THE KINGDOM OF THAILAND
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF HIGHWAYS

## FINAL REPORT

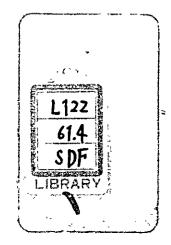
FOR

# ROAD DEVELOPMENT STUDY IN THE NORTHEASTERN REGION

**VOLUME 2: APPENDICES** 

**MARCH 1983** 

JAPAN INTERNATIONAL COOPERATION AGENCY



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国際協力事業団 <sup>受入</sup> 84. 9. 27 L122 61.4 登録No. 09199 SDF

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## Appendix 2.1

Appendix 2.1 ANNUAL RAINFALL IN MAIN CHANGWAT IN THE NORTHEASTERN REGION

(1974 - 1979)

(Unit mm/year)

District	1974	1975	1976	1977	1978	1979	Average
Loei	1335	1261	1058	990	1687	1305	1272
Udon Thani	1525	1753	1452	1043	1793	965	1422
Nong Khai	1299	2119	1484	1150	1815	1177	1507
Sakhon Nakhon	1990	1681	1148	1150	1693	1559	1537
Nakhon Phanom	2171	2784	1997	1652	2738	2092	2239
Khon Kaen	1156	1461	1097	1216	1390	1177	1250
Roi Et	1389	1698	1491	1301	1652	1439	1462
Ubon Ratchathani	1734	1628	1491	1288	1946	1716	1634
Chaiyaphum	811	1447	1206	1029	1579	1007	1180
Nakhon Ratchasima	1312	1041	988	884	759	643	938
Surin	1161	1144	1575	1069	1633	1245	1305

Source: Agricultural Statistics of Thailand,
Ministry of Agriculture & Co-operatives

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Appendix 2.2 FARM AND NON-FARM POPULATION

(Unit of population: 1,000)

		1979			1980			1981		Growt)	n Rate	Fa	rm/Total (	%)
	Total	Farm	Non Farm	Total	Farm	Non Farm	Total	Farm	Non Farm	1979	- 81	1979	1980	1981
								<u></u>		Total	Farm			
Whole Country	46114	31358	14756	46961	31900	15061	47875	32500	15375	1.9	1.8	68.0	67.9	67.9
Northeastern	15793	13269	2424	16087	13471	2616	16393	13680	2713	1.9	1.5	84.0	83.7	83.5
Nakhon Phanom	745	617	128	769	637	132	770	643	127	1.7	2.1	82.8	82.8	83.5
Sakhon Nakhon	766	652	114	777	660	117	789	667	122	1.5	1.1	85.1	84.9	84.5
Nong Khai	661	447	214	674	456	218	689	467	222	2.1	2.2	67.8	67.7	67.8
Udon Thani	1429	1137	292	1448	1147	301	1475	1156	319	1.6	0.8	79.6	79.2	78.3
Loei	441	366	75	449	373	76	463	380	83	2.5	1.9	83.0	83.1	82.1
Yasothon	452	394	58	459	398	61	464	401	63	1.3	0.5	87.2	86.7	86.4
Ubon Ratchathani	1531	1317	214	1560	1309	251	1590	1373	217	1.9	2.1	86.0	83.9	86.4
Kalasin	742	672	70	755	682	73	772	695	77	2.0	1.7	90.6	90.3	90.0
Khon Kaen	1329	1098	231	1355	1118	237	1385	1106	279	2.1	0.4	82.6	82.5	79.9
Maha Sarakham	752	678	74	765	689	76	770	691	79	1.2	1.0	90.2	90.1	89.7
Roi Et	1044	948	102	1061	955	106	1075	964	111	1.5	0.8	90.2	90.0	89.7
Buri Ram	1108	850	258	1133	871	262	1160	896	264	2.3	2.7	76.7	76.9	77.2
Si Sa Ket	1066	986	80	1082	1004	78	1103	1019	84	1.7	1.7	92.5	92.8	92.4
Surin	1001	921	80	1036	948	88	1066	970	96	3.2	2.6	92.0	91.5	91.0
Chaiyaphum	839	719	120	858	733	125	871	751	120	1.9	2.2	85.7	85.4	86.2
Nakhon Ratchasima	1886	1473	413	1917	1491	426	1950	1500	450	1.7	0.9	78.1	77.8	76.9

Sources : Office of Agricultural Economics, Ministry of Agriculture & Cooperatives

Appendix 2.3

TREND OF LAND USE CONDITION (1978 - 1980)

(Unit : 1000 Rai)

		Farm Holdi	ng		Paddy land	1		Upland			ps, Vegeta lower Land		•	Grass, Ho d Other La	_
	1978	1979	1980	1978	1979	1980	1978	1979	1980	1978	1979	1980	1978	1979	1980
Whole Country	116,441	117,603	118,999	73,270	72,857	73,563	23,759	25,257	25,758	10,773	11,358	11,457	8,639	8,131	8,221
Northeastern	49,148	49,564	50,093	35,402	35,540	35,886	9,257	9,766	9,901	542	532	538	3,948	3,726	3,768
Loei	1,646	1,661	1,693	418	483	492	1,005	1,073	1,094	10	10	14	213	92	93
Udon Thani	4,406	4,513	4,539	3,050	3,165	3,184	785	909	914	35	51	51	536	388	390
Nong Khai	1,775	1,940	2,068	1,179	1,236	1,317	392	467	498	27	27	29	177	210	224
Sakhon Nakhon	2,346	2,429	2,501	1,853	1,872	1,927	161	196	202	34	31	32	298	330	340
Nakhon Phanom	1,622	1,616	1,630	1,259	1,240	1,251	147	163	165	42	36	37	174	177	177
Khon Kaen	4,061	4,110	4,116	2,830	2,890	2,894	1,043	1,041	1,043	32	29	29	156	150	150
Maha Sarakham	3,862	2,363	2,371	1,903	1,914	1,920	334	335	336	25	14	14	100	100	101
Kalasin	1,882	1,886	1,962	1,216	1,299	1,351	467	434	451	28	17	17	171	136	143
Roi Et	3,126	3,108	3,126	2,713	2,770	2,785	182	174	175	25	22	22	206	142	144
Yasothon	1,554	1,556	1,601	1,253	1,222	1,249	177	204	209	10	. 19	19	114	121	124
Ubon Ratchathani	5,088	4,988	4,948	4,169	3,856	3,825	369	363	360	68	52	51	482	717	712
Chaiyaphum	2,955	2,835	2,782	1,791	1,699	1,668	708	830	814	39	39	38	417	267	262
Nakhon Ratchasima	6,637	6,764	6,910	3,441	3,448	3,522	2,601	2,675	2,732	79	95	97	516	546	559
Buri Ram	3,418	3,514	3,503	2,807	2,934	2,925	417	394	393	27	25	25	167	161	160
Surin	3,208	3,163	3,164	2,908	2,874	2,875	174	172	172	29	28	28	97	89	89
Si Sa Ket	3,062	3,107	3,179	2,612	2,638	2,700	295	336	344	32	35	36	123	98	99

Sources : Office of Agricultural Economics, Ministry of Agriculture and Cooperatives.

Appendix 2.4 LAND CAPABILITY LEGEND Areas with soils suited for paddy Areas with associations of upland and paddy soils Areas with soils suited for upland crops Areas with soils not generally suited for cultivated crops

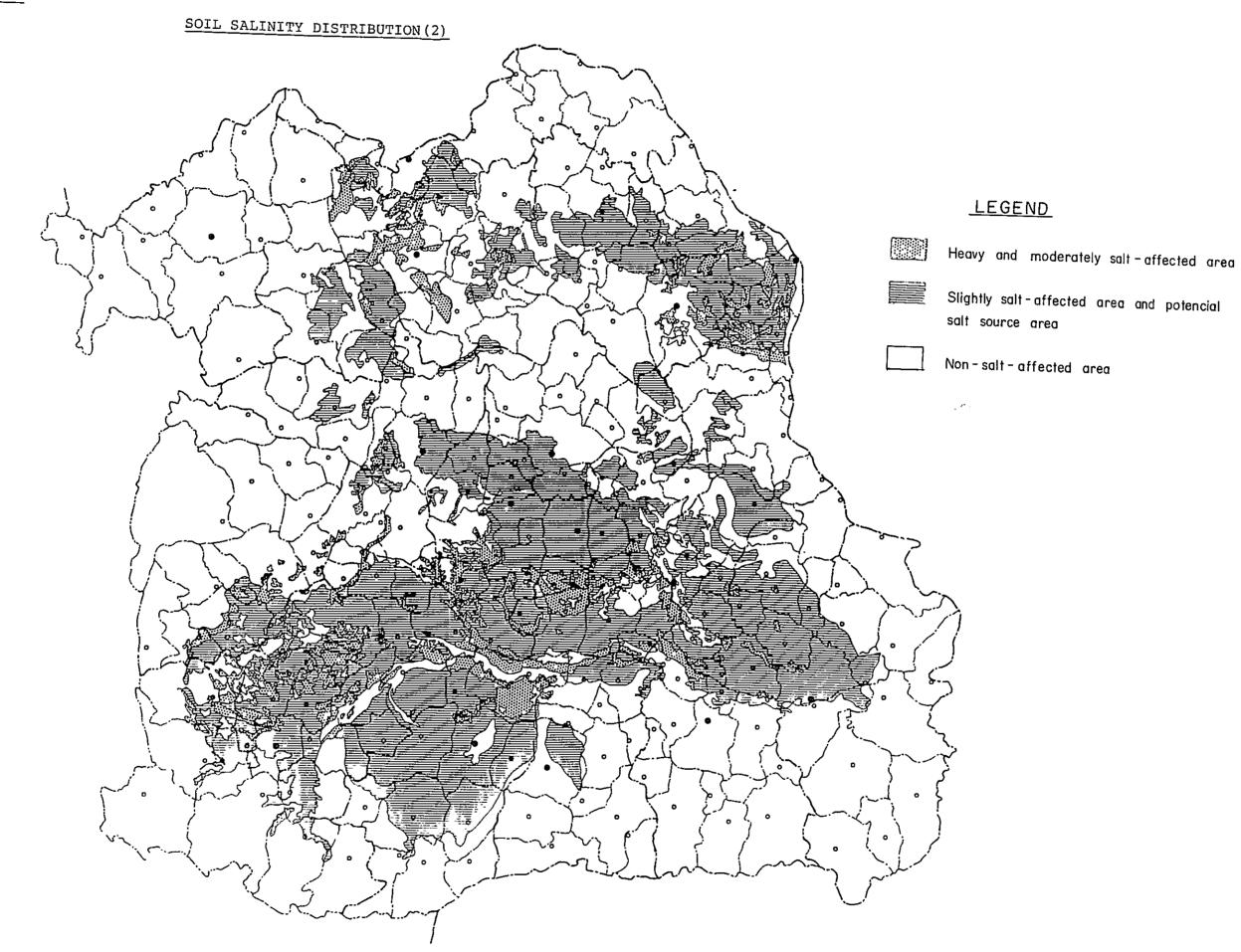
Appendix 2.5 SOIL SALINITY DISTRIBUTION(1)

(Unit : 1000 Rai)

								(OHIL . I	CTEN COO.	
								Rati	lo (%)	
	Cı	ultivated A	rea	Salinity	Affected	Area	Salinit	y/Paddy	Salinit	y/Total
Changwat	Paddy	Upland	Total	Over 8M =	1 - 8M	Total	Over 8M	1 - 8M	Over 8M	1 - 8M
	(1)		(2)	(3)		(4)	(3)/(1)	(4)/(1)	(3)/(2)	(4)/(2)
Loei	492	1108	1600	-	-		0	0	0	0
Udon Thani	3184	965	4149	860	1825	2685	27.0	84.3	20.7	64.7
Nong Khai	1317	527	1844	102	289	391	7.7	29.7	5.5	21.2
Sakhon Nakhon	1927	234	2161	223	2150	2373	11.6	123.1	10.3	109.8
Nakhon Phanom	1251	202	1453	486	2086	2572	38.8	205.6	33.7	177.0
Khon Kaen	2894	1072	3966	92	1641	1733	3.2	59.9	2.3	43.7
Maha Sarakham	1920	350	2270	342	2401	2743	17.8	142.9	15.1	120.8
Kalasin	1351	468	1819	56	1264	1320	4.1	97.7	3.1	72.6
Roi Et	2785	197	3196	670	2930	3600	24.1	129.3	21.0	112.6
Yasothon	1249	328	1577	82	1934	2016	6.6	161.4	5.2	127.8
Ubon Ratchathani	3825	411	4236	85	3139	3224	2.2	84.3	2.0	76.1
Chiyaphum	1668	852	2520	403	879	1282	24.2	76.9	16.0	50.9
Nakhon Ratchasima	3552	2829	6381	1041	5083	6124	29.3	172.4	16.3	96.0
Buri Ram	2925	418	3343	476	3902	4378	16.3	149.7	14.2	131.0
Surin	2700	200	2900	265	698	963	9.8	35.7	9.1	33.2
Si Sa Ket	2875	380	3255	101	261	362	3.5	12.6	3.1	11.1
Region Total	35886	10434	46325	5283	30482	35765	14.7	84.9	11.4	77.2
									_	

1/ : Millimo/cm

Sources: "Salinity Affected Area" by Land Development Bureau, MAC, 1977



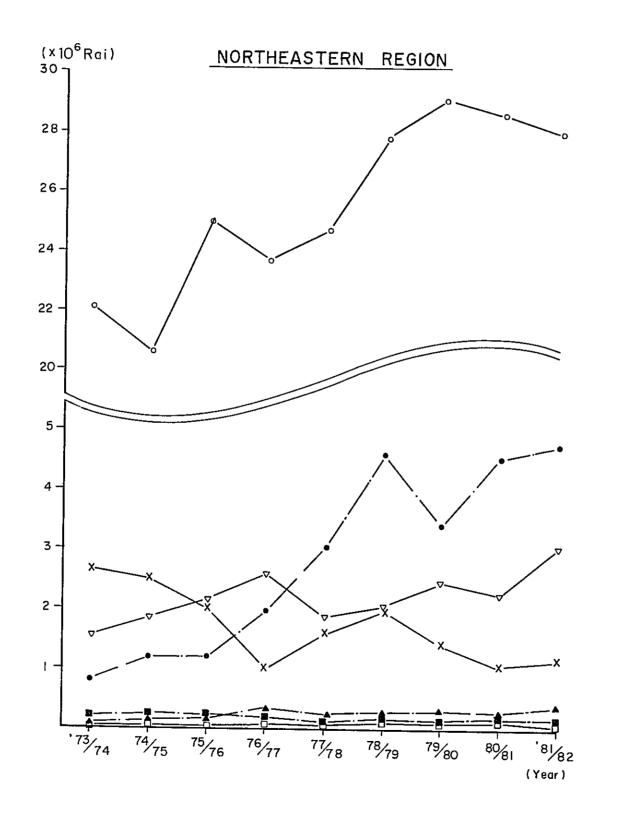
Appendix 2.6 PLANTED AREA OF CROPS

(Unit : 1000 Rai)

	P	addy					Upland	Crops					Total	Ratio (
		Glutinus Rice (%)	Maize	Mung Beans	Soy Beans	Ground nut	Cassava	Sugar- cane	Kenaf	Cotton	Others	Upland Total		Upland (%)
Loei	265	(100)	1019	35	34	38	35	-	10	129	13	1313	1518	86.5
Udon Thani	2538	(86)	245	2	5	6	260	217	122	6	-	863	3401	25.4
Nong Khai	1083	(92)	-	7	2	5	318	3	21	12	-	351	2889	12.1
Sakhon Nakhon	1459	(92)	-	1	-	5	116	-	8	3	-	133	1592	8.4
Nakhon Phanom	1201	(98)	-	-	-	1	75	22	7	3	-	107	1308	8.2
Khon Kaen	1952	(88)	58	19	1	5	461	65	162	0	-	<b>7</b> 72	2724	28.3
Maha Sarakham	1790	(79)	-	-	-	1	141	-	71	~	-	213	2003	10.6
Kalasin	1265	(94)	-	-	-	9	388	5	31	-	-	433	1698	25.5
Roi Et	2261	(75)	••	-	-	4	196	-	29	-	-	229	2490	9.2
Yasothon	973	(83)	_	-	-	3	56	-	45	-	-	103	1076	9.4
Ubon Ratchathani	3570	(92)	45	-	-	6	56	-	171	3	-	281	3851	7.3
Chaiyaphum	1517	(48)	180	24	-	8	255	-	163	2	20	652	2169	30.1
Nakhon Ratchasima	1880	(19)	1298	16	3	32	2084	-	33	71	47	3584	5464	65.6
Buri Ram	2495	(25)	76	-	2	29	183	21	63	-	-	374	2869	13.0
Surin	2561	(1)	-	1	-	14	53	-	66	-	-	134	2659	5.0
Si Sa Ket	2144	(38)	122	2	-	6	62	-	126	-	-	319	2463	13.0
Region Total	28001	(71)	3044	107	47	173	4738	387	1166	205	67	9934	37935	26.2

Sources : Office of Agricultural Economics, Ministry of Agriculture and Cooperatives

