

THE DEMOCRATIC SOCIALIST REPUBLIC
OF
SRI LANKA

THE MASTER PLAN STUDY
FOR
THE INTEGRATED RURAL DEVELOPMENT PROJECT
FOR
GAMPAHA DISTRICT

ANNEX
(INFORMATION AND DATA BOOK)

SEPTEMBER 1987

JAPAN INTERNATIONAL COOPERATION AGENCY




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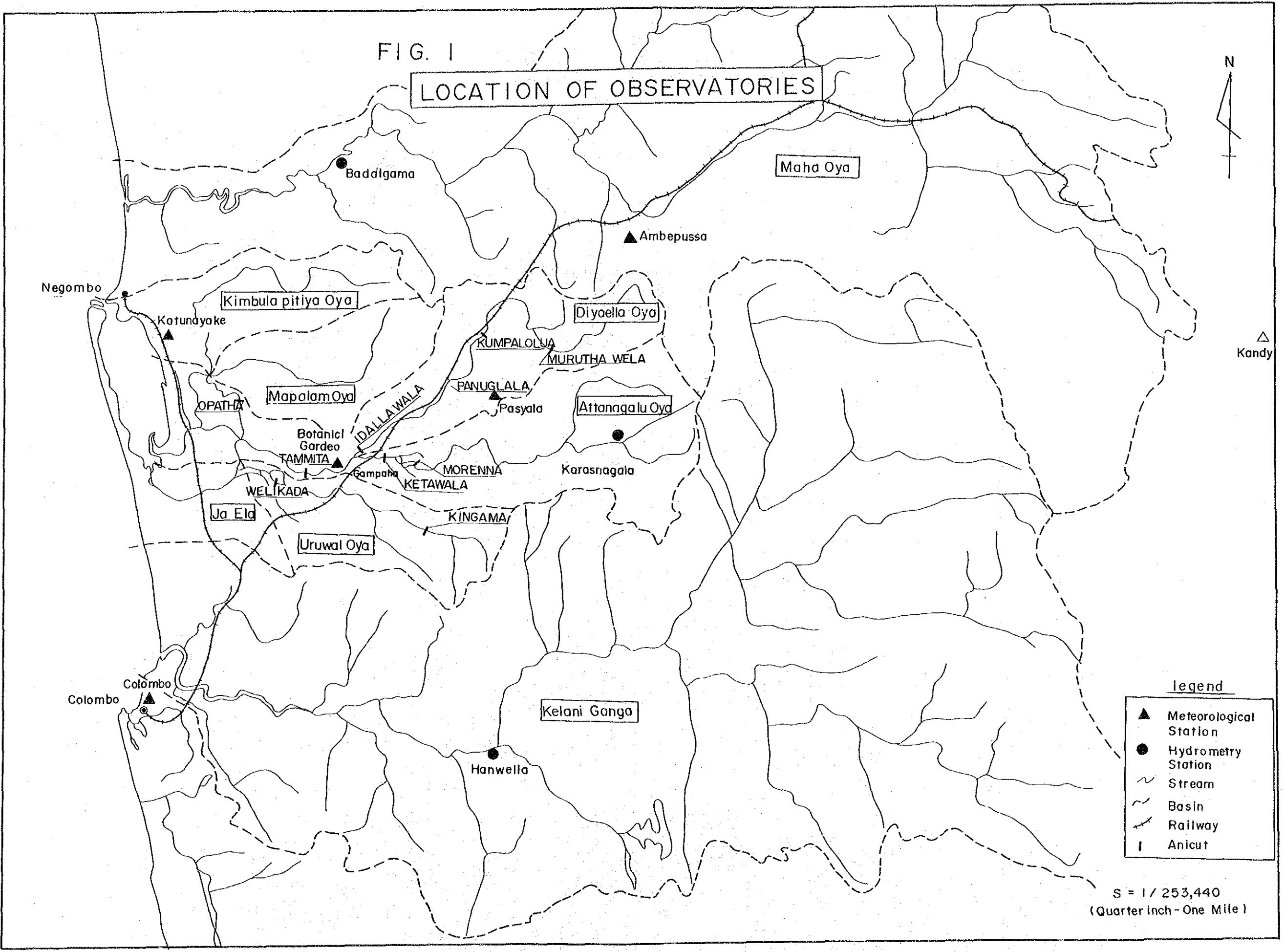
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I. Meteorology and Hydrology

FIG. I

LOCATION OF OBSERVATORIES



Legend

- ▲ Meteorological Station
- Hydrometry Station
- ~ Stream
- ~ Basin
- Railway
- | Anicut

S = 1 / 253,440
(Quarter inch - One Mile)

I-1. Rainfall Data

MONTHLY RAINFALL

STATION : Colombo

(mm)

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		20	0	67	141	209	88	72	193	29	528	475	274	2,096
1977		11	116	357	133	751	219	51	120	146	871	188	51	3,014
1978		6	11	147	151	565	110	88	28	103	187	387	171	1,954
1979		3	125	78	226	143	244	112	51	454	255	467	295	2,453
1980		1	0	30	228	215	278	36	142	176	452	267	172	1,997
1981		117	93	103	200	441	182	35	80	120	193	460	54	2,078
1982		4	0	312	109	324	195	161	124	105	187	435	51	2,007
1983		0	43	60	83	337	119	163	94	292	95	242	224	1,752
1984		212	180	163	254	491	177	128	5	339	161	360	24	2,494
1985		84	161	116	76	253	317	20	111	276	343	245	231	2,233
AVERAGE		46	73	143	160	373	193	87	95	204	327	353	155	—

MONTHLY RAINFALL

STATION : Katunayake

(mm)

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		13	0	156	237	136	50	76	129	70	487	448	154	1,956
1977		7	81	322	57	783	108	34	118	124	806	258	15	2,713
1978		2	23	252	204	582	137	6	8	64	353	439	42	2,112
1979		1	239	168	211	88	247	78	9	307	257	368	197	2,170
1980		0	0	100	297	77	324	12	121	222	356	223	101	1,833
1981		124	64	42	142	367	184	27	100	192	277	432	50	2,001
1982		0	0	148	232	331	315	197	184	72	214	714	56	2,463
1983		0	0	0	35	152	110	77	151	326	136	252	202	1,441
1984		175	157	199	361	392	151	105	1	123	268	313	55	2,300
1985		35	193	62	89	363	264	36	201	91	218	308	127	1,987
AVERAGE		36	76	145	187	327	189	65	102	159	337	376	100	—

Monthly Rainfall

Station: Botanical Garden

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		—	—	124	178	74	71	146	134	82	290	370	324	—
1977		54	67	232	254	985	194	15	105	101	644	143	17	2,811
1978		12	39	360	419	867	397	6	8	258	353	733	65	3,512
1979		9	114	1137	159	91	415	80	40	418	295	351	382	2,491
1980		—	—	41	259	256	192	74	194	204	297	303	183	—
1981		181	86	82	125	411	470	71	172	284	267	435	53	2,637
1982		—	—	96	151	346	375	177	341	76	255	458	50	—
1983		—	—		126	465	164	161	133	377	112	307	258	—
1984		256	206	204	526	437	212	205	4	186	293	259	23	2,811
1985		72	183	160	155	322	376	26	196	147	393	325	237	2,592
Mean		97	116	160	235	425	287	96	133	213	320	368	150	2,809

Monthly Rainfall

Station : Pasyle

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		—	—	—	—	—	—	—	—	—	—	—	—	—
1977		—	—	—	—	—	—	—	—	—	—	—	—	—
1978	7	137	303	179	587	147	54	46	107	327	614	124	2,632	
1979	3	170	135	181	88	539	114	30	510	520	446	39	2,775	
1980	—	—	—	96	320	238	239	161	176	187	283	36	127	—
1981	231	82	91	152	387	302	65	135	370	399	297	106	2,617	
1982	—	—	176	120	378	414	138	316	112	541	535	138	—	
1983	—	—	—	108	288	241	64	167	308	130	346	275	—	
1984	234	315	375	390	326	162	448	31	54	181	347	36	2,899	
1985	52	227	264	188	315	382	38	62	106	601	410	168	2,813	
Mean	105	186	206	205	326	303	135	120	219	373	379	127	—	2,747

Monthly Rainfall

Station : Ambepussa

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		14	2	244	261	69	25	65	101	49	408	488	153	1,879
1977		—	78	224	466	575	278	63	161	80	706	377	2	—
1978		—	34	141	186	475	109	51	45	215	380	517	140	—
1979		19	70	95	10	41	285	20	13	219	465	393	111	1,741
1980		0	—	44	153	126	109	61	125	219	148	105	30	—
1981		16	14	9	40	136	128	106	136	324	306	302	39	1,556
1982		—	—	266	20	312	389	173	94	51	93	438	171	—
1983		125	21	160	152	150	270	59	137	194	101	94	301	1,764
1984		310	186	484	481	443	85	187	33	112	104	183	36	2,644
1985		62	129	231	240	187	348	62	54	148	708	384	64	2,617
Mean		78	67	188	201	251	203	85	90	161	342	328	105	—
														2,034

Monthly Rainfall

Station : Karasanagala

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		23	0	152	452	90	121	185	237	68	494	666	187	2,675
1977		20	166	240	405	984	246	37	274	115	790	590	34	3,901
1978		18	182	282	146	595	173	80	72	229	252	601	169	2,799
1979		12	192	135	175	174	547	488	46	660	282	467	307	3,485
1980		3	0	158	506	361	247	216	150	427	294	476	83	2,921
1981		99	42	178	41	367	341	134	171	420	323	329	82	2,527
1982		1	0	26	78	88	495	41	379	84	646	554	79	2,471
1983		0	23	4	63	289	182	148	308	463	152	344	481	2,457
1984		352	162	478	505	479	305	418	27	191	351	467	89	3,824
1985		95	350	302	252	619	741	160	260	198	—	—	—	—
Mean		63	112	196	262	405	340	191	192	286	398	499	168	3,007

Monthly Rainfall

Station : Badalgama

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		29	4	161	227	48	40	86	136	67	368	410	136	1,712
1977		1	51	202	324	466	260	68	154	90	574	335	33	2,558
1978		4	57	141	131	478	142	57	60	163	309	482	98	2,122
1979		8	93	71	92	60	221	68	21	249	371	447	206	1,907
1980		0	0	109	198	130	145	81	112	213	274	267	71	1,600
1981		66	3	58	99	208	191	114	152	279	262	328	36	1,826
1982		0	0	185	147	323	325	180	201	41	—	—	—	—
1983		—	—	—	—	—	—	—	—	—	—	—	—	—
1984		—	—	—	—	—	—	—	—	—	138	198	62	—
1985		54	118	170	205	216	285	125	51	34	—	—	—	—
Mean		20	45	137	178	241	201	97	111	142	328	352	92	1,954

Monthly Rainfall

Station : Hanwella

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1976		32	13	177	376	128	158	316	343	129	450	509	282	2,913
1977		19	134	287	368	687	462	238	229	173	710	404	77	3,788
1978		72	157	280	249	788	292	339	308	126	347	540	127	3,625
1979		34	151	142	260	275	513	349	117	700	501	475	300	3,817
1980		2	0	180	441	349	289	360	315	283	—	—	—	—
1981		—	—	—	—	—	—	—	—	—	—	—	—	—
1982		—	—	—	—	—	—	—	—	—	—	—	—	—
1983		—	—	—	—	—	—	—	—	—	218	356	455	—
1984		294	192	330	542	502	401	570	73	345	258	488	50	4,045
1985		146	217	295	209	655	969	285	372	271	—	—	—	—
Mean		86	123	242	349	483	441	351	251	290	414	462	215	3,638

I-2. Discharge Data

Attangalu oya

unit: m³/s

Year	Max.	95 day	Ordinary	Low	Droughty	Min.	CRR	Average
1970	—	—	—	—	—	—	—	—
1971	47.8	3.74	1.98	11.36	0.76	0.54	89	3.59
1972	88.8	3.34	1.36	0.51	0.34	0.34	261	3.21
1973	31.2	3.34	1.76	0.57	0.25	0.25	125	2.64
1974	258.1	3.94	2.55	0.96	0.40	0.28	922	3.93
1975	112.3	4.47	2.55	1.36	0.42	0.28	401	6.25
1976	72.8	2.35	0.57	0.40	0.20	0.20	364	2.48
1977	143.8	4.42	1.16	0.48	0.34	0.28	514	5.76
1978	130.5	2.27	0.91	0.51	0.28	0.25	522	2.82
1979	120.3	3.17	0.76	0.28	0.23	0.23	523	3.21
1980	60.8	2.12	0.85	0.34	0.17	0.14	434	2.29
1981	35.1	1.78	0.59	0.31	0.20	0.11	319	1.89
1982	81.2	3.99	1.19	0.20	—	—	—	3.98
1983	123.9	2.89	1.59	0.43	0.20	0.14	885	3.35
1984	458.8	10.53	6.46	4.22	1.50	0.88	521	10.75
1985	155.7	11.33	7.96	5.97	3.68	3.40	46	11.33
Average	128.1	4.25	2.15	1.19	0.64	0.52	423	4.50

