

表- 4.10 NTB州政府修復既存村落溜池

No.	Name of Embungs	Kecamatan	Kabupaten	Storage		Irrigation Area (ha)	Rehabilitation	
				Area(ha)	Capacity(m3)		Cost (Rp)	FY
1	Muntas	Praya Timur	Loteng	1.00	10,500	3.68	2,823,000	1980/81
2	Montong Pojon	Praya Timur	Loteng	0.25	3,063	1.07	3,077,000	1980/81
3	Montong Pojon	Praya Timur	Loteng	0.75	7,875	2.76	2,530,000	1980/81
4	Tuan Said	Praya Timur	Loteng	0.50	5,250	1.84	2,561,000	1980/81
5	Amaq Satti	Praya Timur	Loteng	0.50	6,125	2.15	2,727,000	1980/81
6	Kesambik Mate	Praya Timur	Loteng	0.40	4,800	1.68	2,568,000	1980/81
7	Bakan	Praya Timur	Loteng	0.65	10,237	3.68	2,575,000	1980/81
8	Pedanan	Praya Timur	Loteng	0.20	19,199	6.73	2,543,000	1980/81
9	Bebile 1	Praya Timur	Loteng	0.50	2,100	0.74	2,043,000	1980/81
10	Bebile 2	Praya Timur	Loteng	0.30	5,250	1.84	2,728,000	1980/81
11	Bebile 3	Praya Timur	Loteng	0.35	4,725	1.66	2,577,000	1980/81
12	Bebile 4	Praya Timur	Loteng	2.00	5,513	1.93	2,566,000	1980/81
13	Rengah 1	Praya Timur	Loteng	0.80	31,199	10.94	3,027,000	1980/81
14	Rengah 2	Praya Timur	Loteng	0.60	15,679	5.50	2,636,000	1980/81
15	Rengah 3	Praya Timur	Loteng	0.65	6,719	2.36	2,761,000	1980/81
16	Senande 1	Praya Timur	Loteng	0.50	9,100	3.19	2,664,000	1980/81
17	Senande 2	Praya Timur	Loteng	0.50	4,375	1.53	2,048,000	1980/81
18	Pegading	Praya	Loteng	0.40	6,187	2.16	2,748,955	1980/81
19	Kekes	Praya	Loteng	0.30	5,400	1.89	1,572,007	1980/81
20	Rabe	Praya	Loteng	0.40	4,199	1.47	2,748,955	1980/81
21	Bolak Sarah	Praya	Loteng	0.80	4,200	1.47	2,748,955	1980/81
22	Bagek Japeng	Praya	Loteng	0.28	5,599	1.98	1,942,161	1980/81
23	Wirat	Praya	Loteng	1.00	3,135	1.09	2,345,041	1980/81
24	Derek	Praya	Loteng	0.50	10,500	3.68	3,300,551	1980/81
25	H. Muhammad	Praya Timur	Loteng	0.90	6,750	2.36	2,748,955	1980/81
26	Mongkot	Praya Timur	Loteng	1.00	11,025	3.86	2,748,955	1980/81
27	Sengkereng	Praya Timur	Loteng	0.80	15,750	5.52	2,748,955	1980/81
28	H. Arip	Praya Timur	Loteng	0.50	13,599	4.76	2,748,955	1980/81
29	Repuk	Praya Timur	Loteng	0.40	7,499	2.63	2,345,041	1980/81
30	Grantung	Praya	Loteng	0.25	8,399	2.94	2,345,041	1980/81
31	Tegal	Praya	Loteng	2.00	3,749	1.31	2,345,041	1980/81
32	Belek	Praya	Loteng	0.80	17,500	6.13	1,942,161	1980/81
33	Regak	Praya	Loteng	0.60	13,439	4.71	3,300,551	1980/81
34	Batu Tambun	Praya	Loteng	0.36	16,300	2.20	2,748,955	1980/81
35	Bolah	Pujut	Loteng	2.35	2,319	0.81	2,345,041	1980/81
36	Desa	Kopang	Loteng	0.50	48,999	17.18	2,748,955	1980/81
37	Loang Make	Janapria	Loteng	0.65	7,875	0.76	2,821,993	1980/81
38	Batu Anten	Janapria	Loteng	0.70	6,825	2.39	2,870,743	1980/81
39	Wanen	Janapria	Loteng	0.50	6,125	2.14	2,829,987	1980/81
40	Empas	Janapria	Loteng	1.00	16,800	5.89	2,681,254	1980/81
41	Belo 1	Janapria	Loteng	0.50	7,875	2.76	2,832,216	1980/81
42	Belo 2	Janapria	Loteng	0.50	7,420	2.60	2,523,661	1980/81
43	Lengkok Buak	Janapria	Loteng	0.50	6,650	2.33	2,268,334	1980/81
44	Bile Penanggak	Janapria	Loteng	0.75	10,500	3.68	2,583,317	1980/81
45	Bila Penanggak	Janapria	Loteng	0.50	7,000	2.45	2,875,633	1980/81
46	Ojang	Janapria	Loteng	0.60	10,080	3.53	2,767,754	1980/81
47	Pengkelek Lelang	Janapria	Loteng	0.30	6,719	2.35	2,819,606	1980/81
48	Gunung Beduk	Janapria	Loteng	0.80	4,000	2.35	4,124,000	1980/81
49	Tabik-Asik	Janapria	Loteng	0.50	2,500	1.33	2,534,000	1980/81
50	Setute	Janapria	Loteng	1.00	6,500	3.65	2,666,000	1980/81
51	Putat	Janapria	Loteng	1.50	7,500	3.90	4,102,000	1980/81
52	Limbut	Janapria	Loteng	1.00	5,000	2.65	2,325,000	1980/81
53	Batu	Janapria	Loteng	0.80	3,750	3.15	2,576,000	1980/81
54	Inen Segara	Janapria	Loteng	0.75	2,800	1.65	7,511,000	1980/81
55	Lendang	Praya Timur	Loteng	1.75	7,500	4.15	3,667,000	1980/81
56	Setiek	Praya Timur	Loteng	1.50	7,500	4.15	2,851,000	1980/81
57	Selong	Praya Timur	Loteng	1.00	5,000	2.65	4,172,000	1980/81

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No.	Name of Embungs	Kecamatan	Kabupaten	Storage Area(ha)	Storage Capacity(m3)	Irrigation Area (ha)	Rehabilitation	
							Cost (Rp)	FY
58	Orong Munta	Praya Timur	Loteng	0.95	4,500	2.40	4,155,000	1980/81
59	Orong Berembuk	Praya Timur	Loteng	0.50	3,000	2.15	3,757,000	1980/81
60	Bagik Jongkor	Praya Timur	Loteng	1.10	23,519	3.00	2,319,000	1981/82
61	Stambek	Praya Timur	Loteng	0.16	2,047	1.00	2,817,689	1981/82
62	Ketujur	Praya Timur	Loteng	0.70	9,799	3.00	2,817,689	1981/82
63	Setemang	Praya Timur	Loteng	0.70	9,800	3.00	2,817,689	1981/82
64	Muer	Praya Timur	Loteng	0.80	14,279	2.00	2,817,689	1981/82
65	Selonjoh Or.	Praya Timur	Loteng	0.60	11,519	1.00	2,817,689	1981/82
66	Terong Masak	Praya Timur	Loteng	0.50	8,999	2.00	2,319,000	1981/82
67	Sebedin	Praya Timur	Loteng	0.60	4,500	3.00	2,817,689	1981/82
68	Nusa	Praya Timur	Loteng	0.80	5,600	2.00	2,440,888	1981/82
69	Sejoneng	Praya Timur	Loteng	1.58	11,250	5.00	2,440,888	1981/82
70	Derek	Praya Timur	Loteng	1.00	12,799	4.90	3,780,747	1981/82
71	Montong Gaong	Praya Timur	Loteng	0.30	3,695	3.00	3,780,747	1981/82
72	Staming	Praya Timur	Loteng	0.45	5,624	10.50	3,780,747	1981/82
73	Selandung	Praya Timur	Loteng	0.13	1,663	3.00	3,780,747	1981/82
74	Mangkut	Praya Timur	Loteng	0.90	14,399	3.00	3,780,747	1981/82
75	Penyawang	Praya Timur	Loteng	2.00	23,999	8.00	3,780,747	1981/82
76	Stambang	Praya Timur	Loteng	1.00	11,199	2.00	3,780,747	1981/82
77	Lendang Barat	Praya	Loteng	1.75	6,047	6.00	3,780,747	1981/82
78	Lendang	Praya	Loteng	0.50	3,959	14.00	4,391,745	1981/82
79	Sunde, 1, 2, 3	Praya Timur	Loteng	1.00	7,500	5.00	3,246,992	1981/82
80	Rengak	Janapria	Lotim	0.50	-	3.00	3,074,200	1982/83
81	Mongkut	Janapria	Lotim	0.50	-	2.50	3,074,200	1982/83
82	Bile 1	Janapria	Lotim	0.50	-	2.00	3,074,200	1982/83
83	Bile 2	Janapria	Lotim	0.50	-	2.20	3,074,200	1982/83
84	Sana	Janapria	Lotim	0.50	-	1.60	3,074,200	1982/83
85	Penyekuk	Janapria	Lotim	0.50	-	2.20	3,074,200	1982/83
86	Batu Alang	Kopang	Lotim	0.50	-	2.10	3,074,200	1982/83
87	Singgaling 1	Sengkol	Lotim	0.04	10,800	2.50	2,920,000	1982/83
88	Singgaling 3	Sengkol	Lotim	0.03	22,410	3.00	2,920,000	1982/83
89	Berlian 2	Praya Timur	Lotim	0.50	17,187	2.50	2,920,000	1982/83
90	Sarah	Praya Timur	Lotim	0.50	-	2.00	2,920,000	1982/83
91	Sungge 1	Praya Timur	Lotim	0.50	-	2.20	2,920,000	1982/83
92	Sungge 3	Praya Timur	Lotim	0.50	-	1.60	2,920,000	1982/83
93	Sungge 4	Praya Timur	Lotim	0.50	-	2.20	2,920,000	1982/83
94	Or. Berasem	Praya Timur	Lotim	0.50	-	2.10	2,920,000	1982/83
95	Loang Bawlar	Praya Timur	Lotim	0.50	-	2.50	2,920,000	1982/83
96	Penggali Arus	Praya Timur	Lotim	0.50	-	2.20	2,920,000	1982/83
97	Bengkel	Janapria	Lotim	0.06	-	1.60	3,086,800	1982/83
98	Kamput 2	Janapria	Lotim	0.06	-	2.20	3,086,800	1982/83
99	Piling 1	Janapria	Lotim	0.06	-	2.10	3,086,800	1982/83
100	Besun	Janapria	Lotim	0.06	-	2.50	3,086,800	1982/83
101	Sekuk	Janapria	Lotim	0.06	-	2.10	3,086,800	1982/83
102	Tibu Dalam	Janapria	Lotim	2.35	18,750	2.75	2,000,000	1983/84
103	Kompang 2	Janapria	Lotim	3.50	25,000	2.75	2,452,182	1983/84
104	Loyok	Janapria	Lotim	2.40	17,750	2.35	2,452,182	1983/84
105	Kemerik	Janapria	Lotim	2.55	20,000	2.45	2,452,182	1983/84
106	Tempo 1	Janapria	Lotim	2.00	12,000	2.15	2,452,182	1983/84
107	Tempo 2	Janapria	Lotim	2.10	15,000	2.17	2,452,182	1983/84
108	Baran Silu	Janapria	Lotim	2.20	12,250	2.20	2,452,182	1983/84
109	Cuit 1	Janapria	Lotim	2.10	15,000	2.17	2,452,182	1983/84
110	Wijin 2	Janapria	Lotim	3.65	24,000	2.82	2,452,182	1983/84
111	Baren Tengah	Janapria	Lotim	3.97	7,500	1.75	2,452,182	1983/84
112	Borok	Janapria	Lotim	2.83	19,000	2.15	2,452,182	1983/84
113	Sasak	Janapria	Lotim	5.22	35,000	3.35	2,525,333	1983/84
114	Batu Gelang 2	Praya Timur	Lotim	3.22	54,250	2.96	2,525,333	1983/84

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No.	Name of Embungs	Kecamatan	Kabupaten	Storage		Irrigation Area (ha)	Rehabilitation	
				Area(ha)	Capacity(m3)		Cost (Rp)	FY
115	Mt. Lisung 2	Praya Timur	Lotim	6.62	25,000	3.75	2,525,333	1983/84
116	Or. Jabe	Praya Timur	Lotim	3.25	16,000	2.85	2,525,333	1983/84
117	Sesak	Praya Timur	Lotim	2.85	25,000	2.55	2,525,333	1983/84
118	Baran Gagak	Praya Timur	Lotim	2.36	20,000	2.38	2,525,333	1983/84
119	Mentan	Praya Timur	Lotim	2.96	9,000	2.40	2,525,333	1983/84
120	Belo 2	Janapria	Lotim	1.59	25,000	3.65	2,525,333	1983/84
121	Piling 3	Janapria	Lotim	1.59	20,000	1.80	2,432,333	1983/84
122	Bara	Praya Timur	Loteng	0.85	9,850	4.75	20,663,000	1991/92
123	Bebile	Praya Timur	Loteng	0.75	10,125	3.55	18,156,000	1991/92
124	Baleka	Praya Timur	Loteng	0.65	10,237	3.68	17,394,000	1991/92
125	Montong Belae	Praya Timur	Loteng	0.75	10,125	3.55	18,452,000	1991/92
126	Rerang	-	Loteng	-	-	1.75	15,254,000	1992/93
127	Orong Luvis	-	Loteng	-	-	2.50	17,461,000	1992/93
128	Memoyo	Keruak	Lotim	0.75	6,125	2.15	2,535,000	1980/81
129	Montong Setaik	Keruak	Lotim	0.75	10,125	3.55	2,507,000	1980/81
130	Tangok 1	Keruak	Lotim	0.65	19,187	3.22	2,647,000	1980/81
131	Tangun Timur	Keruak	Lotim	1.20	5,687	1.90	2,526,000	1980/81
132	Siwe 1	Keruak	Lotim	1.20	25,619	8.99	2,577,000	1980/81
133	Siwe 2	Keruak	Lotim	0.60	25,619	8.99	2,617,000	1980/81
134	Jurang Embung	Keruak	Lotim	0.34	6,300	2.20	2,345,041	1980/81
135	Bare Tengah 1	Keruak	Lotim	0.50	-	1.50	1,827,268	1980/81
136	Bare Tengah 2	Keruak	Lotim	0.50	-	2.00	2,306,284	1980/81
137	Nurus	Keruak	Lotim	0.50	-	1.75	1,866,853	1980/81
138	Bare Seri	Keruak	Lotim	0.50	-	2.25	1,997,944	1980/81
139	Montong Surak 1	Keruak	Lotim	0.50	-	3.00	1,450,098	1980/81
140	Montong Surak 2	Keruak	Lotim	0.50	-	2.50	1,600,267	1980/81
141	Montong Surak 3	Keruak	Lotim	0.50	-	2.00	1,917,229	1980/81
142	Senale 1	Keruak	Lotim	0.50	-	1.65	1,659,728	1980/81
143	Senale 2	Keruak	Lotim	0.50	-	1.50	1,992,610	1980/81
144	Senale 3	Keruak	Lotim	0.50	-	1.50	1,574,041	1980/81
145	Senale 4	Keruak	Lotim	0.50	-	2.00	1,694,933	1980/81
146	Sujid	Keruak	Lotim	0.50	-	2.50	2,046,043	1980/81
147	Penyamber 2	Keruak	Lotim	1.30	13,650	2.50	2,894,310	1981/82
148	Penyamber 1	Keruak	Lotim	1.50	2,025	3.50	2,606,556	1981/82
149	H. Chairuddin	Keruak	Lotim	1.00	8,750	5.00	3,612,701	1981/82
150	Penotok 3	Keruak	Lotim	0.80	7,200	5.00	2,894,310	1981/82
151	Tujung	Keruak	Lotim	0.75	9,187	2.80	3,193,707	1981/82
152	Tangun 1 (A.Dar)	Keruak	Lotim	1.50	15,750	3.50	2,894,310	1981/82
153	Tangun (A.Tilem)	Keruak	Lotim	1.00	12,000	3.15	2,894,310	1981/82
154	Tangun (A.Kasim)	Keruak	Lotim	1.00	10,500	3.15	2,606,556	1981/82
155	Mt. Sari 2	Keruak	Lotim	1.00	12,250	3.85	2,606,556	1981/82
156	Mt. Sari 4	Keruak	Lotim	1.00	10,500	4.20	2,606,556	1981/82
157	Orong Tundak	Keruak	Lotim	1.50	15,750	4.90	3,211,994	1981/82
158	Orong Tundak 3	Keruak	Lotim	2.50	18,750	154.00	3,211,994	1981/82
159	Perempung 2	Keruak	Lotim	1.00	9,000	3.50	3,211,994	1981/82
160	Perempung 1	Keruak	Lotim	1.00	12,500	45.00	3,211,994	1981/82
161	Penolong 2	Keruak	Lotim	2.50	22,500	14.00	3,211,994	1981/82
162	Tenges Enges	Keruak	Lotim	2.50	17,500	12.00	3,211,994	1981/82
163	Pengkelak Mas 1	Keruak	Lotim	1.00	10,500	3.50	3,211,994	1981/82
164	Pengkelak Mas 2	Keruak	Lotim	1.00	9,500	3.50	3,211,994	1981/82
165	Gerintik	Keruak	Lotim	1.00	9,000	3.50	3,211,994	1981/82
166	Semban	Keruak	Lotim	0.10	25,000	4.00	3,229,800	1982/83
167	Keseren	Keruak	Lotim	0.10	25,000	4.00	3,229,800	1982/83
168	Segapok	Keruak	Lotim	0.25	37,500	6.00	3,229,800	1982/83
169	Sekele	Keruak	Lotim	0.15	37,500	6.70	3,229,800	1982/83
170	Dasan Randu 1	Keruak	Lotim	0.10	25,000	2.50	3,229,800	1982/83
171	Selau 2	Keruak	Lotim	0.15	46,800	3.20	3,229,800	1982/83

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No.	Name of Embungs	Kecamatan	Kabupaten	Storage		Irrigation Area (ha)	Rehabilitation	
				Area(ha)	Capacity(m3)		Cost (Rp)	FY
172	Kefotok	Keruak	Lotim	0.25	62,500	2.60	3,229,800	1982/83
173	Dalam 1	Keruak	Lotim	0.11	26,250	2.40	3,229,800	1982/83
174	Mt. Keke	Keruak	Lotim	0.14	36,000	3.60	3,229,800	1982/83
175	Buwuh	Keruak	Lotim	0.10	24,500	3.00	3,229,800	1982/83
176	Nampi 1	Keruak	Lotim	0.10	25,000	2.00	2,914,800	1982/83
177	Bagik Jongkor	Keruak	Lotim	0.05	13,500	6.00	2,914,800	1982/83
178	Selalok	Keruak	Lotim	0.25	62,500	3.00	2,914,800	1982/83
179	Ds. Baru 1	Keruak	Lotim	0.04	10,800	5.00	2,914,800	1982/83
180	Mangkung 1	Keruak	Lotim	0.15	30,000	4.60	2,914,800	1982/83
181	Penyaya	Keruak	Lotim	0.15	30,000	4.80	2,914,800	1982/83
182	Mt. Take 2	Keruak	Lotim	0.20	40,000	2.90	2,914,800	1982/83
183	Batu 3	Keruak	Lotim	0.10	20,000	3.10	2,914,800	1982/83
184	Bile Berembun	Keruak	Lotim	0.10	25,000	2.90	2,914,800	1982/83
185	Or. Pandan	Keruak	Lotim	0.70	11,212	1.00	2,914,800	1982/83
186	Ganuk	Keruak	Lotim	0.50	4,900	1.50	3,074,200	1982/83
187	Empas	Keruak	Lotim	0.50	5,250	1.60	3,074,200	1982/83
188	Sadak	Keruak	Lotim	0.50	10,000	2.50	3,074,200	1982/83
189	Bagik Rupe	Keruak	Lotim	0.50	10,000	2.90	3,000,000	1982/83
190	Or. Selukat 2	Keruak	Lotim	0.40	10,000	1.00	3,000,000	1982/83
191	Or. Selukat 3	Keruak	Lotim	0.40	7,200	1.50	3,000,000	1982/83
192	Or. Selukat 4	Keruak	Lotim	0.40	-	1.60	3,000,000	1982/83
193	Batu Putek	Keruak	Lotim	0.60	90,000	2.50	3,000,000	1982/83
194	Rungkang 1	Keruak	Lotim	2.20	24,000	2.95	2,432,333	1983/84
195	Rungkang 2	Keruak	Lotim	2.40	18,000	2.95	2,432,333	1983/84
196	Rungkang 3	Keruak	Lotim	4.57	48,375	4.25	2,432,333	1983/84
197	Tungan Timur	Keruak	Lotim	5.10	44,000	4.75	2,432,333	1983/84
198	Segalar	Keruak	Lotim	3.80	18,000	3.85	2,432,333	1983/84
199	Segaet	Keruak	Lotim	4.85	47,500	4.15	2,432,333	1983/84
200	Embang-embang	Keruak	Lotim	7.55	50,000	5.15	2,432,333	1983/84
201	Tanggung	Keruak	Lotim	4.40	15,000	4.35	2,432,333	1983/84
202	Memoyang	Keruak	Lotim	3.50	11,550	3.25	2,432,333	1983/84
203	Kubur Ulang	Keruak	Lotim	1.55	17,500	1.25	2,432,333	1983/84
204	Santap	Keruak	Lotim	1.50	16,250	1.28	2,432,333	1983/84
205	Montong Surak	Keruak	Lotim	2.15	18,000	2.65	2,432,333	1983/84
206	Penotok	Keruak	Lotim	2.95	33,250	2.95	2,432,333	1983/84
207	Bile Berembun	Keruak	Lotim	3.45	35,500	3.25	2,432,333	1983/84
208	Lendang Dapur	Keruak	Lotim	2.50	20,250	2.85	2,432,333	1983/84
209	Penyayak	Keruak	Lotim	2.50	32,900	2.25	2,432,333	1983/84
210	Penyambak	Keruak	Lotim	2.58	19,200	2.83	2,432,333	1983/84
211	Mangkung 3	Keruak	Lotim	2.82	21,250	2.75	2,432,333	1983/84
212	Repok Katok	Keruak	Lotim	0.82	15,679	5.50	44,779,000	1991/92
213	Inten	Keruak	Lotim	1.25	13,650	6.25	20,663,000	1991/92
214	Sejata	Keruak	Lotim	0.75	11,345	3.00	20,137,000	1991/92
215	Kuang Tojang	Keruak	Lotim	0.65	9,750	3.75	39,756,000	1991/92
216	Puter Jagat	Keruak	Lotim	0.65	9,750	3.75	20,600,000	1992/93
217	Kayu Perang	Keruak	Lotim	0.75	11,345	3.00	22,205,000	1992/93
218	Tangon	Keruak	Lotim	0.75	11,345	3.00	27,480,000	1992/93

**Lombok Island**

Nos of Embungs	218
Average Storage Capacity (n3)	15,535
Average Rehabilitation Cost (Rp)	4,021,873
Average Irrigation Area (ha)	4.13

表-4.11 NTT州既存灌溉用溜池

No	Name of Embung	Location		Irrig. Area (ha)	Type	Main Factor of Embung			Construction / Implementation			Irrig. Grade					
		Kabupaten	Kecamatan			Catchment Area (ha)	Storage Vol.(m3)	Height (m)	Length (m)	Spillway Width(m)	Embank. Vol.(m3)		Period	Cost (mill. Rp.)	Financial Source		
1	Danau Tua	Kupang (P. Rote)	Rote Barat Daya	750	Earth	280	2,045,800	4.00	320.00	5.00	33,600	1981-84	393	GOI	T		
2	Urnakapa	Kupang (P. Rote)	Pantai Baru	83	Earth and Rubbersheet	232	146,600	7.00	100.00	8.00	23,500	1981-92	435	GOI	T		
3	Oetete	Kupang (P. Rote)	Rote Timur	79	Earth and Rubbersheet	14	59,300	6.50	95.00	2.00	29,300	1981-90	297	GOI	T		
4	Livuhahani	Kupang (P. Rote)	Rote Barat Daya	174	Earth and Rubbersheet	85	539,100	8.10	106.00	7.00	43,600	1986-92	1,601	GOI	T		
5	Kapalangga	Kupang (P. Rote)	Rote Barat Laut	135	Earth	313	1,435,600	5.60	1042.00	12.00	40,700	1983-87	888	GOI	T		
6	Lekobatu	Kupang (P. Rote)	Rote Barat Daya	95	Earth and Rubbersheet	78	698,800	6.60	463.00	5.00	31,500	1984-93	1,486	GOI	T		
7	Manubulu	Kupang (P. Rote)	Rote Tengah	1,102	Earth	230	1,015,900	15.00	103.00	20.00	30,406	1988-94	5,006	GOI	T		
8	Murna/Lantoka	Alor (Flores)	Alor Timur	45	Earth	250	135,200	8.10	181.60	20.00	83,800	1992-94	2,695	GOI	T		
9	Kere	Kupang (Sabu)	Sabu Timur	129	Earth	400	922,300	7.40	197.50	6.00	40,800	1993-94	1,658	GOI	T		
10	Karinga	Sumba Timur		214	Earth	500	203,800	10.00	101.00	11.00	18,600	1990-93	1,200	GOI	T		
11	Rakawatu	Sumba Timur	Lewatoku	283	Earth	625	1,544,000	8.50	102.00	23.00	25,400	1991-94	2,774	GOI	T		
12	Waerita	Sikka (Flores)		174	Earth	1,800	324,900	15.00	131.00	26.00	44,100	1991-94	2,458	GOI	T		
13	Patisomba	Sikka (Flores)		128	Earth	400	144,400	12.00	77.50	22.00	30,500	1993-94	908	GOI	T		
						Timor		Flores		Sumba		Total					
						8	3			13							
						857,925	201,500			708,900							
						1,471	2,020			1,677							
						7.53	11.70			8.75							
						318	116			261							

Note : Timor in above categorization includes the Timor, Rote and Sabu Islands.

