



THESIS APPROVAL

GRADUATE SCHOOL, KASETSART UNIVERSITY

Doctor of Philosophy (Tropical Agriculture)

DEGREE

Tropical Agriculture

Agriculture

FIELD

FACULTY

TITLE: Study on Land Suitability and Zoning of Rambutan Potential
Production Area Using Geo-informatics

NAME: Ms. Yupa Limsawad

THIS THESIS HAS BEEN ACCEPTED BY

THESIS ADVISOR

(Associate Professor Chalongchai Babpraserth, B.S.)

THESIS CO-ADVISOR

(Associate Professor Thanya Taychasinpitak, M.S.)

THESIS CO-ADVISOR

(Associate Professor Sununtha Kingpaiboon, Ph.D.)

GRADUATE COMMITTEE CHAIRMAN

(Associate Professor Yingyong Paisooksantivatana, Ph.D.)

APPROVED BY THE GRADUATE SCHOOL ON

DEAN

(Associate Professor Gunjana Theeragool, D.Agr.)

THESIS

STUDY ON LAND SUITABILITY AND ZONING
OF RAMBUTAN POTENTIAL PRODUCTION AREA
USING GEO-INFORMATICS

MS. YUPA LIMSAWAD

A Thesis Submitted in Partial Fulfillment of
the Requirements for the Degree of
Doctor of Philosophy (Tropical Agriculture)
Graduate School, Kasetsart University
2012

Yupa Limsawad 2012: Study on Land Suitability and Zoning of Rambutan Potential Production Area Using Geo-informatics. Doctor of Philosophy (Tropical Agriculture), Major Field: Tropical Agriculture, Faculty of Agriculture. Thesis Advisor: Associate Professor Chalongchai Babprasert, B.S. 755 pages.

This study is to analyse physical suitability for rambutan planting and to define agro-economic zone of rambutan in Thailand at scale of 1:50,000 using new technology, so called Geo-informatics, as a tool for land suitability. This technology including Geographic Information System-GIS, Remote Sensing-RS, and Global Positioning System-GPS has been proven and effective tool for spatial production planning. The objective of the study is to adjust rambutan production suitable for area potential as well as to increase efficiency of production system, processing and marketing to be in high stability, and to increase competitiveness in the world market.

The rambutan planted area suitability be derived from the overlay of soil and thirty nine years average rainfall and irrigated boundary and maps of present land use and forest boundary are then analysed with area suitability level for 3 levels of suitability, namely, highly suitable, moderately suitable, and unsuitable, in the whole country areas of Thailand. This map will delineate out of forest conservation areas, built-up areas and others. All these will overlay with administrative boundaries such as provincial boundaries, district and sub-district boundaries, along with main road networks.

The results will obtain suitability maps for rambutan planted area in Thailand along with, namely, high suitability, moderate suitability, and unsuitability, existing forest area, deforestation area, water and built-up areas. The analysis for potential level of rambutan production zoning is undertaken by integrating the map of area suitability for rambutan production with important economic factors effecting to production system. The factors are :commodity demand and supply, production target, production source, production cost, farmgate price, production capability, and plant location for processing factory at district level. Percentage of weighting and other conditions are different for each factor. The result obtained is map illustrating potential level for rambutan production zoning. The potential is divided into 2 levels including production potential on area level 1 and production potential area level 2.

Student's signature

Thesis Advisor's signature

/ /

ACKNOWLEDGEMENTS

This is my great pleasure to express my profound gratitude and sincere appreciation to my thesis adviser Associate Professor Chalongchai Babprasert for his continuous guidance, patience, understanding, encouragements and criticisms for not just being my thesis adviser but also as a friend and counselor as well.

I wish to express my heartfelt thanks and gratitude to my course adviser Associate Professor Thanya Taychasinpitak and Associate Professor Dr. Sununtha Kingpaiboon for their invaluable advice, enthusiastic support and guidance towards the completion of the course and of this thesis. I am also indebted to Associate Professor Dr. Yingyong Paisooksantivatana, Professor Dr. Watana Sathiansawat, and Dr. Sherarl Wongchaochant, for their valuable comments and suggestion as members of my thesis committee.

I am so grateful to thank Department of horticulture, Faculty of agriculture, Bangkhen campus, Kasetsart University, and Office of agricultural economics for funding and providing materials with equipment in this research.

Sincere thanks are also extended to my fellow students and friends for their constant support.

A special debt of deep gratitude is offered to my family members who encourages and supported me during my study here and for their enduring patience and many sacrifices they have made.

Yupa Limsawad
May 2012

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	i
LIST OF TABLES	ii
LIST OF FIGURES	ix
INTRODUCTION	1
OBJECTIVES	4
LITERATURE REVIEW	5
MATERIALS AND METHODS	29
Materials	29
Methods	29
RESULTS AND DISCUSSION	43
Results	43
Discussion	86
CONCLUSION AND RECOMMENDATIONS	111
Conclusion	111
Recommendations	112
LITERATURE CITED	114
APPENDIX	118
CURRICULUM VITAE	755

LIST OF TABLES

Table		Page
1	Land suitability for rambutan in Thailand	45
2	Land suitability for rambutan by region	50
3	Rambutan : existing planted area and product yield, year 2011	54
4	Correlation analysis of physical factor and economic factor	84
5	Agro - economic zoning on rambutan from Analysis of physical factor and Economic factor	88
Appendix Tables		
1	Classification of Land Suitability for Rambutan in Chiang Rai Province, Thailand	119
2	Land Suitability for Rambutan in Chiang Rai Province by Amphoe, Tambon, Thailand	120
3	Zoning For Rambutan in Chiang Rai Province	131
4	Classification of Land Suitability for Rambutan in Chiang Mai Province, Thailand	134
5	Land Suitability for Rambutan in Chiang Mai Province by Amphoe, Tambon, Thailand	135
6	Zoning For Rambutan in Chiang Mai Province	148
7	Classification of Land Suitability for Rambutan in Mae Hong Son Province, Thailand	151
8	Land Suitability for Rambutan in Mae Hong Son Province by Amphoe, Tambon, Thailand	152
9	Zoning For Rambutan in Mae Hong Son Province	157
10	Classification of Land Suitability for Rambutan in Kamphaeng Phet Province, Thailand	160
11	Land Suitability for Rambutan in Kamphaeng Phet Province by Amphoe, Tambon, Thailand	161
12	Zoning For Rambutan in Kamphaeng Phet Province	169
13	Classification of Land Suitability for Rambutan in Phrae Province, Thailand	172
14	Land Suitability for Rambutan in Phrae Province by Amphoe, Tambon, Thailand	173
15	Zoning For Rambutan in Phrae Province	179
16	Classification of Land Suitability for Rambutan in Nan Province, Thailand	182
17	Land Suitability for Rambutan in Nan Province by Amphoe, Tambon, Thailand	183
18	Zoning For Rambutan in Nan Province	192
19	Classification of Land Suitability for Rambutan in Uttaradit Province, Thailand	195

LIST OF TABLES (Cont'd)

Appendix Tables	Page
20 Land Suitability for Rambutan in Uttaradit Province by Amphoe, Tambon, Thailand	196
21 Zoning For Rambutan in Uttaradit Province	202
22 Classification of Land Suitability for Rambutan in Phitsanulok Province, Thailand	205
23 Land Suitability for Rambutan in Phitsanulok Province by Amphoe, Tambon, Thailand	206
24 Zoning For Rambutan in Phitsanulok Province	214
25 Classification of Land Suitability for Rambutan in Nakhon Sawan Province, Thailand	217
26 Land Suitability for Rambutan in Nakhon Sawan Province by Amphoe, Tambon, Thailand	218
27 Zoning For Rambutan in Nakhon Sawan Province	229
28 Classification of Land Suitability for Rambutan in Uthai Thani Province, Thailand	232
29 Land Suitability for Rambutan in Uthai Thani Province by Amphoe, Tambon, Thailand	233
30 Zoning For Rambutan in Uthai Thani Province	239
31 Classification of Land Suitability for Rambutan in Phetchabun Province, Thailand	242
32 Land Suitability for Rambutan in Phetchabun Province by Amphoe, Tambon, Thailand	243
33 Zoning For Rambutan in Phetchabun Province	252
34 Classification of Land Suitability for Rambutan in Loei Province, Thailand	255
35 Land Suitability for Rambutan in Loei Province by Amphoe, Tambon, Thailand	256
36 Zoning For Rambutan in Loei Province	265
37 Classification of Land Suitability for Rambutan in Udon Thani Province, Thailand	268
38 Land Suitability for Rambutan in Udon Thani Province by Amphoe, Tambon, Thailand	269
39 Zoning For Rambutan in Udon Thani Province	282
40 Classification of Land Suitability for Rambutan in Nong Khai Province, Thailand	285
41 Land Suitability for Rambutan in Nong Khai Province by Amphoe, Tambon, Thailand	286
42 Zoning For Rambutan in Nong Khai Province	292
43 Classification of Land Suitability for Rambutan in Bueng Kan Province, Thailand	295
44 Land Suitability for Rambutan in Bueng Kan Province by Amphoe, Tambon, Thailand	296

LIST OF TABLES (Cont'd)

Appendix Tables	Page
45 Zoning For Rambutan in Bueng Kan Province	301
46 Classification of Land Suitability for Rambutan in Sakon Nakhon Province, Thailand	304
47 Land Suitability for Rambutan in Sakon Nakhon Province by Amphoe, Tambon, Thailand	305
48 Zoning For Rambutan in Sakon Nakhon Province	316
49 Classification of Land Suitability for Rambutan in Nakhon Phanom Province, Thailand	319
50 Land Suitability for Rambutan in Nakhon Phanom Province by Amphoe, Tambon, Thailand	320
51 Zoning For Rambutan in Nakhon Phanom Province	328
52 Classification of Land Suitability for Rambutan in Mukdahan Province, Thailand	331
53 Land Suitability for Rambutan in Mukdahan Province by Amphoe, Tambon, Thailand	332
54 Zoning For Rambutan in Mukdahan Province	337
55 Classification of Land Suitability for Rambutan in Yasothon Province, Thailand	340
56 Land Suitability for Rambutan in Yasothon Province by Amphoe, Tambon, Thailand	341
57 Zoning For Rambutan in Yasothon Province	348
58 Classification of Land Suitability for Rambutan in Ubon Ratchathani Province, Thailand	351
59 Land Suitability for Rambutan in Ubon Ratchathani Province by Amphoe, Tambon, Thailand	352
60 Zoning For Rambutan in Ubon Ratchathani Province	368
61 Classification of Land Suitability for Rambutan in Si Sa Ket Province, Thailand	371
62 Land Suitability for Rambutan in Si Sa Ket Province by Amphoe, Tambon, Thailand	372
63 Zoning For Rambutan in Si Sa Ket Province	386
64 Classification of Land Suitability for Rambutan in Buri Ram Province, Thailand	389
65 Land Suitability for Rambutan in Buri Ram Province by Amphoe, Tambon, Thailand	390
66 Zoning For Rambutan in Buri Ram Province	404
67 Classification of Land Suitability for Rambutan in Chaiyaphum Province, Thailand	407
68 Land Suitability for Rambutan in Chaiyaphum Province by Amphoe, Tambon, Thailand	408
69 Zoning For Rambutan in Chaiyaphum Province	418

LIST OF TABLES (Cont'd)

Appendix Tables	Page
70 Classification of Land Suitability for Rambutan in Nakhon Ratchasima Province, Thailand	421
71 Land Suitability for Rambutan in Nakhon Ratchasima Province by Amphoe, Tambon, Thailand	422
72 Zoning For Rambutan in Nakhon Ratchasima Province	443
73 Classification of Land Suitability for Rambutan in Saraburi Province, Thailand	446
74 Land Suitability for Rambutan in Saraburi Province by Amphoe, Tambon, Thailand	447
75 Zoning For Rambutan in Saraburi Province	454
76 Classification of Land Suitability for Rambutan in Suphan Buri Province, Thailand	457
77 Land Suitability for Rambutan in Suphan Buri Province by Amphoe, Tambon, Thailand	458
78 Zoning For Rambutan in Suphan Buri Province	467
79 Classification of Land Suitability for Rambutan in Nakhon Nayok Province, Thailand	470
80 Land Suitability for Rambutan in Nakhon Nayok Province by Amphoe, Tambon, Thailand	471
81 Zoning For Rambutan in Nakhon Nayok Province	475
82 Classification of Land Suitability for Rambutan in Prachin Buri Province, Thailand	478
83 Land Suitability for Rambutan in Prachin Buri Province by Amphoe, Tambon, Thailand	479
84 Zoning For Rambutan in Prachin Buri Province	485
85 Classification of Land Suitability for Rambutan in Chachoengsao Province, Thailand	488
86 Land Suitability for Rambutan in Chachoengsao Province by Amphoe, Tambon, Thailand	489
87 Zoning For Rambutan in Chachoengsao Province	496
88 Classification of Land Suitability for Rambutan in Sa Kaeo Province, Thailand	499
89 Land Suitability for Rambutan in Sa Kaeo Province by Amphoe, Tambon, Thailand	500
90 Zoning For Rambutan in Sa Kaeo Province	506
91 Classification of Land Suitability for Rambutan in Chanthaburi Province, Thailand	509
92 Land Suitability for Rambutan in Chanthaburi Province by Amphoe, Tambon, Thailand	510
93 Zoning For Rambutan in Chanthaburi Province	517
94 Classification of Land Suitability for Rambutan in Trat Province, Thailand	520

LIST OF TABLES (Cont'd)

Appendix Tables	Page
95 Land Suitability for Rambutan in Trat Province by Amphoe, Tambon, Thailand	521
96 Zoning For Rambutan in Trat Province	525
97 Classification of Land Suitability for Rambutan in Rayong Province, Thailand	528
98 Land Suitability for Rambutan in Rayong Province by Amphoe, Tambon, Thailand	529
99 Zoning For Rambutan in Rayong Province	534
100 Classification of Land Suitability for Rambutan in Chon Buri Province, Thailand	537
101 Land Suitability for Rambutan in Chon Buri Province by Amphoe, Tambon, Thailand	538
102 Zoning For Rambutan in Chon Buri Province	545
103 Classification of Land Suitability for Rambutan in Kanchanaburi Province, Thailand	548
104 Land Suitability for Rambutan in Kanchanaburi Province by Amphoe, Tambon, Thailand	549
105 Zoning For Rambutan in Kanchanaburi Province	558
106 Classification of Land Suitability for Rambutan in Ratchaburi Province, Thailand	561
107 Land Suitability for Rambutan in Ratchaburi Province by Amphoe, Tambon, Thailand	562
108 Zoning For Rambutan in Ratchaburi Province	569
109 Classification of Land Suitability for Rambutan in Prachuap Khiri Khan Province, Thailand	572
110 Land Suitability for Rambutan in Prachuap Khiri Khan Province by Amphoe, Tambon, Thailand	573
111 Zoning For Rambutan in Prachuap Khiri Khan Province	578
112 Classification of Land Suitability for Rambutan in Chumphon Province, Thailand	581
113 Land Suitability for Rambutan in Chumphon Province by Amphoe, Tambon, Thailand	582
114 Zoning For Rambutan in Chumphon Province	589
115 Classification of Land Suitability for Rambutan in Ranong Province, Thailand	592
116 Land Suitability for Rambutan in Ranong Province by Amphoe, Tambon, Thailand	593
117 Zoning For Rambutan in Ranong Province	597
118 Classification of Land Suitability for Rambutan in Surat Thani Province, Thailand	600
119 Land Suitability for Rambutan in Surat Thani Province by Amphoe, Tambon, Thailand	601

LIST OF TABLES (Cont'd)

Appendix Tables	Page
120 Zoning For Rambutan in Surat Thani Province	614
121 Classification of Land Suitability for Rambutan in Phang-nga Province, Thailand	619
122 Land Suitability for Rambutan in Phang-nga Province by Amphoe, Tambon, Thailand	620
123 Zoning For Rambutan in Phang-nga Province	626
124 Classification of Land Suitability for Rambutan in Phuket Province, Thailand	629
125 Land Suitability for Rambutan in Phuket Province by Amphoe, Tambon, Thailand	630
126 Zoning For Rambutan in Phuket Province	633
127 Classification of Land Suitability for Rambutan in Krabi Province, Thailand	636
128 Land Suitability for Rambutan in Krabi Province by Amphoe, Tambon, Thailand	637
129 Zoning For Rambutan in Krabi Province	643
130 Classification of Land Suitability for Rambutan in Trang Province, Thailand	646
131 Land Suitability for Rambutan in Trang Province by Amphoe, Tambon, Thailand	647
132 Zoning For Rambutan in Trang Province	656
133 Classification of Land Suitability for Rambutan in Nakhon Si Thammarat Province, Thailand	659
134 Land Suitability for Rambutan in Nakhon Si Thammarat Province by Amphoe, Tambon, Thailand	660
135 Zoning For Rambutan in Nakhon Si Thammarat Province	676
136 Classification of Land Suitability for Rambutan in Phatthalung Province, Thailand	681
137 Land Suitability for Rambutan in Phatthalung Province by Amphoe, Tambon, Thailand	682
138 Zoning For Rambutan in Phatthalung Province	689
139 Classification of Land Suitability for Rambutan in Songkhla Province, Thailand	692
140 Land Suitability for Rambutan in Songkhla Province by Amphoe, Tambon, Thailand	693
141 Zoning For Rambutan in Songkhla Province	705
142 Classification of Land Suitability for Rambutan in Satun Province, Thailand	708
143 Land Suitability for Rambutan in Satun Province by Amphoe, Tambon, Thailand	709
144 Zoning For Rambutan in Satun Province	714
145 Classification of Land Suitability for Rambutan in Pattani Province, Thailand	717

LIST OF TABLES (Cont'd)

Appendix Table	page
146 Land Suitability for Rambutan in Pattani Province by Amphoe, Tambon, Thailand	718
147 Zoning for Rambutan in Pattani Province	729
148 Classification of Land Suitability for Rambutan in Yala Province, Thailand	732
149 Land Suitability for Rambutan in Yala Province by Amphoe, Tambon, Thailand	733
150 Zoning For Rambutan in Yala Province	740
151 Classification of Land Suitability for Rambutan in Narathiwat Province, Thailand	743
152 Land Suitability for Rambutan in Narathiwat Province by Amphoe, Tambon, Thailand	744
153 Zoning For Rambutan in Narathiwat Province	752

LIST OF FIGURES

Figure		Page
1	Rambutan, <i>Nephelium lappaceum</i> Painted by Dr. M.J. Dijkman	6
2	Rambutan, Fresh fruit production.	13
3	Rambutan, Production from year 2010 – 2012	14
4	Rambutan, farm gate price of rambutan aggregate from year 2003 – 2011	15
5	A simple illustration to show how geo- informatics works. The above diagram depicts how the different domains act together to solve a typical geospatial problem.	20
6	The real world represented as a number of related data layers.	22
7	Design philosophy of a GIS functionality.	22
8	Data collection process by remote sensing.	23
9	Show the step on using GIS to analyse potential production area.	29
10	Show the step on using GIS to analyse potential production area.	34
11	Show the step on using GIS to analyse spatial data for rambutan zoning.	34
12	Map of water in Thailand	35
13	Map of rainfall in Thailand	36
14	Map of soils in Thailand	37
15	Map of landuse in Thailand	38
16	Map of administrative boundary in Thailand	39
17	Map of forest in Thailand	40
18	Map of irrigation in Thailand	41
19	Map of transportation in Thailand	42
20	Show Level of rambutan suitability by region	50
21	Map of land suitability for rambutan in Thailand	52
22	Map of zoning for rambutan in Thailand	85

Appendix Figure

1	Map of Land Suitability for Rambutan in Chiang Rai Province	130
2	Map of Zoning for Rambutan in Chiang Rai Province	133
3	Map of Land Suitability for Rambutan in Chiang Mai Province	147
4	Map of Zoning for Rambutan in Chiang Mai Province	150
5	Map of Land Suitability for Rambutan in Mae Hong Son Province	156
6	Map of Zoning for Rambutan in Mae Hong Son Province	159
7	Map of Land Suitability for Rambutan in Kamphaeng Phet Province	168
8	Map of Zoning for Rambutan in Kamphaeng Phet Province	171
9	Map of Land Suitability for Rambutan in Phrae Province	178
10	Map of Zoning for Rambutan in Phrae Province	181
11	Map of Land Suitability for Rambutan in Nan Province	191
12	Map of Zoning for Rambutan in Nan Province	194

LIST OF FIGURES(Cont'd)

Appendix Figure	Page
13 Map of Land Suitability for Rambutan in Uttaradit Province	201
14 Map of Zoning for Rambutan in Uttaradit Province	204
15 Map of Land Suitability for Rambutan in Phitsanulok Province	213
16 Map of Zoning for Rambutan in Phitsanulok Province	216
17 Map of Land Suitability for Rambutan in Nakhon Sawan Province	228
18 Map of Zoning for Rambutan in Nakhon Sawan Province	231
19 Map of Land Suitability for Rambutan in Uthai Thani Province	238
20 Map of Zoning for Rambutan in Uthai Thani Province	241
21 Map of Land Suitability for Rambutan in Phetchabun Province	251
22 Map of Zoning for Rambutan in Phetchabun Province	254
23 Map of Land Suitability for Rambutan in Loei Province	264
24 Map of Zoning for Rambutan in Loei Province	267
25 Map of Land Suitability for Rambutan in Udon Thani Province	281
26 Map of Zoning for Rambutan in Udon Thani Province	284
27 Map of Land Suitability for Rambutan in Nong Khai Province	291
28 Map of Zoning for Rambutan in Nong Khai Province	294
29 Map of Land Suitability for Rambutan in Bueng Kan Province	300
30 Map of Zoning for Rambutan in Bueng Kan Province	303
31 Map of Land Suitability for Rambutan in Sakon Nakhon Province	315
32 Map of Zoning for Rambutan in Sakon Nakhon Province	318
33 Map of Land Suitability for Rambutan in Nakhon Phanom Province	327
34 Map of Zoning for Rambutan in Nakhon Phanom Province	330
35 Map of Land Suitability for Rambutan in Mukdahan Province	336
36 Map of Zoning for Rambutan in Mukdahan Province	339
37 Map of Land Suitability for Rambutan in Yasothon Province	347
38 Map of Zoning for Rambutan in Yasothon Province	350
39 Map of Land Suitability for Rambutan in Ubon Ratchathani Province	367
40 Map of Zoning for Rambutan in Ubon Ratchathani Province	370
41 Map of Land Suitability for Rambutan in Si Sa Ket Province	385
42 Map of Zoning for Rambutan in Si Sa Ket Province	388
43 Map of Land Suitability for Rambutan in Buri Ram Province	403
44 Map of Zoning for Rambutan in Buri Ram Province	406
45 Map of Land Suitability for Rambutan in Chaiyaphum Province	417
46 Map of Zoning for Rambutan in Chaiyaphum Province	420
47 Map of Land Suitability of Rambutan in Nakhon Ratchasima Province	442
48 Map of Zoning for Rambutan in Nakhon Ratchasima Province	445
49 Map of Land Suitability for Rambutan in Saraburi Province	453
50 Map of Zoning for Rambutan in Saraburi Province	456

LIST OF FIGURES (Cont'd)

Appendix Figure	page
51 Map of Land Suitability for Rambutan in Suphan Buri Province	466
52 Map of Zoning for Rambutan in Suphan Buri Province	469
53 Map of Land Suitability for Rambutan in Nakhon Nayok Province	474
54 Map of Zoning for Rambutan in Nakhon Nayok Province	477
55 Map of Land Suitability for Rambutan in Prachin Buri Province	484
56 Map of Zoning for Rambutan in Prachin Buri Province	487
57 Map of Land Suitability for Rambutan in Chachoengsao Province	495
58 Map of Zoning for Rambutan in Chachoengsao Province	498
59 Map of Land Suitability for Rambutan in Sa Kaeo Province	505
60 Map of Zoning for Rambutan in Sa Kaeo Province	508
61 Map of Land Suitability for Rambutan in Chanthaburi Province	516
62 Map of Zoning for Rambutan in Chanthaburi Province	519
63 Map of Land Suitability for Rambutan in Trat Province	524
64 Map of Zoning for Rambutan in Trat Province	527
65 Map of Land Suitability for Rambutan in Rayong Province	533
66 Map of Zoning for Rambutan in Rayong Province	536
67 Map of Land Suitability for Rambutan in Chon Buri Province	544
68 Map of Zoning for Rambutan in Chon Buri Province	547
69 Map of Land Suitability for Rambutan in Kanchanaburi Province	557
70 Map of Zoning for Rambutan in Kanchanaburi Province	560
71 Map of Land Suitability for Rambutan in Ratchaburi Province	568
72 Map of Zoning for Rambutan in Ratchaburi Province	571
73 Map of Land Suitability for Rambutan in Prachuap Khiri Khan Province	577
74 Map of Zoning for Rambutan in Prachuap Khiri Khan Province	580
75 Map of Land Suitability for Rambutan in Chumphon Province	588
76 Map of Zoning for Rambutan in Chumphon Province	591
77 Map of Land Suitability for Rambutan in Ranong Province	596
78 Map of Zoning for Rambutan in Ranong Province	599
79 Map of Land Suitability for Rambutan in Surat Thani Province	613
80 Map of Zoning for Rambutan in Surat Thani Province	618
81 Map of Land Suitability for Rambutan in Phang-nga Province	625
82 Map of Zoning for Rambutan in Phang-nga Province	628
83 Map of Land Suitability for Rambutan in Phuket Province	632
84 Map of Zoning for Rambutan in Phuket Province	635

LIST OF FIGURES (Cont'd)

Appendix Figure	page
85 Map of Land Suitability for Rambutan in Krabi Province	642
86 Map of Zoning for Rambutan in Krabi Province	645
87 Map of Land Suitability for Rambutan in Trang Province	655
88 Map of Zoning for Rambutan in Trang Province	658
89 Map of Land Suitability for Rambutan in Nakhon Si Thammarat Province	675
90 Map of Zoning for Rambutan in Nakhon Si Thammarat Province	680
91 Map of Land Suitability for Rambutan in Phatthalung Province	688
92 Map of Zoning for Rambutan in Phatthalung Province	691
93 Map of Land Suitability for Rambutan in Songkhla Province	704
94 Map of Zoning for Rambutan in Songkhla Province	707
95 Map of Land Suitability for Rambutan in Satun Province	713
96 Map of Zoning for Rambutan in Satun Province	716
97 Map of Land Suitability for Rambutan in Pattani Province	728
98 Map of Zoning for Rambutan in Pattani Province	731
99 Map of Land Suitability for Rambutan in Yala Province	739
100 Map of Zoning for Rambutan in Yala Province	742
101 Map of Land Suitability for Rambutan in Narathiwat Province	751
102 Map of Zoning for Rambutan in Narathiwat Province	754

STUDY ON LAND SUITABILITY AND ZONING OF RAMBUTAN POTENTIAL PRODUCTION AREA USING GEO-INFORMATICS

INTRODUCTION

The rambutan (*Nephelium lappaceum*) is a medium-sized tropical tree in the family Sapindaceae. The fruit produced by the tree is also known as "rambutan." It is native to Vietnam, Indonesia, the Philippines, Sri Lanka, Malaysia, and elsewhere in Southeast Asia, although its precise natural distribution is unknown. It is closely related to several other edible tropical fruits including the lychee, longan, and mamoncillo. It is believed to be native to the Malay Archipelago, from where it spread westwards to Thailand, Burma, Sri Lanka and India; eastwards to Vietnam, the Philippines and Indonesia. The name *rambutan* is derived from the Malay word *rambutan*, meaning "hairy". In Vietnam, it is called *chôm chôm* (meaning "messy hair") due to the spines covering the fruit's skin.

Thailand is the leading producer of rambutan in the Asian region with about 330,720 rai and 307,342 metric ton (2011). Production is concentrated in the provinces of Chanthaburi, Trad, Rayong, in the east and Nakhonsithammarat, Suratthani, Narathiwat, and Chumphon, in the south and Chiangrai, Nan, in the north. Peak harvest season is between May and July. In recent years, many rambutan plantings in the Chanthaburi area have been replaced by para rubber and oil palm trees due to overproduction, high postharvest costs and low return. Market and price situation in 2011 is highly trend due to continuous demand of consumption both in local and foreign market. Average price is between 14 Baht to 16 Baht /kg. Main export market is Vietnam, Cambodia, Hongkong, Singapore, and Malaysia. In 2012 expected that local consumption and export fresh rambutan fruit are more trend because of continuous increasing in production and foreign market consumption.

According to reported agricultural land use studies, one common interested topic is the loss of prime agricultural land to non-farm activities. The loss of agricultural land and its adverse impacts on the resource capability and adequacy for agriculture are among key concerns regarding long term agricultural development (Turner *et al.*, 1995; Xu, W. 1997). Understanding the nature of agricultural land use change is important for understanding these concerns, and also for providing effective solutions to the problems associated with these changes.

The reduction of agricultural land directly results in the difficulty to find a suitable area for crop cultivation which should be the main issue to study because the problem of selecting the suitable land for the cultivation of a certain agricultural product is a long-standing and mainly empirical issue (Kalogirou, 2002). Generally, the meaning of land suitability could be given as follows: "suitability is a measure of how well the qualities of a land unit match the requirements of a particular from of land use" (FAO, 1976), which means the suitable area, e.g. land with high quality for crop production can increase agricultural products. Theoretically, the potential of land

suitability for agricultural use is determined by an evaluation process of the climate, soil, topographical and environmental characteristics (Land Quality), and the understanding of local biophysical restraints (Corbett, 1996; cited in Ceballos-Silva and Lopez-Blanco, 2003). This evaluation process is an essential step for the proper development of productive agriculture. Additionally, the identification and accurate description of current and potential production lands are essential for the development of suitable agro-industry in the target area.

One of the mandates of the Office of Agricultural Economics-OAE, defined in the Agricultural Economic Act B.E. 2522, is to study, analyse factors related to agricultural production. The factors include : suitability of production source based on soil type, weather condition ; water supply ; farm type ; farmer's main income ; and domestic and external market demand. Those factors are used for agro-economic zoning of agricultural commodity, and then submit to the Committee on Agriculture and Cooperatives Policy and Development Plan.

So far, the agro-economic zoning for agricultural commodity was undertaken for 13 commodities including 12 crops and 1 livestock. They are sugarcane, oil palm, major rice, second rice, corn, cassava, pineapple, soybean, rubber, durian, longan, coffee and broiler. However, various circumstances have been changed. The Committee therefore set up the Sub-committee on Zoning and Implementation Measure Consideration to review and renew the agro-economic zoning by using new technology so called Geo-informatics. The technology including Geographic Information System-GIS, Remote Sensing-RS, and Global Positioning System-GPS. GIS is a new technical methodology using computer for spatial data collection, archival, and management. This method provides accurate and reliable spatial information such as position of target places. The results can therefore be effectively applied for spatial planning.

Recently, Geo-informatics which consist of geographic information system (GIS) and remote sensing (RS) techniques have been employed to improve the quality of various agricultural land use change and land suitability evaluation. This is because GIS is a powerful tool to integrate and interpret real world situation in most realistic and comprehensive way, and remote sensing technique is very effective in observing and monitoring agricultural activities. Besides, remote sensing can be used as tool to gather data for the use in context of GIS. In addition, GIS technology provides a flexible environment for entering, analyzing and displaying digital data from various sources which are necessary for land use change feature identification and the evaluation of suitable area for crop cultivation. Thus, Geo-informatics which consist of both GIS and remote sensing are promising techniques to be used as tools in the management and development of sustainable agriculture system.

In addition, the establishment of the existing zones was mainly directed by the government. Even though many measures were launched to encourage farmers to produce in accordance with the production guidance in each zone such as farmer

registration and provision of incentives through various projects, fewer farmers were interested to register and participate in this program. Furthermore, the supporting activities and measures provided by government and others parties were not well coordinated. This is mainly due to the lack of concrete plan that can harmonize the activities of concerned parties and provide sufficient incentives to farmers.

Thus, Study on Land Suitability and Zoning of Rambutan Potential Production Area Using Geo-informatics is the case study that can be done and used in appropriate database management both in production and market for local and export include by product in related industry. Established spatial production planning which linked to development strategic plan for Thai Fruits B.E. 2010-2014. These, Thailand will be the leader of rambutan, tropical agriculture fruit crops, production and export fresh fruit and by product in the world market. Integration with spatial data and socio-economic for utmost efficiency utilization in agricultural development planning.



OBJECTIVES

1. To define and adjust agricultural production suitable for area potential.
2. Lead to establishing agro-economic zoning for rambutan in Thailand.
3. To increase efficiencies of production system, processing, and marketing of agricultural commodity.
4. To produce maps of rambutan suitability area and zoning of rambutan potential production area with respect to physical potential of the area for spatial production planning.

Scope of the Study

The study uses remote sensing to classify present land use from satellite data and using geographic information system in determining land suitability through linear combination and by overlaying different maps that contain information on soil properties, contour, rainfall and number days of rainfall, temperature, irrigation zones, legal forest boundaries, administrative boundaries and road network. Producing maps of suitable areas with respect to the physical potential of the area will lead to agricultural zoning for rambutan in Thailand.

LITERATURE REVIEW

Rambutan

Though a close relative of the lychee and an equally desirable fruit, this member of the Sapindaceae is not nearly as well-known. Botanically, it is *Nephelium lappaceum* L. (syns. *Euphoria nephelium* DC.; *Dimocarpus crinita* Lour.). In the vernacular, it is generally called rambutan (in French, *ramboutan* or *ramboutanier*; in Dutch, *ramboetan*); occasionally in India, *ramboostan*. To the Chinese it is *shao tzu*, to Vietnamese, *chom chom* or *vai thieu*; to Kampucheans, *ser mon*, or *chle sao mao*. There are other local names in the various dialects of southeast Asia and the East Indies.

Description

The rambutan tree reaches 50 to 80 ft (15-25 m) in height, has a straight trunk to 2 ft (60 cm) wide, and a dense, usually spreading crown. The evergreen leaves are alternate, pinnately compound, 2 3/4 to 12 in (7-30 cm) long, with reddish rachis, hairy when young, and 1 to 4 pairs of leaflets, subopposite or alternate, elliptic to oblong-elliptic, or rather obovate, sometimes oblique at the base; slightly leathery; yellowish-green to dark-green and somewhat dull on the upper surface, yellowish or bluish-green beneath; 2 to 8 in (5-20 cm) long, 1 to 4 1/3 in (2.5-11 cm) wide, the 6 to 15 pairs of principal veins prominent on the underside. The small, petalless flowers, of three kinds: males, hermaphrodite functioning as males, and hermaphrodite functioning as females, are borne in axillary or pseudo-terminal, much branched, hairy panicles.

The fruit is ovoid, or ellipsoid, pinkish-red, bright-or deep-red, orange-red, maroon or dark-purple, yellowish-red, or all yellow or orange-yellow; 1 1/3 to 3 1/8 in (3.4-8 cm) long. Its thin, leathery rind is covered with tubercles from each of which extends a soft, fleshy, red, pinkish, or yellow spine 1/5 to 3/4 in (0.5-2 cm) long, the tips deciduous in some types. The somewhat hairlike covering is responsible for the common name of the fruit, which is based on the Malay word "*rambut*", meaning "hair". Within is the white or rose-tinted, translucent, juicy, acid, subacid or sweet flesh, 1/6 to 1/3 in (0.4-0.8 cm) thick, adhering more or less to the ovoid or oblong, somewhat flattened seed, which is 1 to 1 1/3 in (2.5-3.4 cm) long and 2/5 to 3/5 in (1-1.5 cm) wide. There may be 1 or 2 small undeveloped fruits nestled close to the stem of a mature fruit. (Figure 1)

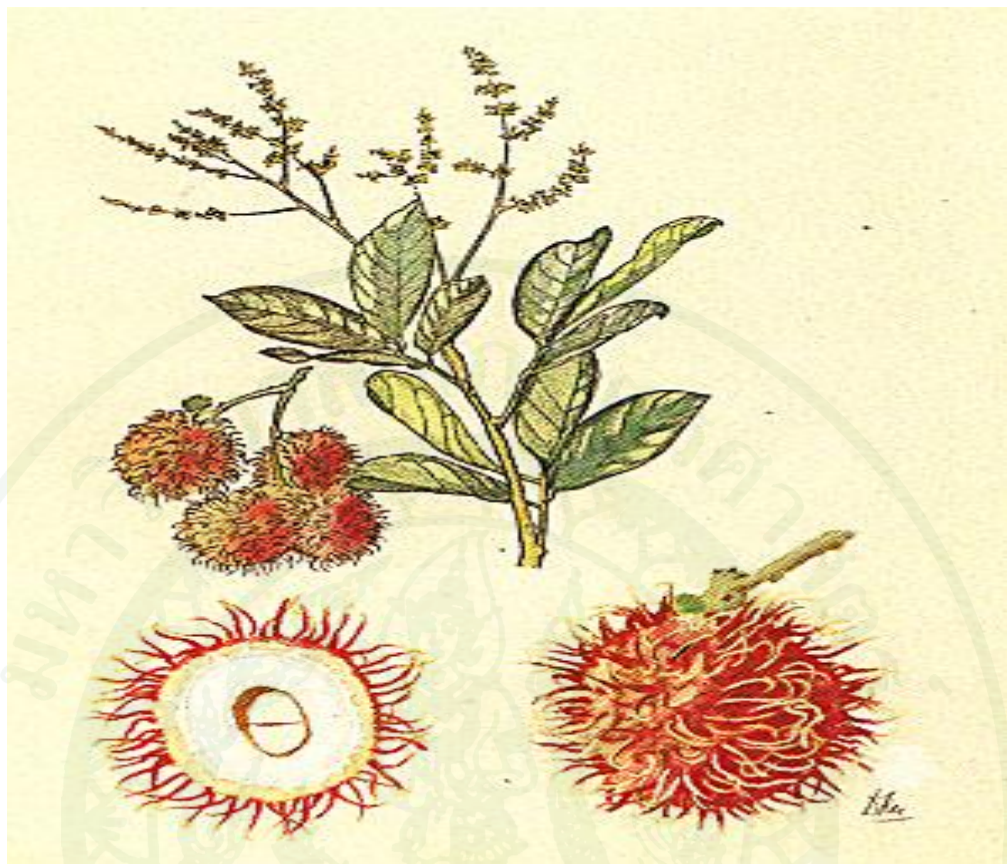


Figure 1 RAMBUTAN, *Nephelium lappaceum* Painted by Dr. M.J. Dijkman

Origin and Distribution

The rambutan is native to Malaysia and commonly cultivated throughout the archipelago and southeast Asia. Many years ago, Arab traders introduced it into Zanzibar and Pemba. There are limited plantings in India, a few trees in Surinam, and in the coastal lowlands of Colombia, Ecuador, Honduras, Costa Rica, Trinidad and Cuba. Some fruits are being marketed in Costa Rica. The rambutan was taken to the Philippines from Indonesia in 1912. Further introductions were made in 1920 (from Indonesia) and 1930 (from Malaya), but until the 1950's its distribution was rather limited. Then popular demand brought about systematic efforts to improve the crop and resulted in the establishment of many commercial plantations in the provinces of Batangas, Cavite, Davao, Iloilo, Laguna, Oriental Mindoro and Zamboanga. Seeds were imported into the United States from Java in 1906 (SPI #17515) but the species is not grown in this country.

Varieties

Popular varieties in Malaya include 'Chooi Ang', 'Peng Thing Bee', 'Ya Tow', 'Azimat', and 'Ayer Mas'. Dr. J.J. Ochse described 6 named varieties in Indonesia:

'Lebakbooloos'—a broad-topped tree with dark-red fruits having uncrowded spines $\frac{3}{5}$ in (1.5 cm) long, and grayish-white, tough, subacid flesh $\frac{1}{5}$ in (0.5 cm) thick, frequently difficult to separate from the seed and often takes pieces of the testa with it. Ships well over long distances. (Cultivated also in India).

'Seematjan'—Tree has an open crown and long, flexible branches. Fruits are dark-red with spines to $\frac{3}{4}$ in (2 cm) long. In Java the tree is especially prone to attack by various insects. It is cultivated also in India and in the Philippines where it has averaged 16 lbs/acre (16 kg/ha). There are 2 forms: 1) 'Seematjan besar' with small fruit, thin rind, spines fairly far apart; very sweet, somewhat coarse, fairly juicy flesh to which the coarse, fibrous testa tightly adheres; 2) 'Seematjan ketjil' (or 'Koombang')—the fruit has soft, tough, and less sweet flesh to which the seed coat does not tightly adhere.

'Seenjonja'—Tree low-growing; has a drooping crown. Fruit nearly ovoid, about $1\frac{1}{2}$ in (4 cm) long and $1\frac{1}{5}$ in (3 cm) wide; dark wine-red with slender, flexible spines about $\frac{2}{5}$ in (1 cm) long. Flesh clings firmly to the seed. In the Philippines has yielded on the average 41 lbs/acre (41 kg/ha)

'Sectangkooweh'—Tree broad-topped. Fruit flattened ellipsoid, about 2 in (5 cm) long, $1\frac{1}{2}$ in (4 cm) wide with slim spines $\frac{2}{5}$ in (1 cm) long. Rind is thin, pliable, tough. Flesh yellowish-white, sweet, clings tightly to the thick testa which separates from the seed. Fruits stand long-distance shipment

'Seelengkeng'—Tree low-growing with drooping crown. Fruit ovoid, $1\frac{1}{5}$ in (3 cm) long, $\frac{3}{4}$ in (2 cm) wide, with very fine, soft spines. Flesh slightly glossy, tough, moderately sweet, and separates from the seed with a few particles of testa clinging to it. Air-layers are unsatisfactory, so it is rare in cultivation and expensive on the market. Much favored by Chinese because of its resemblance to the lychee. (Cultivated also in India.)

'Seekonto'—Tree has broad crown; is fast-growing. Fruits ellipsoid, faintly flattened, about 2 in (5 cm) long, $1\frac{1}{2}$ in (4 cm) wide. Spines are thick and short. Flesh is dull, grayish-white, somewhat coarse and dry; clings to the testa which separates readily from the seed.

'Maharlika' (no description available) has yielded 21 lbs/ acre (21 kg/ha) in the Philippines. Yellow-fruited rambutans are called 'Atjeh koonig' in Batavia. In Malaya, 'Rambutan gading' indicates a yellow type.

Among the many "races" of rambutan in Malaya, the best "freestone" types are found in Penang. One race with a partly free stone is known as 'rambutan lejang'.

Burkill says that some rambutans are so sour that monkeys are reluctant to eat them. In 1950, Philippine agriculturists undertook a program of selection and the creation of a Testing Plot at the Provincial Nursery, Victoria, Oriental Mindoro. There they assembled 360 trees of which 140 were found to be bearing in 1960 and 196 (mostly males) were non-bearing. Observations of the bearing trees there and at the Arago Farm not far away, resulted in the selection of 21 clones which they classified into 4 groups according to fruit size: 1) very large, 14 or less per lb (31 or less/kg); 2) large, 15 to 16 per lb (32-36/kg); 3) medium, 17 to 19 per lb (37-41/kg); 4) small, 20 or more per lb (42 or more/kg).

The main characteristics of the 21 named selections are here summarized:

'Queen Zaida'—Dark-red, oblong, medium-size; flesh thick (38.76% of fruit), sweet, juicy; freestone; 60% of fruits kept well for 2 weeks in cold storage. Yield: 275 lbs (125 kg) per tree at 20 years of age.

'Baby Eulie'—Light-red, very large, flesh thick (39.92% of fruit), soft, freestone. Kept well only 1 week at 60° F (15.56° C). Yield: 352 lbs (160 kg) per tree at 8 years of age.

'Princess Caroline'—Dark-red, small, rind pliable; flesh thick (44.14% of fruit); seeds small. Kept well for 2 weeks at 60° F (15.56° C). Yield: 440 lbs (200 kg) per tree at 8 years of age.

'Quezon'—Yellowish-red, small to medium; rind pliable; flesh thick (38.24% of fruit); sweet, slightly acid, juicy. Yield: 343 lbs (156 kg) per tree at 8 years of age. 'Roxas'—Dark-red; medium-sized; flesh thick (42.97% of fruit); juicy, sweet, adheres to seed. Yield: 429 lbs (195 kg) per tree at 8 years of age.

'Zamora'—Yellowish rind with pale-pink spines; oblong; small; rind hard; flesh thick (38.29% of fruit), juicy and sweet. Yield: 330 lbs (150 kg) per tree at 7 years of age. Ripens mid-to late October. After 2 weeks of refrigeration at 60° F (15.56° C) 80% of the fruits were still in good condition.

'Quirino'—Yellowish with pinkish-red spines; small; flesh thick (32.78 % of fruit), juicy and sweet. Borne in large clusters of up to 85 fruits each. 'Magsa ysay'—Dark-red to near-black with dark-red spines; oblong, large; rind pliable; flesh thick (42.68% of fruit); juicy, sweet; freestone. Yield: 176 lbs (80 kg) per tree at 6 years of age.

'Santo Tomas'—Yellowish-pink with reddish-pink, soft spines. Nearly round; rind hard; flesh thick (43.25% of fruit); seed small. Yield: 352 lbs (160 kg) per tree at 8 years of age.

'Victoria'—Yellowish with red spines; rind thick; flesh thick, juicy, sweet, freestone. Yield: 132 lbs (60 kg) per tree at 6 years of age. Early in season (mid-July).

'Baby Christie'—Yellowish-red with soft, silvery-pink spines; large. Flesh thick (36.41% of fruit).

'Governor Infantada'—Oblong, very large; rind pliable; flesh thick (39.28% of fruit), juicy, sweet and slightly acid; adheres tightly to seed. Yield: 330 lbs (150 kg) per tree at 6 years of age. Fruits keep only 1 week at 60° F (15.56° C).

'Laurel, Sr.'—Pinkish-red, small; flesh thick (39.76% of fruit). Tree very low-growing, spreading.

'Fortich'—Yellowish-red; medium-sized; flesh thick (40.95% of fruit); juicy, sweet; freestone. Early in season.

'Osmeña, Sr.'—Purple-red; medium-sized; flesh thick (38.90% of fruit); juicy, sweet; freestone. Ripens late in season.

'Ponderosa Ferreras' (from Arago, Farm)—Crimson red with very prominent spines; very large; flesh thick (35.73% of fruit); juicy, sweet, freestone. Early in season. Yield: 303 lbs (138 kg) per tree at 6 years of age.

'Rodrigas' (from Arago Farm)—Medium-sized; flesh thick (38.46% of fruit).

'Manahan' (from Arago Farm)—Medium-sized; flesh thick (37.37% of fruit).

'Santan' (from Arago Farm)—Flesh thick (34.26% of fruit).

'Arago' (from Arago Farm)—flesh very thick (41.42% of fruit).

'Cruz' or 'Cruzas' (from Arago Farm)—flesh medium-thick (26.15% of fruit).

About 1960, 10 outstanding rambutans were selected in an evaluation of 100 seedling trees of the unsurpassed Indonesian 'Seematjan', also 'Seenjonja', 'Maharlika', 'Divata', 'Marikit', 'Dalisay', 'Marilag', 'Bituin', 'Alindog', and 'Paraluman'.