CRR : Coefficient of river regime = Max,discharge/Min,discharge

Max,discharge ever observed	458.8 m ³ /s
Min,discharge ever observed	0.11 "

*** B:DDIS0012.DAT : Average Daily Discharge of Attanagalu Oya at Karasnagala *** Unit : m3/s

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
1971	1.7127	1.5909	1.4898	4.2598	5.6716	3.5802	2.4069	5.4807	5.7540	4.7819	2.2153	3.9315	3.5928
1972	0.7116	0.3818	0.5088	1.8887	11.6309	3.6302	1.7803	1.1235	2.2521	6.2233	5.9749	2.2480	3.2089
1973	0.5472	0.4551	1.0212	3.9747	3.2245	3.4547	3.8301	4.1288	0.9911	2.1968	4.2362	3.4537	2.5381
1974	1.2185	0.7575	2.0242	6.7035	3.8145	3.1470	4.4805	2.8320	7.3718	11.9844	1.2459	1.8854	3.9321
1975	0.6732	0.7221	1.6561	3.6878	11.5697	5.1112	2.0562	2.1694	12.0403	5.7191	24.7829	4.9354	6.2494
1976	0.7554	0.3789	0.4448	4.3476	0.6138	0.5342	0.7892	1.3428	0.4833	5.7246	10.6915	3.7296	2.4811
1977	0.4933	0.5744	2.5764	4.7195	23.0691	7.7749	0.6942	1.4387	0.5022	13.4962	11.9053	1.3263	5.7594
1978	0.4960	0.8506	2.7413	1.8453	9.9082	1.9086	1.0422	0.3727	0.5229	2.4316	10.3980	1.2175	2.8187
1979	0.3161	0.6108	0.4448	0.9278	1.1025	9.2341	1.0021	0.4375	6.7498	4.9006	7.5625	5.3117	3.2053
1980	0.4019	0.2168	0.4147	4.8894	4.0320	2.1785	1.5319	0.8905	1.1969	4.8859	5.7257	1.1053	2.2873
1981	0.8860	0.3418	0.2768	0.4087	2.4590	5.2264	0.7408	0.5124	5.2396	2.4033	3.5735	0.5700	1.8885
1982	0.1507	0.0415	0.2174	1.0137	3.9114	9.8609	1.8105	4.3371	1.2025	11.3569	11.3853	2.2836	3.9757
1983	0.7015	1.3531	0.2667	0.2388	2.6344	1.6112	1.9676	3.3624	7.5115	2.5074	8.7725	9.2660	3.3529
1984	8.3453	3.5816	7.4208	9.6693	35.6975	11.0719	15.4208	5.1783	4.8224	7.5597	14.2925	5.3610	10.7487
1985	4.6348	4.8786	7.6621	7.1425	11.6053	23.3425	9.6987	11.9525	7.6568	17.7556	20.7770	8.7992	11.3295
Ave./T	1.4696	1.1232	1.9624	3.7145	8.7296	6.1111	3.2795	3.0040	4.2798	6.9286	9.5761	3.6950	4.4981

Maha oya

unit: m³/s

Year	Max.	95 day	Ordinary	Low	Droughty	Min.	CRR	Average
1970	511.2	58.39	30.92	15.57	5.38	2.21	231	52.21
1971	592.1	66.83	31.12	17.84	4.81	2.61	227	57.03
1972	579.2	51.08	11.19	4.81	1.70	1.53	379	47.30
1973	401.3	29.59	11.64	4.81	—	—	—	30.43
1974	455.9	62.86	30.72	10.70	1.93	1.70	268	51.40
1975	482.9	70.31	27.78	13.45	1.87	1.33	363	60.63
1976	382.3	43.04			1.16	0.54	708	32.35
1977	497.2	64.08	19.82	8.16	3.11	1.42	350	56.32
1978	1,574.4	26.65	11.86	5.66	0.91	0.45	3,499	42.12
1979	—	—	—	—	—	—	—	—
1980	397.4	30.72	9.63	3.45	—	—	—	—
1981	917.4	32.82	13.39	3.40	0.25	0.17	5,396	42.50
1982	635.9	63.54	25.66	3.54	0.48	0.45	1,413	49.88
1983	—	—	—	—	—	—	—	—
1984	—	—	—	—	—	—	—	—
1985	741.9	56.86	22.03	8.64	2.27	1.70	436	60.52
Average	628.4	50.52	20.48	8.34	2.17	1.20	1,206	48.56

CRR: Coefficient of river regime = Max.discharge/Min.discharge

Max.discharge ever observed	1574.4 m ³ /s
Min.discharge ever observed	0.17 "

Monthly Discharge Data for 1970-1985 Unit : m3/s
 *** DDIS0040 : 1970-85 Maha Oya Daily Discharge at Badalgana ***

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
1970	30.7594	30.9381	12.3498	87.0421	58.8670	39.9342	30.8324	28.8922	22.6091	123.5000	100.0530	59.9933	52.2102
1971	22.1355	18.0206	12.0812	55.7067	62.5609	71.5830	40.7460	72.3942	111.4630	101.2980	55.6822	39.0717	57.0317
1972	9.1390	4.0298	2.6746	23.9201	118.0700	18.6334	17.7473	8.6923	16.8136	140.5670	154.3710	50.8890	47.2955
1973	8.0383	3.1543	6.8919	47.0540	13.6377	19.2130	26.4981	24.2026	4.8290	33.2987	90.4260	86.5288	30.4273
1974	27.7313	22.8132	41.7719	106.0330	63.3794	48.2537	92.1639	52.8337	65.6789	61.5881	19.2620	13.5546	51.3954
1975	7.3679	5.9405	9.7647	62.5943	63.6735	54.1587	23.8373	33.6322	79.8939	72.6125	239.1280	75.9283	60.6325
1976	16.1123	4.6879	5.4158	65.6100	5.2706	2.4192	7.4592	6.8892	4.5760	62.9437	120.1850	86.8449	32.3461
1977	8.5288	6.9841	21.2951	56.8016	155.4250	106.9190	20.1022	17.1079	6.4430	145.3080	106.4890	21.2814	56.3169
1978	4.7691	4.7421	10.1283	6.2807	68.3805	24.2741	23.9359	13.6176	8.3299	67.2899	251.8410	22.2186	42.1235
1979	1.9959	7.8579	0.8312	2.6731	8.9244	30.4396	6.2407	1.5574	22.9064	0.0000	154.9030	125.9650	30.2977
1980	1.5739	2.3757	1.8963	33.0929	19.7761	22.8432	19.8017	13.3016	10.7009	76.0681	111.1730	28.7425	28.4130
1981	24.0127	1.9478	1.1619	4.8743	24.4420	59.0755	16.9371	10.0461	111.3370	41.3160	186.7840	30.3392	42.5002
1982	2.3667	0.5127	5.5136	20.9988	46.2678	96.3688	52.0417	59.3109	7.5417	89.9478	158.1660	57.4393	49.8799
1983	7.3286	1.6707	0.5855	0.9656	2.3339	16.4634	37.6202	0.0000	0.0000	0.0000	0.0000	0.0000	5.6262
1984	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	32.7288	78.7669	16.3516	10.6134
1985	21.0485	13.0743	18.8517	38.6289	25.8706	135.7800	73.8785	21.4294	10.9152	115.3190	211.5510	40.3478	60.5245
Ave./T	12.0574	8.0002	9.4509	38.2673	47.3050	46.6475	30.6151	22.7442	30.2524	72.7366	127.4240	47.2185	41.0943

Kelani ganga

unit: m³/s

Year	Max.	95 day	Ordinary	Low	Droughty	Min.	CRR	Average
1970	—	—	—	—	—	—	—	—
1971	—	—	—	—	—	—	—	—
1972	—	—	—	—	—	—	—	—
1973	—	—	—	—	—	—	—	—
1974	2,348.5	280.4	147.8	65.55	30.58	10.48	224	242.1
1975	2,307.4	297.9	153.6	90.05	30.50	22.68	102	299.0
1976	614.4	145.1	80.5	47.71	23.90	14.47	42	114.1
1977	1,864.7	184.7	99.2	57.54	32.11	22.51	83	196.0
1978	2,089.6	172.8	106.6	65.30	35.62	29.17	72	193.8
1979	1,329.4	197.2	83.8	45.19	28.32	12.18	109	155.8
1980	513.2	111.9	63.7	34.12	10.48	8.50	60	90.7
1981	—	—	—	—	—	—	—	—
1982	—	—	—	—	—	—	—	—
1983	—	—	—	—	—	—	—	—
1984	1,979.2	248.0	145.9	97.98	61.99	60.00	33	206.8
1985	1,364.4	233.9	117.0	73.96	49.98	27.98	49	199.7
Average	1,611.2	208.0	110.9	64.16	33.72	23.11	86	188.7

CRR: Coefficient of river regime = Max,discharge/Min,discharge

Max,discharge ever observed	2,348.5 m ³ /s
Min,discharge ever observed	8.50 "

Average Daily Discharge of Kelani Ganga

Station : Hanwella

Year	Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1973		—	1,535	2,097	4,458	4,018	6,403	4,713	6,547	2,272	4,803	8,473	6,140
1974		2,353	2,054	3,481	8,604	10,620	11,132	22,474	11,015	14,780	11,167	2,650	2,828
1975		1,630	1,430	2,996	6,819	16,028	14,443	4,774	7,616	15,356	14,009	35,429	5,285
1976		1,867	1,224	1,276	5,140	2,383	1,981	4,687	4,285	3,023	7,130	8,495	6,636
1977		1,722	1,444	2,821	3,622	15,391	17,157	3,915	3,557	2,732	19,561	8,393	3,945
1978		1,590	1,918	2,594	2,786	16,906	5,039	6,236	5,721	4,708	8,471	19,486	3,602
1979		1,627	1,838	1,428	2,716	3,637	9,139	4,805	2,300	12,435	9,493	9,348	7,238
1980		1,270	610	615	3,881	3,452	3,743	4,735	3,598	1,987	5,591	6,404	2,489
1981		1,615	1,729	3,688	4,621	6,217	10,272	7,442	5,376	10,682	—	—	—
1982		—	—	—	—	—	—	—	—	—	—	—	—
1983		—	—	—	—	—	—	—	—	—	3,739	6,330	7,611
1984		6,088	4,188	5,422	11,215	9,194	8,493	17,395	3,834	4,364	6,055	8,497	2,795
1985		2,835	2,775	3,494	3,2248	6,026	20,994	7,919	6,207	3,348	10,914	11,891	4,913
1986		3,383	2,386	1,910	3,500	4,607	2,655	1,827	—	—	—	—	—

II. Sioco-Economy

Recent Policies and Performance

Agriculture as the single largest productive sector in the Sri Lanka economy accounts for 27 percent of G.D.P. Therefore since 1977, GOSL'S agricultural policy has emphasized development and settlement of the dry zone through the Accelerated Mahaweli Ganga Development Programme. About 30% of the annual public sector investment programme during 1978-84 has allocated to this Mahaweli Programme. Apart from this there are other irrigation programmes undertaken by the GOSL after 1977. Lunugamwehera Irrigation Scheme, Nilwala Ganga, Ginganga Flood Protection Scheme are some of these programmes. At the same time government is trying to invest money on quick yielding, low cost projects which come out side Mahaweli Project and Free trade zone.

In recent years, Regional Development and Sector National Planning have received a great deal of emphasis in Government strategy to accelerate economic growth and minimize regional disparities. In Sri Lanka majority of people live in rural areas and therefore, regional development receives high priority in the National Investment Programme.

Balanced regional development of the country was one of the major challenges that Sri Lankan Government had to face, after the independence in 1948. Since then, vast development activities have been taken place specially in dry zone. Among them re-building of ancient irrigation work, building new irrigation tanks, land development, new settlements, (colonization schemes) and agricultural development were noteworthy. These, developments of the agricultural resources of the dry zone and the settlement projects were responses to the regional development challenges.

For the purpose of regional development successive governments have adopted many important measures. The establishment of the Decentralized Budget and the creation of District Development Councils are important developments that have paved the way for the initiation of a new organizational approach to regional development. As part of this programme, the government of Sri Lanka has undertaken a series of Integrated Rural Development Projects. The formulation and implementation of these projects are one of the important innovations adopted in this country particularly in district which have not benefited from large scale and extensive development projects. This programme was an attempt made by the government, to accelerate the economic and social development at the district level.

The broad objectives of the programme are:-

- (1) to increase income, employment opportunities and the general living standards of the population;
- (2) to improve the physical quality of life of the poorest population falling within the target groups;
- (3) to improve infrastructure facilities in the district;
- (4) to strengthen administration sector and co-ordinate government and non government institutions at district level in the formulation and implementation of district development programme;
- (5) to enhance community participation in project work;
- (6) to share foreign donors expatiate technical knowledge and experience with Sri Lankans.