表-4.12 NTT州既存小規模溜池  
(生活用水・家畜用水)

No.	Name of Embung	Location		Beneficially Family No.	Catchment Area (Ha)	Storage Volume (m3)	Height H (m)	Length L (m)	Imple. Period
		Kabupaten	Kecamatan						
1	Hanc	T.T.S.	Amanuban Barat	25	6.00	6,700	6.00	81.00	86/87
2	Oetilo	T.T.S.	Amanuban Barat	43	15.40	11,500	9.00	80.00	86/87
3	Besiteta	T.T.S.	Amanuban Selatan	43	24.00	-	9.00	80.00	86/87
4	O'inin	T.T.S.	Amanuban Barat	115	7.00	31,000	7.00	62.00	87/88
5	Fatului	T.T.S.	Amanuban Tengah	19	6.00	5,000	6.00	60.00	87/88
6	Noi Ana	T.T.S.	Amanuban Selatan	25	6.00	6,700	7.00	62.00	87/88
7	Oekui I	T.T.S.	Amanuban Selatan	54	10.00	14,600	8.00	63.00	88/89
8	Fatimetan	T.T.S.	Amanuban Barat	53	20.00	14,200	5.00	66.00	88/89
9	Linbaj	T.T.S.	Amanuban Selatan	52	6.00	14,000	8.00	60.00	88/89
10	Eon Ana	T.T.S.	Amanuban Selatan	46	8.00	12,500	-	74.00	88/89
11	Besit I	T.T.S.	Molo Selatan	19	2.00	3,000	5.00	42.00	89/90
12	Oesali	T.T.S.	Amanuban Barat	11	2.00	3,000	10.00	110.00	89/90
13	Besamnutu	T.T.S.	Amanuban Selatan	36	10.00	9,700	7.00	66.00	89/90
14	Pili	T.T.S.	Amanuban Timur	31	8.00	8,500	6.00	100.50	89/90
15	Billa	T.T.S.	Amanuban Timur	20	6.00	5,500	5.00	50.00	89/90
16	Oinlasi I	T.T.S.	Amanuban Timur	40	18.00	5,500	7.00	54.00	89/90
17	Oenai	T.T.S.	Amanuban Timur	20	6.00	5,500	5.00	50.00	89/90
18	Fatukopa	T.T.S.	Amanuban Timur	27	6.00	-	4.00	65.00	89/90
19	Mnefa	T.T.S.	Amanuban Timur	23	5.00	6,120	4.00	68.00	89/90
20	Mauteum	T.T.S.	Amanuban Timur	51	12.00	13,700	5.00	75.00	89/90
21	Falas	T.T.S.	Amanuban Timur	19	6.00	5,100	6.00	47.00	89/90
22	Naimet	T.T.S.	Amanuban Tengah	24	8.00	6,500	6.00	80.00	89/90
23	Oinlasi II	T.T.S.	Amanuban Selatan	136	6.00	36,700	6.00	112.50	90/91
24	Tonom	T.T.S.	Amanuban Selatan	25	6.00	6,700	5.00	71.00	90/91
25	Onibesar	T.T.S.	Amanuban Utara	34	9.50	9,300	6.00	65.00	90/91
26	Fotilo	T.T.S.	Amanuban Utara	24	6.00	6,500	6.00	56.00	90/91
27	Manufui	T.T.S.	Amanuban Selatan	40	6.00	10,700	8.00	76.00	90/91
28	Oen	T.T.S.	Amanuban Selatan	39	10.00	10,700	7.00	82.00	90/91
29	Lilo	T.T.S.	Amanuban Utara	40	6.00	10,700	7.00	72.00	90/91
30	Sunu	T.T.S.	Amanuban Utara	69	6.00	18,700	7.00	86.00	90/91
31	Lotas	T.T.S.	Amanuban Utara	81	6.00	14,930	7.00	90.00	91/92
32	Katife	T.T.S.	Amanuban Utara	62	6.00	13,830	9.00	97.00	91/92
33	Neke	T.T.S.	Amanuban Tengah	68	6.00	12,670	5.00	85.00	91/92
34	Besamnutu	T.T.S.	Amanuban Timur	64	7.00	12,450	6.00	87.00	91/92
35	Oenel	T.T.S.	Amanuban Selatan	73	8.00	13,250	6.00	64.00	91/92
36	Buat II	T.T.S.	Molo Selatan	68	8.00	17,867	9.00	102.00	91/92
37	Buat III	T.T.S.	Molo Selatan	120	8.00	22,826	8.00	101.00	91/92
38	Oekalau	T.T.S.	Amanuban Selatan	75	7.00	28,078	8.00	106.00	92/93
39	Niubele	T.T.S.	Amanuban Timur	55	12.00	14,494	9.00	77.00	92/93
40	Tuakena	T.T.S.	Amanuban Timur	80	6.00	33,540	7.00	95.00	92/93
41	Oelimu	T.T.S.	Amanuban Timur	60	6.50	20,306	8.00	140.00	92/93
42	Besneo	T.T.S.	Amanuban Barat	100	7.00	21,680	8.00	84.00	92/93
43	Oefui	T.T.U	Miomafu Timur	45	16.00	12,200	7.00	80.00	86/87
44	Niola	T.T.U	Miomafu Timur	118	36.00	32,000	8.00	115.00	87/88
45	Beba	T.T.U	Miomafu Timur	93	16.00	25,000	6.00	121.00	87/88
46	Hahae	T.T.U	Miomafu Timur	133	18.21	36,000	10.00	100.00	87/88
47	Oenenu I	T.T.U	Miomafu Timur	129	7.10	34,800	8.00	90.00	88/89
48	Nian	T.T.U	Miomafu Barat	46	6.22	12,380	6.00	115.00	88/89
49	Bijaepasu	T.T.U	Miomafu Barat	38	16.54	10,220	6.00	180.00	88/89
50	Tubupolo	T.T.U	Miomafu Barat	136	13.50	36,700	7.00	127.00	88/89
51	Papin	T.T.U	Miomafu Barat	23	7.10	6,230	6.00	115.00	88/89
52	Tapenpah	T.T.U	Insana	46	12.00	12,500	6.00	225.00	88/89
53	Banfau	T.T.U	Miomafu Timur	27	4.50	7,350	6.00	70.00	88/89
54	Oenenu II	T.T.U	Miomafu Timur	34	15.00	9,100	6.00	95.00	88/89
55	Manunain	T.T.U	Insana	33	7.00	-	6.00	125.00	88/89
56	Banae I	T.T.U	Insana	51	11.93	13,700	6.00	85.00	88/89
57	Lanaus	T.T.U	Insana	109	16.66	29,370	6.00	100.00	88/89
58	Pantac	T.T.U	Biboki Selatan	31	5.00	8,500	6.00	83.00	88/89
59	Subun	T.T.U	Biboki Selatan	104	14.55	28,050	6.00	210.00	88/89
60	Tubatan	T.T.U	Miomafu Barat	69	3.00	18,640	6.00	70.00	88/89
61	Oe olo	T.T.U	Miomafu Barat	25	16.15	6,830	6.00	115.00	90/91
62	Nilulat	T.T.U	Miomafu Timur	25	8.15	6,750	6.00	145.00	90/91
63	Batnes	T.T.U	Miomafu Barat	23	7.65	6,200	6.00	130.00	90/91
64	Laumeni	T.T.U	Miomafu Timur	25	14.00	6,760	6.00	175.00	90/91
65	Banae II	T.T.U	Insana	30	8.14	8,140	6.00	155.00	90/91
66	Arnol	T.T.U	Miomafu Timur	24	5.00	6,370	6.00	15.00	90/91
67	Humus	T.T.U	Insana	27	18.00	7,330	6.00	145.00	90/91
68	Fafnesu	T.T.U	Insana	2	6.50	7,470	6.00	175.00	90/91
69	Aijobatan	T.T.U	Miomafu Timur	77	32.50	20,750	9.00	135.00	91/92
70	Sainoni	T.T.U	Miomafu Timur	65	30.00	17,580	9.00	124.00	91/92
71	Bitefa	T.T.U	Miomafu Timur	70	31.00	18,700	8.00	126.00	91/92
72	Maubes	T.T.U	Biboki Selatan	72	28.00	19,360	9.00	85.00	91/92
73	Maiabesi	T.T.U	Biboki Selatan	77	27.00	18,930	8.00	90.00	91/92
74	Nunmafo	T.T.U	Biboki Selatan	64	36.00	17,430	9.00	95.00	91/92
75		T.T.U	Biboki Selatan	64	29.00	17,330	9.00	105.00	91/92
76	Nunmanu	T.T.U	Kopeta Kupa	155	19.50	22,030	7.00	95.00	92/93
77	Saineno	T.T.U	Miomafu Timur	137	19.24	19,520	7.00	110.00	92/93
78	Kuanek	T.T.U	Miomafu Barat	67	5.00	9,530	6.00	116.00	92/93
79	Kiki	T.T.U	Biboki Utara	170	28.74	24,220	7.00	70.00	92/93
80	Manenu	T.T.U	Biboki Selatan	75	13.58	10,640	7.00	79.00	92/93
81	Babau	Kupang	Kupang Timur	246	47.00	53,000	10.00	82.00	90/91
82	Oemasi	Kupang	Kupang Barat	105	17.00	30,000	10.00	80.00	91/92

表-4.12 NTT州既存小規模溜池  
(生活用水・家畜用水)

No.	Name of Embung	Location		Beneficially Family No.	Catchment Area (Ha)	Storage Volume (m3)	Height H (m)	Length L (m)	Imple. Period
		Kabupaten	Kecamatan						
83	Bismark	Kupang	Kupang Selatan	85	31.20	32,000	9.00	75.00	91/92
84	Naioni	Kupang	Kupang Barat	60	20.00	30,000	10.00	104.00	92/93
85	Hansisi I (P. Semaui)	Kupang	Kupang Barat	74	14.00	30,000	11.00	139.00	92/93
86	Hansisi II (P. Semaui)	Kupang	Kupang Barat	118	13.00	15,000	9.00	108.00	92/93
87	Manutapen	Kupang	-	115	9.00	32,000	10.00	135.00	93/94
88	Oelomin	Kupang	-	85	17.00	47,000	-	-	93/94
89	Oben I	Kupang	-	65	6.00	18,000	-	-	93/94
90	Sumlili I	Kupang	Kupang Barat	40	6.00	44,100	11.00	98.00	92/93
91	Sumlili II	Kupang	Kupang Barat	30	6.00	34,398	10.00	89.00	92/93
92	Oematununu	Kupang	Kupang Barat	42	6.00	30,000	8.00	75.00	92/93

<b>Timor Island</b>	
- Nos. of embungs	92
- Average Storage Capacity (m3)	16,937
- Average Height (m3)	7.15
- Average Beneficially Family (Nos.)	62

表-5.1 調査対象溜池の計画熟度

No	ID No.	Name of Scheme	Province	Kabupaten	Kecamatan	Desa	Planning Completed	Design Completed
1	LB01	Pinang Lulu	NTB	Lombok Barat		Gangga	Sesait	
2	LB02	Lokok Melepah	NTB	Lombok Barat		Bayan	Selengen	
3	LB03	Lokok Salut	NTB	Lombok Barat		Bayan	Selengan	
4	LB04	Lengkok Menangan	NTB	Lombok Barat		Bayan	Seganing	
5	LB05	Lengkok Tawah	NTB	Lombok Barat		Bayan	Akar-Akar	
6	LB06	Kleder	NTB	Lombok Barat		Bayan	Akar-Akar	
7	LB07	Lokok Timpas	NTB	Lombok Barat		Bayan	Akar-Akar	
8	LB08	Lokok Lebak	NTB	Lombok Barat		Bayan	Akar-Akar	
9	LB09	Lokok Gerasak	NTB	Lombok Barat		Bayan	Akar-Akar	
10	LB10	Lokok Kwangan	NTB	Lombok Barat		Bayan	Sukadana	
11	LB11	Lokok Menniris	NTB	Lombok Barat		Bayan	Anyar	
12	LB12	Lokok Santek	NTB	Lombok Barat		Bayan	Bayan	
13	LB13	Tibu Sanggar	NTB	Lombok Barat		Sekotong	Sekotong Tengah	
14	LB14	Pelangan	NTB	Lombok Barat		Sekotong Tengah	Pelangan	X
15	LB15	Lendang Guar	NTB	Lombok Barat		Sekotong Tengah	Lendang Guar	
16	LB16	Lokok Salangu	NTB	Lombok Barat		Bayan	Akar-Akar	
17	LH01	Gula Liat II	NTB	Lombok Tengah		Batu Keliang	Aik Bukak	
19	LH03	Batu Tanam	NTB	Lombok Tengah		Kopang	Bebuk	
20	LH04	Batu Tulis	NTB	Lombok Tengah		Jonggat	Batu Tulis	
21	LH05	Bare Julat	NTB	Lombok Tengah		Praya	Bare Julat	
22	LH06	Tibuk Sisuk	NTB	Lombok Tengah		Loang Nake	Tibu Sisuk	
23	LH07	Pengembuk	NTB	Lombok Tengah		Praya	Kelebu	
25	LH09	Kelanjur	NTB	Lombok Tengah		Praya Barat	Montong Sapah	
26	LH10	Pore	NTB	Lombok Tengah		Montong Sapah		
27	LH11	Batu Jangkih	NTB	Lombok Tengah		Praya Barat	Montong Sapah	
28	LH12	Suare	NTB	Lombok Tengah		Praya Barat	Montong Sapah	
29	LH13	Kelebeh	NTB	Lombok Tengah		Praya Barat	Setanggor	
30	LH14	Pedeh	NTB	Lombok Tengah		Praya Barat	Setanggor	
31	LH15	Ungga	NTB	Lombok Tengah		Praya Barat	Ungga	
34	LH18	Lomban Lauq	NTB	Lombok Tengah		Praya Timur	Marong	
35	LH19	Bengawan	NTB	Lombok Tengah		Pujut	Pengembur	
36	LH20	Bun Mas	NTB	Lombok Tengah		Pujut	Pengembur	
37	LH21	Sereneng	NTB	Lombok Tengah		Pujut	Teruwai	
38	LH22	Tempit	NTB	Lombok Tengah		Pujut	Teruwai	
39	LH23	Gerentuk	NTB	Lombok Tengah		Pujut	Teruwai	
41	LH25	Selawang	NTB	Lombok Tengah		Pujut	Tanak Awu	X
42	LR01	Lokok Sukun	NTB	Lombok Timur		Sambelia	Obel-Obel	
43	LR02	Tibu Meong	NTB	Lombok Timur		Sambelia	Sambelia	
45	LR04	Aik Bata	NTB	Lombok Timur		Pringgabaya	Perigi	
46	LR05	Kali Seruni/Papah	NTB	Lombok Timur		Pringgabaya	Perigi	
48	LR07	Batu Tinja	NTB	Lombok Timur		Pringgabaya	Selaparang	
51	LR10	Senang	NTB	Lombok Timur		Pringgabaya	Batuyang	
52	LR11	Kembang Kuning	NTB	Lombok Timur		Sikur	Kembang Kuning	X
53	LR12	Gunung Joget	NTB	Lombok Timur		Sakra	Swangi	X
55	LR14	MT. Krarak	NTB	Lombok Timur		Sakra	Rumbuk	
56	LR15	Montong Semat	NTB	Lombok Timur		Sakra	Rumbuk	X
57	LR16	Pancor Manis	NTB	Lombok Timur		Sakra	Dasan Lekong	
58	LR17	Prako	NTB	Lombok Timur		Sakra	Kabar	
60	LR19	Tinu Ulik	NTB	Lombok Timur		Keruak	Selebung Ketangga	
64	LR23	Pungkang	NTB	Lombok Timur		Sikur	Semaya	
65	SW01	Gapit	NTB	Sumbawa		Boal	Gapit	X
66	SW02	Sejari	NTB	Sumbawa		Plampang	Plampang	X
67	SW03	Tui Tui	NTB	Sumbawa		Empang	Boal	
68	SW04	Penyempeng	NTB	Sumbawa		Empang	Jotang	
69	SW05	Jompong	NTB	Sumbawa		Plampang	Moer	
70	SW06	Penyaring	NTB	Sumbawa		Moyo Hilir	Penyaring	
71	SW07	Lopok	NTB	Sumbawa		Lape Lopok	Lopok	
72	SW08	Serading	NTB	Sumbawa		Moyo Hilir	Serading	
73	SW09	Olat Rawa	NTB	Sumbawa		Moyo Hilir	Kakiang	
74	SW10	Jamu	NTB	Sumbawa		Lunyuk	Jamu	
75	SW11	Maluk	NTB	Sumbawa		Jereweh	Goa	
76	SW12	Jelenga	NTB	Sumbawa		Jereweh	Beru	
77	SW13	Benete	NTB	Sumbawa		Jereweh	Belo	
78	SW14	Terusa	NTB	Sumbawa		Alas	Terusa	
79	DO01	Banggo Plan	NTB	Dompu		Kempu	Banggo	
80	DO02	Tonda Utara	NTB	Dompu		Dompu	Bara	X



表- 5.1 調査対象溜池の計画熟度

No	ID No.	Name of Scheme	Province	Kabupaten	Kecamatan	Desa	Planning Completed	Design Completed
81	DO03	Tonda Selatan	NTB	Dompu	Dompu	Matua		
82	DO04	Saneo	NTB	Dompu	Dompu	Saneo	X	X
83	DO05	La-Nangga	NTB	Dompu	Huu	Ranggo		
84	DO06	Ta'a	NTB	Dompu	Kempo	Ta'a	X	
85	DO07	Parugasante	NTB	Dompu	Kempo	Soriutu		
86	DO08	Kesi	NTB	Dompu	Konte	Kesi		
87	DO09	Kuango	NTB	Dompu	Kempo	Kuangko		
89	BI01	Piong	NTB	Bima	Sanggar	Piong	X	
90	BI02	Mpuri	NTB	Bima	Bolo	Mpuri		
91	BI03	Ntonggu II	NTB	Bima	Belo	Ntonggu		
92	BI04	Lido	NTB	Bima	Belo	Lido		
93	BI05	Ncera	NTB	Bima	Belo	Ncera	X	X
94	BI06	Doroo'o	NTB	Bima	Belo	Doroo'o		
95	BI07	Sondo	NTB	Bima	Monta	Sondo		
96	BI08	Laju	NTB	Bima	Belo	Laju		
97	BI09	Ncoha II	NTB	Bima	Bolo	Nggembe		
98	BI10	Ncoha I	NTB	Bima	Bolo	Tambe	X	
99	BI11	Woro	NTB	Bima	Bolo	Woro	X	
100	BI12	Tolowata	NTB	Bima	Wera	Tolowata		
101	BI13	Tawali	NTB	Bima	Wera	Tawali		
102	BI14	Ntoke	NTB	Bima	Wera	Ntoke		
103	BI15	Kowo	NTB	Bima	Sape	Kowo	X	
104	BI16	Buncu	NTB	Bima	Sape	Boncu		
105	BI17	Keli	NTB	Bima	Woha	Keli		
106	TI01	Bimoku	NTT	Kupang	Kupang Tengah	Lasiana	X	
107	TI02	Oeltua	NTT	Kupang	Kupang Tengah	Oeltua	X	
108	TI03	Tasiepah	NTT	Kupang	Kupang Timur	Oefafi	X	
109	TI04	Biraut	NTT	Kupang	Amarasi	Nik Baun	X	
110	TI05	Batu Panjang	NTT	Kupang	Kupang Barat	Batu Pelat	X	
111	TI06	Pariti	NTT	Kupang	Sulamu	Pariti	X	
112	TI07	Obor	NTT	Belu	Malaka Timur	Mande'u	X	
113	TI08	Benkoko	NTT	TTU	Insana	Oenbit		
114	TI09	Oebuain	NTT	TTU	Insana	Letmafo	X	
115	TI10	Fatukmetang	NTT	Belu	Tasifeto Barat	Jenelu	X	
116	TI11	Bellemata	NTT	Belu	Tasifeto Barat	Jenilu	X	
117	TI12	Nana Eklot	NTT	Belu	Tasifeto	Silawan	X	
118	TI13	Maubusa II	NTT	Belu	Tasifao Timur	Defala	X	
119	TI14	Raininu	NTT	Belu	Malaka Timur	Kusa	X	
120	TI15	Buitasik	NTT	Belu	Tasifao Barat	Naitimu	X	
128	RO08	Hanendam	NTT	Kupang	Lobalain	Kuli	X	
130	RO10	Lenggale	NTT	Kupang	Rote Timur	Oe Ledo	X	X
131	RO11	Livubatu	NTT	Kupang	Lobalain	Tuanatuk		
132	RO12	Toen Oen	NTT	Kupang	Rote Timur	Muke Kuku		
133	RO13	Matasio	NTT	Kupang	Rote Timur	Matasio	X	
135	SA02	Lokoei	NTT	Kupang	Sabu Barat	Nadawawi	X	
137	FL02	Ratisomba	NTT	Sikka	Alok	Wolomarang	X	X
138	FL03	Waeliti	NTT	Sikka	Alok	Wolomarang	X	X
139	FL04	Napungседа	NTT	Sikka	Kewapante	Kopong	X	
140	FL051	Lokaria I	NTT	Sikka	Kewapante	Langir	X	
141	FL052	Lokaria II	NTT	Sikka	Kewapante	Langir	X	
142	FL053	Lokaria III	NTT	Sikka	Kewapante	Langir	X	
143	FL06	Ojang	NTT	Sikka	Alok	Wolomarang	X	
144	FL07	Likot	NTT	Sikka	Talibura	Wairbleler	X	
145	PA01	Maliang	NTT	Alor	Pantar	Muriabang	X	
146	PA02	Latua	NTT	Alor	Pantar	Kalondama	X	
147	PA03	Mobobaa I	NTT	Alor	Pantar	Kalondama	X	
148	PA04	Mobobaa II	NTT	Alor	Pantar	Kalondama	X	
149	PA05	Kakamauta	NTT	Alor	Pantar	Mauta	X	
150	PA06	Airmama	NTT	Alor	Pantar	Mauta	X	
151	AL01	Lantoka	NTT	Alor	Alor Timur	Tanglapui	X	
152	AL02	Padang Panjang	NTT	Alor	Alor Timur	Tanglapui	X	
155	SU03	Mayaiyang	NTT	Sumba Timur	Lewa	Tanarara	X	
156	SU04	Manjali	NTT	Sumba Timur	Lewa	Tanarara	X	
157	SU05	Prailiang	NTT	Sumba Barat	Katiku Tana	Wae Rasa	X	X

表-5.2 調査対象溜池の形式、堤高および堤体積

ID No.	Name of Scheme	Province	Embung Type	Embung Height (m)	Embankment Volume (m <sup>3</sup> )
LB01	Pinang Lulu	NTB	Masonry	10	2,200
LB02	Lokok Melepah	NTB	Masonry	10	3,300
LB03	Lokok Salut	NTB	Masonry	6	480
LB04	Lengkok Menangan	NTB	Masonry	12	3,600
LB05	Lengkok Tawah	NTB	Zone	8	5,520
LB06	Kleder	NTB	Masonry	12	1,980
LB07	Lokok Timpas	NTB	Masonry	10	3,000
LB08	Lokok Lebak	NTB	Masonry	15	6,075
LB09	Lokok Gerasak	NTB	Masonry	12	1,650
LB10	Lokok Kwangan	NTB	Masonry	15	6,075
LB11	Lokok Menniris	NTB	Zone	20	79,500
LB12	Lokok Santek	NTB	Masonry	15	4,050
LB13	Tibu Sanggar	NTB	Zone	5	6,500
LB14	Pelangan	NTB	Zone	29	621,870
LB15	Lendang Guar	NTB	Homogeneous	6	4,320
LB16	Lokok Salangu	NTB	Homogeneous	10	6,500
LH01	Gula Liat II	NTB	Homogeneous	10	23,000
LH03	Batu Tanam	NTB	Zone	15	31,500
LH04	Batu Tulis	NTB	Masonry	10	3,675
LH05	Bare Julat	NTB	Homogeneous	10	7,800
LH06	Tibuk Sisuk	NTB	Homogeneous	5	3,600
LH07	Pengembuk	NTB	Masonry	8	1,600
LH09	Kelanjur	NTB	Zone	8	4,560
LH10	Pore	NTB	Homogeneous	15	40,500
LH11	Batu Jangkih	NTB	Homogeneous	12	9,000
LH12	Suare	NTB	Homogeneous	12	10,800
LH13	Kelebeh	NTB	Homogeneous	6	3,060
LH14	Pedeh	NTB	Homogeneous	5	2,250
LH15	Ungga	NTB	Homogeneous	5	4,000
LH18	Lomban Lauq	NTB	Masonry	10	5,200
LH19	Bengawan	NTB	Homogeneous	5	3,600
LH20	Bun Mas	NTB	Homogeneous	8	19,360
LH21	Sereneng	NTB	Homogeneous	8	8,800
LH22	Tempit	NTB	Masonry	8	2,000
LH23	Gerentuk	NTB	Homogeneous	10	7,800
LH25	Selawang	NTB	Homogeneous	5	2,000
LR01	Lokok Sukun	NTB	Zone	4	1,320
LR02	Tibu Meong	NTB	Masonry	10	2,750
LR04	Aik Bata	NTB	Masonry	25	64,330
LR05	Kali Seruni/Papah	NTB	Zone	15	60,750
LR07	Batu Tinja	NTB	Masonry	10	2,750
LR10	Senang	NTB	Masonry	12	5,040
LR11	Kembang Kuning	NTB	Masonry	13	2,297
LR12	Gunung Joget	NTB	Masonry	15	7,088
LR14	MT. Krarak	NTB	Masonry	12	7,370
LR15	Montong Semat	NTB	Homogeneous	4	4,200

表-5.2 調査対象溜池の形式、堤高および堤体積

ID No.	Name of Scheme	Province	Embung Type	Embung Height (m)	Embankment Volume (m3)
LR16	Pancor Manis	NTB	Homogeneous	10	9,100
LR17	Prako	NTB	Zone	8	6,400
LR19	Tinu Ulik	NTB	Masonry	10	4,400
LR23	Pungkang	NTB	Zone	15	52,500
SW01	Gapit	NTB	Homogeneous	18	689,688
SW02	Sejari	NTB	Homogeneous	15	84,938
SW03	Tui Tui	NTB	Zone	19	251,700
SW04	Penyempeng	NTB	Zone	39	614,510
SW05	Jompong	NTB	Homogeneous	14	59,640
SW06	Penyaring	NTB	Homogeneous	10	21,200
SW07	Lopok	NTB	Homogeneous	15	79,275
SW08	Serading	NTB	Homogeneous	6	18,900
SW09	Olat Rawa	NTB	Homogeneous	12	74,400
SW10	Jamu	NTB	Masonry	15	6,431
SW11	Maluk	NTB	Homogeneous	10	53,000
SW12	Jelenga	NTB	Homogeneous	15	56,625
SW13	Benete	NTB	Homogeneous	10	26,500
SW14	Terusa	NTB	Homogeneous	18	420,525
DO01	Banggo Plan	NTB	Homogeneous	12	40,920
DO02	Tonda Utara	NTB	Homogeneous	16	119,616
DO03	Tonda Selatan	NTB	Homogeneous	12	74,400
DO04	Saneo	NTB	Homogeneous	15	45,968
DO05	La-Nangga	NTB	Homogeneous	15	39,638
DO06	Ta'a	NTB	Homogeneous	12	66,960
DO07	Parugasante	NTB	Homogeneous	10	21,200
DO08	Kesi	NTB	Homogeneous	14	59,640
DO09	Kuango	NTB	Homogeneous	10	29,150
BI01	Piong	NTB	Homogeneous	13	47,548
BI02	Mpuri	NTB	Homogeneous	8	21,120
BI03	Ntonggu II	NTB	Homogeneous	17	252,100
BI04	Lido	NTB	Homogeneous	12	52,080
BI05	Ncera	NTB	Homogeneous	15	84,938
BI06	Doroo'o	NTB	Homogeneous	10	26,500
BI07	Sondo	NTB	Homogeneous	8	10,560
BI08	Laju	NTB	Homogeneous	15	62,288
BI09	Ncoha II	NTB	Zone	25	454,580
BI10	Ncoha I	NTB	Homogeneous	15	59,456
BI11	Woro	NTB	Homogeneous	15	178,875
BI12	Tolowata	NTB	Homogeneous	15	50,963
BI13	Tawali	NTB	Homogeneous	8	22,880
BI14	Ntoke	NTB	Homogeneous	15	101,925
BI15	Kowo	NTB	Homogeneous	15	89,361
BI16	Buncu	NTB	Homogeneous	12	27,900
BI17	Keli	NTB	Homogeneous	12	48,360
TI01	Bimoku	NTT	Homogeneous	14	31,000
TI02	Oeltua	NTT	Homogeneous	12	200,000

表-5.2 調査対象溜池の形式、堤高および堤体積

ID No.	Name of Scheme	Province	Embung Type	Embung Height (m)	Embankment Volume (m <sup>3</sup> )
TI03	Tasiepah	NTT	Homogeneous	26	267,000
TI04	Biraut	NTT	Homogeneous	13	39,000
TI05	Batu Panjang	NTT	Homogeneous	7	3,850
TI06	Pariti	NTT	Homogeneous	15	102,000
TI07	Obor	NTT	Homogeneous	7	5,775
TI08	Benkoko	NTT	Homogeneous	19	221,000
TI09	Oebuain	NTT	Homogeneous	12	80,000
TI10	Fatukmetang	NTT	Homogeneous	19	523,420
TI11	Bellemata	NTT	Homogeneous	8	2,850
TI12	Nana Eklot	NTT	Homogeneous	13	28,730
TI13	Maubusa II	NTT	Homogeneous	8	9,600
TI14	Raininu	NTT	Homogeneous	8	9,600
TI15	Buitasik	NTT	Homogeneous	7	5,775
RO08	Hanendam	NTT	Homogeneous	5	6,500
RO10	Lenggale	NTT	Homogeneous	7	34,650
RO11	Livubatu	NTT	Homogeneous	5	14,000
RO12	Toen Oen	NTT	Homogeneous	12	33,600
RO13	Matasio	NTT	Homogeneous	11	110,000
SA02	Lokoei	NTT	Homogeneous	13	100,100
FL02	Ratisomba	NTT	Homogeneous	9	19,814
FL03	Waeliti	NTT	Homogeneous	14	75,346
FL04	Napungseda	NTT	Homogeneous	5	11,213
FL051	Lokaria I	NTT	Masonry	6	3,771
FL052	Lokaria II	NTT	Homogeneous	6	7,200
FL053	Lokaria III	NTT	Masonry	8	3,686
FL06	Ojang	NTT	Homogeneous	11	72,600
FL07	Likot	NTT	Homogeneous	5	19,125
PA01	Maliang	NTT	Homogeneous	5	11,250
PA02	Latua	NTT	Homogeneous	7	6,300
PA03	Mobobaa I	NTT	Homogeneous	7	12,600
PA04	Mobobaa II	NTT	Homogeneous	10	31,250
PA05	Kakamauta	NTT	Homogeneous	8	8,400
PA06	Airmama	NTT	Homogeneous	7	18,900
AL01	Lantoka	NTT	Homogeneous	8	33,600
AL02	Padang Panjang	NTT	Homogeneous	9	41,400
SU03	Mayaiyang	NTT	Homogeneous	20	188,300
SU04	Manjali	NTT	Homogeneous	5	15,441
SU05	Prailiang	NTT	Homogeneous	8	44,600

