.222	0.222	0.195	0.028							
- Nursery (kn)				0.006	0.017	0.028	0.033	0.032	0.022	0.012								
- Field crop (kf)							0.111	0.333	0.556	0.778	0.972	1.000	1.000	0.972	0.778	0.556	0.333	0.111
- Total (kt)				0.006	0.017	0.139	0.366	0.587	0.800	0.985	1.000	1.000	1.000	0.972	0.778	0.556	0.333	0.111
3. Groundnuts		0.042	0.333	0.667	0.958	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.833	0.500	0.167			
4. Mung Beans		0.042	0.333	0.667	0.958	1.000	1.000	1.000	1.000	0.833	0.500	0.167						
5. Vegetables		0.028	0.222	0.444	0.667	0.889	1.000	1.000	1.000	1.000	0.972	0.778	0.556	0.333	0.111			

CROP	Dec			Jan			Feb			Mar			Apr			May		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
6. Tree Crops	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.500

Table 3 METEOROLOGICAL DATA USED FOR ESTIMATING EVAPOTRANSPIRATION

Station : Chon Buri
Recorded year : 1951-1980

ITEM	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
Air Temperature (°C)	29.7	29.4	29.0	28.7	28.4	28.0	27.5	26.8	26.0	26.0	27.5	28.9
Relative Humidity(%)	71.0	74.8	74.9	75.1	75.8	79.9	79.5	72.2	65.5	67.1	70.8	70.9
Wind Velocity (km/day)	214.2	196.2	237.6	219.0	216.0	176.4	167.4	207.0	219.6	214.2	234.0	237.6
Cloudiness (Oktas)	4.5	6.0	6.4	6.6	6.8	6.6	5.6	4.3	3.4	3.7	3.7	3.8

Table 4 (1) AVERAGE CROP COEFFICIENT

(Monthly basis)

	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1. Wet Season Paddy												
(1) Local Variety /1				0.91	0.99	1.08	1.08	1.07				
(2) Improved Variety /1				0.93	0.99	1.07	1.09	1.08				
2. Dry Season Paddy												
(1) Improved Variety /1	1.16									0.96	1.06	1.17
3. Groundnuts								0.55	0.64	0.84	0.77	0.55
4. Mung Beans								0.30	0.43	0.81	0.81	
5. Vegetables								0.70	0.70	0.70	0.70	0.70
6. Tree Crops	0.80	0.80							0.80	0.80	0.80	0.80

Note ; /1 : after transplanting

Table 4 (2) AVERAGE CROP COEFFICIENT

(10-day basis)

CROP	JUN 1	JUN 2	JUN 3	JUL 1	JUL 2	JUL 3	AUG 1	AUG 2	AUG 3	SEP 1	SEP 2	SEP 3	OCT 1	OCT 2	OCT 3	NOV 1	NOV 2	NOV 3
1. Wet Season Paddy																		
(1) Local Variety /1				0.88	0.90	0.92	0.96	0.99	1.01	1.06	1.08	1.09	1.09	1.08	1.07	1.07	1.06	1.05
(2) Improved Variety /1					0.90	0.93	0.95	0.99	1.01	1.05	1.07	1.09	1.09	1.09	1.08	1.08	1.06	

CROP	NOV 1	NOV 2	NOV 3	DEC 1	DEC 2	DEC 3	JAN 1	JAN 2	JAN 3	FEB 1	FEB 2	FEB 3	MAR 1	MAR 2	MAR 3	APR 1	APR 2	APR 3
2. Dry Season Paddy																		
(1) Improved Variety /1							0.93	0.95	0.98	1.02	1.04	1.10	1.18	1.17	1.17	1.16	1.16	1.12
3. Groundnuts		0.53	0.55	0.58	0.62	0.70	0.80	0.84	0.86	0.82	0.78	0.70	0.58	0.55	0.47			
4. Mung Beans		0.28	0.30	0.35	0.38	0.53	0.76	0.84	0.82	0.82	0.80	0.68						
5. Vegetables		0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70			

CROP	DEC 1	DEC 2	DEC 3	JAN 1	JAN 2	JAN 3	FEB 1	FEB 2	FEB 3	MAR 1	MAR 2	MAR 3	APR 1	APR 2	APR 3	MAY 1	MAY 2	MAY 3
6. Tree Crops	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80

Note : /1 : after transplanting

Table 5 (1) EFFECTIVE RAINFALL
(Monthly, Paddy for Khlong Luang River Basin)

(Unit : mm)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	81	142	144	103	108	192	86	10	0	67	44	74	1,051
1969	128	133	57	84	139	181	61	47	0	18	0	96	944
1970	51	138	180	96	127	151	104	14	48	0	77	44	1,030
1971	69	107	111	29	214	175	140	0	0	0	23	60	928
1972	104	44	157	21	60	213	104	79	10	0	0	40	832
1973	65	133	79	141	169	165	38	41	0	0	54	84	969
1974	74	112	93	133	141	138	203	60	0	34	48	40	1,076
1975	18	133	65	159	125	172	144	12	0	0	38	80	946
1976	58	118	58	149	116	123	162	24	0	0	13	44	865
1977	87	125	73	118	86	102	65	40	0	14	19	101	830
1978	24	176	93	115	55	197	47	0	0	11	23	18	759
1979	56	69	82	56	93	168	0	0	0	0	17	99	640
1980	54	82	155	82	116	139	74	31	0	0	11	38	782
1981	146	113	43	121	54	172	128	45	0	0	13	0	835

Table 5 (2) EFFECTIVE RAINFALL
(Monthly, Upland Crops for Khlong Luang River Basin)

(Unit : mm)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	57	93	95	70	72	127	59	7	0	48	31	51	710
1969	84	87	41	58	92	121	43	33	0	12	0	65	636
1970	37	91	120	65	83	99	70	10	34	0	53	31	693
1971	48	72	74	22	138	117	92	0	0	0	17	43	623
1972	70	31	103	16	43	137	70	56	7	0	0	29	562
1973	46	88	56	93	113	111	28	31	0	0	48	58	672
1974	51	74	62	88	93	90	133	43	0	25	34	30	723
1975	13	87	46	106	83	114	95	8	0	0	28	56	636
1976	43	78	42	98	77	82	107	18	0	0	9	31	585
1977	60	83	51	78	59	69	46	28	0	10	14	67	565
1978	18	118	62	77	39	130	34	0	0	8	17	12	515
1979	41	48	57	41	62	113	0	0	0	0	12	67	441
1980	38	58	102	57	77	92	51	23	0	0	8	28	534
1981	96	76	31	81	45	115	84	33	0	0	9	0	570

Table 5 (3) EFFECTIVE RAINFALL
(Monthly, Paddy for Rayong River Basin)

(Unit : mm)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	0	129	237	91	73	94	92	28	14	104	34	98	994
1969	47	170	66	112	128	155	156	68	0	60	131	69	1,162
1970	135	157	162	88	127	141	92	88	132	0	14	28	1,164
1971	61	153	49	55	131	165	143	0	35	0	0	9	801
1972	133	21	158	46	17	202	68	98	0	20	0	73	836
1973	33	194	153	79	104	175	140	80	19	0	28	29	1,034
1974	134	167	79	59	114	192	245	55	0	63	0	62	1,170
1975	54	168	100	86	107	137	198	38	0	0	40	41	969
1976	73	163	29	28	181	127	178	36	0	20	0	9	844
1977	56	125	80	182	55	127	137	10	0	65	88	0	925
1978	60	120	162	130	86	136	90	18	0	0	48	10	860
1979	72	35	168	78	14	152	73	0	10	0	0	65	667
1980	80	59	161	113	133	110	131	48	0	0	16	35	886
1981	60	179	128	60	127	141	119	149	0	26	0	87	1,076

Table 5 (4) EFFECTIVE RAINFALL
(Monthly, Upland Crops for Rayong River Basin)

(Unit : mm)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	0	85	148	62	51	63	62	22	10	70	25	65	663
1969	34	113	46	75	84	102	103	47	0	42	86	48	780
1970	89	104	107	59	83	93	62	59	87	0	10	22	775
1971	43	101	34	38	86	110	94	0	26	0	0	7	539
1972	87	17	105	33	13	133	48	66	0	15	0	51	568
1973	25	127	100	56	70	117	92	56	14	0	22	22	701
1974	88	109	56	42	76	127	151	38	0	45	0	44	776
1975	38	112	67	59	72	90	131	28	0	0	30	30	657
1976	51	107	22	22	121	83	119	27	0	16	0	7	575
1977	41	82	56	121	38	83	90	7	0	46	60	0	624
1978	43	80	107	86	59	89	62	13	0	0	34	7	580
1979	50	26	110	53	10	99	51	0	7	0	0	47	453
1980	56	42	106	75	88	73	86	34	0	0	12	26	598
1981	43	118	84	43	83	93	77	98	0	18	0	60	717

Table 5(5) EFFECTIVE RAINFALL

(10 days, Paddy for Khlong Luang River Basin)

(Unit: mm)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	1	0	61	25	4	50	16	41	9	0	23	44	0	
	2	52	13	86	18	42	89	30	0	0	44	0	43	
	3	29	68	33	81	16	87	15	1	0	0	0	31	1,051
1969	1	49	49	34	29	14	29	11	47	0	0	0	16	
	2	41	16	4	22	66	106	47	0	0	18	0	22	
	3	38	68	19	33	59	46	3	0	0	0	0	58	944
1970	1	36	55	49	82	38	34	24	0	42	0	0	4	
	2	0	59	64	3	52	62	42	0	1	0	0	32	
	3	15	24	67	11	37	55	38	14	5	0	77	8	1,030
1971	1	1	31	24	14	1	50	64	0	0	0	23	0	
	2	35	20	54	9	103	60	30	0	0	0	0	6	
	3	33	56	33	6	110	65	46	0	0	0	0	54	928
1972	1	74	3	85	11	13	115	35	47	10	0	0	1	
	2	10	25	26	7	10	43	69	32	0	0	0	27	
	3	20	16	46	3	37	55	0	0	0	0	0	12	832
1973	1	0	64	22	71	130	35	32	6	0	0	0	6	
	2	40	30	39	31	7	33	0	35	0	0	40	46	
	3	25	39	18	39	32	97	6	0	0	0	14	32	969
1974	1	3	19	13	11	45	16	66	58	0	30	23	26	
	2	45	43	0	30	31	77	124	2	0	4	21	0	
	3	26	50	80	92	65	45	13	0	0	0	4	14	1,076
1975	1	11	25	16	50	22	48	128	0	0	0	25	19	
	2	1	22	24	90	38	86	2	12	0	0	13	12	
	3	6	86	25	19	65	38	14	0	0	0	0	49	946
1976	1	19	69	51	32	8	54	59	24	0	0	8	42	
	2	19	30	0	32	42	62	14	0	0	0	0	0	
	3	20	19	7	85	66	7	89	0	0	0	5	2	865
1977	1	25	36	34	13	28	28	20	7	0	9	2	5	
	2	34	32	11	27	0	15	7	0	0	0	1	42	
	3	28	57	28	78	58	59	38	33	0	5	16	54	830
1978	1	0	67	12	23	14	27	13	0	0	9	0	0	
	2	14	91	56	36	10	113	12	0	0	2	7	0	
	3	10	18	25	56	31	57	22	0	0	0	16	18	759
1979	1	0	30	16	12	25	31	0	0	0	0	0	15	
	2	2	10	42	7	0	41	0	0	0	0	0	49	
	3	54	29	24	37	68	96	0	0	0	0	17	35	640
1980	1	10	12	81	3	43	58	44	31	0	0	8	9	
	2	38	34	52	24	20	27	5	0	0	0	0	5	
	3	6	36	22	55	53	54	25	0	0	0	3	24	782
1981	1	23	25	15	35	28	43	66	28	0	0	0	0	
	2	24	29	16	35	24	92	7	5	0	0	0	0	
	3	99	59	12	51	2	37	55	12	0	0	13	0	835

Table 5(6) EFFECTIVE RAINFALL

(10 days, Upland Crops for Khlong Luang River Basin)

(Unit: mm)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	1	0	40	16	3	33	10	28	6	0	16	31	0	
	2	37	9	57	12	28	59	20	0	0	32	0	30	
	3	20	44	22	55	11	58	11	1	0	0	0	21	710
1969	1	32	32	25	20	9	19	8	33	0	0	0	11	
	2	27	10	3	16	44	71	33	0	0	12	0	15	
	3	25	45	13	22	39	31	2	0	0	0	0	39	636
1970	1	26	36	32	55	23	22	16	0	29	0	0	3	
	2	0	39	43	2	35	41	29	0	1	0	0	23	
	3	11	16	45	8	25	36	25	10	4	0	53	5	693
1971	1	0	21	16	11	1	33	42	0	0	0	17	0	
	2	25	14	36	7	66	40	20	0	0	0	0	4	
	3	23	37	22	4	71	44	30	0	0	0	0	39	623
1972	1	50	2	56	8	10	74	23	33	7	0	0	1	
	2	6	18	17	5	6	28	47	23	0	0	0	19	
	3	14	11	30	3	27	35	0	0	0	0	0	9	562
1973	1	0	43	16	47	87	23	23	5	0	0	0	4	
	2	28	20	28	20	5	23	0	26	0	0	36	32	
	3	18	25	12	26	21	65	5	0	0	0	12	22	672
1974	1	2	13	9	7	29	11	43	41	0	22	16	19	
	2	31	28	0	20	21	50	81	2	0	3	15	0	
	3	18	33	53	61	43	29	9	0	0	0	3	11	723
1975	1	8	16	11	33	15	32	85	0	0	0	18	14	
	2	1	15	17	60	25	57	1	8	0	0	10	7	
	3	4	56	18	13	43	25	9	0	0	0	0	35	636
1976	1	14	46	37	21	5	36	39	18	0	0	6	29	
	2	14	20	0	21	28	42	9	0	0	0	0	0	
	3	15	12	5	56	44	4	59	0	0	0	3	2	585
1977	1	18	24	24	8	19	19	14	5	0	6	2	3	
	2	23	21	7	18	0	10	5	0	0	0	1	28	
	3	19	38	20	52	40	40	27	23	0	4	11	36	565
1978	1	0	45	8	15	10	18	9	0	0	6	0	0	
	2	11	61	38	24	7	74	9	0	0	2	5	0	
	3	7	12	16	38	22	38	16	0	0	0	12	12	515
1979	1	0	21	11	9	17	21	0	0	0	0	0	10	
	2	2	7	29	5	0	28	0	0	0	0	0	33	
	3	39	20	17	27	45	64	0	0	0	0	12	24	441
1980	1	7	9	53	2	29	38	30	23	0	0	6	7	
	2	27	24	34	17	13	18	3	0	0	0	0	4	
	3	4	25	15	38	35	36	18	0	0	0	2	17	534
1981	1	15	17	11	23	23	29	43	21	0	0	0	0	
	2	16	19	12	23	20	62	4	3	0	0	0	0	
	3	65	40	8	35	2	24	37	9	0	0	9	0	570

Table 5(7) EFFECTIVE RAINFALL

(10 days, Paddy for Rayong River Basin)

(Unit: mm)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	1	0	108	118	54	30	2	54	17	14	54	34	0	
	2	0	0	17	29	43	48	22	11	0	39	0	98	
	3	0	21	102	8	0	44	16	0	0	11	0	0	994
1969	1	31	28	23	38	32	41	61	68	0	0	23	0	
	2	16	6	2	65	52	90	11	0	0	37	108	0	
	3	0	136	41	9	44	24	84	0	0	23	0	69	1,162
1970	1	42	28	83	39	77	15	51	10	45	0	0	4	
	2	58	126	9	6	28	89	33	7	61	0	0	5	
	3	35	3	70	43	22	37	8	71	26	0	14	19	1,164
1971	1	0	64	14	10	5	13	54	0	0	0	0	0	
	2	20	54	34	12	40	49	47	0	0	0	0	0	
	3	41	35	1	33	86	103	42	0	35	0	0	9	801
1972	1	122	0	43	1	7	106	31	16	0	0	0	30	
	2	1	17	47	16	10	75	35	31	0	18	0	11	
	3	10	4	68	29	0	21	2	51	0	2	0	32	836
1973	1	0	26	91	1	32	61	95	21	19	0	0	7	
	2	4	109	50	67	21	41	0	59	0	0	0	9	
	3	29	59	12	11	51	73	45	0	0	0	28	13	1,034
1974	1	32	19	0	10	29	66	125	43	0	12	0	0	
	2	42	86	44	0	70	24	80	12	0	50	0	42	
	3	60	62	35	49	15	102	40	0	0	1	0	20	1,170
1975	1	20	95	64	13	68	60	77	25	0	0	32	14	
	2	0	33	4	73	18	20	24	13	0	0	8	11	
	3	34	40	32	0	21	57	97	0	0	0	0	16	969
1976	1	18	111	14	20	25	58	11	36	0	3	0	9	
	2	9	34	0	8	37	68	107	0	0	0	0	0	
	3	46	18	15	0	119	1	60	0	0	17	0	0	844
1977	1	52	85	34	77	20	25	63	10	0	41	28	0	
	2	4	13	37	20	6	11	71	0	0	0	13	0	
	3	0	27	9	85	29	91	3	0	0	24	47	0	925
1978	1	0	8	25	54	48	12	46	9	0	0	0	0	
	2	52	89	128	30	30	101	10	9	0	0	48	0	
	3	8	23	9	46	8	23	34	0	0	0	0	10	860
1979	1	9	26	7	26	3	12	13	0	10	0	0	0	
	2	53	9	98	2	0	60	0	0	0	0	0	30	
	3	10	0	63	50	11	80	60	0	0	0	0	35	667
1980	1	0	18	20	9	22	41	24	34	0	0	12	33	
	2	78	7	120	0	61	29	41	4	0	0	1	2	
	3	2	34	21	104	50	40	66	10	0	0	3	0	886
1981	1	0	54	49	5	80	19	29	61	0	5	0	0	
	2	34	57	7	25	47	68	60	57	0	21	0	0	
	3	26	68	72	30	0	54	30	31	0	0	0	87	1,076

Table 5(8) EFFECTIVE RAINFALL

(10 days, Upland Crops for Rayong River Basin)

(Unit: mm)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
1968	1	0	71	74	37	21	2	36	14	10	36	25	0	
	2	0	0	10	20	30	32	15	8	0	26	0	65	
	3	0	14	64	5	0	29	11	0	0	8	0	0	663
1969	1	23	19	16	26	21	27	40	47	0	0	15	0	
	2	11	4	1	44	34	59	7	0	0	26	71	0	
	3	0	90	29	5	29	16	56	0	0	16	0	48	780
1970	1	28	19	55	26	51	9	35	7	30	0	0	3	
	2	38	83	5	4	18	59	24	4	40	0	0	4	
	3	23	2	47	29	14	25	3	48	17	0	10	15	775
1971	1	0	42	10	6	4	8	37	0	0	0	0	0	
	2	14	36	23	9	26	33	31	0	0	0	0	0	
	3	29	23	1	23	56	69	26	0	26	0	0	7	539
1972	1	80	0	29	0	5	70	22	11	0	0	0	21	
	2	1	14	31	12	8	49	24	21	0	14	0	8	
	3	6	3	45	21	0	14	2	34	0	1	0	22	568
1973	1	0	17	60	1	21	41	62	15	14	0	0	4	
	2	3	71	33	47	14	27	0	41	0	0	0	8	
	3	22	39	7	8	35	49	30	0	0	0	22	10	701
1974	1	21	12	0	7	19	44	77	30	0	9	0	0	
	2	28	56	31	0	47	15	50	8	0	35	0	29	
	3	39	41	25	35	10	68	24	0	0	1	0	15	776
1975	1	14	64	43	9	46	40	51	19	0	0	24	10	
	2	0	21	3	50	12	13	16	9	0	0	6	8	
	3	24	27	21	0	14	37	64	0	0	0	0	12	657
1976	1	12	73	11	16	16	38	7	27	0	2	0	7	
	2	7	23	0	6	25	45	72	0	0	0	0	0	
	3	32	11	11	0	80	0	40	0	0	14	0	0	575
1977	1	38	56	24	51	14	17	41	7	0	29	19	0	
	2	3	8	26	13	4	6	47	0	0	0	9	0	
	3	0	18	6	57	20	60	2	0	0	17	32	0	624
1978	1	0	5	17	36	33	8	31	7	0	0	0	0	
	2	37	59	85	20	21	66	7	6	0	0	34	0	
	3	6	16	5	30	5	15	24	0	0	0	0	7	580
1979	1	6	20	5	18	2	8	9	0	7	0	0	0	
	2	37	6	64	0	0	39	0	0	0	0	0	22	
	3	7	0	41	35	8	52	42	0	0	0	0	25	453
1980	1	0	13	13	6	15	27	16	24	0	0	9	25	
	2	55	5	79	0	40	19	27	2	0	0	1	1	
	3	1	24	14	69	33	27	43	8	0	0	2	0	598
1981	1	0	36	32	3	52	13	19	40	0	3	0	0	
	2	24	38	5	18	31	45	39	37	0	15	0	0	
	3	19	44	47	22	0	35	19	21	0	0	0	60	717