Climate

The rambutan flourishes from sea-level to 1,600 or even 1,800 ft (500-600 m), in tropical, humid regions having well-distributed rainfall. In the ideal environment of Oriental Mindoro Philippines, the average temperature year-round is about 81° F (27.3° C), relative humidity is 82%, rainfall 71 in (180 cm)-about 165 rainy days. The dry season should not last much over 3 months.

Soil

The tree does best on deep, clay-loam or rich sandy loam rich in organic matter, or in deep peat. It needs good drainage.

Propagation

Rambutan seeds, after removal from the fruit and thorough washing, should be planted horizontally with the flattened side downward in order that the seedling will grow straight and have a normal, strong root system. Seeds will germinate in 9 to 25 days, the earlier, the more vigor in the seedling. The rate of germination of 2-day-old seeds is 87% to 95%. A week after seed removal from the fruit, there may be only 50% to 65% germination. Sun-drying for 8 hours and oven-drying at 86° F (30° C) kills seeds within a week. Washed seeds will remain viable in moist sawdust, sphagnum moss or charcoal for 3-4 weeks, and some will even sprout in storage. The juice of the flesh inhibits germination. Accordingly, unwashed seeds or seeds treated with the juice can be held for a month in moist sawdust without sprouting. Rambutan seedlings bear in 5-6 years, but the ratio of female to male trees is 4 or 5 to 7. One Philippine seedling orchard was found to have 67% male trees. Then, too, hardly 5% of female trees give a profitable yield.

Vegetative propagation is essential. Cuttings have been rooted experimentally under mist and with the use of growth-promoting hormones, but this technique is not being practiced. Air-layering may at first appear successful, but many air-layers die after being transplanted into 5-gal containers, or, later, in the field, long after separation from the mother tree. Marching is very effective onto 5- to 9-month-old seedlings of rambutan or of pulasan (*N. mutabile* L.) or *N. intermedium* Radlk., but is a rather cumbersome procedure. After 2 or 3 months, the scion is notched 3 times over a period of 2 weeks and then severed from the parent tree. Cleft-, splice-, and side-grafting are not too satisfactory. Patch-budding is preferred as having a much greater rate of success. Seedlings for use as rootstocks are taken from the seedbed after 45 days and transplanted into 1-quart cans with a mixture of 50% cured manure and later transferred to 5 gal containers. In Oriental Mindoro Province, if the budding is done in the month of May, they can achieve 83.6% success; if done in June and July, 82%. Budded trees flower 2 1/2 to 3 years after planting in the field.

Culture

In the Philippines, it is recommended that the trees be planted at least 33 ft (10 m) apart each way, though 40 ft (12 m) is not too much in rich soil. If the trees are set too close to each other, they will become overcrowded in a few years and production will be seriously affected. Philippine agronomists apply 2.2 lbs (1 kg) ammonium sulfate together with 2.2 lbs (1 kg) complete fertilizer (12-24-12) per tree immediately after harvest and give the same amount of ammonium sulfate to each tree near the end of the rainy season. Studies in Malaya show that a harvest of 6,000 lbs/acre (6,720 kg/ha) of rambutan fruits removes from the soil 15 lbs/acre (approximately 15 kg/ha) nitrogen, 2 lbs/acre (2 kg/ha) phosphorus, 11.5 lbs/acre (11.5 kg/ha) potassium, 5.9 lbs/acre (5.9 kg/ha) calcium, and 2.67 lbs/acre (2.67 kg/ha) magnesium. Irrigation is given as needed in dry seasons. Light pruning is done only to improve the form of the tree and strengthen it. Rambutan trees should be sheltered from strong winds which do much damage during the flowering and fruiting periods.

Harvesting

In Malaya, the rambutan generally fruits twice a year, the first, main crop in June and a lesser one in December. In the Philippines, flowering occurs from late March to early May and the fruits mature from July to October or occasionally to November. The entire fruit cluster is cut from the branch by harvesters. If single fruits are picked, they should be snapped off with a piece of the stem attached, so as not to rupture the rind. The fruits must be handled carefully to avoid bruising and crushing, and kept dry, cool, and well-ventilated to delay spoilage.

Yield

Generally, shoots that bear fruit one year will put out new growth and will bloom and fruit the next year, so that biennial bearing is rare in the rambutan. However, yield may vary from year to year. Individual trees 8 years old or older have borne as much as 440 lbs (200 kg) one season and only 132 lbs (60 kg) the next. In the Philippines, the average production per tree of 21 selections was 264 lbs (120 kg) over a 4-year period, while the general average is only 106 lbs (48 kg). From 1965 to 1967, agronomists at the College of Agriculture, University of the Philippines, studied the growth, flowering habits and yield of the Indonesian cultivars, 'Seematjan', 'Seenjonja', and 'Maharlika'. They found that all the 'Seematjan' flowers were hermaphrodite functioning as female (h.f.f.) and that it is necessary to plant male trees with this cultivar. 'Seenjonja' and 'Maharlika' flowers were mostly h.f.f. with a very few hermaphrodite functioning as males (h.f.m.) in the same panicles, and concluded that, though self-pollination is possible, planting of male trees with these cultivars should improve production.

Keeping Quality

Ordinarily, the fruits must be gotten to local markets within 3 days of picking before shriveling and decay begin. Fungicidal applications and packing in perforated polyethylene bags have extended fresh life somewhat. Weight loss has been reduced by packing in sawdust, or coating with a wax emulsion. Storing in sealed polyethylene bags at 40° F (10° C) and 95% relative humidity has preserved the fruits in fresh condition for 12 days. Some cultivars, as noted, keep better than others.

Pests and Diseases

Few pests or diseases have been reported by rambutan growers. Leaf-eating insects, the mealybug, *Pseudococcus lilacinus*, and the giant bug, *Tessaratomia longicorne*, may require control measures. The mango twig-borer, *Nipponoclea albata*, occasionally appears on rambutan trees. The Oriental fruit fly attacks very ripe fruits. Birds and flying foxes (fruit-eating bats) consume many of the fruits, probably considerably reducing yield figures. There are several pathogens that attack the fruits and cause rotting under warm, moist conditions. Powdery mildew, caused by *Oidium* sp., may affect the foliage or other parts of the tree. A serious disease, stem canker,

caused by *Fomes lignosus* in the Philippines and *Ophioceras* sp. in Malaya, can be fatal to rambutan trees if not controlled at the outset.

Food Uses

Rambutans are most commonly eaten out-of-hand after merely tearing the rind open, or cutting it around the middle and pulling it off. It does not cling to the flesh. The peeled fruits are occasionally stewed as dessert. They are canned in sirup on a limited scale. In Malaya a preserve is made by first boiling the peeled fruit to separate the flesh from the seeds. After cooling, the testa is discarded and the seeds are boiled alone until soft. They are combined with the flesh and plenty of sugar for about 20 minutes, and 3 cloves may be added before sealing in jars. The seeds are sometimes roasted and eaten in the Philippines, although they are reputedly poisonous when raw.

Food Value Per 100 g of Edible Portion*

Moisture	82.3 g
Protein	0.46 g
Total Carbohydrates	16.02 g
Reducing Sugars	2.9 g
Sucrose	5.8 g
Fiber	0.24g
Calcium	10.6 mg
Phosphorus	12.9 mg
Ascorbic Acid	30 mg

*Analyses made in Ceylon.

Toxicity

There are traces of an alkaloid in the seed, and the testa contains saponin and tannin. The seeds are said to be bitter and narcotic. The fruit rind also is said to contain a toxic saponin and tannin.

Other Uses

Seed fat: the seed kernel yields 37-43% of a solid, white fat or tallow resembling cacao butter. When heated, it becomes a yellow oil having an agreeable scent. Its fatty acids are: palmitic, 2.0%; stearic, 13.8%; arachidic, 34.7%; oleic, 45.3%; and ericosenoic, 4.2%. Fully saturated glycerides amount to 1.4%. The oil could be used in making soap and candles if it were available in greater quantity.

Wood: The tree is seldom felled. However, the wood—red, reddish-white, or brownish—is suitable for construction though apt to split unless carefully dried.

Medicinal Uses: The fruit (perhaps unripe) is astringent, stomachic; acts as a vermifuge, febrifuge, and is taken to relieve diarrhea and dysentery. The leaves are poulticed on the temples to alleviate headache. In Malaya the dried fruit rind is sold in drugstores and employed in local medicine. The astringent bark decoction is a remedy for thrush. A decoction of the roots is taken as a febrifuge.

Estimation result of Rambutan production in Thailand, year 2012

Production situation

Harvested area decrease from the last year because of an unincenitive price in the last 3-5 year. In recent years, many rambutan plantings in the Chanthaburi area have been replaced by para rubber and oil palm due to overproduction, high postharvest costs and low return.

Increasing estimation in Production and Yield in the East. Now still in the production period and the most of production harvested in the same period between April to August. The peak of production period in the late of June 2012. In the South still no flower but the above of the South the flower will come through March to April. In addition the behalf of the South the flower will come from April to May. (Figure 2)



Figure 2 Rambutan, Fresh fruit production.

Harvested area in the whole kingdom 0.318 million rai decrease from the last year 12,838 rai or 3.88 percent.

Production in the whole kingdom 0.347 million ton increase from the last year 40,006 ton or 13.02 percent.

Yield in the whole kingdom 1,093 kilogram increase from the last year 164 kilogram or 17.65 percent. (Figure 3)

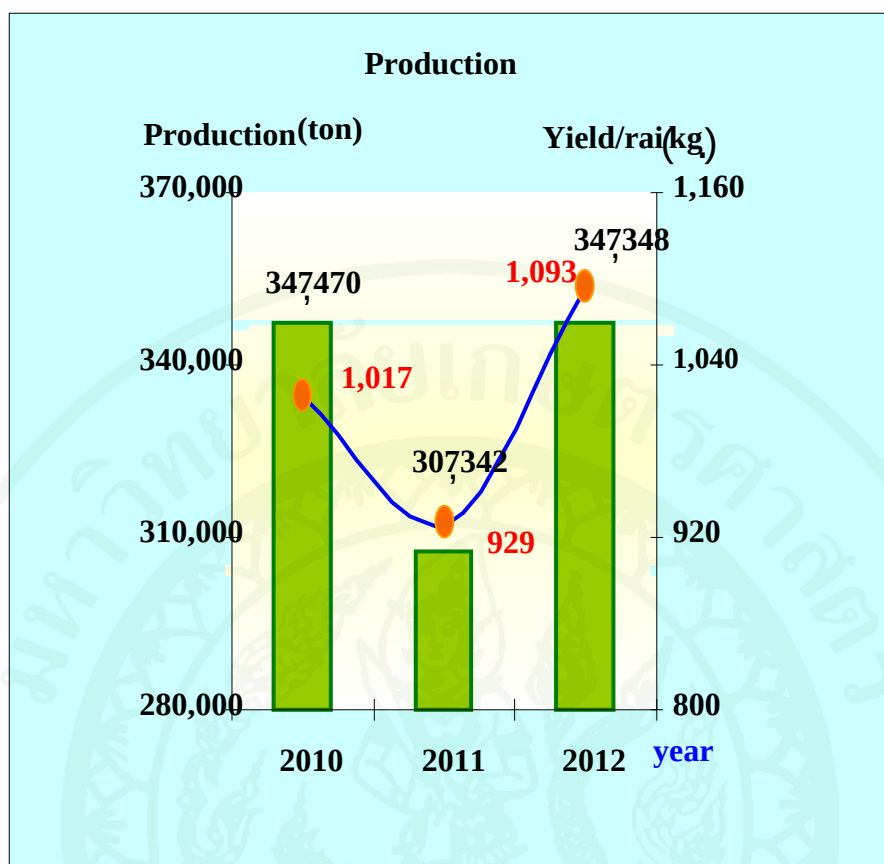


Figure 3 Rambutan, Production from year 2010 - 2012

Market and price situation

In 2012, Harvested area decrease from the last year 3.82 percentage because of many rambutan plantings have been replaced by para rubber and oil palm. In the other hand production increased 9.54 percentage cause to increasing yield 13.89 percentage from suitable climate.

In 2011, marketing demand both local and foreign still continuous lead to quantity and value of an export fresh fruit and product increase from the last year:46.15,and 33.02:,respectively Main market is Vietnam, Cambodia, Hongkong, Singapore and Malaysia. In 2012, expected that both of the local demand and export fresh fruit and product will highly trend due to continuous in increasing of production and foreign demand.

Farm gate price in 2011, price of Rong Rian aggregate 16.80 Baht per kilogram increase from 13.36 Baht per kilogram from the last year 25.75 percentage. For the price of Si Chom Poo aggregate 14.78 Baht per kilogram increase from 7.46 Baht per kilogram from the last year 98.12 percentage. In 2012, expected that farm gate price will highly trend due to continuous in increasing of local demand.(Figure 4)

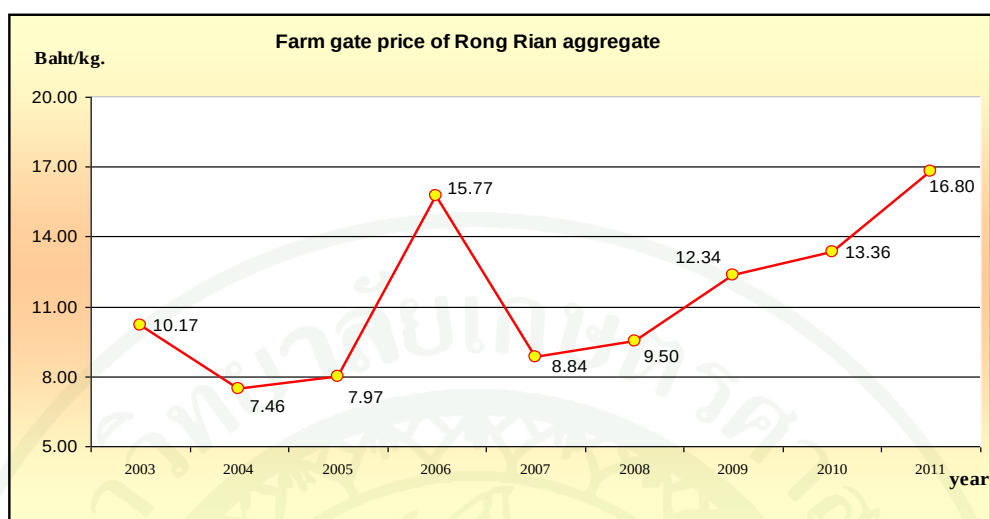


Figure 4 Rambutan, Farm gate price of Rong Rian aggregate from year 2003 - 2011

Land Evaluation

Land evaluation is the process of estimating the potential of land for alternative kinds of use. These include productive uses, such as arable farming, livestock production and forestry, together with uses that provide services or other benefits, such as water catchment areas, recreation, tourism and wildlife conservation.

The basic feature of land evaluation is the comparison of the requirements of land use with the resources offered by the land. Fundamental to the evaluation procedures is the fact that different kinds of use have differing requirements. It is obvious that crop production, grazing by livestock, forestry and recreation call for different qualities of land, but there are also large variations in requirements within each of these major kinds of use. Thus cotton, sugar beet and dates can tolerate relatively high salinity levels whereas citrus and soft fruits are very sensitive. Land requirements are also affected by the technology of use; for example, basin irrigation needs land which is level or can be made so, whereas sprinkler and trickle methods do not.

Land evaluation needs information from three sources: land, land use and economics. Data on land are obtained by natural resource survey, including soil survey. Information on the ecological and technical requirements of different kinds of land use is obtained from agronomy, forestry and other relevant disciplines. If the results of an evaluation are required in purely physical terms, then the data drawn from economics need only concern broad features of the economic and social context, e.g. general wage levels, the extent of mechanization, approximate size of land holdings. If the results are required in economic terms, then data on specific costs and prices are needed.

Concept of Soil and Land

Soil is the basis of plant growth. It is a three dimensional body occupying the uppermost part of the earth's surface. It is the collection of natural bodies occupying portions of earth's surface that supports plants and that have properties due to the integrated effect of climate and living matter acting upon parent material as conditioned by relief, over periods of time.

Soil is one of the main components of land (Vink, 1975). Land can be defined as the specific area of the earth's surface, which is the assemblage of the biosphere, soil and other surface materials including atmosphere, vegetation, water, plant and animal population and the human activity acting upon it .

Almost every activities of man uses land. Decision to make use of land depends on various factor since land varies greatly within itself. Land is not simply a soil. It also includes the other physical environment which influence the nature and usefulness of land. It has to be evaluated to access its suitability for various purposes. Hence land evaluation is a technique to access various land suitability for selected alternative land use types including the physical, social, economical and

environmental aspects which is associated with the changes in land use. It is process of collating and interpreting basic inventories of soil, vegetation, climate and other aspects of land in order to identify and make comparison of promising kinds of land use alternatives in socio-economic term in accordance with objective of land evaluation (FAO, 1976) including potential land use for various system of farm management.

Assessment of land evaluation is based on a matching of qualities of the different land units in specific area with the requirements of actual or potential interesting land utilization types. Land evaluation concerns with land characteristics and land qualities.

Land capability classification

Land capability assessment is based on the broader range of characteristics than soil properties. Land capability is the inherent capacity of land to perform at a given level for a general use without deterioration over a long period of time (FAO, 1976). The prime aim of land capability is to assess the degree of limitation to land use or potential imposed by land characteristics on the basis of permanent properties. With the increase of limitation, land use option is also decreased. Land capability refers to a wider range of uses e.g. for agriculture or forestry or recreational development. It is often defined in terms of negative limitations, which hinder or prevent some or all of the individual activities (land use) being considered. In this classification, lands are grouped into smaller number of categories according to the number and extent of its physical limitations to crop growth. It involves the evaluation of the degree of limitation posed by permanent or semi permanent attributes of land to one or more land uses. It is more difficult to access than the suitability.

Land suitability classification

Land suitability classification generally refers to the fitness of a given type of land for a defined use either in present condition or after improvement. It is a process of appraisal and grouping of specific type of land in terms of their absolute or relative suitability for a specified kind of use (FAO, 1976).

Various features of soils, vegetation, climates need to be related to the requirements of different kind of land use for land suitability. It is the assessment for site identification that posses the positive features associated with successful production or use. A soil map can be interpreted for comprehensive list of crops and specific guidance can be given on appropriate management practices. Suitability mainly concern with the higher production from relatively low inputs (Vink, 1975).

For suitability assessment, firstly the requirement of crop needs to be known or alternatively what soil and site attributes adversely influence the crop. Secondly the land is identified and delineated which have the desirable attributes but without the undersirable ones. However, it seems impossible to include all physical and socio-economic requirement for a comprehensive land evaluation purpose.

Qualitative and quantitative classification

FAO framework (1976) further recognizes two main types of suitability classification; Qualitative and Quantitative classification and Current and Potential suitability.

Qualitative classifications are general appraisal that represents the relative suitability in qualitative terms only based on the physical properties of land. In qualitative analysis, the land use types are evaluated on the basis of physical land characteristics that impose limitations for its stability. Quantitative classification involves economic, social and environmental information as evaluation criteria of land evaluation and the difference between classes is defined in numerical terms (FAO, 1976). The assessment of land qualities is based on measured causes and effects relationship between the qualities and land utilization types.

A classification of current suitability refers to the suitability of land for a defined use in present context. It does not concern with a major improvements. Potential suitability classification deals with the suitability for land use for defined at some future time after necessary improvements, such as irrigation schemes, are made or brought about (FAO, 1976).

Structure of the suitability classification

The framework has the same structure, i.e. recognizes the same categories, in all of the kinds of interpretative classification. Each category retains its basic meaning within the context of the different classifications and as applied to different kinds of land use. Four categories of decreasing are recognized as follows (FAO, 1976):

- 1) Land Suitability Orders: reflecting kinds of suitability.
- 2) Land Suitability Classes: reflecting degrees of suitability within orders.
- 3) Land Suitability Subclasses: reflecting kinds of limitation, or main kinds of improvement measures required, within Classes.
- 4) Land Suitability Units: reflecting minor differences in required management within Subclasses.

Land suitability orders

Lands are assessed as suitable or not suitable classes for the use under consideration. There are two orders as follows (FAO, 1976):

Order 1. S Suitable	Land on which sustained use of the kind under consideration is expected to yield benefits which justify the inputs, without unacceptable risk of damage to land resources.
Order 2. N Not Suitable	Land qualities that preclude sustained

use of the kind under consideration.

Land suitability classes

Land suitability classes reflect the degree of suitability and are numbered by Arabic number in sequence of decreasing degree of suitability within order. Generally three to five classes are recognized e.g. S1, S2, S3 and so on as highly, moderately and marginally suitable classes (in case of three classes) in qualitative classification. But in quantitative classification, both inputs and benefits must be expressed in common measurable terms e.g. range of expected net income per unit area.

Within the order of not suitable, two classes are defined as class N 1 and Class N2. Class N 1 represents currently not suitable but can be improved in time while N2 refers permanently not suitable.

Land suitability sub classes

Land suitability classes reflect the kind of limitations e.g. moisture deficiency, erosion hazards and are indicated by lower case letters with economic significance, e.g. S2m, S2e Same

Land suitability unit

Unit is the lowest category of the system. It uses production and management as criteria. Land suitability units within the same subclass differ from each other in production characteristics or in minor aspects of their management or improvement requirements (often definable as differences in detail of their limitations). Their recognition permits detailed interpretation at the farm-planning level.

Land use Planning

In many developing countries, the expansion of economy during the last three decades caused a great deal of natural resources exploitation without proper planning. The large area of luxuriant forest has been destroyed for cultivation without proper soil and land management which causes land degradation resulting in low productivity of land. The utilization of sloping land for cultivation without proper soil conservation leads to severe soil erosion and the loss of soil fertility. This causes poverty to the farmers who cannot profitably cultivate their lands without modern technology. This requires land resources management programs which bases on land use planning for efficient use of these resources. The concept of land resource conservation including other natural resources conservation for prolonged use is crucial one in the situation of insufficient natural resources which exists in many developing countries including Thailand.

Our basic needs of food, water, fuel, clothing and shelter must be met from the Land. Land is in limited supply. As population and aspirations increase, so land becomes an increasingly scarce resource.

Land use has to change to meet new demands. Change brings new conflicts between competing uses of the land, and between the interests of individual land users and the common good. Land taken for towns and industry is no longer available for farming; likewise the development of new farmland competes with forestry, water supplies and wildlife.

Geo-informatics

A working definition of Geo-informatics is an interdisciplinary field requiring synergistic modeling and analysis for dealing with geospatial data and phenomena. The Geo-informatics approach can be taken to solve problems and address issues related to geospatial data and phenomena. Geo-informatics encompasses geospatial data collection, geospatial information analysis and modeling, geospatial information systems development, implementation, and processing. Geo-informatics is possible through a range of models in such fields as mathematics, computational geometry, graph theory, and statistics (source:<http://gis0.exp.sis.pitt.edu>).

Geo-informatics technologies include Geographic Information Systems (GIS), Global Positioning System (GPS), and Remote Sensing (RS). Today, numerous applications are benefiting from Geo-informatics techniques and tools and with advances in Geo-informatics and other technologies, such as mobile computing and wireless networks, the emergence of many new applications is expected. Example of Geo-informatics applications are in-car navigation systems, automatic vehicle location systems, location-based services, transportation planning and engineering, environmental modeling and analysis, telecommunications, agriculture, farming, and public health (source:<http://gis0.exp.sis.pitt.edu>).

Geo-informatics essentially involves capture, integrating, analyzing, managing and depicting geospatial information. There are various ways in which each of these objectives could be achieved. Geo-informatics makes use of various independent subjects like surveying, photogrammetry, remote sensing, GIS etc. The following illustration is a very simple example how these different subjects work in conjunction to achieve the objective of Geo-informatics (source:<http://www.geocities.com>). (Figure 5)

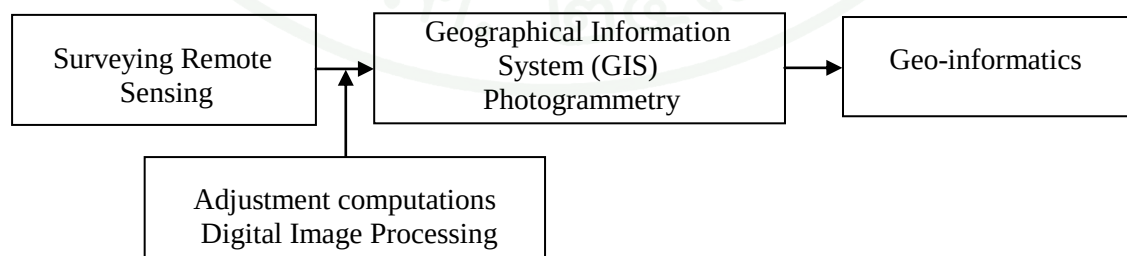


Figure 5 A simple illustration to show how geo- informatics works. The above diagram depicts how the different domains act together to solve a typical geospatial problem.

Geographic Information System (GIS)

A GIS can be seen as a set of tools for analyzing spatial data. These are computer tools, and a GIS can then be thought of as a software package containing the elements necessary for working with special data. One definition of a GIS is the software in the box that gives us the capabilities we need to analyze spatial data (Clarke, 1997).

Burrough 1986 in his pioneer textbook defines GIS as “a powerful set of tools for storing and retrieving at will, transforming and displaying spatial data from the real world for a particular set of purposes”. The key word in this definition is “powerful”. Burrough’s definition implies that GIS is a powerful tool for geographic analysis.

Star and Estes 1990 defined a GIS with the following statement; “An information system that is designed to work with data referenced by spatial or geographic coordinates. In other words, a GIS is both a database system with specific capabilities for spatially-referenced data, as well as a set of operations for working with the data”. This means that a GIS collects data, sifts and sorts them, and selects and rebuilds them to find the right information to answer a question. The reference to geographic coordinates is an important one, because the coordinates are literally how we able to link with the map.

A GIS uses computer technology, mapping methods and geography to blend spatial data from various sources. It has been rapidly accepted and adopted in many sectors of society in fastest manner in larger community. Geographic Information Systems are being used for planning, decision-making and ecosystem monitoring related to ecosystem management challenges.

A GIS has the capabilities to manage many layers of data for the same points in space in order to perform analyses. Layers represent different sets of geographic information. Layers can provide information on geologies, soil, land use, species distribution, vegetation, etc. GIS applications involve everything from basic to complex functions. These applications include the analysis of spatial referenced data, queries on point or polygons, data classification, map production, area calculations, the creation of buffer, elevation models, etc.(Figure 6-7)

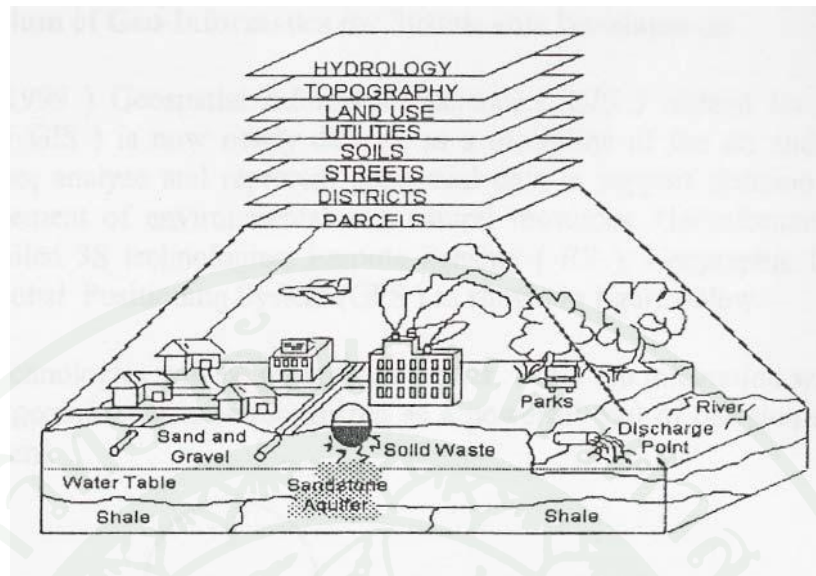


Figure 6 The real world represented as a number of related data layers

Source: Aronoff (1989)

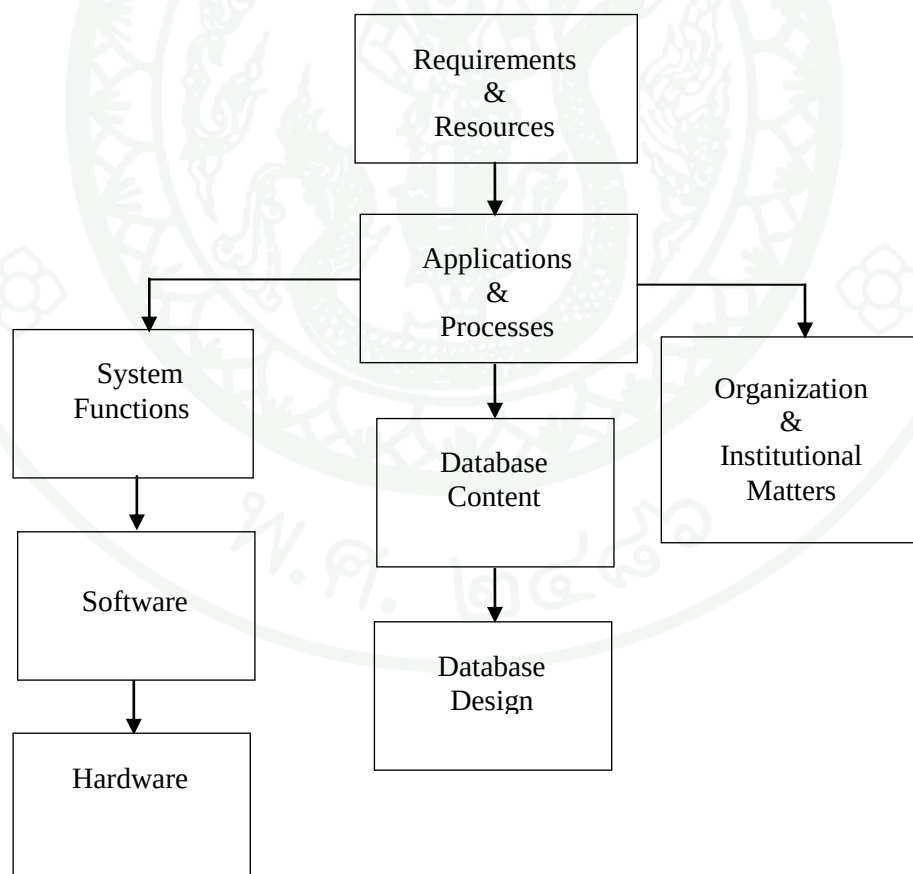


Figure 7 Design philosophy of a GIS functionality

Source: Antenucci et al. (1991)

Remote Sensing (RS)

The primary source of geographic data in the GIS is remote sensing. This includes both digital and non-digital forms (Archibald, 1987). Remote sensing is the science and art of obtaining information about an object, area, or phenomenon through the analysis of data acquired by a device not in contact with the object, area, or phenomenon under investigation (Lillesand and Kiefer, 1979). Practically the term remote sensing is used in a restricted sense to refer to the collection of information about the earth's surface and lower atmosphere from a distance above the ground by aircraft or satellites. Remote sensing is achieved using a sensor mechanism fixed to a platform at some height above ground to detect and record radiation, which has been reflected or emitted from the earth's surface. The characteristics of an object can be determined; using reflected or emitted electro-magnetic radiation from the object because each object has a unique and different reflectance and/or emittance property. The two most used platforms are aircraft and satellites. The sensor mechanisms used in remote sensing are very variable. Each has a distinct set of characteristics.

Remote sensing and GIS technology are both used to collect, analyze and report information about the earth's resources the infrastructure we have developed to use them. The two technologies provide complementary capabilities. Remote Sensing analyses are improved by the verification data retrieved from a GIS and GIS application can benefit from the information that remote sensing can generate. (Figure 8)

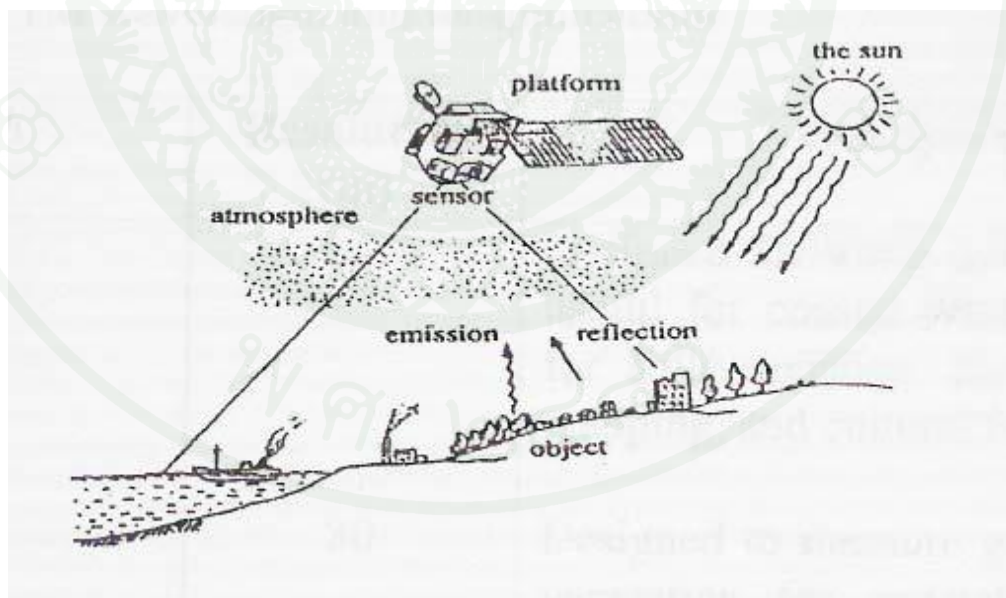


Figure 8 Data collection process by remote sensing

Source: Aronoff (1989)

Often the image data are the most current spatial information available for an area. The use of digital image data offers the additional advantage of a computer compatible format that can be input directly to a GIS. The integrated use of remote sensing and GIS methods and technology can not only improve the quality of

geographic information but also enable information previously unavailable to be economically produced (Aronoff, 1989).

Global Positioning System (GPS)

A GPS is a satellite-based navigation system made up of a network of 24 (or more) satellites. These satellites were placed into orbit by the U.S. Department of Defense as the system was originally intended for military applications. However, in the 1980s, the U.S. government made the system available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day.

The 24+ satellites that make up the GPS system are orbiting the earth about 12,000 miles above us. They are constantly moving; making two complete orbits in less than 24 hours (the satellites are traveling at speeds of roughly 7,000 miles an hour). These satellites are equipped with atomic clocks and send out radio signals as to the exact time and their location in space. The radio signals from the satellites are picked up by the GPS receiver. Once the GPS receiver locks on to four or more of these satellites, it can triangulate its location from the known positions of the satellites. Essentially, the GPS receiver compares the time a signal was transmitted by a satellite with the time it was received. The time difference tells the GPS receiver how far away the satellite is. Now, with distance measurements from four or more satellites, the receiver can determine the user's position. GPS technology is able to measure positions within centimeters and an error factor of one part in 1 million (Antenucci *et al.*, 1991).

Applications of Geo-informatics

Remote Sensing, GIS and GPS are widely used technology for natural resource assessment; though the GIS and GPS are comparatively new technology. These are useful tools for evaluating and managing the agriculture commodities. However, for agro-economic zoning the use of Geo-informatics is rather recent. The followings are some of the studies related to use of Geo-informatics in natural resource management.

Apisit. (1998) Study on monitoring the cultivation and production of cassava (*Manihot esculenta* Crantz) for forecasting the yield: A scientific and technological approach. Agricultural monitoring holds important place in the nation's agricultural planning. Monitoring the major crops in terms of area coverage and production and yield forecasting are the factors of prime concerns and possibly be regularized as a routine work in the agricultural planning. Depending upon the affordability, this is especially important for those crops that are of export importance. Carrying out such activities involves considerable resources and cost in terms of technical manpower, datasets and other automation resources.

Davis *et al.* (1990) proposed an approach to integrate existing data on species distribution and habitat characteristics in bio-diversity assessment using GIS supported by remote sensing inputs.

Hoozeboom (1983) used the active remote sensing to classify and monitor the growth of agricultural crops. In that study radar remote sensing provided a large amount of valuable information to classify crops.

Juracek (1998) explained the GIS based crop specific model for physical suitability assessment of potato production in a valley of Nebraska. Eight factors, viz, length of growing season, slope, oxygen availability, thermal regime, acidity, salinity, erodibility and rooting condition were selected for that analysis.

Karnchanasutham. (1991) study on “Using Geographic Information System for Agricultural Planning in Thailand” revealed that Remote Sensing techniques are being use by the Remote Sensing Center for Agricultural Resources (RCAR) together timely data on crop production, while Geographic Information System (GIS) is used for agricultural planning. The Ministry of Agriculture and Cooperatives is a large organization composed of several departments responsible for the many facets of agriculture and related activities such as forestry, fisheries, and irrigation. As part of the plan preparations, the suitability of the soils for each specified crop, hydrology and other environmental factors in each province are assessed in GIS. Data for the assessment include: 1) soil suitability map and land unit map (Land Development Department), 2) crops suitability map for paddy, sugarcane, pineapple, cassava and fruit tree (Land Development Department), 3) conservation forest area and legal forest area (Royal Forestry Department), and 4) land cover map (Classified from satellite data by RCAR).

Karnchanasutham. (1999) study on The objective of the study is to produce agricultural landuse zoning map for Chanthaburi Province using remote sensing and the geographic information system (GIS). The overall accuracy for the landuse classification in LANDSAT data is 84.5% and kappa= 0.83. The overall accuracy for LANDSAT and JERS-1 is 88.8% and kappa = 0.87. The agricultural zoning is derived from the overlay of landuse map, forest legal boundary map, soil series map, rainfall map, rain day map, slope map and irrigation boundary map for 5 classes of agricultural zoning. All these overlay with administrative boundaries such as provincial boundaries, district and minor district boundaries, along with main road networks.

Mead *et al.* (1988) mapped the Gopher Tortoise (*Gopherus polyphemus*) habitat on the Ocala National Forest by using a GIS. This study used the habitat suitability index model based on soil, forest type, condition class and understory type. Similarly Shaw and Atkinson 1988 identified and described potential nesting habitat for the Golden-Checked Warbler by using Landsat MSS data conducted with ERDAS. Five main data had been used for this study: land use, country boundaries, slopes, habitat patches and geographic features such as roads and water ways.

Musekawat (2004) applied remote sensing and GIS as tools for spatial data analysis toward the zoning and management of land use in tambon Bang Khunsai, Phetchaburi province, Thailand. Aerial photographs taken in 1994 and 2002 were interpolated to detect changing in land use and land cover pattern of the study area.

Patabendige (1990) utilized the land cover with GIS operation for overlying various thematic information to produce a soil erosion hazard map for Hangurankela, Sri Lanka, and recommended conservation strategies on this basis. The soil erosion hazard map prepared by him was based primarily on estimating rainfall erosivity and soil erodibility at different locations and then overlying these by assigning certain weightings.

Pattanapong (2002) applied GIS and remote sensing for habitat suitability analysis of razor clams (*Solen strictus* Gould) in the muddy coast between the Mae Klong and Tha Chin rivers, Gulf of Thailand. Landsat TM images taken in 1993 and 2000 were classified to detect change in land use patterns and emerged area during low tide of the study area. The GIS database were overlaid and calculated for suitability classes by Linear Combination Model (Razor Clam Model).

Srirattanam (1989) used biophysical factors of topography, soil, vegetation, wildlife, water resources, accessibility and aesthetics to identify management zones at Tarutao National Park, Thailand by using manual overlay techniques.

Trisurat (1990) applied Linear Combination Method of multiple criteria of eight bio-physical factors to create management zones in Phu Rua National Park in northeastern part of Thailand. Each factor was ranked and weighted based on its suitability for each zone.

For the studies of land suitability for crops, Ceballo-Silva and Lopez-Blanco 2003 applied multicriteria evaluation (MCE) approach, GIS and RS to delineate suitable areas for the production of maize and potato crops in Toluca, Central Mexico. Data included in the analysis were climate, relief and soil databases, which were used to generate GIS raster coverage. Relevant criteria for crops and suitability levels were defined according to FAO standards, and criteria maps were introduced in the MCE algorithm to obtain the suitability map for each crop. Landsat TM image in 1996 were processed using supervised classification to obtain land use/land cover (LU/LC) map, which showed 13 land use/land cover types. After that, LU/LC and suitability maps were compared to identify a suitable area for maize and potato crops.

In addition, Haeze *et al.* (2005) have studied land suitability analysis for Robusta coffee in Dak Gan commune, Dak Lak province, Vietnam. They used Landsat-7 ETM+ image to produce land cover mapping included rubber plantations, Robusta coffee plantations, paddy rice fields, upland annual crops (maize, bean, cassava) and forest stand. Spectral signatures were developed for each land cover type and supervised classification was employed in the process. An overlay of classified coffee area in Dak Gan on derived suitability map for Robusta coffee indicated that only 440 ha (out of 1736 ha classified) were suitable for coffee production.

Also, Boonyanuphap *et al.* (2004) studied land suitability for banana (MUSA) plantation in Bang Kratum district, Phitsanulok province, Thailand, using GIS-based weighting index model for scoring variables and weighting factors involved. The

factors being used include soil property, topographic, climate, supplementary water, and marketing factor. Results showed that a new suitable area was about 8,660.92 ha.

According to Charupatt (2002) he studied to investigate the use of satellite and GIS data for land use change detection, land evaluation and land use planning in Lam Phra Phloeng watershed, using Landsat data from the years 1973, 1987, 1991, and 2000. The results were classified into 7 types (dry evergreen forest, dry dipterocarp forest, forest plantations, water bodies, urban, crop and orchard) and comparison of the land use types over a 27-year period between 1973 and 2000 showed that the dry evergreen forest decreased from 52.47 to 19.21 percent, the dry dipterocarp forest decreased from 0.72 to 0.17 percent, forest plantation increased from 0.16 to 12.24 percent, water bodies increased from 1.62 to 1.91 percent, urban areas increased from 0.01 to 0.09 percent, crop areas increased from 44.97 to 65.49 percent and orchard increased from 0.05 to 0.89 percent. GIS databases were also established for land evaluation of eight economic crops consisting of rice, sugarcane, maize, cassava, rubber, mango, tamarind and pasture using spatial modeling. The land qualities used in the evaluation were temperature condition, water availability, nutrient retention capacity, nutrient availability index, water retention, rooting condition, oxygen availability, and topography. Factor rating for each suitability class was assigned as highly suitable (1.0), moderately (0.8), marginally (0.5) and not suitable (0.2). The results land evaluation study showed that satellite data and GIS database could be used to produce efficient land evaluation and also very useful for land use planning.

Abdollah Ghasemi Pirbalouti (2009) used GIS-based land suitability evaluation for rapeseed oil crop. The potential of land for agronomy and horticulture use is determined by an evaluation of biophysical variables. The climate, soil and geomorphologic environmental components are important agro-ecological variables. Evaluation of biophysical variables is usually a first step in land use analysis. Geographic Information System (GIS) was used to identify suitable areas for rapeseed crop production in Isfahan and Chahar Mahaal va Bakhtiari provinces, Iran. Relevant environment components such as climate (precipitation, temperature, humidity, etc.), soil (chemical and physical characteristics including texture, gravel percentage, pH, EC, soil depth, etc.), agronomic management (sowing method and date, soil fertilization, irrigation, weed and pest control, etc.) and topography (DEM) at different spatial and temporal resolutions were considered. In general, the results of overlay maps for biophysical (climate, geomorphology, soil and agronomy variables) suitability evaluation using simple limitation approach (SLA) identified 0.003% (0.12 km²), 22% (8398 km²), 15% (5494 km²) and 63% (23,762.5 km²) of the land surface area highly suitable (S1), moderately suitable (S2), marginally suitable (S3) and not suitable (N) in the study area, respectively. The main limiting factors are the geomorphology (slope and elevation), climate (freezing days, GDD and precipitation), soil (OC %) and agronomic management (sowing date, irrigation and weed control) characteristics in study areas.

Balachandar.D, *et al.* (2010) studied application of remote sensing and GIS for artificial recharge zone in Sivaganga District, Tamilnadu, India. The identification of

artificial recharge sites are interdependent on various parameters like geomorphology, lithology, lineament density, slope, soil, etc. By using Remote sensing technology, thematic data has been integrated for evaluation of groundwater potential zones for the study area. For the study area, artificial recharge sites had been identified based on the number of parameters loaded such as 4, 3, 2, 1 & 0 parameters. Again, the study area was classified into priority I, II, III suggested for artificial recharge sites based on the number of parameters loaded using GIS integration. These zones are then compared with the Landuse and Landcover map for the further adopting the suitable technique in the particular artificial recharge zones.

S.K.Bhan, *et al.* (2005) studied use of remote sensing and GIS technology in sustainable agricultural management and development. Agricultural sustainability has the highest priority in all countries, whether developed or developing. Aero-space Remote Sensing and GIS technology are gaining importance as useful tools in sustainable agricultural management and development. This paper discusses the integrated use of Remote Sensing and GIS technology in several areas for sustainable agricultural development and management in India, with case examples. Various studies carried out in several areas of sustainable agricultural management/development in India by integrated use of aerospace data and GIS have clearly indicated that Remote Sensing and GIS technology are very effective tool for suggesting action plans / management strategies for agricultural sustainability of any region.

MATERIALS AND METHODS

Materials

Materials and equipments are composed of workstation, external hard disc, satellite data, color printer, and topological map 1:50,000.

Methods

The methodology is to apply new technology, so called Geo-informatics, as a tool for agro-economic zoning. This technology including Geographic Information System-GIS, Remote Sensing-RS, and Global Positioning System-GPS has been proven and effective tool for suitability and zoning on rambutan and planning.

The methodology for land suitability of rambutan production is to study on present crop production system and land allocation suitable for production target. The data to be prepared are the important physical factors necessary for crop planting. In this implementation, 8 factors are defined for the analysis on area suitability. They are : soil properties, precipitation, irrigation zone, land use, administrative boundary, transportation network, forest boundary and contour (altitude). All data are in the form of 1:50,000 map covering in Thailand (Figure 9.)