表-5.3 調査対象溜池の集水面積、総貯水容量および灌漑面積

No.	Name of Scheme	Province	Catchment Area (km <sup>2</sup> )	Storage Capacity (m <sup>3</sup> )	Irrigation Area (ha)
LB01	Pinang Lulu	NTB	2.50	500,000	103
LB02	Lokok Melepah	NTB	1.00	250,000	35
LB03	Lokok Salut	NTB	2.31	180,000	80
LB04	Lengkok Menangan	NTB	1.46	250,000	198
LB05	Lengkok Tawah	NTB	0.60	115,280	15
LB06	Kleder	NTB	1.50	300,000	62
LB07	Lokok Timpas	NTB	1.70	500,000	100
LB08	Lokok Lebak	NTB	0.68	60,000	20
LB09	Lokok Gerasak	NTB	12.75	360,000	53
LB10	Lokok Kwangan	NTB	20.14	1,125,000	500
LB11	Lokok Menniris	NTB	7.40	281,000	44
LB12	Lokok Santek	NTB	3.37	375,000	140
LB13	Tibu Sanggar	NTB	0.44	80,000	20
LB14	Pelangan	NTB	46.00	5,700,000	248
LB15	Lendang Guar	NTB	0.56	80,000	15
LB16	Lokok Salangu	NTB	1.09	400,000	60
LH01	Gula Liat II	NTB	0.50	250,000	39
LH03	Batu Tanam	NTB	1.00	500,000	401
LH04	Batu Tulis	NTB	9.50	630,000	0
LH05	Bare Julat	NTB	1.88	400,000	346
LH06	Tibuk Sisuk	NTB	2.30	100,000	108
LH07	Pengembuk	NTB	2.91	380,000	91
LH09	Kelanjur	NTB	1.33	212,000	30
LH10	Pore	NTB	6.67	1,125,000	275
LH11	Batu Jangkih	NTB	2.56	240,000	85
LH12	Suare	NTB	1.25	300,000	50
LH13	Kelebeh	NTB	1.00	150,000	30
LH14	Pedeh	NTB	1.44	125,000	15
LH15	Ungga	NTB	1.25	125,000	0
LH18	Lomban Lauq	NTB	14.80	500,000	429
LH19	Bengawan	NTB	1.00	133,000	25
LH20	Bun Mas	NTB	1.87	367,000	60
LH21	Sereneng	NTB	7.40	400,000	300
LH22	Tempit	NTB	0.80	180,000	50
LH23	Gerentuk	NTB	0.85	230,000	100
LH25	Selawang	NTB	0.30	18,750	15
LR01	Lokok Sukun	NTB	0.13	25,000	15
LR02	Tibu Meong	NTB	10.00	500,000	174
LR04	Aik Bata	NTB	22.40	570,000	84
LR05	Kali Seruni/Papah	NTB	5.81	1,500,000	350
LR07	Batu Tinja	NTB	1.10	170,000	32
LR10	Senang	NTB	4.00	600,000	35
LR11	Kembang Kuning	NTB	13.00	625,000	335
LR12	Gunung Joget	NTB	4.43	750,000	122
LR14	MT. Krarak	NTB	5.40	125,000	44
LR15	Montong Semat	NTB	0.41	53,700	0
LR16	Pancor Manis	NTB	2.40	300,000	125
LR17	Prako	NTB	3.13	256,000	132
LR19	Tinu Ulik	NTB	3.58	500,000	80
LR23	Pungkang	NTB	6.70	1,050,000	538
SW01	Gapit	NTB	41.00	10,351,500	1300
SW02	Sejari	NTB	6.65	562,500	190
SW03	Tui Tui	NTB	21.20	4,300,000	324
SW04	Penyempeng	NTB	41.10	7,750,000	350
SW05	Jompong	NTB	0.80	250,000	40
SW06	Penyaring	NTB	1.60	350,000	50
SW07	Lopok	NTB	2.05	562,500	120

表-5.3 調査対象溜池の集水面積、総貯水容量および灌漑面積

No.	Name of Scheme	Province	Catchment Area (km <sup>2</sup> )	Storage Capacity (m <sup>3</sup> )	Irrigation Area (ha)
SW08	Serading	NTB	0.77	212,500	80
SW09	Olat Rawa	NTB	7.10	1,950,000	190
SW10	Jamu	NTB	35.70	9,375,000	1350
SW11	Maluk	NTB	2.15	500,000	125
SW12	Jelenga	NTB	2.33	325,000	100
SW13	Benete	NTB	2.50	300,000	0
SW14	Terusa	NTB	16.14	2,397,000	640
DO01	Banggo Plan	NTB	2.05	300,000	100
DO02	Tonda Utara	NTB	10.60	705,000	250
DO03	Tonda Selatan	NTB	10.35	600,000	400
DO04	Saneo	NTB	2.10	175,000	160
DO05	La-Nangga	NTB	2.50	562,500	200
DO06	Ta'a	NTB	8.27	1,494,000	600
DO07	Parugasante	NTB	2.65	375,000	250
DO08	Kesi	NTB	5.80	1,500,000	500
DO09	Kuango	NTB	5.20	375,000	180
BI01	Piong	NTB	4.40	487,500	100
BI02	Mpuri	NTB	3.60	403,000	80
BI03	Ntonggu II	NTB	6.20	1,270,000	187
BI04	Lido	NTB	3.20	300,000	171
BI05	Ncera	NTB	6.30	630,000	264
BI06	Doroo'o	NTB	6.70	375,000	120
BI07	Sondo	NTB	1.80	200,000	80
BI08	Laju	NTB	10.20	900,000	217
BI09	Ncoha II	NTB	12.60	1,220,000	145
BI10	Ncoha I	NTB	8.49	285,000	130
BI11	Woro	NTB	20.19	1,552,500	568
BI12	Tolowata	NTB	2.50	375,000	196
BI13	Tawali	NTB	5.85	543,000	250
BI14	Ntoke	NTB	7.20	562,500	394
BI15	Kowo	NTB	8.22	406,170	209
BI16	Buncu	NTB	9.80	300,000	104
BI17	Keli	NTB	5.85	879,000	173
FL02	Ratisomba	NTT	4.00	300,000	100
FL03	Waeliti	NTT	2.82	62,995	20
FL04	Napungseda	NTT	2.00	240,000	94
FL051	Lokaria I	NTT	1.00	120,000	81
FL052	Lokaria II	NTT	1.00	120,000	72
FL053	Lokaria III	NTT	1.00	120,000	79
FL06	Ojang	NTT	4.80	635,250	91
FL07	Likot	NTT	1.50	120,000	65
PA01	Maliang	NTT	0.15	30,000	37
PA02	Latua	NTT	1.50	150,000	19
PA03	Mobobaa I	NTT	7.50	150,000	133
PA04	Mobobaa II	NTT	20.00	450,000	33
PA05	Kakamauta	NTT	15.00	700,000	190
PA06	Airmama	NTT	0.18	40,000	45
AL01	Lantoka	NTT	2.50	350,000	47
AL02	Padang Panjang	NTT	2.50	500,000	47
SU03	Mayaiyang	NTT	19.10	2,160,000	450
SU04	Manjali	NTT	0.20	245,000	90
SU05	Prailiang	NTT	0.19	100,903	40
TI01	Bimoku	NTT	0.20	55,000	0
TI02	Oeltua	NTT	0.82	94,000	0
TI03	Tasiepah	NTT	32.10	2,500,000	160
TI04	Biraut	NTT	2.80	261,000	54
TI05	Batu Panjang	NTT	0.90	30,000	17

表-5.3 調査対象溜池の集水面積、総貯水容量および灌漑面積

No.	Name of Scheme	Province	Catchment Area (km <sup>2</sup> )	Storage Capacity (m <sup>3</sup> )	Irrigation Area (ha)
TI06	Pariti	NTT	56.25	2,000,000	175
TI07	Obor	NTT	32.60	60,000	355
TI08	Benkoko	NTT	2.30	204,000	35
TI09	Oebuain	NTT	0.80	72,000	0
TI10	Fatukmetang	NTT	4.00	920,000	57
TI11	Bellemata	NTT	1.10	15,000	22
TI12	Nana Eklot	NTT	7.90	580,000	174
TI13	Maubusa II	NTT	10.90	300,000	210
TI14	Raininu	NTT	3.60	100,000	32
TI15	Buitasik	NTT	2.20	190,000	43
RO08	Hanendam	NTT	0.80	200,000	200
RO10	Lenggale	NTT	16.00	108,000	32
RO11	Livubatu	NTT	0.16	40,000	23
RO12	Toen Oen	NTT	3.13	700,000	103
RO13	Matasio	NTT	5.00	530,000	75
SA02	Lokoei	NTT	3.00	400,000	34

表-5.4 調査対象溜池の類型区分結果

Agriculture	Category		NTB			NTT			Total
	Water Resources	Future Water Use	Lombok	Sumbawa	NTB Total	Flores,Sumba	Timor	NTT Total	
a	A	1	1		1	9	12	21	22
a	A	2	1	3	4				4
a	A	3	9		9	7		7	16
a	A	4	8	11	19	1		1	20
a	B	1					1	1	1
a	B	2							
a	B	3				1	1	2	2
a	B	4							
a	C	1							
a	C	2							
a	C	3							
a	C	4	1		1				1
b	A	1							
b	A	2							
b	A	3							
b	A	4							
b	B	1					2	2	2
b	B	2		1	1				1
b	B	3	1		1		1	1	2
b	B	4		2	2				2
b	C	1	1		1				1
b	C	2							
b	C	3	3		3				3
b	C	4							
c	A	1							
c	A	2							
c	A	3							
c	A	4							
c	B	1					1	1	1
c	B	2		2	2				2
c	B	3	4		4	1		1	5
c	B	4	4	14	18				18
c	C	1							
c	C	2	3		3				3
c	C	3	8		8				8
c	C	4	6	7	13				13
Total			50	40	90		18	37	127

Note:  
With respect to the Bimoku, Oeltua, and Oebuain Schemes, where the feasibility study have been carried out in the Phase 1 Study, they are categorized into 5



表-5.5 主要施設および構造物別概略建設単価

Description	Unit	Unit Cost
Embung	Homogeneous Type Earthfill	Rp./m <sup>3</sup> 12,000
	Zone Type Earthfill	Rp./m <sup>3</sup> 15,000
	Masonry Type	Rp./m <sup>3</sup> 150,000
<i>Spilway and related Structure 100 % of Dam Cost</i>		
Irrigation Infrastructure	New Construction Works	Rp./ha 3,000,000
	Rehabilitation Works	Rp./ha 1,000,000
Land Development	Rp./ha	500,000
Domestic Water Supply	Rp./ha	2,000,000

表-5.6 ヘクタール当たり作物別経済価格純収入

Unit : Rp./ha

Crop	Crop Season	Watering Condition	Without Project			With Project		
			Gross Production Value	Production Cost	Net Production Value	Gross Production Value	Production Cost	Net Production Value
1 Lombok								
1) Paddy	Wet	Rainfed	794,000	339,150	454,850	-	-	-
	Wet	Irrigated	1,191,000	640,410	550,590	1,786,500	775,975	1,010,525
	Dry	Irrigated	-	-	-	1,786,500	754,725	1,031,775
2) Maize	Wet	Rainfed	286,000	157,550	128,450	-	-	-
3) Soybean	Dry	Rainfed	-	-	-	711,700	309,290	402,410
	Dry	Irrigated	-	-	-	905,800	357,560	548,240
4) Mungbean	Dry	Rainfed	453,000	165,985	287,015	860,700	377,550	483,150
	Dry	Irrigated	-	-	-	1,087,200	397,640	689,560
5) Red onion	Dry	Irrigated	-	-	-	5,280,000	2,762,000	2,518,000
6) Tobacco	Dry	Rainfed	835,200	250,400	584,800	1,670,400	436,340	1,234,060
	Dry	Irrigated	-	-	-	2,088,000	529,800	1,558,200
2 Sumbawa								
1) Paddy	Wet	Rainfed	788,000	302,025	485,975	-	-	-
	Wet	Irrigated	1,182,000	569,585	612,415	1,773,000	688,850	1,084,150
	Dry	Rainfed	709,200	292,650	416,550	-	-	-
	Dry	Irrigated	-	-	-	1,773,000	669,475	1,103,525
2) Soybean	Wet	Rainfed	577,800	166,775	411,025	-	-	-
	Dry	Rainfed	385,200	98,290	286,910	-	-	-
	Dry	Irrigated	-	-	-	898,800	322,310	576,490
3) Mungbean	Dry	Rainfed	450,500	108,625	341,875	855,950	338,450	517,500
	Dry	Irrigated	-	-	-	1,081,200	358,765	722,435
4) Red onion	Dry	Irrigated	-	-	-	5,242,500	2,651,250	2,591,250
3 West Timor								
1) Paddy	Dry	Irrigated	-	-	-	1,556,000	581,075	974,925
2) Mungbean	Dry	Irrigated	-	-	-	979,000	320,290	658,710
3) Red onion	Dry	Irrigated	-	-	-	5,167,500	2,563,500	2,604,000
4 Flores & Sumba								
1) Paddy	Wet	Rainfed	588,000	253,700	334,300	-	-	-
	Wet	Irrigated	862,400	421,170	441,230	1,568,000	579,325	988,675
2) Maize	Wet	Rainfed	509,600	107,900	401,700	-	-	-
3) Soybean	Dry	Irrigated	-	-	-	764,400	318,120	446,280
4) Mungbean	Dry	Irrigated	-	-	-	896,000	319,290	576,710

表-5.7 調査対象地区計画灌漑面積および作付面積

No.	Name of Scheme	Province	Wet Season	1 st Dry Season		2 nd Dry Season
			Wet Paddy (ha)	Wet Paddy (ha)	Palawija (ha)	Palawija (ha)
LB01	Pinang Lulu	NTB	103	0	103	0
LB02	Lokok Melepah	NTB	35	0	0	0
LB03	Lokok Salut	NTB	80	0	140	0
LB04	Lengkok Menangan	NTB	198	0	198	0
LB05	Lengkok Tawah	NTB	15	0	0	0
LB06	Kleder	NTB	62	0	0	0
LB07	Lokok Timpas	NTB	100	0	100	0
LB08	Lokok Lebak	NTB	20	0	20	0
LB09	Lokok Gerasak	NTB	53	0	53	0
LB10	Lokok Kwangan	NTB	500	180	320	0
LB11	Lokok Menniris	NTB	44	0	0	0
LB12	Lokok Santek	NTB	140	110	0	110
LB13	Tibu Sanggar	NTB	20	20	30	0
LB14	Pelangan	NTB	248	248	0	248
LB15	Lendang Guar	NTB	15	0	15	0
LB16	Lokok Salangu	NTB	60	0	60	0
LH01	Gula Liat II	NTB	39	39	0	0
LH03	Batu Tanam	NTB	401	301	100	0
LH04	Batu Tulis	NTB	0	57	0	0
LH05	Bare Julat	NTB	346	261	0	0
LH06	Tibuk Sisuk	NTB	108	0	80	0
LH07	Pengembuk	NTB	91	0	136	0
LH09	Kelanjur	NTB	30	0	30	0
LH10	Pore	NTB	275	0	250	0
LH11	Batu Jangkih	NTB	85	0	85	0
LH12	Suare	NTB	50	0	50	0
LH13	Kelebeh	NTB	30	0	30	0
LH14	Pedeh	NTB	15	0	15	0
LH15	Ungga	NTB	0	30	50	0
LH18	Lomban Lauq	NTB	429	0	400	0
LH19	Bengawan	NTB	25	0	25	0
LH20	Bun Mas	NTB	60	0	60	0
LH21	Sereneng	NTB	300	0	300	0
LH22	Tempit	NTB	50	0	50	0
LH23	Gerentuk	NTB	100	0	100	0
LH25	Selawang	NTB	15	0	15	0
LR01	Lokok Sukun	NTB	15	0	15	0
LR02	Tibu Meong	NTB	174	0	174	0
LR04	Aik Bata	NTB	84	0	11	11
LR05	Kali Seruni/Papah	NTB	350	20	300	0
LR07	Batu Tinja	NTB	32	0	32	0
LR10	Senang	NTB	35	0	35	0
LR11	Kembang Kuning	NTB	335	0	432	0
LR12	Gunung Joget	NTB	122	0	122	0

表-5.7 調査対象地区計画灌漑面積および作付面積

No.	Name of Scheme	Province	Wet Season	1 st Dry Season		2 nd Dry Season
			Wet Paddy (ha)	Wet Paddy (ha)	Palawija (ha)	Palawija (ha)
LR14	MT. Krarak	NTB	44	0	0	0
LR15	Montong Semat	NTB	0	0	25	0
LR16	Pancor Manis	NTB	125	63	25	0
LR17	Prako	NTB	132	0	34	0
LR19	Tinu Ulik	NTB	80	0	80	0
LR23	Pungkang	NTB	538	20	258	0
SW01	Gapit	NTB	1300	1300	0	480
SW02	Sejari	NTB	190	0	190	0
SW03	Tui Tui	NTB	324	0	324	324
SW04	Penyempeng	NTB	350	350	0	350
SW05	Jompong	NTB	40	0	40	0
SW06	Penyaring	NTB	50	0	50	0
SW07	Lopok	NTB	120	60	60	0
SW08	Serading	NTB	80	40	40	0
SW09	Olat Rawa	NTB	190	190	0	190
SW10	Jamu	NTB	1350	1350	0	0
SW11	Maluk	NTB	125	0	125	0
SW12	Jelenga	NTB	100	100	0	0
SW13	Benete	NTB	0	35	52	0
SW14	Terusa	NTB	640	320	320	0
DO01	Banggo Plan	NTB	100	0	100	0
DO02	Tonda Utara	NTB	250	0	250	0
DO03	Tonda Selatan	NTB	400	100	177	0
DO04	Saneo	NTB	160	25	95	0
DO05	La-Nangga	NTB	200	100	100	0
DO06	Ta'a	NTB	600	0	600	0
DO07	Parugasante	NTB	250	0	250	0
DO08	Kesi	NTB	500	250	250	0
DO09	Kuango	NTB	180	90	90	0
BI01	Piong	NTB	100	50	50	0
BI02	Mpuri	NTB	80	70	0	0
BI03	Ntonggu II	NTB	187	0	65	0
BI04	Lido	NTB	171	0	171	0
BI05	Ncera	NTB	264	0	264	0
BI06	Doroo'o	NTB	120	0	120	0
BI07	Sondo	NTB	80	0	40	0
BI08	Laju	NTB	217	117	100	0
BI09	Ncoha II	NTB	145	0	145	145
BI10	Ncoha I	NTB	130	100	30	0
BI11	Woro	NTB	568	224	344	0
BI12	Tolowata	NTB	196	108	88	0
BI13	Tawali	NTB	250	100	150	0
BI14	Ntoke	NTB	394	264	10	0
BI15	Kowo	NTB	209	170	0	0

表-5.7 調査対象地区計画灌漑面積および作付面積

No.	Name of Scheme	Province	Wet Season Wet Paddy (ha)	1 st Dry Season		2 nd Dry Season
				Wet Paddy (ha)	Palawija (ha)	Palawija (ha)
BI16	Buncu	NTB	104	0	104	0
BI17	Keli	NTB	173	93	80	0
FL02	Ratisomba	NTT	100	0	0	0
FL03	Waeliti	NTT	20	0	0	0
FL04	Napungseda	NTT	94	0	0	0
FL051	Lokaria I	NTT	81	0	0	0
FL052	Lokaria II	NTT	72	0	72	0
FL053	Lokaria III	NTT	79	0	79	0
FL06	Ojang	NTT	91	0	91	0
FL07	Likot	NTT	65	0	65	0
PA01	Maliang	NTT	37	0	24	0
PA02	Latua	NTT	19	0	0	0
PA03	Mobobaa I	NTT	133	0	120	0
PA04	Mobobaa II	NTT	33	0	33	0
PA05	Kakamauta	NTT	190	0	0	0
PA06	Airmama	NTT	45	0	0	0
AL01	Lantoka	NTT	47	0	0	0
AL02	Padang Panjang	NTT	47	0	0	0
SU03	Mayaiyang	NTT	450	0	450	450
SU04	Manjali	NTT	90	30	60	0
SU05	Prailiang	NTT	40	0	0	0
TI01	Bimoku	NTT	0	0	0	0
TI02	Oeltua	NTT	0	0	0	0
TI03	Tasiepah	NTT	160	0	160	0
TI04	Biraut	NTT	54	0	0	0
TI05	Batu Panjang	NTT	17	0	0	0
TI06	Pariti	NTT	175	0	0	0
TI07	Obor	NTT	355	35	320	0
TI08	Benkoko	NTT	35	0	105	0
TI09	Oebuain	NTT	0	0	0	0
TI10	Fatukmetang	NTT	57	0	57	0
TI11	Bellemata	NTT	22	0	0	0
TI12	Nana Eklot	NTT	174	0	0	0
TI13	Maubusa II	NTT	210	0	0	0
TI14	Raininu	NTT	32	0	0	0
TI15	Buitasik	NTT	43	0	0	0
RO08	Hanendam	NTT	200	0	0	0
RO10	Lenggale	NTT	32	0	0	0
RO11	Livubatu	NTT	23	0	0	0
RO12	Toen Oen	NTT	103	0	0	0
RO13	Matasio	NTT	75	0	0	0
SA02	Lokoei	NTT	34	0	0	0

表-5.8 調查对象地区概算事業費

No.	Name of Scheme	Present Irrigated Area (ha)	Proposed Irrigated Area (ha)	Area for Land Development (ha)	Cost for Embanking (M. Rp)	Cost for Rehabilitation (M. Rp)	Cost for new development (M. Rp)	Cost for land development (M. Rp)	Cost for water supply (M. Rp)	Miscellaneous Works (M. Rp)	Direct Construction Cost (M. Rp)	Indirect Cost (M. Rp)	Total Cost (M. Rp)	Economic Cost (M. Rp)
LB01	Pinang Lulu		103	0	363	0	309	0	206	87	963	483	1,448	647
LB02	Lokok Melepah		35	0	545	0	105	0	70	71	791	395	1,186	614
LB03	Lokok Salut		80	0	79	0	240	0	160	47	526	263	789	312
LB04	Lengkok Menangan		198	139	594	0	594	70	396	165	1,819	909	2,728	1,212
LB05	Lengkok Tawah		15	0	166	0	45	0	30	24	265	132	397	200
LB06	Klefer		62	0	327	0	186	0	124	63	700	350	1,050	490
LB07	Lokok Timpas		100	62	495	0	300	31	200	102	1,128	564	1,692	791
LB08	Lokok Lebak		20	0	1,002	0	60	0	40	110	1,212	606	1,818	999
LB09	Lokok Kwangan		53	8	272	0	159	4	106	54	595	298	893	417
LB10	Lokok Gerasak		500	500	1,002	0	1,500	250	1,000	375	4,127	2,064	6,191	2,665
LB11	Lokok Memiris		44	0	895	0	132	0	88	111	1,226	613	1,839	970
LB12	Lokok Saniek		140	140	668	0	420	70	280	143	1,581	791	2,372	1,109
LB13	Tibu Sanggar		20	0	195	0	60	0	40	29	324	162	486	242
LB14	Pelangan	86	248	32	6,713	86	486	16	496	779	8,576	4,288	12,864	6,884
LB15	Landang Guar		15	0	104	0	45	0	30	17	196	98	294	141
LB16	Lokok Salangu		60	37	156	0	180	19	120	47	522	261	783	342
LH01	Gula Liat I		39	39	552	0	117	20	78	76	843	421	1,264	651
LH03	Bau Tanam		401	94	606	301	300	47	802	239	2,634	1,317	3,951	1,561
LH04	Bau Tulis		346	0	187	346	0	0	692	122	1,347	674	2,021	558
LH05	Bare Julat		108	0	86	0	324	0	216	62	688	344	1,032	402
LH06	Tibuk Sisuk		91	91	264	0	273	46	182	76	841	420	1,261	561
LH07	Pongembuk		30	0	137	0	90	0	60	28	315	157	472	217
LH09	Kelanjur		275	0	972	50	675	0	550	224	2,471	1,236	3,707	1,637
LH10	Pore	50	85	0	216	0	255	0	170	64	705	353	1,058	456
LH11	Bau Langkih		50	0	259	0	150	0	100	50	559	280	839	391
LH12	Suarc		30	0	73	0	90	0	60	22	245	123	368	158
LH13	Kelebeh		15	0	54	0	45	0	30	12	141	71	212	95
LH14	Pedeh		96	0	96	0	0	0	0	9	105	53	158	89
LH15	Urgga		429	0	858	0	1,287	0	858	300	3,303	1,652	4,955	2,083
LH18	Lomban Lauq		25	0	86	0	75	0	50	58	232	116	348	155
LH19	Bengewau		60	0	465	0	180	0	120	76	841	420	1,261	614
LH20	Bun Mas		300	0	211	0	900	0	600	171	1,882	941	2,823	1,092
LH21	Sereneng		50	0	330	0	150	0	100	58	638	319	957	458
LH22	Tempat		100	0	187	0	300	0	200	68	755	378	1,133	473
LH23	Gerenuk		15	0	48	0	45	0	30	12	135	68	203	89
LH25	Selawang		15	0	40	0	45	0	30	11	126	63	189	81
LR01	Lokok Sukun		174	0	454	0	522	0	348	132	1,456	728	2,184	944
LR02	Tibu Meong		84	43	7,586	0	252	22	168	802	8,830	4,415	13,245	7,380
LR04	Aik Bala		350	220	1,823	50	900	110	700	358	3,941	1,970	5,911	2,761
LR05	Kali Seruni/Papah		32	0	454	0	96	0	64	61	675	337	1,012	520
LR07	Bau Tinja		35	0	832	0	105	0	670	100	1,107	553	1,660	883
LR10	Senang		335	0	379	0	1,005	0	670	205	2,259	1,129	3,388	1,554
LR11	Kembang Kunang		122	122	1,169	0	366	61	244	184	2,024	1,012	3,036	1,517
LR12	Gunung Joget		44	0	1,118	0	132	0	88	133	1,471	736	2,207	1,178
LR14	MT. Krarak													

表-5.8 調查對象地区概算事業費

No.	Name of Scheme	Present Irrigated Area (ha)	Proposed Irrigated Area (ha)	Area for Land Development (ha)	Cost for Embanking (M. Rp)	Cost for Rehabilitation (M. Rp)	Cost for new development (M. Rp)	Cost for land development (M. Rp)	Cost for water supply (M. Rp)	Miscellaneous Works (M. Rp)	Direct Construction Cost (M. Rp)	Indirect Cost (M. Rp)	Total Cost (M. Rp)	Economic Cost (M. Rp)
LR15	Montong Semat				0	101	0	0	0	0	11	35	166	94
LR16	Pancor Manis	125	125		0	218	125	0	250	59	652	62	978	343
LR17	Prako	117	132	15	192	117	45	8	264	62	688	344	1,032	361
LR19	Tinu Ujik	80			726	0	240	0	160	112	1,238	119	1,857	918
LR23	Pungkang	384	538	154	1,575	384	462	77	1,076	357	3,931	1,966	5,897	2,432
SW01	Gapi	1,300	626	626	16,553	0	3,900	313	2,600	2,336	25,702	12,851	38,553	19,682
SW02	Sejari	100	190		2,039	100	270	0	380	278	3,067	1,533	4,600	2,289
SW03	Tui Tui	24	324	33	2,836	24	900	17	648	442	4,867	2,433	7,300	3,594
SW04	Penyempeng	86	350	200	6,030	86	792	100	700	770	8,478	4,239	12,717	6,627
SW05	Jompong		40		1,431	0	120	0	80	163	1,794	897	2,691	1,461
SW06	Penyaring		50		509	0	150	0	100	75	834	417	1,251	625
SW07	Lopok		120		1,903	0	360	0	240	250	2,753	1,376	4,129	2,141
SW08	Serading		80		454	0	240	0	160	85	939	469	1,408	663
SW09	Olai Rawa		190		1,786	0	570	0	380	273	3,009	1,504	4,513	2,240
SW10	Jamu		1,350		1,114	0	4,050	557	2,700	836	9,204	4,602	13,806	5,542
SW11	Maluk		125		0	1,272	0	375	250	189	2,086	1,043	3,129	1,564
SW12	Jelenga		100		16	1,359	0	300	200	186	2,053	1,027	3,080	1,579
SW13	Benete				0	636	0	0	0	63	699	350	1,049	596
SW14	Tenusu		640		339	10,093	213	170	1,281	1,303	14,339	7,170	21,509	11,126
DO01	Banggo Pian		100		0	982	300	0	200	148	1,630	815	2,445	1,218
DO02	Tonda Utara		250		108	2,871	108	426	54	500	4,354	2,177	6,531	3,283
DO03	Tonda Selatan		150		400	1,786	150	750	0	800	3,834	1,917	5,751	2,585
DO04	Sanco		80		0	1,103	80	240	0	320	1,917	959	2,876	1,361
DO05	La-Nangga		200		0	951	600	0	400	195	2,146	1,073	3,219	1,488
DO06	Taa		330		600	1,607	330	810	1,200	394	4,341	2,171	6,512	2,676
DO07	Parugasame		150		0	509	300	0	500	145	1,604	802	2,406	940
DO08	Kesi		500		0	1,431	1,500	0	1,000	393	4,324	2,162	6,486	2,832
DO09	Kuango		180		0	700	540	0	360	159	1,759	879	2,638	1,192
B101	Piong		100		30	1,141	90	15	200	151	1,667	834	2,501	1,250
B102	Mpuri		80		0	507	240	0	160	90	997	498	1,495	713
B103	Nionggu II		100		22	2,471	100	261	374	321	3,538	1,769	5,307	2,696
B104	Lido		51		34	1,250	51	17	342	201	2,221	1,110	3,331	1,601
B105	Neera		64		56	2,039	64	600	528	325	3,584	1,792	5,376	2,603
B106	Doroo'o		120		80	636	0	360	240	127	1,403	702	2,105	991
B107	Sondo		80		0	253	240	0	160	65	718	359	1,077	476
B108	Laju		217		0	1,495	651	0	434	257	2,837	1,418	4,255	2,047
B109	Ncoha II		40		0	4,251	315	0	290	489	5,385	2,693	8,078	4,341
B110	Ncoha I		130		44	1,427	390	22	260	209	2,308	1,154	3,462	1,745
B111	Woro		568		262	4,293	120	1,344	1,136	702	7,726	3,863	11,589	5,615
B112	Tolowala		136		12	1,223	136	180	592	193	2,130	1,065	3,195	1,481
B113	Tawali		250		0	549	750	0	500	179	1,978	989	2,967	1,259
B114	Nioke		394		105	2,446	390	53	788	394	4,335	2,167	6,502	3,022
B115	Kowo		89		20	2,145	89	40	208	302	3,324	1,662	4,986	2,476
B116	Buncu		104		90	670	312	45	208	123	1,358	679	2,037	979
B117	Keji		173		0	1,161	173	0	346	167	1,847	923	2,770	1,279