Table 6(1) CROPPING INTENSITY

(Khlong Luang Scheme)

Crop	Cropping Intensity		
	Wet Season	Dry Season	Total
1. Cropping intensity of 1.5			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	0.115	0.915
(2) Groundnuts	-	0.23	0.23
(3) Mungbeans	-	0.0625	0.0625
(4) Vegetables	-	0.0925	0.0925
Total	1.0	0.5	1.5
2. Cropping intensity of 1.4			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	-	0.8
(2) Groundnuts	-	0.245	0.245
(3) Mungbeans	-	0.0625	0.0625
(4) Vegetables	-	0.0925	0.0925
Total	1.0	0.4	1.4
3. Cropping intensity of 1.3			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	-	0.8
(2) Groundnuts	-	0.145	0.145
(3) Mungbeans	-	0.0625	0.0625
(4) Vegetables	-	0.0925	0.0925
Total	1.0	0.3	1.3

Table 6(2) CROPPING INTENSITY

(Ban Khai Extension Scheme)

Crop	Cropping Intensity		
	Wet Season	Dry Season	Total
1. Cropping intensity of 1.5			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.145	0.915
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.575	1.5
2. Cropping intensity of 1.4			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.112	0.852
(2) Groundnuts	-	0.223	0.223
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.475	1.4
3. Cropping intensity of 1.3			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.078	0.818
(2) Groundnuts	-	0.157	0.157
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.375	1.3

Table 6(3) CROPPING INTENSITY

(Ban Khai Existing Scheme)

Crop	Cropping Intensity		
	Wet Season	Dry Season	Total
1. Cropping intensity of 1.5			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	0.145	0.945
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
Total	1.0	0.5	1.5
2. Cropping Intensity of 1.4			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	0.112	0.912
(2) Groundnuts	-	0.223	0.223
(3) Vegetables	-	0.065	0.065
Total	1.0	0.4	1.4
3. Cropping intensity of 1.3			
(1) Paddy, local variety	0.2	-	0.2
improved variety	0.8	0.078	0.878
(2) Groundnuts	-	0.157	0.157
(3) Vegetables	-	0.065	0.065
Total	1.0	0.3	1.3

Table 6(4) CROPPING INTENSITY

(Thap Ma Scheme)

Crop	Cropping Intensity		
	Wet Season	Dry Season	Total
1. Cropping intensity of 1.8			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.445	1.215
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.875	1.8
2. Cropping intensity of 1.7			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.345	1.115
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.775	1.7
3. Cropping intensity of 1.6			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.245	1.015
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.675	1.6
4. Cropping intensity of 1.5			
(1) Paddy, local variety	0.185	-	0.185
improved variety	0.74	0.145	0.915
(2) Groundnuts	-	0.29	0.29
(3) Vegetables	-	0.065	0.065
(4) Tree crops	(0.075)	0.075	0.075
Total	0.925	0.575	1.5

Table 7 (1) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Khlong Luang Scheme, Cropping Intensity; 180%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.18	0	0.04	0.57	0.93	0.11	0.60	0.29	0.37	0.59	0.81	0.58
1969	0.14	0	0.05	0.60	0.75	0.18	0.71	0.25	0.37	0.77	1.02	0.51
1970	0.21	0	0.03	0.58	0.82	0.38	0.52	0.29	0.29	0.83	0.64	0.67
1971	0.19	0	0.04	0.72	0.33	0.22	0.36	0.30	0.37	0.83	0.90	0.63
1972	0.16	0	0.04	0.74	1.20	0	0.52	0.21	0.36	0.83	1.02	0.69
1973	0.19	0	0.05	0.49	0.58	0.29	0.81	0.26	0.37	0.83	0.72	0.55
1974	0.18	0	0.05	0.50	0.75	0.46	0.07	0.24	0.37	0.71	0.78	0.69
1975	0.24	0	0.05	0.45	0.84	0.24	0.34	0.29	0.37	0.83	0.83	0.56
1976	0.21	0	0.05	0.43	1.38	0.56	0.25	0.28	0.37	0.83	0.95	0.67
1977	0.18	0	0.05	0.53	1.05	0.70	0.69	0.26	0.37	0.79	0.92	0.50
1978	0.23	0	0.05	0.54	1.22	0.08	0.77	0.30	0.37	0.80	0.90	0.76
1979	0.21	0	0.05	0.66	1.01	0.27	0.98	0.30	0.37	0.83	0.93	0.51
1980	0.21	0	0.04	0.61	0.88	0.46	0.65	0.27	0.37	0.83	0.97	0.69
1981	0.12	0	0.05	0.53	1.23	0.24	0.41	0.25	0.37	0.83	0.95	0.82

Table 7 (2) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Khlong Luang Scheme, Cropping Intensity; 150%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.05	0	0.04	0.57	0.93	0.11	0.60	0.29	0.32	0.29	0.38	0.20
1969	0.04	0	0.05	0.60	0.75	0.18	0.71	0.25	0.32	0.42	0.50	0.17
1970	0.06	0	0.03	0.58	0.82	0.38	0.52	0.29	0.24	0.46	0.28	0.24
1971	0.05	0	0.04	0.72	0.33	0.22	0.36	0.30	0.32	0.46	0.43	0.22
1972	0.04	0	0.04	0.74	1.20	0	0.52	0.21	0.31	0.46	0.50	0.25
1973	0.05	0	0.05	0.49	0.58	0.29	0.81	0.26	0.32	0.46	0.31	0.19
1974	0.05	0	0.05	0.50	0.75	0.46	0.07	0.24	0.32	0.38	0.36	0.25
1975	0.07	0	0.05	0.45	0.84	0.24	0.34	0.29	0.32	0.46	0.39	0.19
1976	0.06	0	0.05	0.43	1.38	0.56	0.25	0.28	0.32	0.46	0.46	0.24
1977	0.05	0	0.05	0.53	1.05	0.70	0.69	0.26	0.32	0.43	0.44	0.17
1978	0.06	0	0.05	0.54	1.22	0.08	0.77	0.30	0.32	0.44	0.43	0.28
1979	0.06	0	0.05	0.66	1.01	0.27	0.98	0.30	0.32	0.46	0.45	0.17
1980	0.06	0	0.04	0.61	0.88	0.46	0.65	0.27	0.32	0.46	0.47	0.25
1981	0.03	0	0.05	0.53	1.23	0.24	0.41	0.25	0.32	0.46	0.46	0.31

Table 7 (3) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Khlong Luang Scheme, Cropping Intensity; 130%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0	0	0.04	0.57	0.93	0.11	0.60	0.26	0.23	0.13	0.16	0.04
1969	0	0	0.05	0.60	0.75	0.18	0.71	0.23	0.23	0.22	0.23	0.03
1970	0	0	0.03	0.58	0.82	0.38	0.52	0.26	0.17	0.24	0.11	0.05
1971	0	0	0.04	0.72	0.33	0.22	0.36	0.27	0.23	0.24	0.19	0.05
1972	0	0	0.04	0.74	1.20	0	0.52	0.19	0.22	0.24	0.23	0.06
1973	0	0	0.05	0.49	0.58	0.29	0.81	0.24	0.23	0.24	0.11	0.04
1974	0	0	0.05	0.50	0.75	0.46	0.07	0.22	0.23	0.19	0.15	0.06
1975	0	0	0.05	0.45	0.84	0.24	0.34	0.26	0.23	0.24	0.17	0.03
1976	0	0	0.05	0.43	1.38	0.56	0.25	0.26	0.23	0.24	0.20	0.05
1977	0	0	0.05	0.53	1.05	0.70	0.69	0.24	0.23	0.23	0.19	0.03
1978	0	0	0.05	0.54	1.22	0.08	0.77	0.27	0.23	0.23	0.19	0.07
1979	0	0	0.05	0.66	1.01	0.27	0.98	0.27	0.23	0.24	0.20	0.03
1980	0	0	0.04	0.61	0.88	0.46	0.65	0.25	0.23	0.24	0.21	0.06
1981	0	0	0.05	0.53	1.23	0.24	0.41	0.23	0.23	0.24	0.20	0.08

Table 7 (4) UNIT IRRIGATION DIVERSION REQUIREMENT

(Monthly, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 180%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.34	0.01	0.03	0.55	1.04	0.69	0.53	0.25	0.40	0.52	0.95	0.59
1969	0.28	0	0.04	0.51	0.76	0.33	0.26	0.22	0.43	0.67	0.44	0.69
1970	0.17	0	0.03	0.55	0.76	0.41	0.53	0.19	0.17	0.91	1.07	0.85
1971	0.26	0	0.04	0.62	0.74	0.27	0.32	0.28	0.35	0.91	1.15	0.92
1972	0.17	0.03	0.03	0.63	1.33	0.04	0.63	0.18	0.43	0.83	1.15	0.68
1973	0.30	0	0.03	0.57	0.88	0.21	0.33	0.20	0.39	0.91	0.98	0.84
1974	0.17	0	0.04	0.61	0.83	0.10	0.11	0.23	0.43	0.66	1.15	0.72
1975	0.28	0	0.04	0.56	0.86	0.43	0.09	0.24	0.43	0.91	0.91	0.80
1976	0.25	0	0.05	0.67	0.48	0.49	0.17	0.24	0.43	0.82	1.15	0.92
1977	0.27	0.01	0.04	0.37	1.13	0.49	0.34	0.27	0.43	0.66	0.65	0.96
1978	0.26	0.01	0.03	0.47	0.97	0.44	0.54	0.27	0.43	0.91	0.88	0.92
1979	0.25	0.02	0.03	0.60	1.35	0.34	0.60	0.28	0.41	0.91	1.15	0.71
1980	0.24	0.02	0.03	0.51	0.73	0.60	0.37	0.23	0.43	0.91	1.05	0.82
1981	0.26	0	0.03	0.60	0.76	0.41	0.42	0.13	0.43	0.81	1.15	0.63

Table 7 (5) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 150%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.16	0.01	0.03	0.55	1.04	0.69	0.53	0.25	0.35	0.26	0.50	0.25
1969	0.13	0	0.04	0.51	0.76	0.33	0.26	0.22	0.38	0.37	0.19	0.30
1970	0.07	0	0.03	0.55	0.76	0.41	0.53	0.19	0.13	0.54	0.58	0.39
1971	0.12	0	0.04	0.62	0.74	0.27	0.32	0.28	0.30	0.54	0.63	0.43
1972	0.07	0.03	0.03	0.63	1.33	0.04	0.63	0.18	0.38	0.48	0.63	0.30
1973	0.14	0	0.03	0.57	0.88	0.21	0.33	0.20	0.34	0.54	0.52	0.38
1974	0.07	0	0.04	0.61	0.83	0.10	0.11	0.23	0.38	0.36	0.63	0.32
1975	0.13	0	0.04	0.56	0.86	0.43	0.09	0.24	0.38	0.54	0.48	0.36
1976	0.11	0	0.05	0.67	0.48	0.49	0.17	0.24	0.38	0.48	0.63	0.43
1977	0.12	0.01	0.04	0.37	1.13	0.49	0.34	0.27	0.38	0.36	0.32	0.45
1978	0.12	0.01	0.03	0.47	0.97	0.44	0.54	0.27	0.38	0.54	0.46	0.43
1979	0.11	0.02	0.03	0.60	1.35	0.34	0.60	0.28	0.36	0.54	0.63	0.31
1980	0.11	0.02	0.03	0.51	0.73	0.60	0.37	0.23	0.38	0.54	0.57	0.37
1981	0.12	0	0.03	0.60	0.76	0.41	0.42	0.13	0.38	0.47	0.63	0.27

Table 7 (6) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 130%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.07	0.01	0.03	0.55	1.04	0.69	0.53	0.23	0.28	0.12	0.25	0.08
1969	0.06	0	0.04	0.51	0.76	0.33	0.26	0.21	0.31	0.19	0.06	0.10
1970	0.02	0	0.03	0.55	0.76	0.41	0.53	0.18	0.10	0.31	0.30	0.15
1971	0.05	0	0.04	0.62	0.74	0.27	0.32	0.26	0.24	0.31	0.33	0.17
1972	0.02	0.03	0.03	0.63	1.33	0.04	0.63	0.17	0.31	0.27	0.33	0.11
1973	0.06	0	0.03	0.57	0.88	0.21	0.33	0.19	0.28	0.31	0.26	0.14
1974	0.02	0	0.04	0.61	0.83	0.10	0.11	0.22	0.31	0.19	0.33	0.11
1975	0.06	0	0.04	0.56	0.86	0.43	0.09	0.22	0.31	0.31	0.24	0.13
1976	0.04	0	0.05	0.67	0.48	0.49	0.17	0.22	0.31	0.27	0.33	0.17
1977	0.05	0.01	0.04	0.37	1.13	0.49	0.34	0.25	0.31	0.19	0.14	0.18
1978	0.05	0.01	0.03	0.47	0.97	0.44	0.54	0.25	0.31	0.31	0.23	0.17
1979	0.04	0.02	0.03	0.60	1.35	0.34	0.60	0.26	0.29	0.31	0.33	0.11
1980	0.05	0.02	0.03	0.51	0.73	0.60	0.37	0.21	0.31	0.31	0.29	0.14
1981	0.05	0	0.03	0.60	0.76	0.41	0.42	0.12	0.31	0.26	0.33	0.09

Table 7 (7) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Existing Ban Khai Scheme, Cropping Intensity; 180%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.27	0	0.03	0.59	1.13	0.75	0.57	0.27	0.34	0.50	0.90	0.55
1969	0.22	0	0.05	0.55	0.82	0.35	0.28	0.22	0.37	0.63	0.42	0.64
1970	0.15	0	0.04	0.60	0.82	0.44	0.57	0.21	0.15	0.85	1.00	0.78
1971	0.21	0	0.05	0.67	0.80	0.29	0.34	0.30	0.31	0.85	1.08	0.85
1972	0.15	0	0.04	0.68	1.44	0.05	0.68	0.19	0.37	0.78	1.08	0.63
1973	0.24	0	0.04	0.61	0.95	0.22	0.36	0.21	0.33	0.85	0.93	0.78
1974	0.15	0	0.05	0.66	0.89	0.11	0.12	0.24	0.37	0.62	1.08	0.66
1975	0.22	0	0.05	0.60	0.93	0.47	0.09	0.26	0.37	0.85	0.86	0.74
1976	0.21	0	0.05	0.72	0.52	0.53	0.18	0.26	0.37	0.77	1.08	0.85
1977	0.22	0	0.05	0.40	1.22	0.53	0.37	0.29	0.37	0.62	0.62	0.88
1978	0.21	0	0.04	0.51	1.05	0.48	0.58	0.28	0.37	0.85	0.83	0.84
1979	0.21	0	0.04	0.61	1.46	0.37	0.65	0.30	0.35	0.85	1.08	0.66
1980	0.19	0	0.04	0.55	0.79	0.64	0.40	0.25	0.37	0.85	0.98	0.76
1981	0.21	0	0.04	0.65	0.82	0.44	0.45	0.14	0.37	0.76	1.08	0.58

Table 7 (8) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Existing Ban Khai Scheme, Cropping Intensity; 150%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0.09	0	0.03	0.59	1.13	0.75	0.57	0.27	0.29	0.24	0.45	0.21
1969	0.07	0	0.05	0.55	0.82	0.35	0.28	0.22	0.32	0.33	0.17	0.25
1970	0.05	0	0.04	0.60	0.82	0.44	0.57	0.21	0.11	0.48	0.51	0.32
1971	0.07	0	0.05	0.67	0.80	0.29	0.34	0.30	0.26	0.48	0.56	0.36
1972	0.05	0	0.04	0.68	1.44	0.05	0.68	0.19	0.32	0.43	0.56	0.25
1973	0.08	0	0.04	0.61	0.95	0.22	0.36	0.21	0.28	0.48	0.47	0.32
1974	0.05	0	0.05	0.66	0.89	0.11	0.12	0.24	0.32	0.32	0.56	0.26
1975	0.07	0	0.05	0.60	0.93	0.47	0.09	0.26	0.32	0.48	0.43	0.30
1976	0.07	0	0.05	0.72	0.52	0.53	0.18	0.26	0.32	0.43	0.56	0.36
1977	0.07	0	0.05	0.40	1.22	0.53	0.37	0.29	0.32	0.32	0.29	0.37
1978	0.07	0	0.04	0.51	1.05	0.48	0.58	0.28	0.32	0.48	0.41	0.35
1979	0.07	0	0.04	0.61	1.46	0.37	0.65	0.30	0.30	0.48	0.56	0.26
1980	0.06	0	0.04	0.55	0.79	0.64	0.40	0.25	0.32	0.48	0.50	0.31
1981	0.07	0	0.04	0.65	0.82	0.44	0.45	0.14	0.32	0.42	0.56	0.22

Table 7 (9) UNIT IRRIGATION DIVERSION REQUIREMENT
(Monthly, Existing Ban Khai Scheme, Cropping Intensity; 130%)

(Unit : lit/s/ha)

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	0	0	0.03	0.59	1.13	0.75	0.57	0.25	0.22	0.10	0.20	0.04
1969	0	0	0.05	0.55	0.82	0.35	0.28	0.21	0.25	0.15	0.04	0.05
1970	0	0	0.04	0.60	0.82	0.44	0.57	0.20	0.08	0.25	0.23	0.08
1971	0	0	0.05	0.67	0.80	0.29	0.34	0.28	0.20	0.25	0.26	0.10
1972	0	0	0.04	0.68	1.44	0.05	0.68	0.18	0.25	0.22	0.26	0.06
1973	0	0	0.04	0.61	0.95	0.22	0.36	0.20	0.22	0.25	0.21	0.08
1974	0	0	0.05	0.66	0.89	0.11	0.12	0.23	0.25	0.15	0.26	0.05
1975	0	0	0.05	0.60	0.93	0.47	0.09	0.24	0.25	0.25	0.19	0.07
1976	0	0	0.05	0.72	0.52	0.53	0.18	0.24	0.25	0.22	0.26	0.10
1977	0	0	0.05	0.40	1.22	0.53	0.37	0.27	0.25	0.15	0.11	0.10
1978	0	0	0.04	0.51	1.05	0.48	0.58	0.26	0.25	0.25	0.18	0.09
1979	0	0	0.04	0.61	1.46	0.37	0.65	0.28	0.23	0.25	0.26	0.06
1980	0	0	0.04	0.55	0.79	0.64	0.40	0.23	0.25	0.25	0.22	0.08
1981	0	0	0.04	0.65	0.82	0.44	0.45	0.13	0.25	0.21	0.26	0.04

Table 7(10) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Khlong Luang Scheme, Cropping Intensity; 150%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.12	0	0.01	0.29	0.72	1.03	0.54	0.38	0.31	0.26	0.18	0.41
	2	0.03	0	0.02	0.74	0.88	0	0.57	0.22	0.32	0.12	0.49	0.12
	3	0.02	0	0.11	0.35	1.27	0	0.56	0.26	0.34	0.50	0.39	0.13
1969	1	0.06	0	0.01	0.24	1.25	0.78	1.06	0.16	0.31	0.42	0.55	0.31
	2	0.04	0	0.03	0.72	0.45	0	0.33	0.22	0.32	0.34	0.49	0.22
	3	0.01	0	0.12	0.81	0.51	0.49	0.67	0.26	0.34	0.50	0.44	0.07
1970	1	0.07	0	0.01	0.12	0.90	0.68	0.83	0.43	0.15	0.42	0.55	0.38
	2	0.07	0	0.02	0.84	0.68	0.16	0.40	0.22	0.31	0.47	0.49	0.17
	3	0.02	0	0.09	1.02	0.88	0.31	0.35	0.23	0.31	0.50	0	0.18
1971	1	0.12	0	0.01	0.27	1.44	0.37	0.14	0.43	0.31	0.42	0.35	0.41
	2	0.04	0	0.02	0.80	0	0.19	0.57	0.22	0.32	0.47	0.49	0.29
	3	0.01	0	0.11	1.07	0	0.12	0.28	0.28	0.34	0.50	0.44	0.08
1972	1	0.02	0	0.01	0.28	1.26	0	0.64	0.16	0.27	0.42	0.55	0.40
	2	0.06	0	0.03	0.81	1.46	0.53	0.02	0.16	0.32	0.47	0.49	0.19
	3	0.02	0	0.10	1.10	0.90	0.31	0.69	0.26	0.34	0.50	0.39	0.17
1978	1	0.12	0	0.01	0.26	1.24	0.82	1.02	0.43	0.31	0.36	0.56	0.41
	2	0.06	0	0.02	0.62	1.46	0	0.82	0.22	0.32	0.45	0.44	0.32
	3	0.02	0	0.12	0.59	1.01	0.27	0.49	0.26	0.34	0.50	0.28	0.16
1979	1	0.12	0	0.01	0.27	1.09	0.74	1.25	0.43	0.31	0.42	0.56	0.32
	2	0.07	0	0.02	0.79	1.64	0.56	1.00	0.22	0.32	0.47	0.49	0.11
	3	0.01	0	0.12	0.77	0.35	0	0.69	0.26	0.34	0.50	0.28	0.12
1980	1	0.10	0	0.01	0.30	0.82	0.21	0.47	0.25	0.31	0.42	0.48	0.35
	2	0.04	0	0.02	0.69	1.28	0.84	0.93	0.22	0.32	0.47	0.49	0.29
	3	0.02	0	0.12	0.60	0.62	0.33	0.47	0.26	0.34	0.50	0.41	0.14
1981	1	0.09	0	0.01	0.23	1.04	0.50	0.10	0.27	0.31	0.42	0.55	0.41
	2	0.05	0	0.03	0.64	1.21	0	0.89	0.21	0.32	0.47	0.49	0.32
	3	0	0	0.13	0.64	1.52	0.67	0.20	0.23	0.34	0.50	0.32	0.20