Appendix 2.7 TREND OF PLANTED AREA





──o ── Paddy

---• --- Cassava

— x — Kenaf

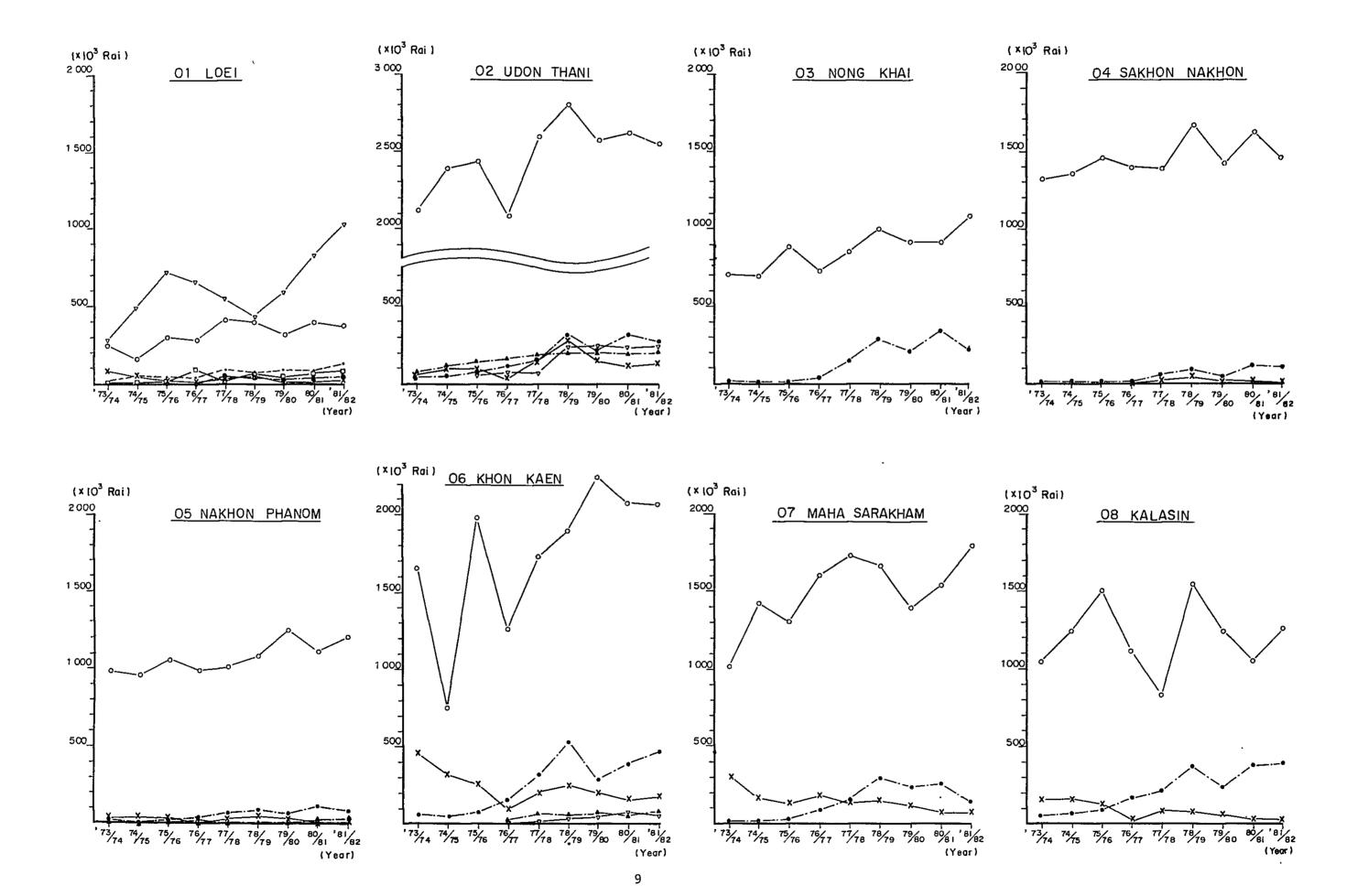
<del>---</del> ∇--- Maize

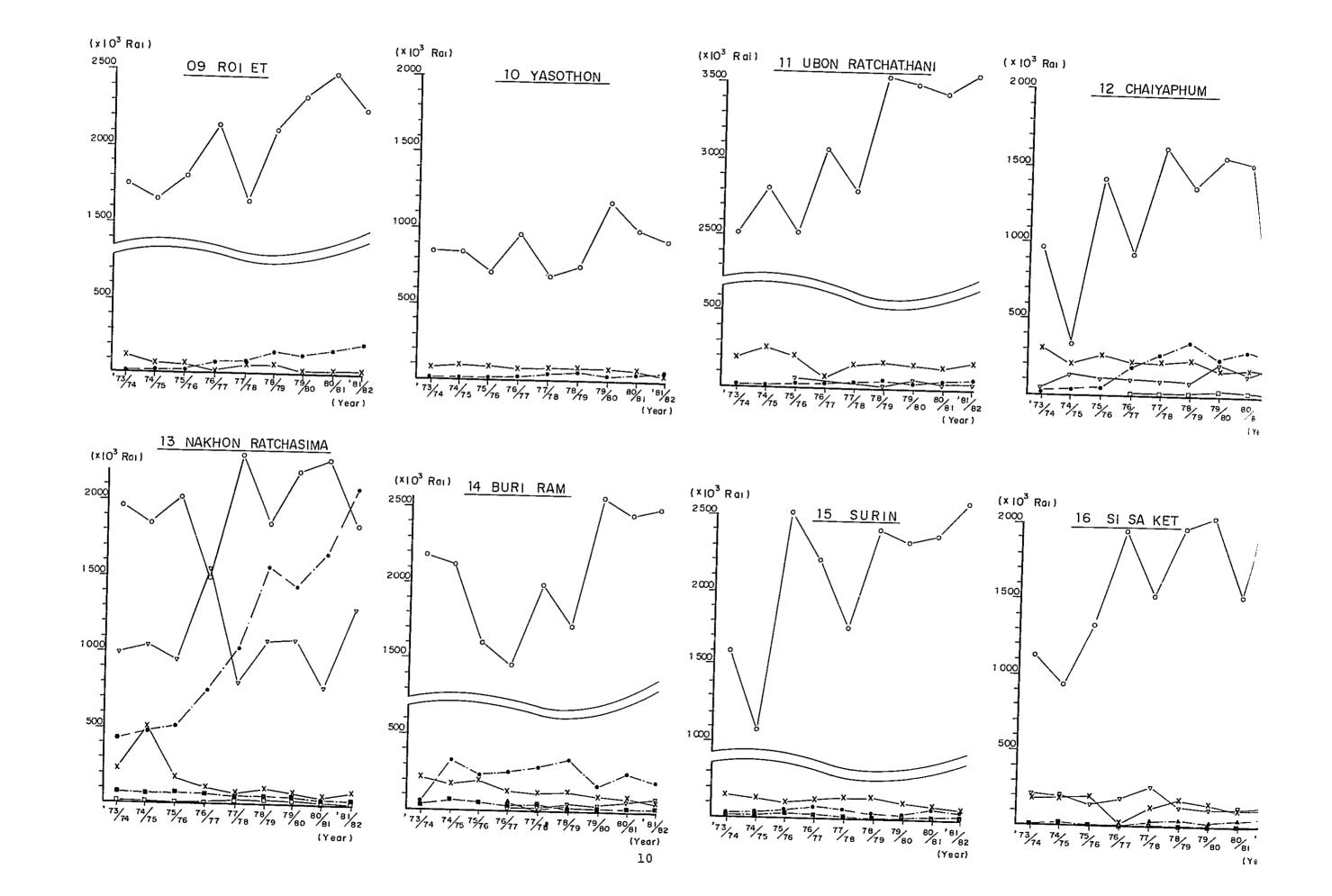
---- Sugar Cane

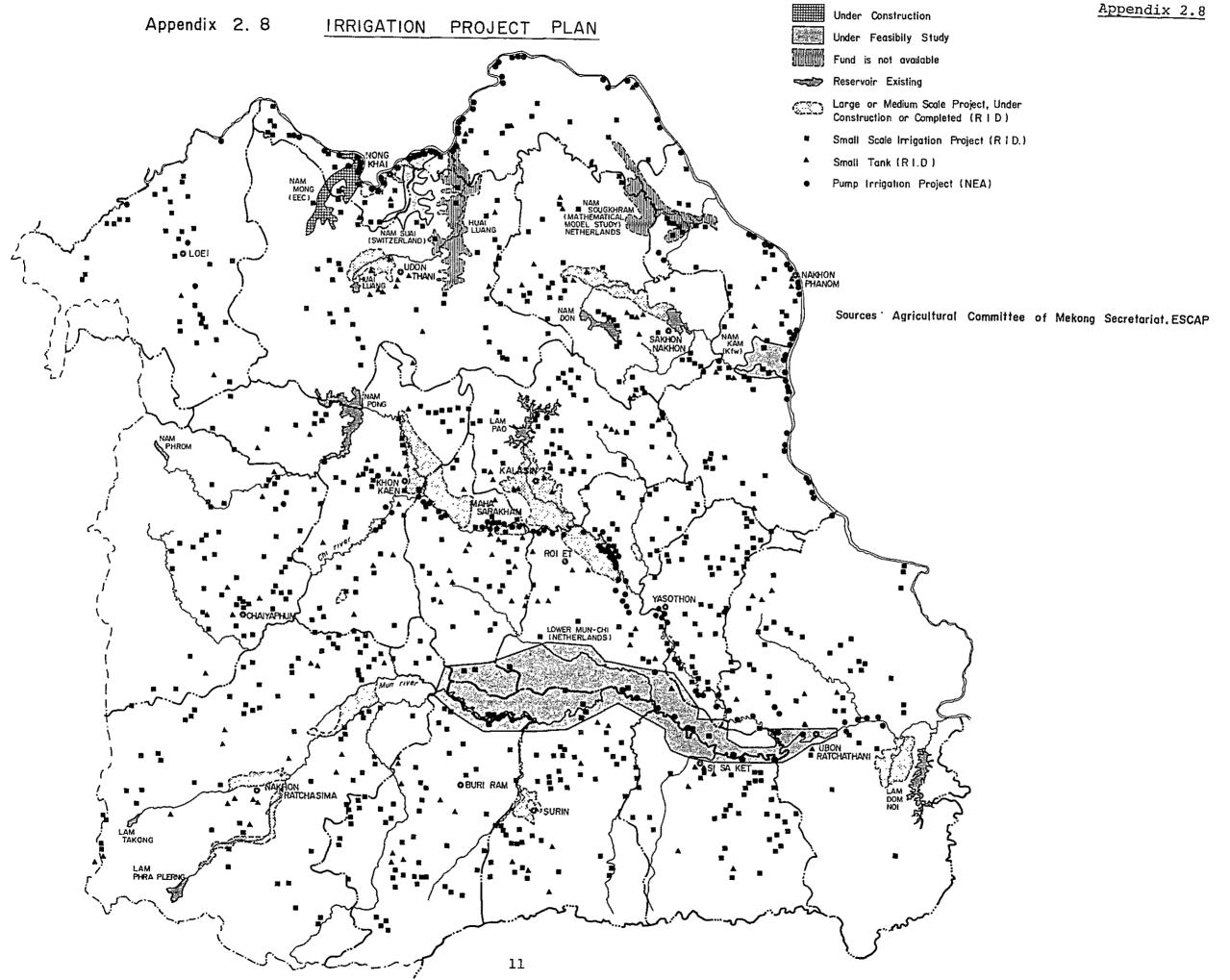
—□— Beans

---■--- Ground Nuts

. ----• Cotton







Appendix 2.9 PLANTED AREA AND PRODUCTION OF MAJOR CROPS

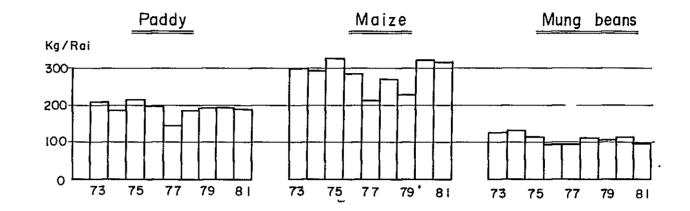
		(1)			(2)			(3)						•	
		Average of 3/74 - 1975			Average of 6/77 - 197			Average of 9/80 - 198			Annual Ex	tend Ratio			Yield of Region
•	Planted	Produc-	Average	Planted	Produc-	Average	Planted	Produc-	Average	Plante		Produc			Average=100
	Area 1000 Raı	tion 1000 ton	Yield Kg/Rai	Area 1000 Rai	tion 1000 ton	Yield Kg/Rai	Area 1000 Rai	tion 1000 ton	Yield Kg/Rai	(2)/(1)	(3)/(1)	(2)/(1)	(3)/(1)	·	1979/80 - 81/82 Ave.
Rice	22588	4568	202	25434	4490	177	28551	5514	193	3.0	3.4	-0.4	2.7	76	72
Maize	1851	571	308	2165	565	261	2583	792	302	4.0	4.9	-0.3	4.8	92	93
Mung beans	24	3.2	135	54	5.5	101	90	9.5	106	22.5	20.7	14.5	16.8	102	113
Soy beans	13	1.7	131	41	5.8	141	37	5.8	157	33.3	16.1	35.9	19.2	93	108
Ground nuts	232	31.3	135	148	25.3	171	150	26.1	174	-5.2	-6.0	-5.2	-2.6	70	92
Cassava	1070	2256	2108	3197	6934	2168	4223	9002	2132	31.5	21.7	32.4	21.9	96	96
Sugar Cane	135	773	5726	293	1515	5170	327	2197	6719	21.4	13.5	18.3	16.1	72	102
Kenaf	2378	379	159	1519	252	167	1207	207	171	-10.6	-9.2	-9.7	-8.3	99	99
Cotton	76	12.9	170	114	20.9	183	192	42.3	220	10.7	14.1	12.8	18.5	104	115
Sorghum	10	1.3	136	17	3.8	221	39	6.1	156	14.2	21.4	30.8	24.7	64	98

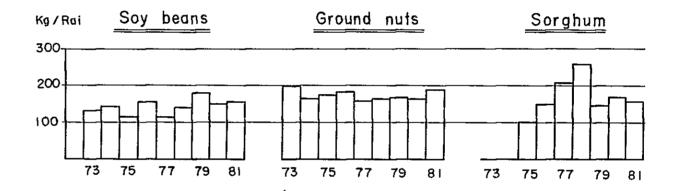
Sources : Office of Agrigultural Economics, Ministry of Agriculture & Cooperatives

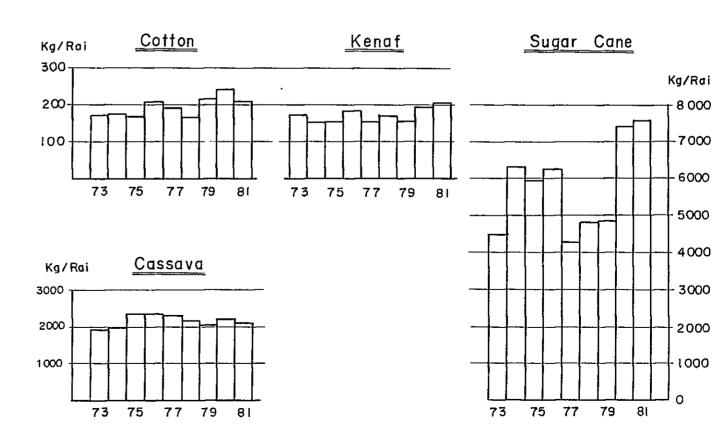
## Appendix 2.10

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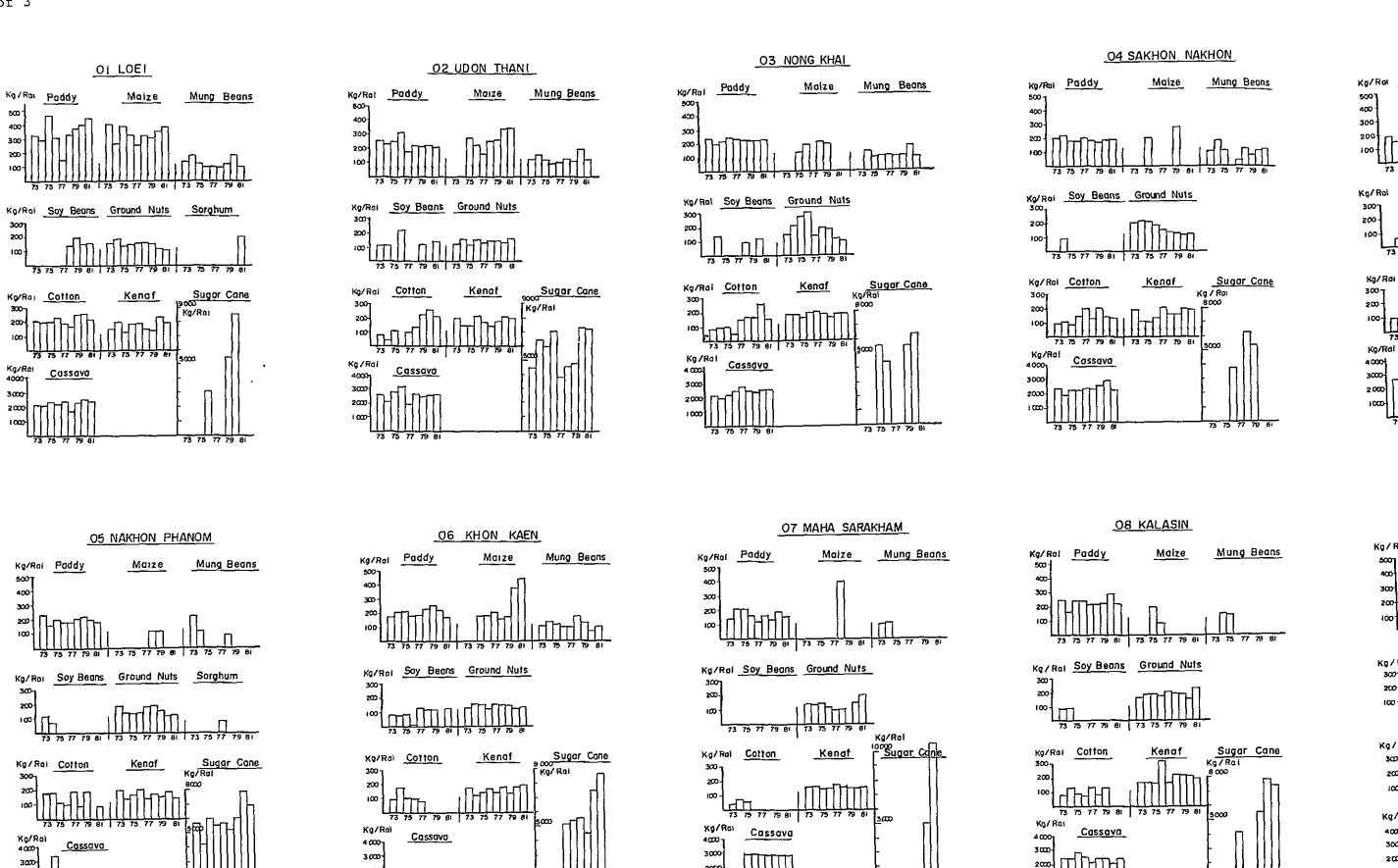
## Appendix 2.10 TREND OF AVERAGE YIELD (1973/74~1981/82) NORTHEASTERN REGION







## Appendix 2.10 2 of 3



Kg/Rai

Kg/Rai

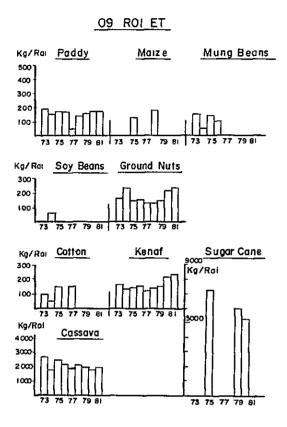
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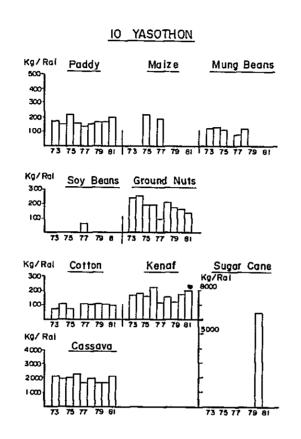
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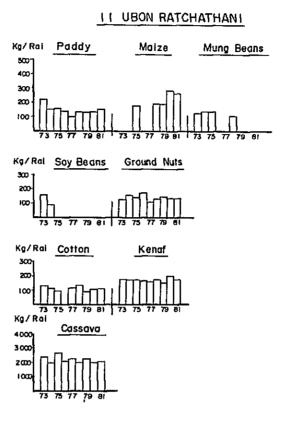
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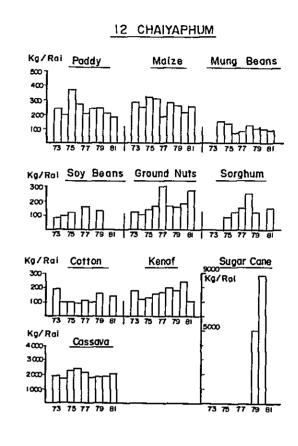
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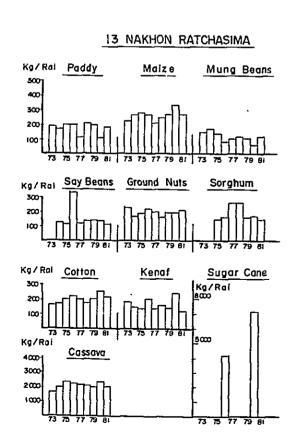
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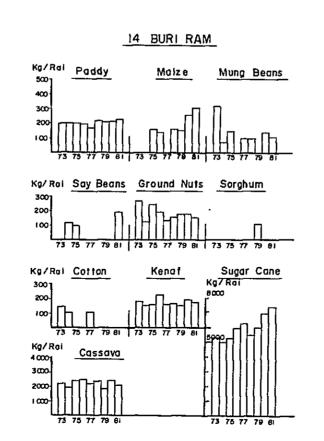


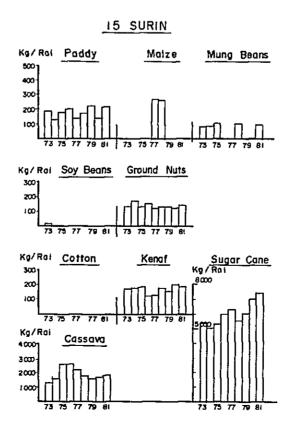


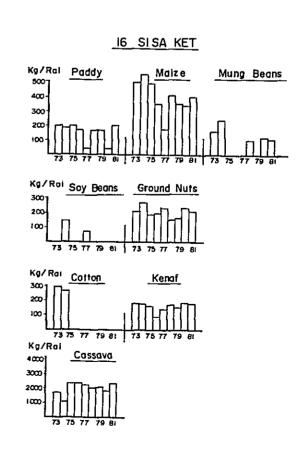












Appendix 2.11 AGRO-INDUSTRY (1) (LOCATION & NUMBER)

_	Changwat	_	Amphoe	Ric	e Mill 1/		Cassava		Ke	naf	Sugar	Cane	Cotton	Silk
Code	Name	Code	Name	5. g	Medium	Pellet	Chip	Flour	Baling	<u>Textile</u>	Brown	Refinery		
0100	Loei	0101	Muang	-	1	-	-	_	-	_	-	-	8	-
		0102	Tha Li	-	1	-	-	-	_	-	-	-	-	-
		0103	Chiang Khan	-	-	-	-	-	-	-	-	-	3	0
		0104	Pak Chom	-	-	-	-	-	-	-	-	-	1	-
		0109	Wang Saphung	-	-	-	-	-	-	-	-	-	1	-
	Total			(-)	(2)	(-)	(-)	(-)	(-)	(-)	(~)	(-)	(13)	(-)
0200	Udon Thani	0201	Muang	1	5	9	13	-	7	1	1	-	2	-
		0210	Na Klang	-	-	_	1	-	_	-	~	-	-	_
		0212	Nong Bua Lam Phu	1	-	_	1	-	_	-	-	-	-	_
		0216	Kumphawapi	2	-	_	2	-	2	-	2	1	-	_
		0217	Nong Han	-	-	-	-	-	-	-	-	1	-	-
	Total			(4)	(5)	(9)	(17)	(-)	(9)	(1)	(3)	(2)	(2)	(-)
0300	Nong Khai	0301	Muang		1	4	-	-	-	_	-	-	2	-
		0304	Tha Bo	-	2	2	-	-	-	_	-	-	-	-
		0305	Phon Phisai	-	1	-	2	-	-	-	-	-	-	-
		0308	Bung Kan	-	1	-	2	-	-	-	-	-	-	-
	Total			(-)	(5)	(6)	(4)	(~)	(-)	(-)	(-)	(-)	(2)	(-)
0400	Sakhon Nakhon	0401	Muang	1	1	1	-	-	-	-	-	-	-	-
		0404	Sawang Daen Din	-	2	-	-	-	-	-	-	-	-	-
		0405	Wanon Niwat	-	1	-	-	-	-	-	-	-	-	-
		0409	Phang Khon	-	1	-	-	-	1	-	-	-	-	-
	Total			(1)	(5)	(1)	(-)	(-)	(1)	(-)	(-)	(-)	(-)	(-)
0500	Nakhon Phanom	0501	Muang	-	-	1	-	-		-	-		-	-
		0503	Si Songkhram	-	-	-	-	-	-	-	1	-	-	_
		0509	That Phanom	-	1	-	-	-	1	-	-	-	-	-
		0512	Mukdahan	1	2	1	-	-	3	-	-	-	-	_
		0514	Nikhom Kham Soi	-	-	-	-	-	-	-	_	1		-
	Total			(1)	(3)	(2)	(-)	(-)	(4)	(-)	(1)	(1)	(-)	(-)

Note: 1/ Big; 80 ton/day -

Medium; 30 ~ 80 ton/day

Appendix 2.11 AGRO-INDUSTRY (2) (LOCATION & NUMBER)

	Changwat	_	Amphoe	Ric	e Mill <sup>1</sup> /		Cassava		Ke	naf	Sugar	Cane	Cotton	Silk
Code	Name	Code	Name	Big	Medium	Pellet	Chip	Flour	Baling	Textile	Brown	Refinery		
0600	Khon Kaen	0601	Muang	2	6	15	16	1	17	1	_	_	1	_
		0602	Chumphae	_	5	1	2	-	1	-	-	-	-	-
		0604	Phu Wiang		-	-	1	-	-		-	-	-	_
		0605	Nong Rua	-	-		5	-	-	-	-	-	-	
		0607	Ubolratana	-	-	-	1	_	-	-	-	-	-	-
		0609	Nam Phong	-	1	2	11	_	-	Paper pulp	-	1	-	-
		0610	Kranuan	-	-	2	2	-	-	-	-	-	-	-
		0612	Mancha Khiri	-	-	-	1	-	-	-	-	-	-	-
		0613	Ban Phai	-	3	8	5	_	4	-	-	_	-	_
		0617	Phon	-	_	4	-	-	-	-	-	-	-	_
		0618	Nong Song Hong	-	1	1	6	-	-	-	-	-	-	_
	Total			(2)	(16)	(33)	(50)	(1)	(22)	(2)	(-)	(1)	(1)	(-)
0700	Maha Sarakham	0701	Muang	1	-	1	1	-	-	-	-	-	-	-
		0702	Chiang Yun	-	1	-	5	-	-	-	-	-	-	-
		0703	Kosum Phisai	-	1	-	4	-	-	-	_	-	-	-
		0704	Kantharawichai	-	-	1	3	-	_	-	-	-	-	-
		0705	Borabu	-	-	-	9	-	_	-	_	-	-	_
		0707	Na Chuak	-	-	1	-	-	· -	-	-	-	-	-
		0710	Phayakkhaphum Pisai	1	-	-	-	_	-		-	-	-	-
	Total			(2)	(2)	(3)	(22)	(~)	(-)	(-)	(-)	(-)	(-)	(-
0800	Kalasin	0801	Muang	_	4	1	2	2	-	-	-	-	-	_
		0806	Somdet	-	-	1	1	-	_	-	-	-	-	-
		0811	Yang Talat	-	-	-	3	-	-	-	-	-	-	-
	Total			(-)	(4)	(2)	(6)	(2)	(-)	(-)	(-)	(-)	(-)	(-
0900	Roi Et	0901	Muang	-	3	5	3	-	3	-	-	-	-	-
		0902	Pho Chai	-	-	-	1		-	-	-	-	-	-
		0903	Phon Thong	-	-	2	-	-	-	***	-	-	-	-
		0906	Thawatchaburi	-	1	-	-	-	-	-	-	-	-	-
		0907	Selaphum	-	<b>±</b>	-	-	_	1	-	-	-	-	_
		0911	Pathum Rat	-	3	-	-		-	-	-	-	-	_
	Total			(-)	(7)	(7)	(4)	(-)	(4)	(-)	(-)	(-)	(-)	(-