表-5.8 調查對象地区概算事業費

No.	Name of Scheme	Present Irrigated Area (ha)	Proposed Irrigated Area (ha)	Area for Land Development (ha)	Cost for Emburung (M. Rp)	Cost for Rehabilitation (M. Rp)	Cost for new development (M. Rp)	Cost for land development (M. Rp)	Cost for water supply (M. Rp)	Miscellaneous Works (M. Rp)	Direct Construction Cost (M. Rp)	Indirect Cost (M. Rp)	Total Cost (M. Rp)	Economic Cost (M. Rp)
TI01	Bimoku													
TI02	Oelua	73	160	87	6,408	73	261	44	320	710	7,816	3,908	11,724	6,386
TI03	Tastepah			54	936	0	162	27	108	123	1,356	678	2,034	1,063
TI04	Birau			17	92	0	51	9	34	18	204	102	306	145
TI05	Batu Panjang			175	2,448	0	525	70	350	339	3,732	1,866	5,598	2,881
TI06	Pariti			180	139	53	906	90	710	189	2,087	1,043	3,130	1,173
TI07	Ohor	35	35	0	5,304	35	0	0	70	540	5,949	2,975	8,924	5,009
TI08	Benkoko													
TI09	Oebuain			57	5,529	0	171	29	114	584	6,427	3,213	9,640	5,378
TI10	Faukmeiang			22	68	0	66	0	44	17	195	98	293	129
TI11	Bellernata			174	690	0	522	34	348	159	1,752	876	2,628	1,196
TI12	Nana Ekhot			210	24	230	630	12	420	129	1,421	711	2,132	853
TI13	Maubusa II			32	230	0	96	16	64	40	446	223	669	326
TI14	Raininu			43	139	0	129	22	86	37	412	206	618	278
TI15	Buntasik			200	156	40	480	33	400	110	1,219	609	1,828	697
RO08	Hanendam	40		65	832	0	96	0	64	99	1,091	545	1,636	875
RO10	Lenggate	20		3	336	20	9	2	46	41	454	227	681	347
RO11	Livubatu	20		3	806	0	309	3	206	132	1,456	728	2,184	1,065
RO12	Toon Oen	60		3	2,640	60	45	2	150	289	3,186	1,593	4,779	2,586
RO13	Matasio	60		34	2,402	0	102	0	68	257	2,829	1,415	4,244	2,353
SA02	Lokoei			100	1,808	0	300	41	200	101	1,117	559	1,676	781
FL02	Raisomba			81	476	0	60	0	40	190	2,098	1,049	3,147	1,754
FL03	Waeliti			94	269	0	282	47	188	78	864	432	1,296	576
FL04	Napungsecta			54	622	0	243	27	162	105	1,159	580	1,739	850
FL051	Lokaria I			72	173	0	216	36	144	56	625	312	937	410
FL052	Lokaria II			79	608	0	237	40	158	104	1,147	573	1,720	842
FL053	Lokaria III			91	1,742	0	273	46	182	224	2,467	1,233	3,700	1,947
FL06	Ojang			65	459	0	195	33	130	81	898	449	1,347	654
FL07	Likot			37	270	0	111	0	74	45	500	250	750	363
PA01	Mialang			19	151	0	57	0	38	24	270	135	405	198
PA02	Laua			33	302	0	399	17	266	98	1,082	541	1,623	695
PA03	Mobobaa I			33	750	0	99	0	66	91	1,006	503	1,509	801
PA04	Mobobaa II			190	202	0	570	45	380	119	1,316	658	1,974	797
PA05	Kakamaua			45	454	0	135	0	90	67	746	373	1,119	559
PA06	Airmama			47	806	0	141	0	94	104	1,145	573	1,718	896
AL01	Lantoka			47	994	0	141	0	94	122	1,551	675	2,026	1,071
AL02	Padang Panjang			450	2,178	57	1,179	0	900	431	4,745	2,373	7,118	3,276
SU03	Mayayang	57		53	371	30	180	27	180	78	865	433	1,298	584
SU04	Nianjali	30		40	1,070	0	120	0	80	127	1,397	699	2,096	1,122
SU05	Prailiang													







表- 5.10 調查对象地区經濟評價結果

ID No.	Name of Scheme	Province	E. Cost (M.Rp)	Benefit (M.Rp/yr)	Cost (M.Rp)	Benefit (M.Rp)	B/C
LB01	Pinang Lulu	NTB	647	150	\577	\1,152	2.00
LB02	Lokok Melepah	NTB	614	19	\547	\146	0.27
LB03	Lokok Salut	NTB	312	194	\278	\1,489	5.35
LB04	Lengkok Menangan	NTB	1,178	264	\1,050	\2,027	1.93
LB05	Lengkok Tawah	NTB	200	8	\178	\61	0.34
LB06	Kleder	NTB	490	34	\437	\261	0.60
LB07	Lokok Timpas	NTB	791	130	\705	\998	1.42
LB08	Lokok Lebak	NTB	999	22	\891	\169	0.19
LB09	Lokok Gerasak	NTB	417	63	\372	\484	1.30
LB10	Lokok Kwangan	NTB	2,665	789	\2,376	\6,058	2.55
LB11	Lokok Menniris	NTB		24			
LB12	Lokok Santek	NTB	1,109	360	\989	\2,764	2.80
LB13	Tibu Sanggar	NTB	242	70	\216	\537	2.49
LB14	Pelangan	NTB		396			
LB15	Lendang Guar	NTB	139	16	\124	\123	0.99
LB16	Lokok Salangu	NTB	342	78	\305	\599	1.96
LH01	Gula Liat II	NTB	645	87	\575	\668	1.16
LH03	Batu Tanam	NTB	1,493	424	\1,331	\3,255	2.45
LH04	Batu Tulis	NTB	568	51	\506	\392	0.77
LH05	Bare Julat	NTB	499	334	\445	\2,564	5.76
LH06	Tibuk Sisuk	NTB	385	103	\343	\791	2.30
LH07	Pengembuk	NTB	546	154	\487	\1,182	2.43
LH09	Kelanjur	NTB	212	28	\189	\215	1.14
LH10	Pore	NTB	1,637	267	\1,460	\2,050	1.40
LH11	Batu Jangkih	NTB	441	129	\393	\990	2.52
LH12	Suare	NTB	383	53	\341	\407	1.19
LH13	Kelebeh	NTB	153	32	\136	\246	1.80
LH14	Pedeh	NTB	95	16	\85	\123	1.45
LH15	Ungga	NTB	89	127	\79	\975	12.29
LH18	Lomban Lauq	NTB	2,083	459	\1,857	\3,524	1.90
LH19	Bengawan	NTB	155	26	\138	\200	1.44
LH20	Bun Mas	NTB	604	125	\539	\960	1.78
LH21	Sereneng	NTB	1,092	321	\974	\2,464	2.53
LH22	Tempit	NTB	458	53	\408	\407	1.00
LH23	Gerentuk	NTB	456	108	\407	\829	2.04
LH25	Selawang	NTB	89	16	\79	\123	1.55
LR01	Lokok Sukun	NTB	81	17	\72	\131	1.81
LR02	Tibu Meong	NTB	944	198	\842	\1,520	1.81
LR04	Aik Bata	NTB		77			
LR05	Kali Seruni/Papah	NTB	2,701	435	\2,408	\3,340	1.39
LR07	Batu Tinja	NTB	520	68	\464	\522	1.13
LR10	Senang	NTB	877	75	\782	\576	0.74
LR11	Kembang Kuning	NTB	1,354	520	\1,207	\3,992	3.31
LR12	Gunung Joget	NTB	1,517	299	\1,353	\2,296	1.70
LR14	MT. Krarak	NTB		24			
LR15	Montong Semat	NTB	94	14	\84	\107	1.28
LR16	Pancor Manis	NTB	343	119	\306	\914	2.99
LR17	Prako	NTB	339	80	\302	\614	2.03
LR19	Tinu Ulik	NTB	905	170	\807	\1,305	1.62
LR23	Pungkang	NTB	2,432	439	\2,168	\3,370	1.55
SW01	Gapit	NTB	19,461	2,783	\17,352	\21,367	1.23
SW02	Sejari	NTB	2,257	411	\2,012	\3,155	1.57
SW03	Tui Tui	NTB		409			
SW04	Penyempeng	NTB		638			
SW05	Jompong	NTB	1,454	52	\1,296	\399	0.31
SW06	Penyaring	NTB	617	73	\550	\560	1.02
SW07	Lopok	NTB	2,120	237	\1,890	\1,820	0.96
SW08	Serading	NTB	663	115	\591	\883	1.49
SW09	Olat Rawa	NTB	2,207	460	\1,968	\3,532	1.79
SW10	Jamu	NTB	5,542	2,696	\4,941	\20,699	4.19
SW11	Maluk	NTB	1,543	271	\1,376	\2,081	1.51
SW12	Jelenga	NTB	1,562	203	\1,393	\1,559	1.12
SW13	Benete	NTB	596	89	\531	\683	1.29
SW14	Terusa	NTB	11,017	1,322	\9,823	\10,150	1.03
DO01	Banggo Pian	NTB	1,201	225	\1,071	\1,727	1.61
DO02	Tonda Utara	NTB	3,241	497	\2,890	\3,816	1.32
DO03	Tonda Selatan	NTB	2,516	400	\2,243	\3,071	1.37
DO04	Saneo	NTB	1,334	226	\1,189	\1,735	1.46
DO05	La-Nangga	NTB	1,454	301	\1,296	\2,311	1.78

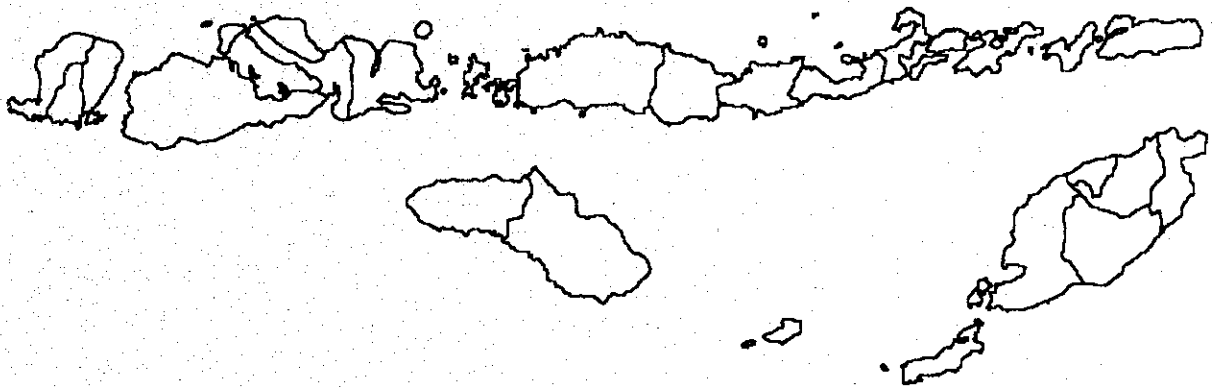
表- 5.10 調査対象地区経済評価結果

ID No.	Name of Scheme	Province	E. Cost (M.Rp)	Benefit (M.Rp/yr)	Cost (M.Rp)	Benefit (M.Rp)	B/C
DO06	Ta'a	NTB	2,574	597	2,295	4,583	2.00
DO07	Parugasante	NTB	898	215	801	1,651	2.06
DO08	Kesi	NTB	2,747	776	2,449	5,958	2.43
DO09	Kuango	NTB	1,161	244	1,035	1,873	1.81
BI01	Piong	NTB	1,250	189	1,115	1,451	1.30
BI02	Mpuri	NTB	699	145	623	1,113	1.79
BI03	Ntonggu II	NTB		154			
BI04	Lido	NTB	1,572	316	1,402	2,426	1.73
BI05	Ncera	NTB	2,559	554	2,282	4,253	1.86
BI06	Doroo'o	NTB	970	169	865	1,298	1.50
BI07	Sondo	NTB	476	70	424	537	1.27
BI08	Laju	NTB	2,011	316	1,793	2,426	1.35
BI09	Ncoha II	NTB		186			
BI10	Ncoha I	NTB	1,723	249	1,536	1,912	1.24
BI11	Woro	NTB	5,518	910	4,920	6,987	1.42
BI12	Tolowata	NTB	1,448	207	1,291	1,589	1.23
BI13	Tawali	NTB	1,217	357	1,085	2,741	2.53
BI14	Ntoke	NTB	2,954	377	2,634	2,894	1.10
BI15	Kowo	NTB	2,440	295	2,176	2,265	1.04
BI16	Buncu	NTB	962	154	858	1,182	1.38
BI17	Keli	NTB	1,250	198	1,115	1,520	1.36
FL02	Ratisomba	NTT	781	60	696	461	0.66
FL03	Waeliti	NTT	1,754	13	1,564	100	0.06
FL04	Napungseda	NTT	576	55	514	422	0.82
FL051	Lokaria I	NTT	850	49	758	376	0.50
FL052	Lokaria II	NTT	410	74	366	568	1.55
FL053	Lokaria III	NTT	842	81	751	622	0.83
FL06	Ojang	NTT	1,947	107	1,736	821	0.47
FL07	Likot	NTT	654	72	583	553	0.95
PA01	Maliang	NTT	363	18	324	138	0.43
PA02	Latua	NTT	198	12	177	92	0.52
PA03	Mobobaa I	NTT	695	161	620	1,236	1.99
PA04	Mobobaa II	NTT	801	40	714	307	0.43
PA05	Kakamauta	NTT	797	118	711	906	1.27
PA06	Airmama	NTT	559	29	498	223	0.45
AL01	Lantoka	NTT	896	30	799	230	0.29
AL02	Padang Panjang	NTT	1,071	30	955	230	0.24
SU03	Mayaiyang	NTT		518			
SU04	Manjali	NTT	584	105	521	806	1.55
SU05	Praliang	NTT	1,116	26	995	200	0.20
TI01	Bimoku	NTT		0			
TI02	Oeltua	NTT		0			
TI03	Tasiepah	NTT		261			
TI04	Biraut	NTT	1,063	40	948	307	0.32
TI05	Batu Panjang	NTT	145	12	129	92	0.71
TI06	Pariti	NTT	2,881	104	2,569	798	0.31
TI07	Obor	NTT	1,173	418	1,046	3,209	3.07
TI08	Benkoko	NTT		227			
TI09	Oebuain	NTT		0			
TI10	Fatukmetang	NTT		126			
TI11	Bellemata	NTT	129	14	115	107	0.93
TI12	Nana Eklot	NTT	1,196	108	1,066	829	0.78
TI13	Maubusa II	NTT	853	134	761	1,029	1.35
TI14	Raininu	NTT	326	18	291	138	0.48
TI15	Buitasik	NTT	278	32	248	246	0.99
RO08	Hanendam	NTT	697	125	621	960	1.54
RO10	Lengale	NTT	875	20	780	154	0.20
RO11	Livubatu	NTT	347	14	309	107	0.35
RO12	Toen Oen	NTT	1,065	66	950	507	0.53
RO13	Matasio	NTT		52			
SA02	Lokoei	NTT	2,353	21	2,098	161	0.08

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マスタープラン報告書

付 図





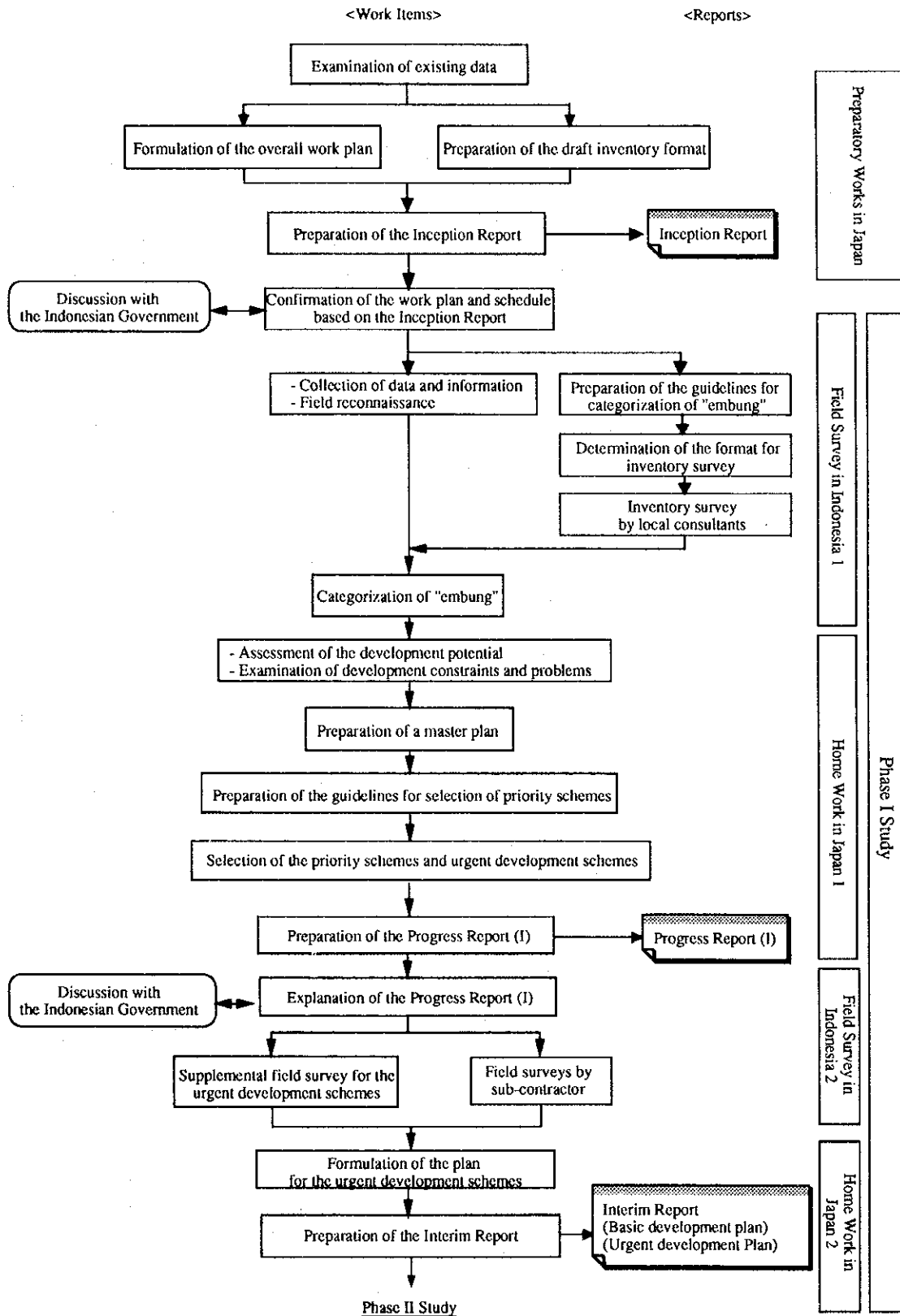


図-1.1 調査業務系統図 (1/2)

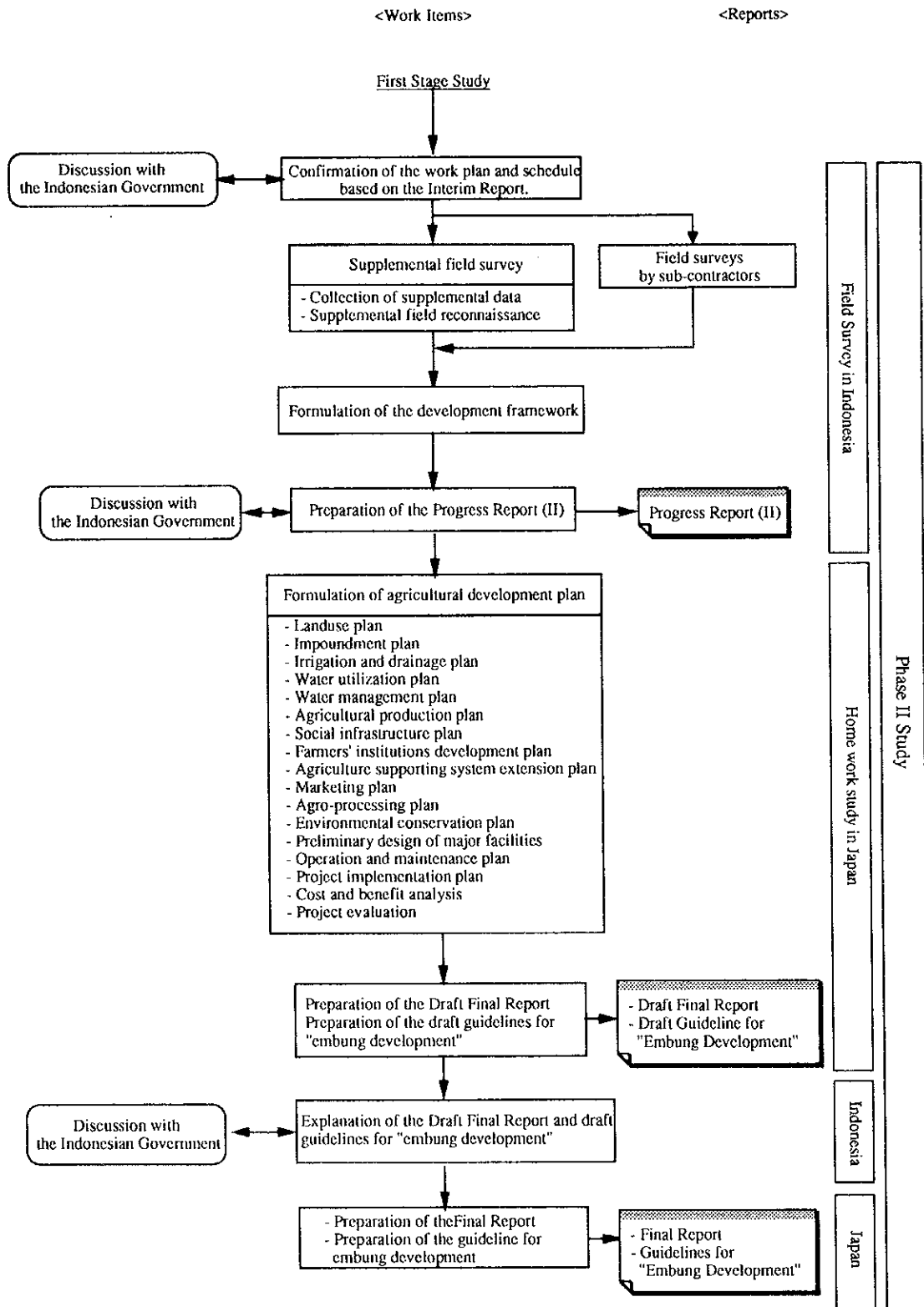
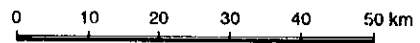


図 - 1.1 調査業務系統図 (2/2)




















SCALE



**LEGEND**

	Alluvium		Volcanic Products of Quaternary
	Terrace Deposits (Gravel & Sand)		Volcanic Rocks of Pre-Quaternary
	Coral Limestone		Metamorphic Rocks & Ultrabasic Rocks
	Limestone		Granite
	Claystone of "Bobonaro"		Intrusive Rock
	Sedimentary Rocks of Tertiary & Quaternary		Fault
	Sedimentary Rocks of Pre-Tertiary		Thrust
	Volcanic Lava of Quaternary		

(This legend is applied to Fig. 3.2 - Fig. 3.5.)