Table 7(11) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Khlong Luang Scheme, Cropping Intensity; 140%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0	0	0.01	0.29	0.72	1.03	0.54	0.38	0.32	0.17	0.06	0.20
	2	0	0	0.02	0.74	0.88	0	0.57	0.23	0.33	0.34	0.32	0.01
	3	0	0	0.11	0.35	1.27	0	0.56	0.27	0.31	0.34	0.23	0.01
1969	1	0	0	0.01	0.24	1.25	0.78	1.06	0.16	0.32	0.32	0.35	0.14
	2	0	0	0.03	0.72	0.45	0	0.33	0.23	0.33	0.22	0.32	0.06
	3	0	0	0.12	0.81	0.51	0.49	0.67	0.27	0.31	0.34	0.26	0
1970	1	0	0	0.01	0.12	0.90	0.68	0.83	0.43	0.15	0.32	0.35	0.19
	2	0	0	0.02	0.84	0.68	0.16	0.40	0.23	0.32	0.34	0.32	0.03
	3	0	0	0.09	1.02	0.88	0.31	0.35	0.24	0.27	0.34	0	0.03
1971	1	0	0	0.01	0.27	1.44	0.37	0.14	0.43	0.32	0.32	0.19	0.20
	2	0	0	0.02	0.80	0	0.19	0.57	0.23	0.33	0.34	0.32	0.10
	3	0	0	0.11	1.07	0	0.12	0.28	0.27	0.31	0.34	0.26	0
1972	1	0	0	0.01	0.28	1.26	0	0.64	0.16	0.28	0.32	0.35	0.20
	2	0	0	0.03	0.81	1.46	0.53	0.02	0.16	0.33	0.34	0.32	0.05
	3	0	0	0.10	1.10	0.90	0.31	0.69	0.27	0.31	0.34	0.23	0.03
1978	1	0	0	0.01	0.26	1.24	0.82	1.02	0.43	0.32	0.27	0.35	0.20
	2	0	0	0.02	0.62	1.46	0	0.82	0.23	0.33	0.31	0.28	0.12
	3	0	0	0.12	0.59	1.01	0.27	0.49	0.28	0.31	0.34	0.14	0.03
1979	1	0	0	0.01	0.27	1.09	0.74	1.25	0.43	0.32	0.33	0.35	0.14
	2	0	0	0.02	0.79	1.64	0.56	1.00	0.23	0.33	0.34	0.32	0.01
	3	0	0	0.12	0.77	0.35	0	0.69	0.28	0.31	0.34	0.14	0.01
1980	1	0	0	0.01	0.30	0.82	0.21	0.47	0.25	0.32	0.33	0.30	0.16
	2	0	0	0.02	0.69	1.28	0.84	0.93	0.23	0.33	0.34	0.32	0.10
	3	0	0	0.12	0.60	0.62	0.33	0.47	0.28	0.31	0.34	0.24	0.01
1981	1	0	0	0.01	0.23	1.04	0.50	0.10	0.27	0.32	0.32	0.35	0.20
	2	0	0	0.03	0.64	1.21	0	0.89	0.22	0.33	0.34	0.32	0.11
	3	0	0	0.13	0.64	1.52	0.67	0.20	0.24	0.31	0.34	0.17	0.04

Table 7(12) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Khlong Luang Scheme, Cropping Intensity: 130%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0	0	0.01	0.29	0.72	1.03	0.54	0.38	0.23	0.12	0.04	0.14
	2	0	0	0.02	0.74	0.88	0	0.57	0.20	0.24	0.02	0.23	0.01
	3	0	0	0.11	0.35	1.27	0	0.56	0.20	0.23	0.25	0.16	0.01
1969	1	0	0	0.01	0.24	1.25	0.78	1.06	0.16	0.23	0.24	0.26	0.10
	2	0	0	0.03	0.72	0.45	0	0.33	0.20	0.24	0.16	0.23	0.04
	3	0	0	0.12	0.81	0.51	0.49	0.67	0.21	0.23	0.25	0.18	0
1970	1	0	0	0.01	0.12	0.90	0.68	0.83	0.43	0.11	0.24	0.26	0.13
	2	0	0	0.02	0.84	0.68	0.16	0.40	0.20	0.23	0.25	0.23	0.02
	3	0	0	0.09	1.02	0.88	0.31	0.35	0.18	0.21	0.25	0	0.02
1971	1	0	0	0.01	0.27	1.44	0.37	0.14	0.43	0.23	0.24	0.14	0.14
	2	0	0	0.02	0.80	0	0.19	0.57	0.20	0.24	0.25	0.23	0.07
	3	0	0	0.11	1.07	0	0.12	0.28	0.21	0.23	0.25	0.18	0
1972	1	0	0	0.01	0.28	1.26	0	0.64	0.16	0.20	0.24	0.26	0.14
	2	0	0	0.03	0.81	1.46	0.53	0.02	0.14	0.24	0.25	0.23	0.03
	3	0	0	0.10	1.10	0.90	0.31	0.69	0.21	0.23	0.25	0.16	0.02
1978	1	0	0	0.01	0.26	1.24	0.82	1.02	0.43	0.23	0.20	0.26	0.14
	2	0	0	0.02	0.62	1.46	0	0.82	0.20	0.24	0.23	0.20	0.08
	3	0	0	0.12	0.59	1.01	0.27	0.49	0.21	0.23	0.25	0.10	0.02
1979	1	0	0	0.01	0.27	1.09	0.74	1.25	0.43	0.23	0.24	0.26	0.10
	2	0	0	0.02	0.79	1.64	0.56	1.00	0.20	0.24	0.25	0.23	0.01
	3	0	0	0.12	0.77	0.35	0	0.69	0.21	0.23	0.25	0.10	0.01
1980	1	0	0	0.01	0.30	0.82	0.21	0.47	0.25	0.23	0.24	0.22	0.11
	2	0	0	0.02	0.69	1.28	0.84	0.93	0.20	0.24	0.25	0.23	0.07
	3	0	0	0.12	0.60	0.62	0.33	0.47	0.21	0.23	0.25	0.17	0.01
1981	1	0	0	0.01	0.23	1.04	0.50	0.10	0.27	0.23	0.24	0.26	0.14
	2	0	0	0.03	0.64	1.21	0	0.89	0.19	0.24	0.25	0.23	0.08
	3	0	0	0.13	0.64	1.52	0.67	0.20	0.18	0.23	0.25	0.12	0.03

Table 7(13) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 180%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.53	0	0	0.17	0.94	1.21	0.29	0.31	0.30	0.26	0.68	1.13
	2	0.35	0.03	0.02	0.62	0.80	0.39	0.63	0.19	0.39	0.46	1.10	0
	3	0.16	0	0.06	0.97	1.44	0.48	0.51	0.25	0.52	0.90	0.95	0.75
1969	1	0.34	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.38	0.78	0.88	1.13
	2	0.28	0.02	0.02	0.41	0.65	0	0.78	0.21	0.39	0.47	0	1.01
	3	0.16	0	0.10	0.96	0.72	0.84	0	0.25	0.52	0.75	1.06	0.22
1970	1	0.28	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.16	0.78	1.23	1.07
	2	0.11	0	0.02	0.76	1.05	0	0.49	0.19	0.03	0.92	1.10	0.94
	3	0.09	0	0.08	0.66	1.08	0.61	0.57	0.10	0.34	1.04	0.79	0.60
1976	1	0.42	0	0.01	0.24	1.00	0.20	0.98	0.21	0.38	0.75	1.23	0.99
	2	0.31	0	0.02	0.74	0.90	0.04	0	0.21	0.39	0.92	1.10	1.01
	3	0.06	0	0.12	1.04	0	1.26	0.14	0.25	0.52	0.80	0.95	0.75
1977	1	0.21	0	0.01	0.12	1.07	0.79	0.14	0.34	0.38	0.36	0.79	1.13
	2	0.33	0.02	0.02	0.67	1.42	1.06	0	0.21	0.39	0.92	0.89	1.01
	3	0.16	0	0.12	0.29	0.96	0	0.62	0.25	0.52	0.73	0.22	0.75
1978	1	0.52	0.06	0.01	0.17	0.70	1.03	0.40	0.35	0.37	0.78	1.23	1.13
	2	0.13	0	0.02	0.65	1.02	0	0.78	0.20	0.40	0.93	0.33	1.00
	3	0.14	0	0.04	0.63	1.31	0.86	0.36	0.25	0.52	1.04	1.07	0.68
1979	1	0.47	0.03	0.01	0.23	1.30	1.03	0.94	0.40	0.32	0.78	1.23	1.13
	2	0.13	0.03	0.02	0.82	1.52	0.18	0.92	0.21	0.40	0.93	1.09	0.63
	3	0.14	0	0.08	0.60	1.26	0	0.13	0.25	0.52	1.04	1.07	0.51
1980	1	0.52	0.04	0.01	0.27	1.05	0.50	0.77	0.21	0.37	0.78	1.03	0.64
	2	0.04	0.03	0.02	0.84	0.49	0.74	0.39	0.21	0.40	0.93	1.08	0.98
	3	0.16	0	0.12	0.12	0.62	0.56	0.09	0.23	0.52	1.04	1.01	0.75
1981	1	0.53	0	0.01	0.27	0.26	0.90	0.69	0.08	0.38	0.74	1.23	1.13
	2	0.21	0	0.02	0.65	0.73	0.04	0.13	0.10	0.39	0.67	1.10	1.01
	3	0.11	0	0.08	0.78	1.44	0.31	0.39	0.18	0.52	1.04	1.06	0.10

Table 7(14) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 170%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.43	0	0	0.17	0.94	1.21	0.29	0.31	0.30	0.20	0.56	0.94
	2	0.29	0.03	0.02	0.62	0.80	0.40	0.63	0.19	0.39	0.38	0.94	0
	3	0.15	0	0.06	0.97	1.44	0.49	0.51	0.25	0.48	0.76	0.80	0.61
1969	1	0.27	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.37	0.68	0.74	0.94
	2	0.23	0.02	0.03	0.42	0.65	0	0.78	0.21	0.39	0.39	0	0.83
	3	0.15	0	0.10	0.96	0.72	0.85	0	0.25	0.48	0.63	0.90	0.17
1970	1	0.22	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.16	0.68	1.04	0.89
	2	0.09	0	0.02	0.76	1.05	0	0.49	0.20	0.02	0.80	0.94	0.77
	3	0.08	0	0.08	0.67	1.08	0.61	0.57	0.10	0.31	0.89	0.66	0.48
1976	1	0.34	0	0.01	0.24	1.00	0.20	0.98	0.21	0.37	0.66	1.04	0.82
	2	0.25	0	0.03	0.75	0.90	0.04	0	0.21	0.39	0.80	0.94	0.83
	3	0.05	0	0.12	1.04	0	1.26	0.14	0.25	0.48	0.68	0.80	0.61
1977	1	0.17	0	0.01	0.12	1.07	0.79	0.14	0.34	0.37	0.29	0.66	0.94
	2	0.27	0.02	0.02	0.68	1.42	1.06	0	0.21	0.39	0.80	0.76	0.83
	3	0.15	0	0.12	0.29	0.97	0	0.62	0.25	0.48	0.62	0.17	0.61
1978	1	0.43	0.06	0.01	0.17	0.69	1.03	0.42	0.35	0.37	0.68	1.04	0.94
	2	0.10	0	0.02	0.62	1.02	0	0.79	0.19	0.39	0.80	0.27	0.83
	3	0.13	0	0.12	0.64	1.31	0.86	0.36	0.25	0.48	0.89	0.90	0.54
1979	1	0.38	0.03	0.01	0.23	1.30	1.03	0.95	0.40	0.32	0.68	1.04	0.94
	2	0.10	0.02	0.02	0.78	1.52	0.18	0.92	0.21	0.39	0.80	0.94	0.51
	3	0.13	0	0.08	0.60	1.26	0	0.14	0.25	0.48	0.89	0.90	0.37
1980	1	0.43	0.04	0.01	0.26	1.04	0.50	0.77	0.22	0.37	0.68	0.87	0.51
	2	0.03	0.02	0.02	0.79	0.50	0.74	0.38	0.20	0.39	0.80	0.92	0.81
	3	0.14	0	0.11	0.12	0.62	0.56	0.09	0.23	0.48	0.89	0.76	0.61
1981	1	0.43	0	0.01	0.27	0.26	0.90	0.69	0.08	0.37	0.64	1.04	0.94
	2	0.17	0	0.02	0.65	0.73	0.04	0.14	0.10	0.39	0.56	0.94	0.83
	3	0.09	0	0.08	0.78	1.44	0.31	0.39	0.18	0.48	0.89	0.90	0.08

Table 7(15) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 160%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.33	0	0	0.17	0.94	1.21	0.29	0.31	0.30	0.14	0.44	0.76
	2	0.23	0.03	0.02	0.62	0.80	0.40	0.63	0.19	0.38	0.30	0.78	0
	3	0.13	0	0.06	0.97	1.44	0.49	0.51	0.25	0.44	0.63	0.66	0.47
1969	1	0.20	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.37	0.59	0.59	0.76
	2	0.18	0.02	0.03	0.42	0.65	0	0.78	0.21	0.38	0.31	0	0.65
	3	0.13	0	0.10	0.96	0.72	0.85	0	0.25	0.44	0.51	0.74	0.12
1970	1	0.16	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.16	0.59	0.85	0.71
	2	0.07	0	0.02	0.76	1.05	0	0.49	0.20	0.02	0.67	0.78	0.60
	3	0.07	0	0.08	0.66	1.08	0.61	0.57	0.10	0.27	0.74	0.53	0.36
1976	1	0.26	0	0.01	0.24	1.00	0.20	0.98	0.21	0.37	0.56	0.85	0.65
	2	0.20	0	0.03	0.75	0.90	0.04	0	0.21	0.38	0.67	0.78	0.65
	3	0.04	0	0.12	1.04	0	1.26	0.14	0.25	0.44	0.55	0.66	0.47
1977	1	0.12	0	0.01	0.12	1.07	0.79	0.14	0.34	0.37	0.22	0.53	0.76
	2	0.21	0.02	0.02	0.68	1.42	1.06	0	0.21	0.38	0.67	0.62	0.65
	3	0.13	0	0.12	0.29	0.97	0	0.62	0.25	0.44	0.50	0.12	0.47
1978	1	0.33	0.06	0.01	0.17	0.69	1.03	0.42	0.35	0.37	0.59	0.85	0.76
	2	0.08	0	0.02	0.62	1.02	0	0.79	0.19	0.38	0.67	0.20	0.65
	3	0.11	0	0.12	0.64	1.31	0.86	0.36	0.25	0.44	0.74	0.74	0.41
1979	1	0.29	0.03	0.01	0.23	1.30	1.03	0.95	0.40	0.32	0.59	0.85	0.76
	2	0.08	0.02	0.02	0.78	1.52	0.18	0.92	0.21	0.38	0.67	0.78	0.38
	3	0.11	0	0.08	0.60	1.26	0	0.14	0.25	0.44	0.74	0.74	0.28
1980	1	0.33	0.04	0.01	0.26	1.04	0.50	0.77	0.22	0.37	0.59	0.71	0.39
	2	0.02	0.02	0.02	0.79	0.50	0.74	0.38	0.20	0.38	0.67	0.76	0.63
	3	0.12	0	0.11	0.12	0.62	0.56	0.09	0.23	0.44	0.74	0.62	0.47
1981	1	0.33	0	0.01	0.27	0.26	0.90	0.69	0.08	0.37	0.55	0.85	0.76
	2	0.13	0	0.02	0.65	0.73	0.04	0.14	0.10	0.38	0.46	0.78	0.65
	3	0.08	0	0.08	0.78	1.44	0.31	0.39	0.18	0.44	0.74	0.74	0.06

Table 7(16) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 150%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.22	0	0	0.17	0.94	1.21	0.29	0.31	0.29	0.09	0.32	0.57
	2	0.17	0.03	0.02	0.62	0.80	0.39	0.63	0.19	0.38	0.22	0.61	0
	3	0.11	0	0.06	0.97	1.44	0.48	0.51	0.25	0.40	0.49	0.51	0.32
1969	1	0.14	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.36	0.49	0.45	0.57
	2	0.13	0.02	0.02	0.41	0.65	0	0.78	0.21	0.38	0.22	0	0.46
	3	0.11	0	0.10	0.96	0.72	0.84	0	0.25	0.40	0.39	0.58	0.07
1970	1	0.11	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.15	0.49	0.67	0.53
	2	0.04	0	0.02	0.76	1.05	0	0.49	0.19	0.01	0.55	0.61	0.43
	3	0.05	0	0.08	0.66	1.08	0.61	0.57	0.10	0.24	0.59	0.40	0.24
1976	1	0.18	0	0.01	0.24	1.00	0.20	0.98	0.21	0.36	0.47	0.66	0.49
	2	0.14	0	0.02	0.74	0.90	0.04	0	0.21	0.38	0.55	0.61	0.46
	3	0.03	0	0.12	1.04	0	1.26	0.14	0.25	0.40	0.43	0.51	0.32
1977	1	0.08	0	0.01	0.12	1.07	0.79	0.14	0.34	0.36	0.15	0.39	0.57
	2	0.16	0.02	0.02	0.67	1.42	1.06	0	0.21	0.38	0.55	0.49	0.46
	3	0.11	0	0.12	0.29	0.96	0	0.62	0.25	0.40	0.38	0.07	0.32
1978	1	0.22	0.06	0.01	0.17	0.70	1.03	0.40	0.35	0.36	0.49	0.67	0.57
	2	0.05	0	0.02	0.65	1.02	0	0.78	0.20	0.38	0.55	0.13	0.46
	3	0.09	0	0.04	0.63	1.31	0.86	0.36	0.25	0.40	0.59	0.58	0.29
1979	1	0.20	0.03	0.01	0.23	1.30	1.03	0.94	0.40	0.31	0.49	0.67	0.57
	2	0.05	0.03	0.02	0.82	1.52	0.18	0.92	0.21	0.38	0.55	0.61	0.26
	3	0.09	0	0.08	0.60	1.26	0	0.13	0.25	0.40	0.59	0.58	0.20
1980	1	0.22	0.04	0.01	0.27	1.05	0.50	0.77	0.21	0.36	0.49	0.54	0.27
	2	0.01	0.03	0.02	0.84	0.49	0.74	0.39	0.21	0.38	0.55	0.60	0.45
	3	0.10	0	0.12	0.12	0.62	0.56	0.09	0.23	0.40	0.59	0.54	0.32
1981	1	0.22	0	0.01	0.27	0.26	0.90	0.69	0.08	0.36	0.45	0.67	0.57
	2	0.09	0	0.02	0.65	0.73	0.04	0.13	0.10	0.38	0.36	0.61	0.46
	3	0.06	0	0.08	0.78	1.44	0.31	0.39	0.18	0.40	0.59	0.58	0.03