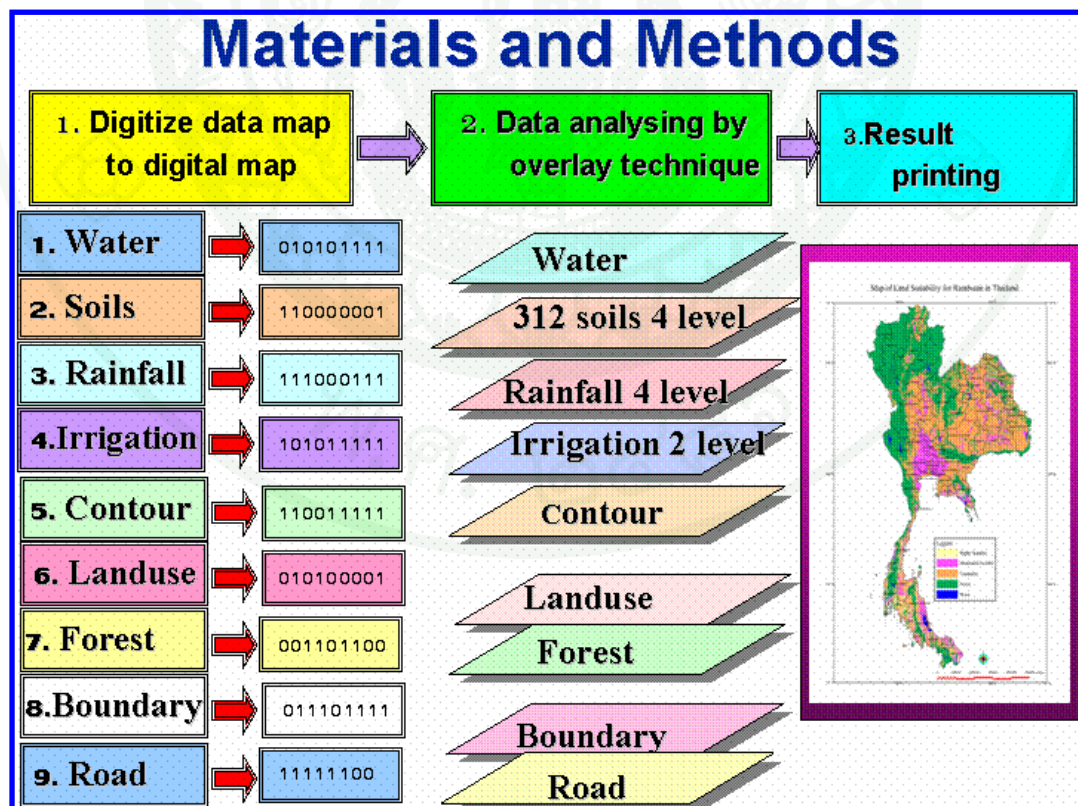


Figure 9 Show the step on using GIS to analyse potential production area.

Methodology

1. Data conversion

Data conversion from the existing map into digital format by compiling such maps from relevant agencies. In case that some thematic maps are not available or obsolete, the up-to-date maps will be produced by Office of Agricultural Economics (OAE). The converted relevant maps include:

1.) Provincial soil properties map, at a scale of 1:50,000 obtained from the Land Development Department (LDD), of which comprises soil properties for the whole country.

2.) Irrigation map obtained from the Royal Irrigation Department (RID) comprises both irrigation and non-irrigation zones.

3.). Average rainfall map obtained from the Department of Meteorology of which average rainfall is ranging into 10 levels including:

- (1) Rainfall of 1,000-1,100 mm.
- (2) Rainfall of 1,100-1,200 mm.
- (3) Rainfall of 1,200-1,400 mm.
- (4) Rainfall of 1,400-1,600 mm.
- (5) Rainfall of 1,600-2,000 mm.
- (6) Rainfall of 2,000-2,400 mm.
- (7) Rainfall of 2,400-2,800 mm.
- (8) Rainfall of 2,800-3,200 mm.
- (9) Rainfall of 3,200-4,400 mm.
- (10) Rainfall of 4,400-5,000 mm.

4.) Forest legal boundary map, at a scale of 1:50,000 obtained from the Royal Forestry Department, of which includes both inland forest and mangrove boundaries. Inland forest is categorized into 2 zones:

- (1) Economic forest boundary
- (2) Conserved forest boundary

Mangrove land use is categorized into the following zones:

1. Conservation zone represents the mangrove area prohibited for any change to conserve the environment and ecosystem. The zone includes 10 categories namely:

- 1.1 Areas for breeding of economic plant and aqua-animal.
- 1.2 Areas for breeding of plant and aqua-animal.
- 1.3 Areas prone to destruction and soil erosion including beach, sand dune, mud flat, accreted mud flat, accreted sand, island, cave and coral reef.
- 1.4 Areas of history and archeology significance.
- 1.5 Areas of local symbol.

1.6 National park, forestry park, tourism spot, wildlife sanctuary, and hunting prohibited zone.

1.7 Forest areas reserved for fire protection.

1.8 Forest areas suitable for research.

1.9 Forest areas suitable for environment and ecosystem conservation.

1.10 Areas of the distance not less than 20 meters from river banks and not less than 75 meters from coast lines

2. Economic zone includes 2 categories namely:

2.1 Economic zone A includes the mangrove areas allowed for forestry activity especially to provide regular production. They are namely:

2.1.1 Concessioned forest area and forest under project area.

2.1.2 Unconcessioned forest area suitable for social forestry.

2.1.3 Forest plantation area for forest products of both government and private sectors.

2.2 Economic zone B includes mangrove areas allowed for other land utilize and development. However, environmental impacts are to be taken into consideration. The area includes:

2.2.1 Agricultural area for the following purposes:

2.2.1.1 Crop cultivation

2.2.1.2 Livestock

2.2.1.3 Fisheries

2.2.1.4 Salt pan

2.2.2 Industrial area includes

2.2.2.1 Mining

2.2.2.2 Industrial Factory

2.2.3 Urban area

2.2.4 Commercial area

2.2.5 Sea port

2.2.6 Others

5.) Road network map, at scales of 1:1,000,000 and 1:250,000 obtained from the Department of Highway and the Royal Thai Survey Department, includes:

5.1 Road comprises:

5.1.1 Highway with number

5.1.2 Provincial road with number

5.1.3 Road under the Office of Accelerated Rural Development

5.1.4 Dirt road, and etc.

5.2 Railway

5.3 Road along irrigation canal

6.) Administrative boundary map, at a scale of 1:50,000 obtained from The National Statistical Office, and the Royal Thai Survey Department includes:

6.1 Province boundary

- 6.2 District boundary
- 6.3 Sub-district boundary
- 6.4 Locations of province, district and sub-district offices

7.) Present land use map, at a scale of 1:50,000 obtained from 2005 satellite image interpretation by OAE, includes the following categories:

Land use Type	Code
1. Paddy field	Ri
2. Paddy under trees (agro forest)	Ri /Tr
3. Field crops	Up
3.1 Single crops	
Cassava	Ca
Sugarcane	Su
Corn	Co
Pineapple	Pi
3.2 Mixed crops	Up
4. Horticultural crops	
4.1 Special Orchard	
Rubber	Ru
Oil palm	Pa
Coconut	Ce
Coffee	Cf
Orchard	Or
4.2 Mixed orchard	
Mixed orchard	Or
Resident orchard	Or/ Ur
5. Tree crops (Standing trees)	
5.1 Trees along the road or riverene trees	Tr
5.2 Standing trees in the village	Tr
6. Forest	
6.1 Inland forest	Fo
6.2 Mangrove	Ma
6.3 Swamp forest / bog	Fs
6.4 Forest plantation (Pine, Eucalyptus, Teak)	Fp
6.5 Idle land	Id
7. Pasture	
7.1 Grass land	Gs
7.2 Swamp grass	Sw
8. City, Village	Ur
9. Other land uses	
9.1 Shrimp farm	Sh
9.2 Salt pan	Sa
9.3 Fish pond	Fi
9.4 Others	Ot
10. Water body	Wa
11. Barren land	Ba

2. Data Analysis

Data analysis was carried out by using GIS and oracle software under WINDOW NT operating system the steps are follows:

1) Project construction and database establishment to integrate spatial information, obtained from digital map, and attribute information so called topology.

2) Data analysis was undertaken by overlaying of multi-layer spatial information. The data includes:

2.1 Soil properties were categorized, in accordance with suitability condition, into 4 levels namely:

1. represents high suitability for rambutan cultivation
2. represents moderate suitability for rambutan cultivation
3. represents marginal suitability for rambutan cultivation
4. represents unsuitability for rambutan cultivation

2.2 Rainfall map was categorized into 4 levels namely:

1. The rainfall of high suitability for rambutan.
2. The rainfall of moderate suitability for rambutan.
3. The rainfall of marginal suitability for rambutan.
4. The rainfall of unsuitability for rambutan.

2.3 Overlaid the rainfall map onto the irrigation zone and soil properties maps to obtain the map of suitability area for rambutan including: The map of suitability area for rambutan was then overlaid onto the present land use map and forest legal boundary map to remove the undesirable areas including conserved forest, water body, and others.

2.4 Calculate the suitability area for rambutan in Province and district , Thailand

The methodology for zoning on rambutan production is to study on present crop production system and land allocation suitable for production target. The step show on Figure 10-19 Map of the layers to overlay for a study on land suitability and zoning of rambutan Potential Production Area.

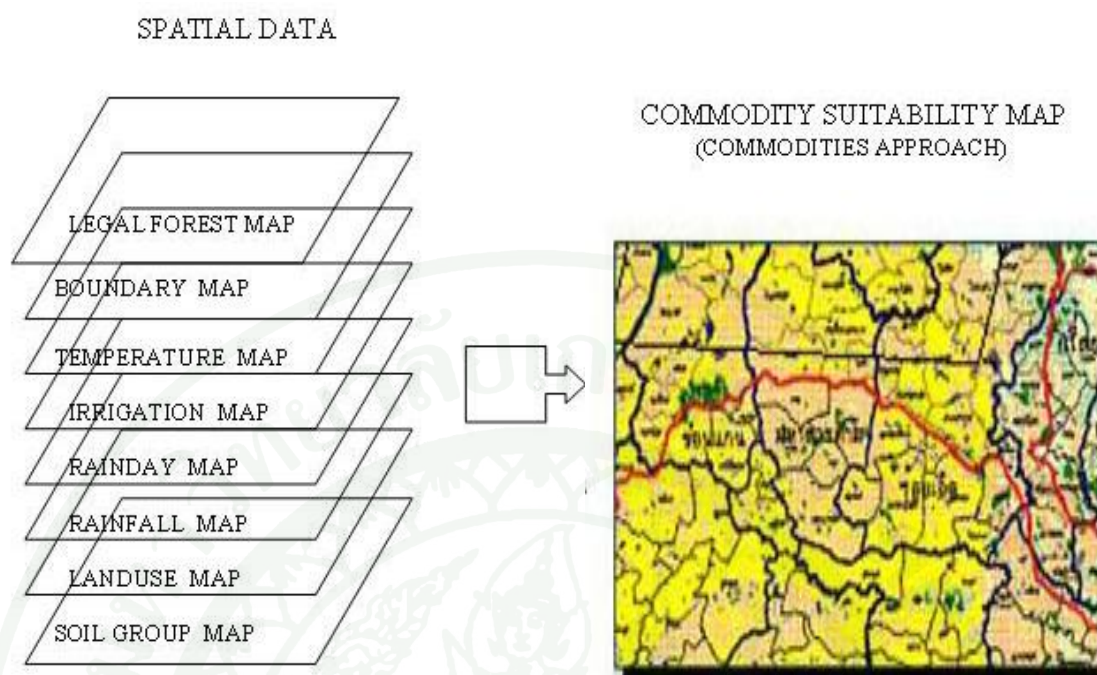


Figure 10 Show the step on using GIS to analyse potential production area.

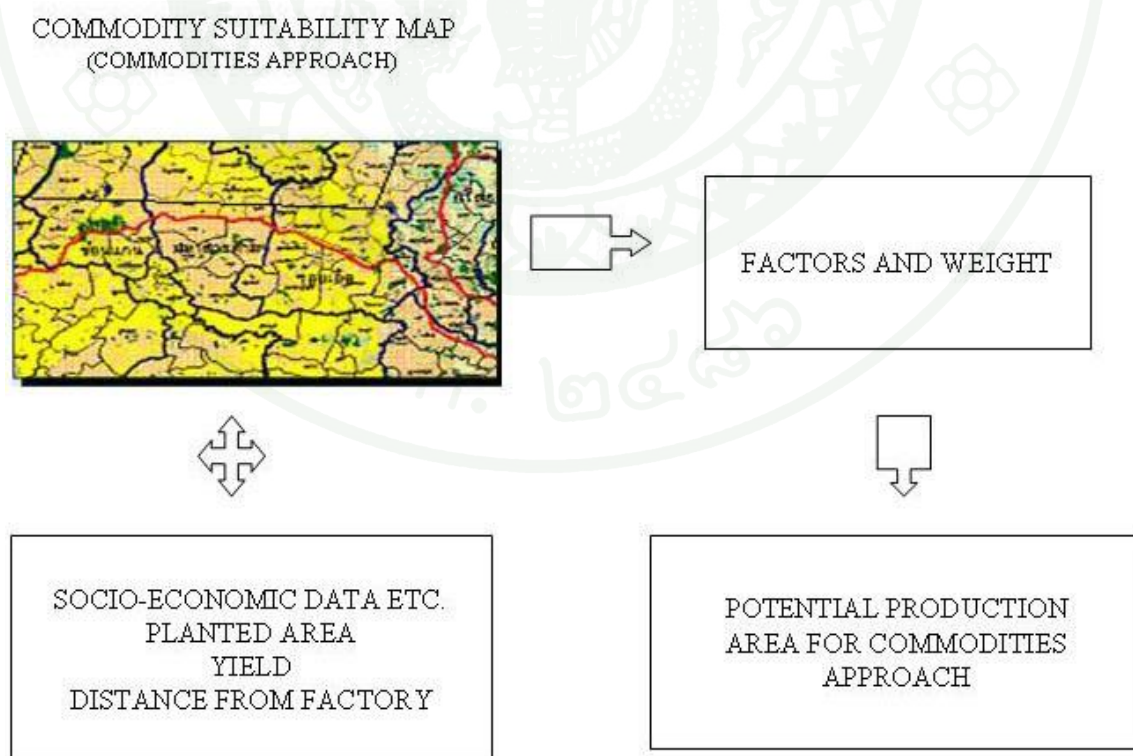


Figure 11 Show the step on using GIS to analyse spatial data for rambutan zoning.

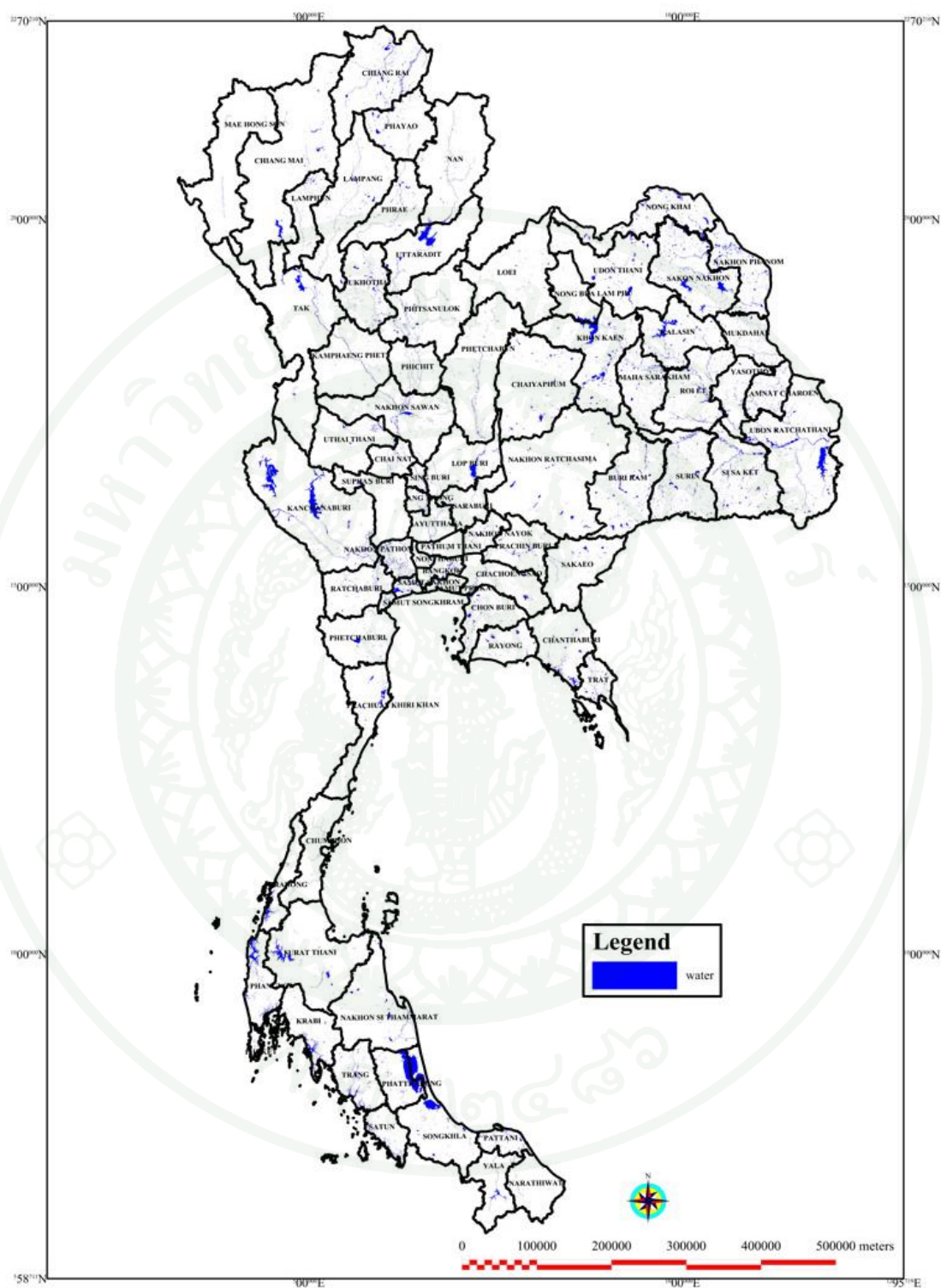


Figure 12 Map of Water in Thailand

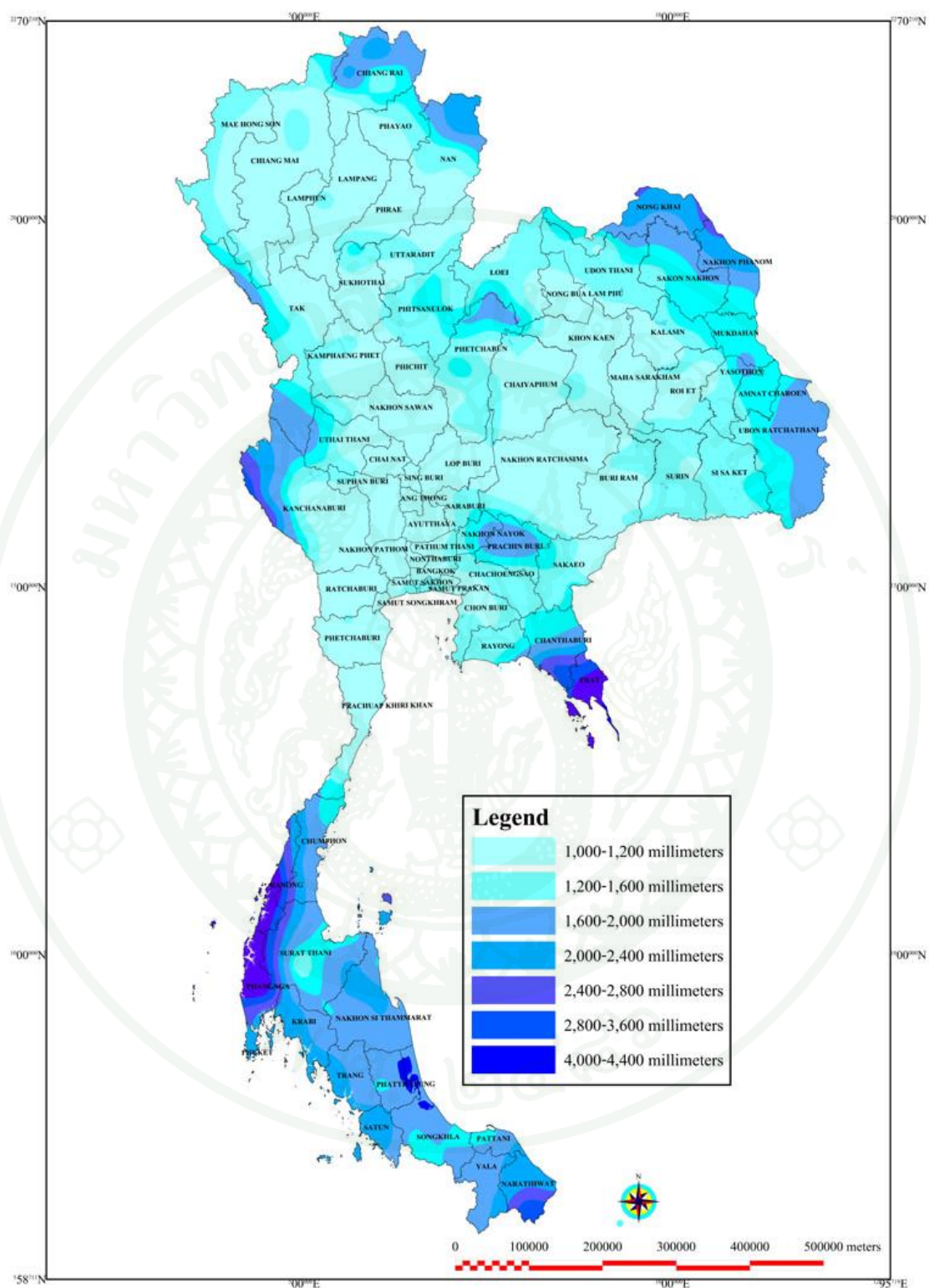


Figure 13 Map of Rainfall in Thailand

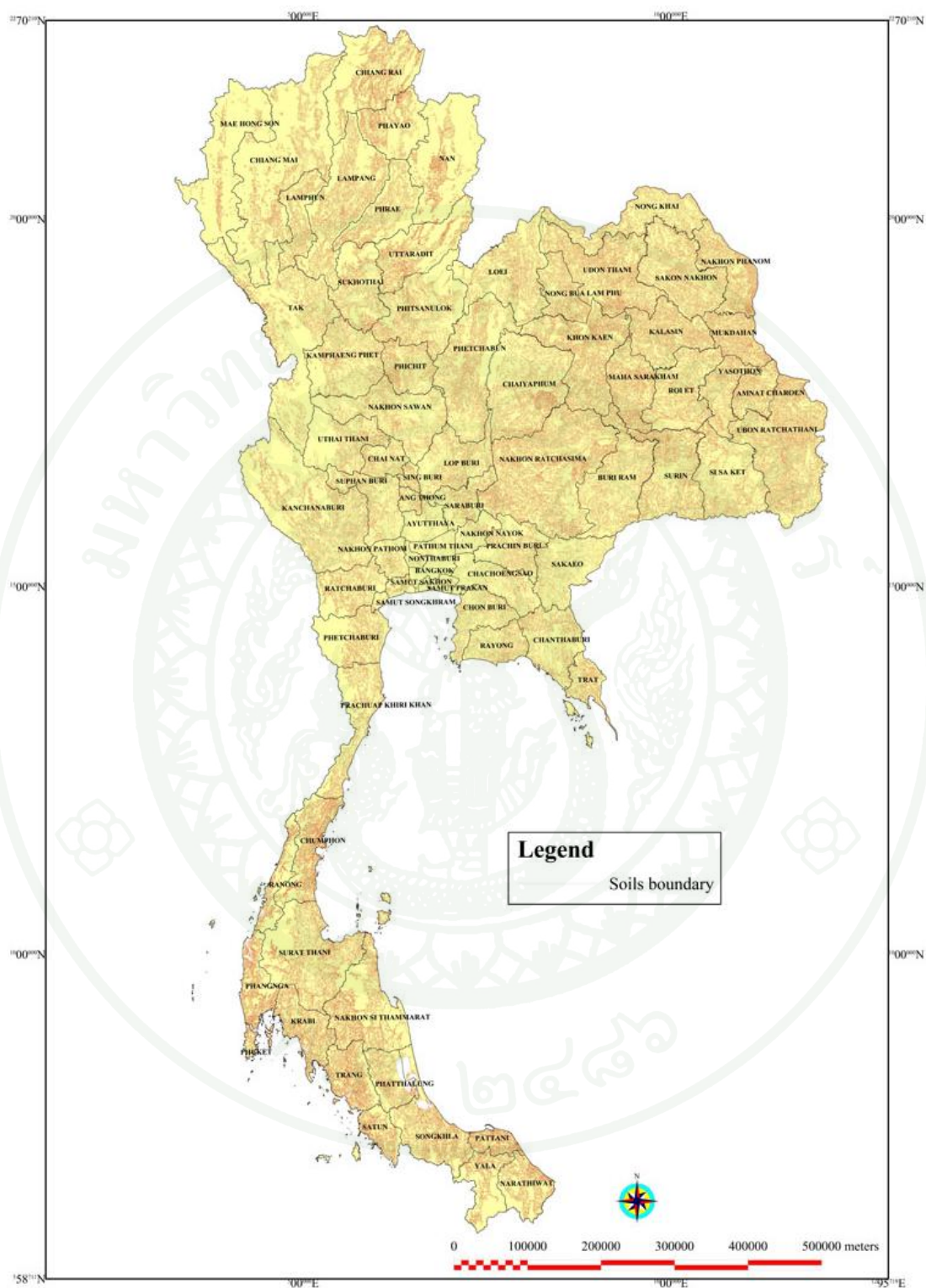


Figure 14 Map of Soils in Thailand

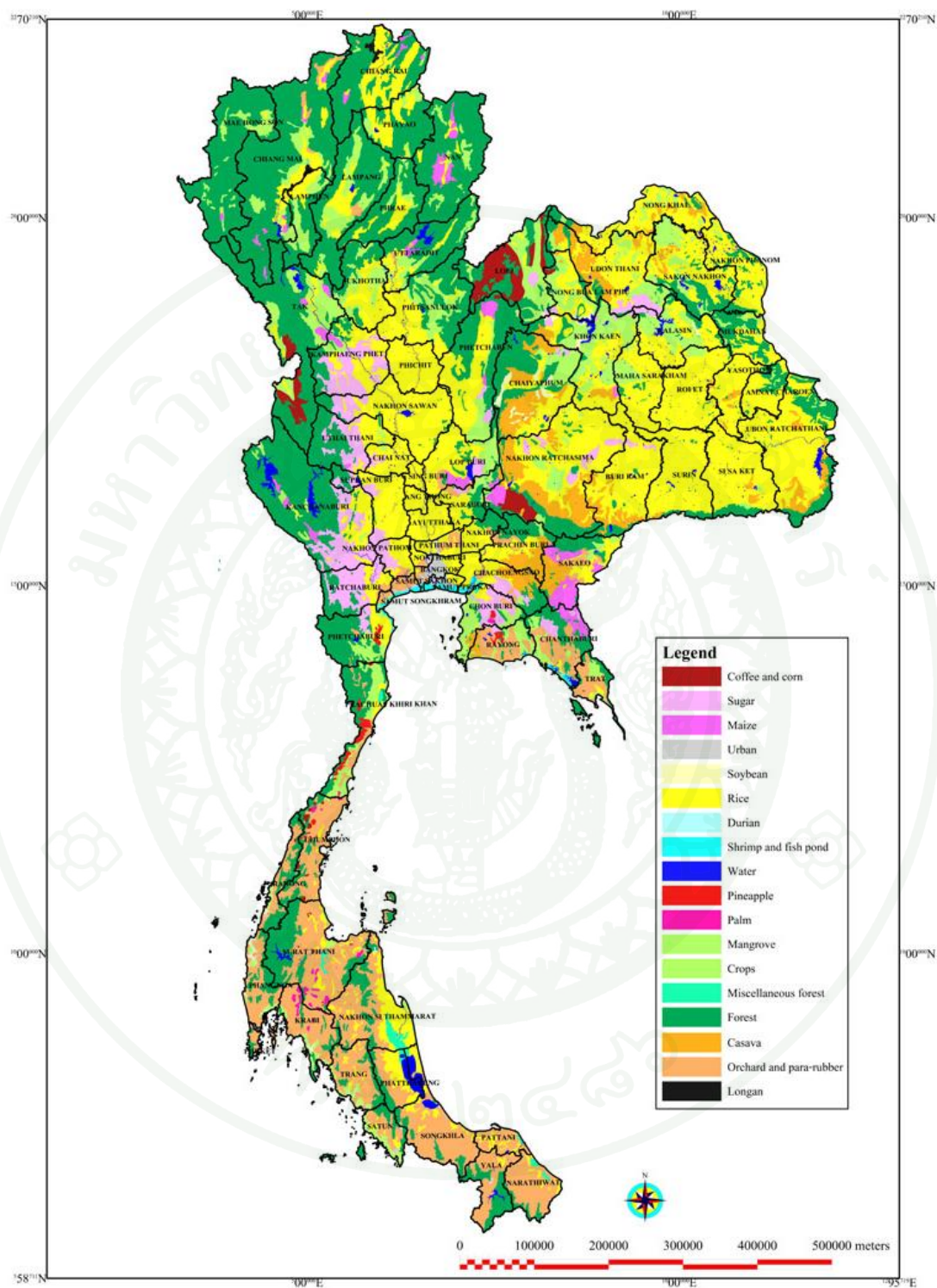


Figure 15 Map of Landuse in Thailand

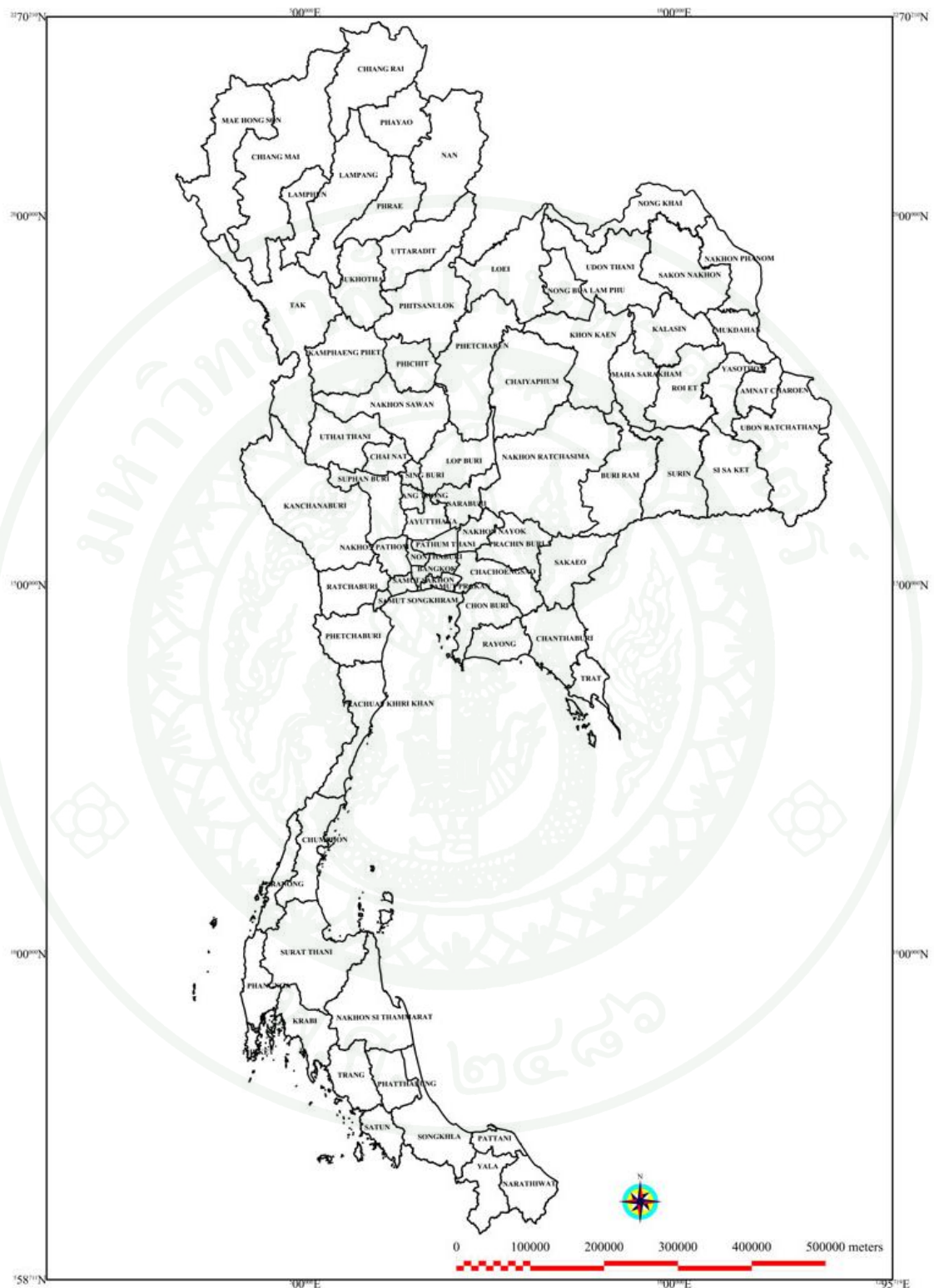


Figure 16 Map of Administrative Boundary in Thailand

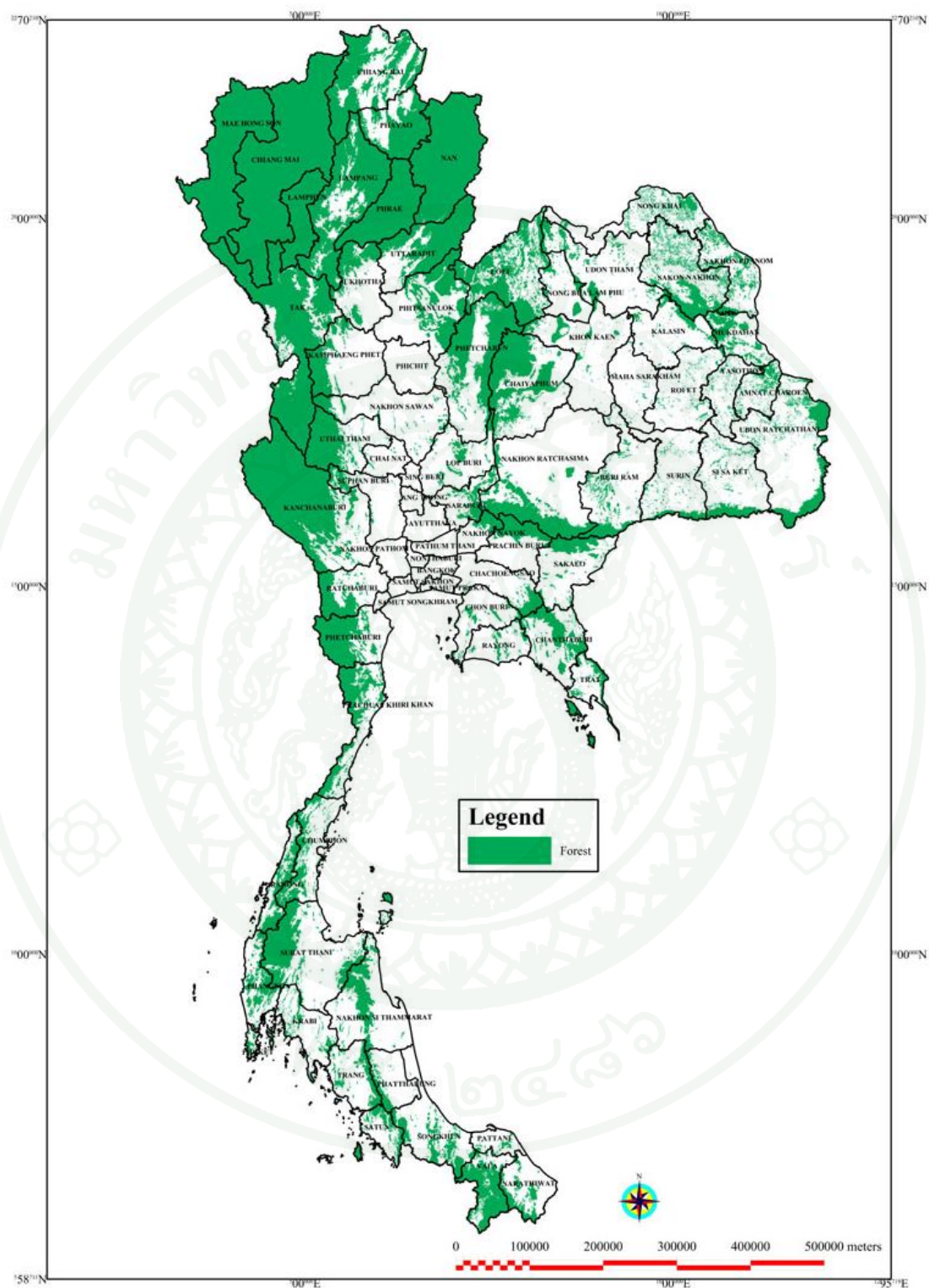


Figure 17 Map of Forest in Thailand

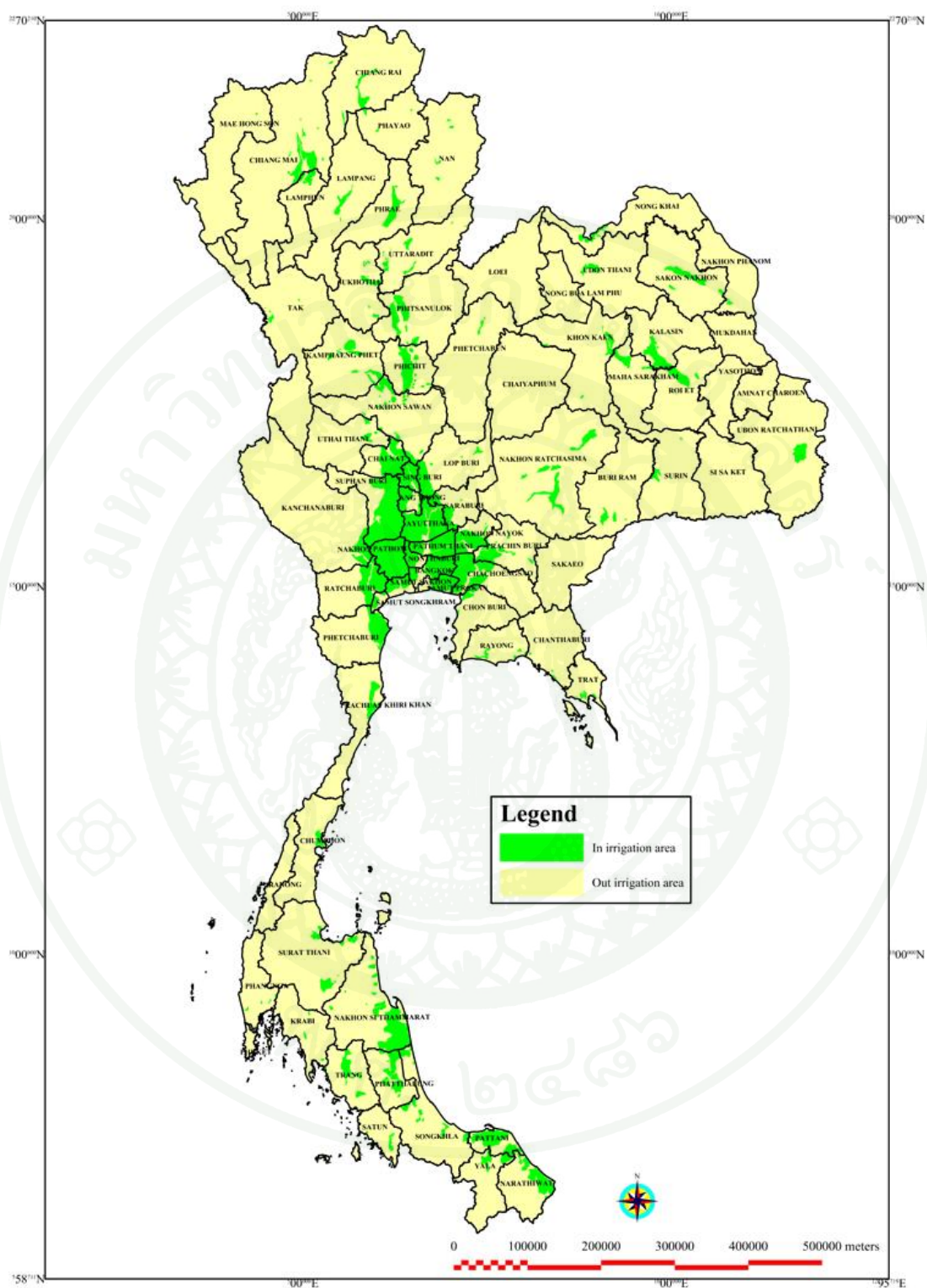


Figure 18 Map of Irrigation in Thailand

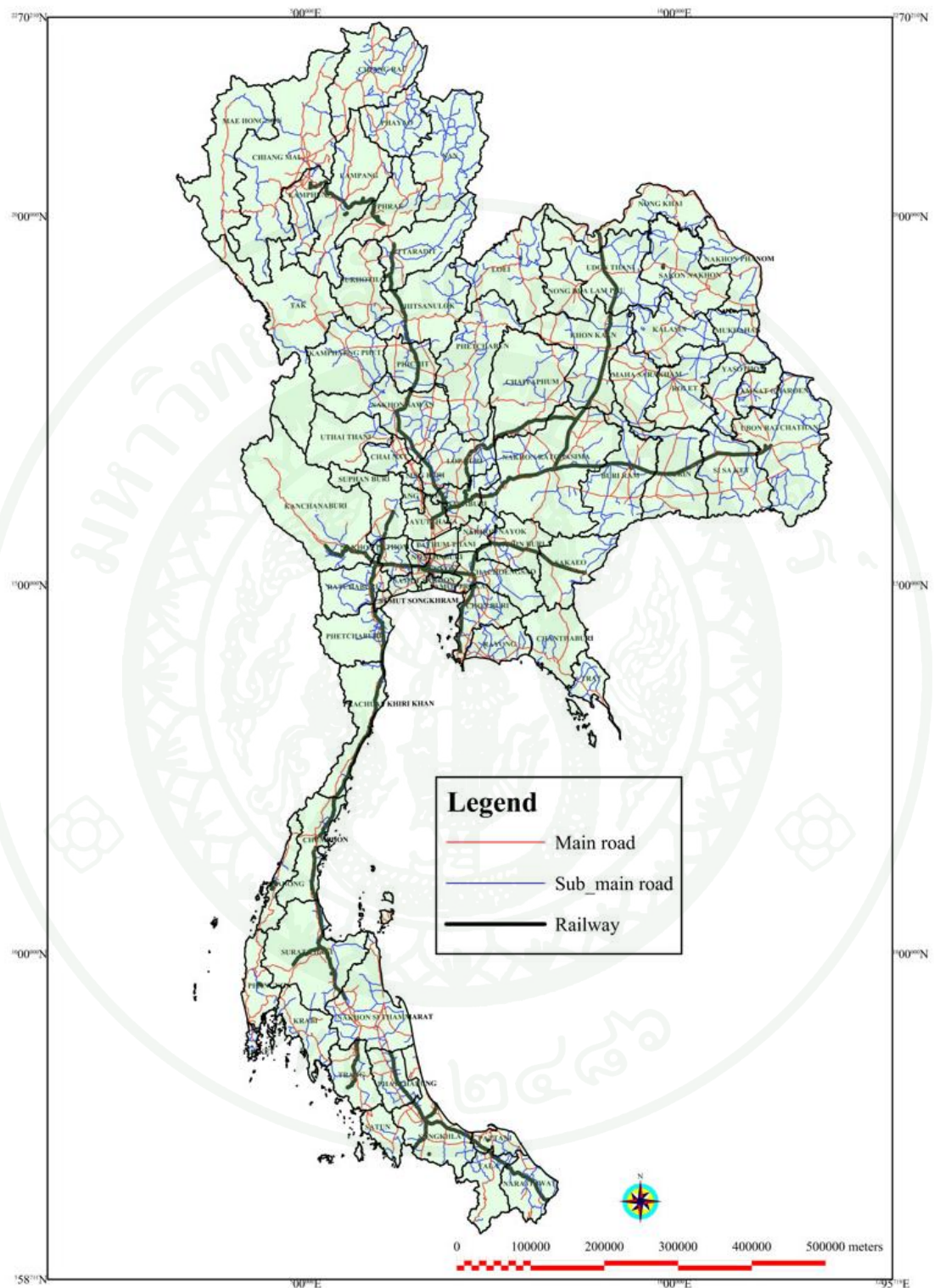


Figure 19 Map of Transportation in Thailand

RESULTS AND DISCUSSION

Results

Analysis of area suitability the spatial data map are analysed on area physical suitability for crop planting based on the boundary of Thailand. The steps are including :

1. Analyse soil properties and altitude level of an area by using coverage function. Soil suitability for rambutan is divided, based on Land Development Department criteria, into 4 levels : highly suitable area, moderately suitable area, marginally suitable area and unsuitable area. Altitude suitability is also divided based on restriction of rambutan. Both suitability informations are then analysed by overlaying technique. The result obtained is map of soil and altitude suitabilities for rambutan.

2. Analyse precipitation and irrigation zone by dividing precipitation into 4 levels based on water requirement of rambutan. Irrigation zone is divided into 2 levels including irrigated area and non-irrigated area. Irrigated area is defined as highly suitable area while that of non-irrigated is unsuitable area. Both suitabilities are then analysed by overlaying technique. The result of this step is map of water suitability for rambutan. The suitability obtained includes 4 levels : highly suitable, moderately suitable, marginally suitable and unsuitable. The levels of water suitability are determined based on different requirements of rambutan.

3. Analyse soil and water by overlaying of the results from 1 and 2 with appropriate conditions. Soil and water suitabilities are then divided into 16 levels such as highly soil and water suitable area, and moderately soil suitable and highly water suitable area. The levels are then grouped into 4 levels by weighting with soil and water factors based on crop requirement. The results obtained is map of soil and water suitability level for rambutan.

4. Analyse and define area based on suitability level obtained from soil and water suitability map. Maps of present land use and forest boundary are then analysed with area suitability level. The results obtained in this stage is map illustrating area suitability for planting of rambutan. The area is divided into 4 zones as follows :

1) Agricultural Zone :To analyse area suitability in agricultural zone, only suitable area is determined. Legal forest boundary, present existing forest, water body, residential area, built up, and other areas are excluded. Only agricultural land use is classified into 3 levels of suitability including : highly suitable area, moderately suitable area, and unsuitable area.

2) Economic Forest Zone : This zone is divided into 2 parts : existing forest and encroachment area. Existing forest is excluded. Only encroachment area is determined by dividing into 2 parts : agricultural area and forest rehabilitation area. The suitability of the area permitted for agricultural purpose is divided into 2 levels :

highly suitable area, and moderately suitable area. The rest is determined as forest rehabilitation zone.

3) Conservative Forest Zone: This zone is not included for suitability analysis. It is divided into 2 parts : existing conservative forest, and encroached conservative forest. The later should be determined as forest rehabilitation zone without other activities.

4) Other Zone: This zone includes areas other than agricultural zone such as built up area, residential area, water body, fish pond and shrimp farm where can not be used for planting due to very high cost of production.

Results of Suitability for Rambutan

The results comprise 2 types of information: map and level of rambutan suitability area which was ranged into 7 levels. They are: (Table 1)

1. Highly suitable area
2. Moderately suitable area
3. Unsuitable area
4. Existing forest area
5. Deforestation area
6. Water body
7. Residential, city, and other built up areas.