図3.1 ロンボク島地質図





図3.2 スンバワ島地質図



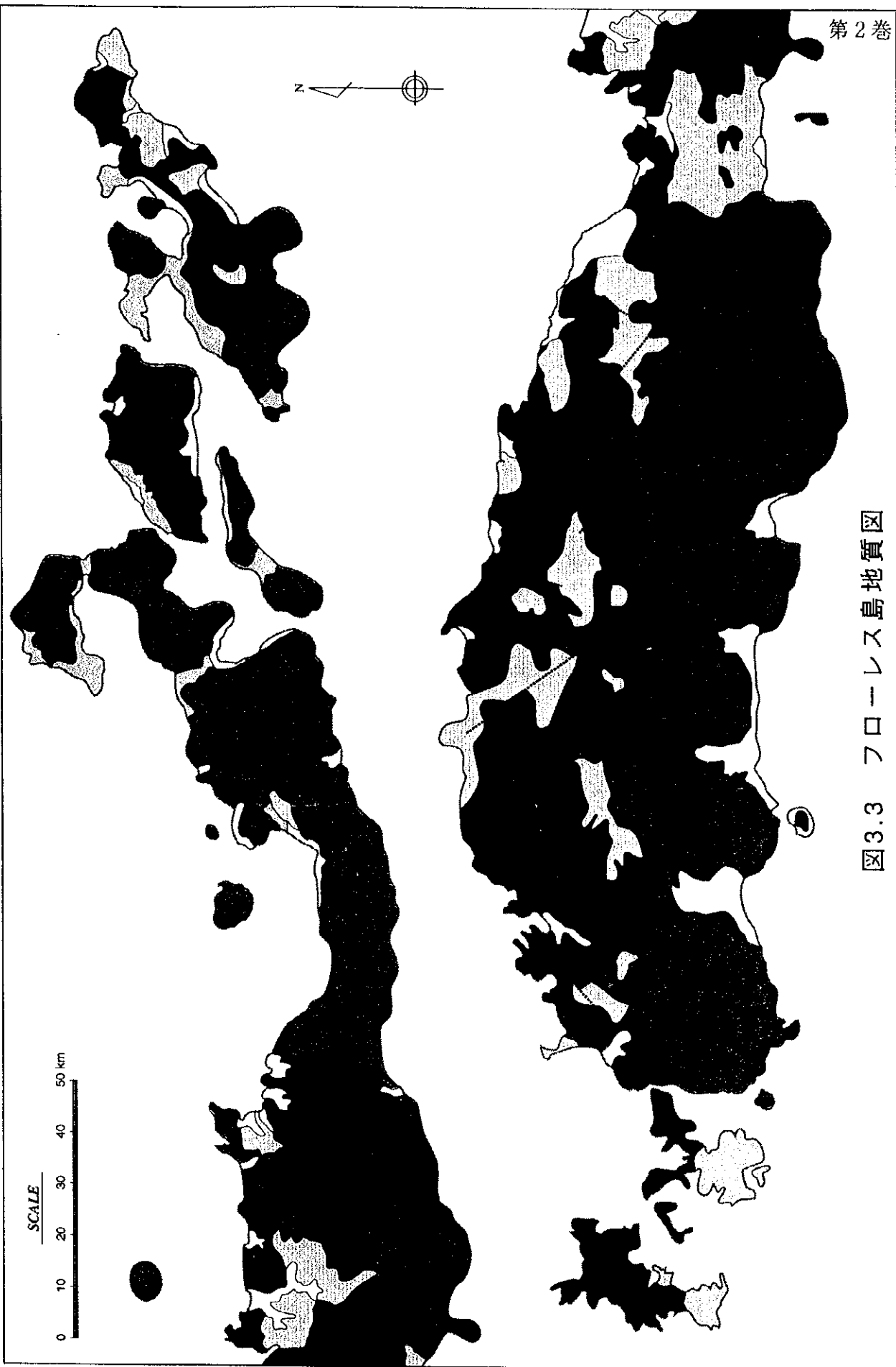


図3.3 フローレス島地質図



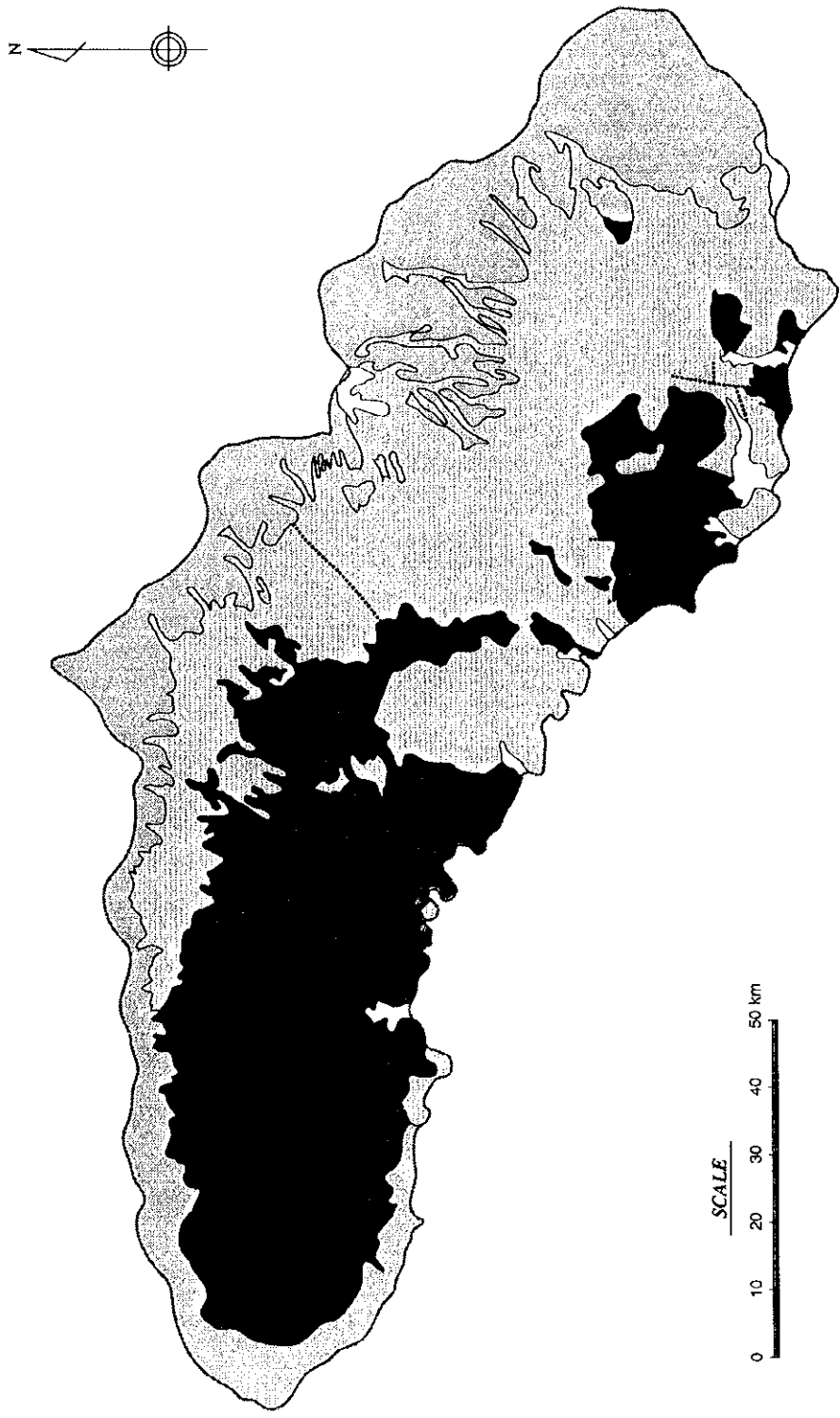


図3.4 スンバ島地質図





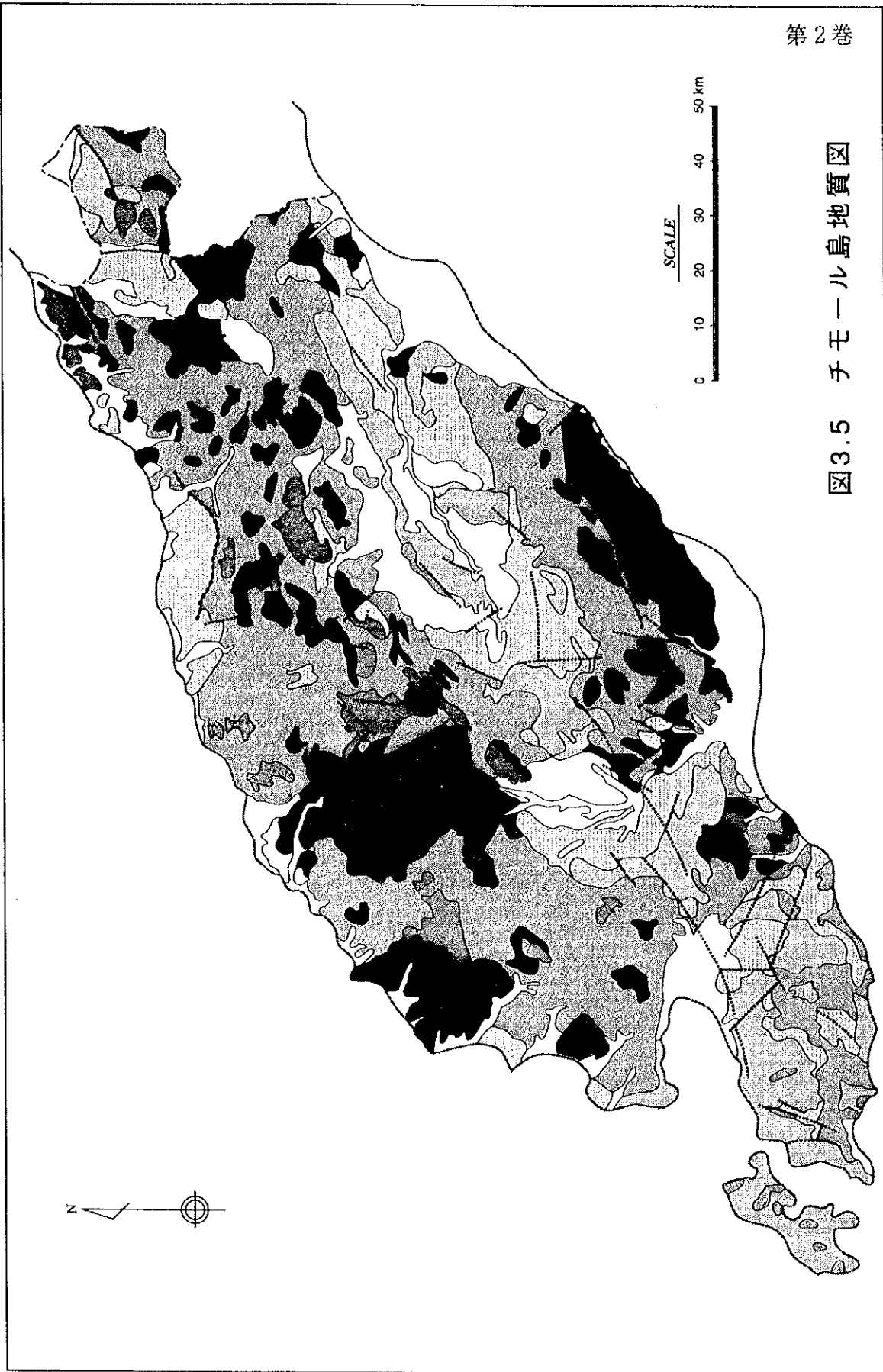
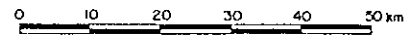
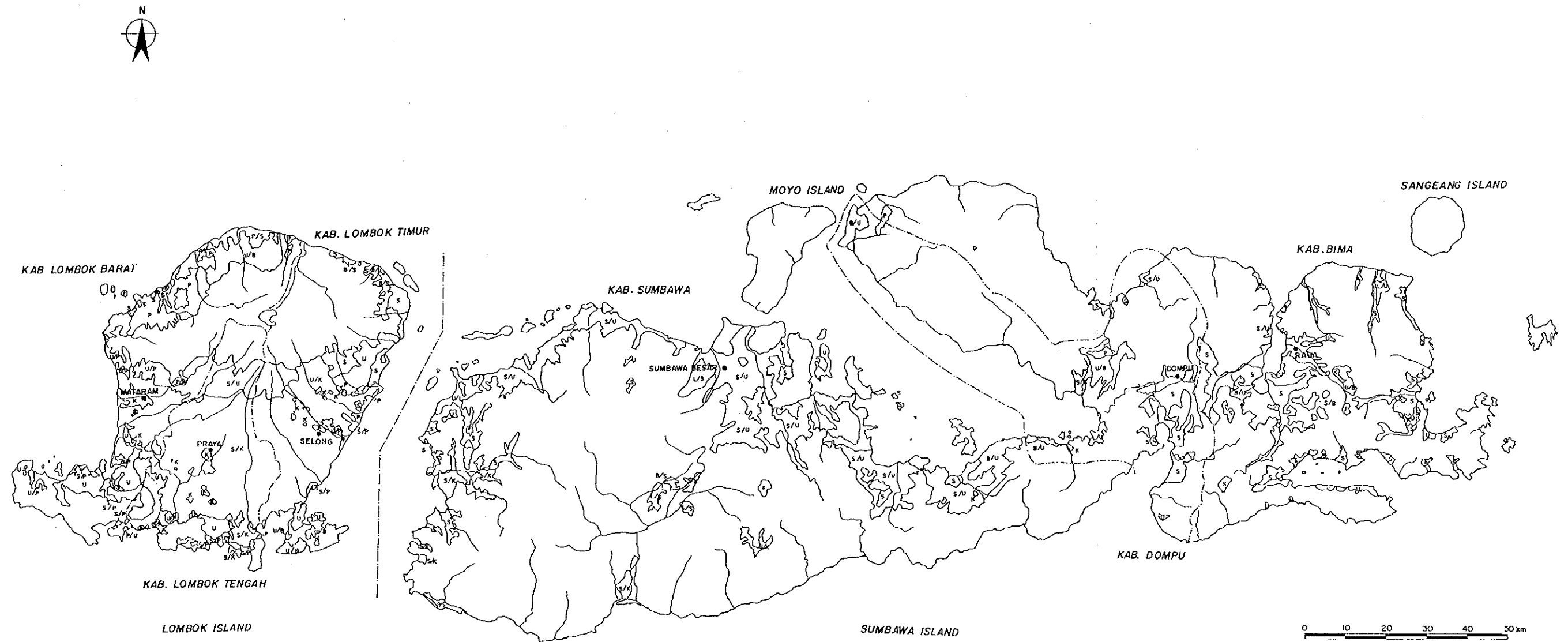


図3.5 チモール島地質図







LEGEND

Land Use	
Symbol	Land Use
F	Forest
B	Bush/Scrub
R	Grassland
L	Shifting Cultivation
U	Upland
S	Wetland
P	Estate
A	Agrobrestry
R	Reforestation
W	Water
T	Unvegetated
K	Settlement

図-3.6 ロンボク島・スンバワ島土地利用図

DIRECTORATE GENERAL OF  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS

The Embung Development Project in  
East Nusa Tenggara and West Nusa Tenggara

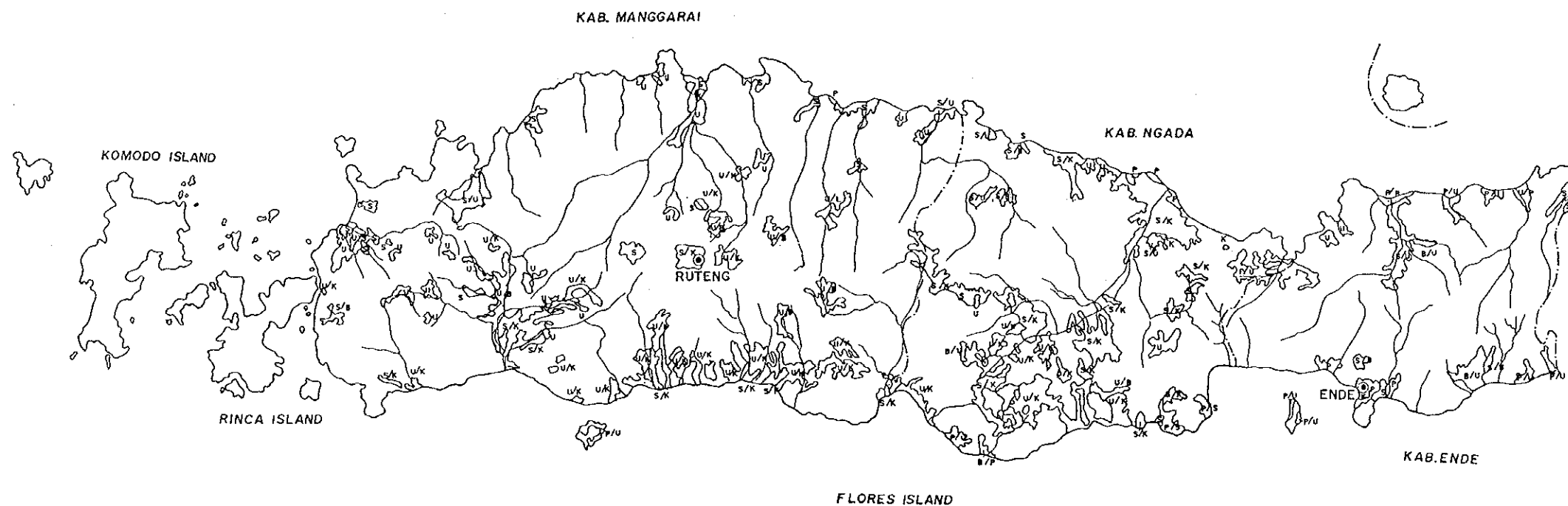
LAND USE (INTENSIVE USED AREA)

No.	Area
-----	------

JAPAN INTERNATIONAL COOPERATION AGENCY







LEGEND

Land Use	
Symbol	Land Use
F	Forest
B	Bush/Scrub
R	Grassland
L	Shifting Cultivation
U	Upland
S	Wetland
P	Estate
A	Agroforestry
R	Reforestation
W	Water
T	Unvegetated
K	Settlement



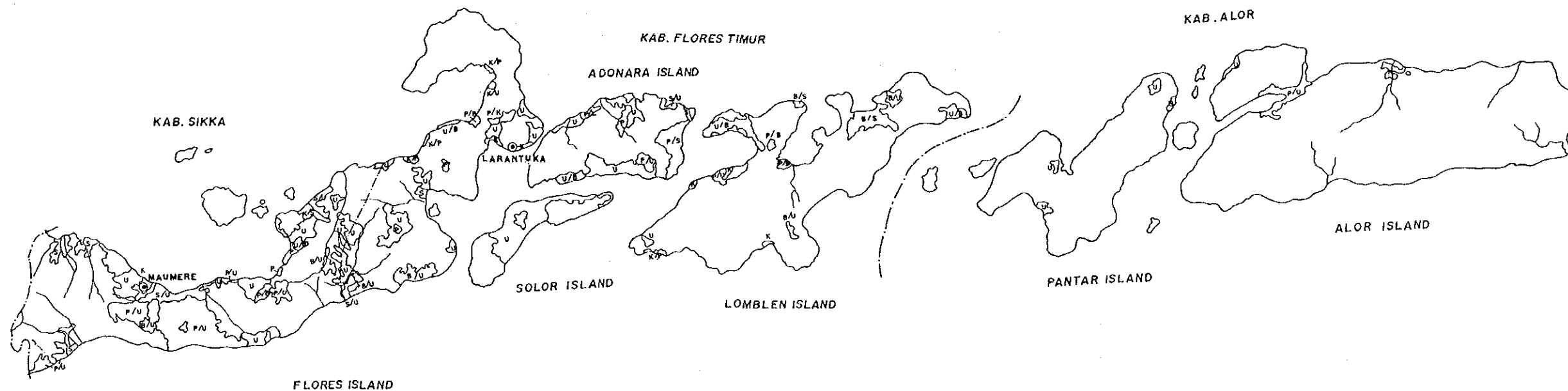
図-3.7 フローレス島西部土地利用図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT, MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND USE (INTENSIVE USED AREA)		
No.	Area	West Flores
JAPAN INTERNATIONAL COOPERATION AGENCY		









LEGEND

Land Use	
Symbol	Land Use
F	Forest
B	Bush/Scrub
R	Grassland
L	Shifting Cultivation
U	Upland
S	Wetland
P	Estate
A	Agroforestry
R	Reforestation
W	Water
T	Unvegetated
K	Settlement

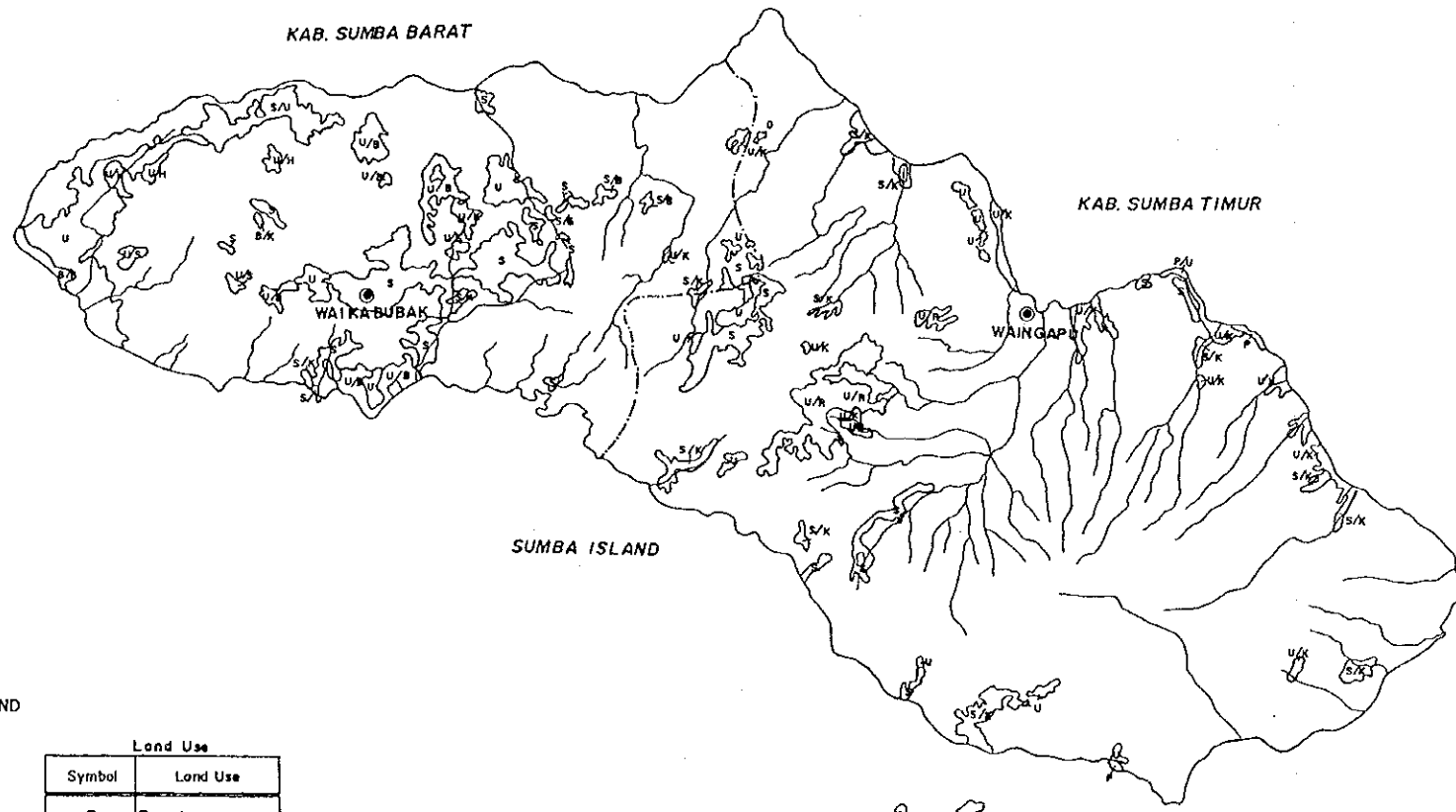


図-3.8 フローレス島東部土地利用図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT, MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND USE (INTENSIVE USED AREA)		
No.	Area	West Flores
JAPAN INTERNATIONAL COOPERATION AGENCY		







LEGEND

Land Use	
Symbol	Land Use
F	Forest
B	Bush/Scrub
R	Grassland
L	Shifting Cultivation
U	Upland
S	Wetland
P	Estate
A	Agroforestry
R	Reforestation
W	Water
T	Unvegetated
K	Settlement



図-3.9 スンバ島土地利用図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT, MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND USE (INTENSIVE USED AREA)		
No.	Area	Sumba
JAPAN INTERNATIONAL COOPERATION AGENCY		







LEGEND

Land Use	
Symbol	Land Use
F	Forest
B	Bush/Scrub
R	Grassland
L	Shifting Cultivation
U	Upland
S	Wetland
P	Estate
A	Agroforestry
R	Reforestation
W	Water
T	Unvegetated
K	Settlement

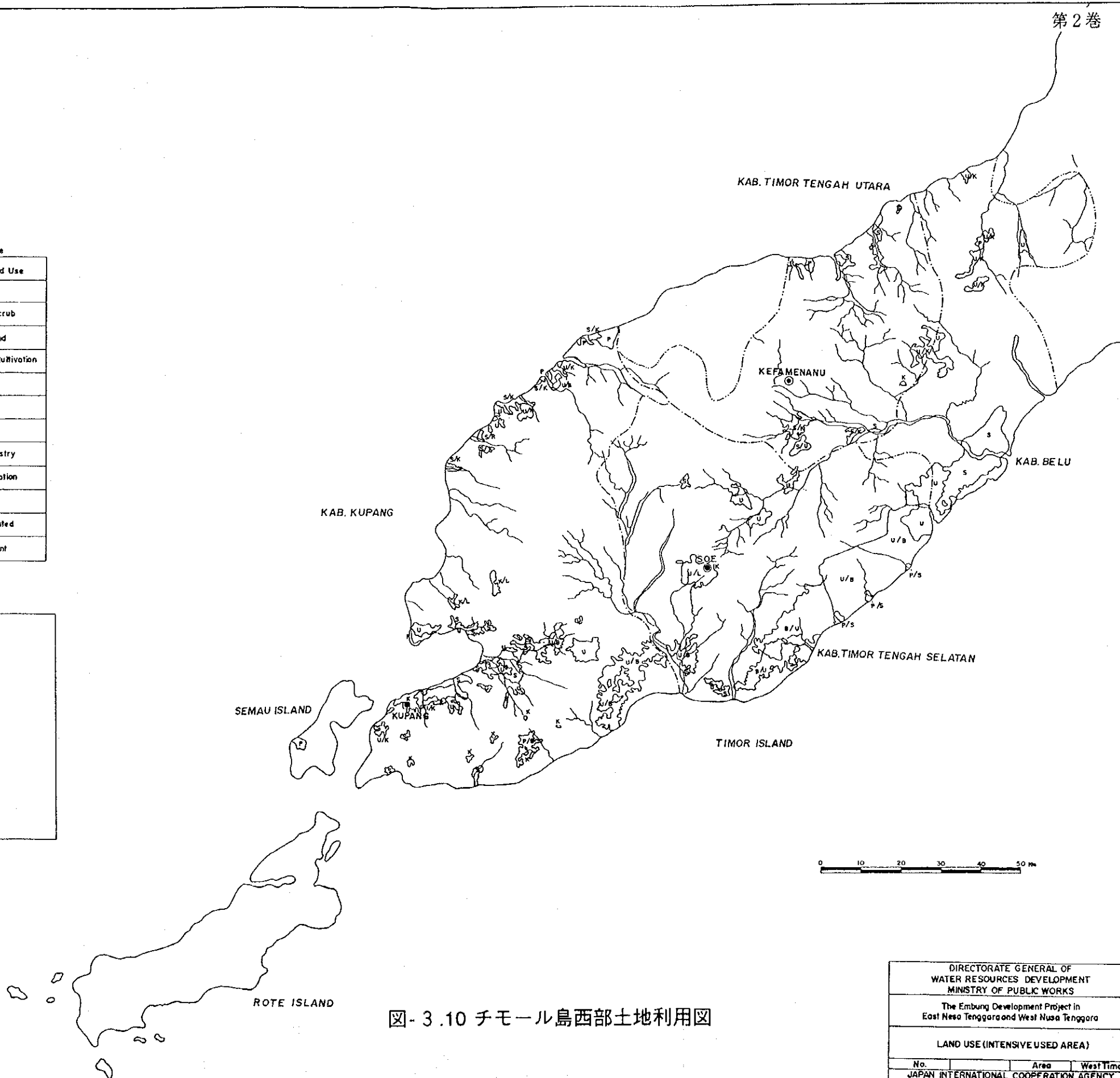
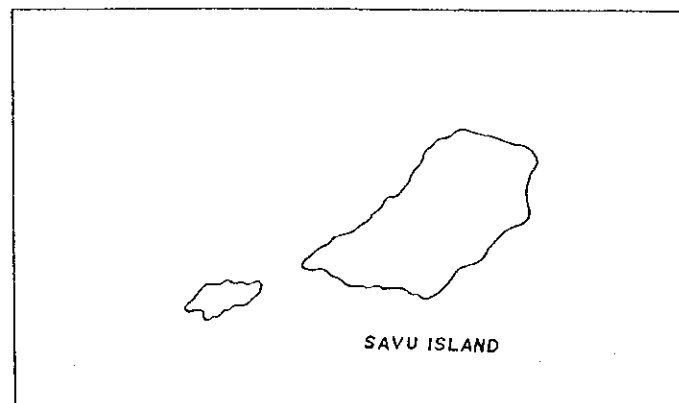


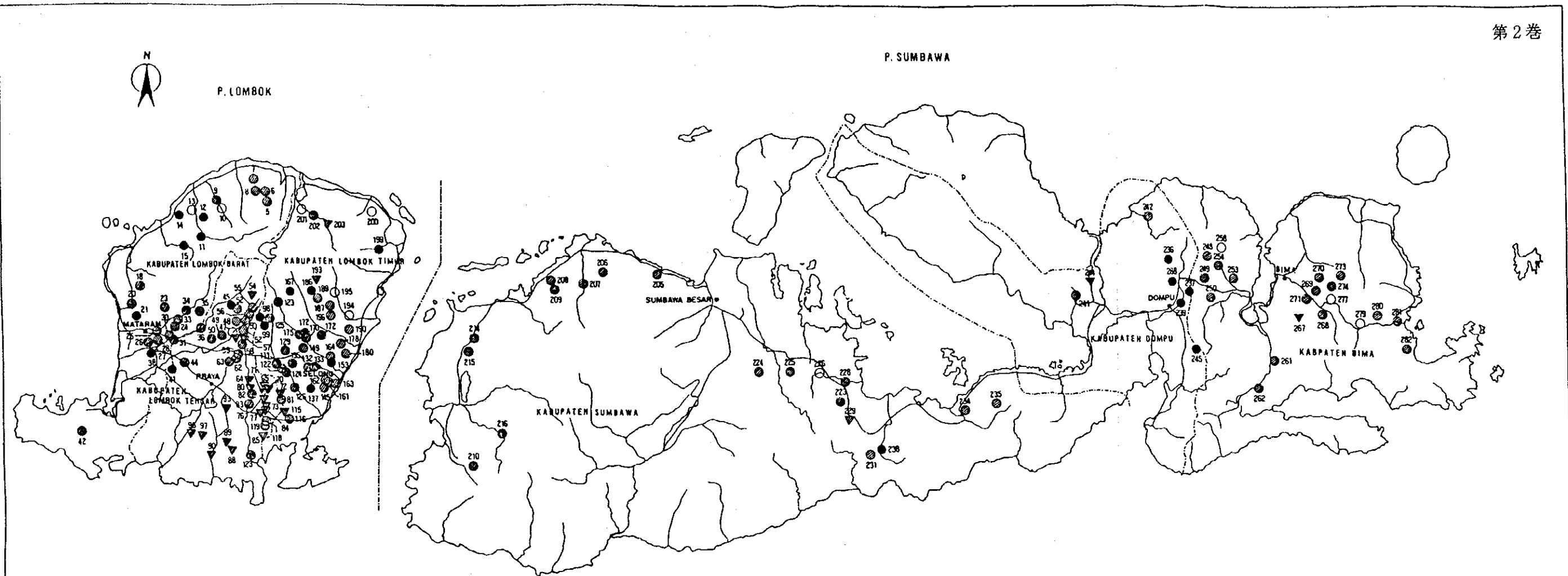
図-3.10 チモール島西部土地利用図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND USE (INTENSIVE USED AREA)		
No.	Area	West Timor
JAPAN INTERNATIONAL COOPERATION AGENCY		