Table 7(17) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 130%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.16	0	0.01	0.17	0.94	1.21	0.29	0.31	0.20	0.05	0.19	0.36
	2	0.12	0.03	0.02	0.62	0.80	0.40	0.63	0.15	0.26	0.13	0.39	0
	3	0.09	0	0.06	0.97	1.44	0.49	0.51	0.16	0.28	0.31	0.32	0.21
1969	1	0.09	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.25	0.32	0.28	0.36
	2	0.10	0.02	0.03	0.42	0.65	0	0.78	0.17	0.26	0.13	0	0.30
	3	0.09	0	0.10	0.96	0.72	0.85	0	0.16	0.28	0.24	0.36	0.04
1970	1	0.07	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.10	0.32	0.42	0.34
	2	0.03	0	0.02	0.76	1.05	0	0.49	0.16	0.01	0.35	0.39	0.27
	3	0.05	0	0.08	0.66	1.08	0.61	0.57	0.06	0.16	0.37	0.25	0.16
1976	1	0.12	0	0.01	0.24	1.00	0.20	0.98	0.21	0.25	0.30	0.42	0.31
	2	0.11	0	0.03	0.75	0.90	0.04	0	0.17	0.26	0.35	0.39	0.30
	3	0.03	0	0.12	1.04	0	1.26	0.14	0.16	0.28	0.26	0.32	0.21
1977	1	0.05	0	0.01	0.12	1.07	0.79	0.14	0.34	0.25	0.09	0.24	0.36
	2	0.12	0.02	0.02	0.68	1.42	1.06	0	0.17	0.26	0.35	0.30	0.30
	3	0.09	0	0.12	0.29	0.37	0	0.62	0.16	0.28	0.23	0.04	0.21
1978	1	0.16	0.06	0.01	0.17	0.69	1.03	0.42	0.35	0.25	0.32	0.42	0.36
	2	0.03	0	0.02	0.62	1.02	0	0.79	0.16	0.26	0.35	0.08	0.30
	3	0.08	0	0.12	0.64	1.31	0.86	0.36	0.16	0.28	0.37	0.36	0.19
1979	1	0.14	0.03	0.01	0.23	1.30	1.03	0.95	0.40	0.21	0.32	0.42	0.36
	2	0.03	0.02	0.02	0.78	1.52	0.18	0.92	0.17	0.26	0.35	0.39	0.16
	3	0.08	0	0.08	0.60	1.26	0	0.14	0.16	0.28	0.37	0.36	0.12
1980	1	0.16	0.04	0.01	0.26	1.04	0.50	0.77	0.22	0.25	0.32	0.33	0.17
	2	0.01	0.02	0.02	0.79	0.50	0.74	0.38	0.17	0.26	0.35	0.38	0.29
	3	0.09	0	0.11	0.12	0.62	0.56	0.09	0.15	0.28	0.37	0.30	0.21
1981	1	0.16	0	0.01	0.27	0.26	0.90	0.69	0.08	0.25	0.29	0.42	0.36
	2	0.07	0	0.02	0.65	0.73	0.04	0.14	0.07	0.26	0.22	0.39	0.30
	3	0.06	0	0.08	0.78	1.44	0.31	0.39	0.12	0.28	0.37	0.36	0.02

Table 7(18) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Extension and Thap Ma Schemes, Cropping Intensity; 140%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.19	0	0.01	0.17	0.94	1.21	0.29	0.31	0.24	0.07	0.25	0.46
	2	0.15	0.03	0.02	0.62	0.80	0.40	0.63	0.17	0.32	0.17	0.50	0
	3	0.10	0	0.06	0.97	1.44	0.49	0.51	0.21	0.34	0.40	0.42	0.27
1969	1	0.11	0.03	0.01	0.20	0.91	0.50	0.18	0.04	0.30	0.40	0.36	0.46
	2	0.11	0.02	0.03	0.42	0.65	0	0.78	0.19	0.32	0.18	0	0.38
	3	0.10	0	0.10	0.96	0.72	0.85	0	0.21	0.34	0.32	0.47	0.06
1970	1	0.09	0.03	0.01	0.20	0.30	0.97	0.34	0.34	0.12	0.40	0.54	0.44
	2	0.04	0	0.02	0.76	1.05	0	0.49	0.18	0.02	0.45	0.50	0.35
	3	0.05	0	0.08	0.66	1.08	0.61	0.57	0.08	0.20	0.48	0.33	0.20
1976	1	0.15	0	0.01	0.24	1.00	0.20	0.98	0.21	0.30	0.38	0.54	0.40
	2	0.13	0	0.03	0.75	0.90	0.04	0	0.19	0.32	0.45	0.50	0.38
	3	0.03	0	0.12	1.04	0	1.26	0.14	0.21	0.34	0.34	0.42	0.27
1977	1	0.06	0	0.01	0.12	1.07	0.79	0.14	0.34	0.30	0.12	0.32	0.46
	2	0.14	0.02	0.02	0.68	1.42	1.06	0	0.19	0.32	0.45	0.40	0.38
	3	0.10	0	0.12	0.29	0.97	0	0.62	0.21	0.34	0.31	0.05	0.27
1978	1	0.19	0.06	0.01	0.17	0.69	1.03	0.42	0.35	0.30	0.40	0.54	0.46
	2	0.04	0	0.02	0.62	1.02	0	0.79	0.17	0.32	0.45	0.11	0.38
	3	0.09	0	0.12	0.64	1.31	0.86	0.36	0.21	0.34	0.48	0.47	0.24
1979	1	0.17	0.03	0.01	0.23	1.30	1.03	0.95	0.40	0.26	0.40	0.54	0.46
	2	0.04	0.02	0.02	0.78	1.52	0.18	0.92	0.19	0.32	0.45	0.50	0.21
	3	0.08	0	0.08	0.60	1.26	0	0.14	0.21	0.34	0.48	0.47	0.15
1980	1	0.19	0.04	0.01	0.26	1.04	0.50	0.77	0.22	0.30	0.40	0.44	0.22
	2	0.01	0.02	0.02	0.79	0.50	0.74	0.38	0.18	0.32	0.45	0.49	0.37
	3	0.10	0	0.11	0.12	0.62	0.56	0.09	0.19	0.34	0.48	0.39	0.27
1981	1	0.19	0	0.01	0.27	0.26	0.90	0.69	0.08	0.30	0.37	0.54	0.46
	2	0.08	0	0.02	0.65	0.73	0.04	0.14	0.09	0.32	0.29	0.50	0.38
	3	0.06	0	0.08	0.78	1.44	0.31	0.39	0.15	0.34	0.48	0.47	0.03

Table 7(19) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Existing Irrigation Scheme, Cropping Intensity; 150%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.15	0	0	0.18	1.01	1.30	0.31	0.33	0.25	0.09	0.29	0.49
	2	0.09	0	0.02	0.67	0.86	0.43	0.68	0.19	0.31	0.20	0.54	0
	3	0.03	0	0.06	0.96	1.56	0.52	0.55	0.25	0.34	0.44	0.45	0.25
1969	1	0.10	0	0.01	0.22	0.98	0.54	0.19	0.05	0.30	0.43	0.41	0.49
	2	0.07	0	0.03	0.49	0.70	0	0.84	0.22	0.31	0.20	0	0.38
	3	0.03	0	0.11	1.04	0.78	0.91	0	0.25	0.34	0.36	0.51	0.07
1970	1	0.08	0	0.01	0.22	0.32	1.05	0.36	0.37	0.14	0.43	0.60	0.46
	2	0.03	0	0.03	0.82	1.14	0	0.53	0.20	0.02	0.48	0.54	0.35
	3	0.02	0	0.09	0.72	1.17	0.67	0.62	0.10	0.20	0.53	0.36	0.19
1976	1	0.19	0	0.01	0.26	1.08	0.21	1.06	0.22	0.30	0.41	0.60	0.42
	2	0.08	0	0.03	0.80	0.97	0.04	0	0.22	0.31	0.48	0.54	0.38
	3	0.01	0	0.13	1.13	0	1.36	0.15	0.25	0.34	0.39	0.45	0.25
1977	1	0.06	0	0.01	0.13	1.16	0.85	0.16	0.37	0.30	0.14	0.36	0.49
	2	0.08	0	0.02	0.73	1.53	1.15	0	0.22	0.31	0.48	0.43	0.38
	3	0.03	0	0.13	0.31	1.04	0	0.67	0.25	0.34	0.35	0.07	0.25
1978	1	0.15	0	0.01	0.18	0.76	1.11	0.43	0.38	0.30	0.43	0.60	0.49
	2	0.04	0	0.02	0.65	1.10	0	0.84	0.21	0.31	0.49	0.12	0.38
	3	0.03	0	0.13	0.68	1.42	0.93	0.39	0.25	0.34	0.52	0.51	0.22
1979	1	0.13	0	0.01	0.25	1.41	1.11	1.02	0.43	0.26	0.43	0.60	0.49
	2	0.04	0	0.02	0.82	1.64	0.18	0.99	0.22	0.31	0.49	0.54	0.22
	3	0.03	0	0.09	0.65	1.36	0	0.14	0.25	0.34	0.52	0.51	0.16
1980	1	0.15	0	0.01	0.29	1.14	0.54	0.83	0.23	0.30	0.43	0.49	0.23
	2	0.01	0	0.02	0.84	0.53	0.80	0.42	0.22	0.31	0.49	0.53	0.37
	3	0.03	0	0.12	0.13	0.67	0.61	0.10	0.22	0.34	0.52	0.48	0.25
1981	1	0.15	0	0.01	0.29	0.28	0.97	0.75	0.08	0.30	0.40	0.60	0.49
	2	0.06	0	0.03	0.70	0.79	0.40	0.15	0.10	0.31	0.32	0.54	0.38
	3	0.02	0	0.08	0.84	1.56	0.33	0.42	0.18	0.34	0.53	0.51	0.03

Table 7(20) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Existing Irrigation Scheme, Cropping Intensity; 140%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.11	0	0.01	0.18	1.01	1.30	0.31	0.33	0.20	0.07	0.23	0.39
	2	0.07	0	0.03	0.67	0.86	0.43	0.68	0.18	0.25	0.16	0.43	0
	3	0.02	0	0.06	1.05	1.56	0.53	0.55	0.21	0.27	0.35	0.36	0.19
1969	1	0.08	0	0.01	0.22	0.98	0.54	0.19	0.05	0.24	0.34	0.32	0.39
	2	0.06	0	0.03	0.45	0.70	0	0.84	0.20	0.25	0.16	0	0.30
	3	0.02	0	0.11	1.04	0.78	0.91	0	0.21	0.27	0.28	0.40	0.06
1970	1	0.06	0	0.01	0.22	0.32	1.05	0.36	0.37	0.11	0.34	0.47	0.36
	2	0.03	0	0.03	0.82	1.14	0	0.53	0.19	0.02	0.38	0.43	0.28
	3	0.01	0	0.09	0.72	1.17	0.66	0.62	0.08	0.16	0.42	0.28	0.15
1976	1	0.09	0	0.01	0.26	1.09	0.21	1.06	0.23	0.24	0.32	0.47	0.33
	2	0.06	0	0.03	0.81	0.97	0.04	0	0.20	0.25	0.38	0.43	0.30
	3	0.01	0	0.13	1.13	0	1.36	0.15	0.21	0.27	0.30	0.36	0.19
1977	1	0.05	0	0.01	0.13	1.16	0.86	0.16	0.37	0.24	0.11	0.28	0.39
	2	0.06	0	0.02	0.73	1.53	1.15	0	0.20	0.25	0.38	0.34	0.30
	3	0.02	0	0.13	0.31	1.04	0	0.67	0.21	0.27	0.27	0.05	0.19
1978	1	0.11	0	0.01	0.18	0.75	1.11	0.45	0.38	0.24	0.34	0.47	0.39
	2	0.03	0	0.02	0.67	1.10	0	0.85	0.18	0.25	0.38	0.10	0.30
	3	0.02	0	0.13	0.69	1.41	0.93	0.39	0.21	0.27	0.42	0.40	0.17
1979	1	0.10	0	0.01	0.25	1.41	1.11	1.03	0.43	0.21	0.34	0.47	0.39
	2	0.03	0	0.02	0.34	1.64	0.19	1.00	0.20	0.25	0.38	0.43	0.17
	3	0.02	0	0.09	0.65	1.36	0	0.15	0.21	0.27	0.42	0.40	0.11
1980	1	0.11	0	0.01	0.28	1.13	0.54	0.83	0.24	0.24	0.34	0.39	0.18
	2	0.01	0	0.02	0.86	0.54	0.80	0.42	0.19	0.25	0.38	0.42	0.29
	3	0.02	0	0.12	0.13	0.67	0.60	0.10	0.19	0.27	0.42	0.33	0.19
1981	1	0.11	0	0.01	0.29	0.28	0.97	0.75	0.09	0.24	0.32	0.47	0.39
	2	0.04	0	0.03	0.70	0.79	0.04	0.15	0.09	0.25	0.26	0.43	0.30
	3	0.02	0	0.08	0.84	1.56	0.33	0.42	0.15	0.27	0.42	0.40	0.03

Table 7(21) UNIT IRRIGATION DIVERSION REQUIREMENT

(10 days, Ban Khai Existing Irrigation Scheme, Cropping Intensity; 130%)

(Unit: lit/s/ha)

YEAR	10-DAY ORDER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1968	1	0.08	0	0.01	0.18	1.01	1.30	0.31	0.33	0.15	0.05	0.16	0.28
	2	0.05	0	0.03	0.67	0.86	0.43	0.68	0.16	0.19	0.11	0.32	0
	3	0.02	0	0.06	1.05	1.56	0.53	0.55	0.17	0.21	0.26	0.26	0.14
1969	1	0.05	0	0.01	0.22	0.98	0.54	0.19	0.05	0.18	0.25	0.23	0.28
	2	0.04	0	0.03	0.45	0.70	0	0.84	0.18	0.19	0.11	0	0.22
	3	0.02	0	0.11	1.04	0.78	0.91	0	0.17	0.21	0.20	0.29	0.04
1970	1	0.04	0	0.01	0.22	0.32	1.05	0.36	0.37	0.09	0.25	0.35	0.26
	2	0.02	0	0.03	0.82	1.14	0	0.53	0.17	0.01	0.28	0.32	0.20
	3	0.01	0	0.09	0.72	1.17	0.66	0.62	0.06	0.13	0.31	0.20	0.10
1976	1	0.06	0	0.01	0.26	1.09	0.21	1.06	0.23	0.18	0.24	0.35	0.24
	2	0.04	0	0.03	0.81	0.97	0.04	0	0.18	0.19	0.28	0.32	0.22
	3	0.01	0	0.13	1.13	0	1.36	0.15	0.17	0.21	0.22	0.26	0.14
1977	1	0.04	0	0.01	0.13	1.16	0.86	0.16	0.37	0.18	0.08	0.20	0.28
	2	0.05	0	0.02	0.73	1.53	1.15	0	0.18	0.19	0.28	0.25	0.22
	3	0.02	0	0.13	0.31	1.04	0	0.67	0.17	0.21	0.20	0.04	0.14
1978	1	0.08	0	0.01	0.18	0.75	1.11	0.45	0.38	0.18	0.25	0.35	0.28
	2	0.02	0	0.02	0.67	1.10	0	0.85	0.17	0.19	0.28	0.07	0.22
	3	0.01	0	0.13	0.69	1.41	0.93	0.39	0.17	0.21	0.31	0.29	0.12
1979	1	0.07	0	0.01	0.25	1.41	1.11	1.03	0.43	0.16	0.25	0.35	0.28
	2	0.02	0	0.02	0.84	1.64	0.19	1.00	0.18	0.19	0.28	0.32	0.12
	3	0.01	0	0.09	0.65	1.36	0	0.15	0.17	0.21	0.31	0.29	0.08
1980	1	0.08	0	0.01	0.28	1.13	0.54	0.83	0.24	0.18	0.25	0.28	0.13
	2	0.01	0	0.02	0.86	0.54	0.80	0.42	0.18	0.19	0.28	0.31	0.21
	3	0.01	0	0.12	0.13	0.67	0.60	0.10	0.15	0.21	0.31	0.24	0.14
1981	1	0.08	0	0.01	0.29	0.28	0.97	0.75	0.09	0.18	0.23	0.35	0.28
	2	0.03	0	0.03	0.70	0.79	0.04	0.15	0.08	0.19	0.19	0.32	0.22
	3	0.01	0	0.08	0.84	1.56	0.33	0.42	0.12	0.21	0.31	0.29	0.02

Table 8 SALIENT FEATURES OF PROJECT FACILITIES FOR KHLONG LUANG IRRIGATION SCHEME

1.	Source of irrigation water	:	Khlong Luang reservoir
2.	Net irrigation area	:	6,600 ha
	- North area	:	3,100 ha
	- South area	:	3,500 ha
3.	Maximum diversion water requirement	:	10.24 m^3/s
4.	Intake structures		North / South
	Design intake capacity	:	4.81 m^3/s / 5.94 m^3/s /1
	Design high intake water level	:	Wl. 39.00 m / Wl. 39.00 m
	Design low intake water level	:	Wl. 33.80 m / Wl. 33.80 m
	No. of regulating gate	:	1 no. / 1 no.
	Size of outlet conduit	:	ø2.00 m / ø2.00 m
	Length of outlet conduit	:	54.00 m / 300.00 m
5.	Irrigation facilities		North / South
	- Main canals		
	Type of canal	:	trapezoidal concrete lined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	6.0 m (effective width: 5.0 m)
	Length	:	31.1 km / 21.8 km
	- Lateral and sub-lateral canals		
	Type of canal	:	trapezoidal unlined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	4.0 m (effective width: 3.0 m)
	Length	:	15 km / 19 km
	- Related structures		
	Culvert	:	6 nos. / 29 nos.
	Inverted siphon	:	2 nos. / 2 nos.
	Check structure	:	19 nos. / 31 nos.
	Drop structure	:	20 nos. / 34 nos.
	Turnout	:	7 nos. / 11 nos.
	Farm turnout	:	83 nos. / 92 nos.
	Spillway	:	14 nos. / 22 nos.
	Over chute	:	- / 9 nos.
	Crossdrain	:	7 nos. / 11 nos.
6.	Drainage facilities		
	- New drain, length	:	27 km
	- Improved drain, length	:	10 km
	- Related structures		
	Drainage culvert	:	9 nos.
	Drainage drop	:	36 nos.

/1: including the design discharge of 0.51 m^3/s for the domestic and industrial use.

Table 9(1) SALIENT FEATURES OF PROJECT FACILITIES FOR BAN KHAI EXTENSION IRRIGATION SCHEME

1.	Source of irrigation water	:	Nong Pla Lai reservoir and Khlong Yai reservoir
2.	Net irrigation area	:	7,700 ha
3.	Maximum diversion water requirement	:	11.09 m^3/s
4.	Intake facilities		
	(1) Nong Pla Lai headworks		
	- Fixed weir		
	Crest elevation	:	El. 25.56 m
	Length of fixed weir portion	:	60.00 m
	- Dike		
	Crest elevation	:	El. 28.00 m
	Length of dike portion	:	1,090.00 m
	- Movable weir		
	Length of weir portion	:	5.00 m
	Size of gate (B x H x no.)	:	3.00 x 4.00 m x 1 no.
	- Intake		
	Design intake water level	:	Wl. 25.46 m
	Design intake capacity	:	4.90 m^3/s
	Size of gate (B x H x no.)	:	2.50 x 2.00 m x 2 nos.
	(2) Khlong Yai headworks		
	- Fixed weir		
	Crest elevation	:	El. 25.10 m
	Length of fixed weir portion	:	95.00 m
	- Dike		
	Crest elevation	:	El. 27.50 m
	Length of dike portion	:	881.00 m
	- Movable weir		
	Length of weir portion	:	8.00 m
	Size of gate (B x H x no.)	:	3.00 x 4.40 m x 2 nos.
	- Intake		
	Design intake water level	:	Wl. 25.00 m
	Design intake capacity	:	11.09 m^3/s
	Size of gate (B x H x no.)	:	4.00 x 3.00 m x 2 nos.
	(3) Diversion channel		
	Type of canal	:	trapezoidal concrete lined
	Side slope of canal	:	1 : 1.5
	Length	:	1.8 km

Table 9(2) SALIENT FEATURES OF PROJECT FACILITIES FOR BAN KHAI EXTENSION IRRIGATION SCHEME

5. Irrigation facilities		
- Main canal		
Type of canal	:	trapezoidal concrete lined
Side slope of canal	:	1 : 1.5
Width of inspection road	:	6.0 m (effective width: 5.0 m)
Length	:	45.2 km
- Lateral and sub-lateral canals		
Type of canal	:	trapezoidal unlined
Side slope of canal	:	1 : 1.5
Width of inspection road	:	4.0 m (effective width: 3.0 m)
Length	:	123 km
- Related structures		
Culvert	:	28 nos.
Inverted syphon	:	-
Check structure	:	61 nos.
Drop structure	:	59 nos.
Turnout	:	35 nos.
Farm turnout	:	231 nos.
Spillway	:	43 nos
Over chute	:	24 nos.
Crossdrain	:	16 nos.
Bridge	:	6 nos.
6. Drainage facilities		
- New drain, length	:	81 km
- Improved drain, length	:	43 km
- Related structures		
Drainage culvert	:	14 nos.
Drainage drop	:	45 nos.

Table 10 SALIENT FEATURES OF PROJECT FACILITIES FOR BAN KHAI EXISTING IRRIGATION SCHEME

1.	Source of irrigation water	:	Nong Pla Lai reservoir
2.	Net irrigation area	:	4,800 ha
3.	Maximum diversion water requirement	:	7.49 m^3/s
4.	Intake facility (Ban Khai headworks)		Left / Right
	- Intake		
	Design intake water level	:	Wl. 8.87 m / Wl. 8.77 m
	Design intake capacity	:	3.78 m^3/s / 3.71 m^3/s
	Size of gate (B x H x no.)	:	1.50 x 2.00m x 2 nos. / 1.50 x 2.00m x 2 nos.
5.	Irrigation facilities		Left / Right
	- Main canals		
	Type of canal	:	trapezoidal concrete lined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	6.0 m (effective width: 5.0 m)
	Length	:	11.3 km / 10.8 km
	- Lateral and sub-lateral canals		
	Type of canal	:	trapezoidal unlined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	4.0 m (effective width: 3.0 m)
	Length	:	18 km / 30 km
	- Related structures		
	Culvert	:	2 nos. / 10 nos.
	Inverted syphon	:	- / -
	Check structure	:	8 nos. / 13 nos.
	Drop structure	:	6 nos. / 2 nos.
	Turnout	:	6 nos. / 6 nos.
	Farm turnout	:	62 nos. / 71 nos.
	Spillway	:	10 nos. / 10 nos.
	Over chute	:	10 nos. / 4 nos.
	Crossdrain	:	9 nos. / 7 nos.
	Bridge	:	15 nos. / 6 nos.
6.	Drainage facilities		
	- New drain, length	:	20 km
	- Improved drain, legnth	:	32 km
	- Related structures		
	Drainage culvert	:	2 nos.