Note: 1/ Big; 80 ton/day -

Medium; 30 - 80 ton/day

Appendix 2.11 AGRO-INDUSTRY (3) (LOCATION & NUMBER)

-	Changwat		Amphoe	Ric	e Mill <sup>1</sup>		Cassava		Ke	naf	Sugar	Cane	Cotton	Silk
Code	Name	Code	Name	Big	Medium	Pellet	Chip	Flour	Baling	Textile	Brown	Refinery		
1000	Yasothon	1001	Muang	_	3	2	1	-	_	-	_	-	_	-
		1006	Kham Khuan Kaeo	-	-	-	-	-	1	-	-	-	-	-
	Total			(-)	(3)	(2)	(1)	(-)	(1)	(-)	(-)	(-)	(-)	(-)
1100	Ubon Ratchathani	1101	Muang	-	5	-	-	_	11	1	_	_	1	_
		1105	Amnat Charoen	-	2	2	-	-	_	-	-	-	-	_
		1111	Trakan Phutphon	-	1	-	_	-	-	-	-	-	-	-
		1115	Warin Chamrap	1	2	1	-	-	8	-	-	-	~	-
		1116	Pibun Mungsahan	-	1	-	-	-	-	-	-	-	-	-
		1117	Det Udom	-	3	-	-	-	-	-	-	-	-	-
		1118	Nam Yun	_	2	-	-	-	-	-	-	-	-	-
	Total			(1)	(16)	(3)	(-)	(-)	(19)	(1)	(-)	(-)	(1)	(-)
1200	Chaiyaphum	1201	Muang	-	5	1	1	-	1	-	-	_	-	-
		1204	Phu Khieo	-	3	1	-	-	-	-	-		-	-
		1211	Thep Satit	-	-	2	-	_	-	-	-	-	-	-
		1213	Chatturat	-	1	1	1	-	1	-	_	-	1	-
	Total			(-)	(9)	(5)	(2)	(-)	(2)	(-)	(-)	(-)	(1)	(-)
1300	Nakhon Ratchasima	1301	Muang	-	5	24	40	6	11	1	-	-	-	2
		1302	Bua Yai	-	3	30	.11	-	-	-	_	-	-	-
		1304	Khong	-	-	4	3	-	-	-	_	-	-	-
		1306	Non Sung	-	-	-	2	-	-	-	-	-	-	-
		1307	Phimai	-	-	4	70	1	-		-	-	-	-
		1308	Prathai	-	-	5	1	-	-	-	-	-	-	-
		1309	Chum Phuang	~	-	34	-	-	-	<b>→</b>	-	_	-	
		1310	Huai Thalaeng	-	-	8	-	-	1	-	-	-	-	
		1311	Chakkaraj	-	-	~	2	-	1	-	-	-	-	_
		1312	Dan Khun Thot	-	-	1	6	-	-	-	_	-	-	_
		1313	Non Thai	-	-	1	-	-	-	<b>→</b>	-	-	-	-
		1314	Kham Thalae So	-	-	27		-	-	-	-	-	-	-
		1315	Sung Noen	_	-	_	4	-	-	1	_		-	_

Note: 1/ Big; 80 ton/day - Medium; 30 - 80 ton/day

Appendix 2.11 AGRO-INDUSTRY (4) (LOCATION & NUMBER)

	Changwat_		Amphoe	Ric	e Mill <sup>1</sup>		Cassava		Ke:	naf	Sugar	Cane	Cotton	Silk
Code	Name	Code	Name	Big	Medium	Pellet	Chip	Flour	Baling	Textile	Brown	Refinery		
	,	1316	Sikhiu	-	-	3	13	3	-	1	_	-	-	-
		1317	Pak Chong	-	-	4	7	-	-	1	-	_	2	_
		1318	Pak Thong Chai	-	-	13	31		-	-	1	-	-	4
		1319	Chok Chai	-	-	14	-	-	-	-	-	-	-	-
		1320	Khon Buri	-	-	3	-	-	-	-	-	-	-	-
	Total			(~)	(8)	(177)	(190)	(10)	(13)	(4)	(1)	(-)	(2)	(6)
1400	Buri Ram	1401	Muang	1	12	2	3	-	1		1	_	-	_
		1402	Phutthaisong	-	-	-	1	-	-	-	_	_	_	-
		1403	Khu Muang	-	-	-	1	-	-	-	1	1	-	-
		1404	Satuk	-	-	-	-	-	-	-	1	-		-
		1405	Krasang	-	2	-	-	-	-	-	-	-	-	-
		1406	Lam Plai Mat	-	2	-	-	-	-	-	-	-	-	-
		1408	Nang Rong	-	2	-	-	-	-	-	-	-	-	-
		1411	Prakhon Chai	-	1	-	-		-	-	-	-	-	-
	Total			(1)	(19)	(2)	(5)	(~)	(1)	(-)	(3)	(1)	(-)	(-)
1500	Surin	1501	Muang	-	10	1	-	•	5	-	-	-	_	-
		1507	Samrong Thap	-	-		-	1 .	1	-	-	_	-	-
		1508	Sikhoraphum	-	2	-	-	-	-	-	-	-	-	-
		1511	Prasat	-	1	-	-	-	-	-	-	-	-	-
	Total			(~)	(13)	(1)	(-)	(1)	(6)	(-)	(-)	(-)	(-)	(-)
1600	Sı Sa Ket	1601	Muang	1	2	-	-	_	4	-	_	_	-	-
		1605	Uthumpon Phisai	-	-	_	-	-	1	-	-	-	-	-
	Total			(1)	(2)	(-)	(-)	(-)	(5)	(-)	(-)	(-)	(-)	(-)
	TOTAL			(13)	(119)	(253)	(301)	(14)	(87)	(8)	(8)	(5)	(22)	(6)

Note: 1/ Big; 80 ton/day -

Medium; 30 - 80 ton/day

Appendix 2.12 COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (1)

Node Pair (Amphoe Cod	de No.)		Com	modity l	Flow of N	fain Agr	icultural l	roducts	
Destination	Origin	Rice	Maize	Beans	Groud Nuts	Sugar Cane	L <sup>1</sup> Cassava	Kenaf	Total
0201	0109							5	5
	0202		16			1			17
	0203		5					1	6
	0204					5	54		59
	0205	3	1			15	27		46
	0206					1			1
	0208					10	81	1	92
	0209						2		2
	0210						<b>8</b>	4	82
	0211						30		30
	0212						10	2	12
	0214						108		108
	0216						70		70
	0217	20					52	4	76
	0218		1				16		17
	0304							1	1
	0305		2					4	6
	0306		1						1
	0402		1						1
	0407						29		29
0212	0213	18							18
	0214	4							4
0216	0201					10			10

23

10

96 40

23

10

141

. 0204

0214

0215

5

								(1,0	00 t)
Node Pai (Amphoe Co			Соп	modity l	Flow of N	lain Ag	ricultural i	Products	
Destination	Origin	Rice	Maize	Beans	Ground Nuts	Sugar Cane	Cassava	Kenaf	Total
0216	0217					90			90
	0218					10			10
	0219	3				190	17	1	211
	0220					10	41	1	52
	0608	4							4
	0609					13			13
	0610					13			13
	0802					26	15		41
0217	0201			<del></del>		16	·		16
	0204					30			30
	0205					35			35
	0208					50			50
	0209					2			2
	0210					20			20
	0212					1			1
	0213					1			1
	0214					8			8
	0215					25			25
	0216					35			35
	0218					36			36
	0219					30			30
	0301					3			3
	0304					2			2
	0305					10			10
	0401					1			1
	0402					4			4
	0404					6			б
	0407					3			3
	0408					13			13
	0409					1			1
	0410					1			1
	0411					8			8

 $_{\it L}$ l : Figures with  $\bigcirc$  mark are Cassava chips, others are Cassava roots.

### COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (2)

(1,000 t)
-----------

Node Pair (Amphoe Co	de No.)		Com	modity I	low of M	fain Agr	icultural l	Products	
Destination	Origin	Rice	Maize	Beans	Groud Nuts	Sugar Cane	L <sup>1</sup> Cassava	Kenaf	Total
0301	0206	21					10		31
	0207	15							15
	0305	15			1		<b>5</b> 3		69
0401	0402						25		25
	0404						9		9
	0405						2		2
	0406	8					13		21
	0408						98		98
	0410						23		23
	0411						5		5
	0412	8							8
	0413	1					52		53
	0414	1					5		6
	0503	2							2
	0504	3							3
	8080	3							3
0404	0208	8							8
	0209	5							5
	0218	1							1
	0402	9							9
	0407	1							1
0409	0404			<del></del>				1	1
0501	0502				<u></u>		11		11
	0503						15		15
	0505	4					31		35
	0506						4		4

L1 : Figure with O mark is Cassava chips, others are Cassava roots.

(1,000 t)

Node Pa (Amphoe C			Соп	modity	Flow of )	dain Ag	ricultural	Products	
Destination	Origin	Rice	Maize	Beans	Ground Nuts	Sugar Cane	LI Cassava	Kenaf	Tota
0509	0401							1	1
	0506	4							4
	0507	5							5
	0808							2	2
	0809							4	4
0512	0508						3	<del></del>	<del></del> -
	0509						7		7
	0510						2		2
	0511			•			9		9
	0513	2							2
	0514						2		2
	0515	1					11		12
	1102	2					20	1	2:
0514	0505					26			26
	0501					7			2
	0508					2			3
	0506					4			4
	050 <b>9</b> 0512					71			71
	0512					7			71
	0515					8			ξ
0601	0602			1				10	1.
	0603			1			285		286
	0604						34)		34
	0605						9		9
	0606	10					18	2	30
	0611	5					14	1	20
	0613							12	1:
	0701							2	:
	0702	4					24)		2
	0703						29		29
	0704		1				_		:
	0705							2	2

Ll : Figures with O mark are Cassava chips, others are Cassava rocots.

## COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (3)

Node Pair (Amphoe Code )																			
	No.)		Comm	odity F	low of M	ain Agri	cultural	Products		(A	Node Pai Imphoe Co			Con	nmodity	Flow of Main A	gricultural	Products	i
Destination	Origin	Rice	Maize	Beans	Groud Nuts	Sugar Cane	Cassava	L <sup>1</sup> Kenaf	Total	Dest	ination	Origin	Rice	Maize	Beans	Ground Sugar Nuts Cane	Cassava	L <sup>1</sup> Kenaf	Total
0609	0101					2			2	06	09	0705				29			29
	0105					4			4			0707				1			1
	0109					4			4			0709				3			3
	0110					26			26			0802				37		*4	41
	0201					12			12			0804				2		*2	4
	0203					1			1			0805				1			1
	0204					17			17			0807				2		*7	9
	0205					46			46			0809				4			4
	0208					35			35			0810				18		*2	20
	0210					6		*50	56			0811						*1	1
	0211							* 5	5			0812						*3	3
	0213						22	* 2	24			0902				1			1
	0214					5			5			0903				1			1
	0215					72			72			0904				4			4
	0216					65			65			0905				4			4
	0217					20			20	·		1202				16			16
	0219					67			67			1204				33			33
	0220					3			3			1205				5			5
·	0601					19			19			1210				1			1
	0602					30			30			1313				1			1
	0604					4		*15	19			1317				4			4
	0605					5		* 5	10			1403				10			10
	0606					39			39			1406		·		6			6
	0607	1				25	34	* 7	67	06	13	0612					29	2	31
	0608					48	16	* 2	66			0614	1				27	2	30
	0610	9				142		* 2	153			0615	5					2	7
	0611					5			5			0616	4						4
	0612					3			3			0618	11						11
	0613					8			8			0619	2				37	1	40
	0619					1			1			0707						3	3
	0702					12			12					_			_		
	0703 0704					12 4		* 4	12 8			m1				ried kenaf			

Ll : Figures with \* mark are Dried kenaf, others are
Fiber kenaf.

<sup>1:</sup> Figures with \* mark are Dried kenaf, others ar Fiber kenaf.

## COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (4)

	roducts	icultural F		low of M	modity F	Com		le No.)	Node Pair (Amphoe Cod
Total	Kenaf	L <sup>I</sup> Cassava	Sugar Cane	Groud Nuts	Beans	Maize	Rice	Origin	Destination
19		19						0615	0617
15		15						0616	
18		18						0618	
35		26)					9	0705	0701
4							4	0707	0710
2							2	0709	
19							19	1402	
9							9	1404	
17							17	1502	
4							4	0803	0801
2							2	0804	
91		87					4	0805	
9							9	0806	
5							5	0807	
2							2	0809	
3							3	0810	
12				1			11	0811	
36		30		2			4	0812	
11		10					1	0813	
]				1				0901	
5							5	0902	
36		36	<del></del>	· <u>···</u>				- 0804	0806
21		21						8080	
]	1	<del></del>		<del></del>	<del></del>			0710	0901
100		100						6080	
264		258				1	5	0903	
22		22						0907	

L1 : Figure with O mark is Cassava chips, others
are Cassava roots.

Node Pai (Amphoe Co			Con	ımodity l			ricultural l	Products	
Destination	Origin	Rice	Maize	Beans	Ground Nuts	Sugar Cane	LI Cassaya	Kenaf	Tota
0903	0809						72		72
	0902						25)		25
	0904						13		13
	0905						56		56
0907	0904	2			<del></del>				2
	0905	1							1
	1001							2	2
	1002							1	1
	1003			•				1	1
	1004							4	4
1001	1002	3					15	·	18
	1003	7					22		29
	1007	7							7
1006	1007						-	1	1
	1008							1	1
1101	1114							1	]
	1116							3	3
	1117							6	6
	1120							2	2
1105	1103			<del></del>			5		
	1110						9		2
1111	1103	4							4
	1109	2							2
	1110	2							2
	1113	7							7

L1 : Figure with O mark is Cassava chips, others
are Cassava roots.

## COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (5)

Node Pair (Amphoe Co	de No.)		Com	modity I	Flow of N	fain Agricultural	Products	
Destination	Origin	Rice	Maize	Beans	Groud Nuts	Sugar L <sup>1</sup> Cane Cassava	Kenaf	Total
1115	1111					3		3
	1113					3		3
	1114					3		3
	1117					24		24
	1120					8		8
1116	1112	4						4
	1114	3						3
1117	1118	<u> </u>	18					18
	1120	9						9
1118	1117	5			<u> </u>			5
1209	1213	1						1
1213	1209	<del></del>				34	1	35
	1210						2	2
•	1211						1	1
	1212	2						2
1301	1302	27				<del></del>	2	29
	1303						2	2
	1304						2	2
	1310	8						8
	. 1315				1	77		78
	1318	4			1	163		168
	1319					213		213
	1320					338		338
	1321					219		219

Node Pai (Amphoe Co			Con	modity	Flow of I	dain Ag	ricultural !	Products	
Destination	Origin	Rice	Malze	Beans	Ground Nuts	Sugar Cane	L <sup>1</sup> Cassava	Kenaf	Total
1302	1303	1	-						1
	1304	14							14
	1308	11							11
1304	1303				- ,		25		25
	1305						9		9
1308	1402						1		1
1310	1406			·			22	2	24
1311	1309					· -		3	3
1315	1301	2					<u></u>		2
1316	1315		5	<u>-</u>			76		81
	1318		6						6
1318	1317					4			4
1319	1407	4					52		56
	1408						86		86
1320	1409	4							4
1401	1403	<del></del>					90		90
	1404						50		50
	1405				1				1
	1410				2				2
	1411						7		7
	1412				1		60)		61

Ll : Figure with O mark is Cassava chips, others are Cassava roots.

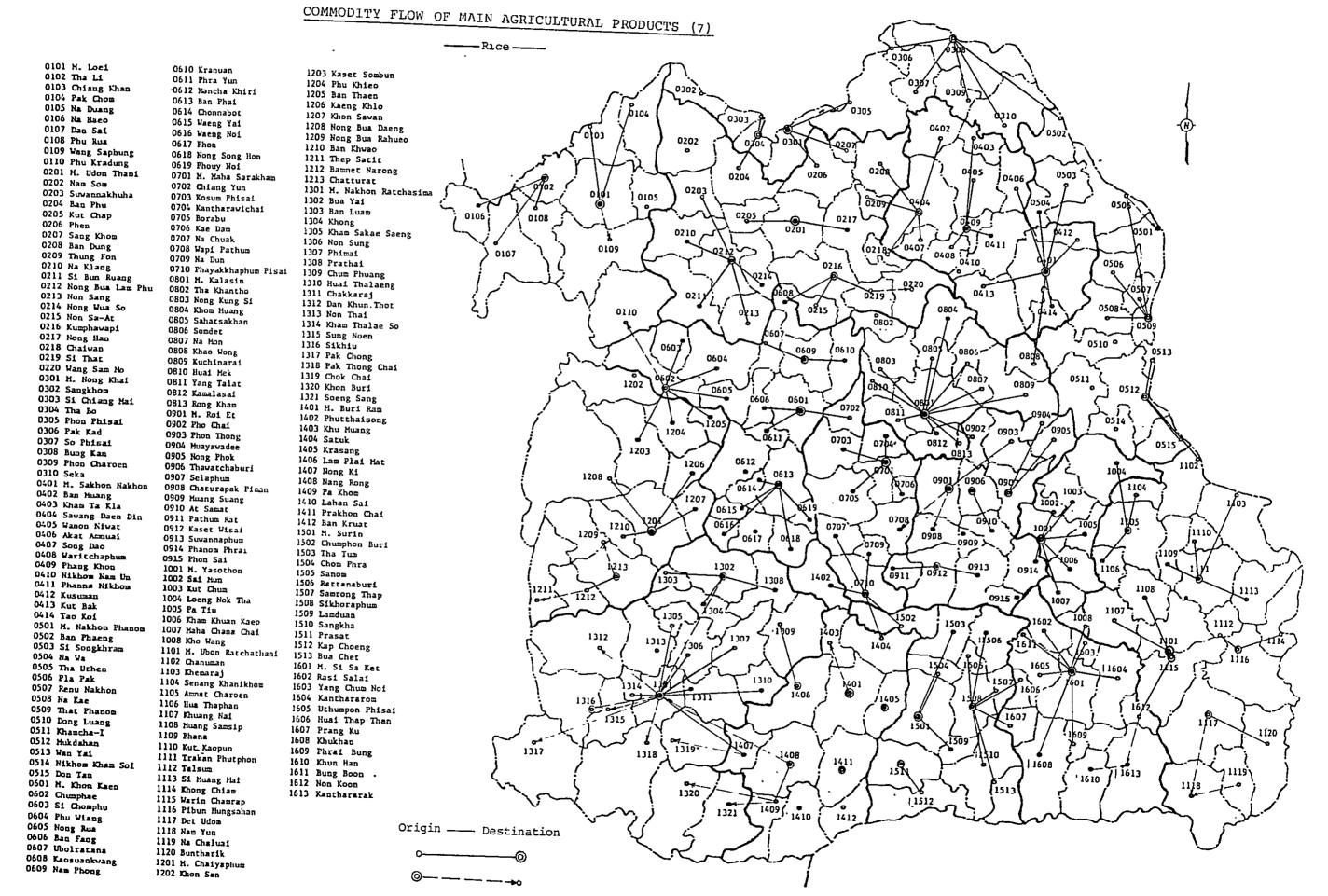
## COMMODITY FLOW OF MAIN AGRICULTURAL PRODUCTS (6)

Node Pair (Amphoe Code No.)		Commodity Flow of Main Agricultural Products								
Destination	Origin	Rice	Maize	Beans	Groud Nuts		L¹ Carsava	Kenaf	Total	
1403	1309	1				2			3	
	1401					30			31	
	1404 1501					40 2			40 2	
	1408					1			1	
	1512					15			15	
	1513					9			9	
1406	1309	1							1	
1407	1319		7						7	
	1320		35					·	35	
1408	1409	1							1	
	1410		2						2	
1501	1403							3	3	
	1404							2	2	
	1405						12	2	14	
	1503	11					21	6	38	
	1504	4					3		7	
	1508							1	1	
	1509	4					7		11	
	1510						_	3	3	
	1511						6	2	8	
	1512							1	1	
	1513							1	1	
1507	1506						21		21	
	1508						8		8	
1508	1505	17			· · · · · ·		<u>.</u>		17	
	1506	11							11	
	1507	4							4	
	1510	7							7	
	1513	4							4	
	1603	4							4	
	1607	5							5	