LOMBOK BARAT		LOMBOK TENGAH		LOMBOK TIMUR		KABU. SUMBAWA		DOMPU		BIMA	
NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME	NO.	NAME
1	MATARAM	43	JURANG SATE	81	PELAPAK I/2	181	ANJANI	203	AIK PUTIK	247	SAMBANA
2	PAMOTAN	44	BILE KERE	82	GEDE I	182	KERONGKONG	206	TARUSAN	248	RORA KECIL
3	UNUS	45	SIDEMEN	83	SELAK BAT	183	GAPUK	207	Beragala Sita	249	MADA PANGGA
4	PESONGORAN	46	SIMBS	84	TETE KOPONG	184	MELONG	208	Turu Mapia	250	MORJ RADE
5	SINDANGGOLA	47	BENJOK	85	TEMUSIK	185	MAMBEN	209	TARUSA I	251	LEBO
6	SOPAK	48	BRAMBANG	86	CAMIK	186	KUKUSAN	210	MAREMTEH	252	NCANGAKAI
7	LOLOAN	49	MESONE	87	EMB. GABAK	187	TOJIANG	211	Perianggala	253	NCOHA
8	BATU RAKIT	50	MERTAK PAOK	88	EMB. PENJANGKIT	188	KERUAK	212	LEKONG	254	NDANG RANGGA
9	SAMBIK JENGGEL	51	WADUK WAO	89	EMB. SEPIT	189	RUGAN	213	Tim Bula	255	DIWU TANGIRI
10	PAWAN KATES	52	GEDE BONGOH	90	EMB. TAITTA	190	AIK ANYAR	214	Tim Kawa	256	OIKAWA
11	SANTONG	53	JENGGUAR	91	EMB. PENJANGKIT	191	BEREMBUN	215	Reban Batu	257	BONTOKAPE
12	BAKIK KEMBAR	54	NERDEP	92	BATUJAI	192	PANCOR BARONG	216	Kalimasong I	258	SORI MONCA
13	LEDANG JURANG	55	TELAGA	93	SUKARAYA	193	SEMBA	217	Kalimasong II	259	TALOKO
14	REMPEK	56	PAOK RENGGA	94	EMB. ORONGEDANG	194	SEMBA	218	Elang Desa	260	PELA CEMPAKA
15	PEKATAN	57	BISOK BOKAH	95	BOMBAS	195	DASAN LOKONG	219	PLAMPAO	261	LEKA
16	PRAWORA	58	OTAK DESA	96	RUTUS	196	SANOKON	220	AJI	262	PARADO
17	MENGGALA	59	PAOK DENGROL	97	PANCOR DEWA	197	DASAN LOKONG	221	MOYO	263	KALATE
18	BENTEK	60	GULE LIAT	98	PELOLAT	198	REBAN TERU	222	PONGAL	264	TONGGONDOA
19	SANDIK	61	RENGGUING	99	JOGOK	199	JENJEK	223	PUNGKIT	265	LEKA
20	MEDAS	62	TAIN PETUK	100	PUNGKANG	200	BELEBONG	224	MAMA K	266	KARANU NTONGGU
21	BRENG DAYA	63	MUNCAN	101	PANDAN DURI	201	DENGGEN	225	KWAN RAKO	267	EMBUNG ROI
22	GEUTU	64	BENGAK	102	SUANJO	202	LEDANG	226	PEMASAR	268	RONTU
23	PENJUMBUNG	65	DANA SARI	103	TUNDAK	203	LEDANG	227	MARONGE	269	NUNONGA
24	MEWELI	66	PENDEH	104	PENENDEN	204	PANCOR MANIS	228	BRANG KOLONG	270	SATAMPA
25	REPIK PANCOR	67	EMB. KUANG SAMPI	105	PELAMBIK	205	Bugil mgguk	229	EMBUNG MUAER	271	DADI
26	TEMBLOK	68	LENDANG TELAGR	106	PARA	206	KUANG NANGET	230	EMBUNG SELANTEL	272	KENCANTOBO
27	KELUNCING	69	JERAK	107	BILA REMONG	207	ESOT	231	SEBARI	273	SANGGA
28	BENGKEL	70	EGUSI	108	PEYONGGOK	208	PENDE I	232	PAHIA	274	INGGAR RANGGA
29	JUWET	71	PENTABUK	109	BANGKA	209	PENDE II	233	SIKANGI	275	KABA PANDA
30	BERTAS	72	EMBUNG BRENGI	110	BOROK LELLET	210	Damar jnggong	234	SIKANGI	276	IDOU
31	DASAN TERENO	73	JONGKOR	111	JIMSIA	211	AMBUNG	235	U S A R	277	NAB WERA
32	MENCONGAK	74	EMBUNG PAJERUK	112	KANGKIK LEPANG	212	JANTUK	236	U S A R	278	SARI
33	NYURBAYE	75	PASKAR	113	REBAN TALAT	213	PENGADANOAN	237	PAHIA	279	S A P B
34	MONTANG	76	MELATI I	114	SARKA	214	TEMPA SAN	238	SIKANGI	280	WU WU
35	SASADT	77	EMB MELATI II	115	BIKUR	215	TEBAPAN	239	EMBUNG MUAER	281	SUWI
36	KERU	78	TASIK ASIK	116	ENDUT	216	PAOK PONDONG	240	LEANG Qali	282	SAMBU
37	GEBONG	79	PEROK	117	SADAR	217	BAKIK TURGAKA	241	Batu Malang	283	DOMUSADUNDU
38	DATAR	80	LOANG MARR	118	PONDOL	218	PEYUNG	242	Au Malang		
39	BATU RITI	81	PULAPAK	119	PERESAK SIRIH	219	PERUNG	243	Ar Malang		
40	BUM TOPENG	82	KATUN	120	LENTING	220	PERUNG ATAS	244	Ar Malang		
41	PESONGORAN KAP.	83	MALUR I	121	PERAKO	221	PERUNG BAWA	245	Ar Malang		
42	PELANGAN	84	TIBI NANGKA	122	KUANG DERAK	222	PERUNG BAWA	246	Ar Malang		
				123	KUAN BERORA	223	PERUNG BAWA	247	Ar Malang		
				124	MONTONG TANGI	224	PERUNG BAWA	248	Ar Malang		
				125	BOJAR	225	PERUNG BAWA	249	Ar Malang		
				126	BOJAR	226	PERUNG BAWA	250	Ar Malang		
				127	BOJAR	227	PERUNG BAWA	251	Ar Malang		
				128	BOJAR	228	PERUNG BAWA	252	Ar Malang		
				129	BOJAR	229	PERUNG BAWA	253	Ar Malang		
				130	BOJAR	230	PERUNG BAWA	254	Ar Malang		
				131	BOJAR	231	PERUNG BAWA	255	Ar Malang		
				132	BOJAR	232	PERUNG BAWA	256	Ar Malang		
				133	BOJAR	233	PERUNG BAWA	257	Ar Malang		
				134	BOJAR	234	PERUNG BAWA	258	Ar Malang		
				135	BOJAR	235	PERUNG BAWA	259	Ar Malang		
				136	BOJAR	236	PERUNG BAWA	260	Ar Malang		
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				140	BOJAR	240	PERUNG BAWA	264	Ar Malang		
				141	BOJAR	241	PERUNG BAWA	265	Ar Malang		
				142	BOJAR	242	PERUNG BAWA	266	Ar Malang		
				143	BOJAR	243	PERUNG BAWA	267	Ar Malang		
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				148	BOJAR	248	PERUNG BAWA	272	Ar Malang		
				149	BOJAR	249	PERUNG BAWA	273	Ar Malang		
				150	BOJAR	250	PERUNG BAWA	274	Ar Malang		
				151	BOJAR	251	PERUNG BAWA	275	Ar Malang		
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				157	BOJAR	257	PERUNG BAWA	281	Ar Malang		
				158	BOJAR	258	PERUNG BAWA	282	Ar Malang		
				159	BOJAR	259	PERUNG BAWA	283	Ar Malang		
				160	BOJAR	260	PERUNG BAWA	284	Ar Malang		



**LEGEND**

	WEIR	EMBUNG/DAM
TECHNIC	●	▼
SEMI TECH	◐	▽
NON TECH	○	▽

DIRECTORATE GENERAL OF  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS

The Embung Development Project in  
East Nusa Tenggara and West Nusa Tenggara

No. / Area / JAPAN INTERNATIONAL COOPERATION AGENCY

图-4.1 NTB州既存主要灌溉地区位置图



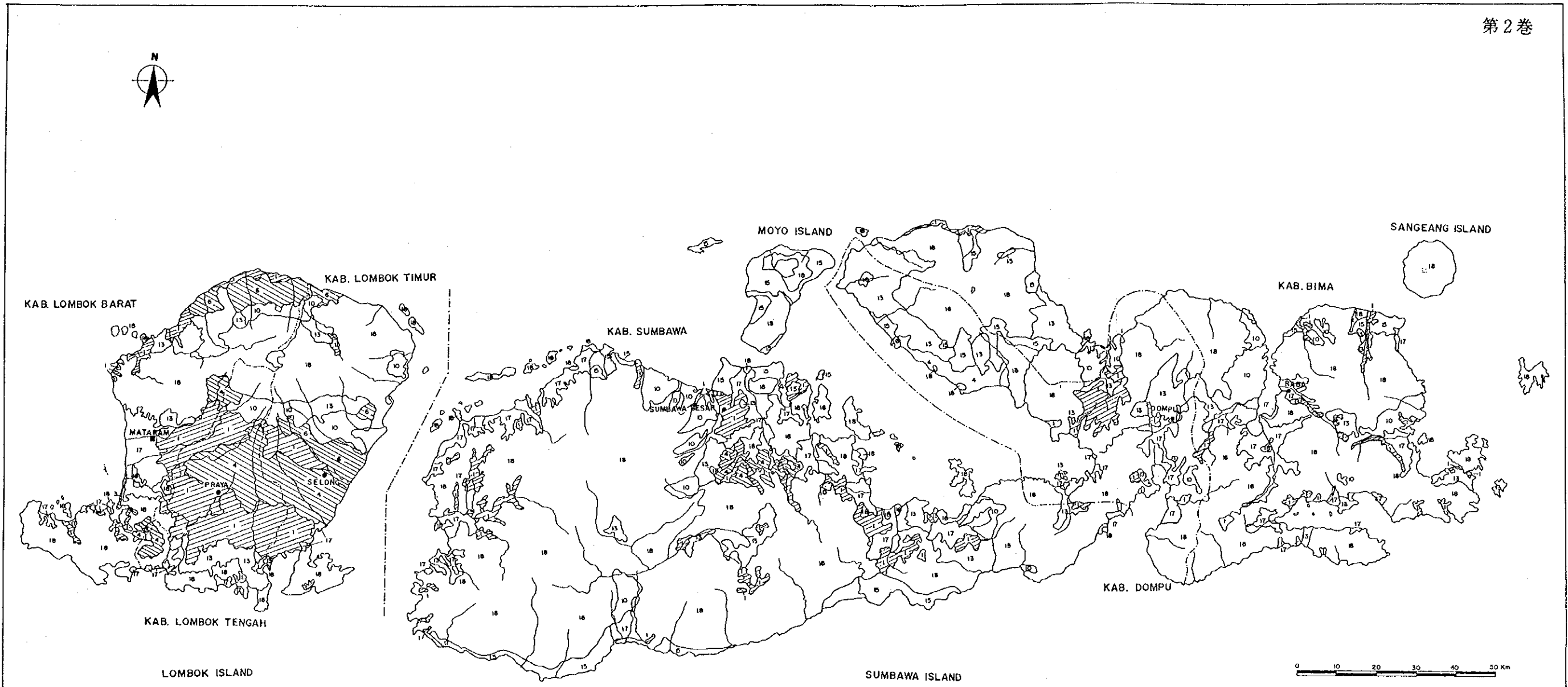












LEGEND

Map Legend	Land Suitability for the Land Use Type			
	Wetland Agriculture	Dryland Agriculture	Pasture/Livestock	Agro forestry
1	S	S	S	S
2	S	S	N	S
3	\$	S	S	S
4	\$	\$	S	S
5	\$	\$	\$	N
6	\$	N	S	S
7	N	S	S	S
8	N	S	S	N
9	N	S	N	N
10	N	\$	S	S
11	N	\$	S	N
12	N	\$	\$	S
13	N	N	S	S
14	N	N	S	N
15	N	N	\$	S
16	N	N	\$	N
17	N	N	N	S
18	N	N	N	N

S: Suitable  
 \$: Conditionally Suitable  
 N: Not Suitable

図-4.3 ロンボク島・スンバワ島土地分級図

DIRECTORATE GENERAL OF  
 WATER RESOURCES DEVELOPMENT,  
 MINISTRY OF PUBLIC WORKS

The Embung Development Project in  
 East Nusa Tenggara and West Nusa Tenggara

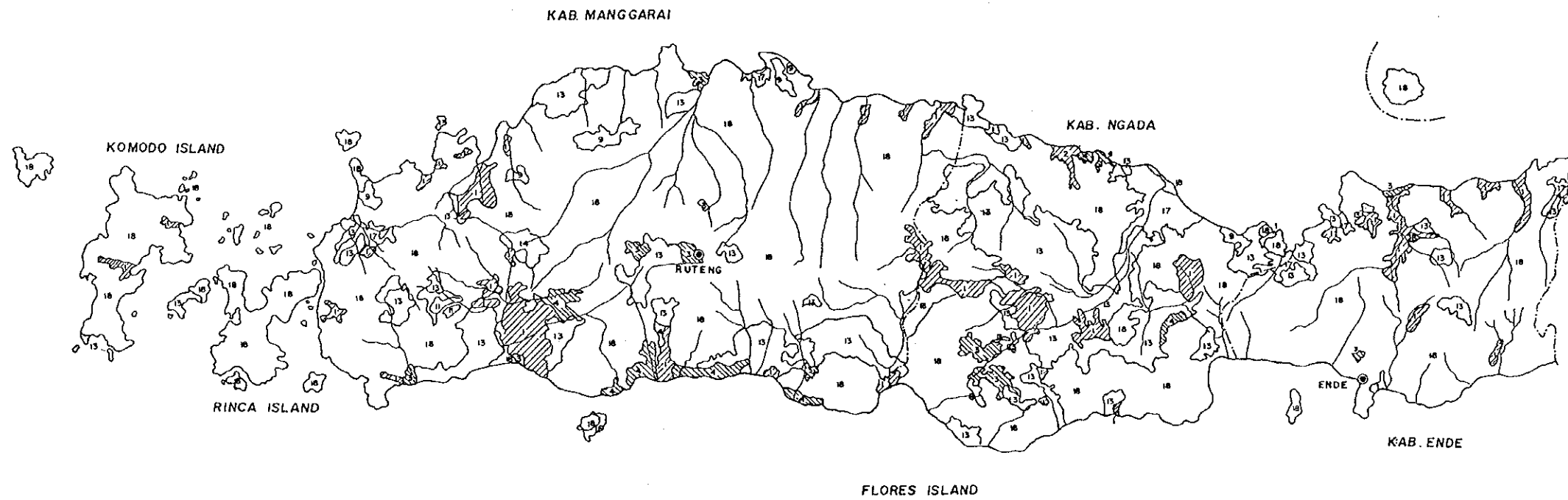
LAND SUITABILITY

No.	Area
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JAPAN INTERNATIONAL COOPERATION AGENCY







LEGEND

MapLegend	Land Suitability for the Land Use Type			
	Wetland Agriculture	Dryland Agriculture	Pasture/Livestock	Agro-forestry
1	S	S	S	S
2	S	S	N	S
3	\$	S	S	S
4	\$	\$	S	S
5	\$	\$	\$	N
6	\$	N	S	S
7	N	S	S	S
8	N	S	S	N
9	N	S	N	N
10	N	\$	S	S
11	N	\$	S	N
12	N	\$	\$	S
13	N	N	S	S
14	N	N	S	N
15	N	N	\$	S
16	N	N	\$	N
17	N	N	N	S
18	N	N	N	N

S: Suitable  
 \$: Conditionally Suitable  
 N: Not Suitable



図-4.4 フローレス島西部土地分級図

DIRECTORATE GENERAL OF  
 WATER RESOURCES DEVELOPMENT  
 MINISTRY OF PUBLIC WORKS

The Embung Development Project in  
 East Nusa Tenggara and West Nusa Tenggara

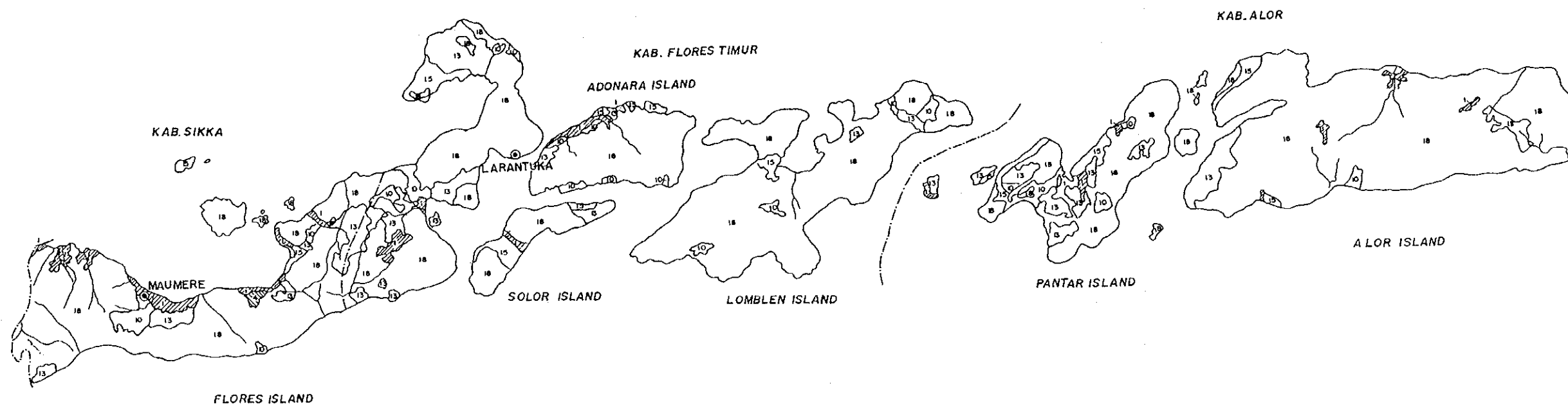
LAND SUITABILITY

No.	Area	West Flores
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JAPAN INTERNATIONAL COOPERATION AGENCY







**LEGEND**

Map Legend	Land Suitability for the Land Use Type			
	Wetland Agriculture	Dryland Agriculture	Pasture/Livestock	Agro-forestry
1	S	S	S	S
2	\$	S	N	S
3	\$	S	S	S
4	\$	\$	S	S
5	\$	\$	\$	N
6	\$	N	S	S
7	N	S	S	S
8	N	S	S	N
9	N	S	N	N
10	N	\$	S	S
11	N	\$	S	N
12	N	\$	\$	S
13	N	N	S	S
14	N	N	S	N
15	N	N	\$	S
16	N	N	\$	N
17	N	N	N	S
18	N	N	N	N

S: Suitable  
 \$: Conditionally Suitable  
 N: Not Suitable



図-4.5 フローレス島東部土地分級図

DIRECTORATE GENERAL OF  
 WATER RESOURCES DEVELOPMENT,  
 MINISTRY OF PUBLIC WORKS

The Embung Development Project in  
 East Nusa Tenggara and West Nusa Tenggara

**LAND SUITABILITY**

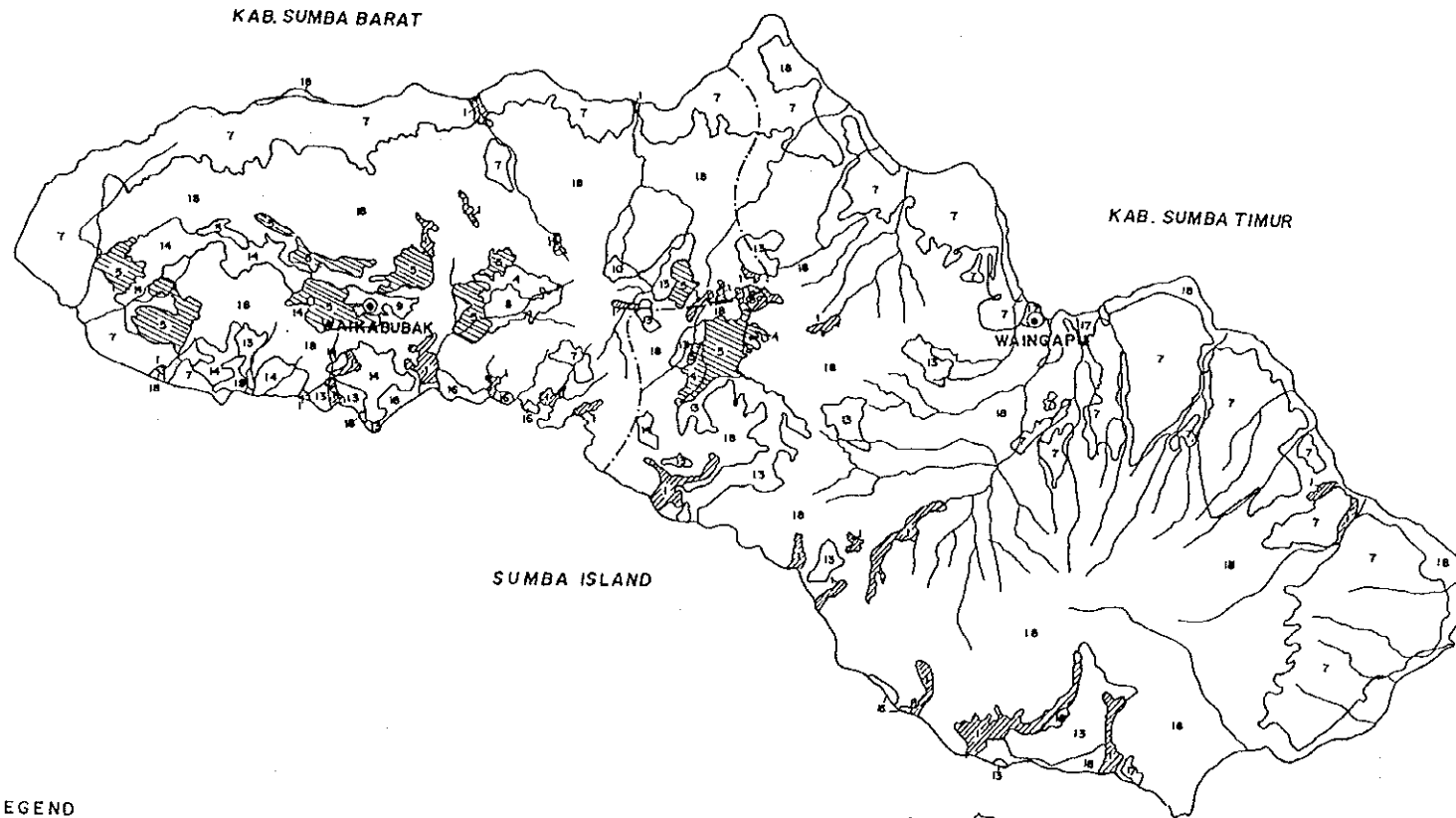
No.	Area	West Flores
-----	------	-------------

JAPAN INTERNATIONAL COOPERATION AGENCY









LEGEND

Map Legend	Land Suitability for the Land Use Type			
	Wetland Agriculture	Dryland Agriculture	Pasture/Livestock	Agro-forestry
1	S	S	S	S
2	S	S	N	S
3	\$	S	S	S
4	\$	\$	S	S
5	\$	\$	\$	N
6	\$	N	S	S
7	N	S	S	S
8	N	S	S	N
9	N	S	N	N
10	N	\$	S	S
11	N	\$	S	N
12	N	\$	\$	S
13	N	N	S	S
14	N	N	S	N
15	N	N	\$	S
16	N	N	\$	N
17	N	N	N	S
18	N	N	N	N

S: Suitable  
 \$: Conditionally Suitable  
 N: Not Suitable



図-4.6 スンバ島土地分級図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT, MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND SUITABILITY		
No.	Area	Sumba
JAPAN INTERNATIONAL COOPERATION AGENCY		







LEGEND

Map Legend	Land Suitability for the Land Use Type			
	Wetland Agriculture	Dryland Agriculture	Pasture/Livestock	Agro forestry
1	S	S	S	S
2	S	S	N	S
3	S	S	S	S
4	S	S	S	S
5	S	S	S	N
6	S	N	S	S
7	N	S	S	S
8	N	S	S	N
9	N	S	N	N
10	N	S	S	S
11	N	S	S	N
12	N	S	S	S
13	N	N	S	S
14	N	N	S	N
15	N	N	S	S
16	N	N	S	N
17	N	N	N	S
18	N	N	N	N

S: Suitable  
 S: Conditionally Suitable  
 N: Not Suitable

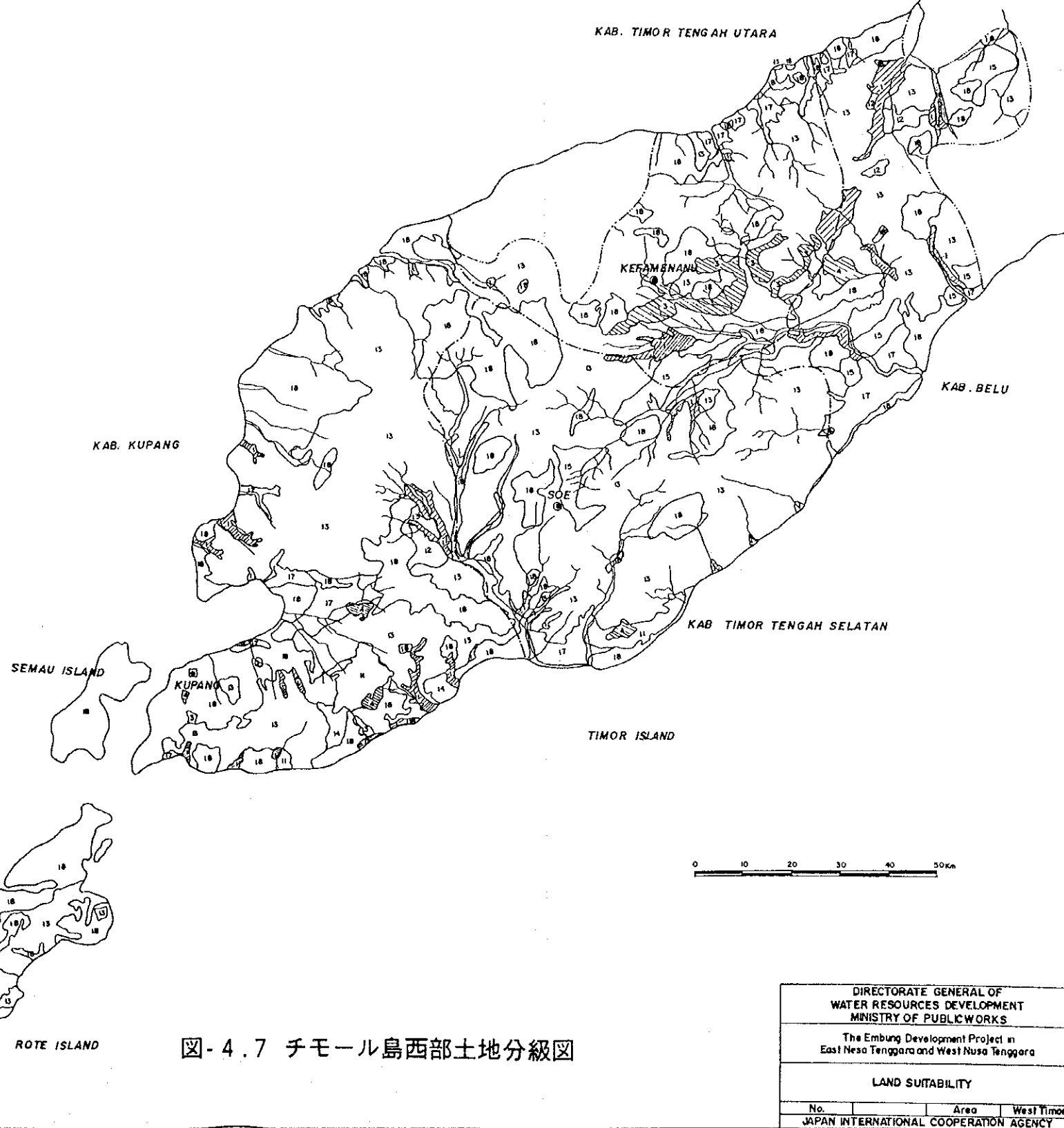
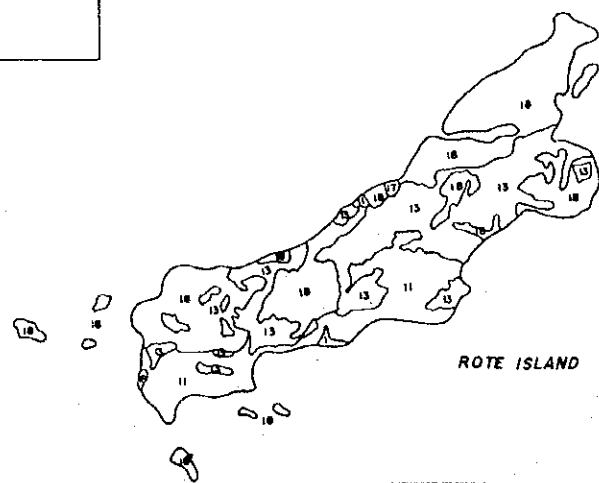
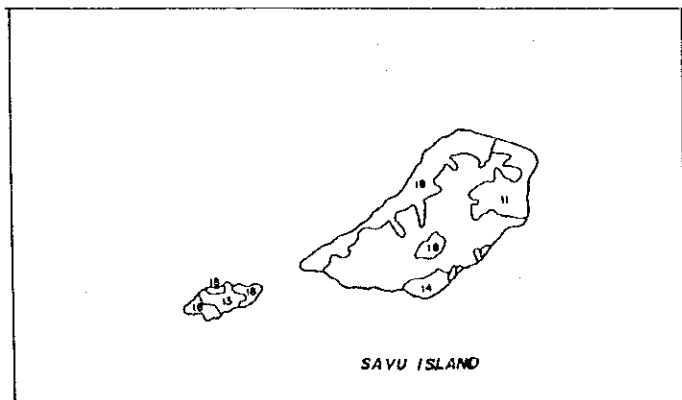