Table 1 Land Suitability for Rambutan in Thailand

Province	Land Suitability for Rambutan			Unsuitable	Exiting Forest	Deforestation	Water	Built-up areas	Total
	Highly	Moderately	Total						
Whole Kingdom	7,310,034	20,075,505	27,385,539	107,107,201	104,249,748	38,687,983	3,416,656	39,849,760	320,696,888
Northern	14,856	2,280,833	2,295,689	27,978,867	58,088,389	8,561,631	480,556	8,622,548	106,027,680
Northeastern	364,187	4,097,803	4,461,989	49,247,422	15,077,341	17,777,702	849,807	18,119,702	105,533,963
Central Plain	538,015	7,554,079	8,092,094	15,541,564	18,481,627	10,833,571	670,705	11,318,691	64,938,253
Southern	6,392,976	6,142,790	12,535,766	14,339,349	12,602,392	1,515,079	1,415,588	1,788,819	44,196,992
Chiang Rai	7,390	106,618	114,007	2,165,876	3,004,782	987,695	20,925	1,005,695	7,298,981
Phayao	-	12,368	12,368	850,976	2,056,069	502,493	17,014	520,493	3,959,412
Lampang	194	62,648	62,842	-	5,471,902	1,136,083	8,815	1,154,083	7,833,726
Lamphun	-	35,077	35,077	500,113	1,597,309	378,052	9,028	296,597	2,816,176
Chiang Mai	-	177,829	177,829	1,170,497	10,504,585	303,618	66,765	343,618	12,566,911
Mae Hong Son	-	4	4	249,437	7,061,796	378,052	73	236,424	7,925,787
Tak	-	22,927	22,927	1,416,405	8,217,352	230,982	125,507	240,982	10,254,156
Kamphaeng Phet	-	282,419	282,419	2,945,849	1,324,450	398,754	11,455	416,754	5,379,681
Sukhothai	-	28,682	28,682	1,985,109	1,985,109	48,323	9,013	66,323	4,122,557
Phrae	-	100,425	100,425	325,156	2,856,977	390,047	5,972	408,047	4,086,624
Nan	1,817	18,479	20,296	1,683,671	4,085,183	666,688	29,520	684,688	7,170,045
Uttaradit	-	112,801	112,801	1,064,046	2,647,344	460,575	135,778	478,575	4,899,120

Table 1 (Continued)

Province	Land Suitability for Rambutan			Unsuitable	Exiting Forest	Deforestation	Water	Built-up areas	Total
	Highly	Moderately	Total						
Phitsanulok	2,314	439,064	441,377	2,676,411	2,256,618	681,904	3,695	699,904	6,759,909
Phichit	-	396,393	396,393	1,702,200	-	355,947	3,397	373,947	2,831,883
Nakhon Sawan	2,107.52	389,031	391,138	4,224,293	335,830	498,131	33,024	516,131	5,998,548
Uthai Thani	1,034	65,513	66,547	1,394,018	2,068,097	329,806	130	347,806	4,206,404
Phetchabun	-	30,555	30,555	3,624,811	2,614,988	814,481	445	832,481	7,917,760
Loei	-	38,684	38,684	2,778,424	2,013,113	1,134,999	22,162	1,152,999	7,140,382
Nong Bua Lam Phu	-	56,076	56,076	1,255,659	237,577	408,874	26,870	426,874	2,411,929
Udon Thani	14,392	422,915	437,307	3,482,834	525,009	1,408,534	51,220	1,426,534	7,331,439
Nong Khai	11,098	145,510	156,607	1,002,617	84,901	283,596	22,731	341,596	1,892,050
Bueng Kan	23,413	178,042	201,456	1,348,069	117,663	510,892	41,655	470,892	2,690,625
Sakon Nakhon	51,684	268,833	320,517	2,694,057	783,552	1,056,579	74,318	1,074,579	6,003,602
Nakhon Phanom	54,437	106,711	161,148	1,267,259	374,160	787,805	49,241	805,805	3,445,418
Mukdahan	7,789	32,401	40,191	873,919	864,623	452,233	11,196	470,233	2,712,394
Yasothon	57,687	94,323	152,009	1,012,636	97,342	648,819	23,414	666,819	2,601,040
Amnat Charoen	-	30,459	30,459	815,697	329,595	387,212	7,609	405,212	1,975,785
Ubon Ratchathani	43,723	191,040	234,763	3,724,208	2,583,407	1,546,257	187,634	1,564,257	9,840,526
Si Sa Ket	-	544,885	544,885	2,475,029	651,592	910,091	15,298	928,091	5,524,985

Table 1 (Continued)

Province	Land Suitability for Rambutan			Unsuitable	Exiting Forest	Deforestation	Water	Built-up areas	Total
	Highly	Moderately	Total						
Surin	14,050	429,995	444,046	2,668,395	306,277	810,932	18,953	828,932	5,077,535
Buri Ram	25,973	214,933	240,906	3,305,943	448,528	1,214,067	9,667	1,232,067	6,451,178
Maha Sarakham	-	334,757	334,757	1,625,131	26,751	648,446	5,772	666,446	3,307,302
Roi Et	19,562	226,866	246,429	2,354,338	80,397	1,232,913	22,166	1,250,913	5,187,156
Kalasin	36,146	302,657	338,804	2,023,407	370,565	763,308	64,324	781,308	4,341,716
Khon Kaen	-	38,245	38,245	3,822,569	418,554	1,173,932	158,513	1,191,932	6,803,744
Chaiyaphum	-	24,714	24,714	3,116,417	2,964,870	929,058	4,313	947,058	7,986,429
Nakhon Ratchasima	4,232	415,756	419,988	7,600,815	1,798,864	1,469,154	32,752	1,487,154	12,808,728
Saraburi	-	168,850	168,850	704,479	426,479	457,423	2,649	475,423	2,235,304
Lop Buri	-	413,376	413,376	1,820,588	327,062	626,716	42,388	644,716	3,874,846
Sing Buri	-	236,351	236,351	5,447	1,518	124,673	3,388	142,673	514,049
Chai Nat	-	478,205	478,205	-	42,397	495,011	14,966	513,011	1,543,591
Suphan Buri	-	1,225,213	1,225,213	757,133	322,102	511,881	2,544	529,881	3,348,755
Ang Thong	-	239,852	239,852	1,200	99	171,522	3,037	189,522	605,232
Phra Nakhon Si Avutthava	-	520,355	520,355	39,567	2,670	504,354	8,599	522,354	1,597,900
Nonthaburi	-	129,714	129,714	27,370	6,404	103,384	683	121,384	388,939
Krung Thep Maha Nakhon	-	104,460	104,460	3,994	25,183	412,792	1,042	430,792	978,263

Table 1 (Continued)

Province	Land Suitability for Rambutan			Unsuitable	Exiting Forest	Deforestation	Water	Built-up areas	Total
	Highly	Moderately	Total						
Pathum Thani	-	310,073	310,073	20,899	-	302,015	659	320,015	953,660
Nakhon Nayok	22,348	321,601	343,949	41,821	481,390	216,492	8,106	234,492	1,326,250
Prachin Buri	91,351	91,351	182,701	1,029,581	830,629	454,088	7,387	472,088	2,976,476
Chachoengsao	5,680	553,987	559,668	1,133,856	505,143	559,279	9,152	577,279	3,344,375
Sa Kaeo	-	104,511	104,511	2,266,839	1,035,109	530,457	11,588	548,457	4,496,962
Chanthaburi	381,599	378,443	760,042	750,014	868,540	752,631	59,392	770,631	3,961,250
Trat	24,015	200,847	224,862	364,104	395,862	365,120	28,807	383,120	1,761,875
Rayong	9,155	208,770	217,926	972,230	81,931	453,813	22,288	471,813	2,220,000
Chon Buri	1,340	34,613	35,953	43,104	1,647,716	482,440	103	517,560	2,726,875
Samut Prakan	-	125,897	125,897	5,902	1,001	232,467	11,824	250,467	627,558
Samut Sakhon	-	108,565	108,565	-	307	209,124	98	227,124	545,217
Nakhon Pathom	-	499,463	499,463	-	207	417,674	2,186	435,674	1,355,204
Kanchanaburi	-	224,047	224,047	3,056,098	7,034,168	732,958	378,739	750,958	12,176,968
Ratchaburi	-	393,237	393,237	936,640	818,919	538,700	3,592	556,700	3,247,789
Samut Songkhram	-	30,606	30,606	26,944	2,406	90,051	2,384	108,051	260,442
Phetchaburi	-	242,694	242,694	368,910	2,283,877	473,252	30,726	491,252	3,890,711
Prachuap Khiri Khan	2,527	208,997	211,525	1,164,841	1,340,507	615,255	14,379	633,255	3,979,762

Table 1 (Continued)

Province	Land Suitability for Rambutan			Unsuitable	Exiting Forest	Deforestation	Water	Built-up areas	Total
	Highly	Moderately	Total						
Chumphon	490,807	399,641	890,448	1,128,578	1,036,849	338,726	4,303	356,726	3,755,630
Ranong	107,662	126,162	233,824	139,678	1,485,506	65,536	53,198	83,536	2,061,278
Surat Thani	914,557	1,246,919	2,161,475	2,722,570	2,672,166	159,791	163,375	177,791	8,057,168
Phangnga	421,360	349,796	771,156	338,497	1,205,594	57,135	159,293	75,135	2,606,809
Phuket	75,541	5,270	80,811	117,489	55,686	32,786	1,838	50,786	339,396
Krabi	1,034,846	81,986	1,116,832	1,085,346	78,259	283,062	78,259	301,062	2,942,820
Trang	626,587	333,936	960,523	1,035,294	876,296	61,714	59,908	79,714	3,073,449
Nakhon Si Thammarat	936,606	936,606	1,873,211	2,275,152	1,511,669	247,365	41,301	265,365	6,214,064
Phatthalung	282,879	532,327	815,206	558,519	379,107	30,130	287,465	69,870	2,140,296
Songkhla	288,159	741,785	1,029,944	2,398,527	715,275	8,737	441,960	26,737	4,621,181
Satun	133,256	216,535	349,791	397,743	653,199	46,588	37,452	64,588	1,549,361
Pattani	225,624	417,187	642,811	275,252	92,616	80,330	23,383	98,330	1,212,722
Yala	223,905	154,427	378,332	1,343,006	964,606	39,491	42,747	57,491	2,825,674
Narathiwat	631,187	600,214	1,231,401	523,698	875,564	63,686	21,108	81,686	2,797,144

Land suitability of rambutan in the whole kingdom is 35.3 million rai which classified in highly suitable level 9.4 million rai mainly planted in the Eastern and the South 0.7 and 8.2 million rai by order. For moderately suitable planted area of rambutan 25.9 million rai allocate in the Eastern and the South 2.7 and 7.9 million rai respectively. (Table 2, Figure 20)

Table 2 Land suitability for rambutan by region

unit : rai

Region	highly suitable	Moderately suitable	totalsuit	unsuitable
Whole Kingdom	9,368,931	25,942,606	35,311,536	140,910,490
Northern	20,130	2,921,790	2,941,920	36,747,318
Northeastern	466,375	5,247,638	5,714,013	63,066,133
Central Plain	3,237	7,091,317	7,094,553	11,949,501
Eastern	693,458	2,745,261	3,438,719	10,516,432
South	8,185,732	7,936,600	34,753,438	18,631,106

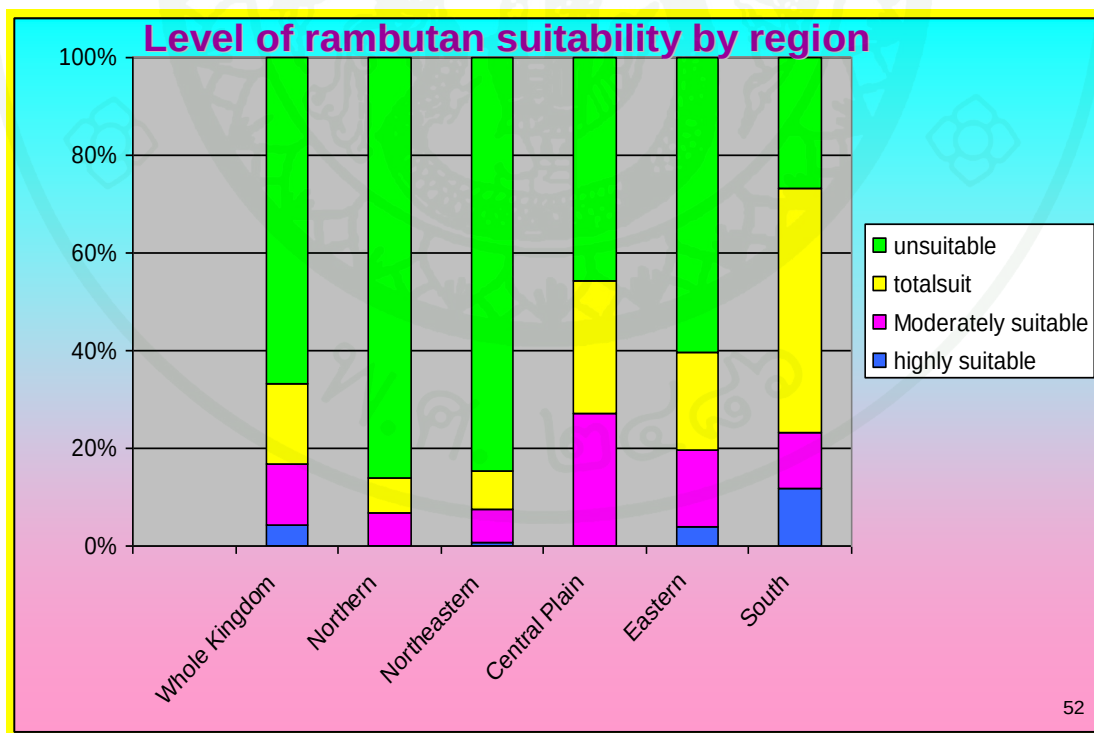
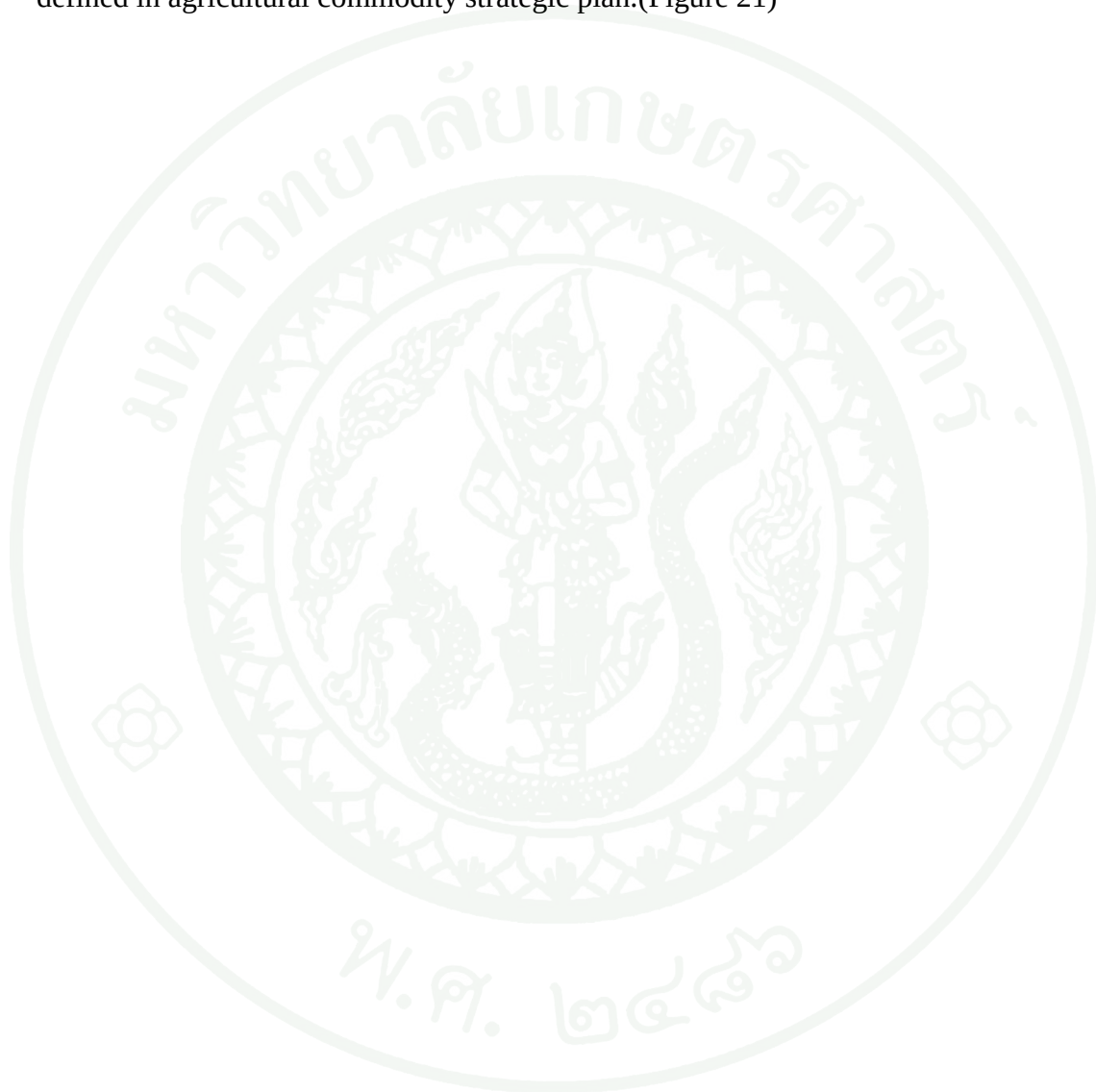


Figure 20 Show Level of rambutan suitability by region

Area calculation and production of area physical suitability map is undertaken by overlaying administrative boundary on to the suitability map. Area for each suitability level can then be obtained and analysed to define agro-economic zone for rambutan in the next step. The items to be studied are such as production source, production quantity, market demand both domestic and external markets, market future trend, and production target suitable for rambutan such as production target defined in agricultural commodity strategic plan.(Figure 21)



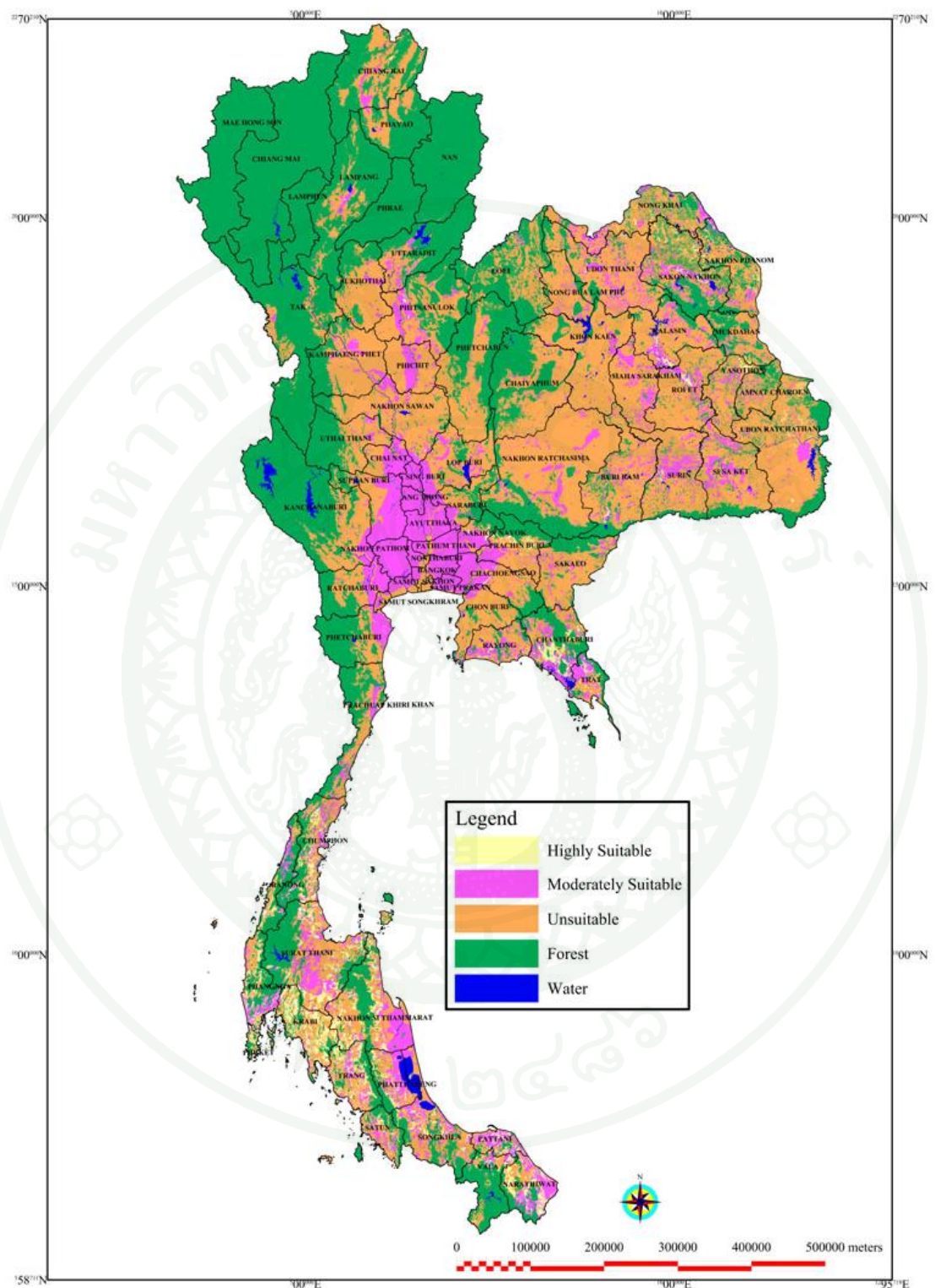


Figure 21 Map of Land Suitability for Rambutan in Thailand

Agro-economic zoning analysis

To analyze rambutan agro-economic zoning using main data as follow:

1. Spatial data

GIS was applied for the analysis of rambutan suitability area in Thailand by overlaying of soil map, rainfall map, and irrigation map. By such a procedure, The undesirable areas such as conserved forest, urban area, water body and etc. were removed. Rambutan suitability areas were then categorized, based on the boundary of Province, into 3 levels: high, moderate and unsuitable. Administrative boundary of Province, district and sub-district, and communication network were also overlaid onto the rambutan suitability area map in both paper print at a scale of 1:50,000 and digital formats.

2. Socio-economic data

2.1 Study and analyze demand and supply of rambutan both of domestic and foreign market include factory production needed.

2.2 Analyzing and forecasting rambutan production and price level, cost, transportation expenditures and income return from farmer to factory.

2.3 Rambutan production data in 1 years (2011) by district or Amphoe.

2.4 Rambutan canned factory and quantity were located with GPS show about latitude-longitude to the earth.

2.5 Production and trade policy data of rambutan and canned factory between Thailand and relevant organization.

The results of analysis for rambutan zoning in Thailand show that correlation analysis of physical factor and economic factor with 3 variables such as: suitable area, existing planted area and product yield.(Table 3)

Table 3 Rambutan : Existing Planted Area and Product Yield, Year 2011

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
1 Chiang Rai						
Mueang Chiang Rai	31	246	-	-	-	-
Chiang Khong	275	3,505	3,670	2,518,000	718	18
Chiang Saen	256	933	731	747,700	801	15
Mae Sai	4	20	10	4,000	200	20
Phaya Mengrai	11	32	32	39,000	1,219	18
Wiang Kaen	49	150	150	82,810	552	12
Chiang Rai Total	626	4,886	4,593	3,391,510	694	17
2 Chiang Mai						
Doi Saket	32	24	24	6,400	267	13
Mae Taeng	93	400	105	77,400	194	23
Fang	52	331	-	-	-	-
Mae Wang	5	10	10	5,000	500	30
Chiang Mai Total	182	765	139	88,800	116	22

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
3 Mae Hong Son						
Mueang Mae Hong Son	4	4	2	8,400	2,100	25
Khun Yuam	1	10	-	-	-	-
Pai	3	25	-	-	-	-
Pang Mapha	2,651	23	-	-	-	-
Mae Hong Son Total	2,659	62	2	8,400	135	25
4 Kamphaeng Phet						
Khlong Lan	12	47	38	14,550	310	24
Khlong Khlung	14	28	5	2,500	89	15
Kamphaeng Phet Total	26	75	43	17,050	227	20
5 Phrae						
Mueang Phrae	67	79	30	18,800	238	10
Rong Kwang	1	1	1	1,000	1,000	18
Long	4	8	-	-	-	-

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Phrae Total	72	88	31	19,800	224	14
6 Nan						
Mueang Nan	188	478	215	31,710	66	13
Mae Charim	80	197	138	245,124	1,243	20
Ban Luang	16	22	10	450	21	20
Na Noi	9	9	9	3,180	353	20
Pua	10	24	5	2,750	115	25
Tha Wang Pha	113	509	158	60,500	119	16
Thung Chang	476	2,919	3,051	188,500	65	13
Na Muen	137	340	-	-	-	-
Santi Suk	6	19	19	11,400	600	15
Song Khwae	170	500	1,671	417,788	836	19
Chaloem Phra Kiat	3	28	28	19,600	700	15
Nan Total	1,208	5,045	5,303	981,002	194	18

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
7 Uttaradit						
Mueang Uttaradit	4	21	8	12,000	571	20
Tha Pla	33	169	-	-	-	-
Nam Pat	24	45	-	-	-	-
Ban Khok	64	202	100	44,500	220	10
Laplae	14	17	6	5,100	300	12
Thong Saen Khan	22	54	-	-	-	-
Uttaradit Total	161	508	114	61,600	121	14
8 Phitsanulok						
Mueang Phitsanulok	1	5	-	-	-	-
Nakhon Thai	150	659	120	60,000	91	12
Phrom Phiram	1	10	5	10,000	1,000	20
Wat Bot	2	7	-	-	-	-
Wang Thong	185	1,241	1,673	5,722,400	4,611	9

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Noen Maprang	6	165	-	-	-	-
Phitsanulok Total	345	2,087	1,798	5,792,400	2,775	14
9 Nakhon Sawan						
	17	38	79	60,486	1,592	15
Nakhon Sawan Total	17	38	79	60,486	1,592	15
10 Uthai Thani						
Mueang Uthai Thani	12	1	-	-	-	-
Ban Rai	8	53	53	47,000	887	18
Lan Sak	1	5	5	1,500	300	17
Huai Khot	8	53	10	1,300	25	21
Uthai Thani Total	29	112	68	49,800	445	19
11 Phetchabun						
Mueang Phetchabun	16	43	33	26,000	605	5
Nam Nao	10	45	-	-	-	-

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Wang Pong	1	36	-	-	-	-
Khao Kho	27	86	-	-	-	-
Phetchabun Total	54	210	33	26,000	124	5
12 Loei						
Mueang Loei	57	666	211	65,300	98	15
Dan Sai	27	114	15	9,000	79	15
Na Haeo	15	47	82	45,900	977	13
Phu Ruea	3	7	-	-	-	-
Tha Li	11	38	2	1,700	45	25
Wang Saphung	15	189	93	5,880	31	15
Erawan	5	26	-	-	-	-
Loei Total	133	1,087	403	127,780	118	17
13 Udon Thani						
Nam Som	3	30	35	22,000	733	22

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Sang Khom	3	12	-	-	-	-
Na Yung	20	75	118	125,750	1,677	15
Udon Thani Total	26	117	153	147,750	1,263	19
14 Nong Khai						
Tha Bo	2	5	-	-	-	-
Phon Phisai	5	41	83	340,500	8,305	20
Si Chiang Mai	1	15	50	38,500	2,567	19
Sangkhom	129	378	238	197,600	523	15
Sakhrail	1	100	-	-	-	-
Fao Rai	4	25	-	-	-	-
Rattanawapi	13	94	7	5,250	56	10
Pho Tak	15	49	55	33,000	673	15
Nong Khai Total	170	707	433	614,850	870	16
15 Bueng Kan						

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Mueang Bueng Kan	36	180	201	50,780	282	18
Phon Charoen	11	60	88	43,500	725	25
So Phisai	5	15	30	14,500	967	16
Seka	7	50	100	49,250	985	23
Pak Khat	71	412	78	190,640	463	21
Bung Khong Long	12	44	2	1,000	23	15
Si Wilai	36	181	261	97,678	540	18
Bung Khla	4	28	12	14,400	514	30
Bueng Kan Total	182	970	772	461,748	476	21
16 Sakon Nakhon						
Waritchaphum	1	5	10	7,250	1,450	18
Nikhom Nam Un	20	16	8	25,650	1,603	18
Kham Ta Kla	1	6	6	600	100	25
Ban Muang	3	11	4	6,000	545	10

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Tao Ngoi	3	5	20	40,000	8,000	18
Phu Phan	3	24	48	96,000	4,000	21
Sakon Nakhon Total	31	67	96	175,500	2,619	18
17 Nakhon Phanom						
Mueang Nakhon Phanom	4	5	2	780	173	30
Pla Pak	1	16	21	21,000	1,313	26
Nakhon Phanom Total		21	23	21,780	1,062	28
18 Mukdahan						
Dong Luang	6	33	26	1,300	39	21
Khamcha-i	3	3	3	1,500	500	20
Mukdahan Total	9	36	29	2,800	78	21
19 Yasothon						
Thai Charoen	2	10	20	70,000	7,000	23
Yasothon Total	2	10	20	70,000	7,000	23

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
20 Ubon Ratchathani						
Nam Yuen	56	846	2,532	1,239,850	1,466	19
Nam Khun	50	200	-	-	-	-
Ubon Ratchathani Total	106	1,046	2,532	1,239,850	1,185	19
21 Si Sa Ket						
Kantharalak	6,423	1,217	1,217	2,434,000	2,000	20
Phrai Bueng	3	3	6	5,100	1,700	30
Prang Ku	1	4	8	30,000	7,500	13
Khun Han	76	382	729	922,200	2,414	16
Si Rattana	29	73	70	84,000	1,151	15
Phu Sing	21	52	14	42,000	808	25
Si Sa Ket Total	6,553	1,731	2,044	3,517,300	2,032	20
22 Buri Ram						
Nang Rong	9	42	21	87,000	2,071	13

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Non Suwan	5	12	24	15,000	1,250	25
Non Din Daeng	2	5	6	1,000	200	28
Buri Ram Total	16	59	51	103,000	1,746	22
23 Chaiyaphum						
Kaset Sombun	2	23	50	4,700	204	19
Nong Bua Daeng	11	49	60	60,000	1,224	25
Nong Bua Rawe	5	5	-	-	-	-
Phakdi Chumphon	6	12	-	-	-	-
Chaiyaphum Total	24	89	110	64,700	727	22
24 Nakhon Ratchasima						
Khon Buri	1	3	6	5,700	1,900	10
Chok Chai	1	4	-	-	-	-
Pak Chong	12	159	198	143,500	903	25
Nong Bunnak	19	50	50	42,500	850	15

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Nakhon Ratchasima Total	33	216	254	191,700	888	17
25 Sara Buri						
Kaeng Khoi	54	57	114	242,250	4,250	15
Muak Lek	1	10	15	60,000	6,000	20
Sara Buri Total	55	67	129	302,250	4,511	18
26 Suphan Buri						
Dan Chang	10	16	6	11,000	710	18
Suphan Buri Total	10	16	6	11,000	710	18
27 Nakhon Nayok						
Mueang Nakhon Nayok	119	251	863	392,800	1,565	15
Ban Na	12	59	59	70,800	1,200	20
Nakhon Nayok Total		310	922	463,600	1,495	18
28 Prachin Buri						
Mueang Prachin Buri	219	434	751	1,590,500	3,665	19

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Kabin Buri	2	18	8	4,000	222	20
Na Di	21	132	264	31,700	240	17
Prachantakham	5	17	30	19,000	1,118	14
Si Maha Phot	17	223	123	295,250	1,324	20
Prachin Buri Total	264	824	1,176	1,940,450	2,355	18
29 Chachoengsao						
Tha Takiab	446	187	110	190,600	1,019	20
Chachoengsao Total	446	187	110	190,600	1,019	20
30 Sa Kaeo						
Wang Nam Yen	1	2	-	-	-	-
Khao Chakan	4	30	65	234,000	7,800	15
Sa Kaeo Total	5	32	65	234,000	7,313	15
31 Chanthaburi						
Mueang Chanthaburi	779	5,790	4,179	6,035,340	1,042	18

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Khlung	2,709	24,659	13,717	15,452,000	627	22
Tha Mai	4,867	30,709	29,521	46,852,431	1,526	11
Pong Nam Ron	219	850	323	376,250	443	13
Makham	3,632	16,283	47,586	20,559,909	1,263	11
Laem Sing	188	860	1,172	1,267,000	1,473	24
Soi Dao	139	624	467	462,200	741	11
Kaeng Hang Maeo	588	2,886	3,699	5,105,325	1,769	21
Na Yai Am	990	4,938	4,886	6,208,895	1,257	15
Khao khitchakut	2,835	24,309	23,889	38,635,111	1,589	11
Chanthaburi Total	16,946	111,908	129,439	140,954,461	1,260	16
32 Trat						
Mueang Trat	1,696	11,212	42,461	14,037,785	1,252	20
Khlong Yai	61	162	504	124,600	769	10
Khao Saming	3,486	37,218	143,886	51,477,475	1,383	17

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Bo Rai	1,443	9,954	31,736	12,935,781	1,300	20
Laem Ngop	238	1,034	943	1,253,300	1,212	18
Ko Kut	17	22	84	62,035	2,885	32
Ko Chang	21	22	66	22,000	1,000	21
Trat Total	6,962	59,624	219,680	79,912,976	1,340	20
33 Rayong						
Mueang Rayong	1,225	3,386	5,976	2,907,780	859	15
Klaeng	892	3,610	5,838	4,139,250	1,147	16
Wang Chan	118	246	239	148,300	603	19
Ban Khai	232	503	521	523,500	1,041	18
Pluak Daeng	12	8	6	4,500	563	10
Khao Chamao	406	1,773	1,735	1,081,500	610	12
Nikhom Phattana	40	120	50	52,000	433	16
Rayong Total	2,925	9,646	14,365	8,856,830	918	15

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
34 Chon Buri						
Nong Yai	8	30	34	22,625	767	22
Bang Lamung	6	7	7	7,000	1,000	10
Si Racha	20	39	112	47,840	1,227	18
Sattahip	3	5	4	5,000	1,000	17
Bo Thong	26	57	114	44,850	787	20
Chon Buri Total	63	138	271	127,315	926	17
35 Kanchanaburi						
Sai Yok	78	461	1,344	1,033,950	2,243	26
Si Sawat	6	7	-	-	-	-
Thong Pha Phum	154	779	1,387	1,270,200	1,632	24
Sangkhla Buri	94	402	928	406,140	1,010	13
Nong Prue	1	5	-	-	-	-
Kanchanaburi Total	333	1,654	3,659	2,710,290	1,639	21

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
36 Ratchaburi						
Pak Tho	33	210	190	420,000	2,000	21
Ratchaburi Total	33	210	190	420,000	2,000	21
37 Prachuap Khiri Khan						
Bang Saphan	51	255	235	155,740	611	15
Pran Buri	10	50	15	12,000	240	25
Prachuap Khiri Khan Total	61	305	250	167,740	550	20
38 Chumphon						
Mueang Chumphon	600	665	416	181,185	272	12
Tha Sae	217	718	539	159,700	222	14
Lang Suan	804	2,177	-	-	-	-
Lamae	135	432	100	8,000	19	34
Phato	727	2,592	55	25,810	10	16
Sawi	503	917	98	980	1	20

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Thung Tako	562	2,054	1,076	95,800	47	21
Chumphon Total	3,548	9,555	2,284	471,475	49	20
39 Ranong						
Mueang Ranong	217	463	488	63,598	137	21
La-un	224	266	179	45,308	170	20
Kapoe	370	926	1,307	122,500	132	13
Kra Buri	372	722	750	84,728	117	24
Suk Samran	168	740	1,428	115,000	155	13
Ranong Total	1,351	3,117	4,152	431,134	138	18
40 Surat Thani						
Mueang Surat Thani	15	70	69	58,400	834	14
Kanchanadit	841	2,345	-	-	-	-
Don Sak	78	219	224	56,700	259	22
Ko Samui	97	206	281	103,000	500	22

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Ko Pha-ngan	71	119	238	27,240	229	30
Tha Chana	165	739	874	257,222	348	16
Khiri Rat Nikhom	351	786	230	88,900	113	18
Ban Ta Khun	310	412	824	62,568	152	13
Phanom	369	1,401	1,045	1,565,600	1,117	20
Tha Chang	39	136	5	4,250	31	18
Ban Na San	4,021	22,159	41,108	1,440,430	65	29
Ban Na Doem	626	3,417	5,756	2,848,350	834	15
Khian Sa	189	714	2	1,920	3	18
Wiang Sa	1,165	4,282	3,140	812,220	190	18
Phrasaeng	190	815	2	1,000	1	35
Phunphin	303	959	351	332,300	347	19
Chai Buri	70	106	19	444	4	20
Vibhavadi	34	100	153	50,000	503	13

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Surat Thani Total	8,934	38,985	54,321	7,710,544	198	20
41 Phang-nga						
Mueang Phang-nga	351	364	120	10,200	28	30
Ko Yao	11	13	3	3,500	269	15
Kapong	508	1,660	1,673	722,326	435	13
Takua Thung	350	424	588	367,520	867	19
Takua Pa	575	1,275	552	37,900	30	17
Khura Buri	1,088	2,681	7,001	1,394,500	520	29
Thap Put	151	129	67	50,100	388	16
Thai Mueang	515	906	521	454,930	502	14
Phang-nga Total	3,549	7,452	10,525	3,040,976	408	19
42 Phuket						
Mueang Phuket	6	25	-	-	-	-
Kathu	16	504	79	11,280	22	18

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Thalang	104	313	191	127,000	406	23
Phuket Total	126	842	270	138,280	164	21
43 Krabi						
Muang Krabi	531	1,042	1,526	901,374	865	17
Khao Phanom	129	436	859	177,070	406	22
Ko Lanta	5	6	6	5,500	1,000	12
Khlong Thom	86	314	358	104,378	332	16
Ao Luek	216	411	492	97,499	237	25
Plai Phraya	222	274	299	38,428	140	15
Lam Thap	56	196	241	55,050	281	16
Nuea Khlong	41	72	119	47,050	653	20
Krabi Total	1,286	2,751	3,899	1,426,349	519	18
44 Trang						
Mueang Trang	549	523	354	392,200	750	10

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Kantang	524	323	469	451,800	1,399	16
Yan Ta Khao	426	477	678	148,325	311	15
Palian	294	563	118	113,300	201	12
Sikao	8	30	21	33,800	1,127	10
Huai Yot	934	1,041	787	331,881	319	13
Wang Wiset	727	680	884	272,600	401	9
Na Yong	374	1,043	929	568,550	545	13
Ratsada	149	311	282	328,700	1,057	9
Hat Samran	40	55	55	72,500	1,318	10
Trang Total	4,025	5,046	4,577	2,713,656	538	12
45 Nakhon Si Thammarat						
Mueang Nakhon Si Tham	1,183	2,432	1,635	1,483,792	610	22
Phrom Khiri	1,136	3,062	3,300	181,450	59	20
Lan Saka	420	996	25	36,250	36	15

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Chawang	2,138	3,832	1,666	391,150	102	12
Phipun	617	2,369	3,258	737,894	311	13
Cha-uat	122	885	3,665	803,400	908	25
Tha Sala	679	2,079	546	83,600	40	28
Thung Song	2,469	1,295	3,439	4,209,000	3,250	12
Na Bon	395	249	134	370	1	32
Thung Yai	37	114	61	11,000	96	18
Ron Phibun	1,125	2,375	316	34,300	14	19
Sichon	1,875	5,866	5,671	563,537	96	17
Bang Khan	460	529	397	397,000	750	15
Tham Phannara	1,879	1,025	1,972	475,412	464	20
Chulabhorn	430	1,148	1,486	64,708	56	26
Phra Phrom	1,101	1,410	231	54,800	39	39
Nopphitam	948	2,978	1,079	584,650	196	18

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Chang Klang	777	1,564	1,537	92,890	59	20
Nakhon Si Thammarat Tc	17,791	34,208	30,418	10,205,203	298	21
46 Phatthalung						
Mueang Phatthalung	324	358	12	16,800	47	40
Kong Ra	946	2,085	1,039	322,900	155	14
Khao Chaison	296	242	181	50,700	210	20
Tamot	1,125	2,072	999	432,153	209	23
Khuan Khanun	389	418	132	103,700	248	18
Pak Phayun	30	70	38	81,500	1,164	26
Si Banphot	98	95	132	50,140	528	17
Pa Bon	69	99	65	28,600	289	18
Bang Kaeo	254	530	341	38,406	72	20
Pa Phayom	1,027	924	568	287,450	311	18
Srinagarindra	1,032	1,324	1,430	672,240	508	20

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Phatthalung Total	5,590	8,217	4,937	2,084,589	254	21
47 Songkhla						
Chana	389	295	82	117,000	397	20
Na Thawi	1,089	1,813	687	593,000	327	19
Thepha	91	252	148	236,800	940	14
Saba Yoi	433	971	1,133	522,100	538	26
Rattaphum	290	825	805	3,234,000	3,920	20
Sadao	472	398	296	362,120	910	11
Hat Yai	75	24	-	-	-	-
Na Mom	291	260	232	135,500	521	15
Bang Klam	154	275	197	36,500	133	20
Khlong Hoi Khong	508	297	348	327,175	1,102	19
Songkhla Total	3,792	5,410	3,928	5,564,195	1,029	18
48 Satun						

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Mueang Satun	147	254	246	125,982	496	12
Khuan Don	1,080	1,347	1,522	902,000	670	9
Khuan Kalong	859	2,489	1,529	993,000	399	9
Tha Phae	64	179	117	51,910	290	10
La-ngu	248	535	385	580,200	1,084	15
Thung Wa	45	78	88	62,672	803	17
Manang	225	261	441	363,730	1,394	11
Satun Total	2,668	5,144	4,328	3,079,494	599	12
49 Pattani						
Muang Pattani	30	31	-	-	-	-
Khok Pho	697	453	315	216,800	479	14
Mayo	60	13	2	100	8	10
Thung Yang Daeng	50	87	129	103,200	1,186	15
Sai Buri	120	124	-	-	-	-

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Yaring	1	1	-	-	-	-
Yarang	160	138	55	11,000	80	15
Kapho	849	578	286	214,000	370	15
Mae Lan	123	203	79	44,000	217	15
Pattani Total	2,090	1,628	866	589,100	362	14
50 Yala						
Betong	1,879	463	1,184	386,725	835	17
Bannang Sata	966	142	426	87,864	619	11
Than To	1,418	2,291	2,334	1,178,575	514	10
Yaha	302	283	362	115,724	409	13
Raman	880	625	658	323,589	518	12
Krong Pinang	347	456	944	555,459	1,218	7
Yala Total	5,792	4,260	5,908	2,647,936	622	12
51 Narathiwat						

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Mueang Narathiwat	1,452	1,737	711	93,100	54	14
Tak Bai	1,338	881	81	35,155	40	18
Bacho	395	313	-	-	-	-
Yi-ngo	735	496	2	600	1	15
Ra-ngae	3,985	5,961	1,312	1,700	0	17
Rueso	774	1,049	86	20,802	20	15
Si Sakhon	571	980	317	305,678	312	8
Waeng	1,631	4,402	550	155,000	35	14
Sukhirin	2,378	5,910	17	21,545	4	10
Su-ngai Kolok	748	789	76	90,932	115	14
Su-ngai Padi	3,010	6,178	212	3,000	0	20
Chanae	1,110	2,407	861	955,330	397	10
13	1,146	1,862	222	11,640	6	12
Narathiwat Total	19,273	32,965	4,447	1,694,482	51	14

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
52 Tak						
Mae Ramat	1	4	-	-	-	-
Phop Phra	5	66	4	1,000	15	25
Umphang	7	25	-	-	-	-
Wang Chao	1	5	-	-	-	-
Tak Total	14	100	4	1,000	10	25
53 Phayao						
Chiang Kham	8	21	20	10,000	476	20
Chiang Muan	1	1	-	-	-	-
Mae Chai	12	22	13	15,600	709	20
Phu Sang	30	30	20	4,515	151	15
Phayao Total	51	74	53	30,115	407	18
54 Sukhothai						
Si Satchanalai	20	125	2	1,000	8	8

Table 3 (Continued)

Province/Amphoe	Number of household (Households)	Planted Area (Rais)	Harvested Area (Rais)	Production (Kgs.)	Product Yield (Kgs. per rai)	Farm Price (Baht/kg.)
Thung Saliang	2	5	-	-	-	-
Sukhothai Total	22	130	2	1,000	8	8
55 Phetchaburi						
Kaeng Krachan	42	151	50	24,000	159	25
Phetchaburi Total	42	151	50	24,000	159	25
56 Nong Bua Lam Phu						
Suwannakhuha	3	18	12	4,600	256	17
Nong Bua Lam Phu Total	3	18	12	4,600	256	17

The result obtained in this step is map illustrating potential level for rambutan production zoning. The potential is divided into 2 levels including production potential area level 1 and production potential area level 2. Production potential area level 1 or zone1 refers to suitable area more than 10,000 rai, Existing area more than 5,000 rai, Yield more than 1,000 kilogram per rai. Production potential area level 2 or zone 2 refers to suitable area more than 1,000-9,999 rai, Existing area between 1,000-4,999 rai, Yield between 500-999 kilogram per rai. Weight analysis for zoning among suitable area : existing area : yield related to ratio 30 : 40 : 30 respectively as show on Table 4.

Table 4 Correlation Analysis of Physical Factor and Economic Factor

Potential Production	Suitable Area (Rais)	Existing Planted Area (Rais)	Product Yield (Kgs. per rai)
level 1	suitable>10,000	>5,000	>1,000
level 2	suitable>1,000-9,999	1,000-4,999	500-999
weight (%)	30%	40%	30%

The results of analysis for rambutan suitability and zoning in Thailand show by the Whole Kingdom (Figure 22), and Province, Amphoe, Tambon in the appendix.