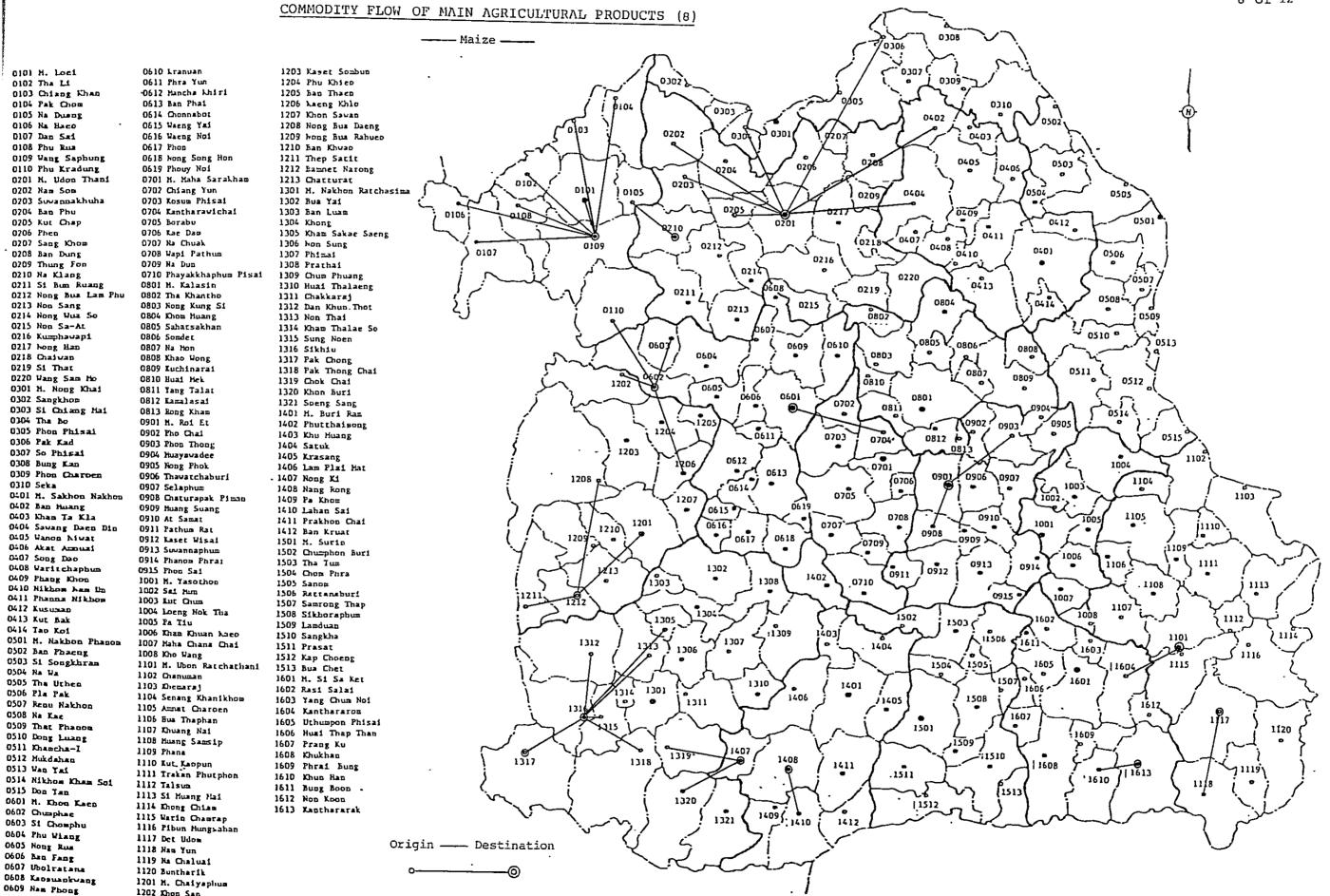
Node Pair (Amphoe Code No.)		Commodity Flow of Main Agricultural Products							
Destination	Origin	Rice	Maize	Beans	Ground Nuts	Sugar Cane	Cassava	Kenaf	Total
1511	1512	15					12		27
1601	1008	1				·	<del></del>		1
	1602	6							6
	1603	9						1	10
	1605	4							4
	1611	1							1
1605	1602		<u>-</u>					1	. 1

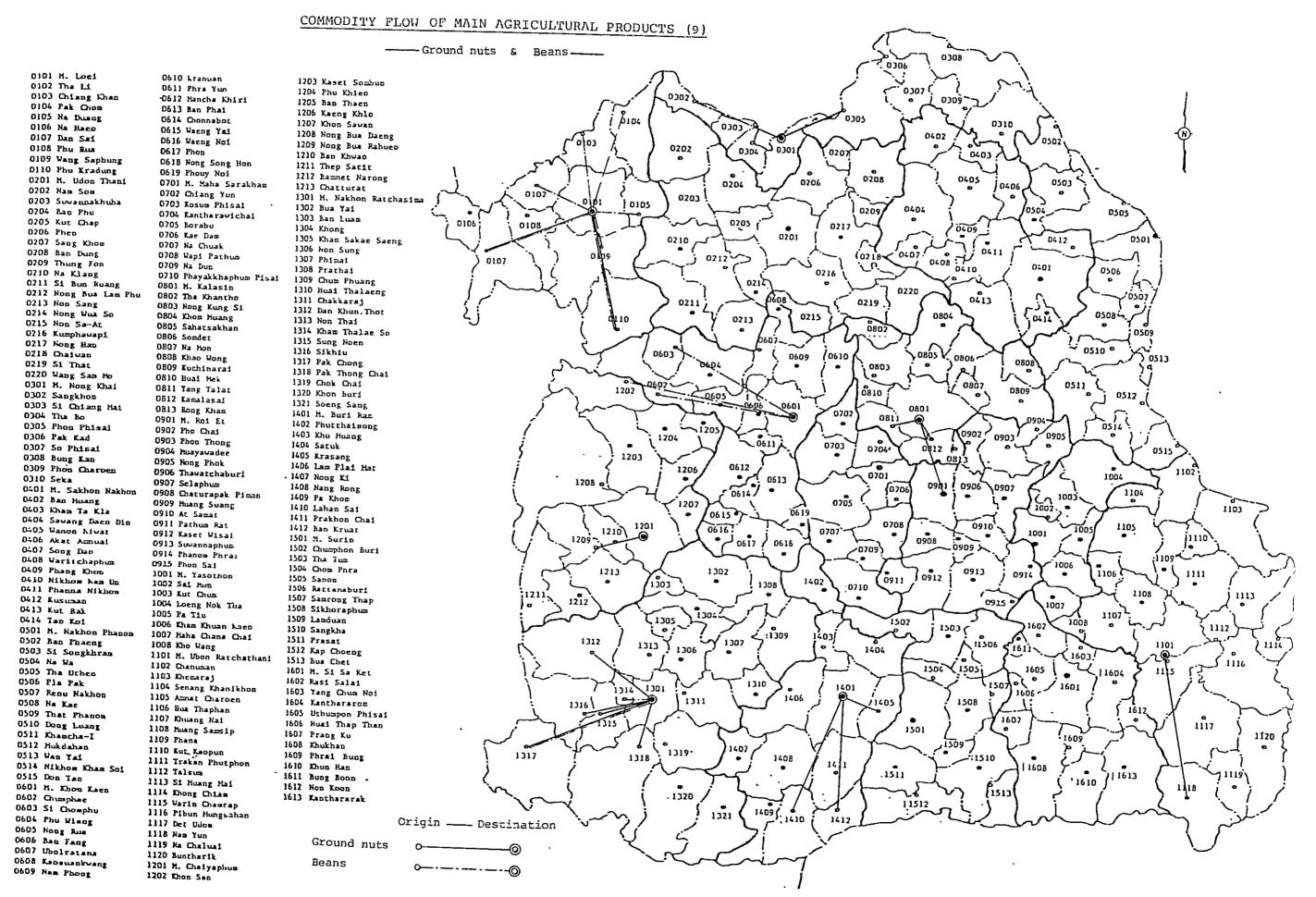
<sup>∠1 :</sup> Figure with O mark is Cassava chips, others are Cassava roots.

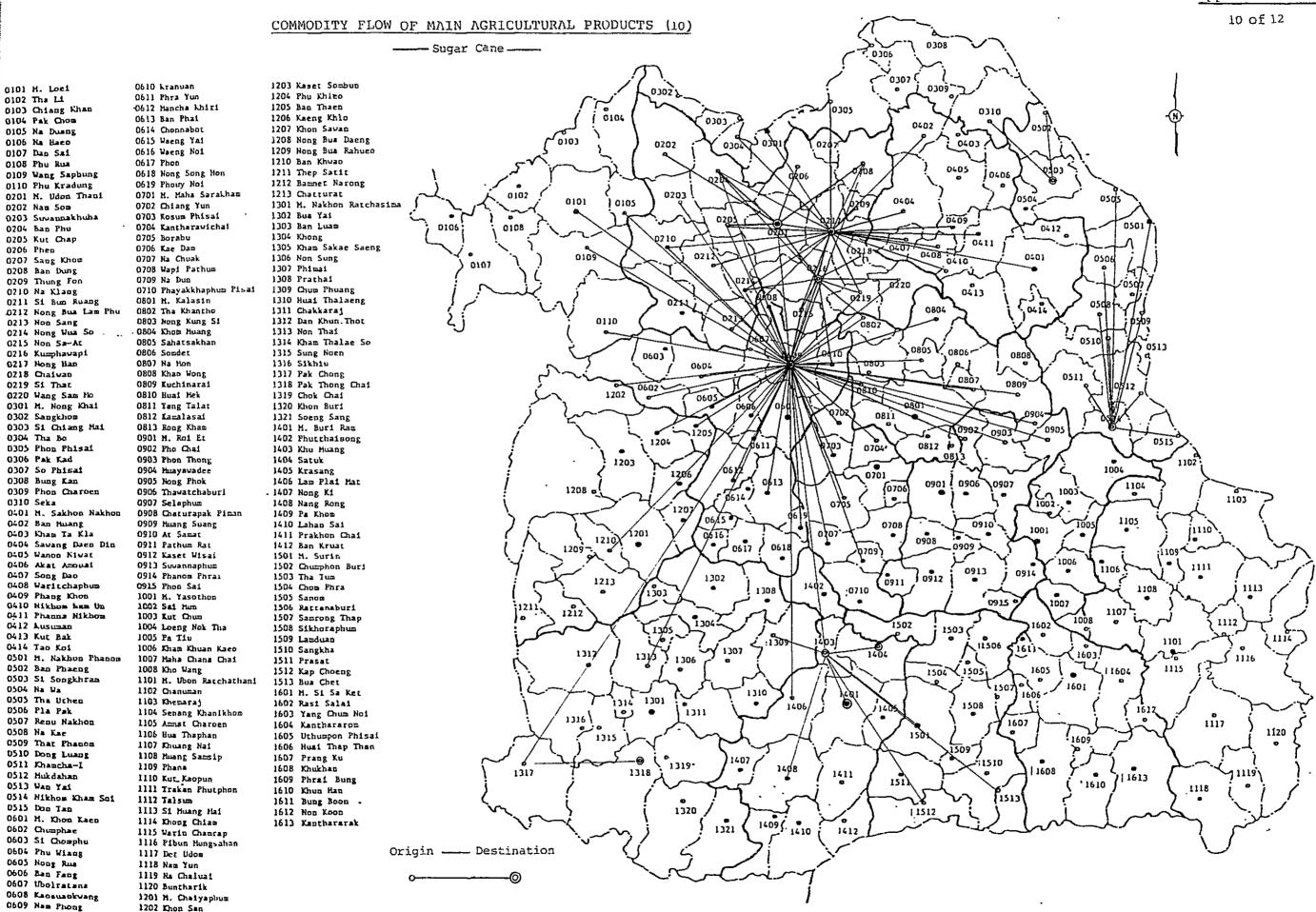
7 of 12



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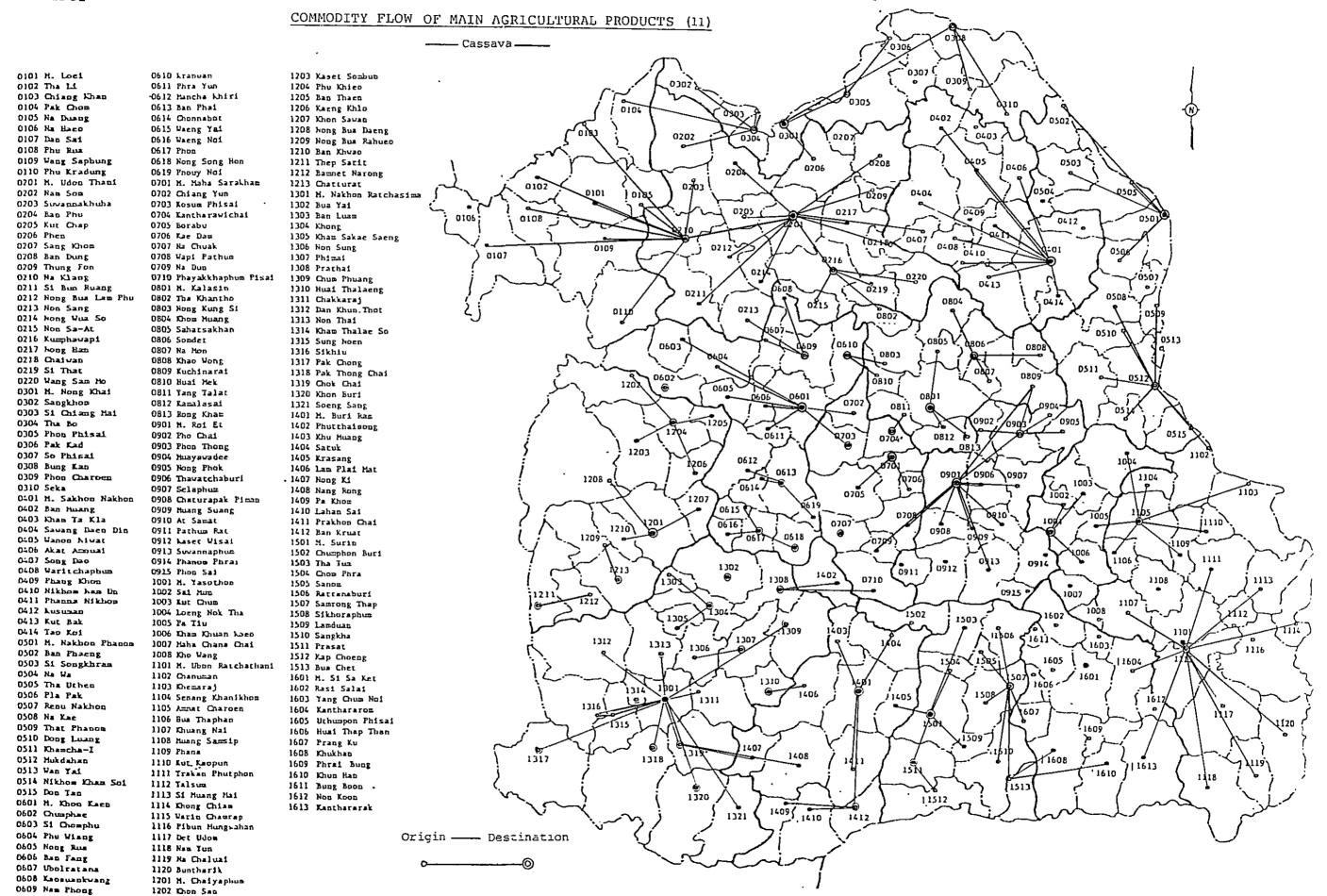


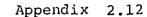




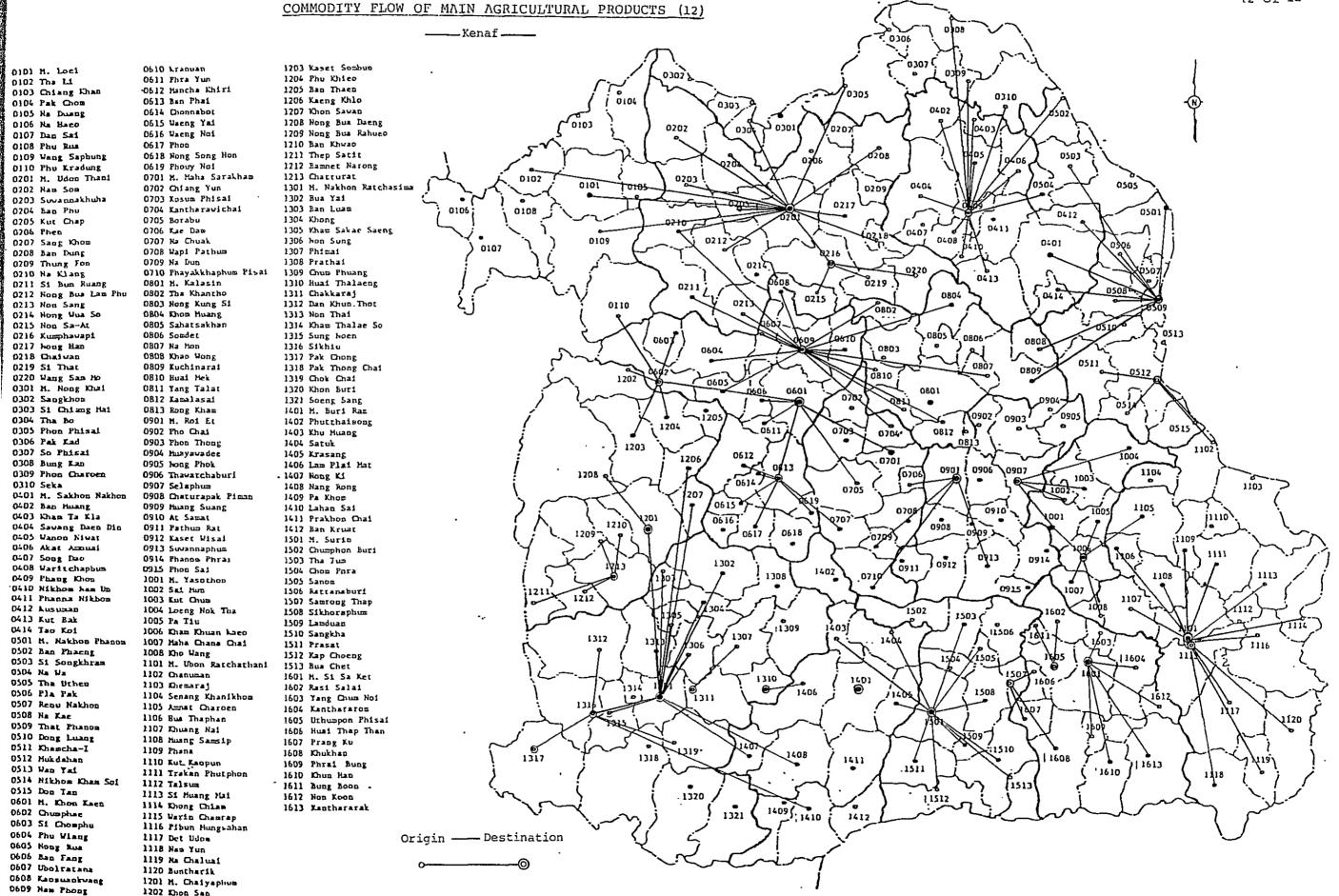
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Appendix 4.1 ROAD LENGTH IN THE NORTHEASTERN REGION (Under the jurisdiction of DOH)

(Kilometen

					Nationa	al Highway	<del></del>			Provinci	al			
		District	-	Primar	У		Seconda	ry		Road		<del> </del>	Total	
Division	District	Code		<u>P U-P</u>	<u>T</u>	<u>P</u>	<u>U-P</u>	T	<u> </u>	<u>U-P</u>	<u> </u>	<u> </u>	<u>U-P</u>	<u>T</u>
Lop Buri	Sara Buri	432	22.7	_	22.7		-	<del>~</del>	52.9	-	52.9	75.6		75.6
	Lam Na Rai	435	-	-	-	46.1	-	46.1	17.0	33.9	50.9	63.1	33.9	97.0
Phitsanulok	Phetchabun	515	-	-	-	20.7	-	20.7	65.7	80.7	146.4	50.8	116.3	167.1
Nakhon	Nakhon Ratchasima (I)	611	85.0	-	85.0	200.6	-	200.6	93.8	251.8	345.6	379.4	251.8	631.2
Ratchasima	Nakhon Ratchasima (II)	612	135.0	-	135.0	111.1		111.1	184.3	223.1	407.4	430.4	223.1	653.5
	Chaiyaphum	613	_	_	-	198.7	-	198.7	116.0	123.8	239.8	314.7	123.8	438.5
	Banphai	614	144.4	-	144.4	181.4	-	181.4	275.6	220.4	496.0	590.9	230.9	821.8
	Surin	615	87.0	-	87.0	160.1	-	160.1	149.8	348.5	498.3	396.9	348.5	745.4
	Buri Ram	617	60.0	-	60.0	169.6	-	169.6	209.6	228.9	438.5	439.2	228.9	668.1
Khon Kaen	Khon Kaen	621	70.5	7.5	78.0	62.6	1.3	63.9	145.6	185.7	331.3	278.7	194.5	473.2
	Loei	622	-	-	_	234.6	17.7	252.3	165.4	283.5	448.9	400.0	301.2	701.2
	Udon Thani	623	146.1	-	146.1	90.6	-	90.6	174.0	266.5	440.5	410.7	266.5	677.2
	Nong Khai	624	39.5	-	39.5	180.0	-	180.0	129.8	160.7	290.5	349.3	160.7	510.0
	Sakhon Nakhon	625	84.6	_	84.6	139.8	-	139.8	120.6	272.2	392.8	345.0	272.2	617.2
	Sawang Dan Din	628	69.8	-	69.8	203.7	-	203.7	93.3	362.5	455.8	366.8	362.5	729.3
	Chumpae	629	. 98.3	-	98.3	81.2	-	81.2	90.8	107.8	198.6	270.3	107.8	378.1
Ubon	Ubon Ratchathani	631	143.2	_	143.2	117.9	9.1	127.0	92.2	555.1	647.3	353.3	564.2	917.5
Ratchathani	Maha Sarakham	632	68.0	_	68.0	191.3	8.6	199.9	146.2	150.7	296.9	405.5	159.3	564.8
	Yasothon	633	148.5	_	148.5	225.2	_	225.2	102.3	259.3	361.6	476.0	259.3	735.3
	Amnat Charoen	634	_	_	_	174.3	1.2	175.5	37.5	296.1	333.6	211.8	297.3	509.1
	Nakhon Phanom	635	53.7	_	53.7	164.5	1.5	166.0	38.5	142.0	180.5	256.7	143.5	400.2
•	Si Sa Ket	638	88.6	_	88.6	155.3	-	155.3	134.5	286.4	420.9	378.4	286.4	664.8
	Mukdahan	639	-	-	-	114.7	-	114.7	212.2	126.2	338.4	326.9	126.2	453.1
	Total		1,544.9	7.5	1,552.4	3,224.0	39.4	3,263.4	2,847.6	4,965.8	7,813.4	7,616.5	5,012.7	12,629.2

Notes: P = Paved
UP = Unpaved
T = Total

# Appendix 4.2 ROADS COMMITTED/PLANNED TO IMPROVEMENT WITHIN FOURTH HIGHWAY SECTOR DEVELOPMENT PLANS

### PROJECTS IN THE NORTH-EASTERN REGION

#### I. IBRD-Provincial Roads Project

I. <u>IBRD-Pr</u>	ovincial Roads Project		
Route No.	Name	Length (Km)	Remarks
2009	Huai Mek - Tha Kan Tho	20.3	Under Const., DBST
2045	Roi-et - Wapipathum	36.8	Under Const., DBST
20 <b>7</b> 9	Rattanaburi - A.Sri Koraphum	41.7	Under Const., DBST
2085	Kantaraluk - Nong Ngu Leum	22.2	Under Const., DBST
2134	Amnat - Phana	26.2	Under Const., DBST
2146	Rt.2153 (Nong Bua Lampoo)	41.2	Under Const., DBST
	- A. Non Sung		
2152	Kranaun - Chiang Yun	41.1	Under Const., SBST
2162	Rt.224 - A. Chakkarat	40.1	Under Const., AC
2167	Ban Trang Sawai - Prang Ku	30.7	Under Const., DBST
	- Ban Pok		
2170	Rt.201 (Nong Bua Yai) - Nong	30.6	Under Const., DBST
	Bua Rahaew		
2178	A. Warin Chamrab - Nong Ngu	43.7	Under Const., AC
	Leum		
2217	Rt.201 (Dan Khun Thot)	29.4	Under Const., DBST
	- Bamnet Narong		
(2227)	Phanomphrai - Mahachanachai	23.8	Under Const., (F5)
(2234)	Samrongthab - Ban Pok	20.8	Under Const., (F5)
2237	Rt.208 (Kosumphisai)	20.2	Under Const., SBST
	- Rt.2188 (Chiang Yun)		
(2262)	Rattanaburi - Samrongthab	45.6	Under Const., (F5)
(2307)	Wanon Nivat - B. Sium	26.7	Under Const., (F5)
(2312)	Rt.22 (A. Nong Han)	29.3	Under Const., (F6)
	- B. Sum Sao		

Routes in paretheses are laterite road.