図-4.7 チモール島西部土地分級図

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT MINISTRY OF PUBLIC WORKS		
The Embung Development Project in East Nusa Tenggara and West Nusa Tenggara		
LAND SUITABILITY		
No.	Area	West Timor
JAPAN INTERNATIONAL COOPERATION AGENCY		









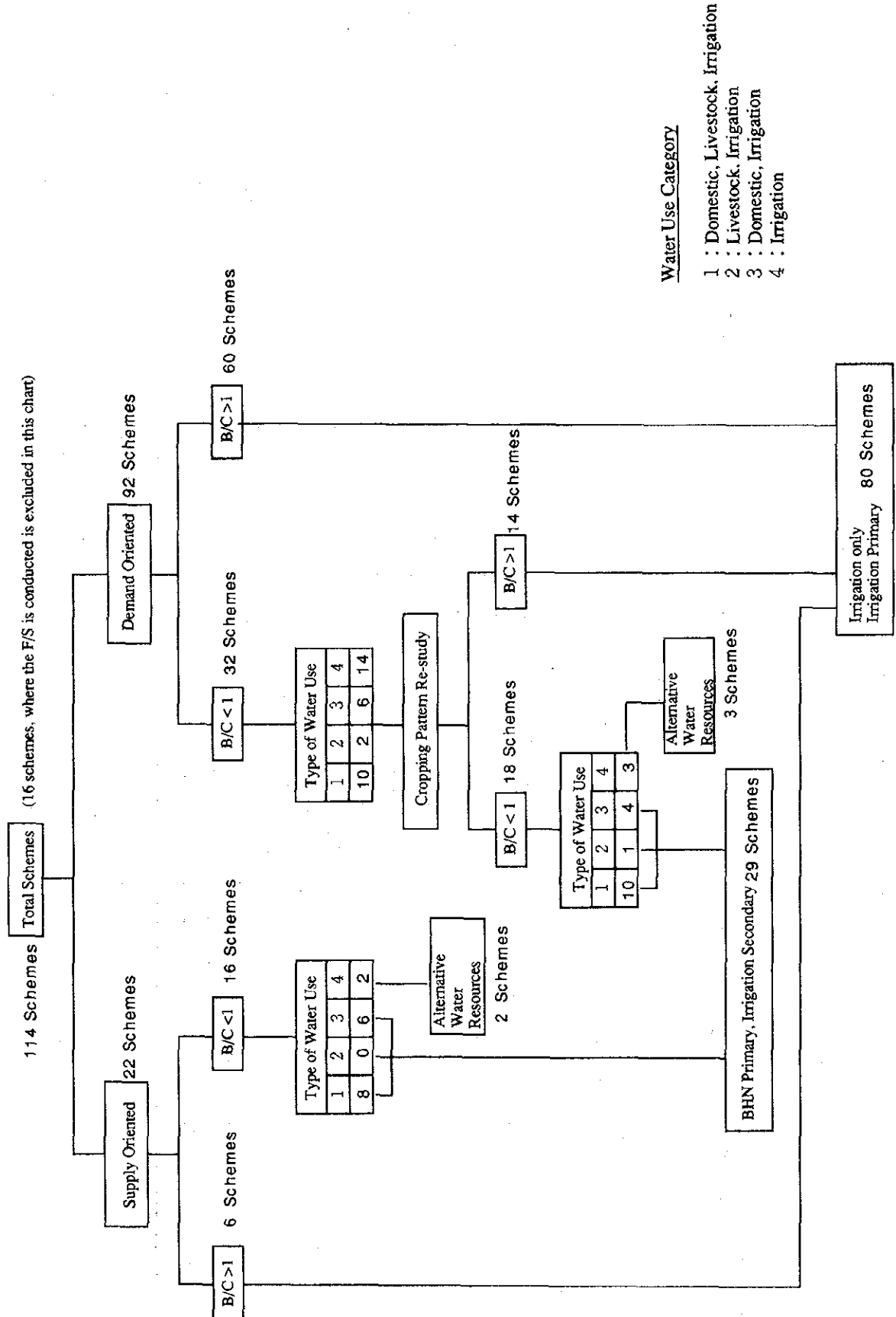


図-5.1 調査対象溜池開発ポテンシャル評価結果

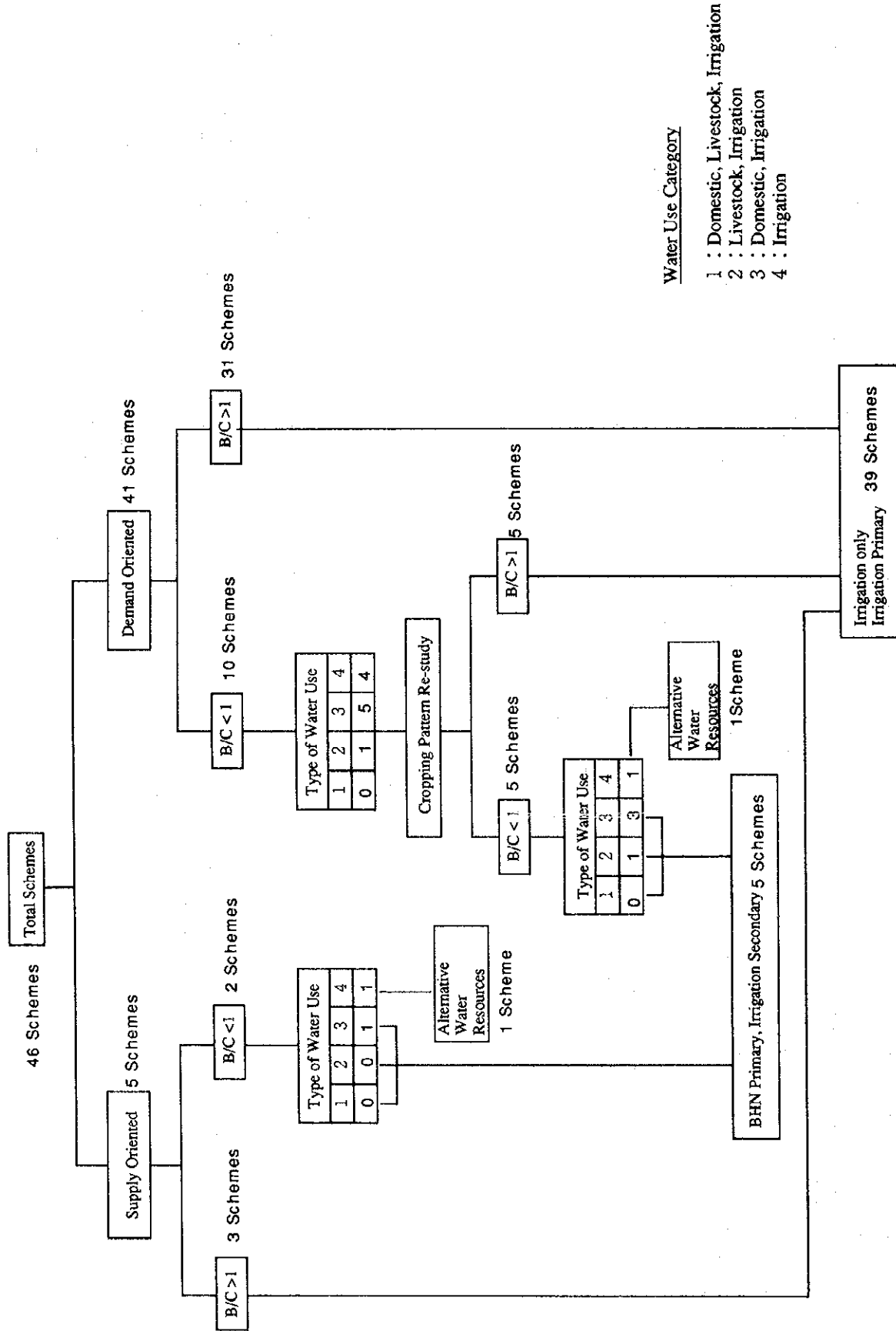
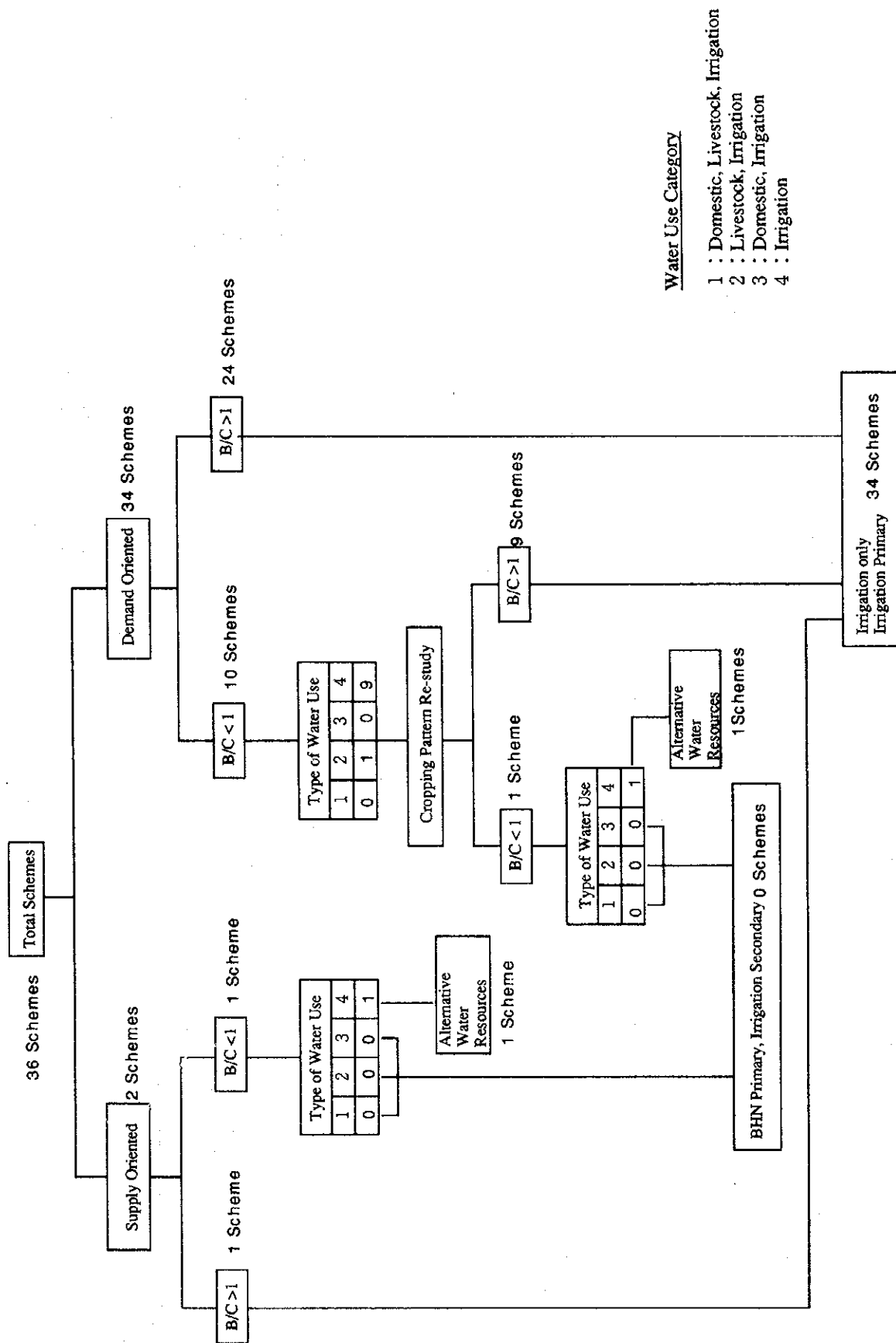


図-5.2 ロンボク島溜池開発ポテンシャル評価結果



Water Use Category

- 1 : Domestic, Livestock, Irrigation
- 2 : Livestock, Irrigation
- 3 : Domestic, Irrigation
- 4 : Irrigation

図-5.3 スンパワ島溜池開発ポテンシャル評価結果

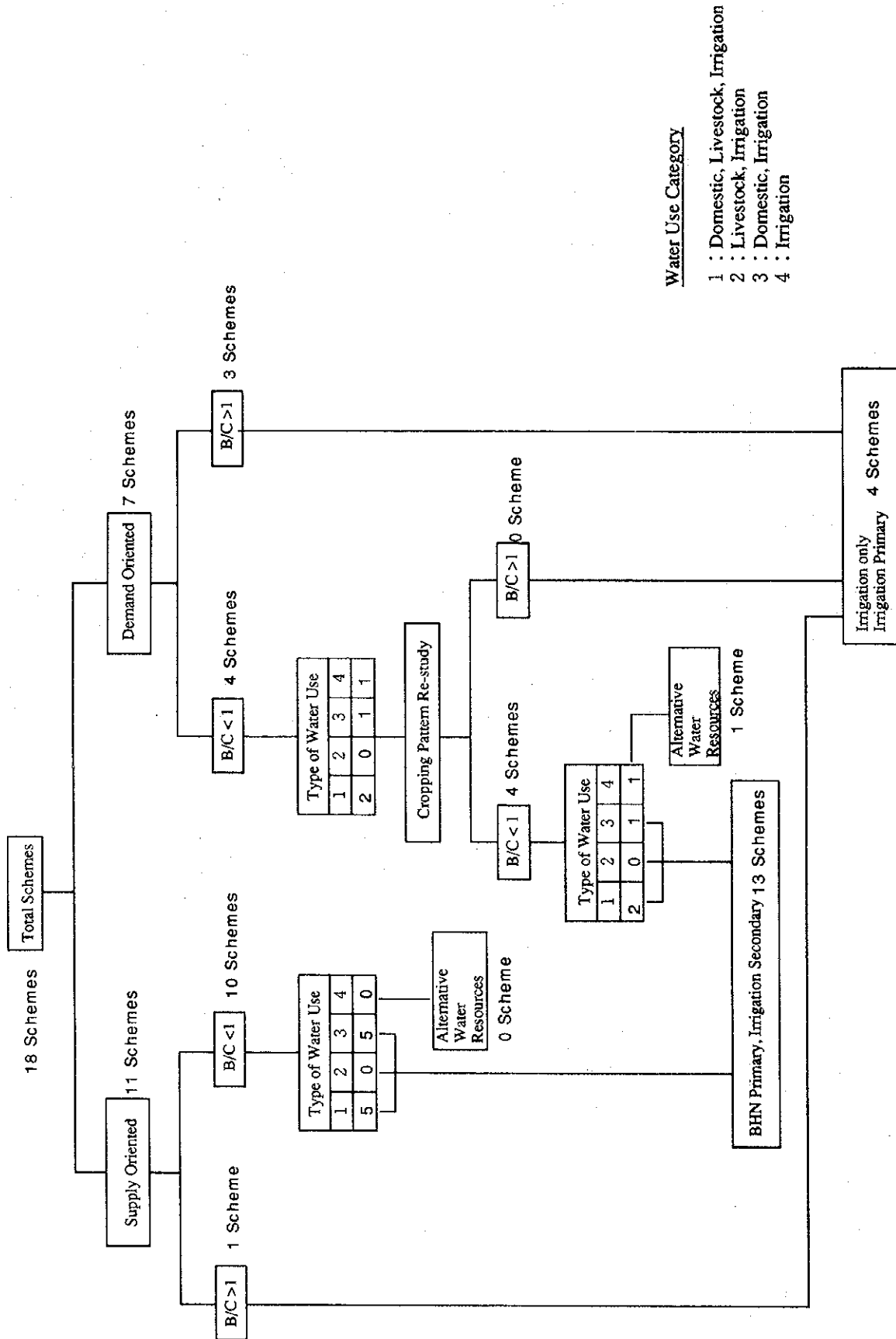
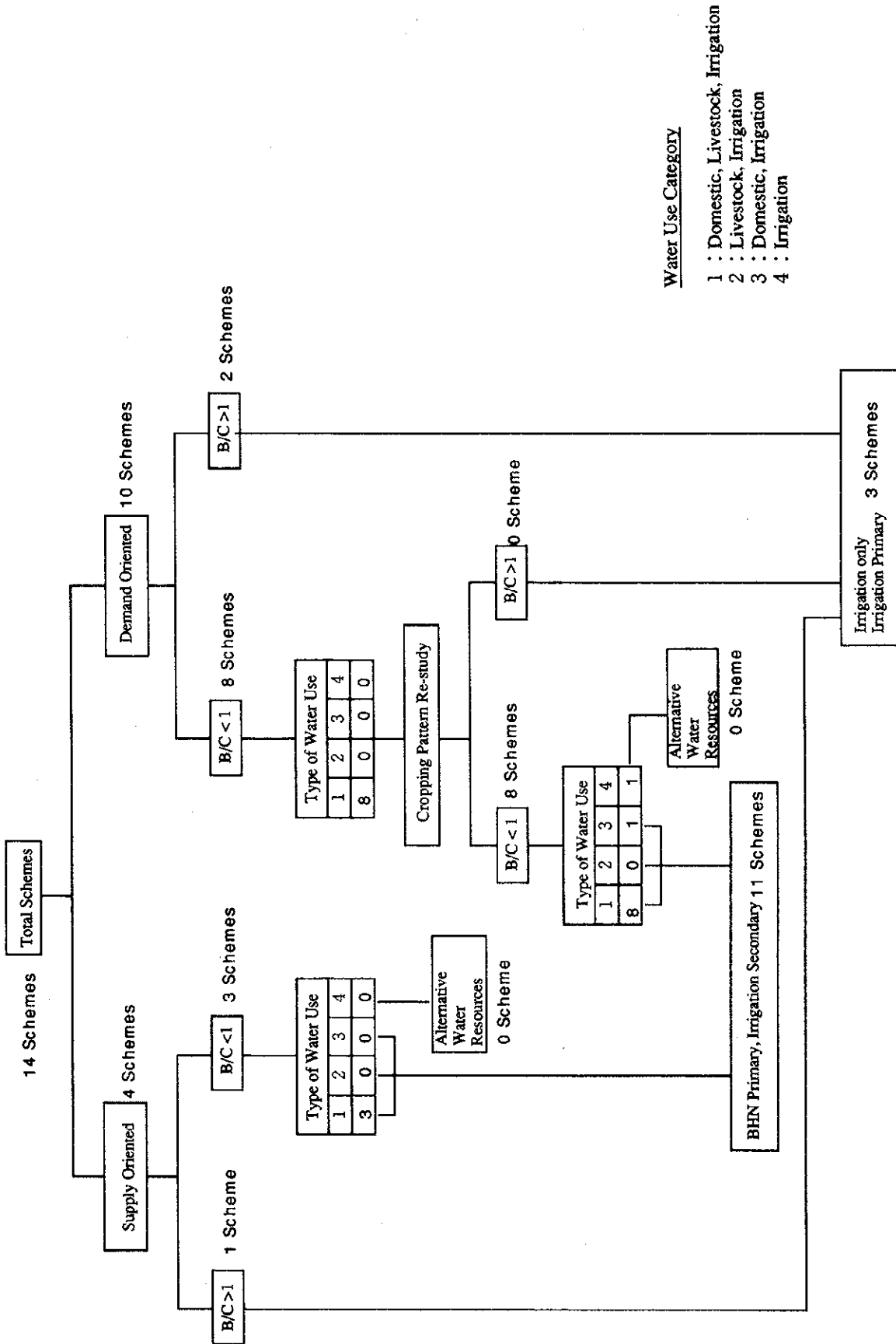


図-5.4 フローレス・スンバ島灌池開発ポテンシャル評価結果



Water Use Category

- 1 : Domestic, Livestock, Irrigation
- 2 : Livestock, Irrigation
- 3 : Domestic, Irrigation
- 4 : Irrigation

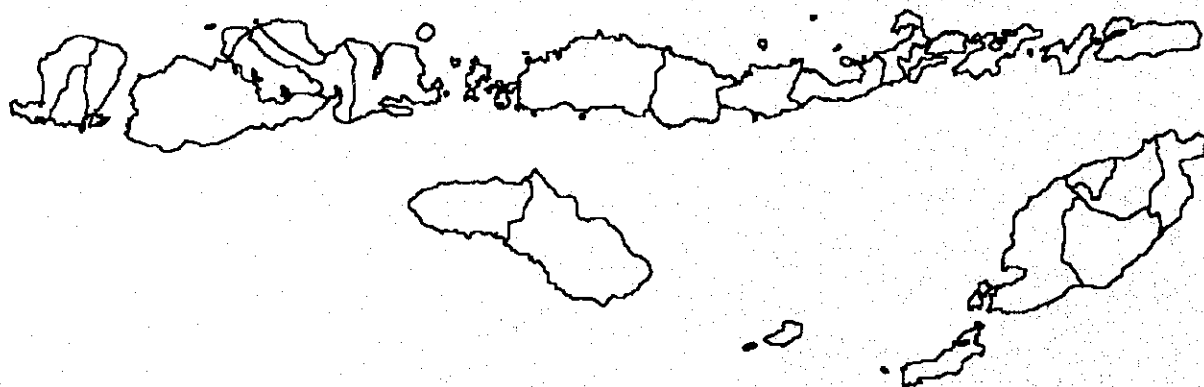
Irrigation only  
Irrigation Primary 3 Schemes

図-5.5 チモール島溜池開発ポテンシャル評価結果

インドネシア国 ヌサ・テンガラ地域  
小規模溜池農村開発計画調査

マスタープラン報告書

添付資料




実施細則 (S/W)


SCOPE OF WORK  
FOR  
THE STUDY  
ON  
THE EMBUNG DEVELOPMENT PROJECT  
( SMALL SCALE IMPOUNDING POND DEVELOPMENT PROJECT )  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA  
IN  
THE REPUBLIC OF INDONESIA

AGREED UPON BETWEEN  
MINISTRY OF PUBLIC WORKS  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

JAKARTA, 15 OCTOBER, 1993



MR. DJOKO S. SARDJONO  
DIRECTOR OF PLANNING AND  
PROGRAMMING  
DIRECTORATE GENERAL OF WATER  
RESOURCES DEVELOPMENT  
MINISTRY OF PUBLIC WORKS  
THE REPUBLIC OF INDONESIA



MR. KAZUO NAKAGAWA  
LEADER  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY

## I. Introduction

In response to the request of the Government of the Republic of Indonesia (hereinafter referred to as "the Government of Indonesia"), the Government of Japan has decided to conduct the Study on the Embung Development Project in East Nusa Tenggara and West Nusa Tenggara (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Indonesia.

The present document sets forth the scope of work with regard to the Study.

## II. Objectives of the Study

The objectives of the Study are:

1. To prepare a Master Plan in order to formulate a development plan on existing and potential Embung Development Projects in the Study Area.
2. To conduct a feasibility study for the priority Embung Development Projects which selected by the Master Plan.
3. To carry out technology transfer to the Indonesian counterpart personnel in the course of the Study.

## III. Study Area

The Study Area covers East Nusa Tenggara (NTT) and West Nusa Tenggara (NTB).



## IV. Scope of the Study

In order to achieve the above objectives, the Study will consist of two(2) phases and the following items.

## 1. Phase I

- 1.1. To collect and review the relevant existing data and information on the following items:
  - (1) natural condition, (Meteorology, Hydrology, Geology, Topography, Soils, etc.)
  - (2) social and economical condition,
  - (3) land and water resources and usages,
  - (4) irrigation and drainage
  - (5) agriculture, livestock and inland fisheries,
  - (6) agroecology and regional economy
  - (7) agricultural infrastructures,
  - (8) farmers' organizations and farmers supporting systems,
  - (9) environmental aspects.
- 1.2. To review the existing development plans and projects in the Study Area.
- 1.3. To make preparatory works for the inventory survey such as establishment of criteria for the selection of priority areas to be covered in the Study, determination of items to be surveyed and investigated, preparation of forms for data collection etc.
- 1.4. To conduct an inventory survey for preparing the inventory list of Embung Development Projects.
- 1.5. To carry out the field survey on the following items;  
(Topography, Hydrology, Geology, Soil, Agriculture Agroecology, Irrigation and Drainage, Environment, Water demand and usage etc.)
- 1.6. To analyse the result of data collection and investigation.
- 1.7. To prepare appropriate guideline to select the priority among the Embung Development Projects.
- 1.8. To prepare a Master Plan on the Embung Development Projects in the Study area.
- 1.9. To select the priority projects for the feasibility study in Phase II.

## 第2卷

1.10. To examine the detailed feasibility on the urgent projects among the selected projects.

### 2. Phase II

The Phase II study shall be carried out on the priority projects selected in Phase I study for the purpose of making model plans to other Embung Development Projects.

- 2.1. To collect the data and information in the selected project areas through additional field surveys.
- 2.2. To identify the existing problems and constraints against productive agriculture.
- 2.3. To formulate an optimum development plan based on alternative study including:
  - i) Water resources development plan
  - ii) Agricultural and rural development plan
  - iii) Irrigation and drainage plan , etc.
- 2.4. To prepare an environmental conservation plan.
- 2.5. To prepare a preliminary design of the main facilities.
- 2.6. To prepare an operation and maintenance plan of the facilities.
- 2.7. To prepare a project implementation plan.
- 2.8. To estimate a project costs and benefits.
- 2.9. To evaluate projects.
- 2.10. To make recommendation.

### V. Study Schedule

The Study will be carried out in accordance with the tentative schedule attached in Annex.

- (4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study, if necessary;
  - (5) to provide necessary facilities to the Japanese study team for the remittance as well as the utilization of the funds introduced into the Republic of Indonesia from Japan in connection with the implementation of the Study, if necessary;
  - (6) to secure permission for entry into private properties or restricted areas for the implementation of the Study;
  - (7) to secure permission for the Japanese study team to take all data and documents related to the Study out of the Republic of Indonesia to Japan by the Japanese study team; and
  - (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese study team.
2. The Government shall bear claims, if any arises, against the members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team.
3. Directorate General of Water Resources Development, Ministry of Public Works (herein after referred to as DGWRD) shall act as a counterpart agency to the Japanese study team and also as coordinating body in relation to other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

VI. Report

JICA will prepare and submit the following reports in English to the Government of Indonesia.

1. Inception Report  
Twenty (20) copies at the commencement of the Study.
2. Progress Report (1)  
Twenty (20) copies at the commencement of Phase I home office work.
3. Interim Report  
Twenty (20) copies at the commencement of the Phase II field work.
4. Progress Report (2)  
Twenty (20) copies at the end of the Phase II field work.
5. Draft Final Report  
Twenty (20) copies at the end of the Phase II home office work. the Government of Indonesia will provide its comments on the Draft Final Report to JICA within one (1) month after receiving the Draft Final Report.
6. Final Report  
Fifty (50) copies within two (2) months after the receipt at the comments on the Draft Final Report.

VII. Undertakings of the Government of Indonesia:

1. To facilitate smooth conduct of the Study, the Government shall take necessary measures:
  - (1) to secure the safety of the Japanese study team;
  - (2) to permit the members of the Japanese study team to enter, leave and sojourn in the Republic of Indonesia for the duration of their assignment therein, and exempt them from visa fees;
  - (3) to exempt the members of the Japanese study team from taxes, duties, fees and any other charges on equipment, machinery and other materials to be brought into and out of the Republic of Indonesia for the conduct of the Study;

4. DGRD shall, at its own expense, to provide the Japanese study team with the following, in cooperation with other organizations concerned;
  - (1) available data and information related to the Study;
  - (2) additional survey related to the study, if necessary,
  - (3) counterpart personnel;
  - (4) suitable office space with necessary equipment and furniture; and
  - (5) credentials or identification cards.