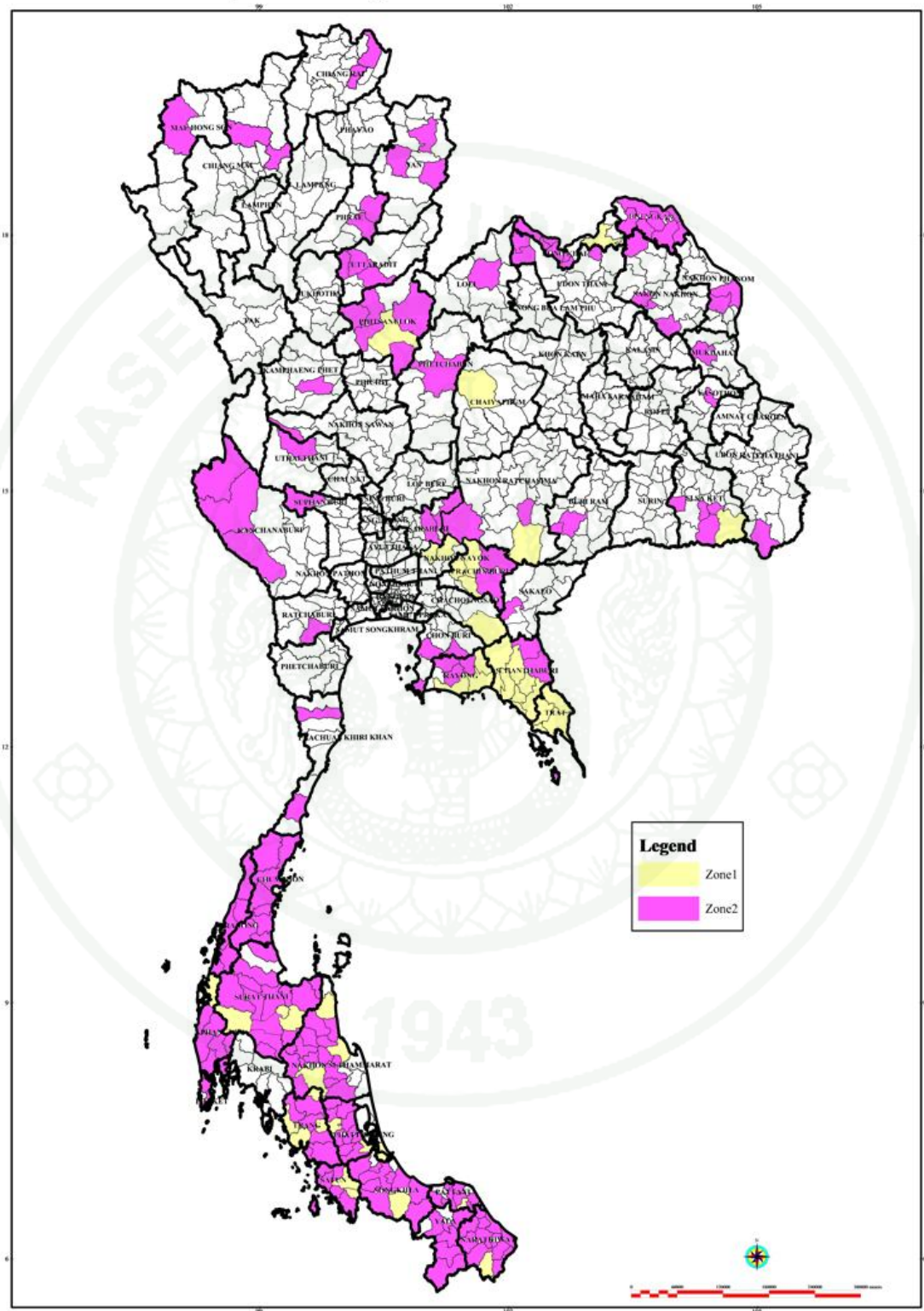


Figure 22 Map of Zoning for Rambutan in Thailand

Discussion

Analysis of area suitability the spatial data map are analysed on area physical suitability for crop planting based on the boundary of Thailand. Area calculation and production of area physical suitability map is undertaken by overlaying administrative boundary on to the suitability map. Area for each suitability level can then be obtained and analysed to define agro-economic zone for rambutan. The items to be studied are such as production source, production quantity, market demand both domestic and external markets, market future trend, and production target suitable for rambutan such as production target defined in agricultural commodity strategic plan.

Land suitability of rambutan in the whole kingdom is 35.3 million rai which classified in highly suitable level 9.4 million rai mainly planted in the Eastern and the South 0.7 and 8.2 million rai respectively. For moderately suitable planted area of rambutan 25.9 million rai allocate in the Eastern and the South 2.7 and 7.9 million rai respectively.

The analysis for potential level of rambutan production zoning is undertaken by integrating the map of area suitability for rambutan production obtained from land allocation suitable for production target with important economic factors effecting to production system. The factors are: commodity demand and supply, production target, production source, production cost, farm gate price, production capability, and plant location (for processing factory) at district level. Percentage of weighting and other conditions are different for each factor.

The results of analysis for rambutan zoning in Thailand show that correlation analysis of physical factor and economic factor with 3 variables such as: suitable area, existing planted area and product yield. The result obtained in this step is map illustrating potential level for rambutan production zoning. The potential is divided into 2 levels including production potential area level 1 and production potential area level 2.

From the results of this study state that 51 from 56 provinces which show relation factor among suitable area, existing planted area and product yield can be established agro-economic zone for rambutan. Percentage of weighting and score set onto calculated physical factor and economic factor by conditions. Then classified the total score into 3 levels as score 1-3 refer to zone 0, score 4-6 refer to zone 2 and score 7-9 refer to zone 1 respectively. There are 51 provinces that show production potential area level 1 and production potential area level 2.

Those provinces are Chiang Rai, Chiang Mai, Mae Hong Son, Kamphaeng Phet, Phrae, Nan, Uttaradit, Phitsanulok, Nakhon Sawan, Uthai Thani, Phetchabun, Loei, Udon Thani, Nong Khai, Bueng Kan, Sakon Nakhon, Nakhon Phanom, Mukdahan, Yasothon, Ubon Ratchathani, Si Sa Ket, Buri Ram, Chaiyaphum, Nakhon

Ratchasima, Saraburi, Suphan Buri, Nakhon Nayok, Prachin Buri, Chachoengsao, Sa Kaeo, Chanthaburi, Trat, Rayong, Chon Buri, Kanchanaburi, Ratchaburi, Prachuap Khiri Khan, Chumphon, Ranong, Surat Thani, Phang-nga, Phuket, Krabi, Trang, Nakhon Si Thammarat, Phatthalung, Songkhla, Satun, Pattani, Yala, Narathiwat.

In between 51 provinces of agro-economic zone for rambutan there are 45 Amphoes show production potential area level 1 or zone 1 and 190 Amphoes show production potential area level 2 or zone 2. The excluded 5 provinces that show production potential area lower than production potential area level 2 or zone 2 are Phayao, Tak, Sukhothai, Nong Bua Lam Phu, and Phetchaburi. (Table 5)

Measures for Agricultural Landuse Zoning

To define the areas of high fertility and irrigated zones as the protected areas for agriculture, the government must set up both legal and motivative measures. The landholder who follows such measures also deserves satisfactory results.

1 Legal Measures

The government must issue laws to prevent land use change from agriculture to other activities.

2 Financial Measures

Financial measures necessary to slow down land use changes and encourage land utilization for agriculture are required. The measures are such as high taxation for other activities or abandon land. In case that farmers would like to sell their agricultural suitability area, the government should buy such land and then distribute to other farmers for agricultural land use.

3 Motivative Measures

To Prohibit land use change from agriculture is to limit the land holder right motivative measures are to be put in place. The government should therefore provide compensation to the land holder. The guidelines for the measures are as follows:

(1) To promote and develop water resource, agricultural extension and marketing so that the farmers can earn high income compared to other occupations.

(2) In case of non-documented agriculturally suitable areas, owner documentation should be approved so that it can be used for investment loan.

Table 5 Agro - Economic Zoning on Rambutan from Analysis of Physical factor and Economic factor

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Chiang Rai											
	Chiang Saen				933	801		1	2	3	-
	Chiang Khong				3,505	718		2	2	4	2
	Mueang Chiang Rai		3,216	3,216	246	-	1	1	-	2	-
	Wiang Kaen				150	552		1	2	3	-
	Mae Sai				20	200		1	2	3	-
	Phaya Mengrai				32	1,219		1	3	4	2
Chiang Rai Total		7,390	106,618	114,007	4,886	694	1	1	2	4	2
Chiang Mai											
	Mae Taeng		5,744	5,744	400	194	2	1	1	4	2
	Mae Wang				10	500		1	2	3	-
	Doi Saket		16,088	16,088	24	267	3	1	1	5	2
	Fang				331	-		1	1	2	-
Chiang Mai Total			177,829	177,829	765	116	3	1	1	5	2
Mae Hong Son											
	Mueang Mae Hong Son				4	2,100		1	3	4	2
	Khun Yuam				10	-		1	-	1	-
	Pang Mapha				23	-		1	-	1	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
	Pai				25	-		1	-	1	-
Mae Hong Son	Total		4	4	62	135	-	1	3	4	2
Kamphaeng Phet											
	Khlong Khlung		19,398	19,398	28	89	3	1	1	5	2
	Khlong Lan		4,458	4,458	47	310	1	1	1	3	-
Kamphaeng Phet	Total		282,419	282,419	75	227	2	1	1	4	2
Phrae											
	Mueang Phrae		45,736	45,736	79	238	3	1	1	5	2
	Rong Kwang		5,925	5,925	1	1,000	2	1	2	5	2
	Long				8	-		1	-	1	-
Phrae	Total		100,425	100,425	88	224	3	1	1	5	2
Nan											
	Chaloem Phra Kiat				28	700		1	2	3	-
	Mueang Nan		7,773	7,773	478	66	2	1	1	4	2
	Mae Charim				197	1,243		1	3	4	2
	Tha Wang Pha				509	119		1	1	2	-
	Thung Chang				2,919	65		2	1	3	-
	Na Noi		480	480	9	353	1	1	1	3	-
	Na Muen				340	-		1	-	1	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Nan Total Uttaradit	Ban Luang		210	210	22	21	1	1	1	3	-
	Pua		7,664	7,664	24	115	2	1	1	4	2
	Song Khwae				500	836		1	2	3	-
	Santi Suk				19	600		1	2	3	-
		1,817	18,479	20,296	5,045	194	2	1	1	4	2
	Mueang Uttaradit		2,406	2,406	21	571	2	1	2	5	2
	Thong Saen Khan	863	28,949	29,812	54	-	3	1	-	4	2
	Tha Pla		2,181	2,181	169	-	1	1	-	2	-
	Nam Pat				45	-		1	-	1	-
	Ban Khok				202	220		1	-	1	-
Uttaradit Total Phitsanulok	Laplae		20,686	20,686	17	300	3	1	-	4	2
		863	112,801	113,664	508	121	2	1	0	3	2
	Noen Maprang		19,653	19,653	165	-	3	1	1	5	2
	Mueang Phitsanulok	2,314	107,975	110,288	5	-	3	1	1	5	2
	Nakhon Thai		29,518	29,518	659	91	3	1	2	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Phitsanulok	Phrom Phiram		134,785	134,785	10	1,000	3	1	1	5	2
	Wang Thong		32,706	32,706	1,241	4,611	3	2	3	8	1
	Wat Bot		45,551	45,551	7	-	3	1	1	5	2
	Total	2,314	439,064	441,377	2,087	2,775	3	1	2	6	2
Nakhon Sawan	Mae Poen				38	1,592		1	3	4	2
	Total	2,108	389,031	391,138	38	1,592	-	1	3	4	2
Uthai Thani	Mueang Uthai Thani		7,684	7,684	1	-	2	1	-	3	-
	Ban Rai				53	887		1	2	3	-
	Lan Sak		11,181	11,181	5	300	3	1	1	5	2
	Huai Khot				53	25		1	1	2	-
Uthai Thani	Total	1,034	65,513	66,547	112	445	3	1	1	5	2
	Phetchabun										
	Khao Kho				86	-		1	-	1	-
	Mueang Phetchabun		5,720	5,720	43	605	2	1	2	5	2
	Nam Nao				45	-		1	-	1	-
Wang Pong					36	-		1	-	1	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Phetchabun	Total		30,555	30,555	210	124	2	1	1	4	2
Loei	Mueang Loei		2,875	2,875	666	98	2	1	1	6	2
	Erawan				26	-		1	-	1	-
	Dan Sai				114	79		1	1	2	-
	Tha Li				38	45		1	1	2	-
	Na Haeo				47	977		1	2	3	-
	Phu Ruea		2,199	2,199	7	-	1	1	-	2	-
	Wang Saphung				189	31		1	1	2	-
Loei	Total		38,684	38,684	1,087	118	2	1	1	4	2
Udon Thani	Na Yung		14	176,018	75	1,677	1	1	3	5	2
	Nam Som		31	220,792	30	733	1	1	2	4	2
	Sang Khom	3,656	1,756	48,856	12	-	2	1	1	4	2
Udon Thani	Total	14,392	422,915	437,307	117	1,263	1	1	2	4	2
Nong Khai	Phon Phisai	5,551	12,391	17,941	41	8,305	3	1	3	7	1
	Fao Rai	1,787	7,582	9,368	25	-	2	1	-	3	-
	Pho Tak		23,353	23,353	49	673	3	1	2	6	2
	Rattanawapi	1,937		1,937	94	56	1	1	1	3	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Nong Khai	Sakhrail		20,249	20,249	100	-	3	1	-	4	2
	Tha Bo		27,535	27,535	5	-	3	1	-	4	2
	Si Chiang Mai		8,935	8,935	15	2,567	2	1	3	6	2
	Sangkhom		10,650	10,650	378	523	3	1	2	6	2
	Nong Khai Total	22,195	291,020	313,215	707	870	3	1	1	5	2
	Buang Kan										
	So Phisai	1,081	4,229	5,310	15	967	2	1	2	5	2
	Seka	4,002	6,474	10,476	50	985	3	1	2	6	2
	Bung Khong Long	3,687	91,133	94,820	44	23	3	1	1	5	2
	Mueang Bueng Kan	2,741	44,812	47,553	180	282	3	1	1	5	2
Bueng Kan	Bung Khla	307	15,079	15,386	28	514	3	1	2	6	2
	Pak Khat		418	418	412	463	1	1	1	3	-
	Phon Charoen	1,547	4,476	6,023	60	725	2	1	2	5	2
	Si Wilai	10,050	11,421	21,471	181	540	3	1	2	6	2
	Bueng Kan Total	46,826	356,085	402,911	970	476	3	1	2	6	2
	Sakon Nakhon										
	Tao Ngoi		3,561	3,561	5	8,000	2	1	1	4	2
	Kham Ta Kla	139		139	6	100	1	1	1	3	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
	Nikhom Nam Un		12,168	12,168	16	1,603	3	1	1	5	2
	Ban Muang	8,077		8,077	11	545	2	1	1	4	2
	Phu Phan		18,722	18,722	24	4,000	2	1	1	4	2
	Waritchaphum	506	11,642	12,148	5	1,450	3	1	1	5	2
Sakon Nakhon	Total	51,684	268,833	320,517	67	2,619	2	1	1	4	2
Nakhon Phanom	Mueang Nakhon Phanom	19,492		19,492	5	173	3	1	1	5	2
	Pla Pak	347	1,099	1,445	16	1,313	2	1	3	6	2
Nakhon Phanom	Total	54,437	106,711	161,148	20	1,062	3	1	2	6	2
Mukdahan	Khamcha-i		9,728	9,728	3	500	3	1	1	5	2
	Dong Luang		3,613	3,613	33	39	1	1	1	3	-
Mukdahan	Total	7,789	32,401	40,191	36	78	2	1	1	4	2
Yasothon	Thai Charoen		25,230	25,230	10	7,000	3	1	1	5	2
Yasothon	Total	57,687	94,323	152,009	10	7,000	3	1	3	7	2
Ubon Ratchathani	Nam Khun				200	-		1	-	1	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Ubon Ratchathani	Nam Yuen				846	1,466		1	3	4	2
	Total	43,723	191,040	234,763	1,046	1,185	-	1	3	4	2
	Si Sa Ket										
	Phrai Bueng		13,224	13,224	3	1,700	3	1	1	5	2
	Kantharalak		28,427	28,427	1,217	2,000	3	2	3	8	1
	Khun Han		2,368	2,368	382	2,414	2	1	1	4	2
	Prang Ku		66,409	66,409	4	7,500	3	1	1	5	2
	Phu Sing		190	190	52	808	1	1	1	3	-
	Si Rattana		13,407	13,407	73	1,151	3	1	1	5	2
	Si Sa Ket Total		544,885	544,885	1,731	2,032	3	1	1	5	2
Buri Ram											
	Non Din Daeng				5	200		1	1	2	-
	Non Suwan				12	1,250		1	3	4	2
	Nang Rong				42	2,071		1	3	4	2
Buri Ram	Total	25,973	214,933	240,906	59	1,746	-	1	2	3	2
Chaiyaphum											
	Kaset Sombun		1,567	1,567	23	204	1	1	1	3	-
	Phakdi Chumphon				12	-		1	-	1	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
	Nong Bua Daeng		10,405	10,405	49	1,224	3	1	3	7	1
	Nong Bua Rawe		59	59	5	-	1	1	-	2	-
Chaiyaphum	Total		24,714	24,714	89	727	2	1	1	4	1
Nakhon Ratchasimai	Chok Chai		45,843	45,843	4	-	3	1	-	4	2
	Khon Buri		51,131	51,131	3	1,900	3	1	3	7	1
	Pak Chong		35,270	35,270	159	903	3	1	2	6	2
	Nong Bunnak				50	850		1	2	3	-
Nakhon Ratchasima	Total	4,232	415,756	419,988	216	888	3	1	2	6	2
Saraburi	Kaeng Khoi		22,136	22,136	57	4,250	3	1	1	5	2
	Muak Lek		10,241	10,241	10	6,000	3	1	1	5	2
Saraburi	Total		168,850	168,850	67	4,511	3	1	1	5	2
Suphan Buri	Dan Chang		4,556	4,556	16	710	2	1	2	5	2
Suphan Buri	Total		1,225,213	1,225,213	16	710	2	1	2	5	2
Nakhon Nayok	Mueang Nakhon	3,442	121,708	125,150	251	1,565	3	1	3	7	1
	Ban Na		31,180	31,180	59	1,200	3	1	3	7	1

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Nakhon Nayok	Total	22,348	321,791	344,138	310	1,495	3	1	3	7	1
Prachin Buri	Mueang Prachin Buri	10,378	16,579	26,957	434	3,665	3	1	3	7	1
	Kabin Buri	45,494	17,134	62,629	18	222	3	1	2	6	2
	Na Di	12,254		12,254	132	240	3	1	2	6	2
	Prachantakham	29,250	5,042	34,292	17	1,118	3	1	3	7	1
	Si Maha Phot		44,715	44,715	223	1,324	3	1	3	7	1
Prachin Buri	Total	97,376	214,625	312,000	824	2,355	3	1	3	7	1
Chachoengsao	Tha Takiab		22,084	22,084	187	1,019	3	1	3	7	1
Chachoengsao	Total	5,680	553,987	559,668	187	1,019	3	1	3	7	1
Sa Kaeo	Khao Chakan		4,971	4,971	30	7,800	2	1	1	4	2
	Wang Nam Yen		792	792	2	-	1	1	1	3	-
Sa Kaeo	Total		104,511	104,511	32	7,313	2	1	1	4	2
Chanthaburi	Mueang Chanthaburi	29,591	11,281	40,872	5,790	1,042	3	3	3	9	1

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Chanthaburi Trat	Kaeng Hang Maeo		77,981	77,981	2,886	1,769	3	2	3	8	1
	Laem Sing	58	12,439	12,496	860	1,473	3	1	3	7	1
	Pong Nam Ron	66,643	18,518	85,161	850	443	3	1	1	5	2
	King Amphoe Khao Khitchakut	77,145	30,235	107,380	24,309	1,589	3	3	3	9	1
	Khlung	38,682	64,439	103,122	24,659	627	3	3	2	8	1
	Tha Mai	118,813	16,283	135,097	30,709	1,526	3	3	3	9	1
	Na Yai Am	11,414	55,545	66,959	4,938	1,257	3	2	3	8	1
	Makham	39,253	65,352	104,605	16,283	1,263	3	3	3	9	1
	Soi Dao		26,369	26,369	624	741	3	1	2	6	2
	Total	381,599	378,443	760,042	111,908	1,260	3	2	3	8	1
	Khao Saming	7,930	163,058	170,989	37,218	1,383	3	3	3	9	1
	Mueang Trat	5,855	21,487	27,342	11,212	1,252	3	3	3	9	1
	Laem Ngop		3,141	3,141	1,034	1,212	2	2	3	7	1
	Ko Kut	431	653	1,084	22	2,885	2	1	3	6	2
	Ko Chang				22	1,000		1	2	3	-
	Khlung Yai				162	769		1	1	2	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	PlantedArea	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Trat	Bo Rai	9,798	12,767	22,565	9,954	1,300	3	3	3	9	1
	Trat Total	24,015	201,106	225,120	59,624	1,340	3	2	3	7	1
	Rayong										
	Mueang Rayong	1,969	49,962	51,931	3,386	859	3	2	3	8	1
	Klaeng	1,957	39,252	41,209	3,610	1,147	3	2	3	8	1
Rayong	Khao Chamao		23,452	23,452	1,773	610	3	2	3	8	1
	Nikhom Phattana				120	433		1	1	2	-
	Ban Khai	5,229	44,287	49,517	503	1,041	3	1	1	5	2
	Pluak Daeng		19,221	19,221	8	563	3	1	1	5	2
	Wang Chan		32,596	32,596	246	603	3	1	1	5	2
Rayong Total		9,155	208,770	217,926	9,646	918	3	1	2	6	1
Chon Buri											
	Bo Thong				57	787		1	2	3	-
	Bang Lamung				7	1,000		1	2	3	-
	Si Racha				39	1,227		1	3	4	2
	Sattahip		5,220	5,220	5	1,000	2	1	2	5	2
Chon Buri	Nong Yai		1,588	1,588	30	767	2	1	2	5	2
	Chon Buri Total	1,340	34,613	35,953	138	926	2	1	2	5	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	PlantedArea	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Kanchanabur											
	Sai Yok				461	2,243		1	3	4	2
	Thong Pha Phum				779	1,632		1	3	4	2
	Si Sawat				7	-		1	-	1	-
	Sangkhla Buri		3,082	3,082	402	1,010	2	1	3	6	2
	Nong Prue		1,570	1,570	5	-	1	1	-	2	-
Kanchanaburi Total			226,962	226,962	1,654	1,639	2	1	2	4	2
Ratchaburi											
	Pak Tho		23,977	23,977	210	2,000	3	1	1	5	2
Ratchaburi Total			393,237	393,237	210	2,000	3	1	1	5	2
Prachuap Khiri Khan											
	Bang Saphan		79,077	79,077	255	611	3	1	2	6	2
	Pran Buri		18,197	18,197	50	240	3	1	1	5	2
Prachuap Khiri Khan Total			2,527	209,549	212,077	305	550	3	1	2	2
Chumphon											
	Mueang Chumphon	49,156	84,443	133,599	665	272	3	1	1	5	2
	Tha Sae	91,624	16,135	107,759	718	222	3	1	1	5	2
	Thung Tako	46,989	10,190	57,179	2,054	47	3	2	1	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Chumphon Ranong	Phato	61,617	87,169	148,786	2,592	10	3	2	1	6	2
	Lamae	60,197	36,327	96,524	432	19	3	1	1	5	2
	Sawi	106,241	64,909	171,150	917	1	3	1	1	5	2
	Lang Suan	71,735	41,184	112,919	2,177	-	3	2	1	6	2
	Chumphon Total	490,807	399,641	890,448	9,555	49	3	1	1	5	2
	Mueang Ranong	24,594	5,098	29,692	463	137	3	1	1	5	2
	Kra Buri	17,658	66,568	84,226	722	117	3	1	1	5	2
	Kapoe	33,680	24,449	58,129	926	132	3	1	1	5	2
	Suk Samran	22,008	865	22,873	740	155	3	1	1	5	2
	La-un	9,722	29,183	38,905	266	170	3	1	1	5	2
Ranong Total	107,662	126,162	233,824	3,117	138	3	1	1	5	2	
Surat Thani	Ko Pha-ngan	7,349	23,012	30,361	119	229	3	1	1	5	2
	Ko Samui	26,776	8,660	35,436	206	500	3	1	1	5	2
	Khian Sa	22,155	245,788	267,943	714	3	3	1	1	5	2
	Mueang Surat Thani	10,485	13,007	23,493	70	834	3	1	2	6	2
	Wiang Sa	42,207	50,384	92,591	4,282	190	3	2	1	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Surat Thani	Kanchanadit	92,835	48,567	141,402	2,345	-	3	2	-	5	2
	Vibhavadi	22,114	23,618	45,732	100	503	3	1	2	6	2
	Khiri Rat Nikhom		115,789	115,789	786	113	3	1	1	5	2
	Chai Buri	53,982	13,687	67,669	106	4	3	1	1	5	2
	Don Sak	61,646	26,666	88,311	219	259	3	1	1	5	2
	Tha Chang	29,150	131,545	160,696	136	31	3	1	1	5	2
	Tha Chana	126,821	39,249	166,070	739	348	3	1	1	5	2
	Ban Ta Khun	166	41,640	41,806	412	152	3	1	1	5	2
	Ban Na Doem	30,764	2,733	33,497	3,417	834	3	2	2	7	1
	Ban Na San	83,696	59,186	142,882	22,159	65	3	3	1	7	1
	Phanom	70,463	67,655	138,118	1,401	1,117	3	2	3	8	1
	Phrasaeng	158,061	116,634	274,695	815	1	3	1	1	5	2
	Phunphin	2,760	174,099	176,859	959	347	3	1	1	5	2
	Surat Thani Total	914,557	1,246,919	2,161,475	38,985	198	3	1	1	6	2
Phang-nga											
	Ko Yao	8,902	3,022	11,924	13	269	3	1	1	5	2
	Mueang Phang-nga	37,551	69,982	107,533	364	28	3	1	1	5	2
	Kapong	45,112	2,776	47,888	1,660	435	3	2	1	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Phang-nga Phuket	Khura Buri	72,245	10,592	82,837	2,681	520	3	2	2	7	1
	Takua Thung	79,258	91,376	170,634	424	867	3	1	2	6	2
	Takua Pa	49,990	10,423	60,413	1,275	30	3	2	1	6	2
	Thap Put	27,674	77,016	104,691	129	388	3	1	1	5	2
	Thai Mueang	100,628	84,608	185,236	906	502	3	1	2	6	2
	Phang-nga Total	421,360	349,796	771,156	7,452	408	3	1	1	6	2
	Mueang Phuket	17,154	242	17,396	25	-	3	1	1	5	2
	Kathu	2,581		2,581	504	22	1	1	1	3	-
	Thalang	55,806	5,028	60,834	313	406	3	1	1	5	2
	Phuket Total	75,541	5,270	80,811	842	164	2	1	1	4	2
Krabi	Ko Lanta	34,572	6,436	41,008	6	1,000	3	1	2	6	2
	Khao Phanom	190,915	17,340	208,255	436	406	3	1	1	5	2
	Mueang Krabi	125,172	5,157	130,329	1,042	865	3	2	2	7	1
	Nuea Khlong	64,173	19,149	83,322	72	653	3	1	2	6	2
	Khlong Thom	197,274	2,886	200,160	314	332	3	1	1	5	2
	Plai Phraya	147,066	5,987	153,053	274	140	3	1	1	5	2
	Lam Thap	83,047	3,934	86,981	196	281	3	1	1	5	2
	Ao Luek	192,627	21,097	213,724	411	237	3	1	1	5	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	PlantedArea	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Krabi Total		1,034,846	81,986	1,116,832	2,751	519	3	1	1	6	2
Trang											
	Mueang Trang	73,710	72,118	145,828	523	750	3	1	2	6	2
	Kantang	43,984	23,953	67,937	323	1,399	3	1	3	7	1
	Hat Samran	2,149	7,743	9,891	55	1,318	2	1	3	6	2
	Na Yong	45,890	10,686	56,577	1,043	545	3	2	2	7	1
	Palian	89,159	68,705	157,863	563	201	3	1	1	5	2
	Yan Ta Khao	48,425	28,006	76,432	477	311	3	1	1	5	2
	Ratsada	62,037	9,759	71,796	311	1,057	3	1	3	7	1
	Wang Wiset	97,862	37,249	135,111	680	401	3	1	1	5	2
	Sikao	34,361	11,064	45,425	30	1,127	3	1	3	7	1
	Huai Yot	129,011	64,652	193,663	1,041	319	3	2	1	6	2
Trang Total		626,587	333,936	960,523	5,046	538	3	1	2	6	2
Nakhon Si Thammarat											
	Mueang Nakhon Si Thammarat	42,916	56,782	99,697	2,432	610	3	2	2	7	1
	Chang Klang	13,348		13,348	1,564	59	3	2	1	6	2
	Nopphitam	32,779		32,779	2,978	196	3	2	1	6	2
	Phra Phrom	16,309	8,635	24,944	1,148	56	3	2	1	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Nakhon Si Thammarat	Chawang	29,166	3,890	33,056	3,832	102	3	2	1	6	2
	Cha-uat	54,622	112,038	166,660	885	908	3	1	2	6	2
	Tham Phannara	32,332	7,387	39,718	1,025	464	3	2	1	6	2
	Tha Sala	59,472	54,431	113,903	2,079	40	3	2	1	6	2
	Thung Yai	119,533	36,818	156,351	114	96	3	1	1	5	2
	Thung Song	79,371	36,000	115,371	1,295	3,250	3	2	3	8	1
	Na Bon	21,410	9,081	30,491	249	1	3	1	1	5	2
	Bang Khan	119,190	9,987	129,177	529	750	3	1	2	6	2
	Phrom Khiri	33,121	4,017	37,137	3,062	59	3	2	1	6	2
	Phra Phrom	19,200	32,913	52,113	1,410	39	3	2	1	6	2
	Phipun	23,749	13,234	36,982	2,369	311	3	2	1	6	2
	Ron Phibun	59,189	11,952	71,141	2,375	14	3	2	1	6	2
	Lan Saka	38,705	4,768	43,474	996	36	3	1	1	5	2
	Sichon	94,124	25,533	119,657	5,866	96	3	3	1	7	1
	Phatthalung	Khao Chaison	22,540	92,715	115,256	242	210	3	1	1	5
	Mueang Phatthalung	25,032	123,644	148,675	358	47	3	1	1	5	2
	Kong Ra	10,053	38,371	48,424	2,085	155	3	2	1	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Phatthalung Songkhla	Srinagarindra	24,331	5,749	30,080	1,324	508	3	2	2	7	1
	Khuan Khanun	16,896	52,888	69,784	418	248	3	1	1	5	2
	Tamot	38,927	23,413	62,340	2,072	209	3	2	1	6	2
	Bang Kaeo	14,311	75,086	89,397	530	72	3	1	1	5	2
	Pak Phayun	10,831	22,957	33,788	70	1,164	3	1	3	7	1
	Pa Bon	44,734	63,767	108,501	99	289	3	1	1	5	2
	Pa Phayom	47,996	32,184	80,179	924	311	3	1	1	5	2
	Si Banphot	27,229	1,552	28,781	95	528	3	1	2	6	2
	Phatthalung Total	282,879	532,327	815,206	8,217	254	3	1	1	6	2
	Thepha	25,536	46,223	71,759	252	940	3	1	1	5	2
	Khlong Hoi Khong	17,686	40,150	57,836	297	1,102	3	1	1	5	2
	Chana	49,642	87,352	136,994	295	397	3	1	1	5	2
	Na Thawi	8,495	40,835	49,329	1,813	327	3	2	3	8	1
	Na Mom	9,726	9,882	19,608	260	521	3	1	1	5	2
	Bang Klam	10,389	31,951	42,340	275	133	3	1	1	5	2
	Rattaphum	53,878	109,317	163,195	825	3,920	3	1	2	6	2
	Sadao	1,472	98,434	99,906	398	910	3	1	1	5	2
	Saba Yoi	22,617	31,282	53,899	971	538	3	1	2	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
Songkhla	Hat Yai	60,972	49,047	110,018	24	-	3	1	1	5	2
	Total	288,159	741,785	1,029,944	5,410	1,029	3	1	1	6	2
	Satun										
	Mueang Satun	26,285	56,849	83,133	254	496	3	1	1	5	2
	Manang	43,982	5,948	49,931	261	1,394	3	1	1	5	2
	Khuan Don	9,478	16,484	25,962	1,347	670	3	2	3	8	1
	Khuan Kalong	24,004	26,805	50,809	2,489	399	3	2	3	8	1
	Tha Phae	3,764	45,475	49,240	179	290	3	1	1	5	2
	Thung Wa	14,077	18,298	32,375	78	803	3	1	1	5	2
	La-ngu	10,831	46,676	57,507	535	1,084	3	1	2	6	2
Satun Total Pattani		132,421	216,535	348,956	5,144	599	3	1	2	6	2
	Mueang Pattani	9,345	19,569	28,913	31	-	3	1	-	4	2
	Mae Lan	10,682	11,131	21,813	203	217	3	1	1	5	2
	Khok Pho	20,527	42,360	62,887	453	479	3	1	1	5	2
	Kapho	14,314	29,584	43,898	578	370	3	1	1	5	2
	Thung Yang	23,737	11,561	35,298	87	1,186	3	1	3	7	1
	Daeng										
	Mayo	22,347	43,887	66,234	13	8	3	1	1	5	2
	Yarang	31,183	62,120	93,303	138	80	3	1	1	5	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Pattani	Yaring	26,204	54,218	80,422	1	-	3	1	-	4	2
	Sai Buri	32,978	34,400	67,378	124	-	3	1	-	4	2
	Pattani Total	225,624	417,187	642,811	1,628	362	3	1	1	5	2
	Betong	5,401	1,924	7,325	463	835	2	1	1	4	2
	Krong Pinang	26,385	11,333	37,718	456	1,218	3	1	1	5	2
	Than To				2,291	514		2	3	5	2
	Bannang Sata	27,485	1,814	29,299	142	619	3	1	1	5	2
Yala	Yaha	41,945	24,442	66,387	283	409	3	1	1	5	2
	Raman	69,720	50,665	120,386	625	518	3	1	1	5	2
	Yala Total	223,905	154,427	378,332	4,260	622	3	1	1	5	2
	Narathiwat										
	Cho-airong	33,068	18,274	51,342	1,862	6	3	2	1	6	2
	Mueang Narathiwat	45,785	40,024	85,810	1,737	54	3	2	1	6	2
	Waeng	81,774	46,054	127,828	4,402	35	3	2	1	6	2
Tak Bai	Chanae	64,729	129,382	194,110	2,407	397	3	2	1	6	2
	Tak Bai	13,332	70,460	83,791	881	40	3	1	1	5	2
	Bacho	21,724	34,133	55,858	313	-	3	1	-	4	2
	Yi-ngo	8,496	24,349	32,845	496	1	3	1	1	5	2
	Ra-ngae	54,971	30,030	85,001	5,961	0	3	3	-	6	2

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly	Moderately	Total			S1+S2	Planted Area	Yield	Total	
		(S1)	(S2)	(S1+S2)							
Narathiwat	Rueso	66,170	2,462	68,631	1,049	20	3	2	1	6	2
	Si Sakhon	101,616	6,883	108,499	980	312	3	1	1	5	2
	Su-ngai Kolok	16,343	26,214	42,558	789	115	3	1	1	5	2
	Su-ngai Padi	78,186	43,852	122,039	6,178	0	3	3	-	6	2
	Sukhirin	44,992	128,098	173,089	5,910	4	3	3	1	7	1
	Narathiwat Total	631,187	600,214	1,231,401	32,965	51	3	2	1	6	2
	Tak										
	Mae Ramat		1,794	1,794	4	-	1	1	-	2	-
	Wang Chao				5	-		1	-	1	-
	Phop Phra				66	15		1	1	2	-
Phayao	Umphang				25	-		1	-	1	-
	Tak Total		22,927	22,927	100	10	1	1	0	2	-
	Chiang Kham		3,406	3,406	21	476	1	1	1	3	-
	Chiang Muan				1	-		1	-	1	-
	Mae Chai				22	709		1	2	3	-
	Phu Sang				30	151		1	1	2	-
	Phayao Total		12,368	12,368	74	407	1	1	1	3	-
	Sukhothai										
	Thung Saliam				5	-		1	1	2	-

Table 5 (Continued)

Province	Amphoe	Land Suitability for Rambutan			Planted Area	Yield	Score				Zone
		Highly (S1)	Moderately (S2)	Total (S1+S2)			S1+S2	Planted Area	Yield	Total	
	Si Satchanalai				125	8		1	1	2	-
Sukhothai	Total		28,682	28,682	130	8	-	1	1	2	-
Phetchaburi											
	Kaeng Krachan		16	16	151	159	1	1	1	3	-
Phetchaburi	Total		242,694	242,694	151	159	1	1	1	3	-
Nong Bua Lam Phu											
	Suwannakhuha		2,134	2,134	18	256	1	1	1	3	-
Nong Bua Lam Phu	Total		56,091	56,091	18	256	1	1	1	3	-

CONCLUSION AND RECOMMENDATIONS

Conclusion

The objective of the study is to map planted area suitability for rambutan in Thailand at scale of 1:50,000 using new technology, so called Geo-informatics, as a tool for land suitability. This technology including Geographic Information System-GIS, Remote Sensing-RS, and Global Positioning System-GPS has been proven and effective tool for spatial production planning. The rambutan planted area suitability be derived from the overlay of soil properties and thirty nine years average rainfall and irrigated boundary and maps of present land use and forest boundary are then analysed with area suitability level for 3 levels of suitability, namely, highly suitable, moderately suitable, and unsuitable, in Thailand. This map will delineate out of forest conservation areas, built-up areas and others. All these will overlay with administrative boundaries such as provincial boundaries, district and sub-district boundaries, along with main road networks. Land suitability of rambutan in the whole kingdom is 35.3 million rai which classified in highly suitable level 9.4 million rai mainly planted in the Eastern and the South 0.7 and 8.2 million rai by order. For moderately suitable planted area of rambutan 25.9 million rai allocate in the Eastern and the South 2.7 and 7.9 million rai respectively.

The analysis for potential level of rambutan production zoning is undertaken by integrating the map of area suitability for rambutan production obtained from land allocation suitable for production target with important economic factors effecting to production system. The factors are : commodity demand and supply, production target, production source, production cost, farm gate price, production capability, and plant location (for processing factory) at district level. Percentage of weighting and other conditions are different for each factor. The result obtained in this step is map illustrating potential level for rambutan production zoning. The potential is divided into 2 levels including production potential area level 1 and production potential area level 2.

The results of analysis for rambutan zoning in Thailand show that correlation analysis of physical factor and economic factor with 3 variables such as: suitable area, existing planted area and product yield. The result obtained in this step is map illustrating potential level for rambutan production zoning. The potential is divided into 2 levels including production potential area level 1 and production potential area level 2. Production potential area level 1 or zone1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai. Production potential area level 2 or zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai. Weight analyse for zoning among suitable area : existing area : yield related to ratio 30 : 40 : 30 respectively. From the analysis for rambutan suitability and zoning in Thailand by the Whole Kingdom show that 51 from 56 provinces can be established agro-economic zoning and production potential area level 1 mostly laid on more existing planted area than production potential area level 2 which show by Province, Amphoe, Tambon in the appendix.

Recommendations

Considering the findings of this research some recommendations for the study on land suitability and zoning of rambutan potential production area using Geo-informatics and further research are presented hereunder, these might be helpful for future rambutan planning and management.

Agro-economic zoning of agricultural commodity is undertaken in accordance with the objectives of the agricultural economic act B.E. 2522. The objectives are to adjust rambutan production suitable for area potential as well as to increase efficiency of production system, processing and marketing to be in high stability, and to increase competitiveness in the world market. The methodology is to apply new technology, so called Geo-informatics, as a tool for agro-economic zoning. This technology including geographic information system-GIS, remote sensing-RS, and global positioning system-GPS has been proven and effective tool for spatial rambutan production zoning and planning.

The recommendations, for further study should be added more variables are as follows:

1. Study on relative humidity which will be effect on characteristics and growth of rambutan. In case of high relative humidity it will cause powdery mildew to every duration of rambutan growth.
2. Study on land price evaluation in rambutan suitability area. If land price evaluation is highly trend it will effect to unsuitable for rambutan planting related to suitability and zoning potential area.
3. Study on the same tropical humidity fruit tree crops, ex: durian, longan, longkong, and mangoesteen which related to using similarly variables database such as: soil properties, climate, humidity, rainfall.

These recommendations will lead to appropriate suitability and zoning for the government policy planning and management in tropical agricultural fruit tree crops in the future.

To define the areas of high fertility and irrigated zones as the protected areas for agriculture, the government must set up both legal and motive measures. The landholder who follows such measures also deserves satisfactory results.

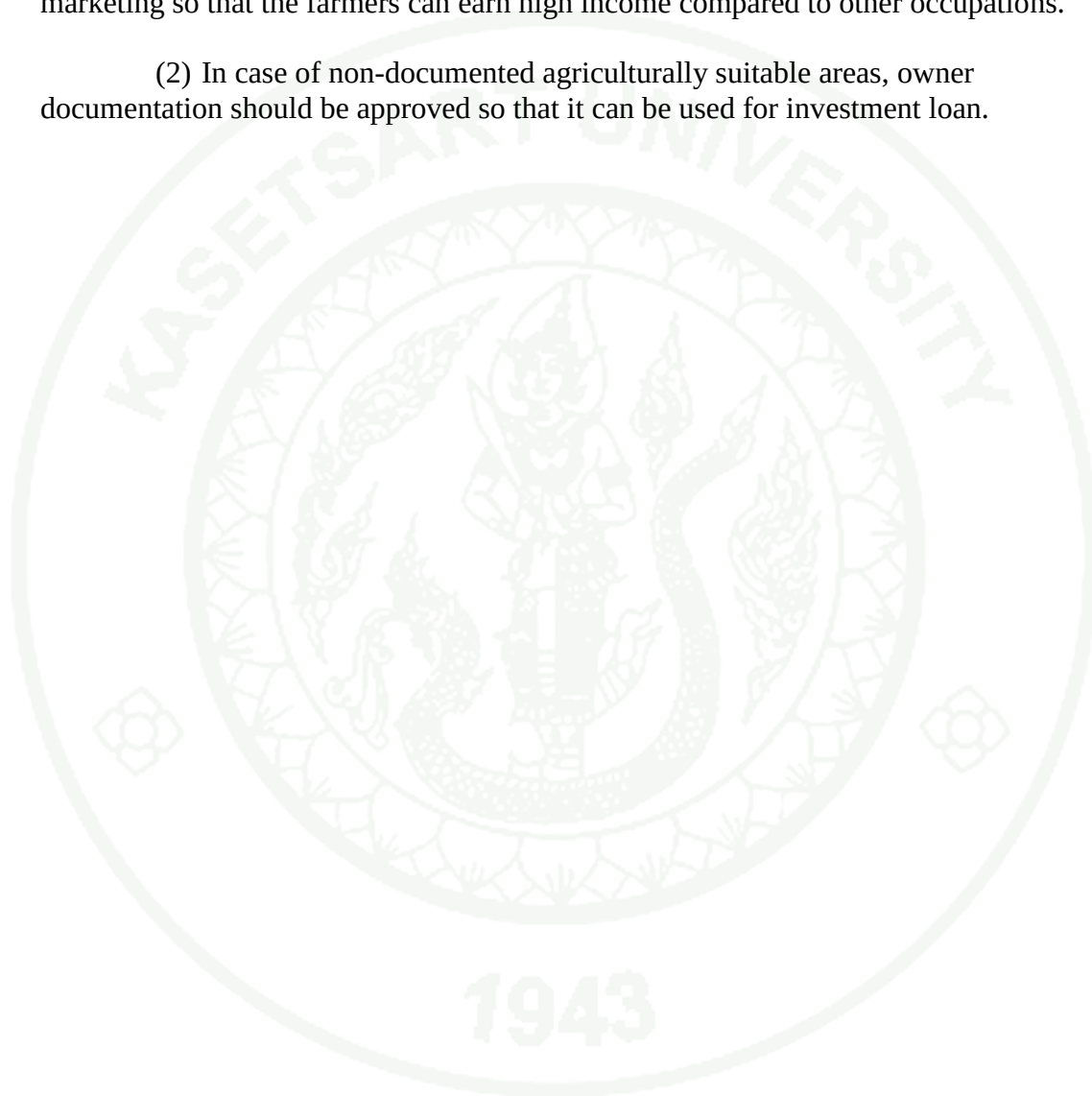
1 Legal Measures: The government must issue laws to prevent land use change from agriculture to other activities.

2 Financial Measures: Financial measures necessary to slow down land use changes and encourage land utilization for agriculture are required. The measures are such as high taxation for other activities or abandon land. In case that farmers would like to sell their agricultural suitability area, the government should buy such land and then distribute to other farmers for agricultural land use.

3 Motivative Measures: To Prohibit land use change from agriculture is to limit the land holder right. Motivative measures are to be put in place. The government should therefore provide compensation to the land holder. The guidelines for the measures are as follows:

(1) To promote and develop water resource, agricultural extension and marketing so that the farmers can earn high income compared to other occupations.

(2) In case of non-documented agriculturally suitable areas, owner documentation should be approved so that it can be used for investment loan.



LITERATURE CITED

- Abdollah Ghasemi Pirbalouti. 2009 GIS-Based Land Suitability Evaluation for Rapeseed Oil Crop. **Journal of Food, Agriculture & Environment** Vol.7 (3&4) : 837-840.
- Apisit Eiumnoh. 1998. **Monitoring the Cultivation and Production of Cassava (*Manihot esculenta* Crantz) for Forecasting the Yield: A Scientific and Technological Approach**. School of Environment, Resources and Development. Asian Institute of Technology.
- Archibald, P.D. 1987. GIS and Remote Sensing Data Integration. **Geocarto International**. Vol. 3.
- Antenucci, J.C., K. Brown, P.L. Croswell and M.C. Kevany . 1991. **Geographic Information Systems**. Chapman & Hall, One Penn Plaza, New York.
- Aronoff, S. 1989. **Geographic Information System. A Management Perspective**, WDL Publication, Ottawa, Canada.
- Aronoff, S. 1990. **Geographic Information System : A Management Perspective**, WDL Publications.Ottawa Canada.
- Balachandar.D., P., Alaguraja, P., Sundaraj, K., Rutharvelmurthy, and k.,Kumaraswamy, 2010. Application of Remote Sensing and GIS for Artificial Recharge Zone in Sivaganga District, Tamilnadu, India. **International Journal of Geomatics and Geosciences** Volume 1(1)
- Boonyanuphap, J., W. Det, and S. Kasutoshi, 2004. **GIS-Based Land Suitability Assessment for Musa (ABBgroup) Plantation**. Available:<http://www.horticultureworld.net/Jaruntorn.pdf>. html
- Burrough, P.A. 1986. **Principles of Geographic Information System for Land Resources Assessment**, Clarendon Press, Oxford.
- Ceballos-Silva, A. and J.Lopez-Blanco, 2003. **Delineation of Suitable Areas for Crops Using a Multi-Criteria Evaluation Approach and Land Use/Cover Mapping : A Case Study in Central Mexico**. Available: <http://www.sciencedirect.com.html>

- Charuppate, T. 2002. **Land Use Change Detection, Land Evaluation and Land Use Planning in Lam Pha Phloeng watershed**. Ph.D. Dissertation, Khon Kaen University.
- Clarke, K.C. 1997. **Getting Started with Geographic Information Systems**. Prentice Hall, Upper Saddle River, New Jersey.
- Corbett, J.H. 1996. Dynamic Crop Environment Classification Using Interpolated Climate Surfaces. GIS and Environmental Modeling: Progress Research Issues. **GIS World book**, Fort Collins.
- Davis, F.W., D.M. Stoms and J.E. Estes. 1990. An information system approach to the preservation of biological diversity. **International Journal of Geographic Information System**. Vol.4:55-78.
- Food and Agriculture Organization of the United Nations (FAO) 1976. **A Framework for Land Evaluation**. FAO, Rome.
- Food and Agriculture Organization of the United Nations (FAO) 1996. Agro-ecological Zoning Guidelines. **FAO Soil Bulletin**. N. 76. FAO, Rome.
- Ghaffari, A.A., H.F. Cook, and H.C. Lee, 2000. Integrating Climate, Soil and Crop Information: A Land Suitability Study Using GIS. **4th International Conference on Integrating GIS and Environmental Modeling (GIS/EM4)**, September 2-8, Alberta, Canada.
- Haeze, D.D., J., Deckers, D., Raes, T.A., Phong, and H.V., Loi, 2005. **Environmental and Socio-economic Impacts of Institutional Reforms on the Agricultural Sector of Vietnam Land Suitability Assessment for Robusta Coffee in the Dak Gan Region**. Available: <http://www.sciencedirect.com/html>
- Hoozeboom, P. 1983. Classification of Agricultural Crops in Radar Images. IEEE Trans. **Geosci. And RS**, Vol. GE-21: 329-336.
- Juracek, K.E. 1988. A GIS Based Crop Specific model for Physical Suitability Assessment. **GIS/LIS**. Texas, U.S.A.
- Kalogirou, S. 2002. **Expert system and GIS : An Application of Land Suitability Evaluation**. Available: <http://www.sciencedirect.com/html>
- Karnchanasutham, S., 1991. **Using Geographic Information System for Agricultural Planning in Thailand**. The Remote Sensing Center for Agricultural Resources, Ministry of Agriculture and Cooperatives, Bangkok, Thailand.