Table 11 SALIENT FEATURES OF PROJECT FACILITIES FOR KHLONG THAP MA IRRIGATION SCHEME

1.	Source of irrigation water	:	Khlong Thap Ma reservoir
2.	Net irrigation area	:	2,400 ha
	- East area	:	1,250 ha
	- West area	:	1,150 ha
3.	Maximum diversion water requirement	:	3.46 m^3/s
4.	Intake structures		East / West
	Design intake capacity	:	1.80 m^3/s / 1.66 m^3/s
	Design high intake water level	:	Wl. 26.00 m / Wl. 26.00 m
	Design low intake water level	:	Wl. 16.20 m / Wl. 16.20 m
	No. of regulating gate	:	1 no. / 1 no.
	Size of outlet conduit	:	ø1.30 m / ø1.30 m
	Length of outlet conduit	:	100.0 m / 87.0 m
5.	Irrigation facilities		East / West
	- Main canals		
	Type of canal	:	trapezoidal concrete lined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	6.0 m (effective width: 5.0 m)
	Length	:	5.3 km / 11.3 km
	- Lateral and sub-lateral canals		
	Type of canal	:	trapezoidal unlined
	Side slope of canal	:	1 : 1.5
	Width of inspection road	:	4.0 m (effective width: 3.0 m)
	Length	:	17 km / 21 km
	- Related structures		
	Culvert	:	1 no. / 9 nos.
	Inverted syphon	:	- / -
	Check structure	:	9 nos. / 8 nos.
	Drop structure	:	12 nos. / 19 nos.
	Turnout	:	5 nos. / 7 nos.
	Farm turnout	:	35 nos. / 32 nos.
	Spillway	:	7 nos. / 12 nos.
	Over chute	:	3 nos. / 9 nos.
	Crossdrain	:	1 no. / 9 nos.
6.	Drainage facilities		
	- New drain, length	:	31 km
	- Improved drain, length	:	8 km
	- Related structures		
	Drainage culvert	:	10 nos.

Table 12 SUMMARY OF CONSTRUCTION COST FOR KHLONG LUANG IRRIGATION SCHEME (CONTRACT BASIS)

Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1. Direct Construction Cost			
1.1 Preparatory Works	52,800	8,000	44,800
1.2 Intake Structure			
- North intake structure	8,160	3,440	4,720
- South intake structure	19,740	5,260	14,480
1.3 Canal Construction			
- Main canal	180,200	51,200	129,000
- Lateral canal	45,900	15,200	30,700
- Drainage canal	13,600	4,400	9.200
1.4 Contractor's Administration Cost	11,210	3,060	8,150
1.5 Contractor's Profit	20,830	5,690	15,140
1.6 Tax	10,890	-	10,890
1.7 Land Acquisition	9,150	-	9,150
Sub-total	372,480	96,250	276,230
2. Engineering Services	47,230	33,060	14,170
3. O&M Equipment	23,540	21,800	1,740
4. Administration Cost of Executive Agency	18,160	-	18,160
Sub-total	461,410	151,110	310,300
5. Physical Contingency	69,220	22,680	46,540
Sub-total	530,630	173,790	356,840
6. Price Contingency	376,580	103,820	272,760
Grand Total	907,210	277,610	629,600

Table 13 SUMMARY OF CONSTRUCTION COST FOR BAN KHAI EXTENSION IRRIGATION SCHEME (CONTRACT BASIS)

Item	Total (10^3฿)	Foreign Currency (10^3฿)	Local Currency (10^3฿)
1. Direct Construction Cost			
1.1 Preparatory Works	66,000	11,800	54,200
1.2 Diversion Structure	96,100	33,600	62,500
1.3 Canal Construction			
- Main canal	220,100	62,400	157,700
- Lateral canal	60,200	18,000	42,200
- Drainage canal	14,200	4,400	9,800
1.4 Contractor's Administration Cost	15,980	4,560	11,420
1.5 Contractor's Profit	29,680	8,460	21,220
1.6 Tax	15,520	-	15,520
1.7 Land Acquisition	44,400	-	44,400
Sub-total	562,180	143,220	418,960
2. Engineering Services	67,310	47,120	20,190
3. O&M Equipment	26,060	24,130	1,930
4. Administration Cost of Executive Agency	25,890	-	25,890
Sub-total	681,440	214,470	466,970
5. Physical Contingency	102,220	32,170	70,050
Sub-total	783,660	246,640	537,020
6. Price Contingency	507,920	133,710	374,210
Grand Total	1,291,580	380,350	911,230

Table 14 SUMMARY OF CONSTRUCTION COST FOR BAN KHAI EXISTING IRRIGATION SCHEME (CONTRACT BASIS)

Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1. Direct Construction Cost			
1.1 Preparatory Works	23,400	3,100	20,300
1.2 Canal Construction			
- Main canal	79,800	16,600	63,200
- Lateral canal	37,500	12,100	25,400
- Drainage canal	6,600	2,600	4,000
1.3 Contractor's Administration Cost	5,150	1,200	3,950
1.4 Contractor's Profit	9,580	2,240	7,340
1.5 Tax	5,010	-	5,010
1.6 Land Acquisition	4,930	-	4,930
Sub-total	171,970	37,840	134,130
2. Engineering Services	21,720	15,200	6,520
3. O&M Equipment	19,690	18,230	1,460
4. Administration Cost of Executive Agency	8,350	-	8,350
Sub-total	221,730	71,270	150,460
5. Physical Contingency	33,260	10,690	22,570
Sub-total	254,990	81,960	173,030
6. Price Contingency	135,520	36,700	98,820
Grand Total	390,510	118,660	271,850

Table 15 SUMMARY OF CONSTRUCTION COST FOR KHLONG THAP MA IRRIGATION SCHEME (CONTRACT BASIS)

Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1. Direct Construction Cost			
1.1 Preparatory Works	22,000	3,100	18,900
1.2 Intake Structure	16,900	6,300	10,600
1.3 Canal Construction			
- Main canal	54,400	15,700	38,700
- Lateral canal	23,100	7,100	16,000
- Drainage canal	5,000	1,600	3,400
1.4 Contractor's Administration Cost	4,250	1,180	3,070
1.5 Contractor's Profit	7,890	2,200	5,690
1.6 Tax	4,130	-	4,130
1.7 Land Acquisition	11,090	-	11,090
Sub-total	148,760	37,180	111,580
2. Engineering Services	17,900	12,530	5,370
3. O&M Equipment	9,640	8,930	710
4. Administration Cost of Executive Agency	5,020	-	5,020
Sub-total	181,320	58,640	122,680
5. Physical Contingency	27,200	8,800	18,400
Sub-total	208,520	67,440	141,080
6. Price Contingency	106,860	29,560	77,300
Grand Total	315,380	97,000	218,380

Table 16 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR KHLONG LUANG IRRIGATION SCHEME (CONTRACT BASIS)

(Unit: 10^3 ฿)

Item	Total			1986		1987		1988		1989		1990		1991	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost															
- Preparatory Works	52,800	8,000	44,800	-	-	-	18,200	6,400	22,840	1,600	3,760	-	-	-	-
- Intake Structure	27,900	8,700	19,200	-	-	-	-	6,090	13,440	2,610	5,760	-	-	-	-
- Canal Construction	239,700	70,800	168,900	-	-	-	-	14,160	33,780	24,780	59,120	24,780	59,110	7,080	16,890
- Contractor's Administration Cost	11,210	3,060	8,150	-	-	-	640	930	2,450	1,010	2,400	870	2,070	250	590
- Contractor's Profit	20,830	5,690	15,140	-	-	-	1,190	1,730	4,550	1,890	4,460	1,610	3,840	460	1,100
- Tax	10,890	-	10,890	-	-	-	620	-	3,290	-	3,320	-	2,850	-	810
- Land Acquisition	9,150	-	9,150	-	-	-	2,750	-	3,650	-	2,750	-	-	-	-
Sub-total	372,480	96,250	276,230	-	-	-	23,400	29,310	84,000	31,890	81,570	27,260	67,870	7,790	19,390
2. Engineering Services	47,230	33,060	14,170	5,950	2,550	3,970	1,700	6,610	2,830	6,610	2,830	4,960	2,130	4,960	2,130
3. O&M Equipment	23,540	21,800	1,740	-	-	-	-	4,360	350	8,720	690	4,360	350	4,360	350
4. Administration Cost of Executive Agency	18,160	-	18,160	-	1,820	-	1,820	-	3,630	-	3,630	-	3,630	-	3,630
Sub-total	461,410	151,110	310,300	5,950	4,370	3,970	26,920	40,280	90,810	47,220	88,720	36,580	73,980	17,110	25,500
5. Physical Contingency	69,220	22,680	46,540	890	650	600	4,040	6,040	13,620	7,090	13,310	5,490	11,100	2,570	3,820
Sub-total	530,630	173,790	356,840	6,840	5,020	4,570	30,960	46,320	104,430	54,310	102,030	42,070	85,080	19,680	29,320
6. Price Cintingency	376,580	103,820	272,760	1,780	1,660	1,650	14,370	21,740	63,760	31,870	78,720	30,030	80,720	16,750	33,530
Grand Total	907,210	277,610	629,600	8,620	6,680	6,220	45,330	68,060	168,190	86,180	180,750	72,100	165,800	36,430	62,850

Table 17 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR BAN KHAI EXTENSION IRRIGATION SCHEME (CONTRACT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989		1990		1991	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost																	
- Preparatory Works	66,000	11,800	54,200	-	-	-	18,900	9,440	29,860	2,360	5,440	-	-	-	-	-	-
- Diversion Structure	96,100	33,600	62,500	-	-	-	-	8,400	15,630	16,800	31,240	8,400	15,630	-	-	-	-
- Canal Construction	294,500	84,800	209,700	-	-	-	-	-	-	16,960	41,940	29,680	73,400	29,680	73,390	8,480	20,970
- Contractor's Administration Cost	15,980	4,560	11,420	-	-	-	660	620	1,590	1,260	2,750	1,340	3,120	1,040	2,570	300	730
- Contractor's Profit	29,680	8,460	21,220	-	-	-	1,230	1,160	2,960	2,340	5,110	2,480	5,790	1,930	4,770	550	1,360
- Tax	14,610	-	15,520	-	-	-	640	-	2,150	-	3,900	-	4,320	-	3,510	-	1,000
- Land Acquisition	44,400	-	44,400	-	-	-	13,320	-	13,320	-	8,880	-	8,880	-	-	-	-
Sub-total	562,180	143,220	418,960	-	-	-	34,750	19,620	65,510	39,720	99,260	41,900	111,140	32,650	84,240	9,330	24,060
2. Engineering Services	67,310	47,120	20,190	8,480	3,630	5,650	2,420	7,070	3,030	9,420	4,040	7,070	3,030	5,650	2,420	3,780	1,620
3. O&M Equipment	26,060	24,130	1,930	-	-	-	-	4,830	390	7,230	570	4,830	390	4,830	390	2,410	190
4. Administration Cost of Executive Agency	25,890	-	25,890	-	2,590	-	2,590	-	5,180	-	5,180	-	5,180	-	2,590	-	2,580
Sub-total	681,440	214,470	466,970	8,480	6,220	5,650	39,760	31,520	74,110	56,370	109,050	53,800	119,740	43,130	89,640	15,520	28,450
5. Physical Contingency	102,220	32,170	70,050	1,270	930	850	5,960	4,730	11,120	8,460	16,360	8,070	17,960	6,470	13,450	2,320	4,270
Sub-total	783,660	246,640	537,020	9,750	7,150	6,500	45,720	36,250	85,230	64,830	125,410	61,870	137,700	49,600	103,090	17,840	32,720
6. Price Contingency	507,920	133,710	374,210	1,620	1,500	1,690	15,130	13,070	39,560	30,430	76,560	36,310	106,240	35,410	97,800	15,180	37,420
Grand Total	1,291,580	380,350	911,230	11,370	8,650	8,190	60,850	49,320	124,790	95,260	201,970	98,180	243,940	85,010	200,890	33,020	70,140

Table 18 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR BAN KHAI EXISTING IRRIGATION SCHEME (CONTRACT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost													
- Preparatory Works	23,400	3,100	20,300	-	-	-	7,700	2,480	10,740	620	1,860	-	-
- Canal Construction	123,900	31,300	92,600	-	-	-	-	9,390	27,780	12,520	37,040	9,390	27,780
- Contractor's Administration Cost	5,150	1,200	3,950	-	-	-	270	420	1,350	450	1,370	330	970
- Contractor's Profit	9,580	2,240	7,340	-	-	-	500	770	2,500	860	2,520	610	1,810
- Tax	5,010	-	5,010	-	-	-	260	-	1,720	-	1,770	-	1,260
- Land Acquisition	4,930	-	4,930	-	-	-	990	-	1,970	-	1,480	-	490
Sub-total	171,970	37,840	134,130	-	-	-	9,720	13,060	46,060	14,450	46,040	10,330	32,310
2. Engineering Services	21,720	15,200	6,520	3,040	1,300	2,280	980	3,040	1,300	3,800	1,630	3,040	1,310
3. O&M Equipment	19,690	18,230	1,460	-	-	-	-	5,470	440	7,290	580	5,470	440
4. Administration Cost of Executive Agency	8,350	-	8,350	-	840	-	1,670	-	2,500	-	1,670	-	1,670
Sub-total	221,730	71,270	150,460	3,040	2,140	2,280	12,370	21,570	50,300	25,540	49,920	18,840	35,730
5. Physical Contingency	33,260	10,690	22,570	460	320	340	1,860	3,230	7,540	3,830	7,490	2,830	5,360
Sub-total	254,990	81,960	173,030	3,500	2,460	2,620	14,230	24,800	57,840	29,370	57,410	21,670	41,090
6. Price Contingency	135,520	36,700	98,820	580	520	680	4,710	8,940	26,840	13,780	35,050	12,720	31,700
Grand Total	390,510	118,660	271,850	4,080	2,980	3,300	18,940	33,740	84,680	43,150	92,460	34,390	72,790

Table 19 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR KHLONG THAP MA IRRIGATION SCHEME (CONTRACT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost													
- Preparatory Works	22,000	3,100	18,900	-	-	-	8,400	2,480	9,120	620	1,380	-	-
- Intake Structure	16,900	6,300	10,600	-	-	-	-	4,410	7,420	1,890	3,180	-	-
- Canal Construction	82,500	24,400	58,100	-	-	-	-	7,320	17,430	9,760	23,240	7,320	17,430
- Contractor's Administration Cost	4,250	1,180	3,070	-	-	-	290	490	1,190	430	980	260	610
- Contractor's Profit	7,890	2,200	5,690	-	-	-	540	920	2,210	800	1,810	480	1,130
- Tax	4,130	-	4,130	-	-	-	280	-	1,640	-	1,370	-	840
- Land Acquisition	11,090	-	11,090	-	-	-	2,220	-	4,430	-	3,330	-	1,110
Sub-total	148,760	37,180	111,580	-	-	-	11,730	15,620	43,440	13,500	35,290	8,060	21,120
2. Engineering Services	17,900	12,530	5,370	2,510	1,070	1,880	810	2,510	1,070	3,120	1,350	2,510	1,070
3. O&M Equipment	9,640	8,930	710	-	-	-	-	2,680	210	3,570	290	2,680	210
4. Administration Cost of Executive Agency	5,020	-	5,020	-	500	-	1,000	-	1,520	-	1,000	-	1,000
Sub-total	181,320	58,640	122,680	2,510	1,570	1,880	13,540	20,810	46,240	20,190	37,930	13,250	23,400
5. Physical Contingency	27,200	8,800	18,400	380	240	280	2,030	3,120	6,940	3,030	5,690	1,990	3,500
Sub-total	208,520	67,440	141,080	2,890	1,810	2,160	15,570	23,930	53,180	23,220	43,620	15,240	26,900
6. Price Contingency	106,860	29,560	77,300	490	380	560	5,140	8,610	24,460	10,910	26,610	8,990	20,710
Grand Total	315,380	97,000	218,380	3,380	2,190	2,720	20,710	32,540	77,640	34,130	70,230	24,230	47,610

Table 20 UNIT PRICE FOR IRRIGATION SCHEME
(CONTRACT BASIS)

(Unit: ฿)

Work Item	Unit	Khlong Luang			Ban Khai Extension			Ban Khai Existing			Khlong Thap Ma		
		Total	F.C.	L.C.	Total	F.C.	L.C.	Total	F.C.	L.C.	Total	F.C.	L.C.
I. Earth Work													
1. Stripping	m^3	39.06	15.65	23.41	57.66	20.00	37.66	57.66	20.00	37.66	57.66	20.00	37.66
2. Excavation for Main Canal	m^3	49.36	19.85	29.51	54.69	21.76	32.93	47.35	18.93	28.42	54.78	21.80	32.98
3. Excavation for Lateral and Drainage Canal	m^3	39.93	16.21	23.72	37.55	15.15	22.40	37.55	15.15	22.40	39.82	16.03	23.79
4. Excavation for Structure	m^3	39.22	16.99	22.23	36.98	14.92	22.06	55.47	22.38	33.09	45.30	18.00	27.30
5. Excavation for Diversion Channel	m^3	-	-	-	50.05	20.27	29.78	-	-	-	-	-	-
6. Embankment for Main Canal	m^3	51.84	22.17	29.67	52.05	21.37	30.68	52.05	21.37	30.68	59.60	24.55	35.05
7. Embankment for Lateral Canal	m^3	42.38	18.54	23.84	42.71	17.77	24.94	42.71	17.77	24.94	48.58	20.30	28.28
8. Embankment for Headworks	m^3	-	-	-	55.58	22.90	32.68	-	-	-	-	-	-
9. Backfilling	m^3	47.96	19.86	28.10	45.23	18.91	26.32	45.23	18.91	26.32	45.63	18.88	26.75
10. Laterite Pavement	m^3	70.84	28.11	42.73	98.73	38.91	59.82	98.73	38.91	59.82	94.30	37.34	56.96
11. Sod facing	m^2	25.22	1.60	23.62	22.39	0.65	21.74	22.39	0.65	21.74	23.77	1.10	22.67
II. Concrete Work													
1. Reinforcement Concrete	m^3	3,429.47	627.20	2,802.27	3,482.87	717.69	2,765.18	3,482.87	717.69	2,765.18	3,241.71	557.88	2,683.83
2. Plain Concrete	m^3	2,959.67	627.20	2,332.47	2,911.01	602.19	2,308.82	2,911.01	602.19	2,308.82	2,776.15	557.88	2,218.27
3. Concrete Lining	m^3	2,453.90	472.76	1,981.14	2,911.01	602.19	2,308.82	2,911.01	602.19	2,308.82	2,776.15	557.88	2,218.27
III. Riprap	m^3	1,447.50	481.51	965.99	1,447.50	481.51	965.99	1,447.50	481.51	965.99	1,447.50	481.51	965.99
IV. Steel Work	ton	30,000.0	-	30,000.0	30,000.0	-	30,000.0	30,000.0	-	30,000.0	30,000.0	-	30,000.0
V. Concrete Pipe													
D300	m	566.38	134.89	431.49	566.38	134.89	431.49	566.38	134.89	431.49	566.38	134.89	431.49
D400	m	692.96	153.78	539.18	692.96	153.78	539.18	692.96	153.78	539.18	692.96	153.78	539.18
D500	m	818.65	171.67	646.98	818.65	171.67	646.98	818.65	171.67	646.98	818.65	171.67	646.98
D600	m	947.88	191.56	756.32	947.88	191.56	756.32	947.88	191.56	756.32	947.88	191.56	756.32
D700	m	1,075.37	210.45	864.92	1,075.37	210.45	864.92	1,075.37	210.45	864.92	1,075.37	210.45	864.92
D800	m	1,199.86	229.34	970.52	1,199.86	229.34	970.52	1,199.86	229.34	970.52	1,199.86	229.34	970.52
D900	m	1,326.57	248.22	1,078.35	1,326.57	248.22	1,078.35	1,326.57	248.22	1,078.35	1,326.57	248.22	1,078.35
D1,000	m	1,453.27	267.10	1,186.17	1,453.27	267.10	1,186.17	1,453.27	267.10	1,186.17	1,453.27	267.10	1,186.17

Table 21 LIST FOR MAJOR MATERIAL COST AND LABOUR WAGE

(Unit: ฿)

Item	Unit	Price
Material		
Concrete 50 kg/bag	bag	98.00
Sand	m^3	100.00
Crushed Aggregate	m^3	190.00
Ready-mixed Concrete 300 kg/m^3	ton	1,155.00
Ready-mixed Concrete 250 kg/m^3	ton	1,070.00
Steel Round Bars SR-24 ø19 mm	ton	7,550.00
Steel Deformed Bars SR-30 ø19 mm	ton	8,000.00
Steel Plate 4' x 8'	ton	7,700.00
Timber 4" x 4"	m^3	6,000.00
Plywood 4' x 8'	pc.	135.00
Diesaline	lit.	7.39
Gasoline, Regular	lit.	11.40
Gasoline, Super	lit.	13.45
Engine Oil	drum	4,889.00
Grease	drum	5,000.00
Sod	m^2	6.00
Labour		
General Foreman	month	8,000.00
Foreman	month	7,000.00
Operator	day	160.00
Lorry Driver	day	120.00
Car Driver	month	3,000.00
Mechanic	day	160.00
Welder	month	6,200.00
Carpenter	day	120.00
Steel Bender	day	80.00
Semi-skilled Labour	day	75.00
Labour	day	65.00
Clerk	month	4,500.00
Typist	month	3,500.00
Watchman	month	2,300.00

Table 22 BREAKDOWN OF DIRECT CONSTRUCTION COST OF OFFICE AND QUARTERS

Item	Khlong Luang		Ban Khai Extension		Ban Khai Existing		Khlong Thap Ma	
	Q'ty (m^2)	Amount (10^3฿)	Q'ty (m^2)	Amount (10^3฿)	Q'ty (m^2)	Amount (10^3฿)	Q'ty (m^2)	Amount (10^3฿)
1. Main Office	1,000	5,000	1,000	5,000	-	-	500	2,500
2. Branch Office	500	2,000	500	2,000	-	-	-	-
3. Repair Shop	600	1,500	600	1,500	500	1,250	500	1,250
4. Store House	3,000	6,000	3,000	6,000	2,000	4,000	1,000	2,000
5. Quarters	2,000	5,000	2,000	5,000	1,000	2,500	1,000	2,500
6. Motor Pool	8,000	2,800	10,000	3,500	5,000	1,750	5,000	1,750
7. Miscellaneous	L.S.	3,700	L.S.	4,000	L.S.	1,500	L.S.	2,000
Total		26,000		27,000		11,000		12,000

Note: The above construction costs of office and quarters are included in the preparatory works of the direct construction cost for each scheme.