The Agricultural Sector

The country and sector composition

Sri Lanka, a pearl - shaped island in the Indian Ocean, is situated at the Southern tip of Indian sub-continent approximately 10° above the Equator. The land space of Sri Lanka is 65,000 sq.km. measuring about 400 km. from North to South and 240 km. East to West. The South Central mountain zone covers 10,900 sq.km. Being centrally located in the Indian Ocean, Sri Lanka has served for many centuries as a focal point of sea routes to the Far East and the West.

The topography of the country is generally flat in the coastal and Northern half and mountainous towards the center, rising to peaks of 2300 to 2600 m. above the sea level. The temperature varies from 80°F in the coastal and low lying areas to an average between 65°F and 75°F in the hill country. There are no marked climatic seasons in Sri Lanka.

Based on rainfall patterns, the island is divided into two zones; the wet zone, with an average rainfall of 75-100 inches, in the south west part of the country and the Dry Zone with an average rainfall of 35-75 inches, covering the rest of the island or 64% of the total area.

The country has a population of 15.8m (mid 1985) which is 1.5 percent above 1984. The rate of growth in 1984 is 1.7% the density per sq.km is 238 persons. About 70% of the population reside in the wet zone where the average population density is about 700 per sq.km. compared to only 80 per sq.km. in the dry zone.

Sri Lanka's population is predominantly rural with 78.5% living in rural areas, and the balance 21.5% classified as the urban population. Rural population is principally dependent, directly or indirectly on agriculture. Agriculture accounts directly for about 20-25% of G.D.P. 50% of employment, and 55-60% of export earnings. In addition, much manufacturing transport, and service sector activity is related to the supply of agricultural inputs or to the processing and marketing of agricultural output. Because of the efforts taken by the government to develop and sustain both subsistence and commercial agriculture along with the development of socio economic infrastructure to promote agro-based industries the agriculture sector has become the mainstay of the Sri Lanka economy.

The average per capita income in rural area was estimated at as low as US\$ 270 per year in 1981. The 2.22 m. hectares under permanent cultivation. This includes 0.65 m.ha. of paddy, 0.48 m.ha of coconut, 0.24 ha. of tea, 0.20 m.ha of rubber, 0.04 m.ha. of other perennial crops, with the remaining 0.6m.ha. in mixed rainfed farming, mostly as small gardens around homesteads.

Decentralization and Rural Development

At the time Sri Lanka became independent in 1948, the economy was widely opened to the export oriented plantations such as tea, rubber, coconut and coffee. The dry zone, where the early inhabitants built an elaborate irrigation system to support agriculture, was neglected and the food production sector of the economy continued to suffer from lack of attention. The economic and social problems became severe by an uncontrolled growth in population.

One of the main strategies in regard to overall and regional economic development for increase of income and selfsufficiency in food was the modernization of the domestic agricultural sector. In order to achieve this important objective, the successive governments have undertaken a wide range of inter-connected activities namely intensive plant breeding programme particularly for rice, improvement of physical infrastructure facilities such as irrigation, developing agricultural roads, supplies of inputs, agricultural credit, agricultural insurance and other services.

Creation of colonization schemes and reconstruction of irrigation projects opened a new era for the dry zone. Before this period, the dry zone was over-ridden by jungle and plagued by Malaria making it unsuitable for human settlements. This zone is the least developed region and contains the most poorer people of the country. From regional point of view, most of the settlement projects were formulated in the dry zone to upgrade living standards and income levels of the people. Major components of such projects are development of irrigation, agriculture, infrastructure, health services and education sectors. These projects also were a solution to unemployment, low income, share cropping and broadening the agricultural sector. As a development priority these projects are likely to remain so.

These programmes have been continuing from the late 1970s and presently the governments' biggest and important development programme is the Accelerated Mahaweli Project which scheduled to irrigate about 250,000 hectares by 1988. Establishment of Free Trade Zone, housing and urban Renewal Program and village Reawakening Programme which commenced early 1980s are exceptions.

Decentralization of development planning and implementation, has been considered an indispensable arrangement to realize the national objective of maximum economic growth along with equitable distribution of the benefits of rural development. Therefore, the introduction of decentralization of planning between 1970-77 was enabled certain local investment to be decided upon at the district level. One of the mechanisms through which this was to be achieved was the establishment of Divisional Development Councils in 1972. Main functions were the formulation of development plans, identification of projects, coordination and monitoring plan implementation in the area.

This decentralization was carried a step further in 1973 by the appointment of a District Political Authority (DPA). The main idea of setting DPA was to provide the required political backing for the process of plan implementation and formulation, specially in respect of agricultural development within the district and to bring a close relationship between the administration and political heads.

Introduction of Decentralized budget (DCB) in 1974 was another significant event in this sequence of decentralization. The DCB, the scheme for decentralizing the allocation of funds for capital work of a local nature is intended to generate increased production and employment in the rural sector by enlisting the participation of the local people in the planning and implementation of development projects at the local level. Despite several shortcomings, the operation of the DCB worked fairly satisfactorily.

After the change of government in 1977, this decentralization of decision making at regional level was strengthened by appointing District Ministers. The process of decentralization of administration and regional planning in Sri Lanka received a major support with the launching of district Integrated Rural Development Projects (IRDP) in late 1970s. IRDPs are a major innovative programme undertaken by the government of Sri Lanka in recent years. This programme was initiated in 1979. The main objective was to achieve increased employment, income and better living standards for the rural population. At present there are twelve IRDPs in the programme covering 12 of the country's 25 districts. Several more projects are in the pipe line. The main feature of this programme is the formulation and implementation of such projects based on needs and resource availability of each district.

Since 1979, the government of Sri Lanka (GOSL) has committed about Rs. 3750 million (US \$ 150 million at the 1984 exchange rate) to rural development projects.

<u>Project</u>	<u>Funding Agency</u>	<u>Year of Commencement</u>	<u>Total Estimated Cost.</u> (Rs.M.)
Kurunegala	IDA	1979	516
Puttalam	IDA	1981	397
Matale	IDA	1981	357
Matara	SIDA	1979	175
Hambantota	Norway	1979	400
Nuwara-Eliya	Netherlands	1980	205
Ratnapura	Netherlands	1984	75
Moneragala	Norway	1984	529
Nannar	IDA	1985*	321
Vavuniya	IDA	1985*	362
Badulla	IFAD	1983	375
Kalutara	Finland	1986	200
Kegalle	IFAD	1986	454
Mulliativu	Netherland	1985*	360
Trincomalee	IDA	1986*	400
Killinochchi	IDA	1986*	400
Batticaloa	SIDA	1986*	350

Source :- My. of Plan Implementation

* Project suspended due to political unrest

These projects have typically considered of investments in small and medium-scale irrigation, small holder agriculture, agricultural credit, input supply and other supporting services, rural roads and water supply; and primary education and basic health care. The key institutional feature of the rural development projects is the project office which is small but influential, representing the Ministry of Plan Implementation (MPI). This project office's main duty is to carry out investment planning and co-ordination and supervision of the implementing agencies and private groups, financial oversight of project funds, and monitoring and evaluation of project activities.

RD Project Performance

So far, seventeen districts have been already selected for rural development programmes with financial assistance from foreign donor agencies since 1979. These projects have made a substantial contribution to the development of rural infrastructure, agricultural production and social services in the districts affected. In physical terms, the projects have generally met their targets with only limited delay. This rural development programme has been the major source of finance for rural investments. The rapid expansion of minor export crop planting in Sri Lanka's wet zone, for example, has been supported almost exclusively by the RD programme. Construction of rural roads, water supply systems and housing for estate workers have heavily depended on RD resources. If not for this programme, it is doubtful that Sri Lanka would have been able to carry out this type of investments as effectively and efficiently through a series of sectoral schemes.

Since Kurunegala was the initial district to have a RD programme, it started slowly because of delays in procurement and difficulties in establishing the project management system under MPI. But these problems were overcome in other projects. Disbursements have generally in a satisfactory position and the work undertaken by the line agencies and departments too performed well.

From the regional point of view the progress made by this RD programme was very remarkable. Apart from few short comings such as not finishing work up to date, unavailability of experienced contractors, project management, co-ordination and physical progress of RD programmes are fairly satisfactory.

Distribution of Operational Holdings

<u>Gampaha District</u>	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	8,475 (8,475)	(5.1)	592 (592)	(0.3)
1/8 to less than 1/4	21,879 (30,354)	(18.4)	2,939 (3,531)	(1.8)
1/4 ~ 1/2	37,286 (67,640)	(41.0)	9,316 (12,847)	(6.5)
1/2 ~ 1	35,450 (103,090)	(62.5)	19,069 (31,916)	(16.0)
1 ~ 2	31,330 (134,420)	(81.5)	35,401 (67,317)	(33.8)
2 ~ 3	12,424 (146,844)	(89.1)	25,427 (92,744)	(46.6)
3 ~ 4	5,890 (152,734)	(92.7)	17,362 (110,106)	(55.3)
4 ~ 5	3,444 (156,178)	(94.7)	13,251 (123,357)	(62.0)
5 ~ 7	3,702 (159,880)	(97.0)	18,794 (142,151)	(71.4)
7 ~ 10	2,111 (161,991)	(98.3)	15,251 (157,402)	(79.1)
10 ~ 20	2,225 (164,216)	(99.6)	26,083 (183,485)	(92.2)
20 and over	619		15,538	
All holdings	164,835	100	199,023	100

Gini coefficient: 0.634

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Atlanagalla</u> (Average: 0.73)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	204 (204)	(3.5)	14 (14)	(0.3)
1/8 to less than 1/4	733 (937)	(16.3)	119 (133)	(3.2)
1/4 ~ 1/2	1,541 (2,478)	(43.1)	482 (615)	(14.6)
1/2 ~ 1	1,741 (4,219)	(73.3)	1,064 (1,679)	(39.8)
1 ~ 2	1,149 (5,368)	(93.3)	1,396 (3,075)	(72.9)
2 ~ 3	262 (5,630)	(97.8)	576 (3,651)	(86.5)
3 ~ 4	80 (5,710)	(99.2)	256 (3,907)	(92.6)
4 ~ 5	16 (5,726)	(99.5)	68 (3,975)	(94.2)
5 ~ 7	20 (5,746)	(99.8)	113 (4,088)	(96.8)
7 ~ 10	2 (5,748)	(99.9)	17 (4,105)	(97.3)
10 ~ 15	4 (5,752)	(99.9)	46 (4,151)	(98.3)
15 ~ 20	- (5,752)	(99.9)	- (4,151)	(98.3)
20 and over	3		70	
All holdings	5,755	100	4,221	100

Gini coefficient: 0.446

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Mirigama</u> (Average: 0.75)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	233 (233)	(3.3)	16 (16)	(0.3)
1/8 to less than 1/4	1,055 (1,288)	(18.1)	167 (183)	(3.4)
1/4 ~ 1/2	1,872 (3,160)	(44.3)	587 (770)	(14.5)
1/2 ~ 1	2,167 (5,327)	(74.7)	1,331 (2,101)	(39.5)
1 ~ 2	1,361 (6,688)	(93.8)	1,666 (3,767)	(70.9)
2 ~ 3	278 (6,966)	(97.7)	622 (4,389)	(82.6)
3 ~ 4	75 (7,041)	(98.7)	239 (4,628)	(87.1)
4 ~ 5	35 (7,076)	(99.2)	145 (4,773)	(89.8)
5 ~ 7	20 (7,096)	(99.5)	108 (4,881)	(91.9)
7 ~ 10	11 (7,107)	(99.7)	86 (4,967)	(93.5)
10 ~ 15	15 (7,122)	(99.9)	167 (5,134)	(96.6)
15 ~ 20	4 (7,126)	(99.9)	73 (5,207)	(98.0)
20 and over	5		106	
All holdings	7,131	100	5,313	100

Gini coefficient: 0.472

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Divulapitiya</u> (Average: 0.86)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	106 (106)	(2.3)	8 (8)	(0.2)
1/8 to less than 1/4	329 (435)	(9.4)	52 (60)	(1.5)
1/4 ~ 1/2	1,047 (1,482)	(32.0)	307 (367)	(9.3)
1/2 ~ 1	1,577 (3,059)	(66.0)	929 (1,297)	(32.7)
1 ~ 2	1,137 (4,196)	(90.5)	1,362 (2,658)	(67.0)
2 ~ 3	299 (4,495)	(96.9)	657 (3,315)	(83.6)
3 ~ 4	80 (4,575)	(98.7)	253 (3,568)	(90.0)
4 ~ 5	29 (4,604)	(99.3)	122 (3,690)	(93.1)
5 ~ 7	22 (4,626)	(99.8)	126 (3,816)	(96.2)
7 ~ 10	6 (4,632)	(99.9)	49 (3,865)	(97.5)
10 ~ 15	3 (4,635)	(99.96)	38 (3,903)	(98.4)
15 ~ 20	1 (4,636)	(99.98)	20 (3,923)	(98.9)
20 and over	1		42	
All holdings	4,637	100	3,965	100