Appendix 4.2 1 of 3

II. ADB - III Loan

Route No.	Name	Length (Km)	Remarks
2044 2046	Roi-et - Kuchinarai	76.0	Under Const., Paved
2073	Lamplaimat - Nang Rong	43.0	Under Const., Paved

#### ADB - IV Loan

Route No.	Name	Length (Km)	Remarks
2037	Kaset Somboon - Nong Bua	35.0	Proposed for Paved
	Daeng		Road (F4)
2049	Muang Sam Sib - Phana	47.5	Proposed for Paved
2134	- Trakanphutphon		Road (F4)
(2086)	Kooprabora - Bandan - Rasi Salai	47.4	(Laterite Road)
2094	Phannanikhom - Akatamnuai	36.0	Proposed for Paved
			Road (F4)
2095	So Phisai - Pak Khat	34.0	Proposed for Paved
			Road (F4)
2118	Nang Rong - Pa Kam	24.0	Proposed for Paved
			Road (F4)
2133	Phuwiang - Siboonruang	36.0	Proposed for Paved
			Road (F4)
2162	Chakkarat - Huai Thalaeng	26.3	Proposed for Paved
			Road (F4)
2163	Phimai - Hindad	25.4	Proposed for Paved
			Road (F4)
2182	Det Udom - Boontarik	43.0	Proposed for Paved
			Road (F4)
2187	Nong Rua - Nong Waeng	37.0	Proposed for Paved
	(Phukine)		Road (F4)
2263	Udon Thani - Kudchab	24.0	Proposed for Paved
			Road (F4)
2267	Phonphisai - Sophisai	48.0	Proposed for Paved
	•		Road (F4)

Appendix 4.2

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ADB - PRI 2000 Km

Route No.	Name	Length (Km)	Remarks
2046	Selaphum - Phon Thong	30.6	Under Study Proposed for Paved Road (F4)
2067	Nong Sung - Bang Wat	65.9	Under Study Proposed for Paved Road (F4)
2134	A. Trakan Phutphon - Khong Chiam	108.9	Under Study Proposed for Paved Road (F4)
2148 2068	Dan Khun Thot - Non Thai	44.5	Under Study Proposed for Paved Road (F4)
2168	Kanthararom - Rasi Salai	61.8	Under Study Proposed for Paved Road (F4)
2179	Chaturat - Bamnet Narong (B. Chuan)	21.3	Under Study Proposed for Paved Road (F4)
2180	B. Lahan - Ta Noen - Ban Khai	27.3	Under Study Proposed for Paved Road (F4)
2198	Khamthaleso - Khok Sung	23.7	Under Study Proposed for Paved Road (F4)
2210	B. Amnat - Hua Taphan - Nam Plik	37.6	Under Study Proposed for Paved Road (F4)
(2223)	Choompuang - Lam Plai Mat	41.2	(Laterite Road)

III. OECF - Productivity Stage II

Route No.	Name	Length (Km)	Remarks
2150	Non Thai - Kham Sakae Saeng	21.0	Under Const. (F4)
2235	Pak Chong - Nong Song Hong	22.0	Under Const. (F4)

## OECF - Loan 10

Route No.	Name	Length (km)	Remarks	
2091 2092	Rt.22 (Sawang Dan Din) - Khok Si - Kud Rua Kam - Rt.222 (Nong Waeng)	59.0	Under Study Proposed for Paved Road (F4)	
2108	Rt.201 (That Chom Sri) - Chiang Khlom - Pak Chom	63.0	Under Study Proposed for Paved Road (F4)	
2132	Rt.22 (Tanae) - Sri Song Kram	37.0	Under Study Proposed for Paved Road (F4)	
2138	Fak Loei - Na Duang	34.0	Under Study Proposed for Paved Road (F4)	
2177	Akatamnuai - Sri Song Kram	33.0	Under Study Proposed for Paved Road (F4)	
2247	Pak Chong - Lam Som Phung	22.0	Under Study Proposed for Paved Road (F4)	

## IV. DOH Budget

Route No.	Name	Length (km)	Remarks
Khon Kaen M	echanical Training Centre		
12	Khon Kaen - Chum Pae	0.08	Under Const., Overla
209	Khon Kaen - Chiang Yun - Yang Talat	58.6	Under Const., Overla
2093	Warinchaphum - Tat Phu Wong - Na Rai Dieo - Wang Sam <i>M</i> o	.110.0	Under Const., (F4)
2096	Nong Mek - Ban Dung - Mae Nam Song Kram - B. Mai - B. Muang - Khamtakra	116.6	Under Const., (F4)
2239	Sri That - Nang Lak - Chaiwan - Ban Tong	53.0	Under Const., (F4)

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## Appendix 4.2 3 of 3

## Maha Sarakham Mechanical Centre

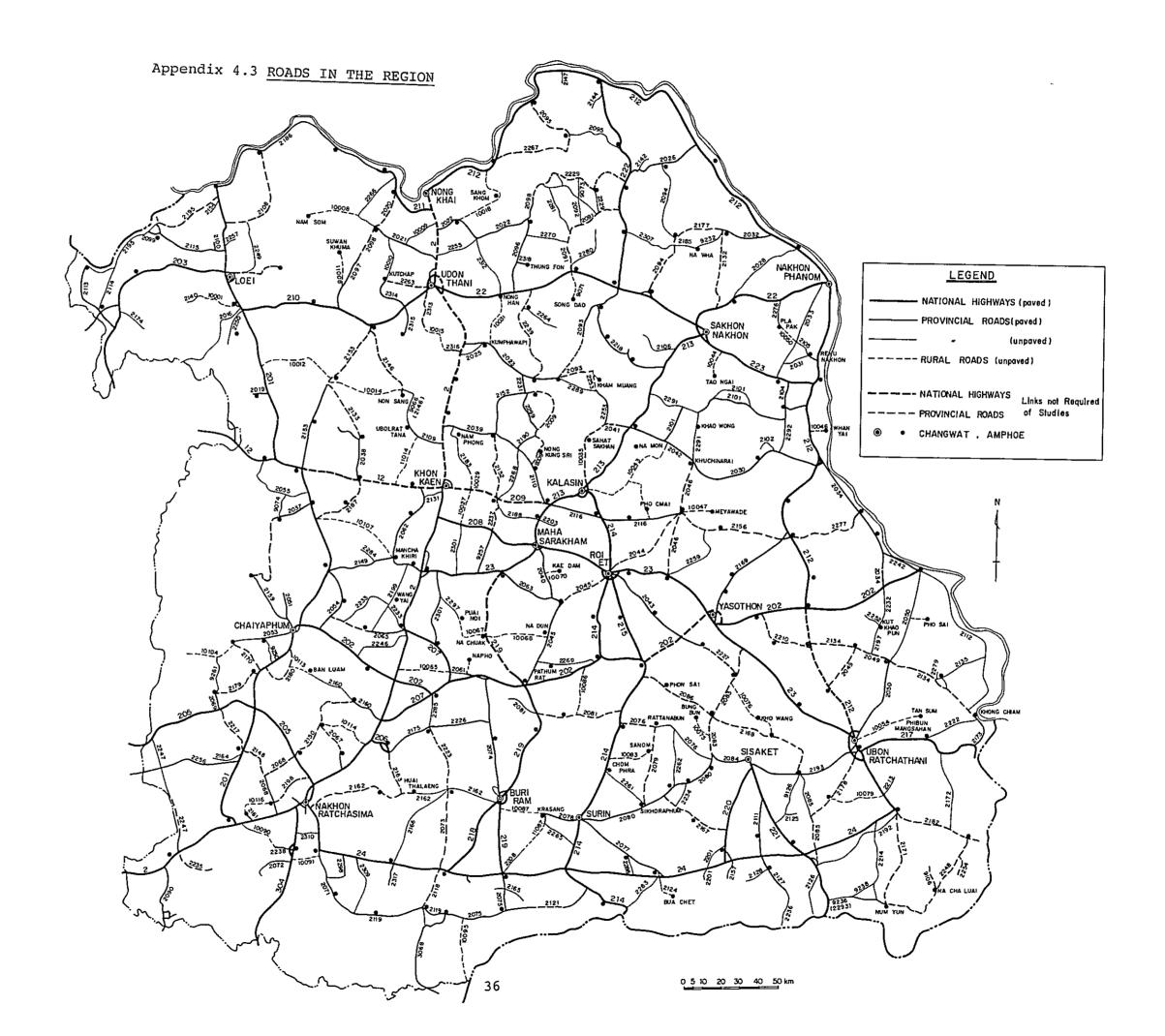
Route No.	Name	Length (Km)	Remarks
219	Payakkhaphum Phisai - Na Chiak - Borabue	69.2	Under Const.
2136	Phon Thonb - Nong Pok - Loeng Nok Tha	70.1	Under Const. (F4)

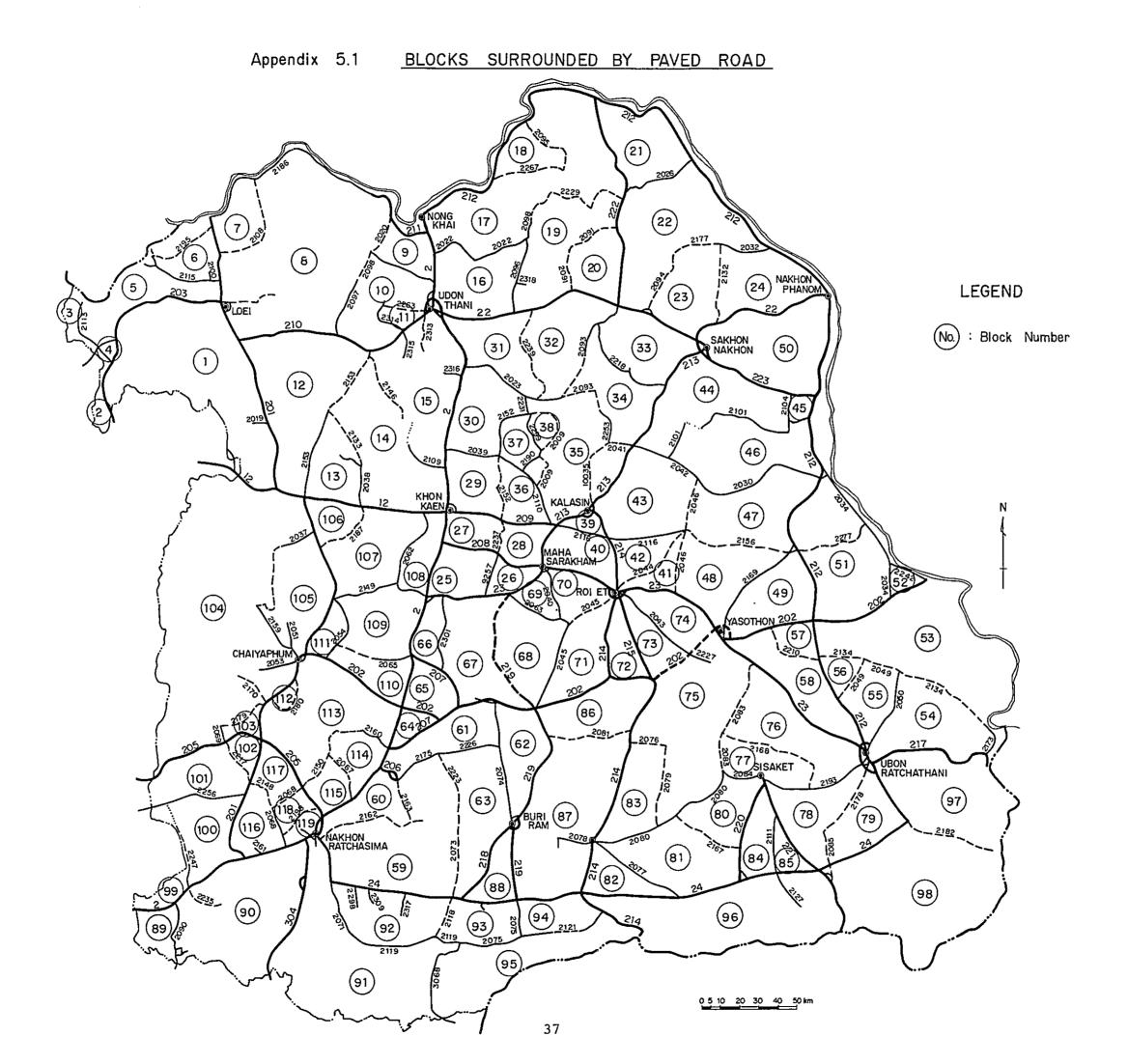
## 5 Year Plan National Highways

Route No.	Name	Length (Km)	Remarks
2	Khon Kaen - Udonthani - Nong Khai	126.0	Under Bidding, Overlay
201	Chaiyaphum Bypass	6.5	Under Const.
202	Suwannaphum - Yasothon	29.5	Under Const.
212	Ubon Ratchathani - Amnat Charoen	56.0	Under Const.,Overlay

## Provincial Roads

Route No.	Name	Length (Km)	Remarks
2020	Tha Bo - Ban Pue	23.0	Under Const., (F4)
2065	Phon - Thanangnaew - Lam Chi (Section II)	22.0	Under Const., (F4)
2076	Tha Tum - Rattanaburi	18.6	Under Const., (F4)
2081	Tha Tum - Banphohi	45.3	Under Const., (F4)
2083	Uthumphon Phisai - Kham Khium Kaew (Section II)	42.0 ,	Under Const., (F4)
2098	Na Kham Hi - Ban Pue (Section IV)	15.0	Under Const., (F4)
2153	Nong Bua Lam Phu - Chum Pae (Section II)	41.0	Under Const., (F4)
2195	Nong Pue - Chiang Khan	50.0	Under Const., (F4)





#### Appendix 5.2

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#### Appendix 5.2 FUTURE POPULATION AND GRP

#### 1. Population

Population of the Region is 16,393,000 in 1981. Annual growth rate of population increase of the Region is 2.0 percent per year (1977-1981). Future population growth is estimated by NSO's Working Group on Population Projects which are 2.0 (1980-1985), 1.4 (1985-1990) and 1.3 (1990-1995) percent per year respectively.

#### AVERAGE ANNUAL GROWTH RATE OF POPULATION BY REGION (1980 - 2005)

(percent per year)

	1980-1985	1985-1990	1990-1995	1995-2000-1/	2000-20051/
Whole Kingdom	2.0	1.5	1.5	1.4	1.2
Bangkok-Thonburi	3.4	2.7	2.6	2.4	2.2
Central	1.7	1.4	1.4	1.3	1.1
Northeast	2.0	1.4	1.3	1.2	1.1
North	1.5	1.1	1.1	1.0	1.0
South	1.9	1.4	1.3	1.2	1.1

1/: Team projection except Whole Kingdom

Source: NSO

Population as for 1993 by Amphoe for assessment of selection of Priority Block was estimated as following methods.

- First, population as for 1993 in the Region was estimated based on the population in 1981 and average annual growth rate (1980-1995).
- Second, population by Changwat was projected based on the trend during past four years taking into consideration agricultural conditions, etc. Population thus projected was amended regarding the estimated population in the Region as control total.
- Finally, population by Amphoe was estimated in the same way making estimated Changwat population control total.

	POPULATION PRO	DJECTION BY RE	EGION	(Thousand)
	19811/	1987	1993	2001
Whole Kingdom	47,875 (1.7)	52,895 (1.5)	57,890 (1.4)	64,584
Bangkok-Thonburi		6,376 (2.7)	7,477 (2.4)	9,071
Central			12,481 (1.3)	
Northeast		18,092 (1.4)	19,656 (1.2)	21,680
North		10,450 (1.1)	11,187	12,155
South		6,524 (1.4)	7,089 (1.2)	7,818

<sup>1/ :</sup> Actual data from NSO

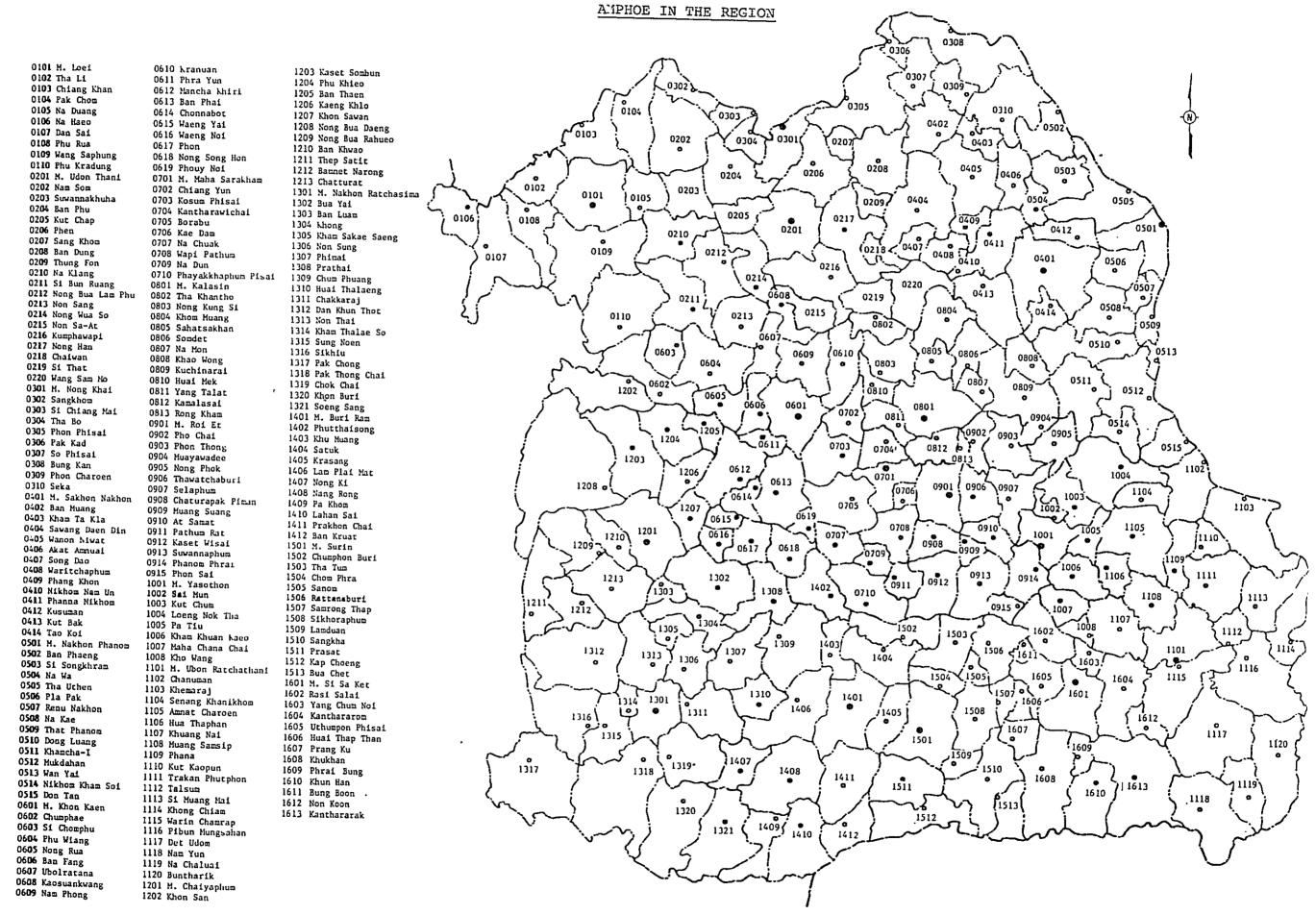
Figures in parenthesis show average annual growth rate.

Source : Team projection except Whole Kingdom

## POPULATION PROJECTION BY CHANGWAT

		1987	(1981 1987)	1993	(1987 1993)	2001	(1 <u>9</u> 93 2001)
NORTH	EASTERN	18,092,000	(1.7)	19,656,000	(1.4)	21,680,000	(1.2)
0100	LOEI	534,300	(2.4)	601,000	(2.0)	687,600	(1.7)
0200	UDON THANI	1,614,300	(1.5)	1,741,800	(1.3)	1,907,000	(1.1)
0300	NONG KHAI	783,200	(2.1)	869,700	(1.8)	981,500	(1.5)
0400	SAKHON NAKHON	857,300	(1.4)	919,200	(1.2)	999,400	(1.1)
0500	NAKOHN PHANOM	854,400	(1.7)	927,500	(1.4)	1,022,100	(1.2)
0600	KHON KAEN	1,539,700	(1.7)	1,683,000	(1.4)	1,868,400	(1.2)
0700	MAHA SARAKHAM	840,400	(1.4)	901,300	(1.2)	980,200	(1.1)
0800	KALASIN	843,400	(1.5)	910,900	(1.3)	998,300	(1.2)
0900	ROI ET	1,151,300	(1.1)	1,220,100	(1.0)	1,309,200	(0.9)
1000	YASOTHON	499,800	(1.2)	531,600	(1.0)	572,800	(0.9)
1100	UBON RATCHATHANI	1,768,800	(1.8)	1,929,200	(1.5)	2,139,300	(1.3)
1200	СНАІУАРНИМ	963,300	(1.7)	1,047,000	(1.4)	1,155,500	(1.2)
1300	NAKHON RATCHASIMA	2,130,000	(1.5)	2,295,000	(1.3)	2,509,000	(1.1)
1400	BURI RAM	1,298,200	(1.9)	1,427,700	(1.6)	1,595,300	(1.4)
1500	SURIN	1,205,600	(2.1)	1,341,300	(1.8)	1,516,800	(1.5)
1600	SI SA KET	1,210,000	(1.6)	1,309,600	(1.3)	1,437,600	(1.2)
		2, ===, ; ; ;	(4.50)	_,,,,,,,,	,_,,	2,021,000	

Figures in parenthesis show annual average growth rate.