Table 23 COST ESTIMATE OF LAND ACQUISITION

Item	Khlong Luang		Ban Khai Extension		Ban Khai Existing		Khlong Thap Ma	
	Q'ty (ha)	Amount (10^3฿)	Q'ty (ha)	Amount (10^3฿)	Q'ty (ha)	Amount (10^3฿)	Q'ty (ha)	Amount (10^3฿)
1. Intake Facility	-	-	113	5,311	-	-	-	-
2. Canal & Road								
- Main canal	105	5,250	102	11,424	-	-	30	3,360
- Lateral canal	41	2,050	123	13,776	24	2,690	38	4,258
- Drainage canal	37	1,850	124	13,889	20	2,240	31	3,472
Total		9,150		44,400		4,930		11,090

Table 24 PROCUREMENT COST OF MAJOR EQUIPMENT FOR OPERATION AND MAINTENANCE

(Unit: 10^3 Yen)

Equipment	Unit Price	Khlong Luang		Ban Khai Extension		Ban Khai Existing		Khlong Thap Ma	
		Required No.	Amount	Required No.	Amount	Required No.	Amount	Required No.	Amount
I. VEHICLE AND EQUIPMENT									
1. Backhoe, 0.3 m^3	12,360	2	24,720	2	24,720	2	24,720	1	12,360
2. Bulldozer, 11 ton	13,080	1	13,080	2	26,160	1	13,080	-	-
3. Wheel loader, 1.2 m^3	9,324	1	9,324	1	9,324	1	9,324	1	9,324
4. Motor grader, 9.5 ton	12,240	1	12,240	1	12,240	1	12,240	-	-
5. Water tanker, 5 m^3	5,880	2	11,760	2	11,760	1	5,880	1	5,880
6. Tire roller, 8-10 ton	8,880	1	8,880	1	8,880	1	8,880	1	8,880
7. Tamper, 80 kg	293	3	879	3	879	2	586	2	586
8. Soil compactor, 90 kg	264	3	792	3	792	2	528	2	528
9. Portable concrete mixer, 0.2 m^3	524	2	1,048	2	1,048	2	1,048	1	524
10. Submergible pump, ø150	636	2	1,272	2	1,272	1	636	1	636
11. Generator, 5 kVA	612	2	1,224	2	1,224	2	1,224	1	612
12. Trailer, truck, 28 ton	16,680	1	16,680	1	16,680	1	16,680	-	-
13. Dump truck, 11 ton	9,192	1	9,192	1	9,192	-	-	-	-
14. Dump truck, 2 ton	1,884	2	3,768	2	3,768	2	3,768	2	3,768
15. Cargo truck w/crane, 4 ton	4,872	1	4,872	1	4,872	1	4,872	-	-
16. Cargo truck w/crane, 2 ton	2,904	1	2,904	1	2,904	1	2,904	1	2,904
17. Ordinary truck, 6 ton	3,948	2	7,896	2	7,896	1	3,948	1	3,948
18. Truck, 1.5 ton pick-up	1,716	2	3,432	2	3,432	2	3,432	2	3,432
19. Jeep, four wheel drive	2,064	3	6,192	3	6,192	3	6,192	2	4,128
20. Sedan, 6 persons	1,800	1	1,800	1	1,800	1	1,800	1	1,800
21. Repair shop tools		L.S.	7,098	L.S.	7,752	L.S.	6,087	L.S.	2,966
22. Spare parts		L.S.	28,391	L.S.	31,007	L.S.	24,348	L.S.	11,862
II. TELECOMMUNICATION SYSTEM		1 set	50,000	1 set	58,000	1 set	38,000	1 set	19,000
Total			227,444 ($21,800 \times 10^3$¥)		251,794 ($24,130 \times 10^3$¥)		190,177 ($18,230 \times 10^3$¥)		93,138 ($8,930 \times 10^3$¥)

Note: US$1 = ¥23 = ¥240

Table 25 REPLACEMENT COST AND USEFUL LIFE

Item	Useful Life (year)	Replacement Cost (10^3฿)
1. Khlong Luang Irrigation Scheme		
(1) O&M Equipment	10	21,800
(2) Project Facilities		
- Intake facilities, gate	25	4,908
- Irrigation facilities, gate	25	17,603
2. Ban Khai Extension Irrigation Scheme		
(1) O&M Equipment	10	24,130
(2) Project Facilities		
- Intake facilities, gate	25	9,108
- Irrigation facilities, gate	25	16,706
3. Ban Khai Existing Irrigation Schem		
(1) O&M Equipment	10	18,230
(2) Project Facilities		
- Intake facilities, gate	25	880
- Irrigation facilities, gate	25	8,307
4. Khlong Thap Ma Irrigation Scheme		
(1) O&M Equipment	10	8,930
(2) Project Facilities		
- Intake facilities, gate	25	3,068
- Irrigation facilities, gate	25	5,369

Table 2 SUMMARY OF CONSTRUCTION COST FOR KHLONG LUANG IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

	Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1.	Direct Construction Cost			
1.1	Preparatory Works	41,100	-	41,100
1.2	Intake Structure	20,400	4,600	15,800
1.3	Canal Construction			
	- Main canal	102,900	-	102,900
	- Lateral canal	21,300	-	21,300
	- Drainage canal	5,700	-	5,700
1.4	Land Acquisition	9,150	-	9,150
1.5	Purchase Cost of Construction Equipment	152,280	141,000	11,280
	Sub-total	352,830	145,600	207,230
2.	Engineering Services	44,680	33,510	11,170
3.	O&M Equipment	23,540	21,800	1,740
4.	Administration Cost of Executive Agency	17,180	-	17,180
	Sub-total	438,230	200,910	237,320
5.	Physical Contingency	65,730	30,130	35,600
	Sub-total	503,960	231,040	272,920
6.	Price Contingency	299,730	97,670	202,060
	Sub-total	803,690	328,710	474,980
7.	Salvage Value for Construction Equipment	-14,100	-	-14,100
	Grand Total	789,590	328,710	460,880

Table 27 SUMMARY OF CONSTRUCTION COST FOR BAN KHAI EXTENSION IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

	Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1.	Direct Construction Cost			
1.1	Preparatory Works	47,700	-	47,700
1.2	Diversion Structure	53,800	9,100	44,700
1.3	Canal onstruction			
	- Main canal	115,100	-	115,100
	- Lateral canal	31,200	-	31,200
	- Drainage canal	6,900	-	6,900
1.4	Land Acquisition	44,400	-	44,400
1.5	Purchase Cost of Construction Equipment	181,440	168,000	13,440
	Sub-total	480,540	177,100	303,440
2.	Engineering Services	56,700	42,520	14,180
3.	O&M Equipment	26,060	24,130	1,930
4.	Administration Cost of Executive Agency	21,800	-	21,800
	Sub-total	585,100	243,750	341,350
5.	Physical Contingency	87,770	36,560	51,210
	Sub-total	672,870	280,310	392,560
6.	Price Contingency	353,470	92,460	261,010
	Sub-total	1,026,340	372,770	653,570
7.	Salvage Value for Construction Equipment	-16,800	-	-16,800
	Grand Total	1,009,540	372,770	636,770

Table 28 SUMMARY OF CONSTRUCTION COST FOR BAN KHAI EXISTING IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

	Item	Total (10^3 ฿)	Foreign Currency (10^3 ฿)	Local Currency (10^3 ฿)
1.	Direct Construction Cost			
1.1	Preparatory Works	18,100	-	18,100
1.2	Canal Construction			
	- Main canal	51,300	-	51,300
	- Lateral canal	17,500	-	17,500
	- Drainage canal	2,100	-	2,100
1.3	Land Acquisition	4,930	-	4,930
1.4	Purchase Cost of Construction Equipment	77,620	77,000	620
	Sub-total	171,550	77,000	94,550
2.	Engineering Services	21,660	16,240	5,420
3.	O&M Equipment	19,690	18,230	1,460
4.	Administration Cost of Executive Agency	8,330	-	8,330
	Sub-total	221,230	111,470	109,760
5.	Physical Contingency	33,180	16,720	16,460
	Sub-total	254,410	128,190	126,220
6.	Price Contingency	110,860	39,950	70,910
	Sub-total	365,270	168,140	197,130
7.	Salvage Value for Construction Equipment	-7,700	-	-7,700
	Grand Total	357,570	168,140	189,430

Table 29 SUMMARY OF CONSTRUCTION COST FOR KHLONG THAP MA IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

	Item	Total (10^3฿)	Foreign Currency (10^3฿)	Local Currency (10^3฿)
1.	Direct Construction Cost			
1.1	Preparatory Works	17,400	-	17,400
1.2	Intake Structure	11,100	2,900	8,200
1.3	Canal Construction			
	- Main canal	28,700	-	28,700
	- Lateral canal	11,500	-	11,500
	- Drainage canal	2,300	-	2,300
1.4	Land Acquisition	11,090	-	11,090
1.5	Purchase Cost of Construction Equipment	107,150	106,300	850
	Sub-total	189,240	109,200	80,040
2.	Engineering Services	23,160	17,370	5,790
3.	O&M Equipment	9,640	8,930	710
4.	Administration Cost of Executive Agency	8,910	-	8,910
	Sub-total	230,950	135,500	95,450
5.	Physical Contingency	34,640	20,320	14,320
	Sub-total	265,590	155,820	109,770
6.	Price Contingency	104,270	45,460	58,810
	Sub-total	369,860	201,280	168,580
7.	Salvage Value for Construction Equipment	-10,630	-	-10,630
	Grand Total	359,230	201,280	157,950

Table 30 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST
FOR KHLONG LUANG IRRIGATION SCHEME
(FORCE ACCOUNT BASIS)

(Unit: 10^3 ฿)

Item	Total			1986		1987		1988		1989		1990		1991	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost															
- Preparatory Works	41,100	-	41,100	-	-	-	18,200	-	19,880	-	3,020	-	-	-	-
- Intake Structure	20,400	4,600	15,800	-	-	-	-	3,220	11,060	1,380	4,740	-	-	-	-
- Canal Construction	129,900	-	129,900	-	-	-	-	-	25,980	-	45,470	-	45,470	-	12,980
- Land Acquisition	9,150	-	9,150	-	-	-	2,750	-	3,650	-	2,750	-	-	-	-
- Purchase Cost of Construction Equipment	152,280	141,000	11,280	-	-	141,000	11,280	-	-	-	-	-	-	-	-
Sub-total	352,830	145,600	207,230	-	-	141,000	32,230	3,220	60,570	1,380	55,980	-	45,470	-	12,980
2. Engineering Services	44,680	33,510	11,170	6,030	2,010	4,020	1,340	7,040	2,350	7,040	2,350	4,690	1,560	4,690	1,560
3. O&M Equipment	23,540	21,800	1,740	-	-	-	-	4,360	350	8,720	690	4,360	350	4,360	350
4. Administration Cost of Executive Agency	17,180	-	17,180	-	1,710	-	1,710	-	3,440	-	3,440	-	3,440	-	3,440
Sub-total	438,230	200,910	237,320	6,030	3,720	145,020	35,280	14,620	66,710	17,140	62,460	9,050	50,820	9,050	18,330
5. Physical Contingency	65,730	30,130	35,600	900	560	21,750	5,290	2,190	10,010	2,570	9,370	1,360	7,620	1,360	2,750
Sub-total	503,960	231,040	272,920	6,930	4,280	166,770	40,570	16,810	76,720	19,710	71,830	10,410	58,440	10,410	21,080
6. Price Contingency	299,730	97,670	202,060	1,800	1,420	60,120	18,830	7,890	46,840	11,570	55,420	7,430	55,440	8,860	24,110
Sub-total	803,690	328,710	474,980	8,730	5,700	226,890	59,400	24,700	123,560	31,280	127,250	17,840	113,880	19,270	45,190
7. Salvage Value for Construction Equipment	-14,100	-	-14,100	-	-	-	-	-	-	-	-	-	-	-	--14,100
Grand Total	789,590	328,710	460,880	8,730	5,700	226,890	59,400	24,700	123,560	31,280	127,250	17,840	113,880	19,270	31,090

Table 31 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR BAN KHAI EXTENSION IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989		1990		1991	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost																	
- Preparatory Works	47,700	-	47,700	-	-	-	18,900	-	24,660	-	4,140	-	-	-	-	-	
- Diversion Structure	53,800	9,100	44,700	-	-	-	-	2,280	11,180	4,540	22,340	2,280	11,180	-	-	-	
- Canal Construction	153,200	-	153,200	-	-	-	-	-	-	-	30,640	-	53,620	-	53,620	-	15,32
- Land Acquisition	44,400	-	44,400	-	-	-	13,320	-	13,320	-	8,880	-	8,880	-	-	-	
- Purchase Cost of Construction Equipment	181,440	168,000	13,440	-	-	168,000	13,440	-	-	-	-	-	-	-	-	-	
Sub-total	480,540	177,100	303,440	-	-	168,000	45,660	2,280	49,160	4,540	66,000	2,280	73,680	-	53,620	-	15,32
2. Engineering Services	56,700	42,520	14,180	7,650	2,550	5,100	1,700	5,960	1,990	8,930	2,980	7,440	2,480	4,460	1,490	2,980	99
3. O&M Equipment	26,060	24,130	1,930	-	-	-	-	4,830	390	7,230	570	4,830	390	4,830	390	2,410	19
4. Administration Cost of Executive Agency	21,800	-	21,800	-	2,180	-	2,180	-	4,360	-	4,360	-	4,360	-	2,180	-	2,18
Sub-total	585,100	243,750	341,350	7,650	4,730	173,100	49,540	13,070	55,900	20,700	73,910	14,550	80,910	9,290	57,680	5,390	18,68
5. Physical Contingency	87,770	36,560	51,210	1,150	710	25,970	7,430	1,960	8,390	3,110	11,090	2,180	12,140	1,390	8,650	800	2,80
Sub-total	672,870	280,310	392,560	8,800	5,440	199,070	56,970	15,030	64,290	23,810	85,000	16,730	93,050	10,680	66,330	6,190	21,48
6. Price Contingency	353,470	92,460	261,010	1,460	1,140	51,700	18,860	5,420	29,840	11,170	51,890	9,820	71,790	7,620	62,930	5,270	24,56
Sub-total	1,026,340	372,770	653,570	10,260	6,580	250,770	75,830	20,450	94,130	34,980	136,890	26,550	164,840	18,300	129,260	11,460	46,04
7. Salvage Value for Construction Equipment	-16,800	-	-16,800	-	-	-	-	-	-	-	-	-	-	-	-		-16,80
Grand Total	1,009,540	372,770	636,770	10,260	6,580	250,770	75,830	20,450	94,130	34,980	136,890	26,550	164,840	18,300	129,260	11,460	29,24

Table 32 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR BAN KHAI EXISTING IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost													
- Preparatory Works	18,100	-	18,100	-	-	-	7,700	-	8,980	-	1,420	-	-
- Canal Construction	70,900	-	70,900	-	-	-	-	-	21,270	-	28,360	-	21,270
- Land Acquisition	4,930	-	4,930	-	-	-	990	-	1,970	-	1,480	-	490
- Purchase Cost of Construction Equipment	77,000	77,000	620	-	-	77,000	620	-	-	-	-	-	-
Sub-total	171,550	77,000	94,550	-	-	77,000	9,310	-	32,220	-	31,260	-	21,760
2. Engineering Services	21,660	16,240	5,420	3,410	1,140	2,270	760	3,170	1,060	4,220	1,400	3,170	1,060
3. O&M Equipment	19,690	18,230	1,460	-	-	-	-	5,470	440	7,290	580	5,470	440
4. Administration Cost of Executive Agency	8,330	-	8,330	-	830	-	1,670	-	2,490	-	1,670	-	1,670
Sub-total	221,230	111,470	109,760	3,410	1,970	79,270	11,740	8,640	36,210	11,510	34,910	8,640	24,930
5. Physical Contingency	33,180	16,720	16,460	510	300	11,890	1,760	1,300	5,430	1,720	5,230	1,300	3,740
Sub-total	254,410	128,190	126,220	3,920	2,270	91,160	13,500	9,940	41,640	13,230	40,140	9,940	28,670
6. Price Contingency	110,860	39,950	70,910	650	480	23,680	4,470	3,580	19,330	6,210	24,510	5,830	22,120
Sub-total	365,270	168,140	197,130	4,570	2,750	114,840	17,970	13,520	60,970	19,440	64,650	15,770	50,790
7. Salvage Value for Construction Equipment	-7,700	-	-7,700	-	-	-	-	-	-	-	-	-	-7,700
Grand Total	357,570	168,140	189,430	4,570	2,750	114,840	17,970	13,520	60,970	19,440	64,650	15,770	43,090

Table 33 DISBURSEMENT SCHEDULE OF CONSTRUCTION COST FOR KHLONG THAP MA IRRIGATION SCHEME (FORCE ACCOUNT BASIS)

(Unit: 10^3 ฿)

Item	Total			1985		1986		1987		1988		1989	
	Total	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local
1. Direct Construction Cost													
- Preparatory Works	17,400	-	17,400	-	-	-	8,400	-	7,920	-	1,080	-	-
- Intake Structure	11,100	2,900	8,200	-	-	-	-	2,030	5,740	870	2,460	-	-
- Canal Construction	42,500	-	42,500	-	-	-	-	-	12,750	-	17,000	-	12,750
- Land Acquisition	11,090	-	11,090	-	-	-	2,220	-	4,430	-	3,330	-	1,110
- Purchase Cost of Construction Equipment	106,300	106,300	850	-	-	106,300	850	-	-	-	-	-	-
Sub-total	189,240	109,200	80,040	-	-	106,300	11,470	2,030	30,840	870	23,870	-	13,860
2. Engineering Services	23,160	17,370	5,790	3,650	1,210	2,430	810	3,390	1,130	4,510	1,510	3,390	1,130
3. O&M Equipment	9,640	8,930	710	-	-	-	-	2,680	210	3,570	290	2,680	210
4. Administration Cost of Executive Agency	8,910	-	8,910	-	890	-	1,780	-	2,680	-	1,780	-	1,780
Sub-total	230,950	135,500	95,450	3,650	2,100	108,730	14,060	8,100	34,860	8,950	27,450	6,070	16,980
5. Physical Contingency	34,640	20,320	14,320	550	310	16,300	2,110	1,220	5,230	1,340	4,120	910	2,550
Sub-total	265,590	155,820	109,770	4,200	2,410	125,030	16,170	9,320	40,090	10,290	31,570	6,980	19,530
6. Price Contingency	104,270	45,460	58,810	700	510	32,470	5,350	3,360	18,610	4,830	19,270	4,100	15,070
Sub-total	369,860	201,280	168,580	4,900	2,920	157,500	21,520	12,680	58,700	15,120	50,840	11,080	34,600
7. Salvage Value for Construction Equipment	-10,630	-	-10,630	-	-	-	-	-	-	-	-	-	-10,630
Grand Total	359,230	201,280	157,950	4,900	2,920	157,500	21,520	12,680	58,700	15,120	50,840	11,080	23,970