Gini coefficient: 0.435

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Weke</u> (Average: 0.87)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	169 (169)	(3.0)	11 (11)	(0.2)
1/8 to less than 1/4	472 (641)	(11.2)	73 (84)	(1.7)
1/4 ~ 1/2	1,218 (1,859)	(32.5)	367 (451)	(9.1)
1/2 ~ 1	1,936 (3,795)	(66.3)	1,175 (1,626)	(32.8)
1 ~ 2	1,410 (5,205)	(90.9)	1,710 (3,336)	(67.3)
2 ~ 3	344 (5,549)	(96.9)	757 (4,093)	(82.5)
3 ~ 4	94 (5,643)	(98.6)	304 (4,397)	(88.7)
4 ~ 5	41 (5,684)	(99.3)	172 (4,569)	(92.1)
5 ~ 7	28 (5,712)	(99.8)	152 (4,721)	(95.2)
7 ~ 10	2 (5,714)	(99.8)	18 (4,739)	(95.6)
10 ~ 15	4 (5,718)	(99.9)	46 (4,785)	(96.5)
15 ~ 20	2 (5,720)	(99.91)	34 (4,819)	(97.2)
20 and over	5		140	
All holdings	5,725	100	4,959	100

Gini coefficient: 0.443

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Mahara</u> (Average: 0.88)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	93 (93)	(2.8)	7 (7)	(0.2)
1/8 to less than 1/4	241 (334)	(9.9)	36 (43)	(1.5)
1/4 ~ 1/2	678 (1,012)	(30.0)	196 (239)	(8.1)
1/2 ~ 1	1,198 (2,210)	(65.5)	705 (944)	(31.9)
1 ~ 2	834 (3,044)	(90.2)	983 (1,927)	(65.1)
2 ~ 3	192 (3,236)	(95.9)	415 (2,342)	(79.1)
3 ~ 4	76 (3,312)	(98.1)	238 (2,580)	(87.2)
4 ~ 5	31 (3,343)	(99.1)	130 (2,710)	(91.6)
5 ~ 7	19 (3,362)	(99.6)	103 (2,813)	(95.0)
7 ~ 10	6 (3,368)	(99.8)	50 (2,863)	(96.7)
10 ~ 15	5 (3,373)	(99.9)	55 (2,918)	(98.6)
15 ~ 20	- ()	()	- ()	()
20 and over	2		42	
All holdings	3,375	100	2,960	100

Gini coefficient: 0.310

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Minuwangoda</u> (Average: 0.93)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	120 (120)	(2.3)	10 (10)	(0.2)
1/8 to less than 1/4	276 (396)	(7.5)	45 (55)	(1.1)
1/4 ~ 1/2	1,270 (1,666)	(31.4)	388 (443)	(9.0)
1/2 ~ 1	1,732 (3,398)	(64.1)	1,049 (1,492)	(30.3)
1 ~ 2	1,331 (4,729)	(89.3)	1,617 (3,109)	(63.2)
2 ~ 3	366 (5,095)	(96.2)	801 (3,910)	(79.5)
3 ~ 4	103 (5,198)	(98.1)	335 (4,245)	(86.3)
4 ~ 5	38 (5,236)	(98.8)	159 (4,404)	(89.5)
5 ~ 7	32 (5,268)	(99.4)	178 (4,582)	(93.1)
7 ~ 10	14 (5,282)	(99.7)	112 (4,694)	(95.4)
10 ~ 15	10 (5,292)	(99.9)	115 (4,809)	(97.7)
15 ~ 20	3 (5,295)	(99.9)	51 (4,860)	(98.8)
20 and over	3		60	
All holdings	5,298	100	4,920	100

Gini coefficient: 0.446

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Gampaha</u> (Average: 0.95)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	66 (66)	(1.5)	5 (5)	(0.1)
1/8 to less than 1/4	295 (361)	(8.2)	48 (53)	(1.3)
1/4 ~ 1/2	947 (1,308)	(29.9)	291 (344)	(8.2)
1/2 ~ 1	1,462 (2,770)	(63.3)	885 (1,229)	(29.4)
1 ~ 2	1,105 (3,875)	(88.6)	1,352 (2,581)	(61.8)
2 ~ 3	294 (4,169)	(95.3)	641 (3,222)	(77.2)
3 ~ 4	111 (4,280)	(97.8)	353 (3,575)	(85.6)
4 ~ 5	38 (4,318)	(98.7)	158 (3,733)	(89.4)
5 ~ 7	37 (4,355)	(99.5)	203 (3,936)	(94.3)
7 ~ 10	7 (4,362)	(99.7)	50 (3,986)	(95.5)
10 ~ 15	10 (4,372)	(99.9)	110 (4,096)	(98.1)
15 ~ 20	3 (4,375)	(99.9)	55 (4,151)	(99.4)
20 and over	1		25	
All holdings	4,376	100	4,176	100

Gini coefficient: 0.448

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Biyagama</u> (Average: 0.98)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	38 (38)	(2.0)	3 (3)	(0.2)
1/8 to less than 1/4	104 (142)	(7.6)	16 (19)	(1.0)
1/4 ~ 1/2	346 (488)	(26.2)	102 (121)	(6.7)
1/2 ~ 1	604 (1,092)	(58.6)	359 (480)	(26.4)
1 ~ 2	539 (1,631)	(87.5)	643 (1,123)	(61.7)
2 ~ 3	149 (1,780)	(95.4)	323 (1,446)	(79.5)
3 ~ 4	41 (1,821)	(97.6)	130 (1,576)	(86.6)
4 ~ 5	23 (1,844)	(98.9)	96 (1,672)	(91.9)
5 ~ 7	15 (1,859)	(99.7)	84 (1,756)	(96.5)
7 ~ 10	4 (1,863)	(99.89)	32 (1,788)	(98.3)
10 ~ 15	1 (1,864)	(99.95)	10 (1,798)	(98.8)
20 and over	1		21	
All holdings	1,865	100	1,819	100

Gini coefficient: 0.431

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Ja-Ela</u> (Average: 1.08)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	27 (27)	(2.3)	2 (2)	(0.2)
1/8 to less than 1/4	50 (77)	(8.0)	7 (9)	(0.9)
1/4 ~ 1/2	203 (280)	(29.0)	55 (64)	(6.1)
1/2 ~ 1	296 (576)	(59.6)	169 (233)	(22.4)
1 ~ 2	220 (796)	(82.3)	261 (494)	(47.5)
2 ~ 3	97 (893)	(92.3)	210 (704)	(67.6)
3 ~ 4	40 (933)	(96.5)	128 (832)	(79.9)
4 ~ 5	17 (950)	(98.2)	69 (901)	(86.6)
5 ~ 7	9 (959)	(99.2)	51 (952)	(91.5)
7 ~ 10	3 (962)	(99.5)	24 (976)	(93.8)
10 ~ 15	4 (966)	(99.9)	48 (1,024)	(98.4)
15 ~ 20	1 (967)	(100)	17 (1,041)	(100)
All holdings	967	100	1,041	100

Gini coefficient: 0.500

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Katana</u> (Average: 1.28)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	12 (12)	(1.0)	1 (1)	(0.1)
1/8 to less than 1/4	24 (36)	(3.1)	3 (4)	(0.3)
1/4 ~ 1/2	136 (172)	(15.0)	36 (40)	(2.7)
1/2 ~ 1	354 (526)	(46.0)	198 (238)	(16.3)
1 ~ 2	364 (890)	(77.9)	414 (652)	(44.6)
2 ~ 3	141 (1,031)	(90.2)	307 (959)	(65.6)
3 ~ 4	52 (1,083)	(94.8)	160 (1,119)	(76.5)
4 ~ 5	22 (1,105)	(96.7)	91 (1,210)	(82.8)
5 ~ 7	23 (1,128)	(98.7)	126 (1,336)	(91.4)
7 ~ 10	13 (1,141)	(99.8)	98 (1,434)	(98.1)
10 ~ 15	1 (1,142)	(99.9)	10 (1,444)	(98.8)
15 ~ 20	1 (1,143)	(100)	18 (1,462)	(100)
All holdings	1,143	100	1,462	100

Gini coefficient: 0.452

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Wattala</u> (Average: 1.45)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	6 (6)	(1.5)	- (-)	(0)
1/8 to less than 1/4	15 (21)	(5.2)	2 (2)	(0.3)
1/4 ~ 1/2	52 (73)	(18.2)	14 (16)	(2.8)
1/2 ~ 1	92 (165)	(41.0)	52 (68)	(11.7)
1 ~ 2	111 (276)	(68.7)	127 (195)	(33.6)
2 ~ 3	77 (353)	(87.8)	164 (359)	(61.8)
3 ~ 4	19 (372)	(92.5)	59 (418)	(71.9)
4 ~ 5	12 (384)	(95.5)	48 (466)	(80.2)
5 ~ 7	12 (396)	(98.5)	62 (528)	(90.9)
7 ~ 10	4 (400)	(99.5)	33 (561)	(96.6)
10 ~ 15	2 (402)	(100)	20 (581)	(00)
All holdings	402	100	581	100

Gini coefficient: 0.467

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

<u>Kelaniya</u> (Average: 1.48)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	6 (6)	(2.2)	- (-)	(0)
1/8 to less than 1/4	11 (17)	(6.3)	2 (2)	(0.5)
1/4 ~ 1/2	37 (54)	(20.0)	10 (12)	(3.0)
1/2 ~ 1	53 (107)	(39.6)	30 (42)	(10.5)
1 ~ 2	108 (215)	(79.6)	124 (166)	(41.5)
2 ~ 3	26 (241)	(89.3)	55 (221)	(55.3)
3 ~ 4	11 (252)	(93.3)	34 (255)	(63.8)
4 ~ 5	6 (258)	(95.6)	25 (280)	(70.0)
5 ~ 7	5 (263)	(97.4)	25 (305)	(76.3)
7 ~ 10	3 (266)	(98.5)	21 (326)	(81.5)
10 ~ 15	2 (268)	(99.3)	22 (348)	(87.0)
20 and over	2		52	
All holdings	270	100	400	100

Gini coefficient: 0.518

Source: Census of Agriculture, 1982

Distribution of Paddy Land Holding

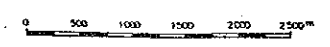
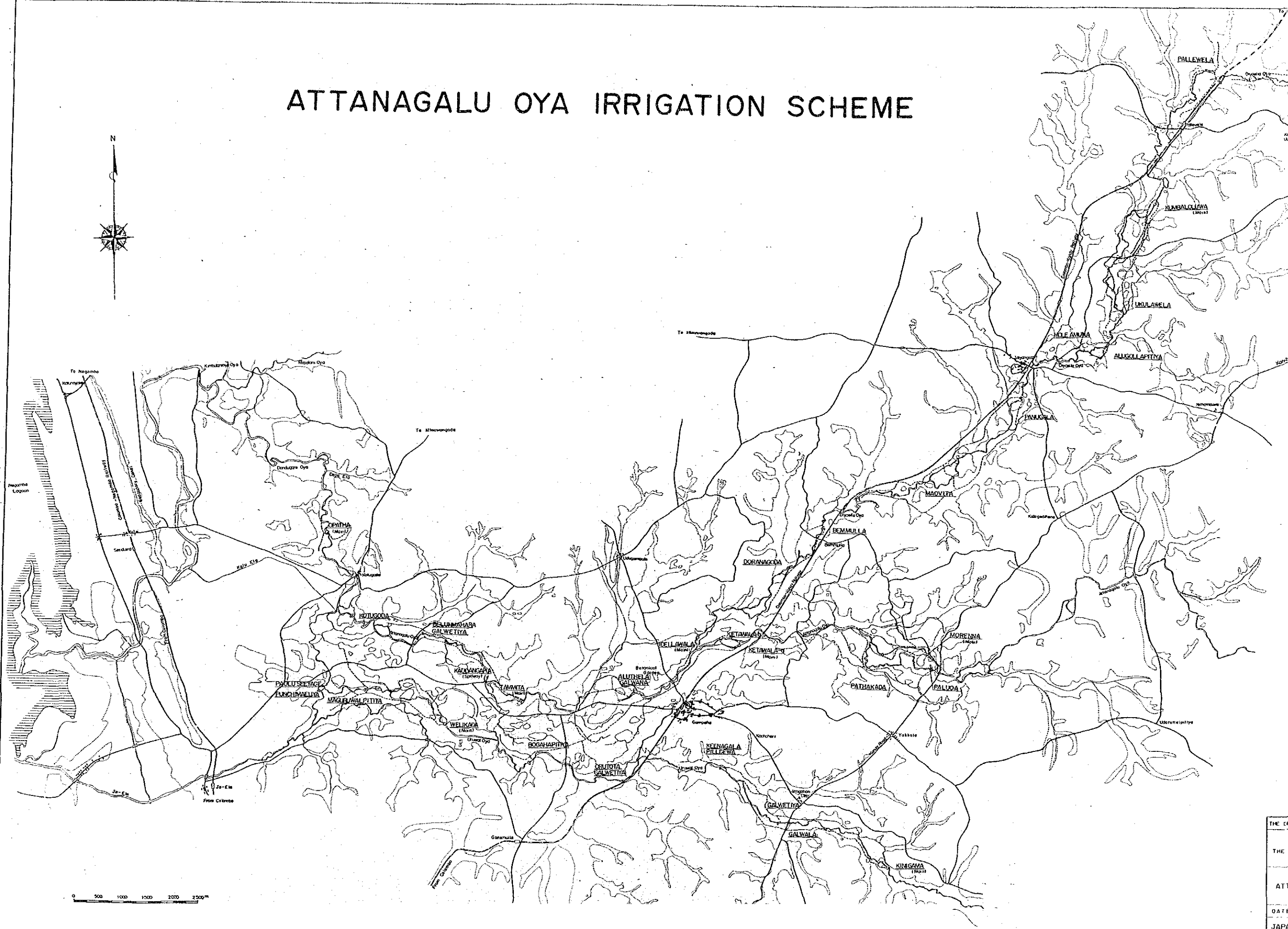
<u>Negombo</u> (Average: 2.00)	<u>Number of holdings</u>		<u>Area (acre)</u>	
	<u>Number</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
Less than 1/8	3 (3)	(3.0)	- (-)	(0)
1/8 to less than 1/4	7 (10)	(9.9)	1 (1)	(0.5)
1/4 ~ 1/2	9 (19)	(18.8)	3 (4)	(2.0)
1/2 ~ 1	25 (44)	(43.6)	15 (19)	(9.4)
1 ~ 2	22 (66)	(65.3)	26 (45)	(22.3)
2 ~ 3	12 (78)	(77.2)	26 (71)	(35.1)
3 ~ 4	8 (86)	(85.1)	24 (95)	(47.0)
4 ~ 5	3 (89)	(88.1)	12 (107)	(53.0)
5 ~ 7	8 (97)	(96.0)	45 (152)	(75.2)
7 ~ 10	1 (98)	(97.0)	7 (159)	(78.7)
10 ~ 15	2 (100)	(99.0)	23 (182)	(90.1)
20 and over	1		20	
All holdings	101	100	202	100