- Karnchanasutham, S., 1999. **Using a Remote Sensing and Geographic Information System for Agricultural Landuse Zoning: A Case Study of Chantaburi Province, Thailand.** Ph.D. Dissertation, Asian Institute of Technology, Bangkok, Thailand.
- Lillesand, T.M. and R.W. Kiefer. 1979. **Remote Sensing and Image Interpretation.** Canada.
- Mead, R.A., S.L. Cockerham and C.M. Robinson. 1988. Mapping Tortoise Habitat on the Ocala National Forest Using a GIS. **GIS/LIS'88.** Texas, U.S.A.
- Morton, J., FL. Miami, 1987. **Rambutan In: Fruits of warm climates.** p. 262–265
- Musekawat, U. 2004. **RS/GIS Aided Land Use Zoning for Natural Resources Management in Bang Khunsai, Phetchaburi, Thailand.** Master's Degree thesis. Asian Institute of Technology, Bangkok, Thailand.
- Patabendige, R. P. W. 1990. **Developing conservation strategies and planning for the sustainable utilization of the land resource at Hanuranketa, Sri Lanka.** Master's Degree Thesis. Asian Institute of Technology, Bangkok, Thailand.
- Pattanapong, B. 2002. **Zoning and management of Razor Clam (*Solen strictus* Gould) in the muddy coastal zone between the Mae Klong and Tha Chin rivers, Thailand.** Master's Degree thesis. Asian Institute of Technology, Bangkok, Thailand.
- Saha, S.K. and L.M. Pande, 1996 Agro-ecological Zoning Using Satellite Remote Sensing and GIS based on Integrated Approach - a case study of Doon Valley, India. Proc. **INDO- US Symposium - Workshop on Remote Sensing and its Applications**, IIT, Mumbai.
- S.K.Bhan, S.K. Saha, L.M. Pande and J. Prasad. 2005 **Use of Remote Sensing and GIS Technology in Sustainable Agricultural Management and Development.** Indian Institute of Remote Sensing, NRSA DEHRADUN-248001, India.
- Srirattanatum, M. 1989. **Application of biophysical factors in identification and classification of management zones at Tarutao National Park.** Master's Degree thesis. Kasetsart University. Thailand.
- Star, J. and J.E. Estes. 1990. **Geographic Information Systems: An Introduction.** Prentice Hall, Upper Saddle River, New Jersey 07458.
- Trisurat, Y. 1990. **Management plan for Phu Rua National Park, Thailand including Remote Sensing and GIS techniques.** Master's Degree Thesis. Asian Institute of Technology. Bangkok, Thailand.

- Turner, B.L., D., Skole, S., Sanderson, G., Fisher, L.Fresco, and R.Leemans, 1995. **Land-Use and Land-Cover Change Science/Research Plan**. Available: <http://www.ihdp.uni-bonn.de/html/publications/reports/report07/luccsp.htm>
- Venkatachalam, P., C.V.S.S.B.R., Murthy, S.Chowdhury, and L.N. Sharma, 1991. Groundwater Potential Zone Mapping Using GIS approach. **AsianPacific RS Journal**, 4,(1), 75-78.
- Vink, A.P.A. 1975. **Land Use in Advancing Agriculture**. Springer-Verlag, New York.
- Xu, W. 1997. **Agricultural Land Use Change in Relation to Agro-ecosystem Health**. Ph.D. Dissertation, University of Guelph, Canada.



APPENDIX

Appendix Table 1 Classification of Land Suitability for Rambutan in Chiang Rai
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	7,390	0.10
2. Moderately Suitable	106,618	1.46
3. Unsuitable	2,165,876	29.67
4. Existing Forest	3,004,782	41.17
5. Deforestation	987,695	13.53
6. Water	20,925	0.29
7. Built-up areas	1,005,695	13.78
Total	7,298,981	100.00

Appendix Table 2 Land Suitability for Rambutan in Chiang Rai Province by Amphoe,Tambon,Thailand

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
Chiang Rai	Chiang Saen	Mae Ngoen				19,665	19,665
		Yonok				21,634	21,634
		Ban Saeo				43,320	43,320
		Pa Sak				23,812	23,812
		Si Don Mun				14,542	14,542
	Chiang Saen Total					122,973	122,973
	Chiang Khong	Wiang				34,197	34,197
		Rim Khong				22,106	22,106
		Si Don Chai				39,962	39,962
		Sathan				26,663	26,663
		Huai So				117,160	117,160
	Chiang Khong Total					240,088	240,088
	Thoeng	Chiang Khian				24,291	24,291

Appendix Table 2 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Don Lan				30,169	30,169
		Doi Hang				4,638	4,638
		Tha Sai		339	339	17,487	17,826
		Tha Sut				16,800	16,800
		Nang Lae				23,826	23,826
		Ban Du				20,630	20,630
		Rop Wiang		2,877	2,877	4,326	7,203
		Rim Kok				29,087	29,087
		Huai Chomphu				21,893	21,893
		Huai Sak				59,198	59,198
	Mueang Chiang Rai Total			3,216	3,216	278,130	281,346
	Wiang Kaen	Tha Kham				16,684	16,684
		Po				51,171	51,171

Appendix Table 2 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wiang				21,586	21,586
		Mae Loi				68	68
		Ngio				29,925	29,925
		Tap Tao				17,376	17,376
		Plong				33,679	33,679
		Si Don Chai				26,552	26,552
		San Sai Ngam				14,532	14,532
		Ngao				21,385	21,385
		Nong Raet				17,539	17,539
	Thoeng Total					206,932	206,932
	Mueang Chiang Rai	Mae Kon				22,314	22,314
		Mae Khao Tom				372	372
		Mae Yao				27,390	27,390

Appendix Table 2 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Wiang Kaen Total					67,855	67,855
	Wiang Chai	Mueang Chum				19,395	19,395
		Wiang Nuea				12,150	12,150
		Don Sila				32,461	32,461
		Pha Ngam				33,071	33,071
	Wiang Chai Total					97,077	97,077
	Wiang Pa Pao	Wiang				13,940	13,940
		Mae Chedi				13,772	13,772
		Mae Chedi Mai				18,553	18,553
		Pa Ngio				184	184
		San Sali				19,667	19,667
	Wiang Pa Pao Total					66,116	66,116
	Mae Chan	Mae Rai				8,488	8,488

Appendix Table 2 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Mae Kham				17,071	17,071
		Mae Chan				6,958	6,958
		Chom Sawan				14,643	14,643
		Chan Chawa				24,470	24,470
		Chan Chawa Tai				26,409	26,409
		Tha Khao Plueak				23,009	23,009
		Pa Sang				25,836	25,836
		Pa Tueng				5,639	5,639
		Si Kham				17,247	17,247
		San Sai				8,511	8,511
	Mae Chan Total					178,280	178,280
	Thoet Thai	Thoet Thai				35,835	35,835
		Mae Salong Nai				59,491	59,491

Appendix Table 2 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Thoet Thai	Mae Salong Nok				33,089	33,089	
		Total				128,415	128,415	
	Mae Lao	Chom Mok Kaeo		2,786	2,786		2,786	
		Dong Mada				13,977	13,977	
		Bua Sali		5,748	5,748	896	6,644	
		Pa Ko Dam		7,623	7,623		7,623	
		Total		16,157	16,157	14,873	31,030	
	Mae Suai	Mae Phrik				114	114	
		Mae Suai				28,350	28,350	
		Tha Ko				37,216	37,216	
		Pa Daet	7,390	11,510	18,900	42,563	61,463	
		Wawi				54,922	54,922	
Si Thoi					23,717	23,717		

Appendix Table 2 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mae Suai Total		7,390	11,510	18,900	186,881	205,780
	Mae Sai	Ko Chang				25,087	25,087
		Wiang Phang Kham				5,728	5,728
		Pong Ngam				12,153	12,153
		Pong Pha				18,342	18,342
		Huai Khrai				10,717	10,717
	Mae Sai Total					72,026	72,026
	Wiang Chiang Rung	Dong Maha Wan				41,694	41,694
		Thung Ko		419	419	38,149	38,568
		Pa Sang				30,151	30,151
	Wiang Chiang Rung Total			419	419	109,993	110,413
	Doi Luang	Chok Chai				19,105	19,105
		Nong Pa Ko				31,811	31,811

Appendix Table 2 (Continued)

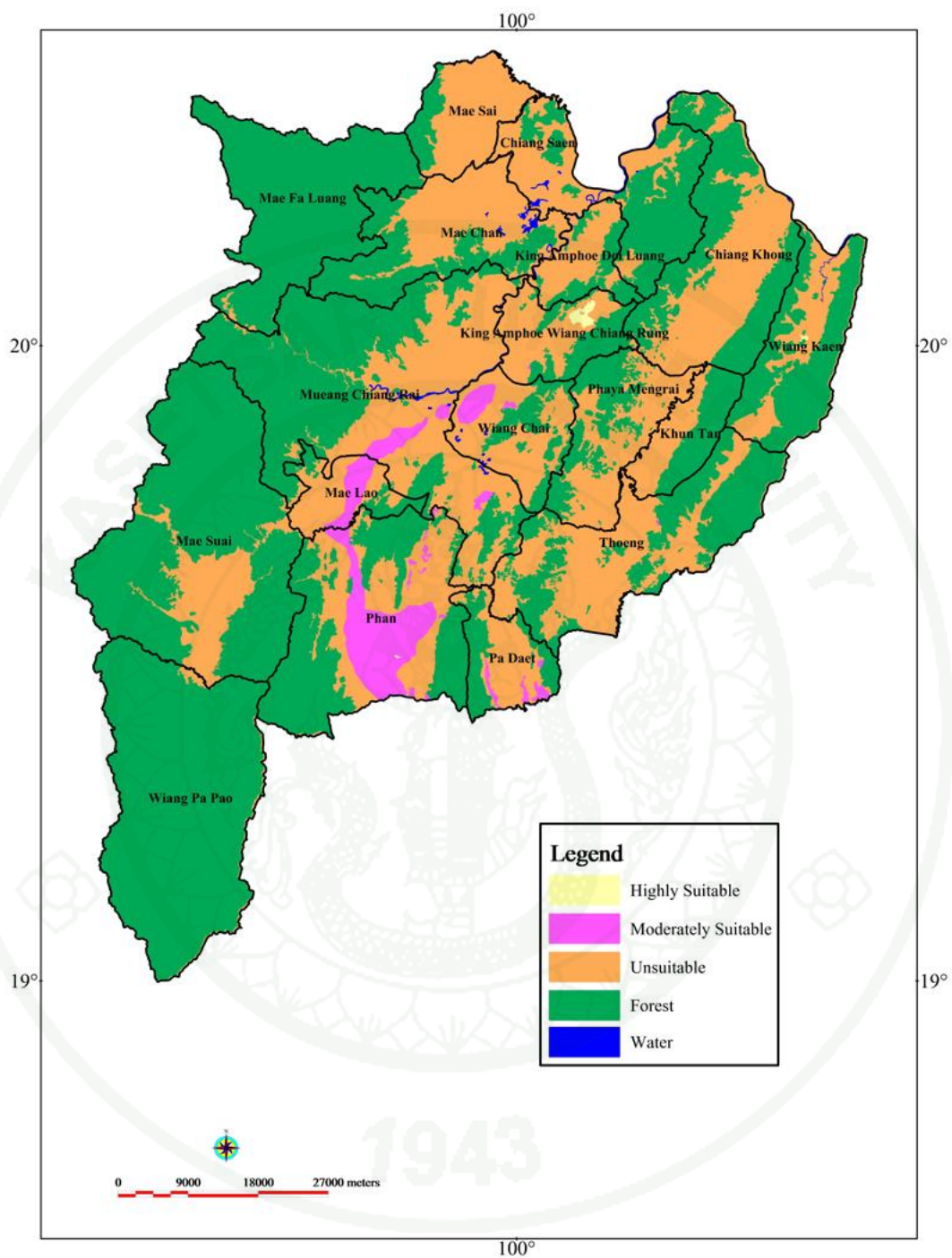
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Doi Luang Total					50,916	50,916
	Khun Tan	Yang Hom				17,471	17,471
	Khun Tan Total					17,471	17,471
	Pa Daet	Rong Chang				14,537	14,537
		Pa Daet				20,690	20,690
		Si Pho Ngoen		4,377	4,377	6,881	11,258
		San Makha		1,584	1,584	4,707	6,290
	Pa Daet Total			5,960	5,960	46,815	52,775
	Phaya Mengrai	Mengrai				41,777	41,777
		Mae Pao				35,188	35,188
		Mae Tam				31,459	31,459
		Mai Ya				48,031	48,031
		Tat Khwan				7,278	7,278

Appendix Table 2 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phaya Mengrai Total					163,733	163,733
	Phan	Charoen Mueang		3,536	3,536		3,536
		Mueang Phan		10,844	10,844		10,844
		Wiang Hao		454	454	9,082	9,535
		Mae Yen		5,895	5,895	10,570	16,464
		Mae O		272	272	43,869	44,141
		Sai Khao		6,758	6,758	4,579	11,337
		Than Tawan		15,015	15,015	8,741	23,756
		Than Thong		2,624	2,624	7,038	9,662
		Pa Hung		4,011	4,011	881	4,892
		Muang Kham		13,907	13,907	7,922	21,830
		San Klang		6,030	6,030		6,030
		San Makhet		9	9	24,624	24,633

Appendix Table 2 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phan Total			69,355	69,355	117,304	186,659
Chiang Rai Total			7,390	106,618	114,007	2,165,876	2,279,884



Appendix Figure 1 Map of Land Suitability for Rambutan in Chiang Rai Province

Appendix Table 3 Zoning For Rambutan in Chiang Rai Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Chiang Rai	0	0	246	0	0
Chiang Khong	0	0	3,505	718	2
Chiang Saen	0	0	933	801	0
Mae Sai	0	0	20	200	0
Phaya Mengrai	0	3,216	32	1,219	2
Wiang Kaen	0	0	150	552	0
Chiang Rai Total	0	3,216	4,886	694	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 3 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Chiang Rai									246
Chiang Khong								3,505	
Chiang Saen									933
Mae Sai									20
Phaya Mengrai					3,216			32	
Wiang Kaen									150
Chiang Rai Total	-	-	-	-	3,216	-	-	3,537	2,262

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

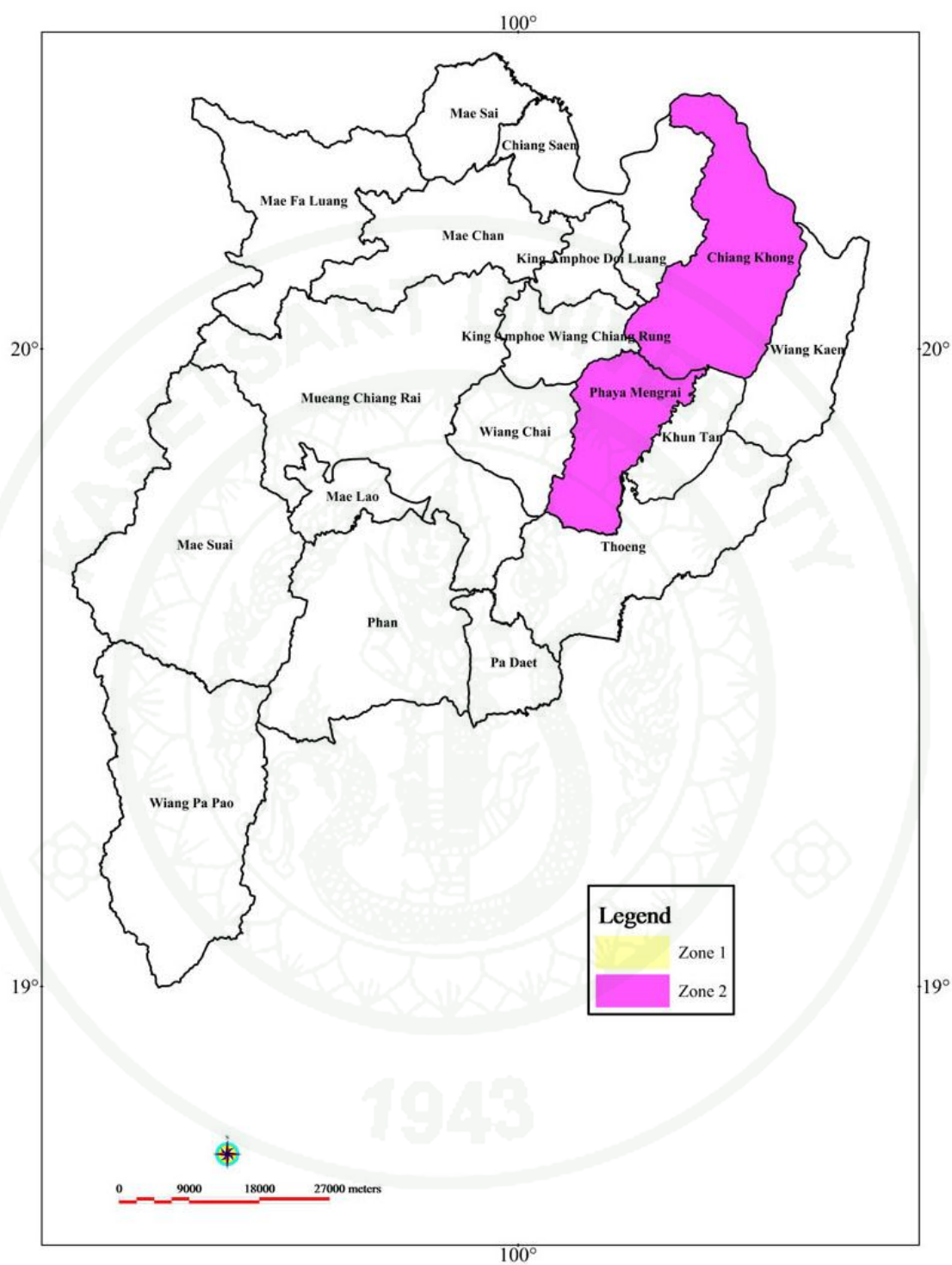
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 2 Map of Zoning for Rambutan in Chiang Rai Province

Appendix Table 4 Classification of Land Suitability for Rambutan in Chiang Mai
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	177,829	1.42
3. Unsuitable	1,170,497	9.31
4. Existing Forest	10,504,585	83.59
5. Deforestation	303,618	2.42
6. Water	66,765	0.53
7. Built-up areas	343,618	2.73
Total	12,566,911	100.00

Appendix Table 5 Land Suitability for Rambutan in Chiang Mai Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chiang Mai	Chiang Dao	Mueang Khong				56,260	56,260
		Mueang Ngai				13,316	13,316
		Mueang Na				14,344	14,344
		Thung Khao Phuang				5,565	5,565
		Ping Khong				510	510
	Chiang Dao Total					89,995	89,995
	Mueang Chiang Mai	Tha Sala				2,908	2,908
		Pa Daet		2,271	2,271	320	2,592
		Nong Pa Khrang				1,820	1,820
	Mueang Chiang Mai Total			2,271	2,271	5,048	7,320
	Wiang Haeng	Piang Luang				13,941	13,941
		Mueang Haeng				18,657	18,657
		Saen Hai				4,232	4,232

Appendix Table 5 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
	Wiang Haeng Total					36,830	36,830
	Mae Chaem	Chaem Luang				1,693	1,693
		Mae Daet				1,589	1,589
		Mae Na Chon				3,065	3,065
		Mae Suek				70,436	70,436
		Kong Khaek				1,194	1,194
		Tha Pha				1,871	1,871
		Ban Chan				124	124
		Ban Thap				7,233	7,233
		Pang Hin Fon				37,193	37,193
	Mae Chaem Total					124,398	124,398
	Mae Taeng	Mueang Kai				2,208	2,208
		Mae Taeng				12,687	12,687

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mae Hong Son	Mae Taeng	Mae Ho Phra		4,383	4,383	9,287	13,670
		Kuet Chang				8,969	8,969
		Khilek				2,349	2,349
		Cho Lae				1,985	1,985
		Ban Pao		1,360	1,360	7,997	9,358
		Ban Chang				18	18
		Pa Pae				7,467	7,467
		Sop Poeng				2,192	2,192
		Inthakhin				19,662	19,662
	Mae Taeng Total		5,744	5,744	74,820	80,564	
	Mae Rim	Mae Raem				2,715	2,715
		Saluang				1,556	1,556
		San Pong		9,697	9,697	2,359	12,056

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Huai Sai		8	8	5,311	5,320
	Mae Rim Total			9,705	9,705	11,941	21,646
	Mae Wang	Mae Win				12,037	12,037
		Don Pao				431	431
		Thung Pi				19,746	19,746
		Thung Ruang Thong				25,148	25,148
		Ban Kat				280	280
	Mae Wang Total					57,642	57,642
	Mae Ai	Mae Na Wang				35,640	35,640
		Mae Sao				17,640	17,640
		Mae Ai				19,390	19,390
		Tha Ton				6,091	6,091
	Ban Luang				15,070	15,070	

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		San Ton Mue				13,734	13,734
	Mae Ai Total					107,564	107,564
	Chai Prakan	Mae Thalop				17,471	17,471
		Si Dong Yen				45,800	45,800
		Nong Bua				17,578	17,578
	Chai Prakan Total					80,849	80,849
	Mae On	Mae Tha				8,319	8,319
		Tha Nuea				1,127	1,127
	Mae On Total					9,446	9,446
	Doi Lo	Doi Lo				23,739	23,739
		Santi Suk				26,195	26,195
	Doi Lo Total					49,933	49,933
	Chom Thong	Mae Soi				508	508

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khuang Pao				14,800	14,800
		Doi Kaeo				4	4
		Ban Pae				39,465	39,465
		Ban Luang				14,584	14,584
		Sop Tia				6,610	6,610
		Chom Thong Total				75,971	75,971
	Doi Tao	Pong Thung		4,124	4,124	24,010	28,133
		Tha Duea				3,015	3,015
		Ban Aen				4,654	4,654
		Muet Ka				6,064	6,064
		Doi Tao Total		4,124	4,124	37,742	41,866
	Doi Saket	Choeng Doi				1,826	1,826
		Mae Pong		3,491	3,491		3,491

Appendix Table 5 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Doi Saket	Doi Saket	Mae Hoi Ngoen		5,857	5,857		5,857	
		Pa Pong		6,741	6,741	1,633	8,374	
	Doi Saket Total			16,088	16,088	3,459	19,548	
Fang	Fang	Wiang				26,141	26,141	
		Mae Kha				25,389	25,389	
		Mae Ka				40,320	40,320	
		Mae Sun				23,110	23,110	
		Pong Nam Ron				14,740	14,740	
		Mon Pin				12,175	12,175	
		San Sai				19,788	19,788	
	Fang Total					161,663	161,663	
Phrao	Phrao	Khuean Phak				11,712	11,712	
		Mae Waen				71	71	

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit	Phrao	Mae Pang		125	125	19,657	19,782
		Long Khot				5,742	5,742
		Nam Phrae				7,608	7,608
		Ban Pong				8,232	8,232
		San Sai				12,171	12,171
	Phrao Total			125	125	65,193	65,318
	Samoeng	Mae Sap		418	418	1,390	1,808
		Bo Kaeo				180	180
		Yang Moen				535	535
		Samoeng Nuea				4,327	4,327
	Samoeng Total			418	418	6,432	6,850
	San Kamphaeng	Chae Chang		8,983	8,983	1,696	10,678
		Buak Khang		14,922	14,922	1,889	16,811

Appendix Table 5 (Continued)

						Unit : rai		
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasem Bundit Rajabhat		Rong Wua Daeng		6,385	6,385		6,385	
		Huai Sai		5,822	5,822		5,822	
		On Tai				10,594	10,594	
	San Kamphaeng	Total		36,112	36,112	14,179	50,291	
		San Sai	Mae Faek Mai		5,348	5,348	5,877	11,225
			Pa Phai		8,911	8,911		8,911
	San Sai Noi			1,241	1,241	2,079	3,320	
	San Sai Luang			5,572	5,572		5,572	
	San Phranet					3,011	3,011	
	San Sai	Nong Chom		8,239	8,239		8,239	
		Nong Han		13,318	13,318	6,552	19,870	
		Total		42,628	42,628	17,518	60,146	
		San Pa Tong	Mae Ka		8,396	8,396	676	9,072

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bunditkul	San Pa Tong	Ban Klang		4,763	4,763	1,299	6,062
		Makham Luang		5,534	5,534	1,955	7,489
		Makhun Wan				354	354
		Yu Wa		3,554	3,554	4,146	7,701
		San Klang		8,385	8,385		8,385
	San Pa Tong Total			30,633	30,633	8,430	39,062
	Saraphi	Chomphu				8,448	8,448
		Don Kaeo				3,514	3,514
		Yang Noeng				4,393	4,393
		Saraphi				4,872	4,872
		Nong Faek				5,117	5,117
	Saraphi Total	Nong Phueng				5,179	5,179
		Saraphi Total					31,524

Appendix Table 5 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Hang Dong	Nam Phrae		6,750	6,750	7,761	14,512
		Ban Waen		6,285	6,285		6,285
		Ban Pong				1,967	1,967
		Sop Mae Kha		2,191	2,191		2,191
		San Phak Wan		5,429	5,429		5,429
		Hang Dong		3,279	3,279		3,279
		Han Kaeo		6,046	6,046		6,046
	Hang Dong Total			29,980	29,980	9,728	39,709
	Omkoi	Mae Tuen				10,788	10,788
		Na Kwian				12,533	12,533
		Mon Chong				5,443	5,443
		Yang Piang				5,624	5,624
		Sop Khong				16,748	16,748

Appendix Table 5 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Omnoi				7,966	7,966
	Omnoi Total					59,101	59,101
	Hot	Bo Sali				8,002	8,002
		Bo Luang				575	575
		Ban Tan				396	396
		Hang Dong				9,712	9,712
		Hot				12,406	12,406
	Hot Total					31,090	31,090
Chiang Mai	Total			177,829	177,829	1,170,497	1,348,326

Appendix Table 6 Zoning For Rambutan in Chiang Mai Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Doi Saket	0	16,088	24	267	2
Mae Taeng	0	5,744	400	194	2
Fang	0	0	331	0	0
Chiang Mai Total	0	21,832	755	116	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 6 (Continued)

Province /Amphoe	Analyse Zoning Area								
	Highly Suitable			Moderately Suitable			Existing Planted Area (rai)		
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Doi Saket					16,088			24	
Mae Taeng					5,744			400	
Fang									331
Chiang Mai Total									755

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

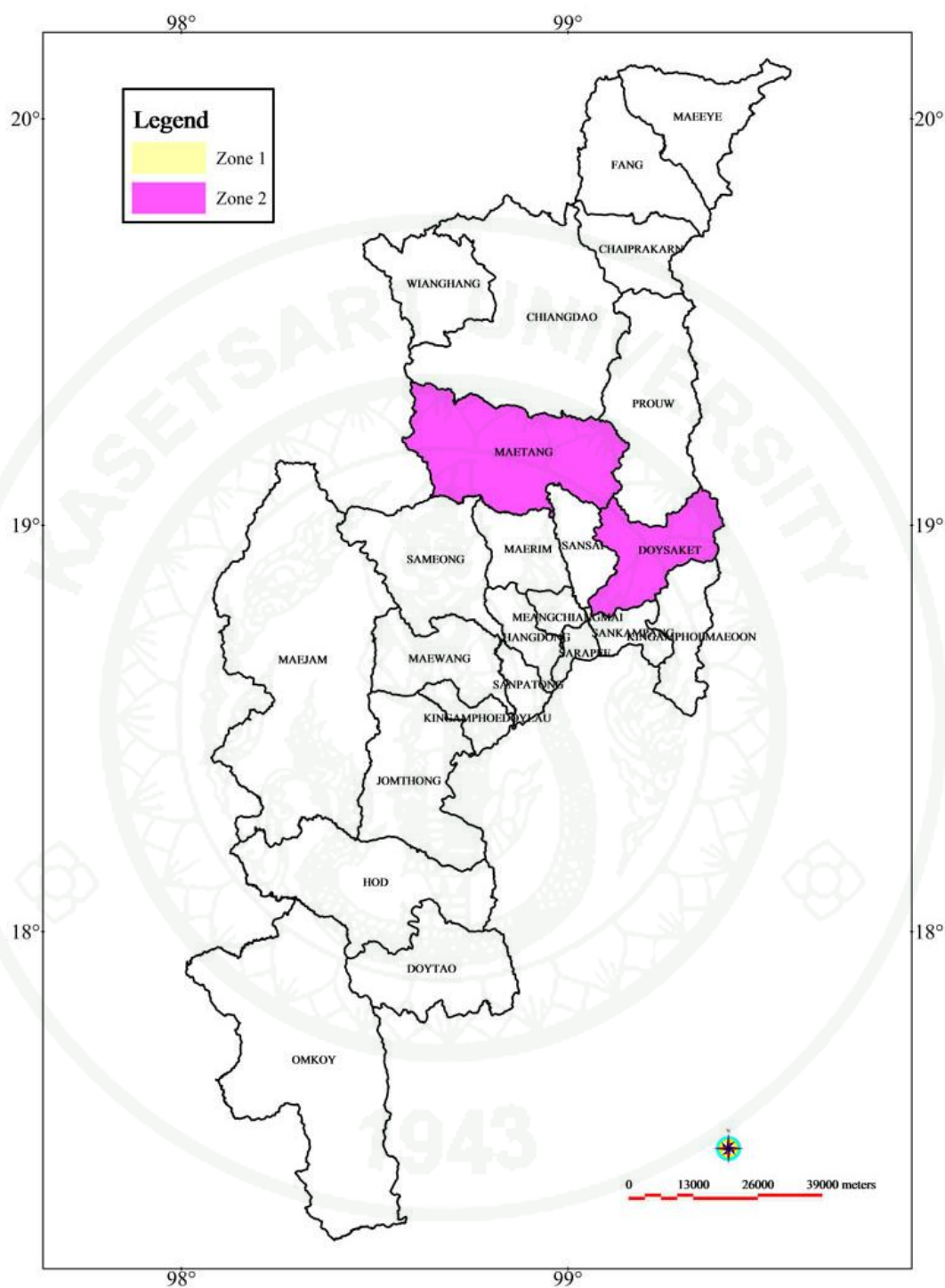
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 4 Map of Zoning for Rambutan in Chiang Mai Province

Appendix Table 7 Classification of Land Suitability for Rambutan in Mae Hong

Son Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	4	0.00
3. Unsuitable	249,437	3.15
4. Existing Forest	7,061,796	89.10
5. Deforestation	378,052	4.77
6. Water	73	0.00
7. Built-up areas	236,424	2.98
Total	7,925,787	100.00

Appendix Table 8 Land Suitability for Rambutan in Mae Hong Son Province by Amphoe, Tambon, Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mae Hong Son	Mueang Mae Hong Son	Pang Mu				250	250
		Pha Bong				10,501	10,501
		Mok Champae				230	230
		Huai Pong				5,870	5,870
		Huai Pu Ling				209	209
		Huai Pha				1,228	1,228
	Mueang Mae Hong Son Total					18,289	18,289
	Mae La Noi	Mae Tho				5,613	5,613
		Mae Na Chang				1,066	1,066
		Mae La Noi				20,448	20,448
		Mae La Luang				4,654	4,654
		Khun Mae La Noi				26,078	26,078
Tha Pha Pum					8,729	8,729	

Appendix Table 8 (Continued)

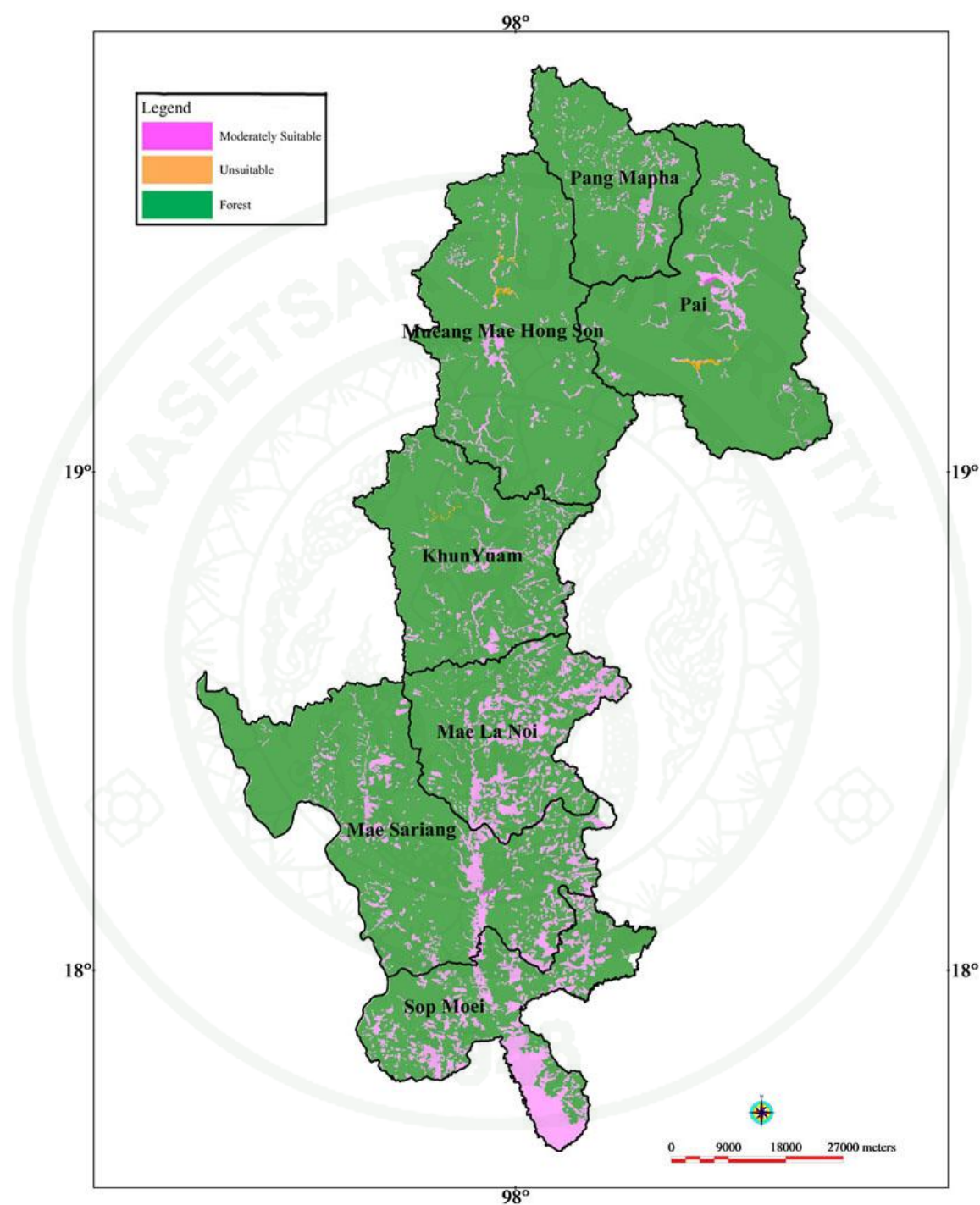
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mae La Noi Total	Santi Khiri				19,122	19,122
						85,710	85,710
	Mae Saring	Sao Hin				4,193	4,193
		Mae Ho				11,564	11,564
		Mae Khong		4	4	3,101	3,106
		Mae Yuam				13,452	13,452
		Ban Kat				19,222	19,222
		Pa Pae				8,790	8,790
	Mae Saring Total		4	4	60,322	60,327	
	Khun Yuam	Mueang Pon				5,678	5,678
		Mae Ngao				1,504	1,504
		Mae Yuam Noi				2,024	2,024
		Mae Ukho				906	906

Appendix Table 8 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Khun Yuam	Khun Yuam				8,290	8,290	
		Khun Yuam Total				18,402	18,402	
	Pang Mapha	Tham Lot				684	684	
		Pang Mapha				466	466	
		Sop Pong				3,253	3,253	
	Pang Mapha Total					4,403	4,403	
		Pai	Mueang Paeng				3,033	3,033
		Wiang Nuea				4,098	4,098	
		Mae Na Toeng				1,484	1,484	
		Mae Hi				2,808	2,808	
		Pong Sa				121	121	
		Thung Yao				347	347	
	Pai Total						11,890	11,890

Appendix Table 8 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Sop Moei	Mae Khatuan				16,342	16,342
		Mae Suat				26,934	26,934
		Mae Sam Laep				460	460
		Kong Koi				468	468
		Pa Pong				319	319
		Sop Moei				5,899	5,899
	Sop Moei Total					50,422	50,422
Mae Hong Son Total			4	4	249,437	249,441	



Appendix Figure 5 Map of Land Suitability for Rambutan in Mae Hong Son Province

Appendix Table 9 Zoning For Rambutan in Mae Hong Son Province

Province /Amphoe	Suitable Area (rai)		Existing	Yield (kg./rai)	Zone
	Highly	Moderately	Planted Area		
			(rai)		
Mueang Mae Hong Son			4	2,100	2
Khun Yuam			10	0	0
Pang Mapha			23	0	0
Pai			25	0	0
Mae Hong Son Total	0	0	62	135	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 9 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Mae Hong Son								4	
Khun Yuam									10
Pang Mapha									23
Pai									25
Mae Hong Son	-	-	-	-	-	-	-	4	58

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

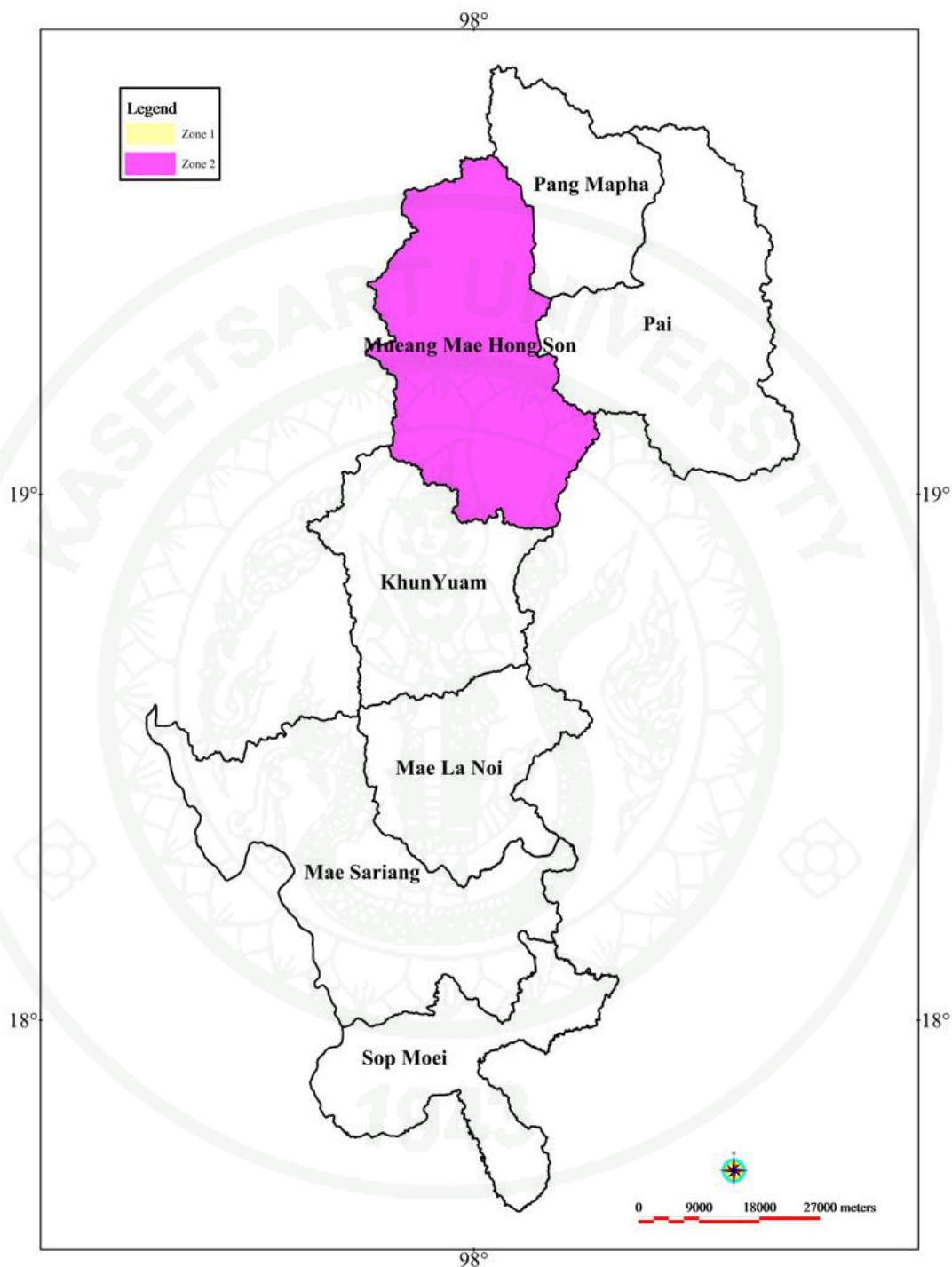
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 6 Map of Zoning for Rambutan in Mae Hong Son Province

Appendix Table 10 Classification of Land Suitability for Rambutan in
Kamphaeng Phet Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	282,419	5.25
3. Unsuitable	2,945,849	54.76
4. Existing Forest	1,324,450	24.62
5. Deforestation	398,754	7.41
6. Water	11,455	0.21
7. Built-up areas	416,754	7.75
Total	5,379,681	100.00

Appendix Table 11 Land Suitability for Rambutan in Kamphaeng Phet Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kamphaeng Phet	Mueang Kamphaeng Phet	Thep Nokhon		24,473	24,473	62,394	86,868
		Trai Trueng		730	730	43,543	44,273
		Khonthi				63,084	63,084
		Khlong Mae Lai		15	15	32,938	32,953
		Song Tham		1,992	1,992	43,132	45,124
		Tha Khun Ram		7,198	7,198	14,126	21,323
		Nakhon Chum		4,447	4,447	18,817	23,264
		Na Bo Kham		21,166	21,166	49,436	70,601
		Nikhom Sang Ton-eng Thung Pho Thale		12,065	12,065	42,378	54,443
		Lan Dokmai		218	218	10,648	10,867
		Wang Thong				39,898	39,898
		Sa Kaeo		50,779	50,779		50,779
		Nong Pling		24,808	24,808		24,808

Appendix Table 11 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ang Thong				58,274	58,274
	Mueang Kamphaeng Phet Total			147,890	147,890	478,669	626,560
	Sai Ngam	Sai Ngam				36,321	36,321
		Phan Thong				53,451	53,451
		Nong Mae Taeng				38,289	38,289
		Nong Mai Gong				70,266	70,266
		Nong Khla		41	41	43,742	43,782
		Nong Thong		15,914	15,914	34,115	50,029
	Sai Ngam Total			15,955	15,955	276,184	292,139
	Kosamphi Nakhon	Kosamphi				55,526	55,526
		Lan Dokmai Tok				18,263	18,263
	Kosamphi Nakhon Total					73,789	73,789
	Bueng Samakkhi	Thep Nimit		22,074	22,074	9,212	31,286

Appendix Table 11 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Bueng Samakkhi	Bueng Samakkhi				65,827	65,827	
		Rahan		24,608	24,608		24,608	
		Wang Cha-on		12,659	12,659	33,344	46,003	
		Bueng Samakkhi Total		59,341	59,341	108,382	167,723	
		Khanu Worakabsaburi	Ko Tan				40,712	40,712
			Khong Phai				49,809	49,809
			Don Taeng				33,041	33,041
			Bo Tham				175,973	175,973
			Pang Makha		4,518	4,518	61,627	66,144
		Pa Phutsa		14,463	14,463	5,720	20,183	
	Yang Sung		9,080	9,080	2,076	11,157		
	Wang Chaphlu				105,991	105,991		
	Wang Hamhae				51,182	51,182		

Appendix Table 11 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Khanu Woralaksaburi Total			28,061	28,061	526,130	554,191
	Khlong Khlung	Mae Lat				19,605	19,605
		Khlong Khlung				46,738	46,738
		Khlong Sombun		904	904	114,945	115,849
		Tha Makhuea				19,653	19,653
		Wang Khaem		15,655	15,655	47,105	62,759
		Wang Sai		1,882	1,882	61,968	63,850
		Wang Bua		958	958	39,263	40,221
		Wang Yang				28,607	28,607
	Khlong Khlung Total			19,398	19,398	377,885	397,283
	Khlong Lan	Pong Nam Ron				29,169	29,169
		Khlong Nam Lai		2,201	2,201	102,566	104,768
		Khlong Lan Phatthana		1,404	1,404	64,589	65,993

Appendix Table 11 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Sai Thong	Khlong Lan Total	Sak Ngam		853	853	50,162	51,015
				4,458	4,458	246,486	250,944
	Sai Thong Watthana	Thawon Watthana				39,649	39,649
		Thung Thong				52,534	52,534
	Sai Thong Watthana Total					92,183	92,183
	Pang Sila Thong	Pho Thong				62,949	62,949
		Pang Ta Wai		794	794		794
		Hin Dat				133,749	133,749
	Pang Sila Thong Total		794	794	196,698	197,492	
	Phran Kratai	Khao Khirit				70,181	70,181
		Khlong Phikrai				21,284	21,284
		Khui Ban Ong				26,180	26,180
		Tham Kratai Thong		6,064	6,064	37,035	43,100