Table 34 UNIT PRICE FOR IRRIGATION SCHEME
(FORCE ACCOUNT BASIS)

(Unit: ฿)

Work Item	Unit	Khlong Luang			Ban Khai Extension			Ban Khai Existing			Khlong Thap Ma		
		Total	F.C.	L.C.	Total	F.C.	L.C.	Total	F.C.	L.C.	Total	F.C.	L.C.
I. Earth Work													
1. Stripping	m^3	17.54	-	17.54	23.55	-	23.55	23.55	-	23.55	23.55	-	23.55
2. Excavation for Main Canal	m^3	14.79	-	14.79	17.50	-	17.50	17.50	-	17.50	17.60	-	17.60
3. Excavation for Lateral and Drainage Canal	m^3	11.60	-	11.60	11.71	-	11.71	11.71	-	11.71	12.54	-	12.54
4. Excavation for Structure	m^3	12.02	-	12.02	11.64	-	11.64	17.46	-	17.46	14.46	-	14.46
5. Excavation for Diversion Channel	m^3	-	-	-	15.84	-	15.84	-	-	-	-	-	-
6. Embankment for Main Canal	m^3	15.50	-	15.50	15.51	-	15.51	15.51	-	15.51	18.63	-	18.63
7. Embankment for Lateral Canal	m^3	12.32	-	12.32	12.35	-	12.35	12.35	-	12.35	14.91	-	14.91
8. Embankment for Headworks	m^3	-	-	-	16.63	-	16.63	-	-	-	-	-	-
9. Backfilling	m^3	10.49	-	10.49	13.38	-	13.38	13.38	-	13.38	14.32	-	14.32
10. Laterite Pavement	m^3	22.88	-	22.88	32.79	-	32.79	32.79	-	32.79	30,83	-	30.83
11. Sod facing	m^2	22.47	-	22.47	21.28	-	21.28	21.28	-	21.28	21.88	-	21.88
II. Concrete Work													
1. Reinforcement Concrete	m^3	2,219.50	-	2,219.50	2,381.77	-	2,381.77	2,381.77	-	2,381.77	2,326.78	-	2,326.78
2. Plain Concrete	m^3	1,749.70	-	1,749.70	1,925.41	-	1,925.41	1,925.41	-	1,925.41	1,861.22	-	1,861.22
3. Concrete Lining	m^3	1,660.44	-	1,660.44	1,929.13	-	1,929.13	1,929.13	-	1,929.13	1,861.22	-	1,861.22
III. Riprap	m^3	624.96	-	624.96	624.96	-	624.96	624.96	-	624.96	624.96	-	624.96
IV. Steel Work	ton	30,000.0	-	30,000.0	30,000.0	-	30,000.0	30,000.0	-	30,000.0	30,000.0	-	30,000.0
V. Concrete Pipe													
D300	m	333.32	-	333.32	333.32	-	333.32	333.32	-	333.32	333.32	-	333.32
D400	m	419.70	-	419.70	419.70	-	419.70	419.70	-	419.70	419.70	-	419.70
D500	m	508.08	-	508.08	508.08	-	508.08	508.08	-	508.08	508.08	-	508.08
D600	m	587.55	-	587.55	587.55	-	587.55	587.55	-	587.55	587.55	-	587.55
D700	m	665.20	-	665.20	665.20	-	665.20	665.20	-	665.20	665.20	-	665.20
D800	m	742.85	-	742.85	742.85	-	742.85	742.85	-	742.85	742.85	-	742.85
D900	m	833.09	-	833.09	833.09	-	833.09	833.09	-	833.09	833.09	-	833.09
D1,000	m	923.33	-	923.33	923.33	-	923.33	923.33	-	923.33	923.33	-	923.33

Table 35 PURCHASE COST OF MAJOR CONSTRUCTION EQUIPMENT FOR KHLONG LUANG IRRIGATION SCHEME

Description		Quantity	Price (10^3฿)
Bulldozer	32 ton	2	8,281
"	21 ton	4	11,655
"	16 ton	3	5,648
"	11 ton	2	2,507
Swamp dozer	16 ton	1	2,089
Back hoe	0.7 m^3	5	9,862
Power shovel	0.7 m^3	5	11,634
Wheel loader	1.8 m^3	2	2,961
Tracter shovel	1.8 m^3	1	1,831
Dump truck	8 ton	56	40,274
Forced mixer	0.5 m^3	1	2,750
Agitator truck	3.0 ton	2	1,586
Motor grader	3.1 ton	2	3,173
Vibration roller	5.5 ton	2	1,142
"	10 ton	2	3,067
Others			32,540
Total			141,000

Table 36 PURCHASE COST OF MAJOR CONSTRUCTION EQUIPMENT FOR BAN KHAI EXTENSION IRRIGATION SCHEME

Description		Quantity	Price (10^3¥)
Bulldozer	32 ton	2	8,281
Bulldozer W/R	21 ton	3	9,741
Bulldozer	21 ton	4	11,655
"	16 ton	4	7,530
"	11 ton	2	2,507
Back hoe	0.7 m^3	5	9,862
Power shovel	0.7 m^3	5	11,634
Wheel loader	1.8 m^3	2	2,961
Tracter shovel	1.8 m^3	1	1,831
Dump truck	8 ton	65	46,747
Forced mixer	0.5 m^3	1	2,750
Agitator truck	3.0 ton	8	6,346
Motor grader	3.1 ton	2	3,173
Vibration roller	5.5 ton	2	1,142
"	10 ton	2	3,067
Others			38,773
Total			168,000

Table 37 PURCHASE COST OF
MAJOR CONSTRUCTION EQUIPMENT FOR
BAN KHAI EXISTING IRRIGATION SCHEME

Description		Quantity	Price (10^3¥)
Bulldozer W/R	21 ton	3	9,741
Bulldozer	16 ton	3	5,648
"	11 ton	2	2,507
Back hoe	0.7 m^3	3	5,918
"	0.35 m^3	2	2,602
Power shovel	0.7 m^3	3	6,980
Wheel loader	1.8 m^3	1	1,481
Dump truck	8 ton	24	17,260
Forced mixer	0.5 m^3	1	2,750
Agitator truck	3.0 ton	2	1,586
Motor grader	3.1 ton	1	1,587
Vibration roller	5.5 ton	2	1,142
Others			17,798
Total			77,000

Table 38 PURCHASE COST OF MAJOR CONSTRUCTION EQUIPMENT FOR KHLONG THAP MA IRRIGATION SCHEME

Description		Quantity	Price (10^3 ฿)
Bulldozer W/R	21 ton	4	12,988
Bulldozer	21 ton	2	5,827
"	16 ton	3	5,648
Back hoe	0.7 m^3	4	7,890
"	0.35 m^3	2	2,602
Power shovel	0.7 m^3	3	6,980
Wheel loader	1.8 m^3	2	2,961
Dump truck	8 ton	34	24,452
Forced mixer	0.5 m^3	1	2,750
Agitator truck	3.0 ton	6	4,759
Motor grader	3.1 ton	2	3,173
Vibration roller	5.5 ton	3	1,713
Others			24,557
Total			106,300

FIGURES

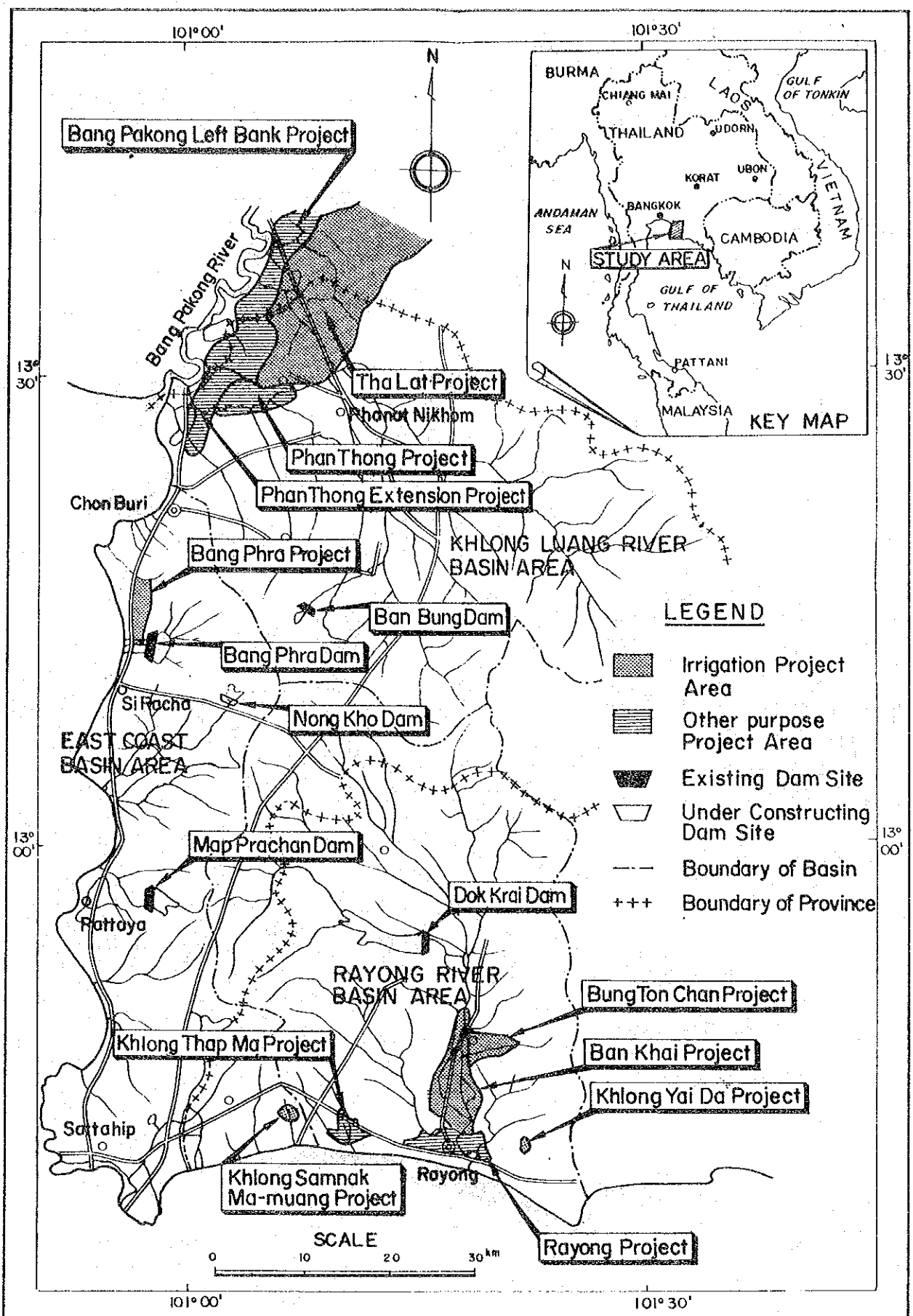

Fig. I Locations of Existing Projects

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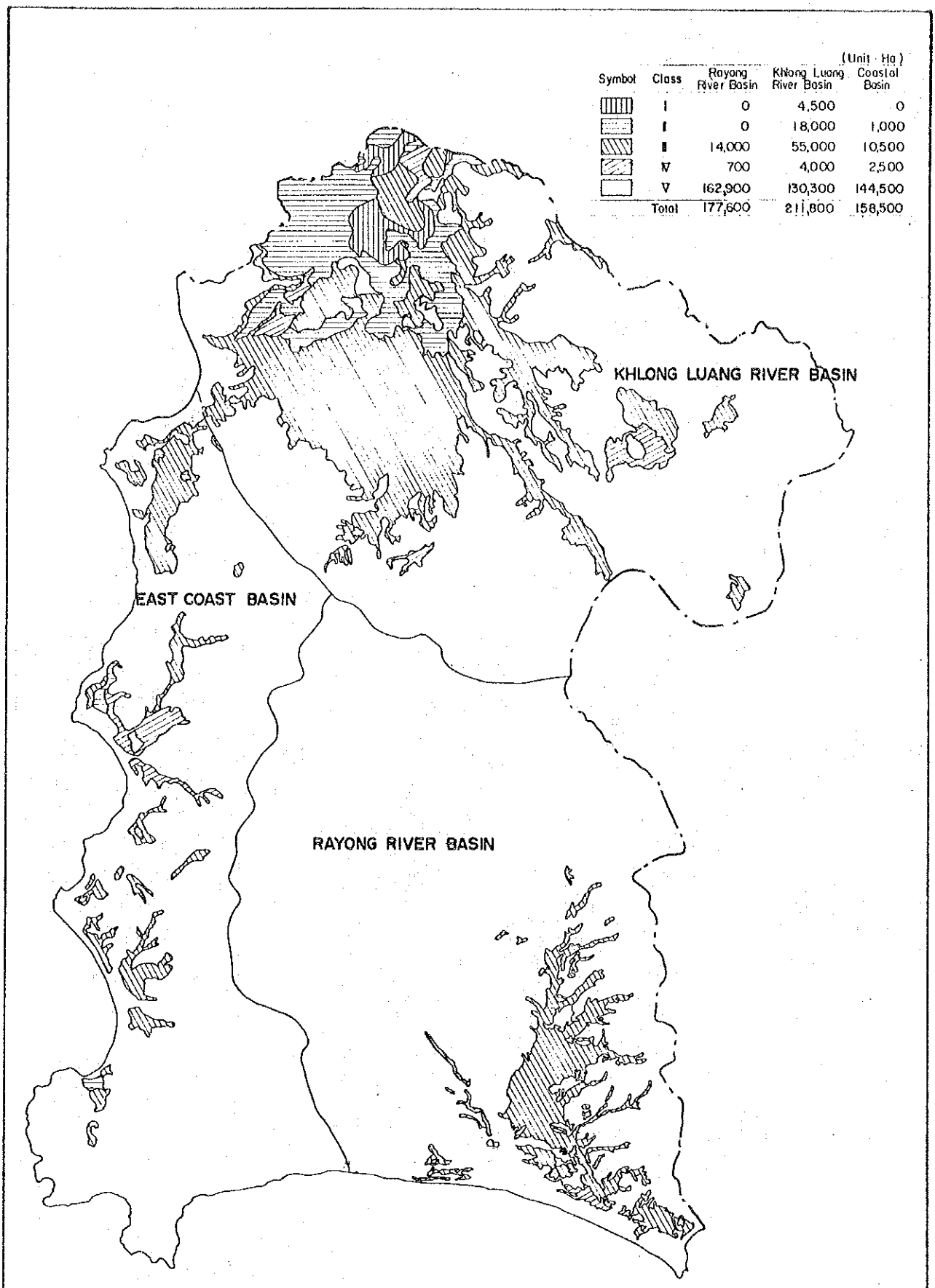

Fig. 2 Land Capability Map in the Study Area

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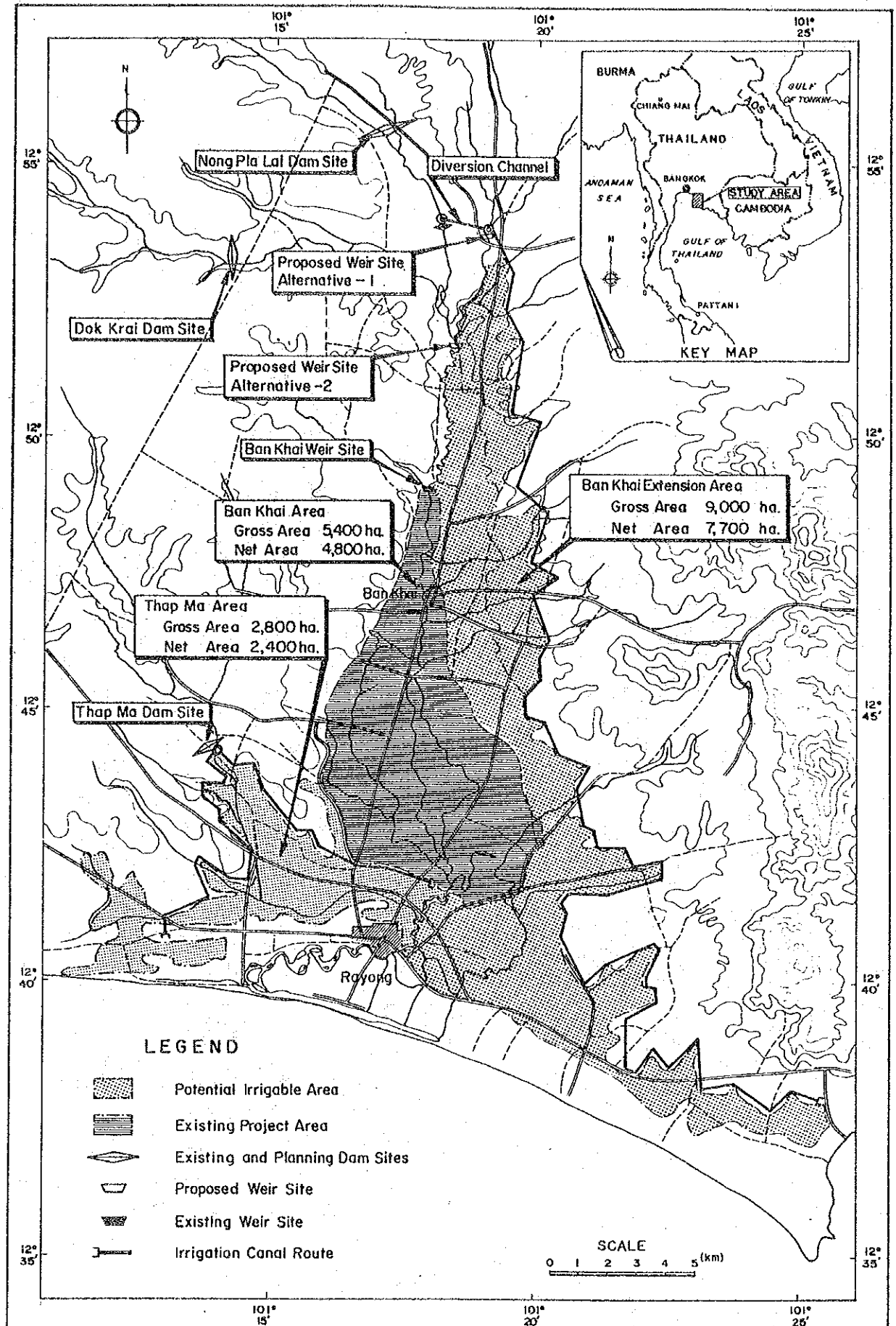

Fig. 3 Potential Irrigable Areas in Rayong River Basin

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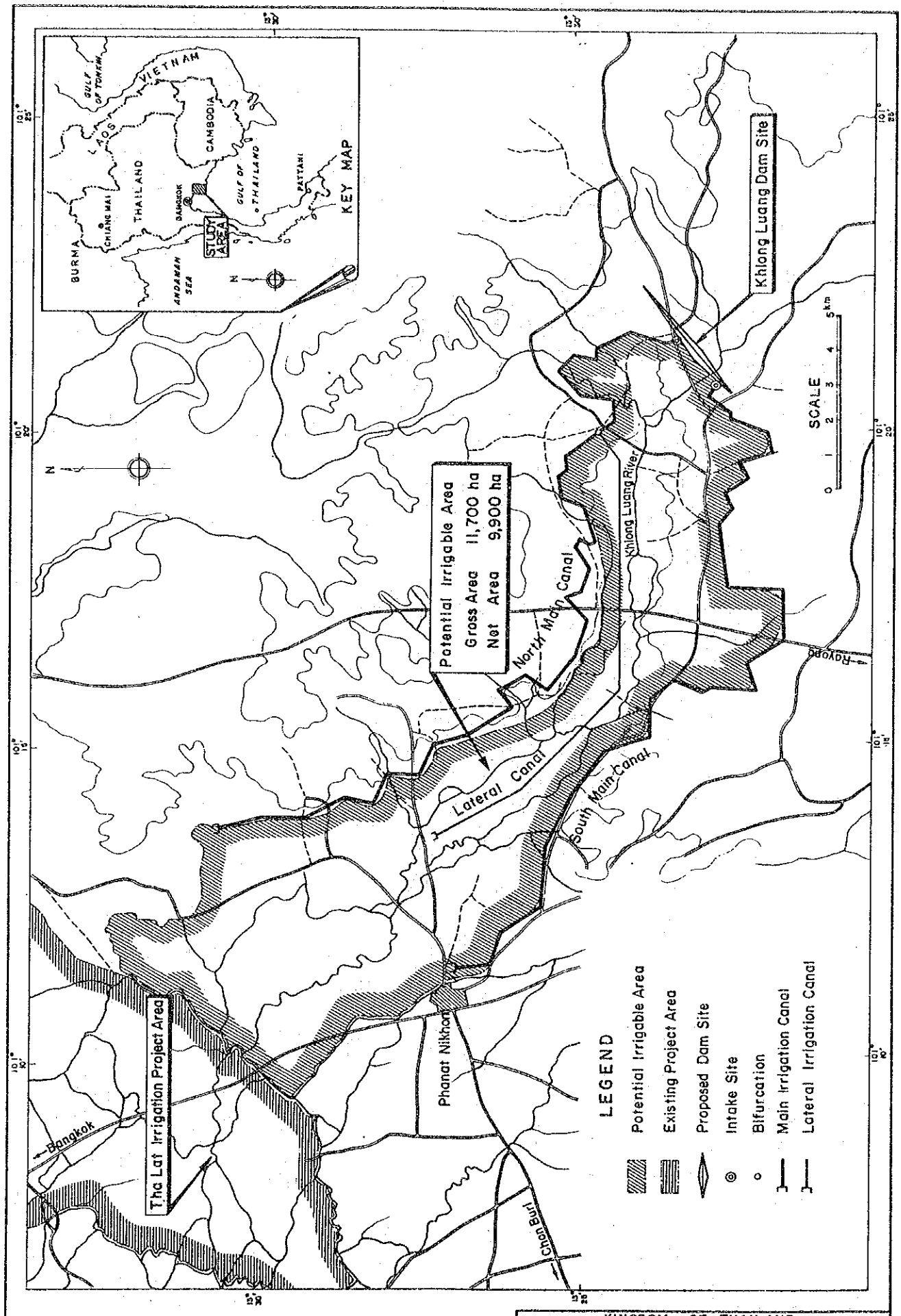