Gini coefficient: 0.568

Source: Census of Agriculture, 1982

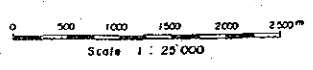
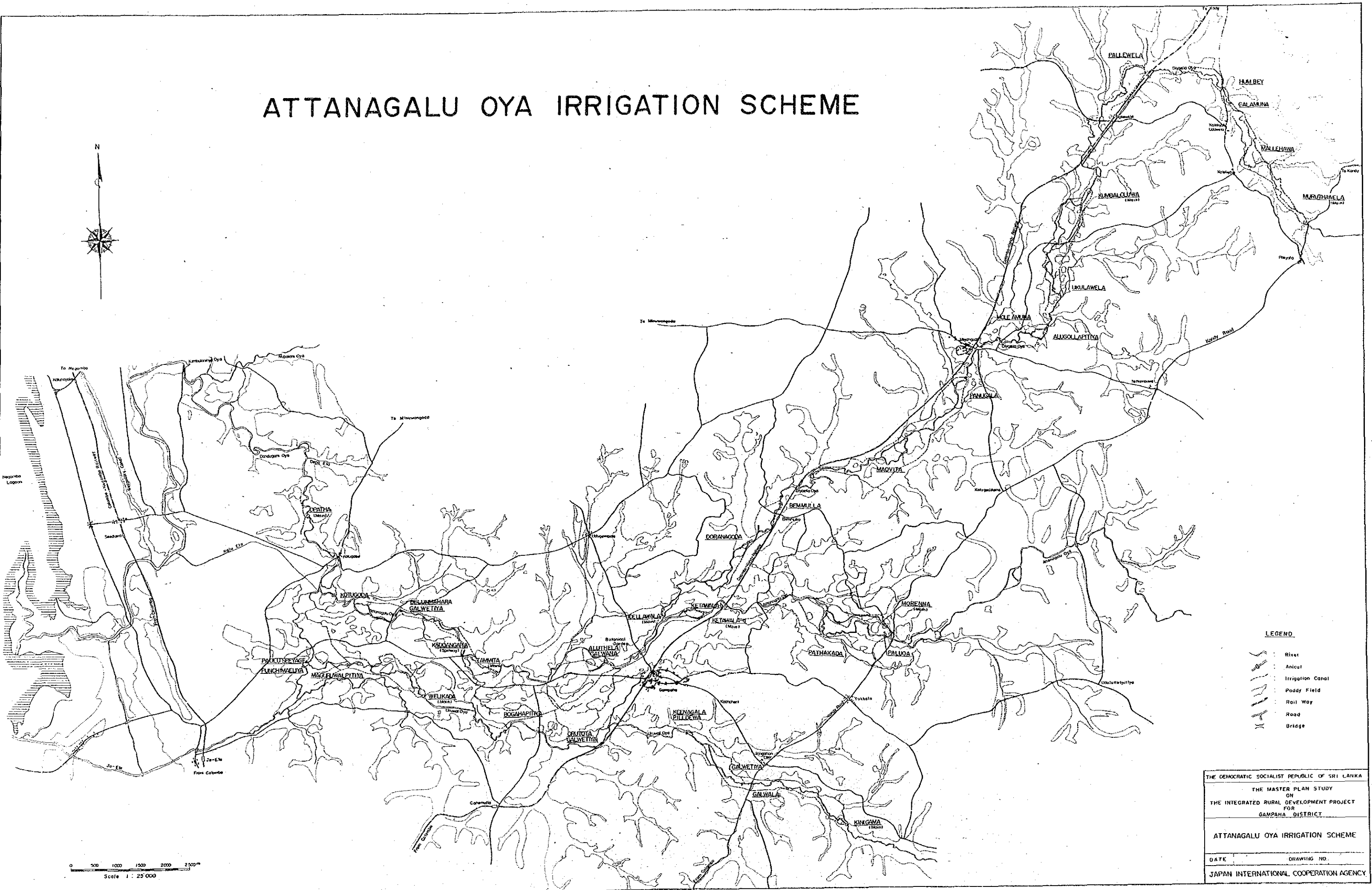
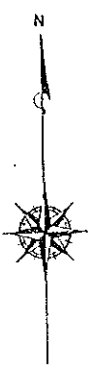
III. Irrigation and Drainage

ATTANAGALU OYA IRRIGATION SCHEME



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THE
ATT
DATE
JAP

ATTANAGALU OYA IRRIGATION SCHEME



- LEGEND**
- River
 - Anicut
 - Irrigation Canal
 - Paddy Field
 - Rail Way
 - Road
 - Bridge

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 THE MASTER PLAN STUDY
 ON
 THE INTEGRATED RURAL DEVELOPMENT PROJECT
 FOR
 GAMPAHA DISTRICT