#### POPULATION BY AMPHOE

		1977	1978	1979	1980	1981
0100	LOEI	413,537	421,994	441,127	449,535	463,090
0101	M. Loei	84,271	85,701	89,709	91,159	76,452
0102	Tha Li	20,483	20,797	21,032	21,230	21,587
0103	Chiang Khan	44,063	44,183	44,585	45,210	45,660
0104	Pak Chom	18,998	19,299	24,718	25,623	26,842
0105	Na Duang	14,615	14,834	16,205	16,534	17,064
0106	Na Haeo	8,014	7,994	8,130	8,317	8,533
0107	Dan Sai	32,761	33,025	33,834	34,345	34,774
0108	Phu Rua	14,210	14,396	14,606	14,855	15,103
0109	Wang Saphung $\frac{1}{}$	123,529	126,690	129,883	131,997	134,089
0110	Phu Kradung	52,593	55,075	58,425	60,265	62,936
0200	UDON THANI	1,370,598	1,400,730	1,429,128	1,448,066	1,474,736
0201	M. Udon Thani	297,628	302,020	306,764	311,428	315,269
0202	Nam Som	36,680	39,151	40,565	43,015	45,458
0203	Suwannakhuha	32,665	35,461	36,959	37,587	38,876
0204	Ban Phu	72,001	72,878	73,455	74,103	25,256
0205	Kut Chap	44,554	44,826	45,314	45,769	45,822
0206	Phen	68,172	69,847	71,366	76,467	78,358
0207	Sang Khom	19,344	19,479	19,621	19,847	19,919
0208	Ban Dung	67,487	69,127	70,943	71,013	71,417
0209	Thung Fon	17,966	18,995	19,819	20,277	20,896

 $\underline{1}$  : Including King Amphoe Phu Luang in 1980, 1981

		1977	1978	1979	1980	1981
0210	Na Klang	75,540	76,445	78,619	80,157	82,372
0211	Si Bun Ruang	85,312		·		
	_		86,757	88,103	89,406	91,803
0212	Nong Bua Lam Phu	99,658	100,231	101,325	101,807	102,459
0213	Non Sang	58,925	59,263	59,435	59,515	59,944
0214	Nong Wua So	46,367	46,605	46,968	42,294	42,619
0215	Non Sa-At	31,413	36,884	37,408	37,983	49,209
0216	Kumphawapi 1/	129,546	132,052	137,458	137,780	141,921
0217	Nong Han	115,015	117,026	119,577	122,221	123,539
0218	Chaiwan	24,444	24,703	25,011	25,438	25,826
0219	Si That	29,895	30,246	30,543	30,662	31,086
0220	Wang Sam Mo	17,986	18,734	19,875	21,298	22,637
0300	NONG KHAI	622,519	641,831	661,090	673,884	689,427
0301	M. Nong Khai	126,319	128,730	133,662	134,462	137,250
0302	Sangkhom	11,917	12,540	12,974	13,637	14,295
0303	Si Chiang Mai	30,551	30,283	31,388	30,644	30,682
0304	Tha Bo	64,019	64,888	66,118	66,873	67,973
0305	Phon Phisai	139,983	122,836	127,091	131,220	135,361
0306	Pak Kad	-	25,019	25,984	26,510	26,959
0307	So Phisai	52,434	54,717	57,046	58,171	60,642
0308	Bung Kan	95,141	97,372	98,590	102,152	103,695
0309	Phon Charoen	30,011	30,518	32,096	31,625	32,300
0310	Seka	72,144	74,928	76,141	78,590	80,270

<sup>1/:</sup> Including King Amphoe Nong Sang in 1981

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		1977	1978	1979	1980	1981
0400	SAKHON NAKHON	738,042	753,454	765,620	776,510	789,39
0401	M. Sakhon Nakhon 1/	196,301	177,540	181,255	185,347	189,16
0402	Ban Muang	33,541	34,668	35,229	36,600	38,67
0403	Kham Ta Kla	16,722	21,158	21,553	22,356	22,65
404	Sawang Daen Din	136,505	137,536	138,187	139,817	139,23
405	Wanon Niwat	76,406	77,467	79,221	81,571	83,50
406	Akat Amnuai	44,848	45,686	46,659	47,746	48,79
407	Song Dao	20,418	20,586	20,897	21,260	21,53
408	Waritchaphum	44,881	44,818	44,846	38,802	38,22
409	Phang Khon	40,158	40,796	41,299	41,984	43,05
410	Nikhom Nam Un	8,406	8,946	9,210	9,460	9,53
411	Phanna Nikhom	57,284	.58,180	59,597	61,319	62,32
412	Kusuman	29,525	30,125	30,759	31,535	32,14
413	Kut Bak	33,047	33,718	34,310	35,740	37,13
414	Tao Koi	-	22,230	22,598	22,973	23,43
500	NAKHON PHANOM	717,256	730,052	745,390	769,319	770,02
501	M. Nakhon Phanom	111,228	113,135	115,248	117,189	118,42
502	Ban Phaeng	30,664	31,647	32,474	33,385	34,48
503	Si Songkhram	40,498	41,275	42,215	43,366	44,28
504	Na Wa	34,638	35,297	35,920	36,524	37,06
505	Tha Uthen	73,590	75,302	77,390	79,555	81,47
506	Pla Pak	32,703	33,577	34,488	35,306	36,10
507	Renu Nakhon	32,713	33,131	33,732	34,265	34,71

<sup>1/:</sup> Including King Amphoe Khok Si Sumphan in 1981

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			1978	1979	1980	1981
0508	Na Kae	71,020	71,774	72,910	73,901	70,8
0509	That Phanom	71,032	72,036	73,074	73,886	74,5
0510	Dong Luang	15,828	16,276	16,893	17,476	18,
0511	Khamcha-I	54,225	54,818	55,910	56,867	57,
0512	Mukdahan	83,067	84,169	85,787	87,525	88,
0513	Wan Yai	12,653	12,815	13,132	13,444	13,
0514	Nikhom Kham Soi	27,451	28,101	28,692	29,210	30,
0515	Don Tan	25,946	26,699	27,525	28,420	29,
0600	KHON KAEN	1,264,990	1,313,330	1,328,835	1,354,855	1,384,
0601	M. Khon Kaen	230,340	237,443	235,678	252,309	261,
0602	Chumphae 1/	102,382	103,575	101,039	103,548	105,
0603	Si Chomphu	47,200	48,873	50,140	52,000	55,
604	Phu Wiang	86,833	92,057	93,203	94,219	95,
0605	Nong Rua	72,260	74,191	75,912	76,920	76,
606	Ban Fang	38,815	47,937	48,008	48,858	49,
607	Ubolratana	33,350	33,711	34,224	34,891	37,
8090	Kaosuankwang	-	25,615	27,475	27,983	28,
609	Nam Phong	99,489	84,861	86,226	87,787	89,
610	Kranuan	68,810	71,278	74,700	77,174	79,
611	Phra Yun	27,928	28,336	28,649	29,073	29,
612	Mancha Khiri	80,638	81,618	82,247	83,749	85,
613	Ban Phai	130,974	132,877	123,679	125,930	128,
614	Chonnabot	43,843	43,494	43,571	44,199	44,
615	Waeng Yai	24,638	22,449	25,934	26,160	26,

		1977	1978	1979	1980	1981
0616	Waeng Noi	36,788	37,263	37,736	38,043	38,437
0617	Phon	72,161	73,372	74,454	75,065	75,389
0618	Nong Song Hong	55,619	57,927	59,273	59,881	60,501
0619	Phouy Noi	12,922	16,453	16,687	17,066	17,389
0700	мана sarakham	723,954	734,802	751,657	764,509	770,957
0701	M. Maha Sarakham	107,344	108,597	111,937	114,111	116,150
0702	Chiang Yun	72,371	73,329	74,508	75,285	76,245
0703	Kosum Phisai	93,961	94,961	95,679	96,603	97,335
0704	Kantharawichai	65,351	65,650	66,172	66,645	67,213
0705	Borabu	111,494	113,688	116,032	118,724	120,473
0706	Kae Dam	24,409	24,843	25,095	25,373	25,635
0707	Na Chuak	44,873	45,696	47,710	48,771	49,801
0708	Wapi Pathum	84,391	85,821	91,189	92,411	93,510
0709	Na Dun	28,865	29,670	30,053	30,324	30,588
0710	Phayakkhaphum Pisai	90,895	92,547	93,282	96,262	94,007
0800	KALASIN	717,938	728,629	741,969	755,274	772,108
0801	M. Kalasin	123,992	126,553	129,277	131,790	134,448
0802	Tha Khantho	19,952	21,414	22,330	23,504	24,408
0803	Nong Kung Si	32,560	33,298	34,337	35,763	39,487
0804	Khom Muang	56,408	57,035	58,270	59,598	61,335
0805	Sahatsakhan	31,808	32,001	32,118	32,668	33,215
0806	Somdet	44,988	45,549	46,235	46,808	47,578
0807	Na Mon	27,906	28,413	29,048	29,781	30,649

		1977	1978	1979	1980	1981
0808	Khao Wong	58,611	59,342	60,119	60,808	61,186
0809	Kuchinarai 1/	96,061	97,446	98,986	100,628	102,560
0810	Huai Mek	36,373	36,804	37,816	38,446	39,225
0811	Yang Talat	99,050	100,236	102,329	103,782	105,518
0812	Kamalasai	77,748	77,841	78,310	78,729	79,296
0813	Rong Kham	12,581	12,697	12,794	12,969	13,200
0900	ROI ET	1,016,661	1,034,234	1,044,411	1,061,085	1,075,457
0901	M. Roi Et	179,369	183,642	186,760	190,341	189,937
0902	Pho Chai	41,323	41,934	42,995	43,851	44,528
0903	Phon Thong	105,471	83,652	85,242	86,852	87,942
0904	Muayawadee	-	19,203	19,536	19,654	20,207
0905	Nong Phok	40,414	41,798	42,871	43,969	44,882
0906	Thawatchaburi	98,685	99,973	100,230	101,405	102,014
0907	Selaphum	105,090	106,130	107,313	109,202	110,735
0908	Chaturapak Piman	66,190	70,761	72,378	73,063	73,945
0909	Muang Suang	19,586	19,691	18,467	18,603	18,629
0910	At Samat	57,976	58,149	59,098	60,004	60,682
0911	Pathum Rat	42,796	43,423	44,075	44,368	44,510
0912	Kaset Wisai	76,957	78,970	78,046	79,699	81,114
0913	Suwannaphum	81,413	84,040	85,823	87,795	88,843
0914	Phanom Phrai	83,314	84,461	82,973	83,178	84,159
0915	Phon Sai	18,077	18,407	18,604	19,101	23,330

<sup>1/:</sup> Including King Amphoe Huai Phung in 1981

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		1977	1978	1979	1980	1981
1000	YASOTHON	438,426	444,468	451,901	458,535	464,419
1001	M. Yasothon	109,582	111,403	113,002	114,518	115,663
1002	Sai Mun	24,056	29,291	29,657	30,058	30,295
1003	Kut Chum	56,626	52,584	53,400	54,300	55,172
1004	Loeng Nok Tha	87,154	88,699	89,992	91,424	92,780
1005	Pa Tiu	24,919	25,362	27,809	28,352	28,841
1006	Kham Khuan Kaeo	62,885	63,169	62,926	63,589	64,511
1007	Maha Chana Chai	50,316	50,833	51,501	52,327	52,922
1008	Kho Wang	22,888	23,127	23,614	23,967	24,235
1100	UBON RATCHATHANI	1,461,413	1,498,922	1,530,941	1,560,272	1,589,995
1101	M. Ubon Ratchathani	183,122	195,438	198,164	202,549	207,055
1102	Chanuman	26,401	26,784	27,406	28,249	29,073
1103	Khemaraj $\frac{1}{}$	104,440	105,394	106,662	108,519	110,159
1104	Senang Khanikhom	29,308	31,090	31,872	32,386	32,607
1105	Amnat Charoen	121,278	122,996	124,980	126,740	126,799
1106	Hua Thaphan	41,666	42,091	42,782	43,571	44,183
1107	Khuang Nai	91,125	92,059	93,054	94,400	95,580
1108	Muang Samsip	64,466	65 <b>,</b> 958	68,180	69,831	71,307
1109	Phana	48,538	48,826	49,504	49,758	50,181
1110	Kut Kaopun	29,796	30,059	30,511	30,838	31,139
1111	Trakan Phutphon	90,343	91,262	92,247	93,561	96,529
1112	Talsum	-	23,618	24,084	24,516	24,808

<sup>1/:</sup> Including King Amphoe Po Sai in 1981

		1977	1978	1979	1980	19,
1113	Si Muang Mai	43,083	43,739	33,338	45,302	46,
1114	Khong Chiam	22,693	23,409	24,187	24,753	25,
1115	Warin Chamrap	182,526	185,027	188,503	190,490	192,
1116	Pibun Mangsahan	131,840	110,325	110,111	112,307	113,
1117	Det Udom	132,851	139,188	147,610	151,821	156,
1118	Nam Yun	47,160	48,896	50,505	52,342	54,
1119	Na Chaluai	24,123	25,321	26,275	27,699	29
1120	Buntharik	46,654	47,342	49,856	50,640	52
1200	СНАІЧАРНИМ	803,411	827,104	839,384	857,692	870,
1201	M. Chaiyophum	143,371	148,324	153,058	156,758	159
1202	Khon San	49,992	48,920	43,656	44,305	45
1203	Kaset Sombun	82,157	83,551	84,822	86,090	86
1204	Phu Khieo	93,450	94,287	95,204	96,217	96
1205	Ban Thaen	37,177	38,393	38,206	38,665	39
1206	Kaeng Khlo	67,829	68,877	70,637	72,015	73
1207	Khon Sawan	46,524	46,945	47,761	48,338	49
1208	Nong Bua Daeng	66,581	69,376	71,545	76,474	79
1209	Nong Bua Rahueo	-	18,300	19,222	20,198	20
1210	Ban Khwao	42,635	45,443	46,130	46,636	47
1211	Thep Satit	20,818	28,191	31,165	33,017	34
1212	Bamnet Narong	44,841	45,312	45,712	46,174	46
1213	Chatturat	108,036	91,185	92,266	92,775	92

		1977	1978	1979	1980	1981
1300	NAKHON RATCHASIMA	1,816,462	1,851,907	1,886,192	1,916,681	1,949,966
1301	M. Nakhon Ratchasima	287,365	294,418	301,869	306,518	314,625
1302	Bua Yai	153,975	155,126	156,771	156,942	156,397
1303	Ban Luam	20,232	20,436	20,240	20,278	20,363
1304	Khong	73,966	74,677	73,786	74,441	74,834
1305	Kham Sakae Saeng	41,183	41,620	41,835	41,978	42,010
1306	Non Sung	97,748	99,068	100,653	101,840	103,028
1307	Phimai	92,230	94,070	95,491	96,794	97,382
1308	Prathai	90,731	91,150	91,784	92,461	92,618
1309	Chum Phuang	101,924	103,211	104,792	106,670	107,715
1310	Huai Thalaeng	43,511	44,593	45,715	46,958	47,628
1311	Chakkaraj	78,290	80,236	82,155	83,931	85,737
1312	Dan Khun Thot	94,340	95,954	98,084	99,689	102,195
1313	Non Thai	100,541	101,170	100,287	101,063	102,055
1314	Kham Thalae So	22,712	23,147	23,541	23,783	24,195
1315	Sung Noen	53,895	55,109	55,400	56,195	56,788
1316	Sikhiu	74,275	77,451	79,154	81,083	84,310
1317	Pak Chong	109,659	112,198	115,700	118,885	121,393
1318	Pak Thong Chai	101,057	104,682	107,112	109,534	112,225
1319	Chok Chai	82,503	84,090	85,743	87,850	90,700
1320	Khon Buri	63,367	64,767	69,021	70,572	72,498
1321	Soeng Sang	32,958	34,744	37,149	39,216	41,270

1400 BURI RAM 1,058,911 1,084,430 1,107,818 1,132,980 160,40  1401 M. Buri Ram 191,968 196,431 198,768 202,842 205,84  1402 Phutthaisong ½ 87,273 88,895 90,239 92,138 93,54  1403 Khu Muang 47,195 47,500 47,418 47,332 47,81  1404 Satuk 105,178 107,331 109,919 111,351 112,82  1405 Krasang 62,296 65,361 67,766 69,051 71,64  1406 Lam Plai Mat ½ 127,560 131,624 134,007 139,834 143,78  1407 Nong Ki 47,334 50,437 51,228 51,798 51,98  1408 Nang Rong 129,998 132,520 135,754 137,954 140,62  1409 Pa Khom - 23,205 24,471 25,387 26,06  1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29  1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00  1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02  1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  1501 M. Surin 218,599 221,715 225,004 227,853 230,21  1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  1503 Tha Tum 73,361 74,512 75,504 77,870 89,35  1504 Chom Phra 48,445 49,230 60,015 50,443 51,10  1505 Samom 38,467 39,280 39,752 40,553 41,01  1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500			1077	7070	1070	1000	1001
1401 M. Buri Ram  191,968  196,431  198,768  202,842  205,842  1402  Phutthaisong 1/2  87,273  88,895  90,239  92,138  93,54  1403  Khu Muang  47,195  47,500  47,418  47,332  47,819  1404  Satuk  105,178  107,331  109,919  111,351  112,82  1405  Krasang  62,296  65,361  67,766  69,051  71,64  1407  Nong Ki  47,334  50,437  51,228  51,798  51,96  1408  Nang Rong  129,988  132,520  135,754  137,954  140,62  1409  Pa Khom  -  23,205  24,471  25,387  26,06  1410  Lahan Sai  81,781  60,048  61,864  65,100  69,29  1411  Prakhon Chai  128,368  130,466  133,020  135,295  138,00  4412  Ban Kruat  50,059  50,612  52,764  54,898  59,02  5500  SURIN  962,019  981,115  1,001,075  1,035,577  1,064,68  1,503  Tha Tum  73,361  74,512  75,504  77,870  89,35  504  Chom Phra  48,445  49,230  60,015  50,443  51,10  505  Samrong Thap  35,213  35,936  36,428  37,136  37,866			1977	1978 	1979	1980	1981
1402 Phutthaisong 1/ 87,273 88,895 90,239 92,138 93,54 1403 Khu Muang 47,195 47,500 47,418 47,332 47,81 1404 Satuk 105,178 107,331 109,919 111,351 112,82 1405 Krasang 62,296 65,361 67,766 69,051 71,64 1406 Lam Plai Mat 2/ 127,560 131,624 134,007 139,834 143,76 1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,50	1400	BURI RAM	1,058,911	1,084,430	1,107,818	1,132,980	160,40
1403 Khu Muang 47,195 47,500 47,418 47,332 47,81 1404 Satuk 105,178 107,331 109,919 111,351 112,82 1405 Krasang 62,296 65,361 67,766 69,051 71,64 1406 Lam Plai Mat <sup>2/</sup> 127,560 131,624 134,007 139,834 143,76 1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1401	M. Buri Ram	191,968	196,431	198,768	202,842	205,84
1404 Satuk 105,178 107,331 109,919 111,351 112,82 1405 Krasang 62,296 65,361 67,766 69,051 71,64 1406 Lam Plai Mat <sup>2/</sup> 127,560 131,624 134,007 139,834 143,78 1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500	1402	Phutthaisong $\frac{1}{}$	87,273	88,895	90,239	92,138	93,54
1405 Krasang 62,296 65,361 67,766 69,051 71,64 1406 Lam Plai Mat 2/ 127,560 131,624 134,007 139,834 143,78 1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1403	Khu Muang	47,195	47,500	47,418	47,332	47,81
1406 Lam Plai Mat <sup>2/</sup> 127,560 131,624 134,007 139,834 143,78 1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1404	Satuk	105,178	107,331	109,919	111,351	112,82
1407 Nong Ki 47,334 50,437 51,228 51,798 51,96 1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Iahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1405	Krasang	62,296	65,361	67,766	69,051	71,64
1408 Nang Rong 129,988 132,520 135,754 137,954 140,62 1409 Pa Khom - 23,205 24,471 25,387 26,06 1410 Lahan Sai 81,781 60,048 61,864 65,100 69,29 1411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00 1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02 1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68 1501 M. Surin 218,599 221,715 225,004 227,853 230,21 1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 1503 Tha Tum 73,361 74,512 75,504 77,870 89,35 1504 Chom Phra 48,445 49,230 60,015 50,443 51,10 1505 Sanom 38,467 39,280 39,752 40,553 41,01 1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1406	Lam Plai Mat $\frac{2}{}$	127,560	131,624	134,007	139,834	143,78
L409 Pa Khom - 23,205 24,471 25,387 26,06  L410 Lahan Sai 81,781 60,048 61,864 65,100 69,29  L411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00  L412 Ban Kruat 50,059 50,612 52,764 54,898 59,02  L500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  L501 M. Surin 218,599 221,715 225,004 227,853 230,21  L502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  L503 Tha Tum 73,361 74,512 75,504 77,870 89,35  L504 Chom Phra 48,445 49,230 60,015 50,443 51,10  L505 Sanom 38,467 39,280 39,752 40,553 41,01  L506 Rattanaburi 101,621 103,685 104,709 106,704 108,500  L507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1407	Nong Ki	47,334	50,437	51,228	51,798	51,96
L410 Lahan Sai 81,781 60,048 61,864 65,100 69,29  L411 Prakhon Chai 128,368 130,466 133,020 135,295 138,00  L412 Ban Kruat 50,059 50,612 52,764 54,898 59,02  L500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  L501 M. Surin 218,599 221,715 225,004 227,853 230,21  L502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  L503 Tha Tum 73,361 74,512 75,504 77,870 89,35  L504 Chom Phra 48,445 49,230 60,015 50,443 51,10  L505 Sanom 38,467 39,280 39,752 40,553 41,01  L506 Rattanaburi 101,621 103,685 104,709 106,704 108,506  Samrong Thap 35,213 35,936 36,428 37,136 37,866	1408	Nang Rong	129,988	132,520	135,754	137,954	140,62
128,368 130,466 133,020 135,295 138,000  1412 Ban Kruat 50,059 50,612 52,764 54,898 59,02  1500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  1501 M. Surin 218,599 221,715 225,004 227,853 230,21  1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  1503 Tha Tum 73,361 74,512 75,504 77,870 89,35  1504 Chom Phra 48,445 49,230 60,015 50,443 51,10  1505 Sanom 38,467 39,280 39,752 40,553 41,01  1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500  1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1409	Pa Khom	-	23,205	24,471	25,387	26,06
A12 Ban Kruat 50,059 50,612 52,764 54,898 59,02  500 SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  501 M. Surin 218,599 221,715 225,004 227,853 230,21  502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  503 Tha Tum 73,361 74,512 75,504 77,870 89,35  504 Chom Phra 48,445 49,230 60,015 50,443 51,10  505 Sanom 38,467 39,280 39,752 40,553 41,01  506 Rattanaburi 101,621 103,685 104,709 106,704 108,500  507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1410	Lahan Sai	81,781	60,048	61,864	65,100	69,29
SURIN 962,019 981,115 1,001,075 1,035,577 1,064,68  1501 M. Surin 218,599 221,715 225,004 227,853 230,21  1502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34  1503 Tha Tum 73,361 74,512 75,504 77,870 89,35  1504 Chom Phra 48,445 49,230 60,015 50,443 51,10  1505 Sanom 38,467 39,280 39,752 40,553 41,01  1506 Rattanaburi 101,621 103,685 104,709 106,704 108,500  1507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1411	Prakhon Chai	128,368	130,466	133,020	135,295	138,00
218,599 221,715 225,004 227,853 230,21 2502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 2503 Tha Tum 73,361 74,512 75,504 77,870 89,35 2504 Chom Phra 48,445 49,230 60,015 50,443 51,10 2505 Sanom 38,467 39,280 39,752 40,553 41,01 2506 Rattanaburi 101,621 103,685 104,709 106,704 108,506 507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1412	Ban Kruat	50,059	50,612	52,764	54,898	59,02
2502 Chumphon Buri 46,573 48,825 49,996 50,948 51,34 2503 Tha Tum 73,361 74,512 75,504 77,870 89,35 2504 Chom Phra 48,445 49,230 60,015 50,443 51,10 2505 Sanom 38,467 39,280 39,752 40,553 41,01 2506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 2507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1500	SURIN	962,019	981,115	1,001,075	1,035,577	1,064,680
Tha Tum 73,361 74,512 75,504 77,870 89,35  Chom Phra 48,445 49,230 60,015 50,443 51,10  Sanom 38,467 39,280 39,752 40,553 41,01  Rattanaburi 101,621 103,685 104,709 106,704 108,500  Samrong Thap 35,213 35,936 36,428 37,136 37,866	1501	M. Surin	218,599	221,715	225,004	227,853	230,21
504 Chom Phra 48,445 49,230 60,015 50,443 51,10 505 Sanom 38,467 39,280 39,752 40,553 41,01 506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 507 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1502	Chumphon Buri	46,573	48,825	49,996	50,948	51,34
38,467 39,280 39,752 40,553 41,01 506 Rattanaburi 101,621 103,685 104,709 106,704 108,506 Samrong Thap 35,213 35,936 36,428 37,136 37,866	1503	Tha Tum	73,361	74,512	75,504	77,870	89,350
506 Rattanaburi 101,621 103,685 104,709 106,704 108,500 507 Samrong Thap 35,213 35,936 36,428 37,136 37,860 509 509 509 509 509 509 509 509 509 50	1504	Chom Phra	48,445	49,230	60,015	50,443	51,108
507 Samrong Thap 35,213 35,936 36,428 37,136 37,860	1505	Sanom	38,467	39,280	39,752	40,553	41,010
500 011	L506	Rattanaburi	101,621	103,685	104,709	106,704	108,500
508 Sikhoraphum 106,468 108,482 110,317 111,841 113,906	507	Samrong Thap	35,213	35,936	36,428	37,136	37,868
	508	Sikhoraphum	106,468	108,482	110,317	111,841	113,900