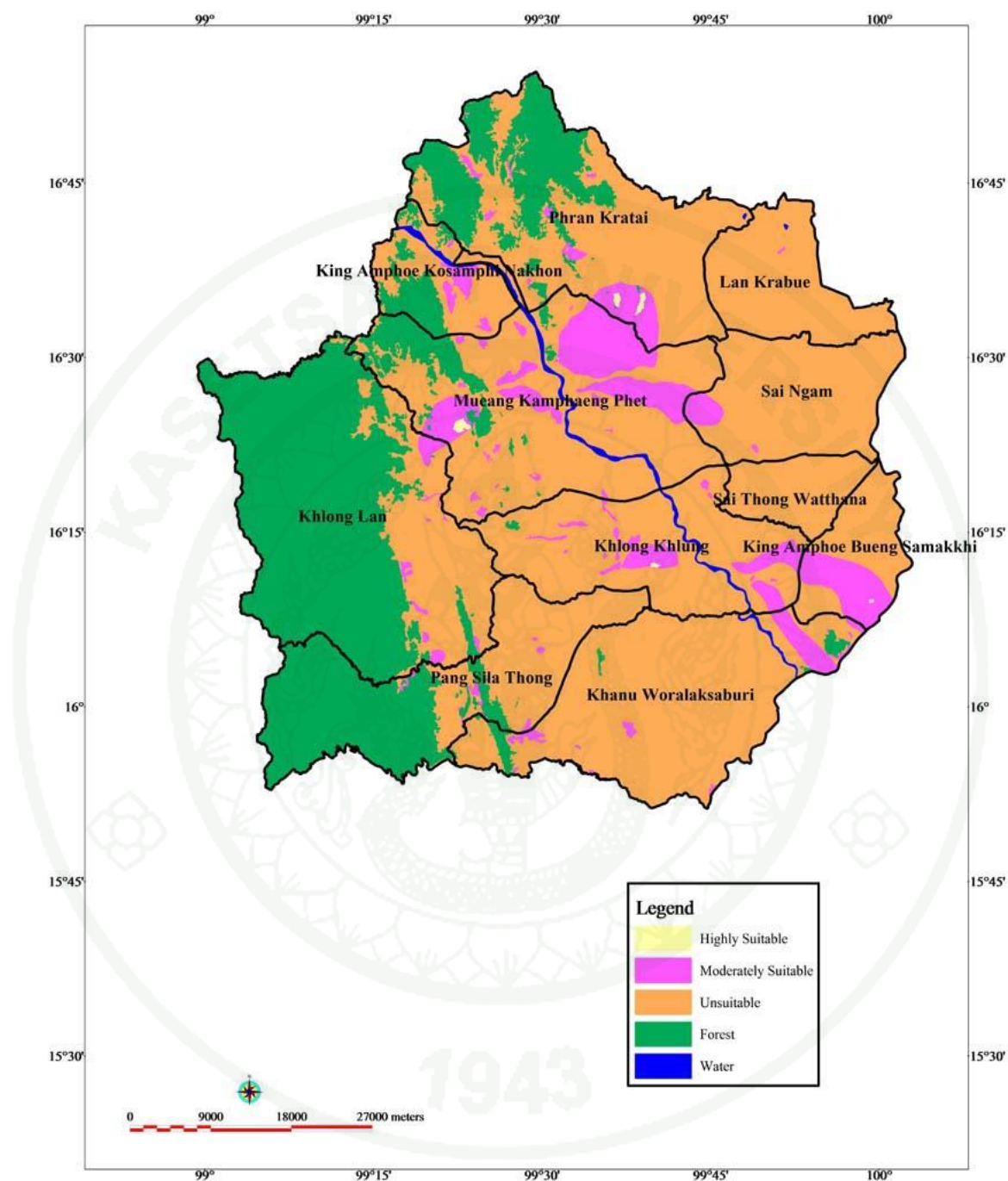
Unit : rai

Appendix Table 11 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Lan Krabue		Tha Mai		458	458	44,637	45,095
		Phran Kratai				16,501	16,501
		Wang Khuang				39,121	39,121
		Wang Tabae				43,388	43,388
		Nong Hua Wua				25,090	25,090
		Huai Yang				24,356	24,356
		Phran Kratai Total		6,522	6,522	347,774	354,296
		Non Phluang				25,526	25,526
		Chong Lom				32,569	32,569
		Bueng Thap Raet				51,143	51,143
		Pracha Suk San				28,236	28,236
		Lan Krabue				26,383	26,383
		Nong Luang				57,810	57,810

Appendix Table 11 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Lan Krabue Total						221,668	221,668
Kamphaeng Phet Total						282,419	282,419
						2,945,849	3,228,268



Appendix Figure 7 Map of Land Suitability for Rambutan in Kamphaeng Phet Province

Appendix Table 12 Zoning For Rambutan in Kamphaeng Phet Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khlung Lan		4,458	47	310	0
Khlung Khlung		19,398	28	89	2
Kamphaeng Phet Total	0	23,856	399	227	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 12 (Continued)

Province /Amph	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Khlung Lan						4,458			47
Khlung Khlung					19,398			28	
Kamphaeng Ph	-	-	-	-	19,398	4,458	-	28	47

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

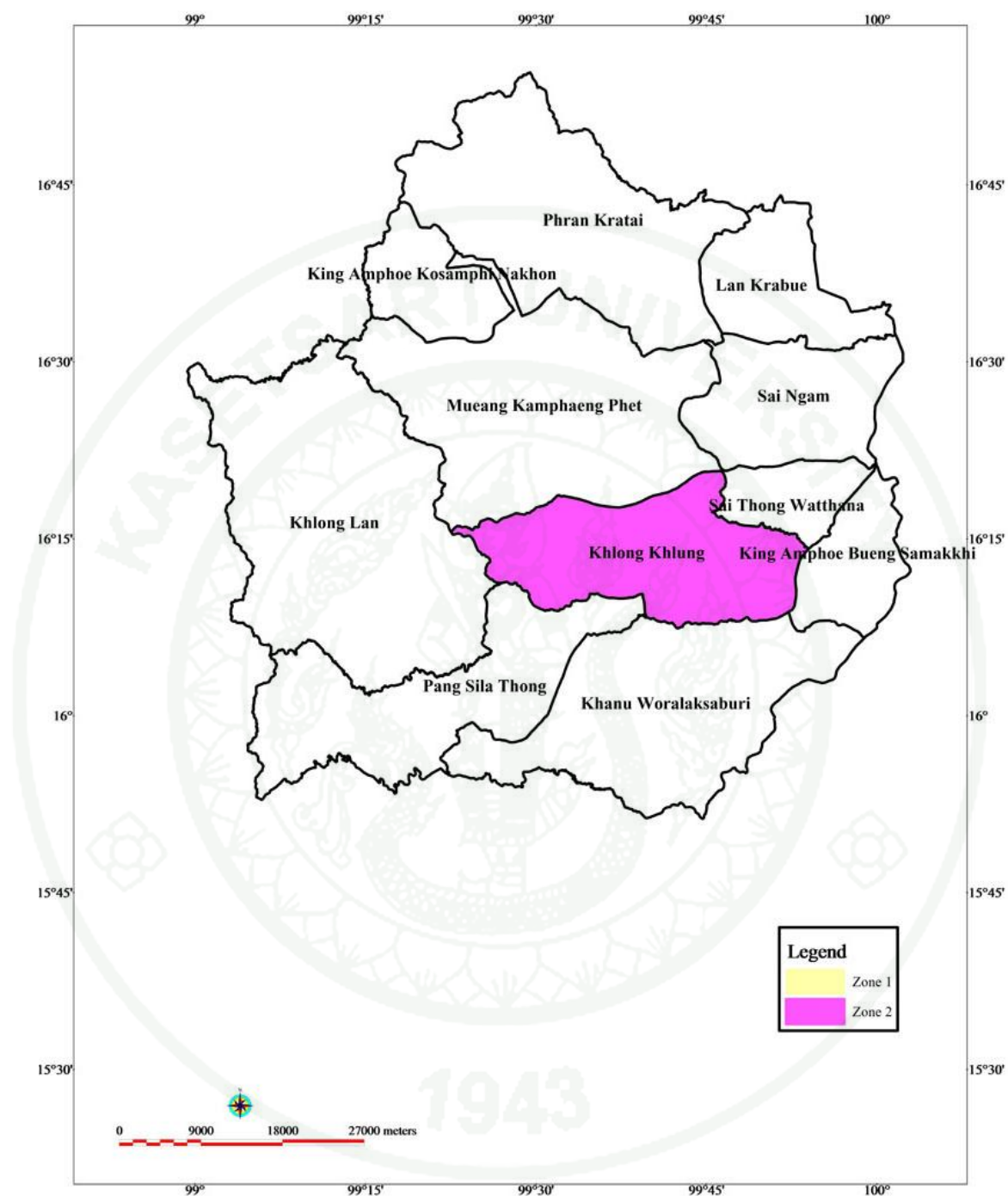
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 8 Map of Zoning for Rambutan in Kamphaeng Phet Province

Appendix Table 13 Classification of Land Suitability for Rambutan in Phrae
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	100,425	2.46
3. Unsuitable	325,156	7.96
4. Existing Forest	2,856,977	69.91
5. Deforestation	390,047	9.54
6. Water	5,972	0.15
7. Built-up areas	408,047	9.98
Total	4,086,624	100.00

Appendix Table 14 Land Suitability for Rambutan in Phrae Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phrae	Den Chai	Den Chai				5,565	5,565
		Sai Yoi				11,006	11,006
		Pong Pa Wai		3	3	1,083	1,086
		Huai Rai				2,795	2,795
	Den Chai Total			3	3	20,449	20,452
	Mueang Phrae	Mae Yom		5,343	5,343		5,343
		Mae Lai		7,962	7,962		7,962
		Tha Kham		3,861	3,861		3,861
		Thung Hong		4,916	4,916		4,916
		Thung Kwao		1,819	1,819		1,819
		Na Chak		8,129	8,129		8,129
		Nam Cham				14,413	14,413
		Wang Thong		9,755	9,755		9,755

Appendix Table 14 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wang Hong		3,950	3,950		3,950
		Huai Ma				8,743	8,743
		Mueang Phrae Total		45,736	45,736	23,157	68,893
	Rong Kwang	Mae Sai				14,841	14,841
		Phai Thon				11,319	11,319
		Thung Si				6	6
		Nam Lao				13,970	13,970
		Ban Wiang				2,561	2,561
		Rong Khem		5,925	5,925	6,595	12,520
		Rong Kwang				17,000	17,000
		Huai Rong				12,909	12,909
	Rong Kwang Total		5,925	5,925	79,201	85,126	
	Long	Wiang Ta				12,609	12,609

Appendix Table 14 (Continued)

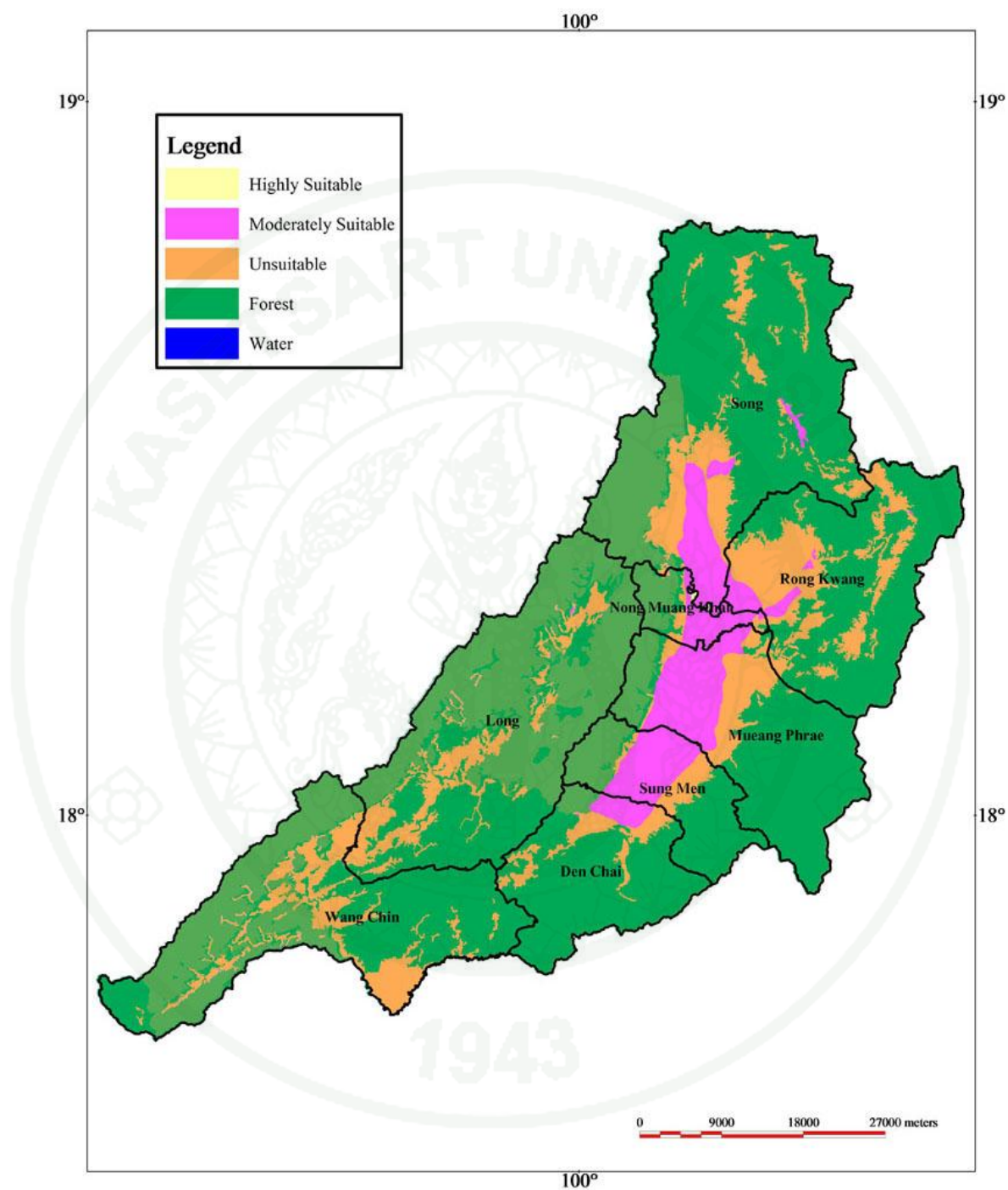
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Mae Pan				2,162	2,162
		Ta Pha Mok				1,772	1,772
		Thung Laeng				14,386	14,386
		Bo Lek Long				20,470	20,470
		Ban Pin				6,119	6,119
		Long Total				57,517	57,517
	Wang Chin	Mae Koeng				18,125	18,125
		Mae Phung				7,693	7,693
		Na Phun				11,334	11,334
		Wang Chin				701	701
Soi					3,429	3,429	
	Wang Chin Total				41,282	41,282	
Song	Tao Pun				22,277	22,277	

Appendix Table 14 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Songklanagarind		Daen Chumphon		7,160	7,160		7,160
		Ban Klang		2,520	2,520	13,665	16,185
		Ban Nun		4,843	4,843	6,591	11,434
		Sa-iap		701	701	21,658	22,359
		Huai Mai		11,406	11,406	22,315	33,721
		Hua Mueang		89	89		89
		Song Total		26,720	26,720	86,505	113,225
	Sung Men	Don Mun				2,085	2,085
		Ban Lao		1,847	1,847	5,384	7,231
		Ban Kat		854	854		854
		Rong Kat		4,581	4,581		4,581
		Hua Fai				9,578	9,578
		Sung Men Total		7,282	7,282	17,046	24,329

Appendix Table 14 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
	Nong Muang Khai	Thung Khaeo		2,884	2,884	2,884
		Nam Rat		9,813	9,813	9,813
		Wang Luang		2,061	2,061	2,061
	Nong Muang Khai Total			14,758	14,758	14,758
Phrae Total				100,425	100,425	325,156
						425,580



Appendix Figure 9 Map of Land Suitability for Rambutan in Phrae Province

Appendix Table 15 Zoning For Rambutan in Phrae Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Phrae		45,736	79	238	2
Rong Kwang		5,925	1	1,000	2
Long			8	0	0
Phrae Total	0	51,661	88	224	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 15 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Phrae					45,736			79	
Rong Kwang					5,925			1	
Long									8
Phrae Total	0	0	0	0	51,661	0	0	80	8

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

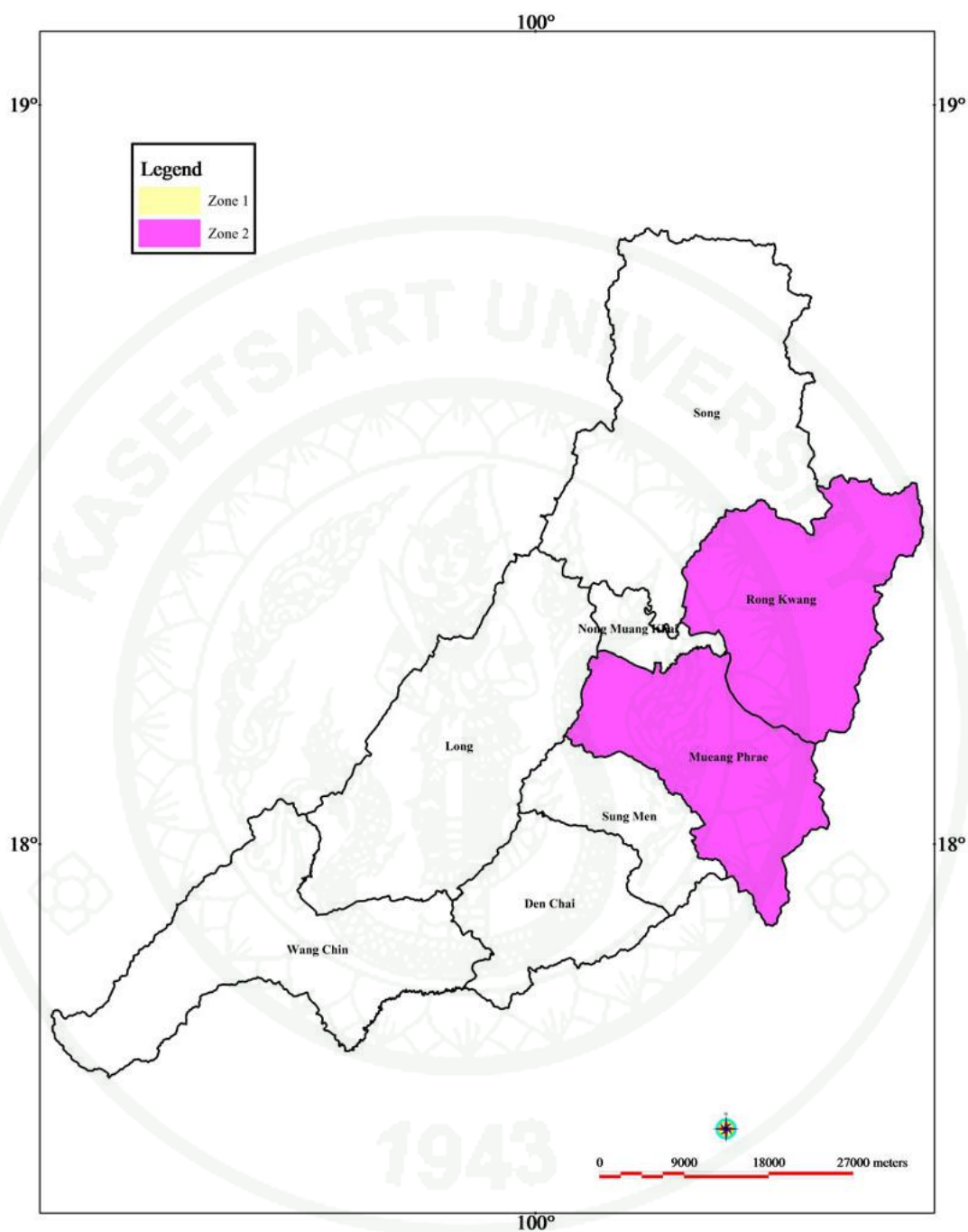
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 10 Map of Zoning for Rambutan in Phrae Province

Appendix Table 16 Classification of Land Suitability for Rambutan in Nan
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	1,817	0.03
2. Moderately Suitable	18,479	0.26
3. Unsuitable	1,683,671	23.48
4. Existing Forest	4,085,183	56.98
5. Deforestation	666,688	9.30
6. Water	29,520	0.41
7. Built-up areas	684,688	9.55
Total	7,170,045	100.00

Appendix Table 17 Land Suitability for Rambutan in Nan Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nan	Chaloem Phra Kiat	Khun Nan				50,050	50,050
		Huai Kon				63,728	63,728
	Chaloem Phra Kiat Total					113,778	113,778
	Chiang Klang	Chiang Klang	58		58	16,970	17,028
		Chiang Khan	1,759		1,759	4,517	6,276
		Puea				11,001	11,001
		Phaya Kaeo				2,404	2,404
	Chiang Klang Total		1,817		1,817	34,893	36,710
	Mueang Nan	Chaiya Sathan		6,759	6,759	2,160	8,919
		Kong Khwai				5,338	5,338
		Du Tai				8,092	8,092
		Thuem Thong		996	996	2,588	3,584
		Na Sao				13,497	13,497

Appendix Table 17 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mueang Nan	Wiang Sa	Bo				57,501	57,501
		Suak		18	18	19,093	19,111
		Saniang				69,217	69,217
		Mueang Nan Total		7,773	7,773	177,487	185,260
		Mae Khaning				15,189	15,189
		Mae Sa		794	794	12,293	13,087
		Mae Sakhon				2,070	2,070
		Lai Nan				30,910	30,910
		Klang Wiang				645	645
		Khueng				2,098	2,098
		Chom Chan				16,552	16,552
		Thung Si Thong				35,765	35,765
		Nam Pua				23,503	23,503

Appendix Table 17 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Saensuk	Wiang Sa	Nam Muap				26,822	26,822
		Pong Sanuk		1,558	1,558	15,731	17,290
		Yap Hua Na				18,425	18,425
		San				21,291	21,291
		San Na Nong Mai				1,158	1,158
		Ai Na Lai				29,711	29,711
	Wiang Sa Total			2,352	2,352	252,164	254,517
	Mae Charim	Mae Charim				36,978	36,978
		Nam Phang				29,301	29,301
		Nong Daeng				43,049	43,049
		Mo Mueang				12,080	12,080
	Mae Charim Total					121,408	121,408
	Phu Phiang	Mueang Chang				24,990	24,990

Appendix Table 17 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Pang				9,167	9,167
		Nam Kian				8,820	8,820
		Nam Kaen				18,607	18,607
		Fai Kaeo				36,225	36,225
	Phu Phiang Total					97,809	97,809
	Tha Wang Pha	Saen Thong				25,173	25,173
		Chom Phra				13,755	13,755
		Tan Chum				2,737	2,737
		Pa Kha				3,798	3,798
		Pha To				7,492	7,492
		Pha Thong				26,995	26,995
	Tha Wang Pha Total					79,950	79,950
	Thung Chang	Lae				43,176	43,176

Appendix Table 17 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasem Saensuk	Thung Chang	Ngop				43,405	43,405	
		Thung Chang				30,126	30,126	
		Pon				7,486	7,486	
		Thung Chang Total				124,193	124,193	
		Na Noi	Chiang Khong				15,857	15,857
			Na Noi				11,220	11,220
			Nam Tok				5,950	5,950
			Bua Yai		480	480	22,260	22,740
			Si Sa Ket				23,032	23,032
	Sathan				21,549	21,549		
	Santha				15,896	15,896		
	Na Noi Total			480	480	115,764	116,244	
	Na Muen	Mueang Li				6,611	6,611	

Appendix Table 17 (Continued)

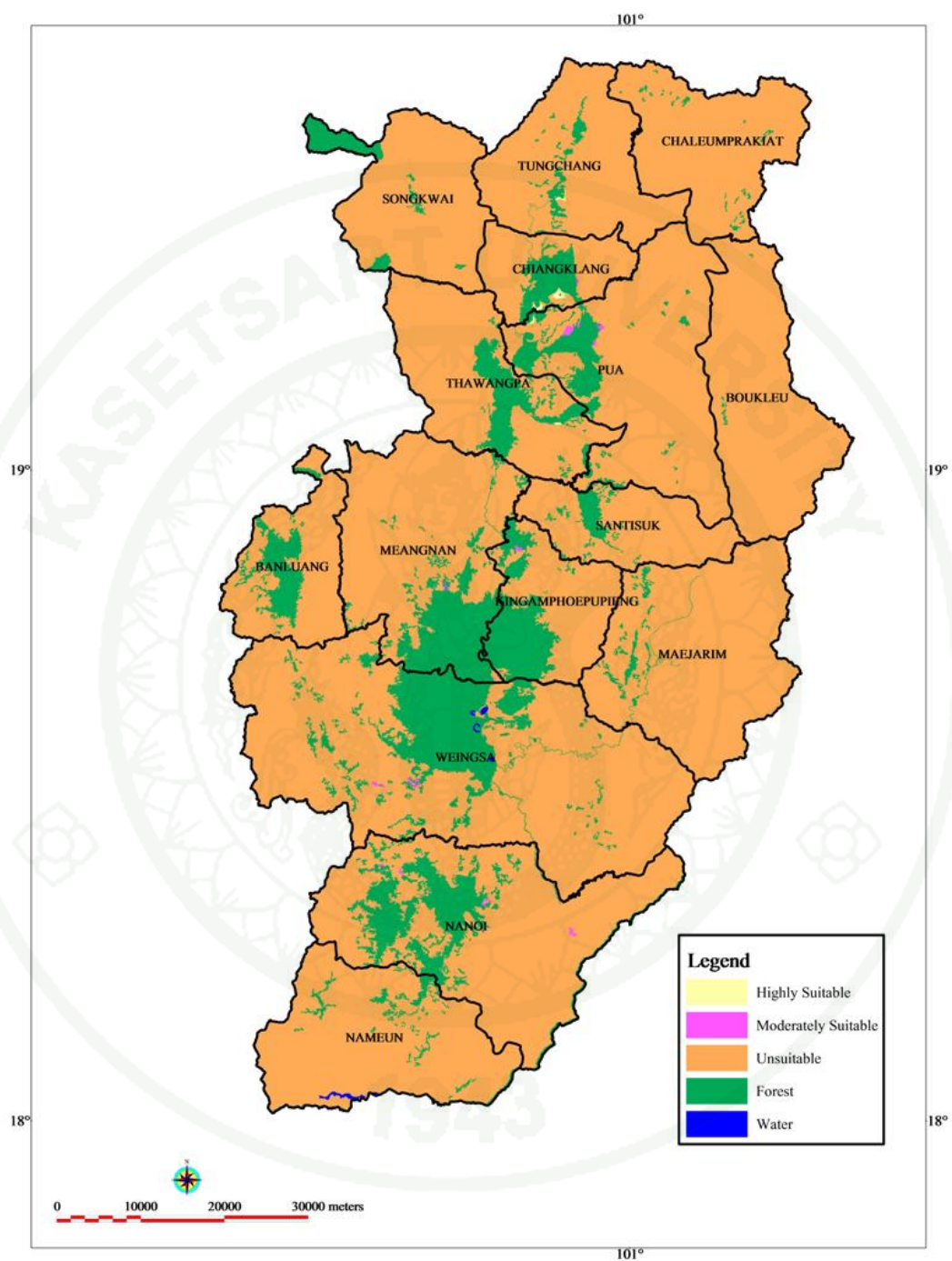
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Thamung				6,546	6,546
		Bo Kaeo				8,639	8,639
		Ping Luang				3,664	3,664
		Na Muen Total				25,459	25,459
	Bo Kluea	Dong Phaya				27,199	27,199
		Bo Kluea Nuea				1,836	1,836
		Bo Kluea Tai				60,354	60,354
		Phu Fa				2,601	2,601
		Bo Kluea Total				91,990	91,990
	Ban Luang	Ban Phi				19,998	19,998
		Ban Fa		210	210	23,538	23,748
		Pa Kha Luang				10,214	10,214
Suat					8,489	8,489	

Appendix Table 17 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ban Luang Total			210	210	62,240	62,449
	Pua	Chedi Chai				3,999	3,999
		Ngaeng				6,299	6,299
		Chai Watthana		3,544	3,544	1,349	4,893
		Phu Kha				72,073	72,073
		Sakat				20,967	20,967
		Sathan		4,120	4,120	9,211	13,331
		Uan				63,018	63,018
	Pua Total			7,664	7,664	176,916	184,580
	Song Khwae	Chon Daen				36,703	36,703
		Na Rai Luang				65,098	65,098
		Yot				24,636	24,636
	Song Khwae Total					126,437	126,437

Appendix Table 17 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Santi Suk	Du Phong				2,029	2,029
		Pa Laeo Luang				44,413	44,413
		Phong				36,741	36,741
	Santi Suk Total					83,184	83,184
Nan Total			1,817	18,479	20,296	1,683,671	1,703,967



Appendix Figure 11 Map of Land Suitability for Rambutan in Nan Province

Appendix Table 18 Zoning For Rambutan in Nan Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Chaloem Phra Kiat			28	700	0
Mueang Nan		7,773	478	66	2
Mae Charim			197	1,243	2
Tha Wang Pha			509	119	0
Thung Chang			2,919	65	0
Na Noi		480	9	353	0
Na Muen			340		0
Ban Luang		210	22	21	0
Pua		7,664	24	115	2
Song Khwae			500	836	0
Santi Suk			19	600	0
Nan Total	0	16,127	5,045	194	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 18 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Chaloem Phra Kiat									28
Mueang Nan					7,773			478	
Mae Charim								197	
Tha Wang Pha									509
Thung Chang									2,919
Na Noi						480			9
Na Muen									340
Ban Luang									
Pua					7,664			24	
Song Khwae									500
Santi Suk									19
Nan Total	0	0	0	0	15,437	480	0	699	4,324

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

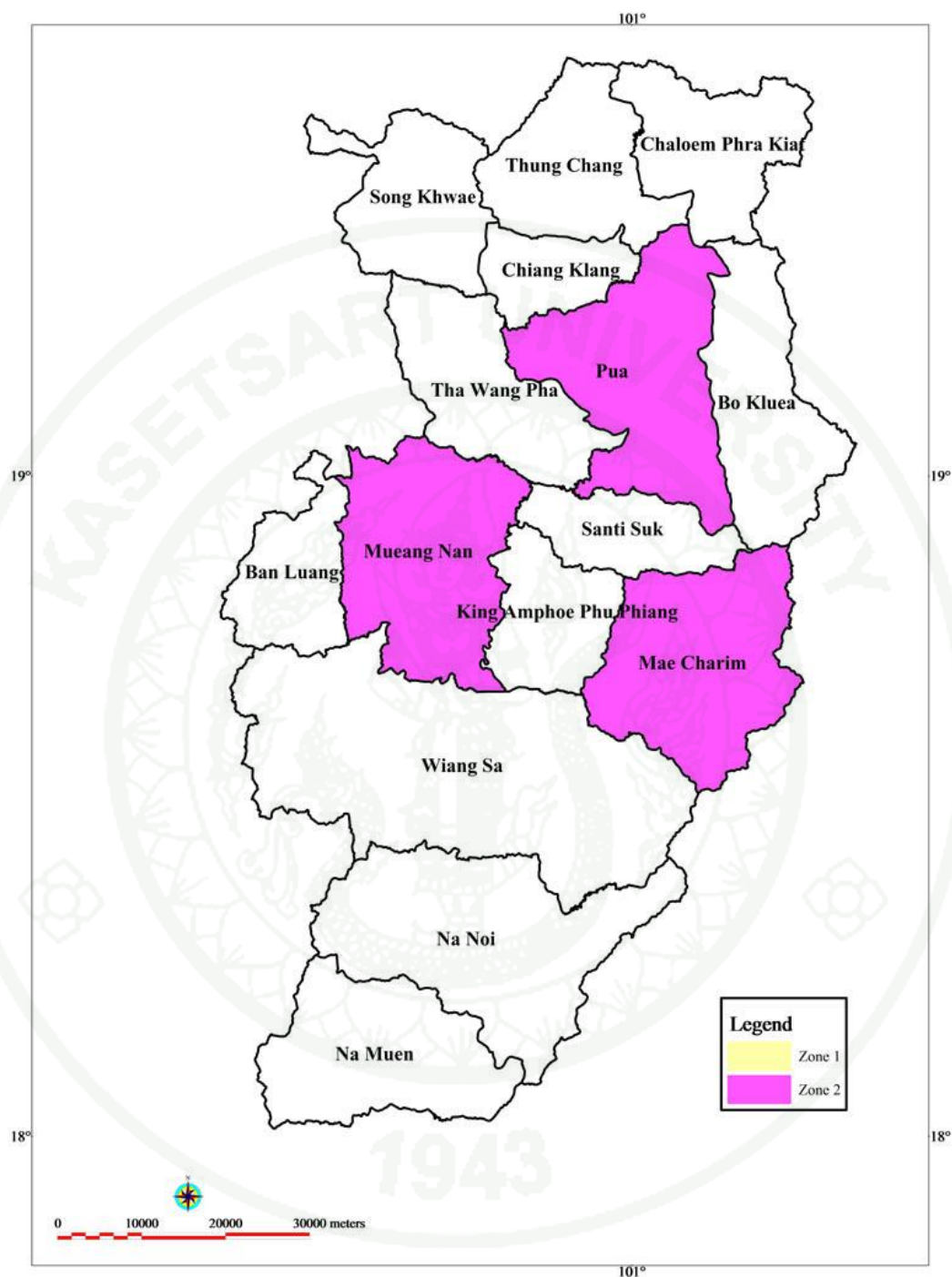
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 12 Map of Zoning for Rambutan in Nan Province

Appendix Table 19 Classification of Land Suitability for Rambutan in Uttaradit
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	112,801	2.30
3. Unsuitable	1,064,046	21.72
4. Existing Forest	2,647,344	54.04
5. Deforestation	460,575	9.40
6. Water	135,778	2.77
7. Built-up areas	478,575	9.77
Total	4,899,120	100.00

Appendix Table 20 Land Suitability for Rambutan in Uttaradit Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Uttaradit	Mueang Uttaradit	Saen To				3,084	3,084
		Khung Taphao		705	705	23,077	23,782
		Ngio Ngam				13,604	13,604
		Nam Rit		893	893	11,331	12,224
		Ban Dan				17,060	17,060
		Ban Dan Na Kham				1,833	1,833
		Pa Sao				11,883	11,883
		Pha Chuk				16,119	16,119
		Wang Din		334	334	19,239	19,573
		Hat Kruat		474	474	23,458	23,931
		Hat Ngio				8,536	8,536
	Mueang Uttaradit Total			2,406	2,406	149,223	151,628
	Tron	Khoi Sung				12,771	12,771

Appendix Table 20 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kaset	Tron	Nam Ang				19,595	19,595
		Ban Kaeng		3,566	3,566	18,782	22,348
		Wang Daeng		3,975	3,975	42,102	46,077
		Hat Song Khwae		2,406	2,406	18,932	21,339
		Tron Total		9,948	9,948	112,183	122,131
	Thong Saen Khan	Nam Phi		277	277	36,889	37,166
		Bo Thong	95	15,479	15,574	24,441	40,015
		Pa Khai		590	590	56,205	56,795
		Phak Khuang	768	12,603	13,371	33,420	46,792
	Thong Saen Khan Total		863	28,949	29,812	150,956	180,768
	Tha Pla	Tha Pla				24,276	24,276
		Nang Phaya				14,611	14,611
		Nam Man		2,181	2,181	57,984	60,164

Appendix Table 20 (Continued)

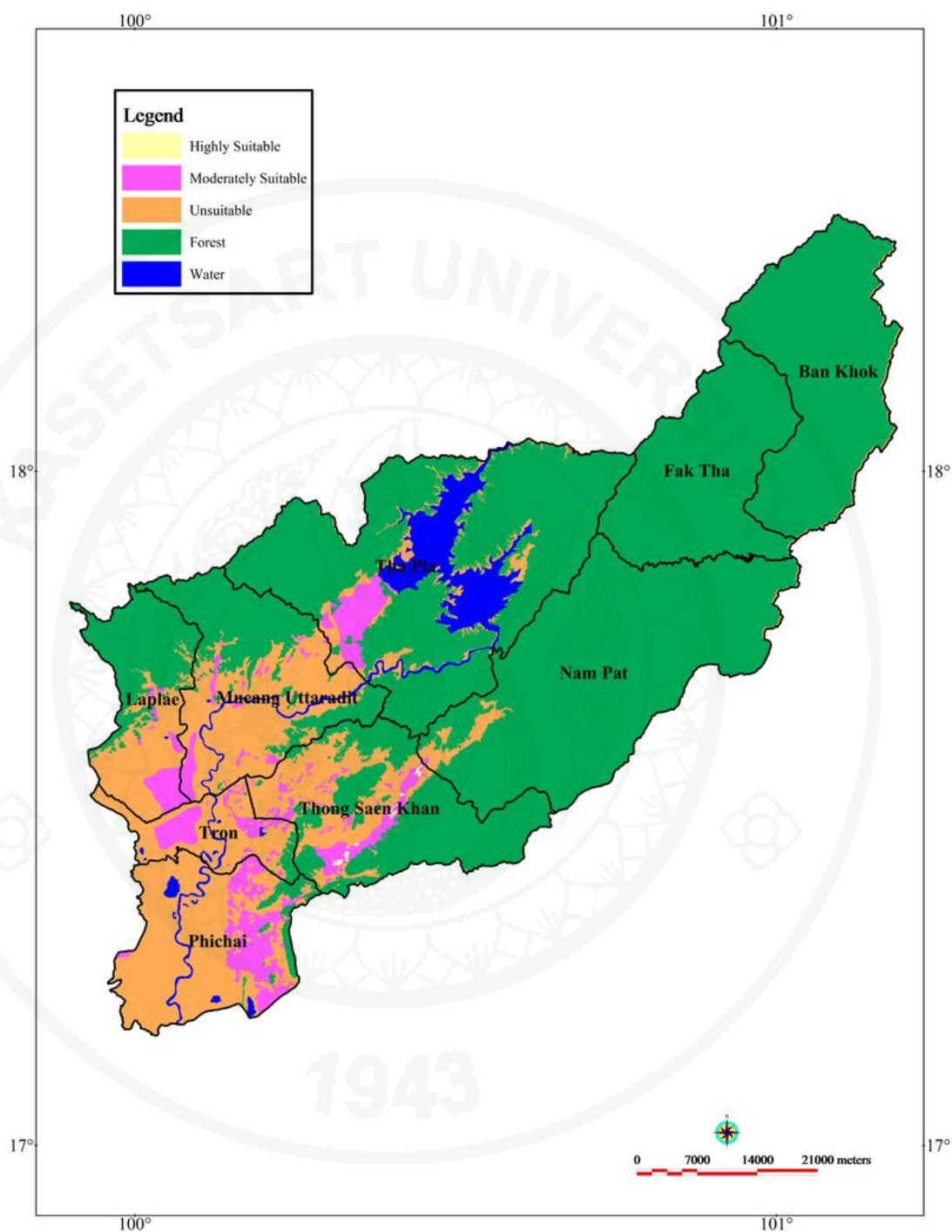
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit	Tha Pla	Pha Lueat				20,237	20,237
		Ruam Chit				6,605	6,605
	Tha Pla Total			2,181	2,181	123,712	125,892
	Nam Pat	Saen To				26,029	26,029
		Nam Khrai				3,085	3,085
		Nam Phai				2,166	2,166
		Ban Fai				24,858	24,858
		Huai Mun				227	227
	Nam Pat Total					56,366	56,366
	Ban Khok	Na Khum				15,319	15,319
		Bo Bia				31,565	31,565
		Muang Chet Ton				12,428	12,428
	Ban Khok Total					59,312	59,312

Appendix Table 20 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phichai		Rai Oi				22,619	22,619
		Kho Rum				39,573	39,573
		Tha Mafueang				32,014	32,014
		Tha Sak		11,755	11,755	37,430	49,184
		Na Yang		31,444	31,444	23,411	54,855
		Na In		619	619	7,929	8,548
		Ban Khon				21,931	21,931
		Ban Mo		4,785	4,785	19,176	23,962
		Phaya Maen				20,541	20,541
	Phichai Total			48,604	48,604	224,623	273,227
Fak Tha	Ban Siao		29	29	10,356	10,385	
	Fak Tha				2,176	2,176	
	Song Khon				7,701	7,701	

Appendix Table 20 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Fak Tha Total			29	29	20,233	20,262
	Laplae	Mae Phun				43,433	43,433
		Phai Lom		20,686	20,686	19,383	40,069
		Chai Chumphon				19,641	19,641
		Thung Yang				24,758	24,758
		Na Nok Kok				30,311	30,311
		Fai Luang				29,912	29,912
	Laplae Total			20,686	20,686	167,439	188,125
Uttaradit Total			863	112,801	113,664	1,064,046	1,177,711



Appendix Figure 13 Map of Land Suitability for Rambutan in Uttaradit Province

Appendix Table 21 Zoning For Rambutan in Uttaradit Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Uttaradit		2,406	21	571	2
Thong Saen Khan	863	28,949	54	0	2
Tha Pla		2,181	169	0	0
Nam Pat			45	0	0
Ban Khok			202	220	0
Laplae		20,686	17	300	2
Uttaradit Total	863	54,221	508	121	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 21 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Uttaradit					2,406			21	
Thong Saen Khan		863			28,949			54	
Tha Pla						2,181			169
Nam Pat									45
Ban Khok									202
Laplae					20,686			17	
Uttaradit Total	0	863	0	0	52,041	2,181	0	92	416

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

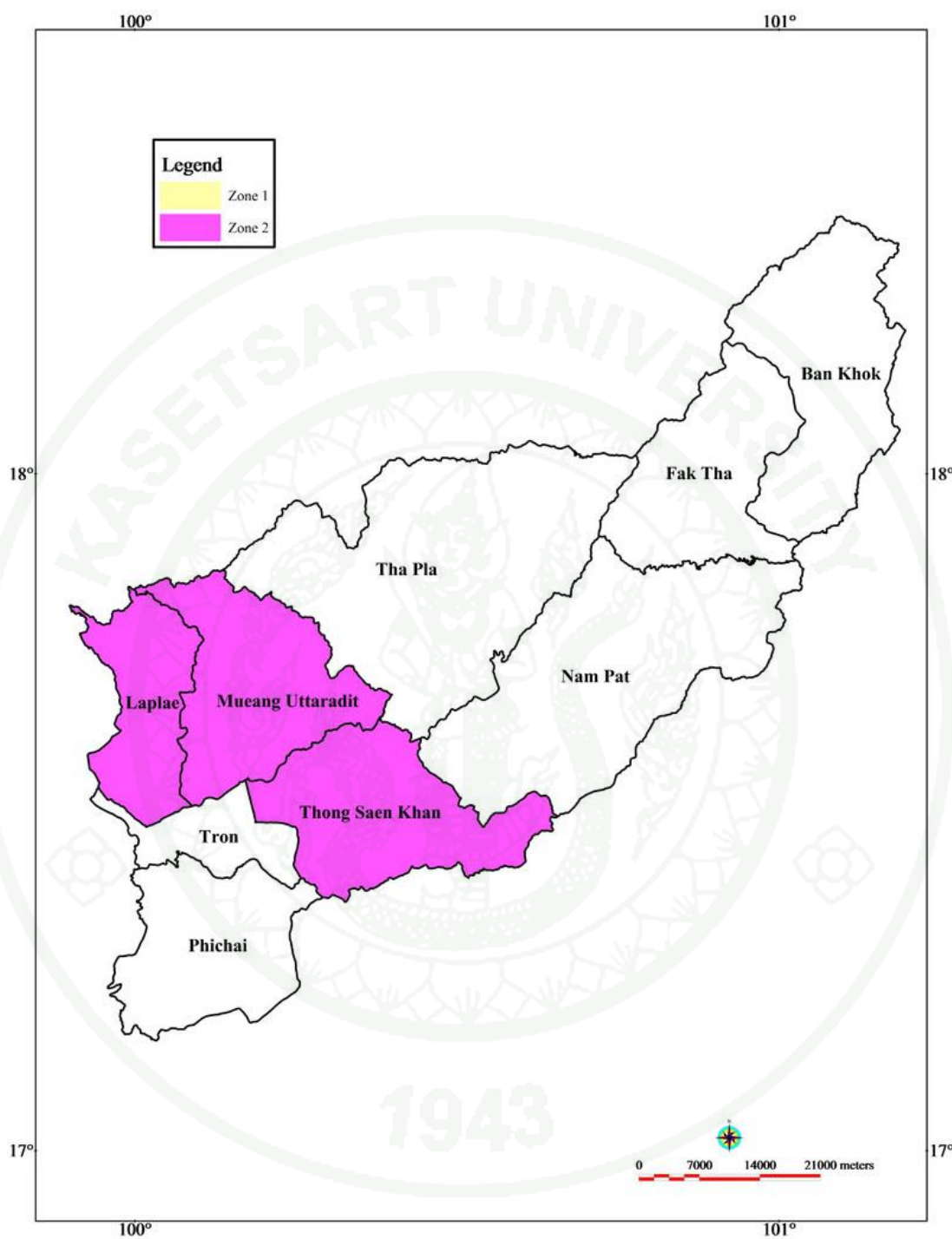
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 14 Map of Zoning for Rambutan in Uttaradit Province

Appendix Table 22 Classification of Land Suitability for Rambutan in Phitsanulok Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	2,314	0.03
2. Moderately Suitable	439,064	6.50
3. Unsuitable	2,676,411	39.59
4. Existing Forest	2,256,618	33.38
5. Deforestation	681,904	10.09
6. Water	3,695	0.05
7. Built-up areas	699,904	10.35
Total	6,759,909	100.00

Appendix Table 23 Land Suitability for Rambutan in Phitsanulok Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phitsanulok	Noen Maprang	Noen Maprang				21,004	21,004
		Sai Yoi		12,479	12,479	22,714	35,192
		Chomphu				75,416	75,416
		Ban Mung				50,720	50,720
		Wang Phrong		3,010	3,010	46,885	49,895
		Wang Yang		4,165	4,165	35,807	39,971
		Noen Maprang Total		19,653	19,653	252,545	272,198
	Mueang Phitsanulok	Phai Kho Don		1,162	1,162		1,162
		Ngio Ngam				7,257	7,257
		Don Thong				26,250	26,250
		Tha Pho		18,168	18,168		18,168
		Ban Krang		25,875	25,875		25,875
		Ban Pa		21,629	21,629	16,725	38,354

Appendix Table 23 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phitsanulok	Mueang Phitsanulok	Bueng Phra				25,503	25,503
		Ban Khlong		7,427	7,427	8,856	16,283
		Wang Nam Khu				19,708	19,708
		Wat Phrik		20,718	20,718	11,970	32,689
		Hua Ro	2,314	10,126	12,440		12,440
		Aranyik		2,869	2,869	8,563	11,432
		Mueang Phitsanulok Total	2,314	107,975	110,288	124,834	235,122
	Chat Trakan	Chat Trakan				36,557	36,557
		Tha Sakae				27,845	27,845
		Bo Phak				120,003	120,003
		Ban Dong				82,013	82,013
		Pa Daeng		6,410	6,410	25,279	31,688
		Suan Miang				92,635	92,635