ATTANAGALU OYA IRRIGATION SCHEME

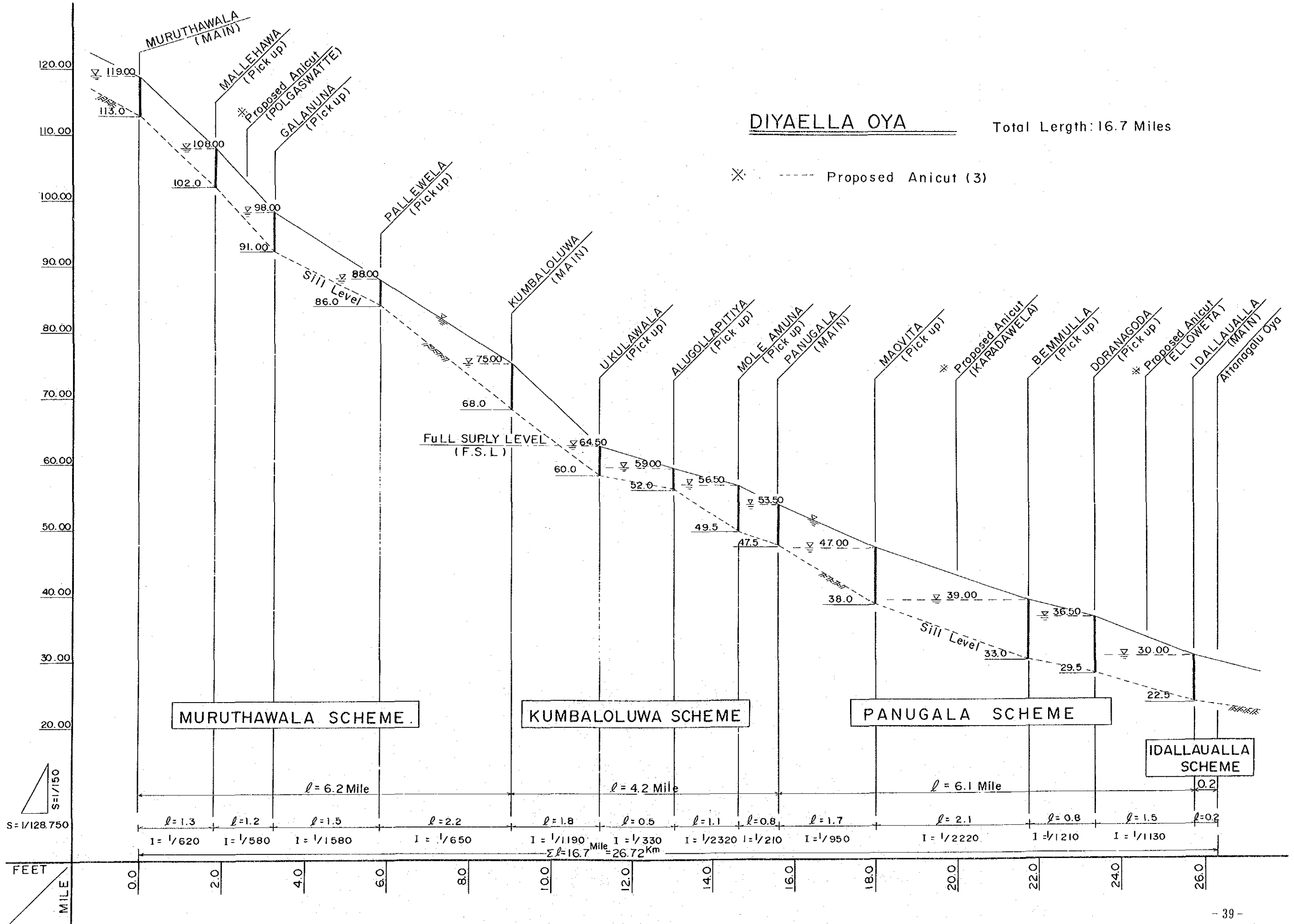
DATE _____ DRAWING NO. _____

JAPAN INTERNATIONAL COOPERATION AGENCY

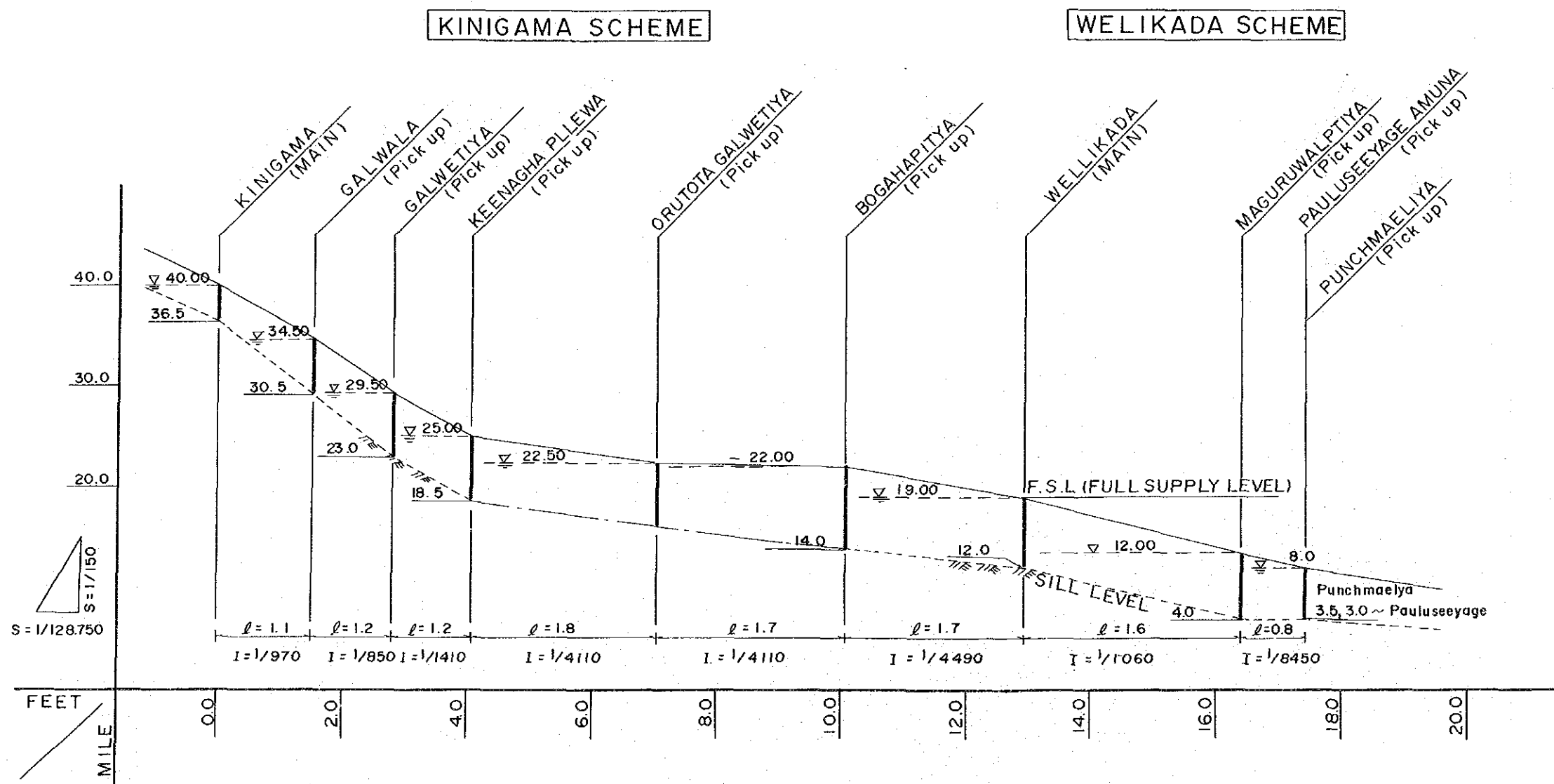
DIYAELLA OYA

Total Length: 16.7 Miles

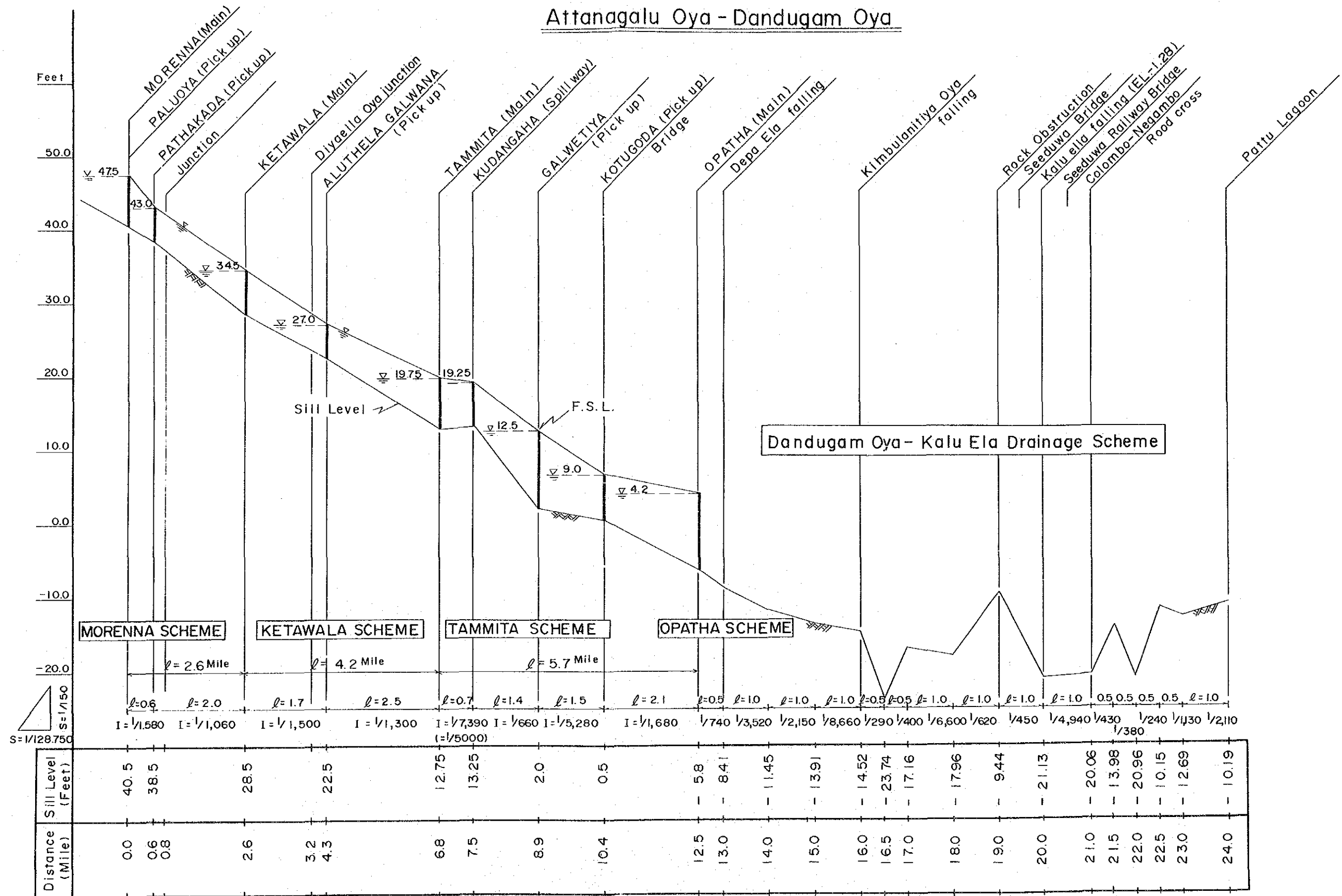
⊗ ----- Proposed Anicut (3)