<sup>1/:</sup> Including King Amphoe Si Ratana in 1981

<sup>2/:</sup> Including King Amphoe Nong Hong in 1981

Appendix 5.2

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		1977	1978	1979	1980	1981
1509	Lamduan	17,185	18,017	18,890	19,359	20,166
1510	Sangkha	135,332	118,989	105,484	108,394	112,004
1511	Prasat	101,190	103,811	106,314	123,944	126,750
1512	Kap Choeng	39,565	39,389	58,874	60,244	61,581
1513	Bua Chet	-	19,244	19,788	20,288	20,885
1600	SI SA KET	1,022,223	1,046,989	1,066,287	1,082,121	103,239
1601	M. Si Sa Ket	157,468	151,233	165,185	167,025	169,784
1602	Rasi Salai	82,607	83,623	85,109	86,677	88,148
1603	Yang Chum Noi	27,144	27,502	27,976	28,758	29,438
1604	Kanthararom	102,807	111,249	113,015	114,798	116,780
1605	Uthumpon Phisai	110,967	111,055	127,568	128,409	130,237
1606	Huai Thap Than	27,060	28,259	28,912	29,188	29,448
1607	Prang Ku	47,589	46,497	47,427	48,016	48,619
1608	Khukhan	120,921	122,336	123,212	124,072	127,505
1609	Phrai Bung	33,685	34,153	34,656	35,176	35,692
1610	Khun Han	74,984	76,425	77,041	78,866	78,639
1611	Bung Boon	22,792	23,306	9,342	10,060	10,188
1612	Non Koon	27,424	29,779	30,602	31,168	32,325
1613	Kanthararak 1/	186,775	191,572	196,242	199,908	206,436

<sup>1/ :</sup> Including King Amphoe Na Pho in 1981

## POPULATION PROJECTION BY AMPHOE

		1987	(1981 1987)	1993	(1989 1993)	2001	(1993 2001)
0100	IOEI	534,300	(2.4)	601,100	(2.0)	687,600	(1.7)
0101	M. Loei	114,300	(2.9)	132,300	(2.5)	155,700	(2.1)
0102	Tha Li	23,400	(1.3)	34,900	(1.0)	26,900	(1.0)
0103	Chiang Khan	48,600	(1.0)	61,100	(8.0)	54,200	(0.9)
0104	Pak Chom	31,200	(2.5)	35,100	(2.0)	40,000	(1.6)
0105	Na Duang	21,300	(3.8)	25,300	(2.9)	30,500	(2.4)
0106	Na Haeo	9,400	(1.6)	10,200	(1.4)	11,200	(1.2)
0107	Dan Sai	38,300	(1.7)	41,600	(1.3)	45,700	(1.2)
0108	Phu Rua	16,600	(1.6)	17,900	(1.3)	19,700	(1.2)
0109	Wang Saphung	151,700	(2.1)	168,600	(1.8)	188,200	(1.4)
0110	Phu Kradung	79,400	(3.9)	95,000	(3.0)	115,500	(2.5)
0200	UDON THANI	1,614,300	(1.5)	1,741,800	(1.3)	1,907,000	(1.1)
0201	M. Udon Thani	340,100	(1.3)	362,200	(1.1)	390,900	(1.0)
0202	Nam Som	57,700	(4.1)	69,600	(3.2)	85,100	(2.5)
0203	Suwannakhuha	47,600	(3.4)	55,600	(2.6)	65,000	(2.2)
0204	Ban Phu	79,200	(0.9)	82,800	(0.7)	87,400	(0.7)
0205	Kut Chap	47,700	(0.7)	49,200	(0.5)	51,100	(0.5)
0206	Phen	85,100	(1.4)	90,800	(1.1)	97,700	(0.9)
0207	Sang Khom	20,700	(0.6)	21,400	(0.6)	22,300	(0.5)
0208	Ban Dung	77,300	(1.3)	82,100	(1.0)	88,200	(0.9)
0209	Thung Fon	22,700	(1.4)	24,200	(1.1)	26,100	(0.9)
0210	Na Klang	91,900	(1.8)	101,000	(1.6)	112,800	(1.4)

Figures in parenthesis	show	annual	average	growth	rate.

	ev	1978	(1981 1987)	1993	(1 <u>9</u> 87 1993)	2001	(1 <u>9</u> 93 2001)
				<del> </del>		<del></del>	
0211	Si Bun Ruang	100,100	(1.5)	108,100	(1.3)	118,400	(1.1)
0212	Nong Bua Lam Phu	106,100	(0.6)	109,000	(0.5)	112,900	(0.4)
0213	Non Sang	60,800	(0.2)	61,400	(0.2)	62,200	(0.2)
0214	Nong Wua So	42,600	(0)	43,500	(0.3)	44,800	(0.4)
0215	Non Sa-At	49,600	(4.0)	58,800	(2.9)	70,800	(2.3)
0216	Kumphawapi	159,100	(1.9)	175,000	(1.6)	195,800	(1.4)
0217	Nong Han	136,400	(1.7)	147,900	(1.4)	162,800	(1.2)
0218	Chaiwan	27,700	(1.2)	29,400	(1.0)	31,700	(0.9)
0219	Si That	32,500	(0.7)	33,800	(0.7)	35,400	(0.6)
0220	Wang Sam Mo	29,400	(4.5)	36,000	(3.4)	44,600	(2.7)
0300	NONG KHAI	783,200	(2.1)	869,700	(1.8)	481,500	(1.5)
0301	M. Nong Khai	155,900	(2.1)	173,700	(1.8)	196,800	(1.6)
0302	Sangkhom	18,000	(3.9)	21,600	(3.1)	26,500	(2.6)
0303	Si Chiang Mai	31,600	(0.5)	32,100	(0.3)	32,800	(0.3)
0304	Tha Bo	74,800	(1.6)	81,200	(1.4)	89,600	(1.2)
0305	Phon Phisai	155,500	(2.3)	173,600	(1.9)	196,600	(1.6)
0306	Pak Kad	31,000	(2.4)	34,600	(1.8)	39,200	(1.6)
0307	So Phisai	69,600	(2.3)	77,80ó	(1.9)	88,100	(1.6)
0308	Bung Kan	188,300	(2.2)	132,300	(1.9)	150,600	(1.6)
0309	Phon Charoen	36,300	(2.0)	39,900	(1.6)	44,700	(1.4)
0310	Seka	92,200	(2.3)	102,900	(1.8)	116,600	(1.6)

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		1987	(1981 1987)	1993	(1987 1993)	2001	(1993 2001)
			<del></del>	<del></del>	<del></del>		
0400	SAKHON NAKHON	857,300	(1.4)	919,200	(1.2)	999,400	(1.1)
0401	M. Sakhon Nakhon	208,600	(1.6)	226,200	(1.4)	249,200	(1.2)
0402	Ban Muang	44,600	(2.4)	50,700	(2.2)	58,400	(1.8)
0403	Kham Ta Kla	30,800	(5.3)	37,600	(3.4)	46,300	(2.6)
0404	Sawang Daen Din	141,800	(0.3)	142,900	(0.1)	145,000	(0.2)
0405	Wanon Niwat	88,900	(1.0)	93,200	(0.8)	98,600	(0.7)
0406	Akat Amnuai	53,700	(1.6)	58,200	(1.4)	64,100	(1.2)
0407	Song Dao	22,800	(1.0)	24,000	(0.9)	25,500	(0.8)
0408	Waritchaphum	38,200	(0.0)	39,600	(0.6)	41,300	(0.5)
0409	Phang Khon	46,200	(1.2)	49,100	(1.0)	53,000	(1.0)
0410	Nikhom Nam Un	11,100	(2.6)	12,500	(2.0)	14,200	(1.6)
0411	Phanna Nikhom	69,000	(1.7)	75,100	(1.4)	82,900	(1.2)
0412	Kusuman	34,200	(1.0)	35,900	(8.0)	38,000	(0.7)
0413	Kut Bak	42,100	(2.1)	47,100	(1.9)	53,400	(1.6)
0414	Tao Koi	25,300	(1.3)	27,100	(1.2)	29,300	(1.0)
0500	NAKHON PHANOM	854,400	(1.7)	927,500	(1.4)	1,022,100	(1.2)
0501	M. Nakhon Phanom	130,500	(1.6)	141,400	(1.3)	155,100	(1.2)
0502	Ban Phaeng	40,300	(2.6)	45,800	(2.2)	53,000	(1.8)
0503	Si Songkhram	50,400	(2.2)	56,000	(1.8)	63,400	(1.6)
0504	Na Wa	41,000	(1.7)	44,500	(1.4)	49,100	(1.2)
0505	Tha Uthen	90,900	(1.8)	98,400	(1.3)	107,800	(1.1)
0506	Pla Pak	40,300	(1.8)	43,600	(1.3)	47,800	(1.2)
0507	Renu Nakhon	38,100	(1.6)	41,000	(1.2)	44,000	(1.1)

		1987	(1981 1987)	1993	(1987 1993)	2001	(19 200
0508	Na Kae	74,000	(0.7)	74,900	(0.2)	75,900	(0,
0509	That Phanom	80,500	(1.3)	85,500	(1.0)	92,100	(0,
0510	Dong Luang	22,700	(3.3)	26,900	(2.9)	32,200	(2.
0511	Khamcha-I	63,300	(1.6)	68,300	(1.3)	73,900	(1
0512	Mukdahan	98,400	(1.7)	106,900	(1.4)	118,100	(1
0513	Wan Yai	15,400	(2.1)	17,000	(1.7)	19,100	(1
0514	Nikhom Kham Soi	34,300	(2.1)	38,200	(1.8)	43,300	(1
0515	Don Tan	34,300	(2.7)	39,100	(2.2)	45,400	(1
0600	KHON KAEN	1,539,700	(1.8)	1,683,000	(1.5)	1,868,400	(1
0601	M. Khon Kaen	307,700	(2.7)	352,200	(2.3)	410,800	(1
0602	Chumphae	109,000	(0.5)	113,600	(0.5)	117,200	(0
0603	Si Chomphu	61,600	(1.8)	67,100	(1.4)	73,800	(3
0604	Phu Wiang	105,700	(1.8)	115,100	(1.4)	126,700	(3
0605	Nong Rua	84,400	(1.6)	90,800	(1.2)	99,100	()
0606	Ban Fang	55,100	(1.8)	59,900	(1.4)	66,000	(1
0607	Ubolratana	41,700	(1.9)	46,700	(1.9)	53,300	()
0608	Kaosuankwang	35,200	(3.4)	41,100	(2.6)	48,900	{2
0609	Nam Phong	97,600	(1.5)	105,500	(1.3)	115,800	(1
0610	Kranuan	96,000	(3.2)	111,600	(2.5)	132,100	(2
0611	Phra Yun	32,000	(1.3)	34,300	(1.2)	37,200	(3
0612	Mancha Khiri	91,600	(1.2)	97,800	(1.1)	105,800	(1
0613	Ban Phai	135,500	(0.9)	141,000	(0.7)	147,500	(0
0614	Chonnabot	46,200	(0.5)	47,500	(0.5)	49,200	(0
0615	Waeng Yai	31,300	(2.8)	35,700	(2.2)	41,400	(1

		1987	(1 <u>9</u> 81 1987)	1993	(1987 1993)	2001	(1993 2001)
0616	Waeng Noi	41,000	(1.1)	43,200	(0.9)	46,100	(0.8)
0617	Phon	80,700	(1.1)	85,200	(0.9)	90,900	(0.8)
0618	Nong Song Hong	68,100	(2.0)	74,700	(1.6)	83,400	(1.4)
0619	Phouy Noi	19,300	(1.8)	21,000	(1.4)	23,200	(1.3)
0700	мана sarakham	840,400	(1.4)	901,300	(1.8)	980,200	(1.1)
0701	M. Maha Sarakham	130,100	(1.9)	143,000	(1.6)	160,100	(1.4)
0702	Chiang Yun	82,000	(1.2)	87,300	(1.0)	94,300	(1.0)
0703	Kosum Phisai	102,300	(0.8)	106,700	(0.7)	112,500	(0.7)
0704	Kantharawichai	69,900	(0.7)	72,300	(0.6)	75,400	(0.5)
0705	Borabu	131,100	(1.4)	139,800	(1.1)	150,700	(0.9)
0706	Kae Dam	27,400	(1.1)	29,000	(1.0)	31,200	(0.9)
0707	Na Chuak	54,100	(1.4)	57,800	(1.1)	62,300	(0.9)
0708	Wapi Pathum	109,200	(2.6)	123,400	(2.1)	141,900	(1.8)
0709	Na Dun	33,100	(1.3)	35,400	(1.1)	38,300	(1.0)
0710	Phayakkhaphum Pisai	101,200	(1.2)	106,600	(0.9)	113,500	(0.8)
0800	KALASIN	843,400	(1.5)	910,900	(1.3)	998,300	(1.2)
0801	M. Kalasin	149,800	(1.8)	164,100	(1.5)	182,400	(1.3)
0802	Tha Khantho	31,000	(4.1)	37,300	(3.1)	45,500	(2.5)
0803	Nong Kung Si	42,900	(1.4)	46,000	(1.2)	51,200	(1.3)
0804	Khom Muang	68,400	(1.8)	75,400	(1.6)	84,300	(1.4)
0805	Sahatsakhan	35,000	(0.9)	36,800	(0.8)	39,100	(0.8)
0806	Somdet	51,200	(1.2)	54,700	(1.1)	59,000	(1.0)
0807	Na Mon	34,500	(2.0)	38,300	(1.8)	43,200	(1.5)
8080	Khao Wong	65,100	(1.0)	68,500	(0.9)	72,900	(8.0)

		1987	(1981 1987)	1993	(1 <u>9</u> 87 1993	2001	(1993 2001)
0809	Kuchinarai	111,700	(1.4)	120,500	(1.3)	131,700	(1.1)
0810	Huai Mek	43,500	(1.7)	47,500	(1.5)	52,700	(1.3)
0811	Yang Talat	115,000	(1.4)	123,900	(1.3)	135,300	(1.1)
0812	Kamalasai	81,300	(0.4)	83,100	(0.4)	85,200	(0.3)
0813	Rong Kham	14,000	(1.0)	14,800	(0.9)	15,800	(0.8)
0900	ROI ET	1,151,300	(1.1)	1,220,100	(1.0)	1,309,200	(0.9)
0901	M. Roi Et	205,300	(1.3)	219,100	(1.1)	238,000	(1.0)
0902	Pho Chai	48,900	(1.6)	53,200	(1.4)	58,900	(1.3)
0903	Phon Thong	95,300	(1.3)	102,800	(1.3)	112,600	(1.1)
0904	Muayawadee	21,700	(1.2)	23,300	(1.2)	25,400	(1.1)
0905	Nong Phok	50,900	(2.1)	56,800	(1.8)	64,700	(1.6)
0906	Thawatchaburi	110,200	(1.3)	112,000	(0.3)	112,200	(0.02)
0907	Selaphum	117,400	(1.0)	124,400	(1.0)	134,000	(0.9)
0908	Chaturapak Piman	77,900	(0.9)	81,700	(0.8)	86,500	(0.7)
0909	Muang Suang	19,000	(0.3)	19,300	(0.3)	19,800	(0.3)
0910	At Samat	64,000	(0.9)	67,600	(0.9)	72,300	(8.0)
0911	Pathum Rat	46,600	(8.0)	48,700	(0.7)	51,400	(0.7)
0912	Kaset Wisai	84,900	(8.0)	89,300	(0.8)	95,100	(0.8)
0913	Suwannaphum	99,000	(1.8)	108,800	(1.6)	121,700	(1.4)
0914	Phanom Phrai	85,700	(0.3)	87,300	(0.3)	89,300	(0.3)
0915	Phon Sai	24,500	(8.0)	25,800	(8.0)	27,300	(0.7)

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		1987	(1981 1987)	1993	(1987 1993)	2001	(1993 2001)
1000	YASOTHON	499,800	(1.2)	531,600	(1.03)	572,800	(0.9)
1001	M. Yasothon	123,000	(1.0)	129,700	(0.9)	138,300	(0.8)
1002	Sai Mun	38,600	(4.1)	45,600	(2.8)	54,600	(2.3)
1003	Kut Chum	56,300	(0.3)	57,100	(0.2)	57,900	(0.2)
1004	Loeng Nok Tha	99,500	(1.2)	105,800	(1.02)	114,100	(0.9)
1005	Pa Tiu	35,100	(3.3)	40,800	(2.5)	38,100	(2.1)
1006	Kham Khuan Kaeo	65,300	(0.2)	66,200	(0.2)	67,500	(0.2)
1007	Maha Chana Chai	56,000	(0.9)	58,900	(0.8)	62,700	(0.8)
1008	Kho Wang	26,000	(1.2)	27,500	(0.9)	29,600	(0.9)
1100	UBON RATCHATHANI	1,766,800	(1.8)	1,929,200	(1.5)	2,139,000	(1.3)
1.101	M. Ubon Ratchathan	ni 239,200	(2.4)	268,000	(1.9)	305,300	(1.6)
1102	Chanuman	32,700	(2.0)	36,300	(1.8)	40,900	(1.5)
1103	Khemaraj	117,600	(1.1)	124,500	(1.0)	133,500	(0.9)
1104	Senang Khanikhom	37,400	(2.3)	41,500	(1.7)	46,900	(1.5)
1105	Amnat Charoen	135,100	(1.1)	142,000	(0.8)	150,800	(0.3)
1106	Hua Thaphan	47,600	(1.2)	50,800	(1.1)	54,900	(1.0)
1107	Khuang Nai	101,300	(1.0)	106,500	(8.0)	113,200	(0.8)
1108	Muang Samsip	81,200	(2.2)	90,400	(1.8)	102,300	(1.6)
1109	Phana	52,300	(0.7)	54,000	(0.5)	56,300	(0.5)
1110	Kut Kaopun	32,900	(0.9)	34,500	(8.0)	36,600	(0.7)
1111	Trakan Phutphon	103,600	(1.2)	110,800	(1.1)	120,000	(1.0)
1112	Talsum	27,000	(1.4)	29,000	(1.2)	31,500	(1.0)
1113	Si Muang Mai	50,500	(1.5)	54,500	(1.3)	59,600	(1.1)
1114	Khong Chiam	28,800	(2.2)	32,100	(1.8)	36,200	.(1.5)

	<u> </u>	1987	(1981 1987)	1993	(1987 1993)	2001	{: 2(
1115	Warin Chamrap	205,600	(1.1)	217,200	(0.9)	232,200	(
1116	Pibun Mangsahan	120,200	(0.9)	126,000	(8.0)	133,500	(
1117	Det Udom	191,400	(3.4)	223,600	(2.6)	265,300	ţ
1118	Nam Yun	65,100	(2.9)	25,200	(2.4)	88,300	(
L119	Na Chaluai	39,100	(3.8)	44,500	(3.1)	54,100	(
1120	Buntharik	60,200	(2.4)	67,800	(2.0)	77,600	(
1200	СНАІУАРНИМ	963,300	(1.7)	1,097,000	(1.4)	1,155,500	(
201	M. Chaiyaphum	181,500	(2.2)	201,500	(1.8)	227,300	
L202	Khon San	46,500	(0.5)	47,600	(0.4)	48,700	
L203	Kaset Sombun	92,500	(1.1)	97,500	(0.9)	104,100	
L204	Phu Kieo	100,100	(0.6)	103,000	(0.5)	106,900	
205	Ban Thaen	40,800	(0.7)	42,300	(0.6)	44,400	
206	Kaeng Khlo	80,600	(1.5)	87,400	(1.4)	96,100	
207	Khon Sawan	51,900	(0.9)	54,500	(0.8)	58,000	
.208	Nong Bua Daeng	97,100	(3.4)	114,000	(2.7)	135,900	
.209	Nong Bua Rahueo	24,300	(3.0)	27,800	(2.3)	32,300	,
.210	Ban Khwao	61,000	(1.3)	54,300	(1.1)	58,500	1
.211	Thep Satit	54,700	(7.8)	22,400	(4.8)	95,200	(
.212	Bamnet Narong	48,200	(0.6)	49,700	(0.5)	51,700	+
.213	Chatturat	94,100	(0.3)	95,000	(0.2)	96,400	•
300	NAKHON RATCHASIMA	2,127,700	(1.5)	2,295,000	(1.3)	2,509,000	į
301	M. Nakhon Ratcha- sima	350,400	(1.8)	383,900	(1.5)	428,800	•
302	Bua Yai	159,300	(0.3)	161,200	(0.2)	163,400	(