#### VIII. Undertakings of JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expense, the study team to the Republic of Indonesia,
- (2) to pursue technology transfer to the counterpart personnel of the Government of Indonesia in the course of the Study.

#### IX. Consultation

JICA and the Government of Republic of Indonesia shall consult with each other in respect of any matter that may arise from or in connection with the Study.

TENTATIVE SCHEDULE

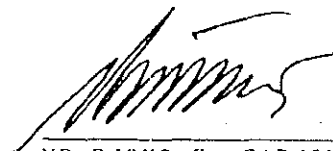
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
PHASE	←----- PHASE I ----->										←----- PHASE II ----->										
WORK IN INDONESIA	▬▬▬▬▬▬▬▬▬▬					▬▬▬▬▬▬▬▬▬▬					▬▬▬▬		○								
WORK IN JAPAN	▭	▭▭▭▭▭▭▭▭▭▭					▭▭▭▭▭▭▭▭▭▭					▭▭▭▭		▭▭▭▭							
REPORTS	△ IC/R	△ PR(I)					△ IT/R		△ PR(II)			△ DF/R			△ F/R						

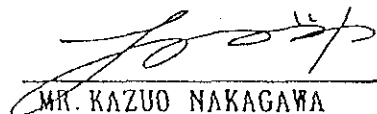
Remarks IC/R : Inception Report PR(II) : Progress Report II  
 PR(I) : Progress Report I DF/R : Draft Final Report  
 IT/R : Interim Report F/R : Final Report  
 ○ : Comments on DF/R by Indonesian side

▬▬▬▬ : Field Work  
 ▭▭▭▭ : Home Office Work

MINUTES OF MEETING  
FOR  
SCOPE OF WORK  
FOR  
THE STUDY  
ON  
THE EMBUNG DEVELOPMENT PROJECT  
(SMALL SCALE IMPOUNDING POND DEVELOPMENT PROJECT )  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA  
IN  
THE REPUBLIC OF INDONESIA  
  
AGREED UPON BETWEEN  
MINISTRY OF PUBLIC WORKS  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

JAKARTA, 15, OCTOBER, 1993

  
\_\_\_\_\_  
MR. DJOKO S. SARJONO  
DIRECTOR OF PLANNING AND  
PROGRAMMING  
DIRECTORATE GENERAL OF WATER  
RESOURCES DEVELOPMENT  
THE REPUBLIC OF INDONESIA

  
\_\_\_\_\_  
MR. KAZUO NAKAGAWA  
LEADER  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY

## 第2卷

In response to the request of the Government of the Republic of Indonesia, the Government of Japan decided to dispatch through Japan International Cooperation Agency (hereinafter referred to as "JICA"), which is responsible for the implementation of technical cooperation programmes of the Government of Japan, the preparatory study team (hereinafter referred to as "the Team"), headed by Mr. Kazuo NAKAGAWA, to the Republic of Indonesia from October 3rd to 16th, 1993 so as to discuss and exchange views on the study with the Directorate General of Water Resources Development, Ministry of Public Works (hereinafter referred to as DGWRD) and officials concerned of the Government of Indonesia for the implementation of the study.

DGWRD and the Team mutually agreed with the Scope of Work on the Study on the Embung Development Project in East Nusa Tenggara and West Nusa Tenggara (herein after referred to as "the Study").

The following minutes were prepared to confirm the main issues discussed and matters agreed upon by both sides in connection.

1. DGWRD shall carry out the Environmental Impact Assessment according to the Indonesian laws and regulations. The Japanese study team shall provide DGWRD with basic data and information on environmental issues in the course of the Study.
2. The Team requested DGWRD to assign the qualified and necessary number of counterpart experts for the Study at its own expenses and DGWRD accepted its request.
3. Based on the request made by the Team, DGWRD promised to provide the suitable two offices, each in Mataram and in Kupang, with necessary office equipments such as desks, chairs, telephone, and so on. In Jakarta, meeting room shall be provided if necessary.
4. Concerning with the technology transfer, DGWRD strongly requested JICA to accept counterpart training in Japan.
5. DGWRD requested the following equipments for the implementation of the Study and the Team promised to convey the request to the Government of Japan.
  - (1) Four wheel drive vehicles
  - (2) Survey equipments
  - (3) Computer systems
  - (4) Office equipments such as Fax machine etc.



6. DGWRD strongly requested JICA to make arrangement of transportation for the Study, because of the shortage of vehicles in the Study area. The Team promised to convey the request to the Government of Japan.
7. DGWRD strongly requested to the Team to consider that the detail feasibility study shall be carry out on the urgent projects in NTT as soon as the completion of Phase I field study, because of the urgent requirement of the Basic Human Needs. The Team promised to consider this request.
8. The Team suggested that the Steering Committee for the Project should be organized by the concerned Ministries and Agencies. DGWRD agreed with the idea and promised to organize the Committee.
9. DGWRD and the Team agreeded that the water distribution facilities should be included in the main facilities which mentioned in "IV. Scope of Work in S/W, 2.5. "

MINUTES OF CONSULTATIVE MEETING  
FOR  
THE INCEPTION REPORT  
ON  
THE STUDY  
FOR  
THE EMBUNG DEVELOPMENT PROJECT  
(SMALL SCALE IMPOUNDING POND DEVELOPMENT PROJECT)  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA

In accordance with the Scope of Work for the captioned study (the Study) agreed upon between Japan International Cooperation Agency (JICA) and Directorate General of Water Resources Development (DGWRD) of the Ministry of Public Works, the JICA study team prepared and submitted the Inception Report on February 4, 1994 to the Directorate of Irrigation II (DOI-II) of the DGWRD.

The Consultative Meeting organized by DOI-II was held on February 7, 1994 at the meeting room in the office of DOI-II (7th floor) at 9:30 a.m. WIB with attendance of JICA advisory committee team (Mr.M.Mizuno, Leader, and Mr.K.Matsumoto, Coordinator). The other attendants of the meeting are as per attached.

The meeting was opened by Mr.M.Subianto, Chief of Sub.Dit.EP DOI-II, and chaired by IR.Soenarno MSC, C.T.Director of DOI-II. Upon the request by Mr.M.Subianto, Dr.Y.Kunihiro, Leader of the study team, after introducing team member, explained the contents of the Inception Report. The Inception Report was basically accepted by the Indonesian side.

The following are main items suggested and informed by the Indonesian side during the meeting.

1. Executing agency for the Study is DOI-II.
2. The transfer of technology to the Indonesian counterpart personnel should be carried out at the site by the study team during the period of study.
3. DGWRD basically agree that Steering Committee for the Project should be organized by the concerned Ministries and Agencies. However, the study team should not expect to be organized the committee immediately. The committee will be organized by DGWRD when it will be required in future stage. DGWRD will coordinate the other concerned Ministries and Agencies time to time as required during the period of study.

4. The Study should be carried out into deep considerations what the villagers in NTT and NTB needs. Needs of villagers should be fully reflected to the development of the Embung.
5. The Study should be executed considering what the villagers have to do after construction in the operation and maintenance of the Embung.
6. As Embung development for domestic use is mainly for the basic human needs of the villagers in the project area, therefore the economic consideration will not be the basic one.
7. The Embung for agricultural use should be developed not only for paddy but also for other crops.
8. DGWRD will prepare the A2-3 form as soon as possible for the training of counterpart personnel in Japan.
9. The study team with JICA advisory committee team will leave Jakarta to Kupang (NTT) accompanied by Mr.S.Soekirno, Chief of Design and Planning DOI-II, for a short field observation visit on February 8,1994.

The meeting closed at 12:00 WIB.

SIGNED ON  
FEBRUARY 11 1994



IR.SOENARNO MSC

C.T.DIRECTOR OF IRRIGATION II,  
DIRECTORATE GENERAL OF  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS

  
DR.YASUHIRO KUNIHIRO

LEADER OF  
THE JICA STUDY TEAM

WITNESS



MR. MASAMI MIZUNO

LEADER OF JICA  
ADVISORY COMMITTEE TEAM



LIST OF ATTENDANTS

INDONESIAN SIDE

- |    |                 |   |
|----|-----------------|---|
| 1. | IR.SOENARNO MSC | DIRECTOR, DOI-I<br>C.T.DIRECTOR, DOI-II |
| 2. | M.SUBIANTO      | CHIEF OF SUB.DIT., EP, DOI-II           |
| 3. | S.SOEKIRNO      | CHIEF OF IRR.&PLANN., DOI-II            |
| 4. | SYAMSUDDIN M    | SUB.DIT. OM, DOI-II                     |
| 5. | SARWEDI         | ABLN, DOI-II                            |
| 6. | CHR NGAJIONO    | STAFF DIT., BPP                         |
| 7. | H.KUDO          | JICA EXPERT, DOI-II, PAT                |
| 8. | T.SAITO         | JICA EXPERT, PPD, BPP                   |

JAPANESE SIDE

- |    |             |  |
|----|-------------|--|
| 1. | M.MIZUNO    | LEADER, JICA ADVISORY<br>COMITTEE TEAM       |
| 2. | K.MATSUMOTO | COORDINATOR, JICA ADVISORY<br>COMMITTEE TEAM |
| 3. | Y.KUNIHURO  | LEADER, JICA STUDY TEAM                      |
| 4. | K.NAITO     | CO-LEADER, JICA STUDY TEAM                   |
| 5. | T.IGAWA     | MEMBER, JICA STUDY TEAM                      |

MINUTES  
OF  
THE SECOND CONSULTATIVE MEETING  
IN  
JAKARTA  
FOR  
THE STUDY  
ON  
THE EMBUNG DEVELOPMENT PROJECT  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA

The second consultative meeting in Jakarta for the captioned study (the Study) agreed upon between the Japan International Cooperation Agency (JICA) and the Directorate General of Water Resources Development (DGWRD) of the Ministry of Public Works was held on June 20, 1994 at the meeting room in the office of Directorate of Irrigation II, DGWRD.

The meeting was opened at 9:30 a.m. and chaired by Ir. Rapiali Zainuddin Dip. AIT on behalf of the Director of Directorate Irrigation II. Attendant list of the meeting is as per attached.

Mr. K. Nakagawa, the Leader of the JICA Advisory Team (the Mission), explained the purpose of the visit and expressed his appreciation to cooperation of the Indonesian side, NTB and NTT, to the Study.

Dr. Y. Kunihiro, the Team Leader of the JICA Study Team (the Team), highlighted the contents of the Progress Report (I), especially focusing upon the selection of *urgent schemes for feasibility study to be conducted in the Phase I Stage 2 Study and priority schemes for the Phase II Study* as well.

Mr. T. Tomita, Geologist of the Mission, reported some geological comments based on his surface reconnaissance at the urgent scheme sites.

Mr. A. Nakamura, Grant Aid Officer of the Mission, introduced the system of the Japan's Grant Aid Program in general and explained important points to which Indonesian side needs to pay special attention in details. Discussion results are recorded in separate Minutes of Discussion.

## 第 2 卷

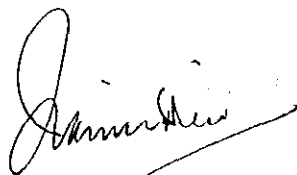
The followings are the main items agreed, suggested and informed by the Indonesian side during the meeting and mutually understood by the Indonesian side and the JICA Study Team:

1. In due consideration of the natural circumstances in NTB and NTT, special attention will be paid to irrigation benefits from palawija crops other than paddy.
2. Taking into account insufficiency of data and information on the 157 candidate embung schemes in NTB and NTT selected for the Study; Indonesian side requested Japanese side to take necessary actions for immediate execution of restudy to make up for data prerequisite to assess embung development potential to full extent. The Mission agreed to convey this request to JICA Headquarters in Tokyo.
3. In the Phase II Study, feasibility study will be conducted for 10 priority schemes representing different types of embung and water use including preparation of planning guidelines and O&M manual.
4. Geological justification of the six urgent scheme sites as candidate for Japan's Grant Aid will be made by referring to the final results of the on-going geological investigation and analysis and the final conclusion will be presented in the Interim Report.
5. As soon as reorganization of DGWRD established, the responsible Directorate for the Study will be nominated.
6. According to the Minutes of Meeting on the Scope of Work (the S/W) for the Study signed in October 1993, the Mission confirmed the present position of organizing a steering committee at the central level. The Indonesian side will make its effort to establish a functional committee by organising relevant agencies after completion of the on-going reorganization of DGWRD.
7. In accordance with the above Minutes of Meeting on the S/W, JICA informed the schedule of counterpart training in Japan and asked the Indonesian side to take necessary actions with advice of the Study Team.


After confirmation of schedule of preparing and signing the Minutes of Discussion, the meeting was closed at 1:30 p.m. successfully with mutual understandings of the importance of the Embung Development Project.

Jakarta

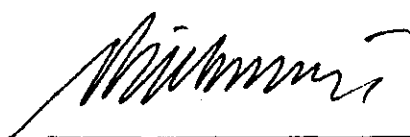
June 21, 1994



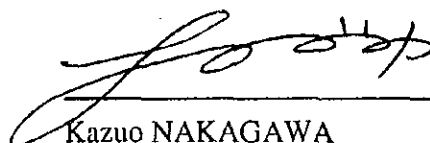
Ir. Rapiali Zainuddin Dip. AIT  
On behalf of Director of  
Irrigation II  
Directorate General of  
Water Resources Development



Masuhiko KUNIHIRO  
Leader of  
JICA Study Team



Ir. Djoko S. Sardjono  
Director of  
Planning and Programming  
DGWRD



Kazuo NAKAGAWA  
Leader of  
JICA Advisory Mission

### List of Attendants

Date Monday, 20 June 1994  
 Time 9:30 a.m.  
 Place Meeting Room of Directorate Irigasi II  
 Chairman Kasudit Perencanaan Teknis

No.	Nama	Jabatan
<b>Indonesian Side</b>		
1	S. Hadiwijono	Kasudit. Administrasi Bantuan Luar Negeri, Dit. BPP
2	R. Zainuddin Dip. AIT	Kasubdit. Perencanaan Teknis, DOI II
3	Heru Marsudi	PU PENGAIRAN, Kepala Sub Dinas, NTT
4	Uki Basuki	PKSA Lombok, NTB
5	S. Soekirno	DOI II, Chief of Design & Planning Sec. II, DOI II
6	H. A. Oematan	PKSA Flores-Sumba, NTT
7	J.H. Manu Dima	PKSA Timor, NTT
8	D. Bantolo	BPP, Sub. Dit. ABLN, Dit. BPP
9	H. Kudo	JICA Expert, DOI II
10	T. Matsushima	JICA Expert, DOI II
<b>Japanese Side</b>		
1	K. Nakagawa	Leader, JICA Advisory Mission
2	T. Tomita	Geologist, JICA Advisory Mission
3	A. Nakamura	Grant Aid Officer, JICA Advisory Mission
4	K. Shishido	Asst. Resident Representative, JICA Indonesia Office
5	Y. Kunihiro	Leader, JICA Study Team
6	Y. Matsumoto	Project Economist, JICA Study Team



MINUTES OF CONSULTATIVE MEETING  
FOR  
THE INTERIM REPORT  
ON  
THE STUDY  
FOR  
THE EMBUNG DEVELOPMENT PROJECT  
(SMALL SCALE IMPOUNDING POND DEVELOPMENT PROJECT)  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA

In accordance with the Scope of Work for the captioned study (the Study) agreed upon between Japan International Cooperation Agency (JICA) and Directorate General of Water Resources Development (DGWRD) of the Ministry of Public Works, the JICA study team prepared and submitted the Interim Report on September 22, 1994 to the Directorate of Technical Guidance of the DGWRD.

The Consultative Meeting organized by Directorate of Technical Guidance was held on September 28, 1994 at the meeting room (6th floor) in the office of DGWRD at 9:00 a.m. WIB with attendance of JICA Mission (Mr.M.Suemori, Leader, and Mr.K.Matsumoto, Coordinator). The other attendants of the meeting are as per attached.

The meeting was opened and chaired by Ir.R.Zainuddin, Chief of Subdit. of Irrigation, Directorate of Technical Guidance. Upon the request by Ir.R.Zainuddin, Dr.Y.Kunihiro, Leader of the Study team, explained the contents of the Interim Report. The Interim Report was basically accepted by the Indonesian side.

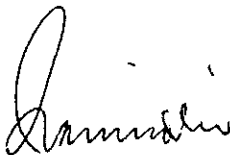
The following are main items informed and agreed between the Indonesian side and the Japanese side during the meeting as for the Interim Report.

1. Due to the change of organization of DGWRD on July, 1994, the executing agency of the Study is changed to Directorate of Technical Guidance from DOI-II.
2. DGWRD will nominate one counterpart personal by the end of October, 1994, who will be trained during three weeks in Japan under the Study.
3. Steering Committee will be organized in the Central Government base at Jakarta to implement the Project smoothly.
4. It is supposed that the environmental and land acquisition problems will not be occurred during and after construction of the Embungs for the urgent schemes selected in the Study.

5. As for the Tasiepah Embung selected in NTT for the urgent schemes, undertaking of additional feasibility study will be required in future stage as a Water Resources Development Project to make the maximum utilization of limited water resources in NTT. Possibility to construct a dam at Tasiepah to supply impounded water to the surrounding areas for irrigation and urban water use will be considered, since there are rather big water resource development potential at Tasiepah.
6. It is recommended that the necessary steps for the implementation for the other five Embungs in NTT selected as the urgent schemes in the Study will be immediately taken.

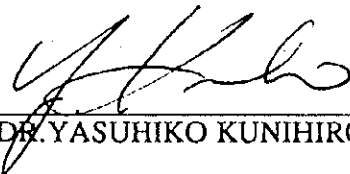
The meeting for the Interim Report as the first agenda closed at 11:00 WIB with mutually understandings for the Interim Report. Second agenda about the Japan Grant Aid for the urgent schemes was discussed after finishing the meeting for the Interim Report at the same meeting room, and the minutes for second agenda are prepared separately.

SIGNED ON  
SEPTEMBER 29 1994



IR. R. ZAINUDDIN DIP. AIT

CHIEF OF SUBDIT. OF IRRIGATION,  
DIRECTORATE OF TECHNICAL GUIDANCE,  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS



DR. YASUHIKO KUNIHIRO

LEADER OF  
THE JICA STUDY TEAM

WITNESS



MR. MITSURU SUEMORI

LEADER OF  
JICA MISSION

## List of Attendants

Date : September 28 (Wed)  
 Time : 09:00 to 11:00  
 Chairman : Ir. R. Zainuddin (Kasudit Bintek Irigasi)

Name	Occupation	Office
Ir. R. Zainuddin	Kasubdit Irigasi	Dit Bina Teknik
M. Tampubolon	Kas Irigasi Wilayah Timur	Dit Bina Teknik
Ir. Yoppy Manu Dima	Pimpro PKSA Timor	Subdinas Air NTT
M. Ismihan	Kasie III PU	Dit BPP
Darwin Lubis	Kasie Wilayah Barat	Dit Bina Teknik
Suwarsa	Mon. Eva	Dit Bina Teknik
Muryono	Staff Bangunan Besar	Dit Bina Teknik
Kusumo Respatyo	Kasi Timur Subdit BB	Dit Bina Teknik
B. Prihono	Kasi Irigasi Wilayah Tengah	Dit Bina Teknik
Hasan	Kasi Irigasi Wilayah Tengah	Dit Bina Teknik
Z. Sasongko	Desiminasi Sungai	Dit Bina Teknik
Widyawati	Kasi Analisapot S.D.A.	Dit. PPSDA
B. Gulton	Kasi Analisapot S.D.A.	Dit. PPSDA
K. Suryata	Kasi Dem	Dit Bina Teknik
Y. Hidayat	Faa Staff	DPP
M. Suemori	JICA Headquater	JICA
K. Matsumoto	JICA Headquater	JICA
K. Shishido	JICA Indonesia Office	JICA
H. Kudo	JICA Expert	Dit Bina Teknik
T. Matsushima	JICA Expert	Dit Bina Teknik
Y. Kunihiro	Team leader	JICA Study Team
K. Naito	Co-team leader	JICA Study Team
T. Igawa	Hydrologist	JICA Study Team

**MINUTES OF CONSULTATIVE MEETING  
FOR  
THE PROGRESS REPORT (II)  
ON  
THE STUDY  
FOR  
THE EMBUNG DEVELOPMENT PROJECT  
(SMALL SCALE IMPOUNDING POND DEVELOPMENT PROJECT)  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA**

In accordance with the Scope of Work for the captioned study (the Study) agreed upon between Japan International Cooperation Agency (JICA) and Directorate General of Water Resources Development (DGWRD) of the Ministry of Public Works, the JICA study team prepared and submitted the Progress Report (II) on December 07, 1994 to the Directorate of Technical Guidance of the DGWRD.

The Consultative Meeting organized by Directorate of Technical Guidance was held on December 07, 1994 at the meeting room (4th floor) in the office of DGWRD at 10:00 a.m. WIB. The attendants of the meeting are as per attached.

The meeting was opened and chaired by Ir.R.Zainuddin, Chief of Subdit. of Irrigation, Directorate of Technical Guidance. Upon the request by Ir.R.Zainuddin, Dr.Y.Kunihiro, Leader of the Study team, explained the contents of the Progress Report (II). The Progress Report (II) was basically accepted by the Indonesian side.

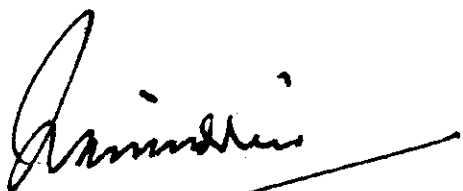
The following are main items informed and agreed between the Indonesian side and the Study Team during the meeting as for the Progress Report (II).

1. Crops proposed for ten (10) representative schemes in NTB and NTT on the Feasibility Study, which will be prepared by the Study Team in Phase II Study, Home Work, will be selected taking the existing cropped condition and farmers' demands in the beneficially area of each scheme into considerations.
2. Draft Guideline for the Embung Development Projects prepared by the Study Team in Phase II Study, Home Work will not be a planning and design criteria, but a fundamental and general guideline for plan formulation / investigations, design of facilities, and project

evaluation / O&M of facilities in order for the GOI to promote the Embung Development Projects.

3. Domestic and livestock water supply system for ten (10) representative schemes will be planned carefully taking the present condition and demands in respective scheme into considerations.

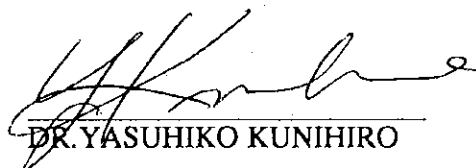
The meeting for the Progress Report (II) closed at 11:15 a.m. WIB with mutually understandings for the contents of Progress Report (II).



IR.R.ZAINUDDIN DIP.AIT

CHIEF OF SUBDIT.OF IRRIGATION,  
DIRECTORATE OF TECHNICAL GUIDANCE,  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS

SIGNED ON  
DECEMBER 08 1994



DR.YASUHIKO KUNIHIRO

LEADER OF  
THE JICA STUDY TEAM

## List of Attendants

Date : December 07 (Wed)  
 Time : 10:00 to 12:00  
 Chairman : Ir. R. Zainuddin (Kasudit Bintek Irigasi)

Name	Occupation / Office
Ir. R. Zainuddin	Kasubdit Irigasi, Dit Bina Tekni
M. Tampubolon	Kasi Irigasi Wilayah Timur, Dit Bina Teknik
Hendromoyo	Kasi PSAPB Wil. Tengah V
Imam Anshori	Kasi PSAPB Wil. Barat V
M. Amron	Ks Analisa Pemanfaatan, PPSDA
Maryono Bony	Kasie Tata Lembaga Pengairan, PPSDA
Sri M Madiarti	Staff Subdit. Program Wil-Tim BPCK
Sri Isniharti	Staff Subdit Air Bersih Wil-Tim
H. Kudo	JICA Expert, Dit Bina Teknik
Y. Kunihiro	Team leader, JICA Study Team
K. Naito	Co-team leader, JICA Study Team

**MINUTES OF CONSULTATIVE MEETING  
FOR  
THE DRAFT FINAL REPORT  
ON  
THE STUDY  
FOR  
THE EMBUNG DEVELOPMENT PROJECT  
(SMALL WATER IMPOUNDING DEVELOPMENT PROJECT)  
IN  
EAST NUSA TENGGARA AND WEST NUSA TENGGARA**

In accordance with the Scope of Work for the captioned study (the Study) agreed upon between the Japan International Cooperation Agency (JICA) and the Directorate General of Water Resources Development (DGWRD) of the Ministry of Public Works, the JICA study team prepared and submitted the Draft Final Report on March 13, 1995 to the Directorate of Technical Guidance of the DGWRD.

The Consultative Meeting organized by Directorate of Technical Guidance was held on March 22, 1995 at the meeting room (4th floor) in the office of DGWRD at 12:00 a.m. WIB with attendance of JICA advisory study team (Dr. M. Inaba, JICA Head Office). The attendants of the meeting are as per attached.

The meeting was opened and chaired by Ir. R. Zainuddin, Chief of Subdit. of Irrigation, Directorate of Technical Guidance. Upon the request by Ir. R. Zainuddin, Dr. Y. Kunihiro, Leader of the Study team, explained the contents of the Draft Final Report. The Draft Final Report was basically accepted by the Indonesian side.

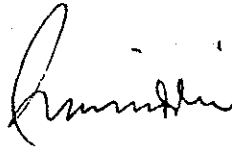
The followings are the main item agreed, suggested and informed by the Indonesian side during the meeting and mutually understood with the meeting between the Indonesian side and the JICA Study Team.

1. The JICA Study Team stated that the contents of the Draft Final Report was basically accepted by the Sub-Dinas Pengairan in both East Nusa Tenggara (NTT) and West Nusa Tenggara (NTB) Province at the meeting held on March 15 in NTT and March 20 in NTB. Further, it is noted that the both Provinces expect support of the Central Government in terms of technical and budgetary matters so that the implementation of the embung development project could be carried out urgently according to the long term program presented in the Report.

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2. Although the definition of the "Embung" was basically understood by the Indonesian Side, it is confirmed that the definition of the terminology would be studied and finalized by the officials concerned including the Sub-dinas Pengairan in both NTT and NTB.
3. The watershed management plan is to be strengthened in the future embung plan and design.
4. In connection with the construction of the embung, special attention should be given to the leakage protection works method according to the geological condition featured by the Bobonaro Clay and Coral Limestone in NTT.
5. The Indonesian Side is requested to submit written comments on the Draft Final Report within three weeks, before April 12, 1995 through the JICA Indonesia Office. The Final Report will be prepared and submitted to the Indonesian Side within two (2) months after the receipt at the comments on the Draft Final Report.

The meeting was closed at 01:30 p.m. WIB successfully with mutual understandings of the Draft Final Report and expressing gratitude to the Indonesian side about cooperation during the Study period.



IR. R. ZAINUDDIN DIP. AIT

CHIEF OF SUBDIT. OF IRRIGATION  
DIRECTORATE OF TECHNICAL GUIDANCE  
DIRECTORATE GENERAL OF  
WATER RESOURCES DEVELOPMENT,  
MINISTRY OF PUBLIC WORKS

SIGNED ON MARCH 23, 1995  
JAKARTA, INDONESIA



DR. YASUHIKO KUNIHIRO  
LEADER OF  
THE JICA STUDY TEAM

WITNESS



DR. MAKOTO INABA  
LEADER OF JICA  
ADVISORY STUDY TEAM



### List of Attendants

Date: Wednesday, 22 March, 1995  
 Time: 12:00 a.m. WIB  
 Place: Meeting Room of 4th floor DGWRD  
 Chairman: Ir. R. Zainuddin (Kasudit Bintek Irigasi)

No.	Nama	Jabatan
<b>Indonesian Side</b>		
1	Ir. R. Zainuddin DIP. AIT	Kasubdit Irigasi, Dit Bina Teknik
2	Kartabrata	KSD IV, Dit. Binlak Timur
3	Widyawati	Kasi An. Pof. S.D.A., Dit. PPSDA
4	Y. Midouyat	Staf Subdit ABLN, Dit. BPP
5	Kusumo Respatyo	Ks. Timur SD. Bendungan Besar, Dit. Bintek
6	Simon Layuk	Staf Subdit Wil. Timur III, Dit. Binlak Timur, Cipta Karya
7	Widianto A.	Ks. Air Beni III, Binlak Timur III
8	Suduyarto	Staf, Bintek, DJCK
9	Muhaemiu Abchu	Rawa, Pantai, Bintek
10	Giovani Wiyarto	Kasi PKSPA IV.1, Dit Binlak Timur
11	Wahyuno	Kasie Sektor IV, Dit. BPP
<b>Japanese Side</b>		
1	Dr. Makoto Inaba	Leader of JICA Advisory Study Team
2	Takashi Matsushima	JICA Expert, Dit Bina Teknik
3	Dr. Yasuhiko Kunihiro	Leader of JICA Study Team
4	Takuya Igawa	JICA Study Team

JICA