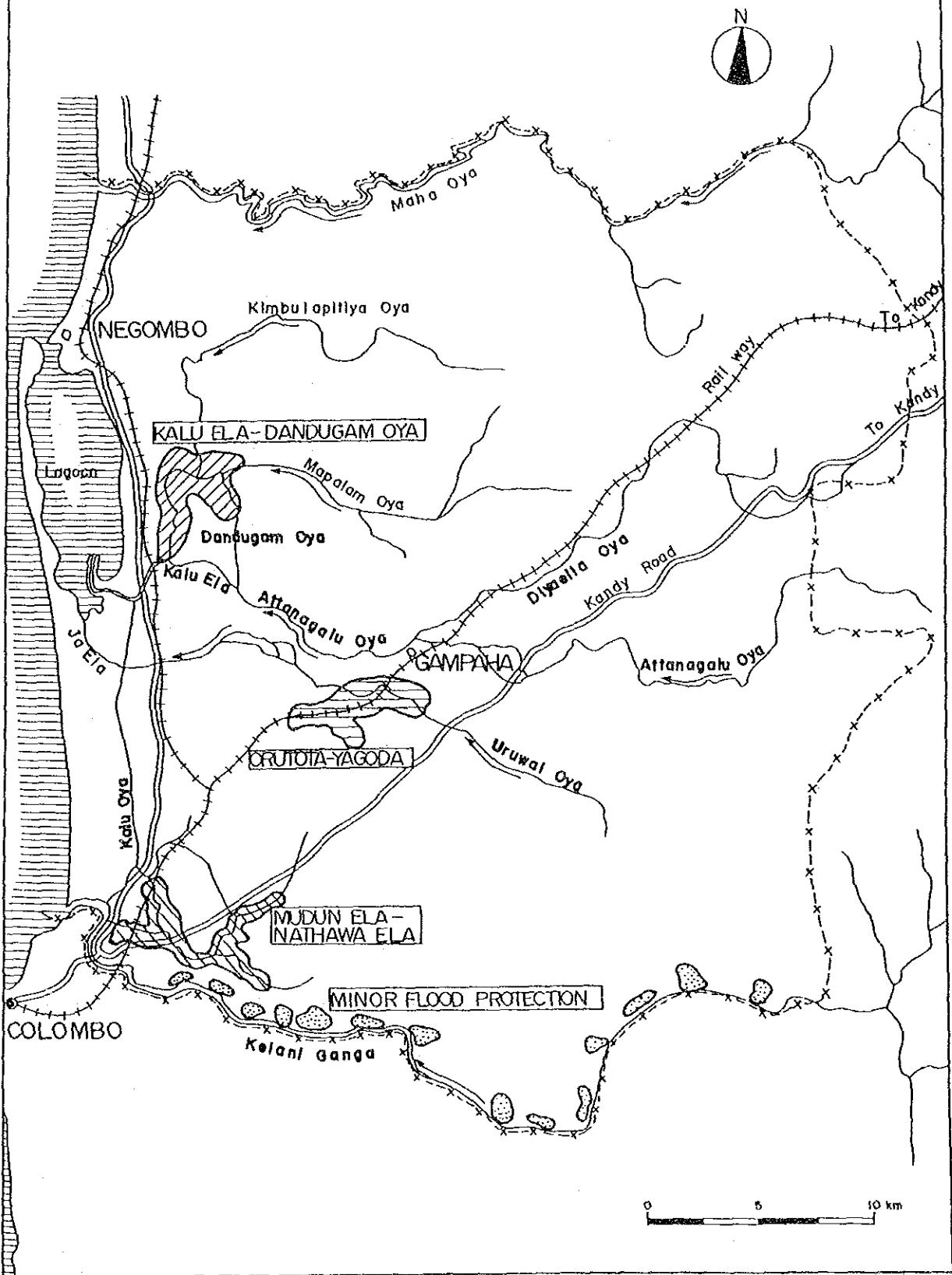
URUWAL OYA

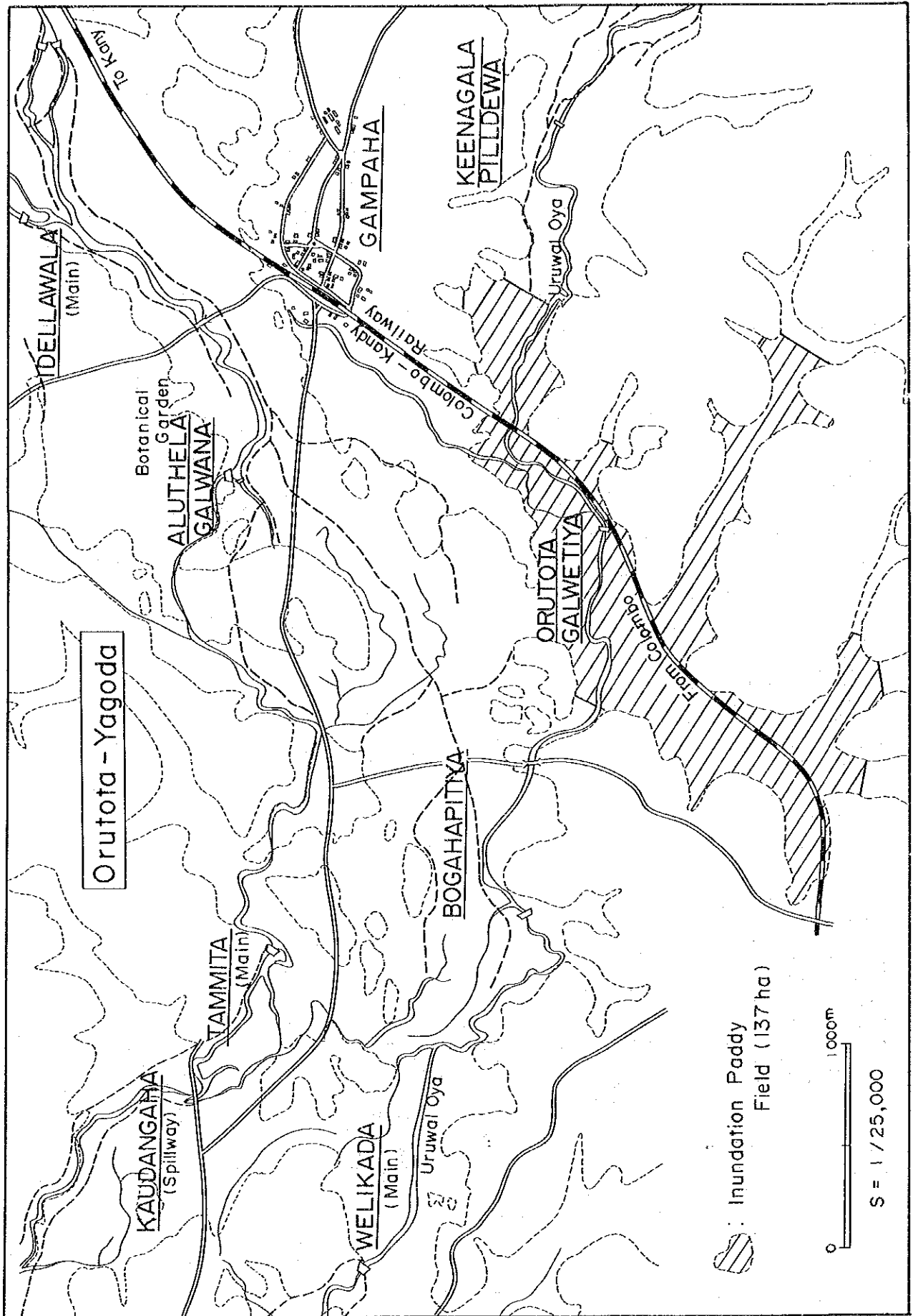


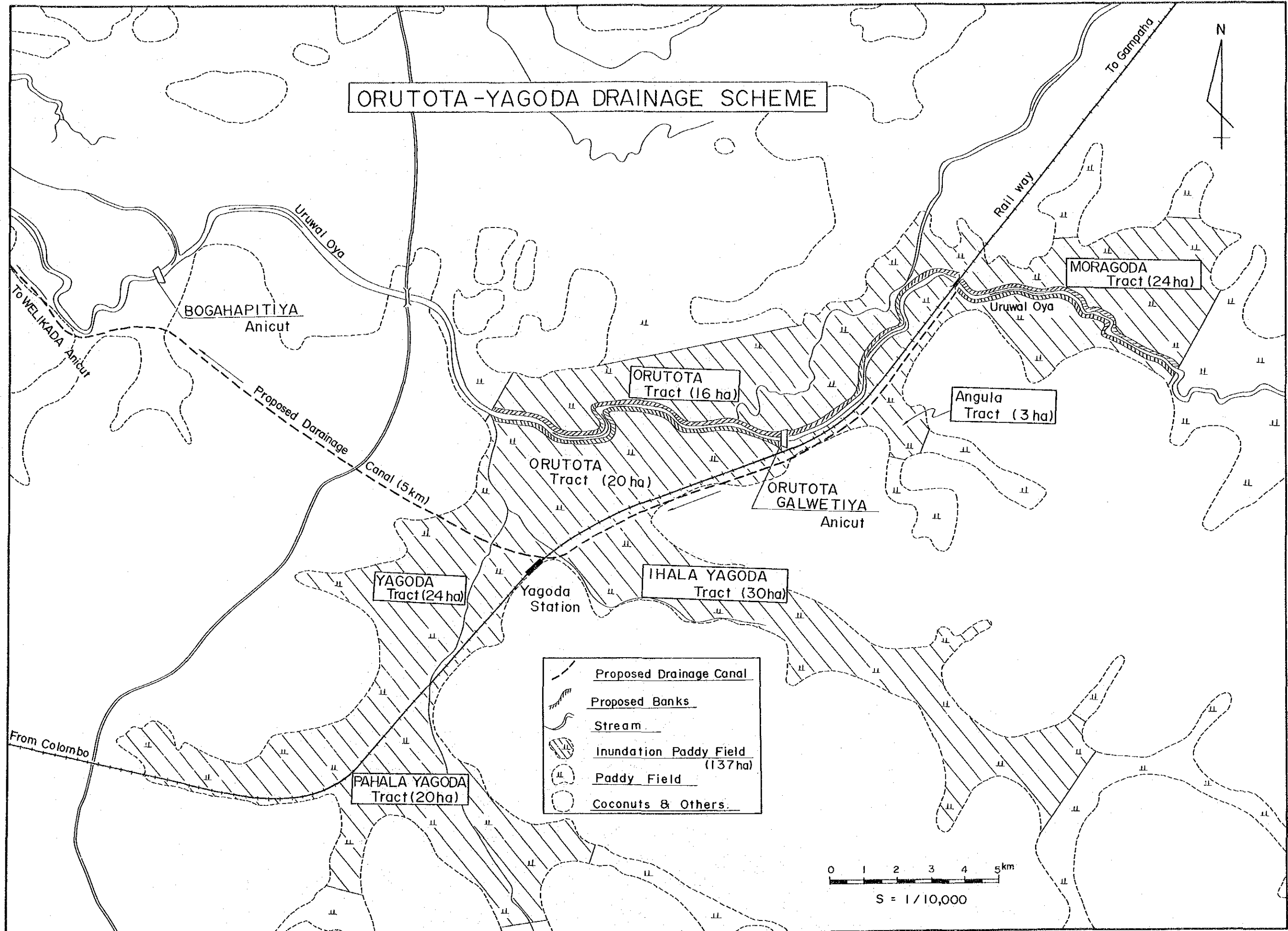
Attanagalu Oya - Dandugam Oya



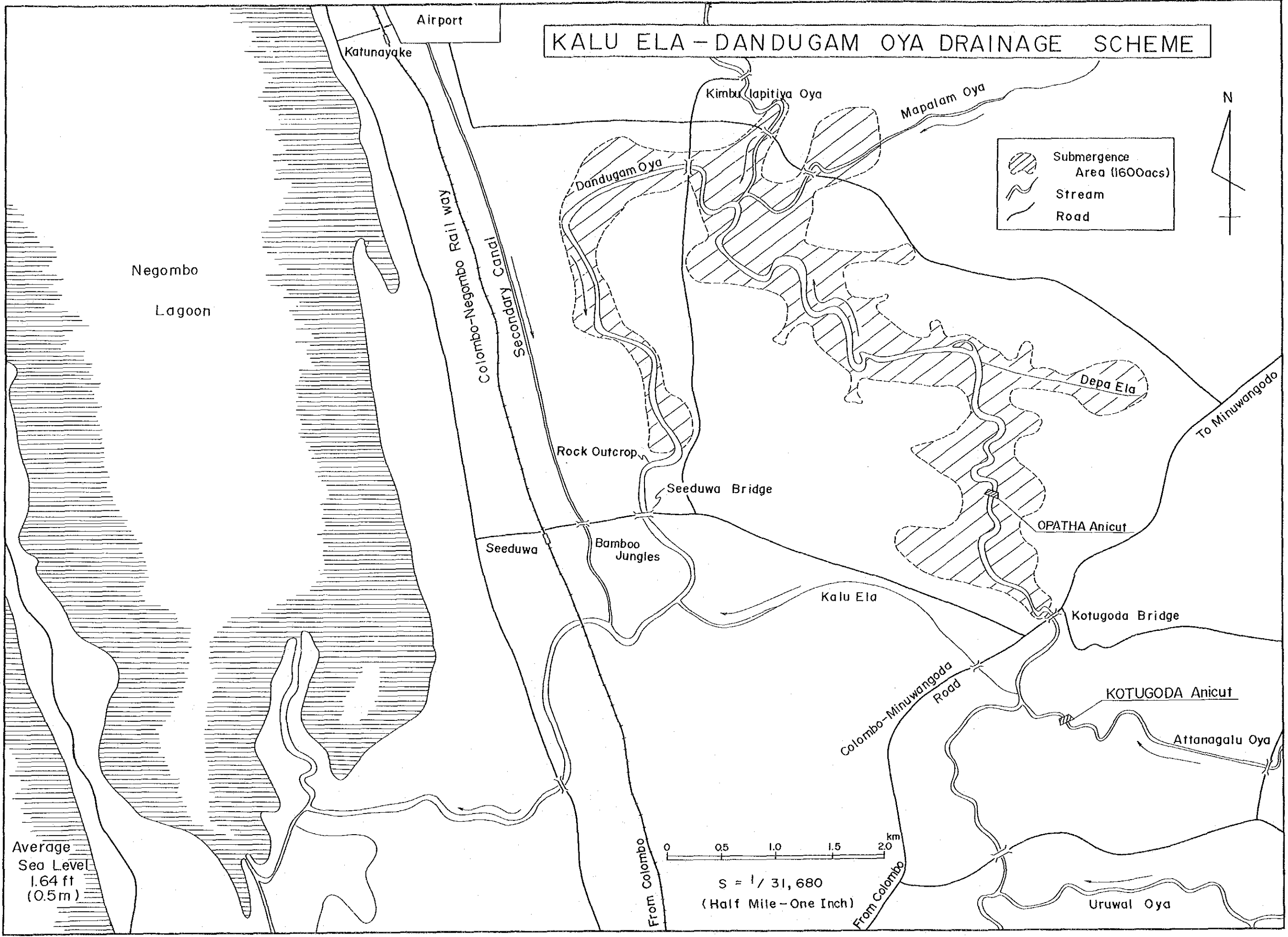
PLAN OF DRAINAGE SCHEME







KALU ELA - DANDUGAM OYA DRAINAGE SCHEME

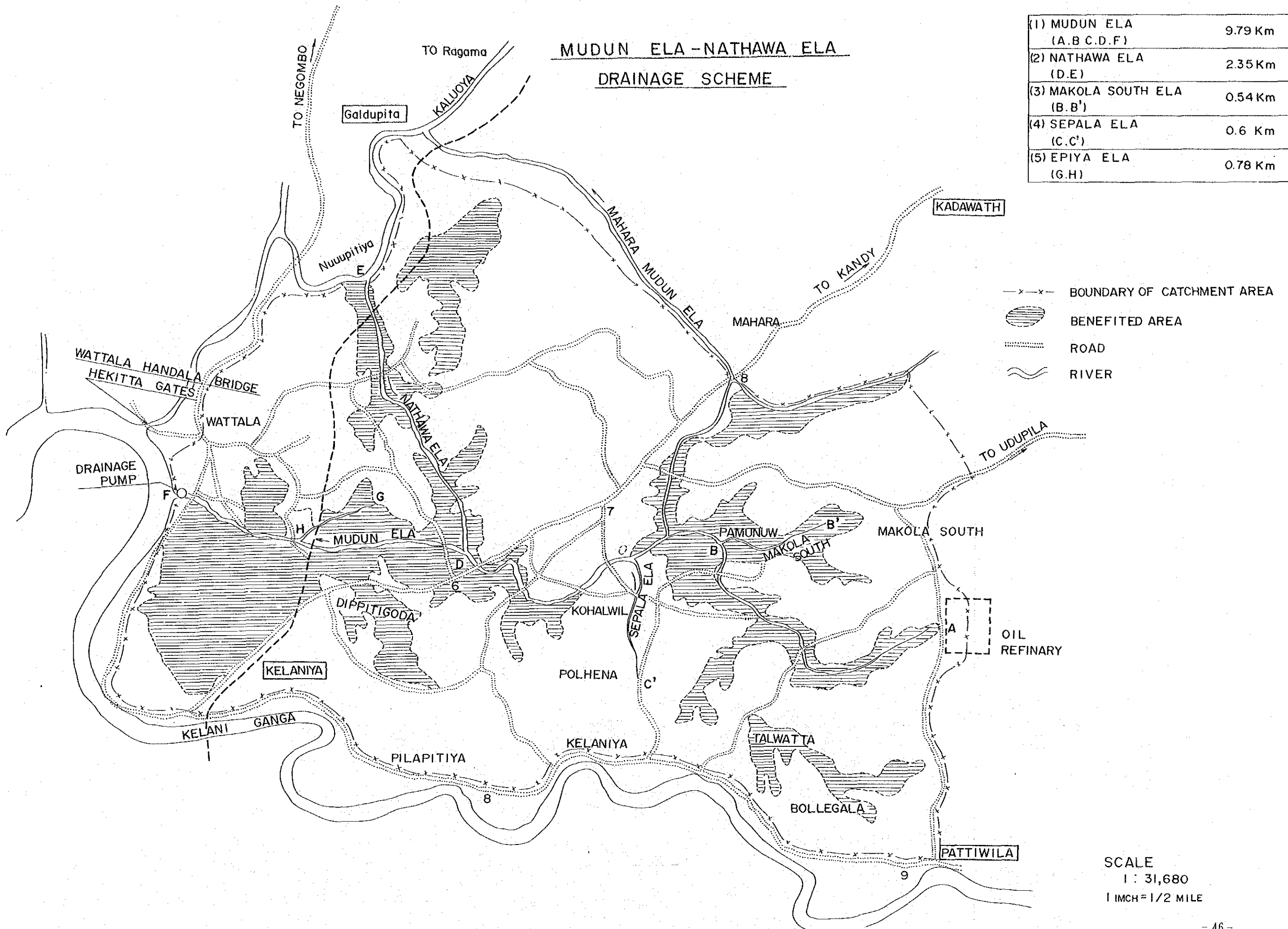


Average
Sea Level
1.64 ft
(0.5m)

0 0.5 1.0 1.5 2.0 km
S = 1/31,680
(Half Mile - One Inch)

MUDUN ELA - NATHAWA ELA DRAINAGE SCHEME

(1) MUDUN ELA (A.B.C.D.F)	9.79 Km
(2) NATHAWA ELA (D.E)	2.35 Km
(3) MAKOLA SOUTH ELA (B.B')	0.54 Km
(4) SEPALA ELA (C.C')	0.6 Km
(5) EPIYA ELA (G.H)	0.78 Km