		1987	(1981 1987)	1993	(1 <u>9</u> 87 1993)	2001	(1 <u>9</u> 93 20 <u>0</u> 1)
1303	Ban Luam	20,400	(0.03)	20,500	(0.1)	20,500	(0.0)
1304	Khong	75,500	(0.1)	76,400	(0.2)	77,600	(0.2)
1305	Kham Sakae Saeng	42,900	(0.4)	43,500	(0.2)	44,200	(0.2)
1306	Non Sung	109,900	(1.1)	116,300	(0.9)	124,400	(0.8)
1307	Phimai	104,500	(1.2)	110,700	(1.0)	118,700	(0.9)
1308	Prathai	94,800	(0.4)	96,500	(0.3)	98,600	(0.3)
1309	Chum Phuang	115,600	(1.2)	122,900	(1.02)	132,200	(0.9)
1310	Huai Thalaeng	53,600	(2.0)	59,100	(1.6)	66,100	(1.4)
1311	Chakkaraj	95,900	(1.9)	105,500	(1.6)	117,800	(1.4)
1312	Dan Khun Thot	112,400	(1.6)	122,300	(1.4)	135,000	(1.2)
1313	Non Thai	102,300	(0.03)	102,600	(0.04)	103,000	(0.04)
1314	Kham Thalae So	26,100	(1.3)	27,800	(1.1)	30,100	(1.0)
1315	Sung Noen	60,300	(1.0)	63,500	(0.9)	67,600	(0.8)
1316	Sikhiu	97,200	(2.4)	109,800	(2.1)	125,900	(1.7)
1317	Pak Chong	138,200	(2.2)	154,000	(1.8)	174,300	(1.6)
1318	Pak Thong Chai	127,300	(2.1)	141,500	(1.8)	159,800	(1.5)
1319	Chok Chai	101,200	(1.8)	111,700	(1.7)	125,100	(1.4)
1320	Khon Buri	86,400	(3.0)	99,300	(2.3)	115,900	(2.0)
1321	Soeng Sang	53,400	(4.4)	65,000	(3.3)	80,000	(2.6)
1400	BURI RAM	1,298,200	(1.9)	1,427,700	(1.6)	1,595,300	(1.4)
1401	M. Buri Ram	224,600	(1.5)	241,900	(1.2)	264,200	(1.1)
1402	Phutthaisong	102,300	(1.5)	110,300	(1.4)	120,700	(1.1)
1403	Khu Muang	48,300	(0.2)	49,000	(0.2)	49,800	(0.2)
1404	Satuk	123,700	(1.5)	133,500	(1.3)	146,300	(1.2)

		1987	(1 <u>9</u> 81 1987)	1993	(1 <u>9</u> 87 19 <del>9</del> 3)	2001	(1 <u>9</u> 93 2001)
							<del></del>
1405	Krasang	84,400	(2.8)	96,500	(2.3)	112,200	(1.9)
1406	Lam Plai Mat	166,400	(2.5)	188,300	(2.1)	216,600	(1.8)
1407	Nong Ki	58,500	(2.0)	64,000	(1.5)	71,200	(1.3)
1408	Nang Rong	155,500	(1.7)	169,400	(1.4)	187,400	(1.3)
1409	Pa Khom	31,600	(3.3)	36,800	(2.6)	43,600	(2.1)
1410	Lahan Sai	86,500	(3.8)	103,700	(3.1)	125,900	(2.5)
1411	Prakhon Chai	151,000	(1.5)	163,300	(1.3)	179,300	(1.2)
1412	Ban Kruat	64,300	(1.7)	71,000	(1.4)	78,100	(1.2)
1500	SURIN	1,205,600	(2.1)	1,341,300	(1.8)	1,516,800	(1.5)
1501	M. Surin	241,600	(0.8)	252,300	(0.7)	267,000	(0.7)
1502	Chumphon Buri	56,500	(1.6)	61,400	(1.4)	67,400	(1.2)
1503.	Tha Tum	103,500	(2.5)	121,100	(2.7)	143,800	(2.2)
1504	Chom Phra	53,600	(8.0)	56,000	(0.7)	59,300	(0.7)
1505	Sanom	43,700	(1.1)	46,300	(1.0)	49,700	(0.9)
1506	Rattanaburi	115,300	(1.01)	122,000	(0.0)	131,000	(0.9)
1507	Samrong Thap	40,600	(1.2)	43,300	(1.1)	46,900	(1.0)
1508	Sikhoraphum	121,400	(1.1)	128,900	(1.0)	138,700	(0.9)
1509	Lamduan	23,900	(2.9)	27,500	(2.4)	32,100	(2.0)
1510	Sankha	116,000	(0.6)	119,500	(0.5)	123,500	(0.4)
1511	Prasat	164,900	(4.5)	201,400	(3.4)	248,400	(2.7)
1512	Kap Choeng	101,100	(0.6)	135,600	(5.01)	179,700	(3.6)
1513	Bua Chet	23,500	(2.0)	26,000	(1.7)	29,300	(1.5)

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		1987	(1981 1987)	1993	(1987 1993	2001	(1993 2001)
1600	SI SA KET	1,210,000	(1.6)	1,309,600	(1.3)	1,437,600	(1.2)
1601	M. Si Sa Ket	182,700	(1.2)	194,300	(1.03)	209,400	(0.9)
1602	Rasi Salai	93,600	(1.0)	98,600	(0.9)	105,400	(0.8)
1603	Yang Chum Noi	31,800	(1.3)	34,100	(1.2)	37,200	(1.1)
1604	Kanthararom	132,700	(2.2)	146,400	(1.7)	164,100	(1.4)
1605	Uthumpon Phisai	161,300	(3.6)	187,800	(2.6)	221,700	(2.1)
1606	Huai Thap Than	32,100	(1.4)	34,300	(1.1)	37,300	(1.1)
1607	Prang Ku	48,900	(0.1)	49,400	(0.2)	50,300	(0.2)
1608	Khukhan	129,400	(0.2)	135,700	(8.0)	141,800	(0.6)
1609	Phrai Bung	37,500	(8.0)	39,200	(0.7)	41,500	(0.7)
1610	Khun Han	82,400	(8,0)	85,300	(0.6)	89,400	(0.6)
1611	Bung Boon	12,400	(3.3)	14,400	(2.5)	17,000	(2,1)
1612	Non Koong	38,000	(2.7)	43,100	(2.1)	49,700	(1.8)
1613	Kanthararak	227,200	(1.6)	247,000	(1.4)	272,800	(1.2)

#### 2. GDP and GRP

On the basis of Long-Term Prospect for Economic Development (1980-1990) by NESDB, gross domestic product (GDP) will grow up by 6.6 percent per year during the period of the Fifth Plan (1982-1986), while the growth rate was 7.4 percent during the Fourth Plan.

While, the growth rate of gross regional product (GRP) of the Region during the Fifth Plan is set at 6.0 percent per year compared with that of 5.8 percent during the Fourth Plan. Assuming economic growth during the Fifth Plan may not change for 1987 onward, GDP and GRP in 1993 were estimated.

On the basis of population, GDP and GRP, per capita GDP and GRP are calculated.

GROWTH RATE OF GDP & GRP

(% per year)

53

	1977-1981	1982-1986	1987-
Whole Kingdom	7.4	6.6	6.6
Bangkok	9.3	7.1	7.1
Central	7.3	6.6	6.6
Northeast	5.8	6.0	6.0
North	5.7	6.0	6.0
South	7.3	6.5	6.5

Source: Long-Term Prospect For Economic Development (1980-1990), NESDB

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PROJECTION OF GDP & GRP

(Million of Baht at 1980 Constant Price)

	1980	1987	1993	2001
Whole Kingdom	684,930 (6.7)	1,079,428 (6.6)	1,583,933 (6.6)	2,641,159
Bangkok	223,713 (7.3)	368,645 (7.1)	556,131 (7.1)	961,360
Central	191,932 (6.7)	301,891 (6.6)	442,819 (6.6)	737,354
Northeast	95,403 (6.0)	143,035 (6.0)	202,820 (6.0)	322,813
North	92 <b>,</b> 235 (5 <b>.</b> 9)	138,155 (6.0)	195,900 (6.0)	311,797
South	81,647 (6.6)	127,702 (6.5)	186,263 (6.5)	307,835

Figures in parenthesis show average annual growth rate.

PER CAPITA GDP & GRP

(Baht at 1980 Constant Price)

	1980	1987	1993	2001
Whole Kingdom	14,585 (4.9)	20,407 (5.0)	27,361 (5.2)	40,895
Bangkok	43,405 (4.2)	57,818 (4.3)	74,379 (4.5)	105,982
Central	18,620 (5.1)	26,359 (5.1)	35,479 (5.2)	53,200
Northeast	5,930 (4.2)	7,906 (4.5)	10,318 (4.7)	14,890
North	9,620 (4.6)	13,221 (4.8)	17,511 (4.9)	25,652
South	14,021 (4.9)	19,574 (5.0)	26,295 (5.2)	39,375

Figures in parenthesis show average annual growth rate.

#### Appendix 5.3 WORLD ROAD STATISTICS

#### (1) PAVED ROAD

		<l></l>	<a></a>	<p></p>	<1>	<k></k>
NO.	COUNTRY	PAVED ROAD LENGTH	CULTIVABLE AREA	POPU- LATION	GNP / PERSON	K = L / SQR(A*P)
		(KM)	(KM^2)	(X 10^6)	(BAHT) (\$)	
1	AUSTRIA	36,679	49,910	7.5	197,627 ( 8,630)	0.05995
2	BELGIUM	26,283	25,800	9.8	250,068 (10,920)	0.05227
3	FINLAND	34,355	72,240	4.8	186,864 ( 8,160)	0.05834
4	FRANCE	362,544	400,240	53.4	227,855 ( 9,950)	0.07842
5	GERMANY	171,521	170,940	61.2	268,617 (11,730)	0.05303
6	GREECE	22,208	104,620	9.3	90,684 ( 3,960)	0.02251
7	HUNGARY	29,804	76,400	10.7	88,165 ( 3,850)	0.03296
8	NORWAY	44,501	224,570	4.1	245,030 (10,700)	0.04638
9	SPAIN	148,106	346,940	37.0	100,302 ( 4,380)	0.04134
10	SWEDEN	76,149	147,380	8.3	273,197 (11,930)	0.06885
11	TURKEY	30,812	569,160	44.2	30,457 ( 1,330)	0.00614
12	MOROCCO	18,672	394,350	19.5	16,946 ( 740)	0.00673
13	SOUTH AFRICA	45,523	1,175,040	28.5	39,388 ( 1,720)	0.00787
14	MEXICO	99,385	1,432,740	45.5	37,556 ( 1,640)	0.01026
15	PANAMA	2,764	33,990	1.8	32,060 ( 1,400)	0.01117
16	U.S.A	1,298,137	6,219,200	223.6	243,427 (10,630)	0.03481
1.7	INDIA	515,337	2,300,190	659.2	4,351 ( 190)	0.01323
18	JAPAN	172,795	120,920	115.7	201,749 ( 8,810)	0.04620
19	KOREA	14,271	32,480	37.8	33,892 ( 1,480)	0.01238
20	PAKISTAN	38,202	750,620	79.7	5,954 ( 260)	0.00494
21	THAILAND	21,741	305,520	45.5	13,511 ( 590)	0.00583

#### (2) NATIONAL HIGHWAY

		<l></l>	<a></a>	(P>	<i> ·</i>	<k></k>
NO.	COUNTRY	NATIONAL HIGHWAY (KM)	CULTIVABLE AREA (KM^2)	POPU- LATION (X 10^6)	GNP / PERSON (BAHT) (\$)	K = L / SQR(A*P)
 1	AUSTRIA	11,012	49,910	7.5	197,627 ( 8,630)	0.01800
2	BELGIUM	12,454	25,800	9.8	250,068 (10,920)	0.02477
3	FINLAND	11,212	72,240	4.8	186,864 ( 8,160)	0.01904
4	FRANCE	31,706	400,240	53.4	227,855 ( 9,950)	0.00686
5	GERMANY	39,540	170,940	61.2	268,617 (11,730)	0.01222
6	GREECE	8,761	104,620	9.3	90,684 ( 3,960)	0.00888
7	HUNGARY	6,573	76,400		88,165 ( 3,850)	0.00727
8	NORWAY	25,141	224,570	4.1	245,030 (10,700)	0.02620
9	SPAIN	81,382	346,940	37.0	100,302 ( 4,380)	0.02271
10	SWEDEN	13,482	147,380	8.3	273,197 (11,930)	0.01219
11	TURKEY	22,735	569,160	44.2	30,457 ( 1,330)	0.00453
12	MOROCCO	10,279	394,350	19.5	16,946 ( 740)	0.00371
13	SOUTH AFRICA	2,139	1,175,040	28.5	39,388 ( 1,720)	0.00037
14	MEXICO	43,033	1,432,740	65.5	37,556 ( 1,640)	0.00444
15	PANAMA	664	33,990	1.8	32,060 ( 1,400)	0.00268
16	U.S.A	846,645	6,219,200	223.6	243,427 (10,630)	0.02270
17	INDIA	29,340	2,300,190	659.2	4,351 ( 190)	0.00075
18	JAPAN	42,634	120,920	115.7	201,749 ( 8,810)	0.01140
19	KOREA	9,457	32,480	37.8	33,892 ( 1,480)	0.00853
20	PAKISTAN	38,202	750,620	79.7	5,954 ( 260)	0.00494
21	THAILAND	13,612	305,520	45.5	13,511 ( 590)	0.00365

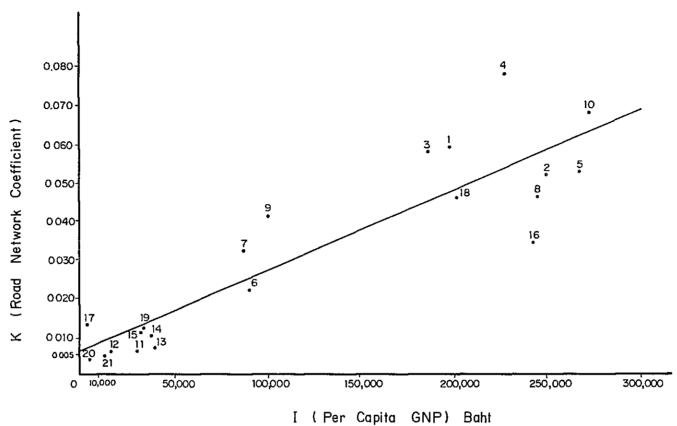
REGRESSION FUNCTION: K = A + B \* I A = 0.00622715407 B = 0.00000020998 COR = 0.9004

REGRESSION FUNCTION : K = A + B \* I A = 0.00340657250 B = 0.00000005964 COR = 0.7372

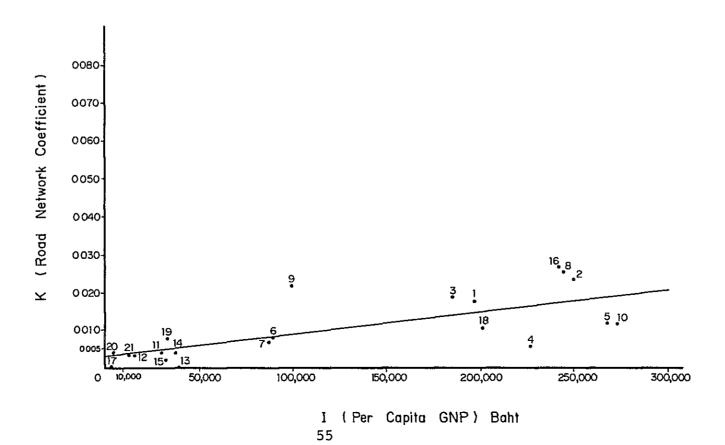
#### Source :

- 1. World Development Report, 1981
- 2. International Road Federation World Road Statistics, 1976-1980
- 3. FAO Production Year Book, 1981





## (2) NATIONAL HIGHWAY



Appendix 5.5 ROAD NETWORK VALUE OF BLOCK SURROUNDED BY PAVED ROAD

-		· <b>-</b>				
F	RANK	BLOCK	POPULATION	CULTIVABLE	LENGTH OF SURROUNDING	ROAD NETWORK VALUE
	<b>-</b>	NO.		ARĒA	LINK	(M VALUE)
	1	98	376,385	3,608.3	103.4	127,028
	2	104	544,548	5,408.1	273.2	39,457
	3	83	337,351	1,849.1	143.9	30,125
	4	96	405,466	3,038.6	214.7	26,926
	5	53	341,387	2,811.5	192.8	25,821
	6	87	555,482	3,384.5	276.6	24,573
	7	113	309,665	2,241.2	190.0	19,225
	8	97	250,740	2,174.1	177.0	17,400
	9	59	481,984	3,232.3	310.4	16,170
	10	75	468,337	2,817.7	285.9	16,144
	11	91	345,275	2,999.8	254.6	15,979
	12	90	241,056	1,658.8	162.8	15,087
	13	15	360,160	2,063.6	224.7	14,720
	14	77	171,042	1,203.5	128.7	12,428
	15	76	288,507	1,953.3	214.7	12,226
	16	68	188,646	1,369.1	146.9	11,968
	17	12	350,146	2,399.2	266.7	11,811
	18	43	249,768	1,474.8	178.1	11,612
	19	50	362,779	1,509.9	217.7	11.557
	20	109	162,755	1,228.4	132.1	11,457
	21	51	231,411	2,177.5	214.3	10,972
	22	14	335,654	1.838.4	254.3	10,964
	23	107	237,264	1,417.9	178.7	10,535
	24	8	444,264	3,300.9	374.1	10,478
	25	31	201,077	1,484.9	174.7	9,783
	26	48	228,301	1,671.9	198.5	9,687
	27	35	249,035	2,020.5	229.4	9,564
	28	70	149,894	668.8	102.8	9,486
	29	63	259,799	1,442.1	201.2	9,255
	30	81	234,110	1,716.5	209.2	9,132
	31	67	234,541	1.802.6	215.7	9,087
	32	16	262,099	988.8	170.0	8,967
	33	71	195,496	1.348.1	172.4	8,867
	34	40	168,643	725.8	117.5	8,866
	35	29	195,260	825.8	136.9	8,604
	36	27	120,780	669.9	97.0	8,599
	37 38	55	151,204	867.2	124.6	8,446
	39	105 25	195,874	1,311.5	174.6	8,426
	40	17	136,924	836.5	117.2	8,338
	41	1	480,185 260,292	2,043,3	348.7	8,069
	42	49	166,932	2,019.9 1,183.1	255.4	8,060
	43	30	162,910	1,339.8	158.9	7.822
	44	54	211,326	1,352.8	167.6	7,771 7,612
	45	46	231,265	1,799.9	193.8 234.5	
	46	9	162,285	814.1	134.2	7,569 7,336
	47	114	96,267	933.9	111.1	7,234
	48	62	166,403	1.331.4	174.7	7,259
	49	79	168,262	1,064.1	159.4	7.047
	50	93	115,970	1,064.2	132.6	7,019
	51	108	125,713	762.4	124.0	6,234
	52	10	172,743	1,376.0	193.2	6,139
	53	36	133,256	626.7	116.9	6,111
	54	74	153,709	354.4	146.3	6,094
	55	47	195,825	1,535.4	222.5	6,073
	56	78	200,795	1,092.0	191.1	6,004
	57	30	162,801	643.1	134.7	5,771
	58	115	107,052	568.9	103.3	5,707
	59	116	81,043	814.5	108.9	5,566
	60	22	267,018	1,728.0	290.1	5,483
	61	101	69,838	1,008.8	113.5	5,469
	62	58	196,838	1,382.7	226.8	5,291
	63	95	145,873	758.6	144.7	5,285
	64	82	116,092	771.1	130.5	5,257
	65	42	104,065	565.2	108.9	4,960
	66	24	153,312	1,025.2	178.9	4,911
	67	86	146,664	1,285.7	202.2	4,612
	68	65	81,025	637.4	106.1	4,588
	69	60	152, 196	732.9	157.4	4,502
A Priority Block	70	94	117,472	618.0	128.0	4,431
·1· -		88	99,836	674.9	123.6	4,410
Selected by	72 72	32	146,769	1,156.9	196.6	4,393
M Value	73 74	23	144,403	711.8	155.6	4,245
<del></del>		100	98,823	1,177.8	169.4	4,056

					·
	BLOCK		CULTIVABLE	LENGTH OF	ROAD NETWORK
RANK	NO.	POPULATION	_ AREA	SURROUNDING LINK	VALUE (M VALUE)
75	44	201,225	1,235.7	253.9	3,857
76	56	47,412	392.7	69.6	3,843
77	110	104,533	624.4	130.5	3,833
78	84	105,570	655.3	134.4	3,830
79	61	146,914	992.7	196.9	3,762
30	33	127,392	699.6	154.0	3,758
81	66	68,371	500.2	98.1	3,554
32	92	114,657	984.1	179.5	3,502
83	73	101,435	665.5	143.9	3,260
84	57	51,198	351.0	75.6	3,145
85	119	77,337	153.2	63.0	2,985
86	. 34	123,951	1,147.4	219.1	2,963
87	89	75,215	228.5	78.2	2,810
88	72	79,274	508.5	120.5	2,776
89	28	79,976	407.6	110.4	2,675
90	111	53,469	329.8	83.1	2,553
91	13	109,623	439.0	138.1	2,523
92	20	95,309	442.5	130.5	2,477
23	26	66,745	320.2	92.9	2,476
94	118	50,622	261.3	74.2	2,403
95	117	50,031	516.4	104.4	2,370
96	21	141,493	561.3	187.0	2,271
97	19	129,722	781.8	222.4	2,050
98	69	68,349	301.4	100.8	2,028
99	106	64,217	360.9	110.9	1,834
100	11	49,843	232.9	79.0	1,360
101	39	43,320	215.6	73.2	1,763
102	13	86,515	306.9	125.0	1,699
103	41	57,661	339.2	103.6	1,658
104	64	36,228	278.4	80.3	1,564
105	37	45,543	331.4	103.4	1,411
106	99	43,181	153.0	71.9	1,278
107	38	18,839	285.7	72.3	1,032
108	102	18,463	246.2	73.2	848
109	5	51,209	492.0	175.6	817
110	85	29,234	238.0	94.2	784
111	45	23,303	122.7	62.4	734
112	6	43,417	316.7	139.8	704
113	7	41,894	229.3	123.6	629
114	52	13,741	115.0	52.5	573
115	102	9,730	120.6	51.9	436
116	103	16,929	105.2	65.3	418
117	112	10,430	57.1	44.5	301
118	3 4	7,345	60.1	50.7	172
119	4	2,172	26.9	61.8	15