Fig. 4 Potential Irrigable Area in Khlong Luang River Basin

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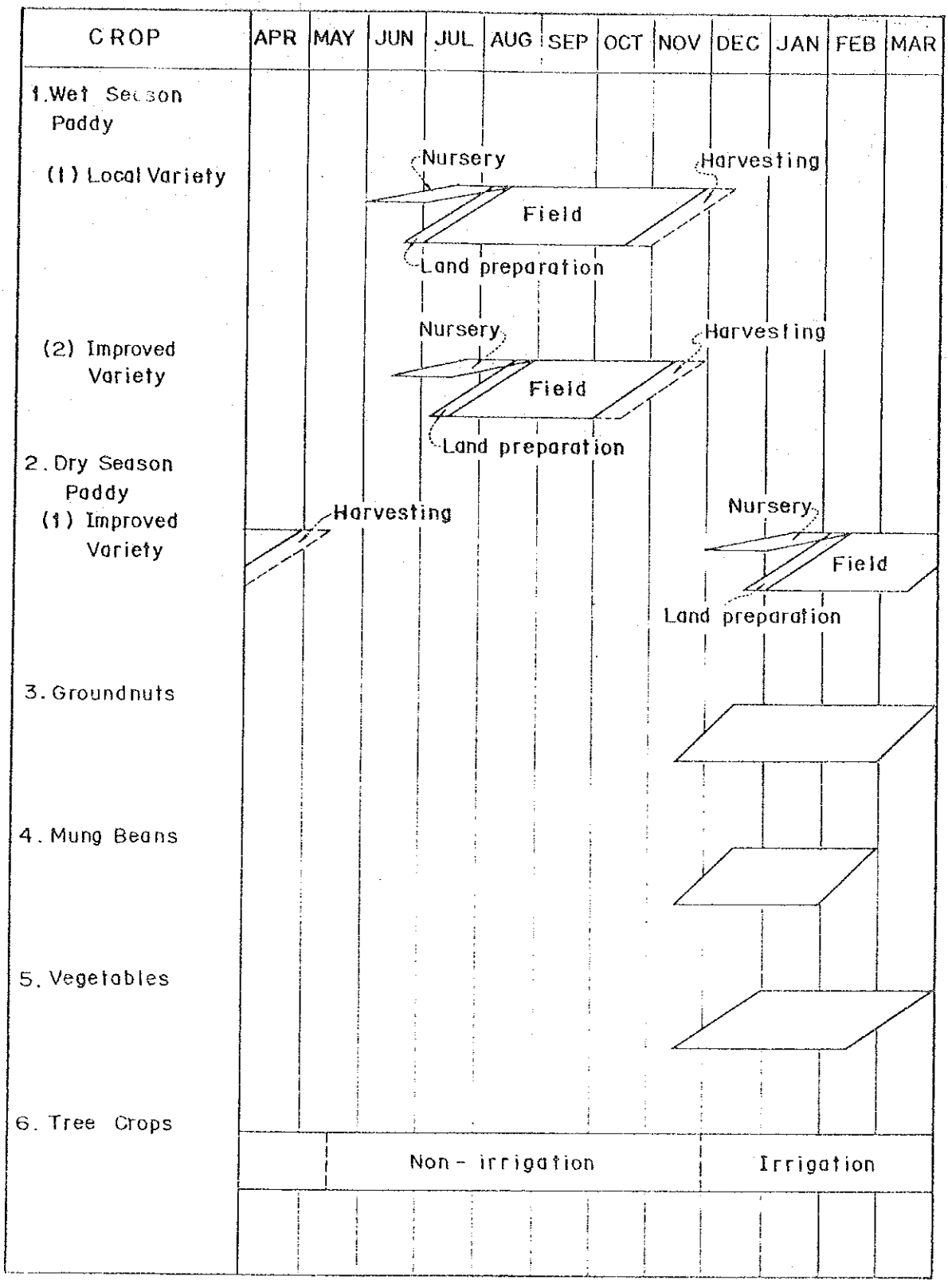

Fig. 5 Cropping Calendar

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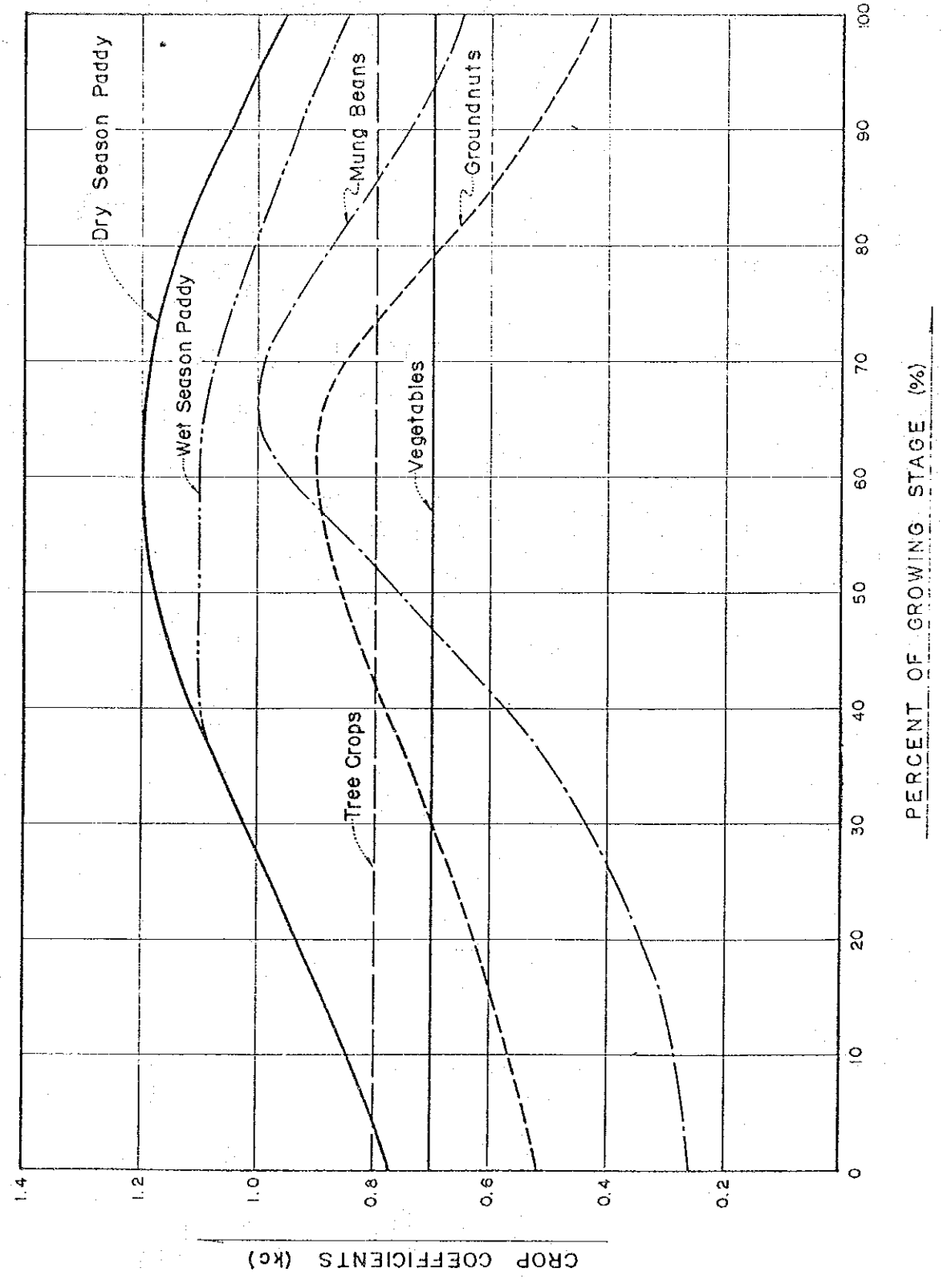

Fig. 6 Crop Coefficient Curve

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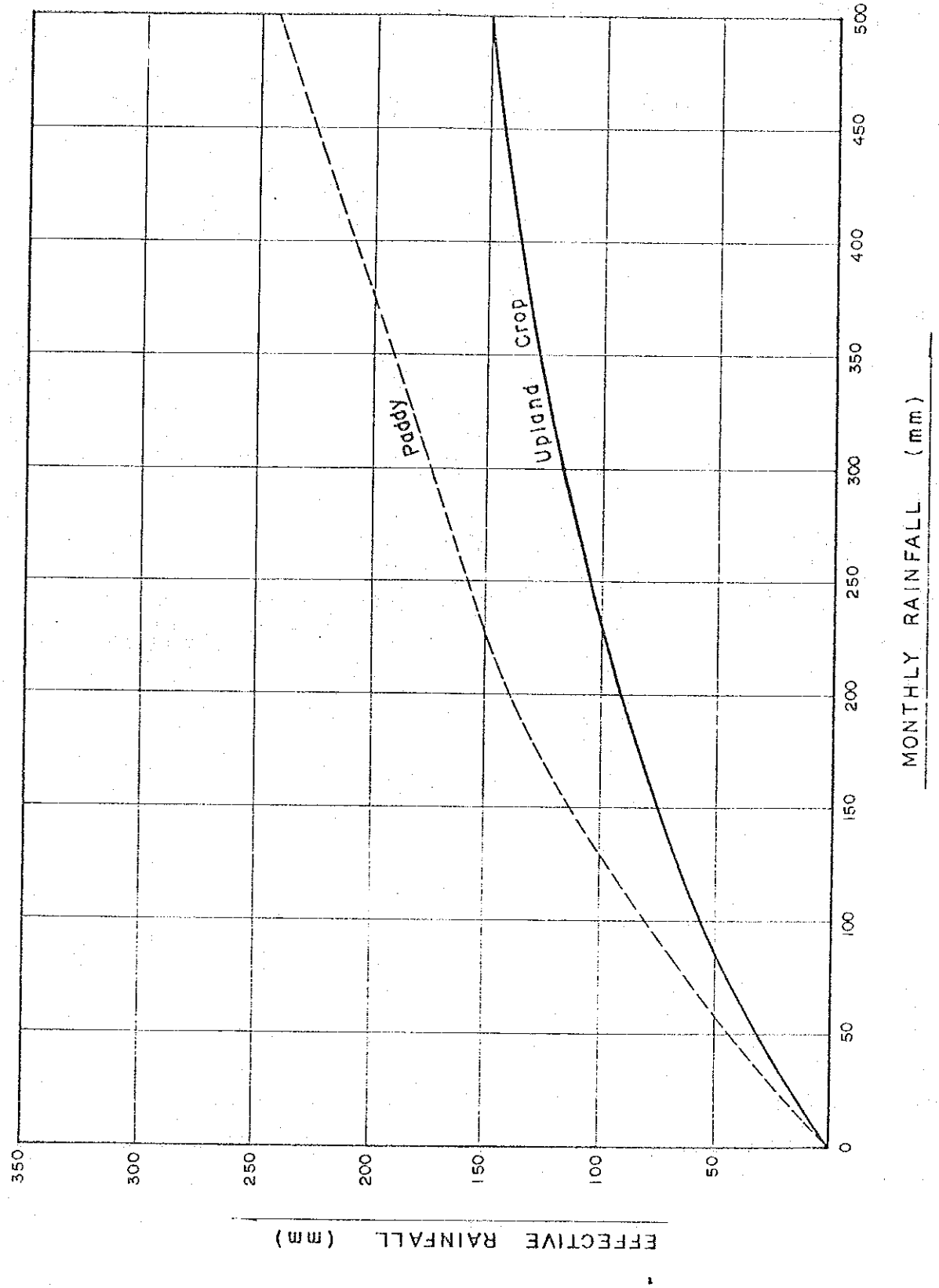

Fig. 7 Effective Rainfall Chart

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Intake Facilities for South Main Canal

FEATURES OF INTAKE FACILITIES

1. South Main Canal

1) Inlet

Inlet Channel	110 m
Intake Tower	2.0x2.0 x 10.2 m
Pressure Gate	2.0x 2.0 m
Bed EL.	EL. 31.8 m
Design Intake Discharge	5.94 m^3/sec

2) Conduit

Type	Open Channel Type
Length	3000 m
Diameter	ϕ 2.0 m
Gradient	i = 0.00136

3) Outlet

Length	76.0 m
Parshall Flume	W = 10ft Type
Head WL of Main Canal	WL. 32.00 m

2. North Main Canal

1) Inlet

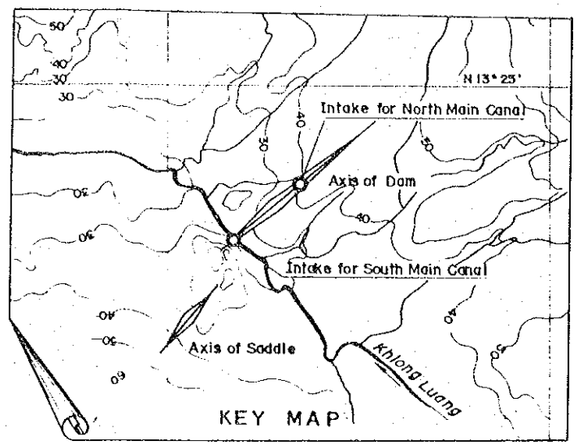
Approach Cannal	708 m
Intake Tower	2.0x2.0x10.2 m
Pressure Gate	2.0x2.0m
Bed EL.	EL. 31.8m
Design Intake Discharge	4.81 m^3/sec

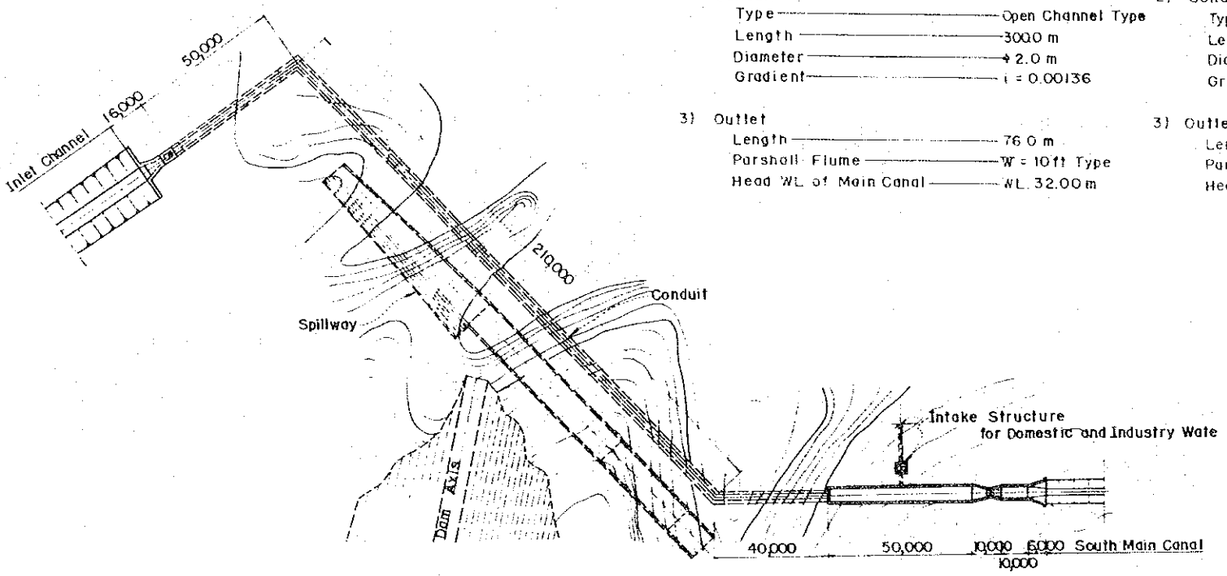
2) Conduit

Type	Open Channel Type
Length	54.0 m
Diameter	ϕ 2.0 m
Gradient	i = 0.00083

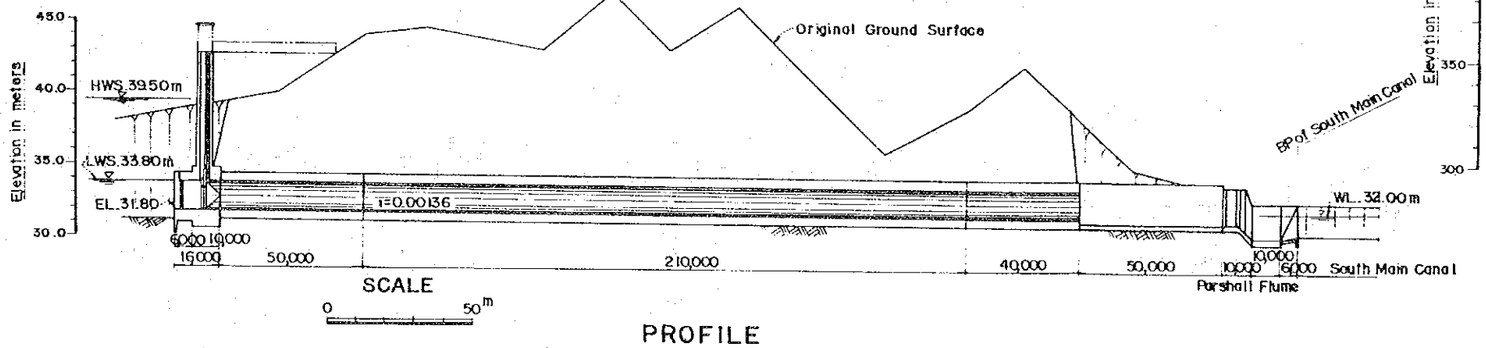
3) Outlet

Length	35.21 m
Parshall Flume	W = 10 ft Type
Head WL of Main Canal	WL = 32.00 m



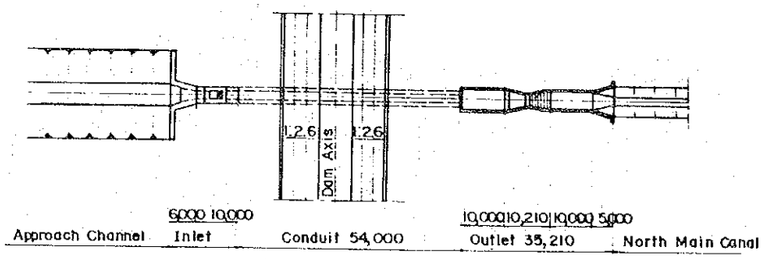


PLAN



PROFILE

Intake Facilities for North Main Canal



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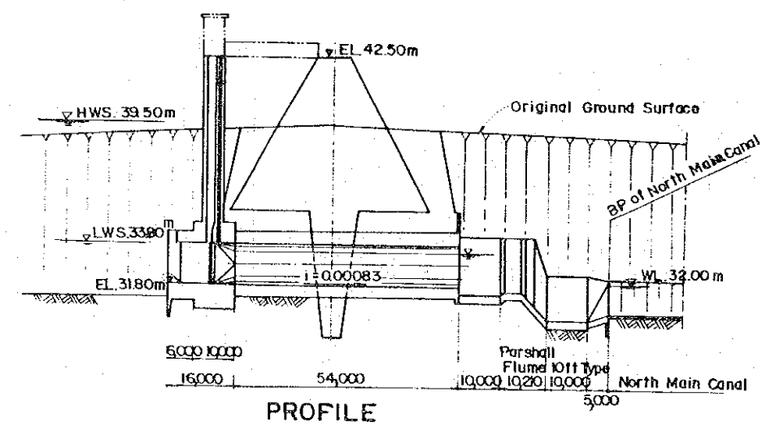

PROFILE

SCALE
0
50m

Fig. 8 Configurations of the Intake Structures for the Khlong Luang Irrigation Scheme

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