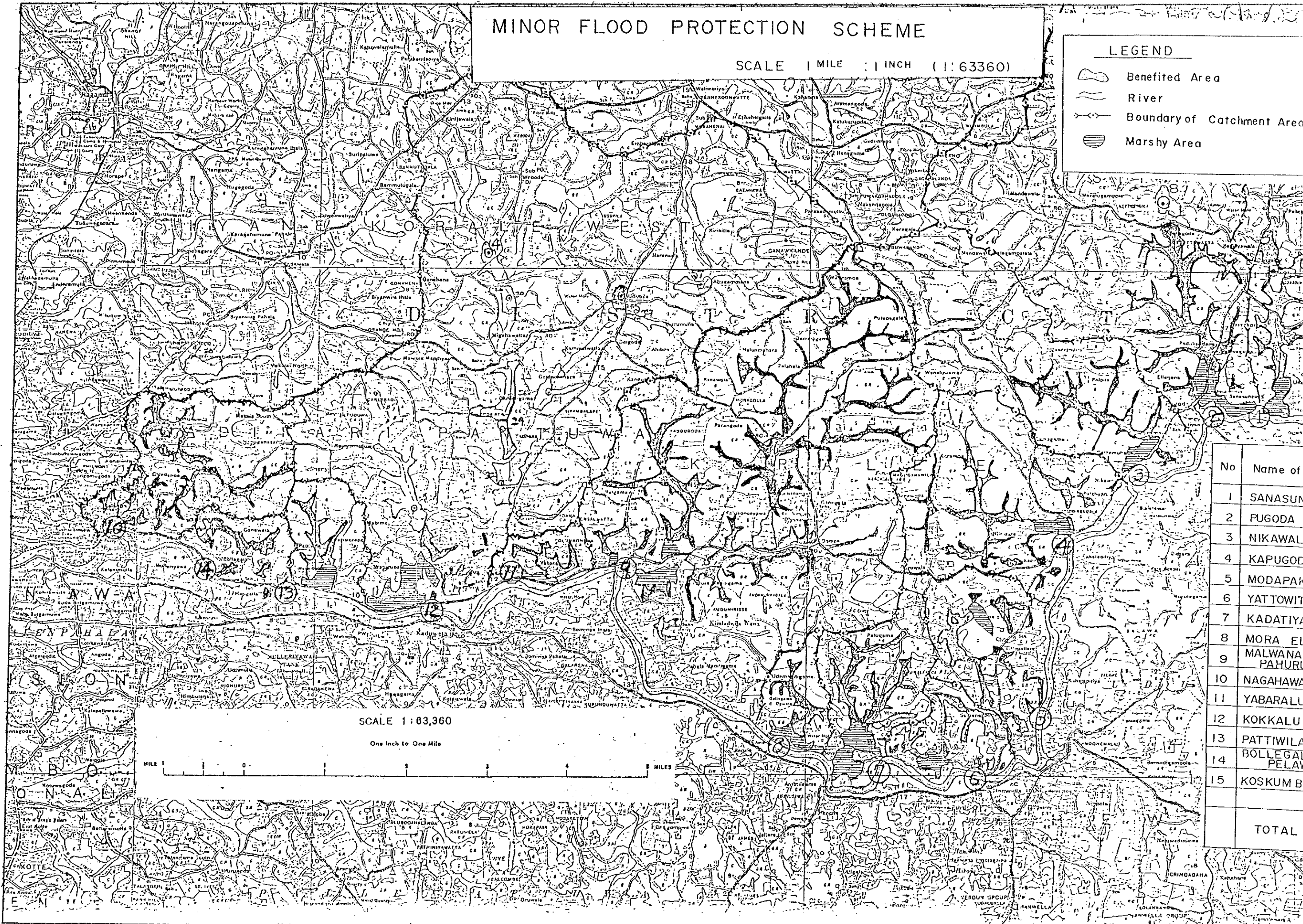
SCALE
1 : 31,680
1 INCH = 1/2 MILE

MINOR FLOOD PROTECTION SCHEME

SCALE 1 MILE : 1 INCH (1:63360)

LEGEND

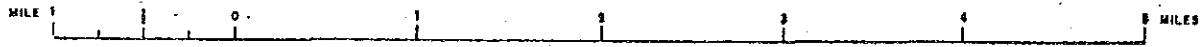
-  Benefited Area
-  River
-  Boundary of Catchment Area
-  Marshy Area



No	Name of
1	SANASUN
2	PUGODA
3	NIKAWAL
4	KAPUGOD
5	MODAPAK
6	YATTOWIT
7	KADATIYA
8	MORA EL
9	MALWANA PAHURI
10	NAGAHAWA
11	YABARALL
12	KOKKALU
13	PATTIWILA
14	BOLLEGAL PELAY
15	KOSKUM B
	TOTAL

SCALE 1:63,360





One Inch to One Mile

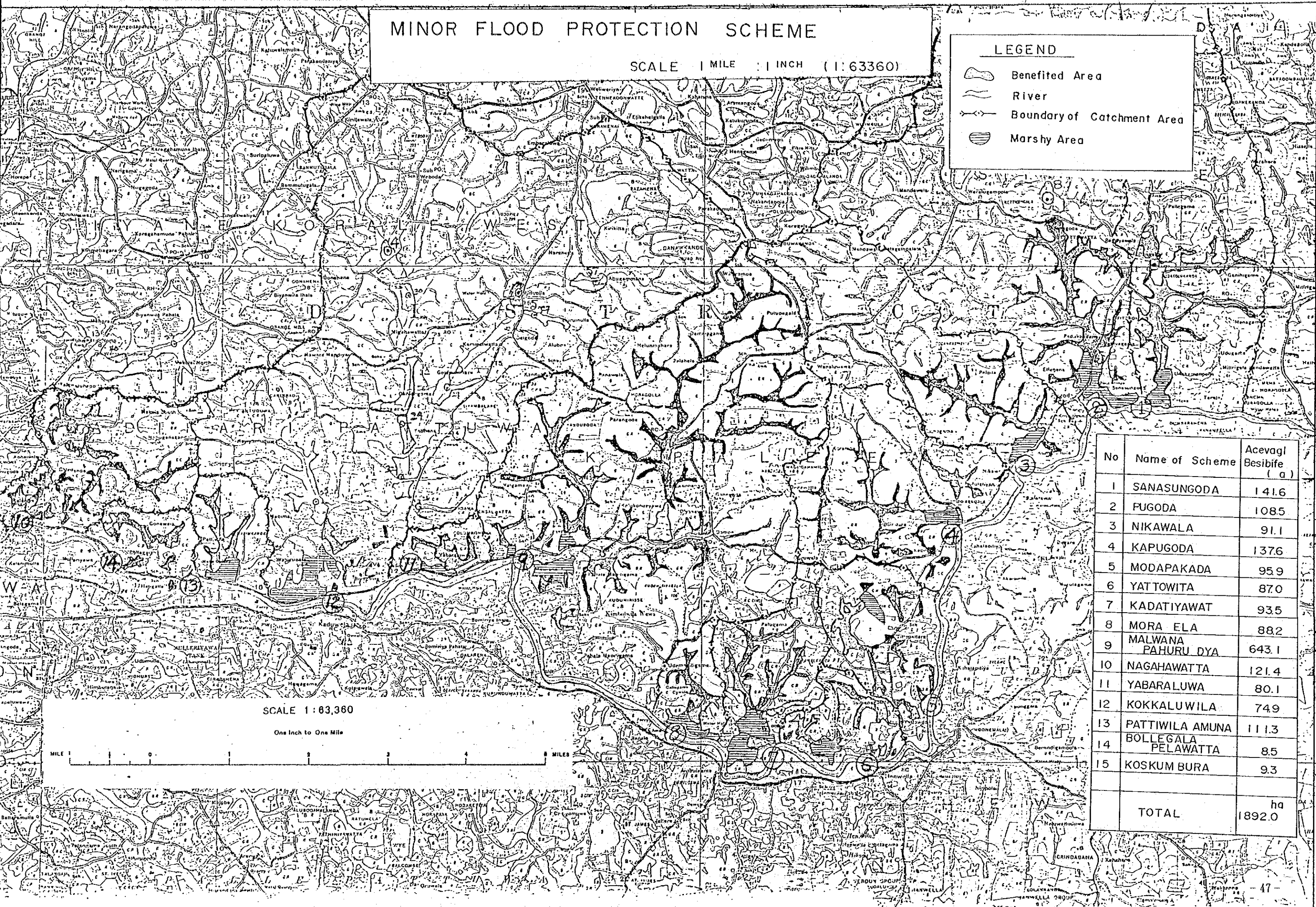


MINOR FLOOD PROTECTION SCHEME

SCALE 1 MILE : 1 INCH (1:63360)

LEGEND

-  Benefited Area
-  River
-  Boundary of Catchment Area
-  Marshy Area



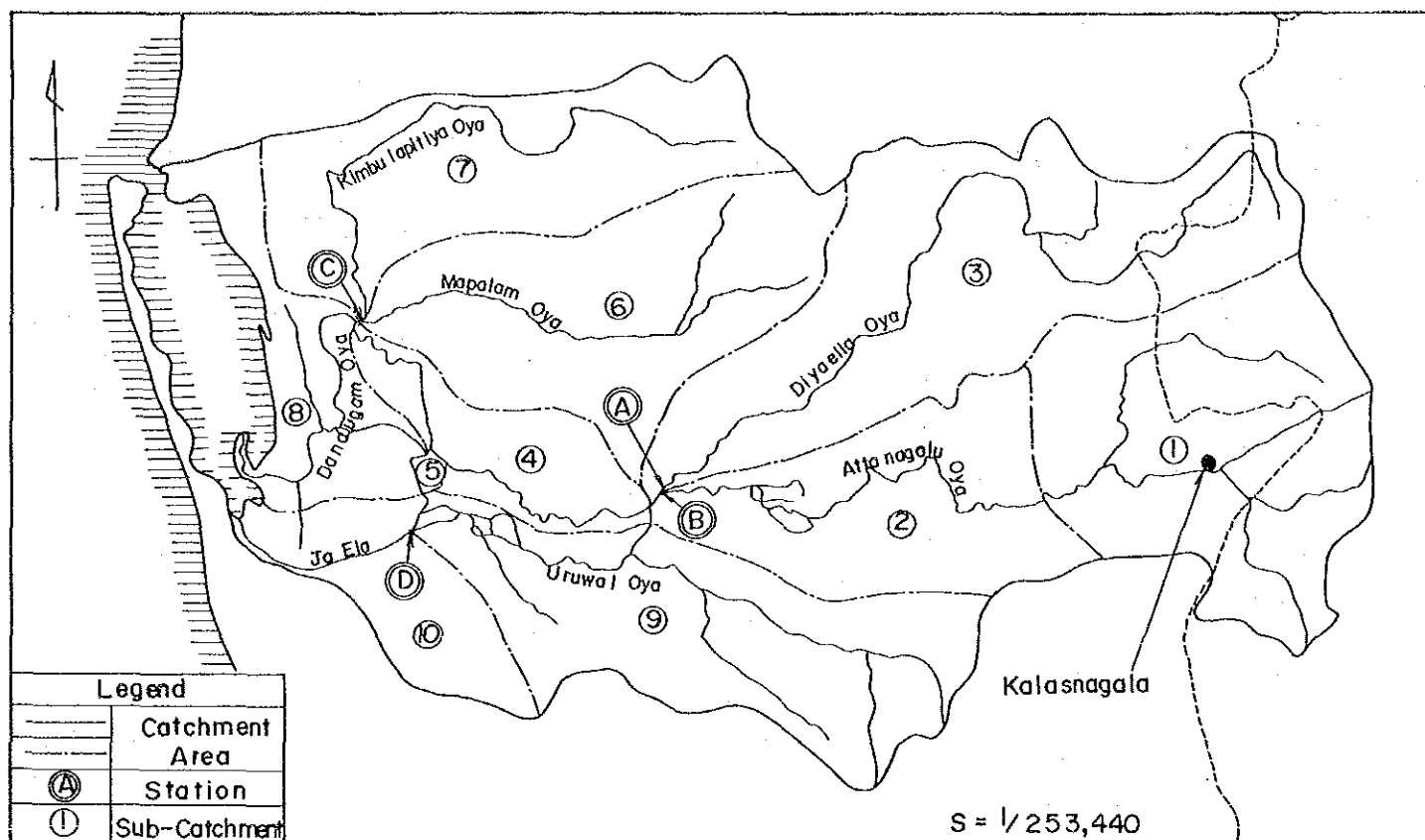
No	Name of Scheme	Acevagi Besibife (a)
1	SANASUNGODA	141.6
2	FUGODA	1085
3	NIKAWALA	91.1
4	KAPUGODA	1376
5	MODAPAKADA	95.9
6	YATTOWITA	87.0
7	KADATIYAWAT	93.5
8	MORA ELA	88.2
9	MALWANA PAHURU DYA	643.1
10	NAGAHAWATTA	121.4
11	YABARALUWA	80.1
12	KOKKALUWILA	74.9
13	PATTIWILA AMUNA	111.3
14	BOLLEGALA PELAWATTA	8.5
15	KOSKUM BURA	9.3
	TOTAL	1892.0 ha

SCALE 1:63,360

One Inch to One Mile



Catchment Area (Attamagalu Oya)



Legend	
	Catchment Area
	Station
	Sub-Catchment

Sub-Catchment Area

NO.	Area (km ²)	River
①	94	Attanagalu Oya
②	101	"
③	116	Diyaella Oya
④	39	Attanagalu Oya
⑤	8	"
⑥	89	Mapalam Oya
⑦	85	Kimbulapitiya Oya
⑧	52	Dandugam Oya
⑨	102	Uruwal Oya
⑩	41	Ja Ela
Total	727	

Station of Hydrograph

Station	Sub-Catchment Area (km ²)
Ⓐ Diyaella Oya Discharge	③ 116
Ⓑ Diyaella Oya Confluence	①② 195
Ⓒ Mapalam Oya Confluence	①②③④⑤ 358
Ⓓ Punchimaeliya Amuna Anicut Confluence	⑨ 102

Design Hydrograph