Appendix Table 23 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Chat Trakan Total			6,410	6,410	384,333	390,742
	Nakhon Thai	Noen Phoem		18	18	46,589	46,607
		Nakhon Thai		6,493	6,493	7,672	14,165
		Nakhon Chum		311	311	13,426	13,737
		Na Bua		10,511	10,511	6,253	16,765
		Nam Kum				15,052	15,052
		Bo Pho				6,617	6,617
		Ban Yaeng				76,014	76,014
		Ban Phrao				26,479	26,479
		Yang Klon		12,184	12,184		12,184
		Nong Kathao				224,704	224,704
		Huai Hia				84,669	84,669
	Nakhon Thai Total			29,518	29,518	507,475	536,993

Appendix Table 23 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bang Krathum	Noen Kum		23,301	23,301	8,886	32,187
		Tha Tan				27,705	27,705
		Bang Krathum				28,516	28,516
		Wat Ta Yom		14,285	14,285		14,285
	Bang Krathum Total			37,586	37,586	65,106	102,692
	Bang Rakam	Kui Muang				52,774	52,774
		Chum Saeng Songkhram				77,003	77,003
		Tha Nang Ngam		11,435	11,435		11,435
		Nikhom Phatthana				45,286	45,286
		Bo Thong				27,523	27,523
		Bang Rakam		6,845	6,845	49,252	56,097
		Bueng Kok				51,123	51,123
		Plak Raet				31,298	31,298

Appendix Table 23 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phan Sao				47,342	47,342
		Wang Ithok		6,600	6,600	39,640	46,240
		Nong Kula				93,925	93,925
	Bang Rakam Total			24,881	24,881	515,165	540,045
	Phrom Phiram	Dong Prakhom		5,330	5,330	10,772	16,102
		Taluk Thiam				71,842	71,842
		Thap Yai Chiang		15,521	15,521	14,358	29,879
		Tha Chang		22,212	22,212	774	22,986
		Phrom Phiram		22,005	22,005		22,005
		Matong				6,196	6,196
		Matum		23,684	23,684	7,811	31,495
		Wong Khong		7,698	7,698	18,921	26,619
		Si Phirom				70,684	70,684

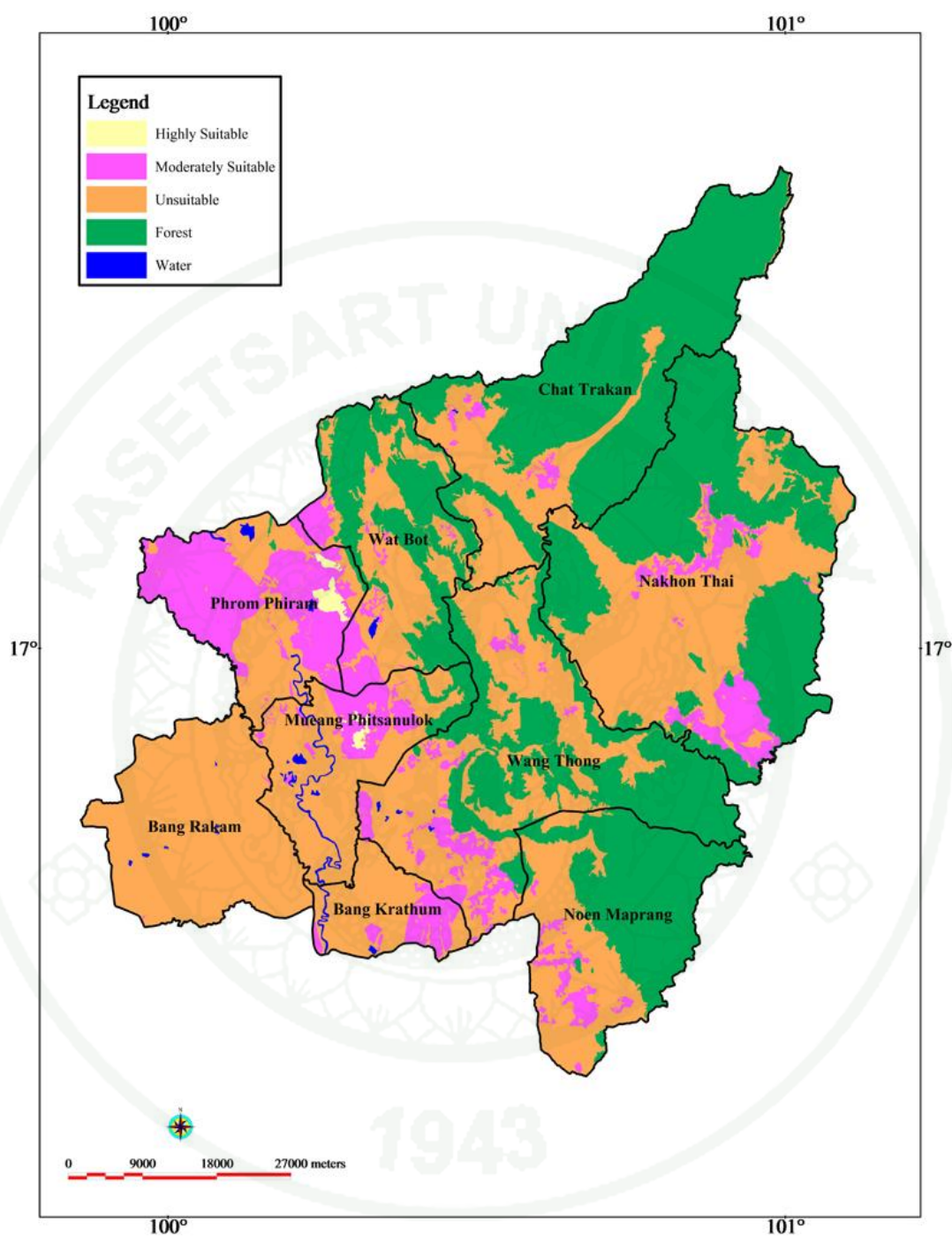
Appendix Table 23 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Khaem		11,200	11,200	8,451	19,651
		Ho Klong		27,136	27,136		27,136
	Phrom Phiram Total			134,785	134,785	209,809	344,594
	Wang Thong	Kaeng Sopha				45,648	45,648
		Mae Raka		3,721	3,721	47,318	51,039
		Din Thong		4,333	4,333	20,099	24,432
		Tha Muen Ram		14,147	14,147	22,905	37,052
		Ban Klang				144,257	144,257
		Wang Thong		3,369	3,369	1,357	4,727
		Wang Nok Aen				144,318	144,318
		Nong Phra		7,136	7,136	16,483	23,619
	Wang Thong Total			32,706	32,706	442,386	475,092
	Wat Bot	Khan Chong		12,736	12,736	74,723	87,459

Appendix Table 23 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phitsanulok	Wat Bot	Thothae		24,305	24,305		24,305
		Tha Ngam				56,189	56,189
		Ban Yang		8,510	8,510	43,847	52,358
		Hin Lat		45,551	45,551	174,759	220,310
		Wat Bot Total					
Phitsanulok Total			2,314	439,064	441,377	2,676,411	3,117,788



Appendix Figure 15 Map of Land Suitability for Rambutan in Phitsanulok Province

Appendix Table 24 Zoning For Rambutan in Phitsanulok Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Noen Maprang		19,653	165		2
Mueang Phitsanulok	2,314	107,975	5		2
Nakhon Thai		29,518	659	91	2
Phrom Phiram		134,785	10	1,000	2
Wang Thong		32,706	1,241	4,611	1
Wat Bot		45,551	7	0	2
Phitsanulok Total	2,314	370,187	2,087	2,775	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 24 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Noen Maprang					19,653			165	
Mueang Phitsanulok									
Nakhon Thai					29,518			659	
Phrom Phiram					134,785			10	
Wang Thong				32,706			1,241		
Wat Bot					45,551			7	
Phitsanulok Total	0	0	0	32,706	229,507	0	1,241	841	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

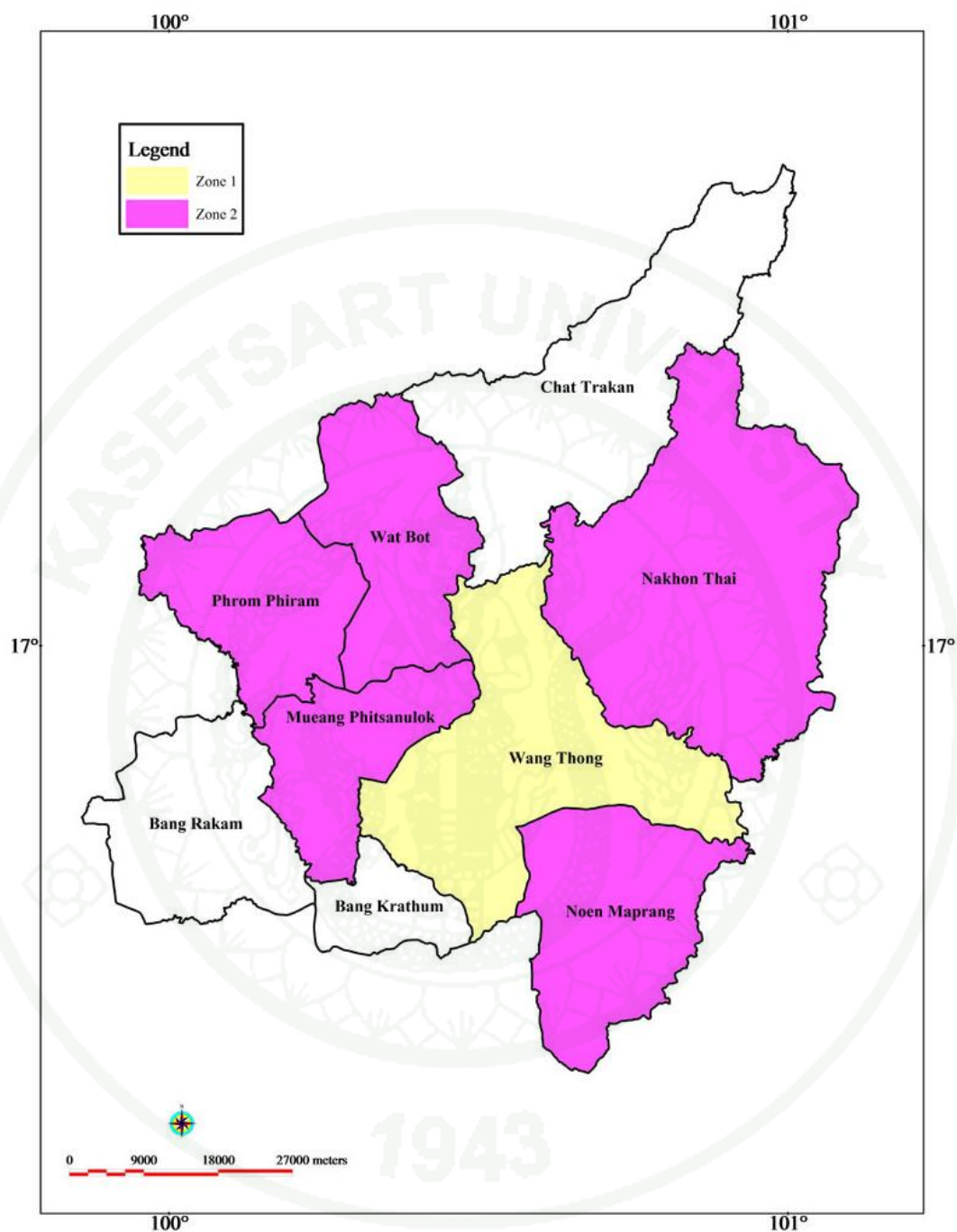
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 16 Map of Zoning for Rambutan in Phitsanulok Province

Appendix Table 25 Classification of Land Suitability for Rambutan in Nakhon
Sawan Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	2,108	0.04
2. Moderately Suitable	389,031	6.49
3. Unsuitable	4,224,293	70.42
4. Existing Forest	335,830	5.60
5. Deforestation	498,131	8.30
6. Water	33,024	0.55
7. Built-up areas	516,131	8.60
Total	5,998,548	100.00

Appendix Table 26 Land Suitability for Rambutan in Nakhon Sawan Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Sawan	Kao Liao	Khao Din				16,924	16,924
		Nong Tao		28,988	28,988	28,232	57,220
		Hua Dong				23,116	23,116
	Kao Liao Total			28,988	28,988	68,273	97,260
	Mueang Nakhon Sawan	Kriangkrai				11,848	11,848
		Khwae Yai				3,869	3,869
		Nakhon Sawan Tok				19,554	19,554
		Nakhon Sawan Ok				7,146	7,146
		Bang Phra Luang				6,429	6,429
		Ban Makluea				7,797	7,797
		Bueng Senat				393	393
		Pak Nam Pho				2,848	2,848
		Phra Non				46,386	46,386

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Krot		5,983	5,983	65,013	70,997
		Nong Kradon		2,084	2,084	54,149	56,234
		Nong Pling				28,714	28,714
		Mueang Nakhon Sawan Total		8,067	8,067	254,147	262,215
	Mae Wong	Khao Chon Kan				68,518	68,518
		Mae Le				138,396	138,396
		Mae Wong				75,810	75,810
		Wang San				99,293	99,293
	Mae Wong Total				382,017	382,017	
	Krok Phra	Noen Krao				23,069	23,069
		Na Klang				28,427	28,427
		Bang Pramung				24,961	24,961
		Sala Daeng				22,248	22,248

Appendix Table 26 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Hat Sung				6,238	6,238
	Krok Phra Total					104,943	104,943
	Phaisali	Khok Duea				63,399	63,399
		Pho Prasat		30,201	30,201	106,117	136,318
		Phaisali				46,602	46,602
		Takhro				37,540	37,540
		Na Khom				68,384	68,384
		Wang Khoi		385	385	65,785	66,170
		Wang Nam Lat				90,508	90,508
		Samrong Chai				95,373	95,373
	Phaisali Total			30,587	30,587	573,707	604,293
	Mae Poen	Mae Poen				136,585	136,585
	Mae Poen Total					136,585	136,585

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Chum Ta Bong	Chum Ta Bong				57,240	57,240
		Pang Sawan				88,994	88,994
	Chum Ta Bong Total					146,233	146,233
	Chum Saeng	Koei Chai		8,609	8,609	2,601	11,210
		Khamang		439	439	4,933	5,372
		Chum Saeng		281	281	1,979	2,260
		Thap Krit		3,400	3,400	60,655	64,055
		Bang Khian		7,311	7,311	57,875	65,187
		Phan Lan		6,437	6,437	8,676	15,112
		Phikun		1,255	1,255	5,918	7,173
		Nong Krachao				66,527	66,527
	Chum Saeng Total			27,732	27,732	209,164	236,896
	Tak Fa	Khao Chai Thong		392	392	19,695	20,088

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Sawan		Phu Nok Yung		4,248	4,248	28,795	33,043
		Lam Phayon		305	305	48,022	48,327
		Suk Samran				32,612	32,612
		Nong Phikun				32,639	32,639
		Udom Thanya				98,267	98,267
	Tak Fa Total			4,946	4,946	260,031	264,976
	Takhli	Chan Sen		11,175	11,175	23,318	34,493
		Chong Khae		1,967	1,967	20,887	22,854
		Takhli		4,733	4,733	85,531	90,264
		Phromnimit	1,877	7,075	8,952	2,053	11,006
		Lat Thipphalot				10,133	10,133
		Soi Thong		44,971	44,971		44,971
		Nong Pho		466	466	66,121	66,587

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Mo		33,906	33,906		33,906
		Huai Hom				29,096	29,096
		Hua Wai				60,776	60,776
		Takhli Total	1,877	104,293	106,170	297,915	404,086
		Tha Tako					
		Don Kha				53,651	53,651
		Tha Tako				30,274	30,274
		Thamnop				26,297	26,297
		Phanom Set				43,678	43,678
		Phanom Rok				70,732	70,732
		Wang Yai				41,884	41,884
		Wang Mahakon				53,876	53,876
		Sai Lamphong				50,326	50,326
		Nong Luang				70,068	70,068

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Tha Tako Total	Hua Thanon				63,368	63,368
						504,153	504,153
	Banphot Phisai	Charoen Phon		4,891	4,891	16,412	21,303
		Dan Chang		24,597	24,597		24,597
		Ta Khit				25,880	25,880
		Ta Sang		30,632	30,632	12,350	42,982
		Tha Ngio				24,016	24,016
		Bang Kaeo				25,777	25,777
		Bang Ta Ngai				34,792	34,792
		Ban Daen		510	510	28,318	28,828
		Bueng Pla Thu		27,268	27,268		27,268
		Nong Krot		32,056	32,056	29,148	61,204
		Nong Ta Ngu		22,779	22,779	22,428	45,207

Appendix Table 26 (Continued)

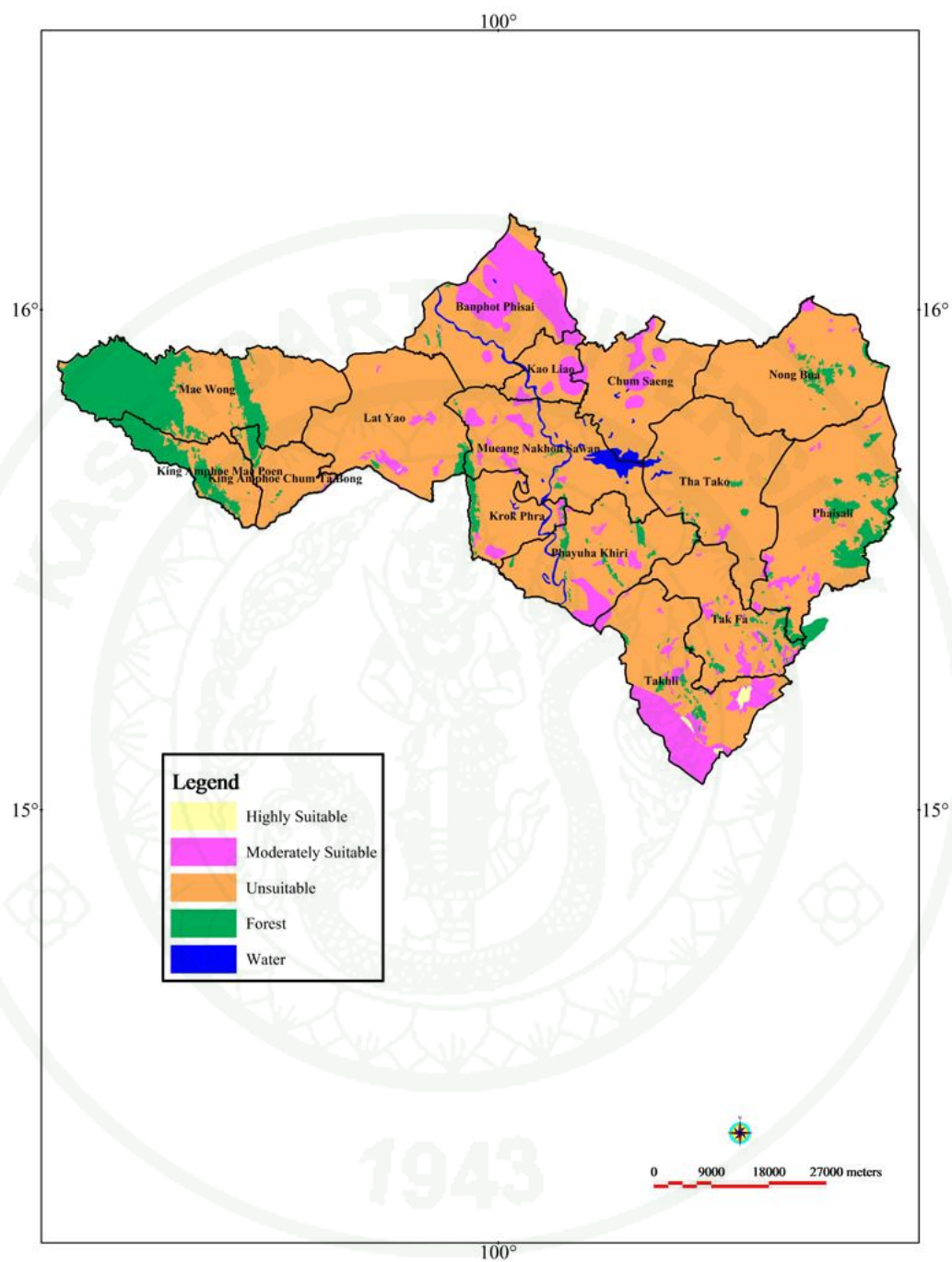
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Banphot Phisai Total	Hukwang				19,710	19,710
				142,733	142,733	238,831	381,564
	Phayuha Khiri	Khao Kala				132,787	132,787
		Khao Thong				44,216	44,216
		Noen Makok		5,399	5,399	29,257	34,655
		Tha Nam Oi		3,572	3,572	6,412	9,983
		Nam Song				31,630	31,630
		Nikhom Khao Bo Kaeo				39,654	39,654
		Phayuha		1,735	1,735	13,936	15,671
		Muang Hak		17,080	17,080	5,110	22,190
		Yang Khao				22,249	22,249
		Sa Thale				22,880	22,880
		Phayuha Khiri Total		27,785	27,785	348,131	375,916

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Lat Yao	Noen Khilek				52,680	52,680
		Ban Rai				94,563	94,563
		Map Kae	230	3,856	4,086	6,831	10,917
		Lat Yao				51,532	51,532
		Wang Mueang		933	933	16,027	16,960
		Wang Ma		2,068	2,068	33,178	35,246
		Nong Nom Wua				22,392	22,392
		Nong Yao				21,207	21,207
		Huai Nam Hom		5,315	5,315	14,134	19,450
		Lat Yao Total		230	12,172	12,402	312,545
	Nong Bua	Thung Thong				55,260	55,260
		Than Thahan				47,490	47,490
		Wang Bo				86,979	86,979

Appendix Table 26 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Klap		1,727	1,727	61,652	63,380
		Nong Bua				101,209	101,209
		Huai Yai				8,580	8,580
		Huai Ruam				26,448	26,448
		Nong Bua Total		1,727	1,727	387,617	389,345
Nakhon Sawan Total			2,108	389,031	391,138	4,224,293	4,615,432



Appendix Figure 17 Map of Land Suitability for Rambutan in Nakhon Sawan Province

Appendix Table 27 Zoning For Rambutan in Nakhon Sawan Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mae Poen			38	1,592	2
Nakhon Sawan Total	0	0	38	1,592	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 27 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mae Poen								38	
Nakhon Sawan Total	0	0	0	0	0	0	0	38	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

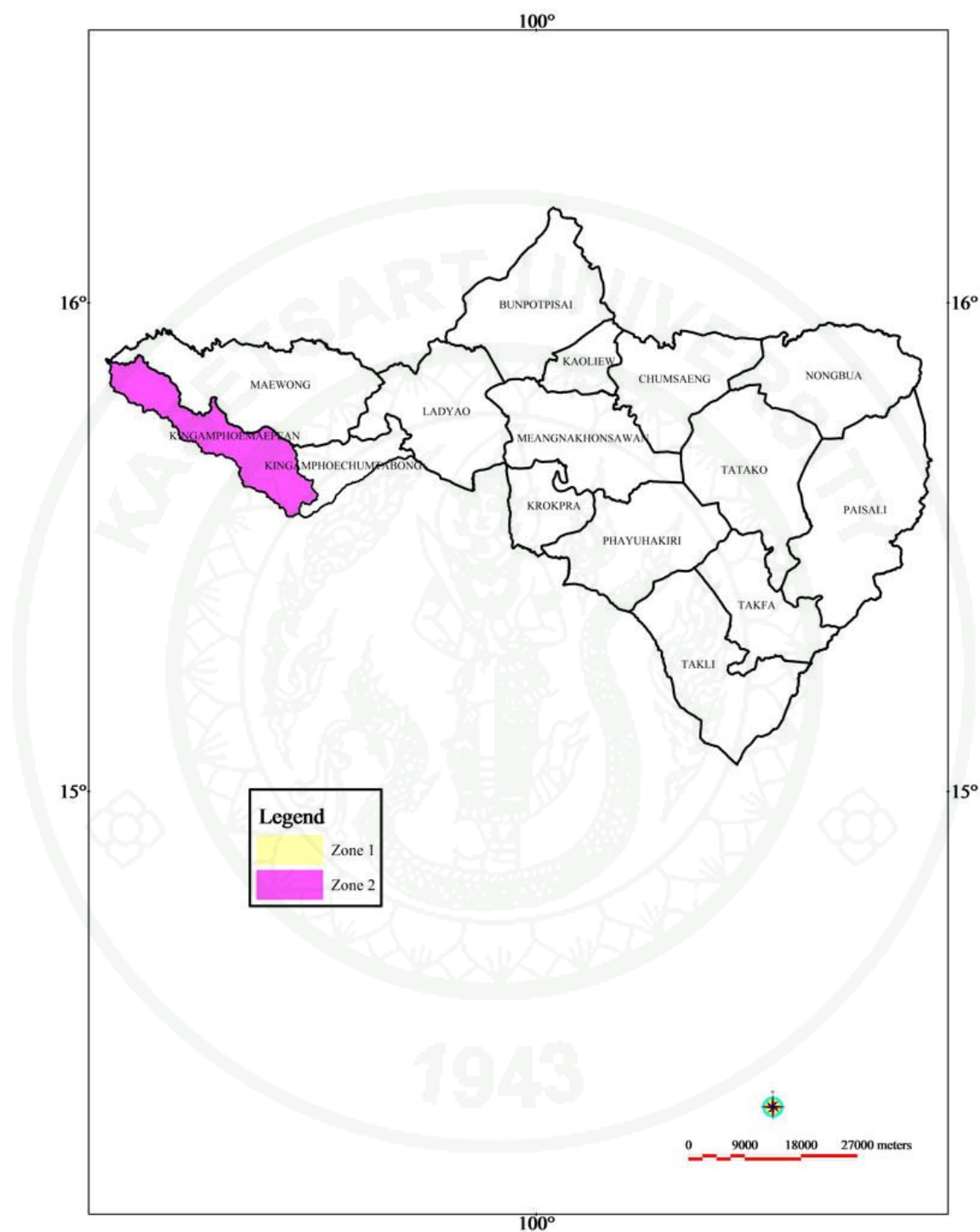
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 18 Map of Zoning for Rambutan in Nakhon Sawan Province

Appendix Table 28 Classification of Land Suitability for Rambutan in Uthai Thani Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	1,034	0.02
2. Moderately Suitable	65,513	1.56
3. Unsuitable	1,394,018	33.14
4. Existing Forest	2,068,097	49.17
5. Deforestation	329,806	7.84
6. Water	130	0.00
7. Built-up areas	347,806	8.27
Total	4,206,404	100.00

Appendix Table 29 Land Suitability for Rambutan in Uthai Thani Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Uthai Thani	Mueang Uthai Thani	Noen Chaeng		3	3	14,030	14,033
		Non Lek		4,096	4,096		4,096
		Don Khwang		1,257	1,257	9,457	10,715
		Nam Suem				13,086	13,086
		Nong Kae				10,180	10,180
		Nong Phai Baen		2,328	2,328	4,615	6,943
	Mueang Uthai Thani Total			7,684	7,684	51,368	59,053
	Thap Than	Taluk Du		3,608	3,608	27,847	31,455
		Thap Than				7,191	7,191
		Thung Na Thai				3,690	3,690
		Nong Krathum		540	540	66,279	66,819
		Nong Klang Dong		4,664	4,664	11,361	16,025
		Nong Yai Da		2,054	2,054	20,436	22,490

Appendix Table 29 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Sa		5,310	5,310		5,310
	Thap Than Total			16,176	16,176	136,804	152,980
	Ban Rai	Chao Wat				28,698	28,698
		Muang Ka Rung				53,205	53,205
		Khok Khwai				83,603	83,603
		Thap Luang				142,430	142,430
		Ban Mai Khlong Khian				22,686	22,686
		Ban Rai				42,543	42,543
		Wang Hin				36,073	36,073
		Nong Bom Kluai				49,496	49,496
		Huai Haeng				16,046	16,046
		Hu Chang				3,783	3,783
	Ban Rai Total					478,563	478,563

Appendix Table 29 (Continued)

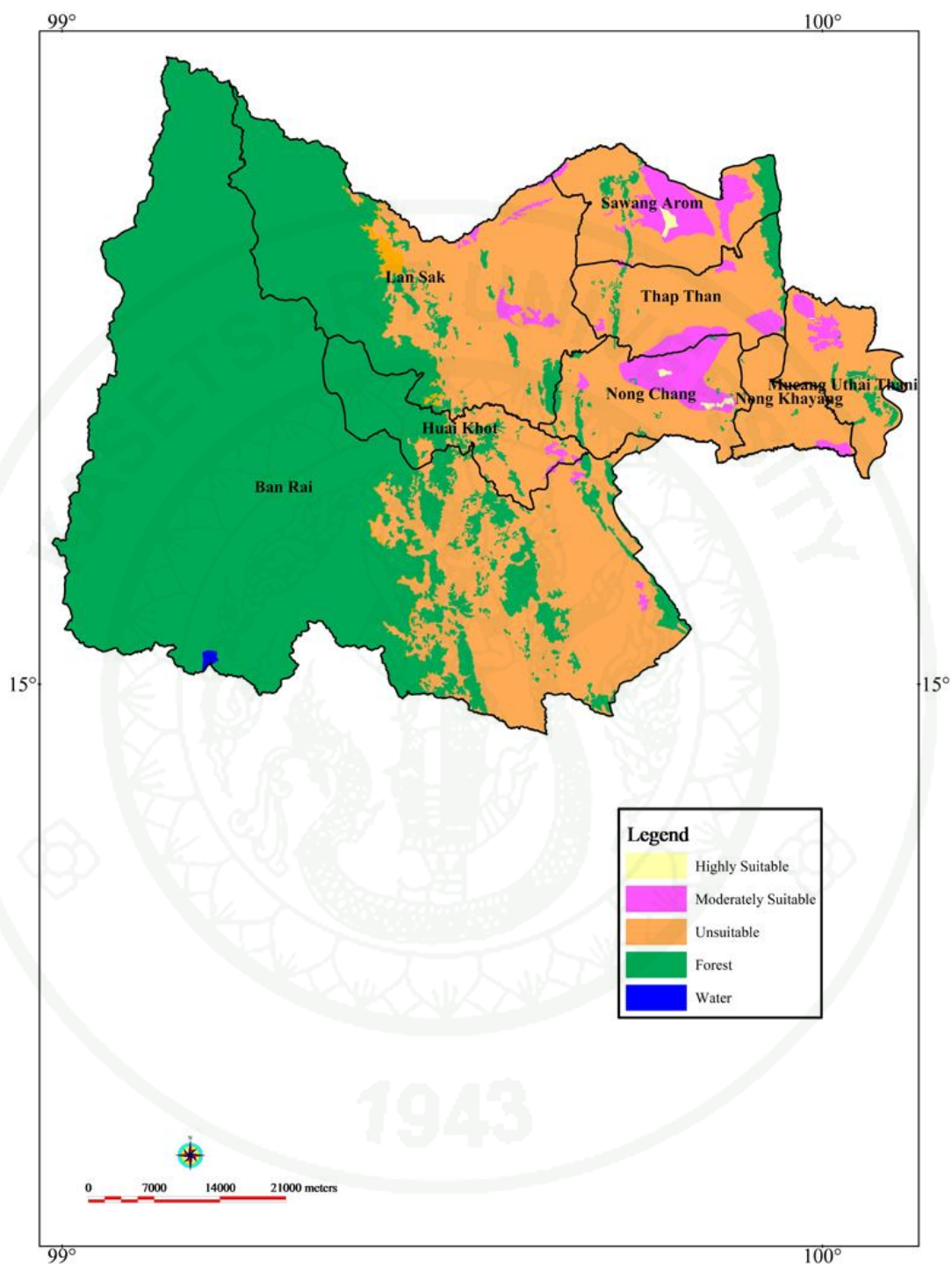
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Lan Sak	Thung Na Ngam				35,699	35,699
		Nam Rop		2,477	2,477	123,085	125,562
		Pradu Yuen		4,569	4,569	26,159	30,729
		Pa O				64,177	64,177
		Rabam				79,545	79,545
		Lan Sak		4,135	4,135	53,005	57,140
	Lan Sak Total			11,181	11,181	381,669	392,851
	Sawang Arom	Phai Khiao				52,971	52,971
		Bo Yang		658	658	17,184	17,842
		Phluang Song Nang		124	124	37,152	37,276
		Sawang Arom				15,701	15,701
		Nong Luang		11,551	11,551	22,650	34,201
	Sawang Arom Total			12,333	12,333	145,657	157,991

Appendix Table 29 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nong Khayang	Thung Phueng				10,162	10,162
		Lum Khao		3,808	3,808	13,679	17,487
	Nong Khayang Total			3,808	3,808	23,841	27,649
	Nong Chang	Khao Kwang Thong		2,835	2,835	32,985	35,820
		Khao Bang Kreak				18,349	18,349
		Thung Pho				18,577	18,577
		Thung Phong		9,020	9,020	1,589	10,609
		Ban Kao		296	296	5,999	6,295
		Nong Chang				8,826	8,826
		Nong Nang Nuan	1,034	2,178	3,213	19,598	22,811
		Nong Chang Total		1,034	14,329	15,364	105,924
	Huai Khot	Thong Lang				30,282	30,282
		Huai Khot				39,909	39,909

Appendix Table 29 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Huai Khot Total						70,191	70,191
Uthai Thani Total			1,034	65,513	66,547	1,394,018	1,460,565



Appendix Figure 19 Map of Land Suitability for Rambutan in Uthai Thani Province

Appendix Table 30 Zoning For Rambutan in Uthai Thani Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Uthai Thani		7,684	1	0	0
Ban Rai			53	887	0
Lan Sak		11,181	5	300	2
Huai Khot			53	25	0
Uthai Thani Total	0	18,866	112	445	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 30 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Uthai Thani						7,684			1
Ban Rai									53
Lan Sak					11,181			5	
Huai Khot									53
Uthai Thani Total	0	0	0	0	11,181	7,684	0	5	107

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

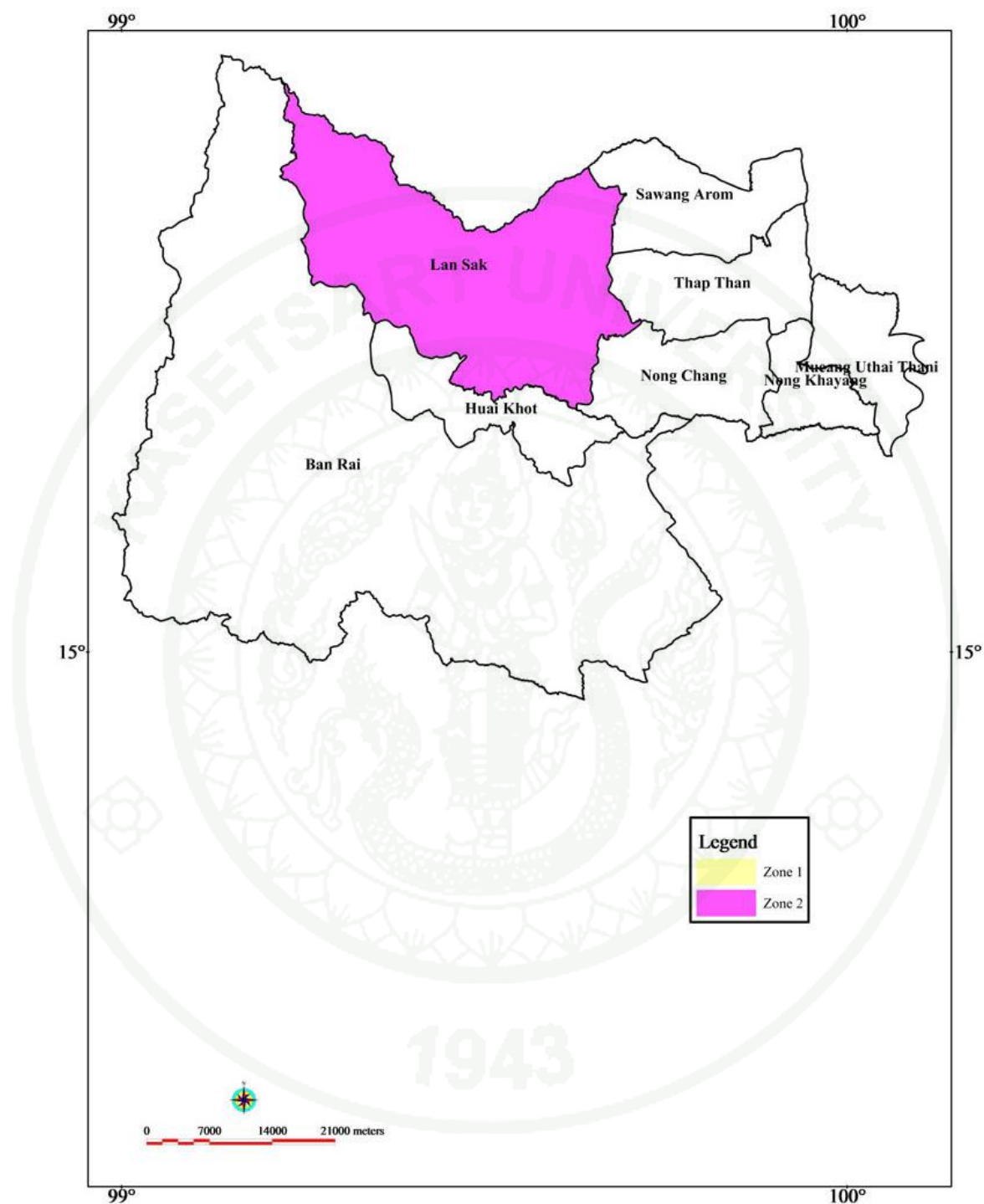
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 20 Map of Zoning for Rambutan in Uthai Thani Province

Appendix Table 31 Classification of Land Suitability for Rambutan in
Phetchabun Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	30,555	0.39
3. Unsuitable	3,624,811	45.78
4. Existing Forest	2,614,988	33.03
5. Deforestation	814,481	10.29
6. Water	445	0.01
7. Built-up areas	832,481	10.51
Total	7,917,760	100.00

Appendix Table 32 Land Suitability for Rambutan in Phetchabun Province by Amphoe, Tambon, Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phetchabun	Khao Kho	Khao Kho				6,060	6,060
		Nong Mae Na				930	930
	Khao Kho Total					6,990	6,990
	Mueang Phetchabun	Nai Mueang				782	782
		Chon Phrai				21,003	21,003
		Dong Mun Lek		217	217	27,550	27,767
		Tabo				14,324	14,324
		Tha Phon				40,693	40,693
		Na Ngua				25,382	25,382
		Na Pa				34,331	34,331
		Na Yom				48,318	48,318
		Ban Khok				47,307	47,307
		Ban Tok				35,258	35,258

Appendix Table 32 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasem Bundit Rajabhat	Mueang Phetchabun	Pa Lao				20,619	20,619	
		Rawing		4,314	4,314	31,923	36,237	
		Sadiang				20,781	20,781	
		Huai Yai		1,189	1,189	35,182	36,372	
		Huai Sakae				43,343	43,343	
		Mueang Phetchabun Total		5,720	5,720	446,798	452,518	
		Chon Daen	Chon Daen				32,563	32,563
			Dong Khui				48,810	48,810
			Takut Rai				54,541	54,541
			Tha Kham				51,828	51,828
	Ban Kluai					52,202	52,202	
	Phutthabat				84,376	84,376		
		Lat Khae				138,533	138,533	

Appendix Table 32 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit	Chon Daen	Sala Lai				38,691	38,691
		Chon Daen Total				501,545	501,545
	Nam Nao	Nam Nao				26,670	26,670
		Lak Dan				2,648	2,648
	Nam Nao Total				29,318	29,318	
	Bueng Sam Phan	Kanchu		3,323	3,323	65,649	68,972
		Sap Mai Daeng				48,751	48,751
		Sap Samo Thot				30,128	30,128
		Phaya Wang				14,025	14,025
		Wang Phikun				45,913	45,913
		Si Mongkhon				22,382	22,382
		Sa Kaeo				24,355	24,355
		Nong Chaeng				38,422	38,422

Appendix Table 32 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bueng Sam Phan Total			3,323	3,323	289,625	292,949
	Wang Pong	Sap Poep				33,414	33,414
		Thai Dong				34,666	34,666
		Wang Pong				580	580
		Wang San				40,550	40,550
		Wang Hin				55,591	55,591
	Wang Pong Total					164,802	164,802
	Wichian Buri	Khok Prong				48,446	48,446
		Sup Noi				86,310	86,310
		Sap Sombun				44,899	44,899
		Tha Rong				78,106	78,106
		Nam Ron				53,413	53,413
		Bo Rang				99,301	99,301

Appendix Table 32 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasai	Wichian Buri	Bueng Krachap				41,724	41,724
		Phu Toei				13,633	13,633
		Phu Kham				25,706	25,706
		Phu Nam Yot				161,705	161,705
		Yang Sao				104,847	104,847
		Sam Yaek				39,942	39,942
	Wichian Buri Total					798,031	798,031
	Si Thep	Khok Sa-at				25,977	25,977
		Khlong Krachang				54,846	54,846
		Na Sanun				112,551	112,551
		Pradu Ngam				12,776	12,776
		Si Thep				76,862	76,862
Sa Kruat					1,427	1,427	

Appendix Table 32 (Continued)

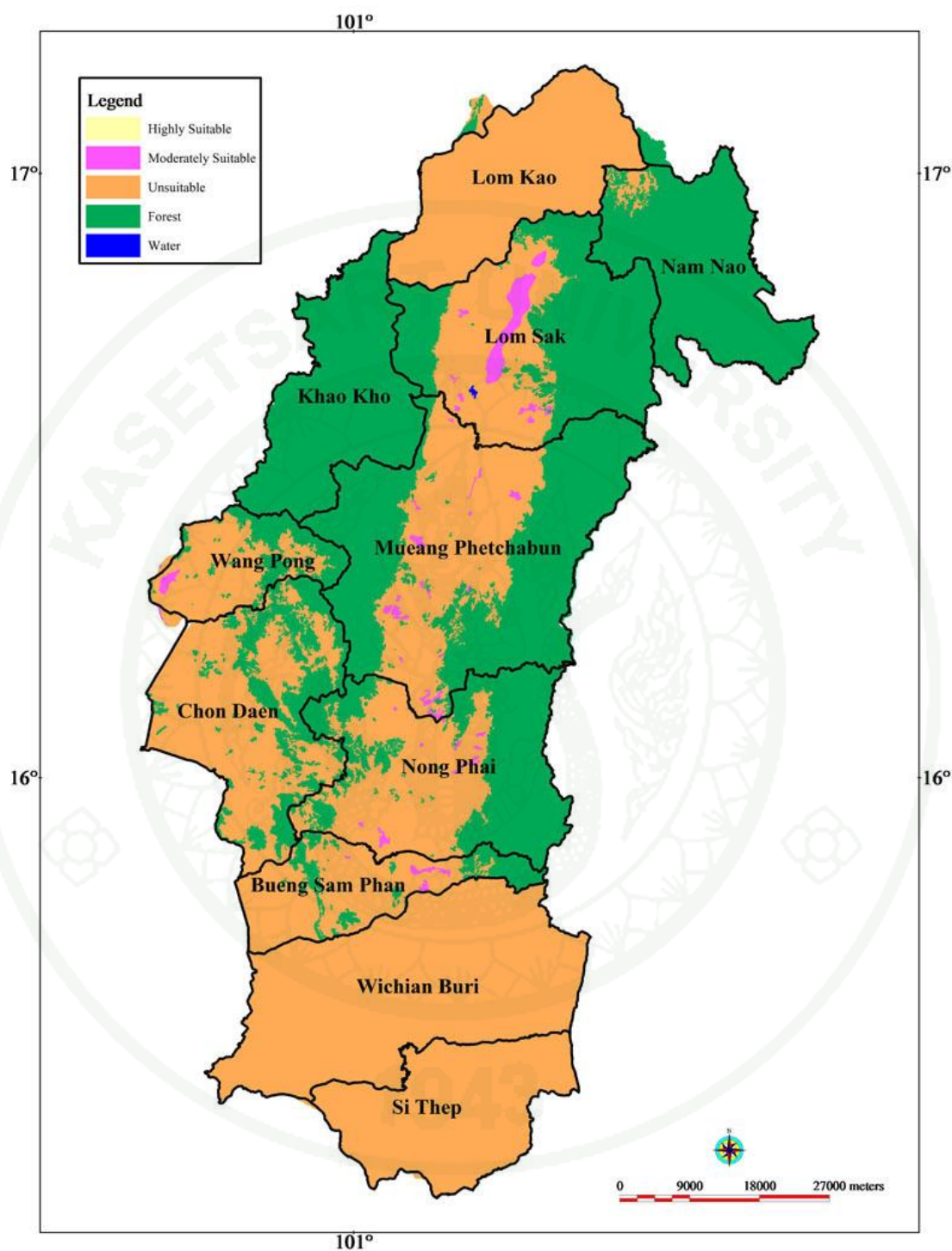
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit Rajabhat Nong Phai	Si Thep Total	Nong Yang Thoi				88,345	88,345
	Nong Phai	Phet Lakhon				99,503	99,503
		Kong Thun				36,473	36,473
		Tha Daeng				49,116	49,116
		Tha Duang				70,391	70,391
		Bo Thai				101,982	101,982
		Bua Watthana				46,791	46,791
		Ban Phot				36,086	36,086
		Yang Ngam				45,750	45,750
		Wang Bot				53,691	53,691
		Nong Phai				29,625	29,625
		Huai Pong				23,327	23,327

Appendix Table 32 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nong Phai Total					592,736	592,736
	Lom Kao	Tat Kloi				5,254	5,254
		Na Sam				58,381	58,381
		Wang Ban				19,038	19,038
		Sila				87,119	87,119
		Lom Kao				455	455
		Hin Hao				26,178	26,178
	Lom Kao Total					196,424	196,424
	Lom Sak	Chang Talut		300	300	52,277	52,576
		Tha Ibun				19,534	19,534
		Nam Chun				27,107	27,107
		Ban Sok		5,842	5,842		5,842
		Ban Rai		5,631	5,631		5,631

Appendix Table 32 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ban Klang				35,670	35,670
		Ban Wai		3,204	3,204		3,204
		Bung Namtao				11,987	11,987
		Pak Chong		3,872	3,872	48,013	51,884
		Lan Ba		596	596	22,532	23,128
		Sak Long		2,068	2,068	8,035	10,103
		Huai Rai				605	605
	Lom Sak Total			21,511	21,511	225,759	247,270
Phetchabun Total				30,555	30,555	3,624,811	3,655,366



Appendix Figure 21 Map of Land Suitability for Rambutan in Phetchabun Province

Appendix Table 33 Zoning For Rambutan in Phetchabun Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khao Kho			86	0	0
Mueang Phetchabun		5,720	43	605	2
Nam Nao			45	0	0
Wang Pong			36	0	0
Phetchabun Total	0	5,720	210	124	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 33 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Khao Kho									86
Mueang Phetchabun					5,720			43	
Nam Nao									45
Wang Pong									36
Phetchabun Total	0	0	0	0	5,720	0	0	43	167

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

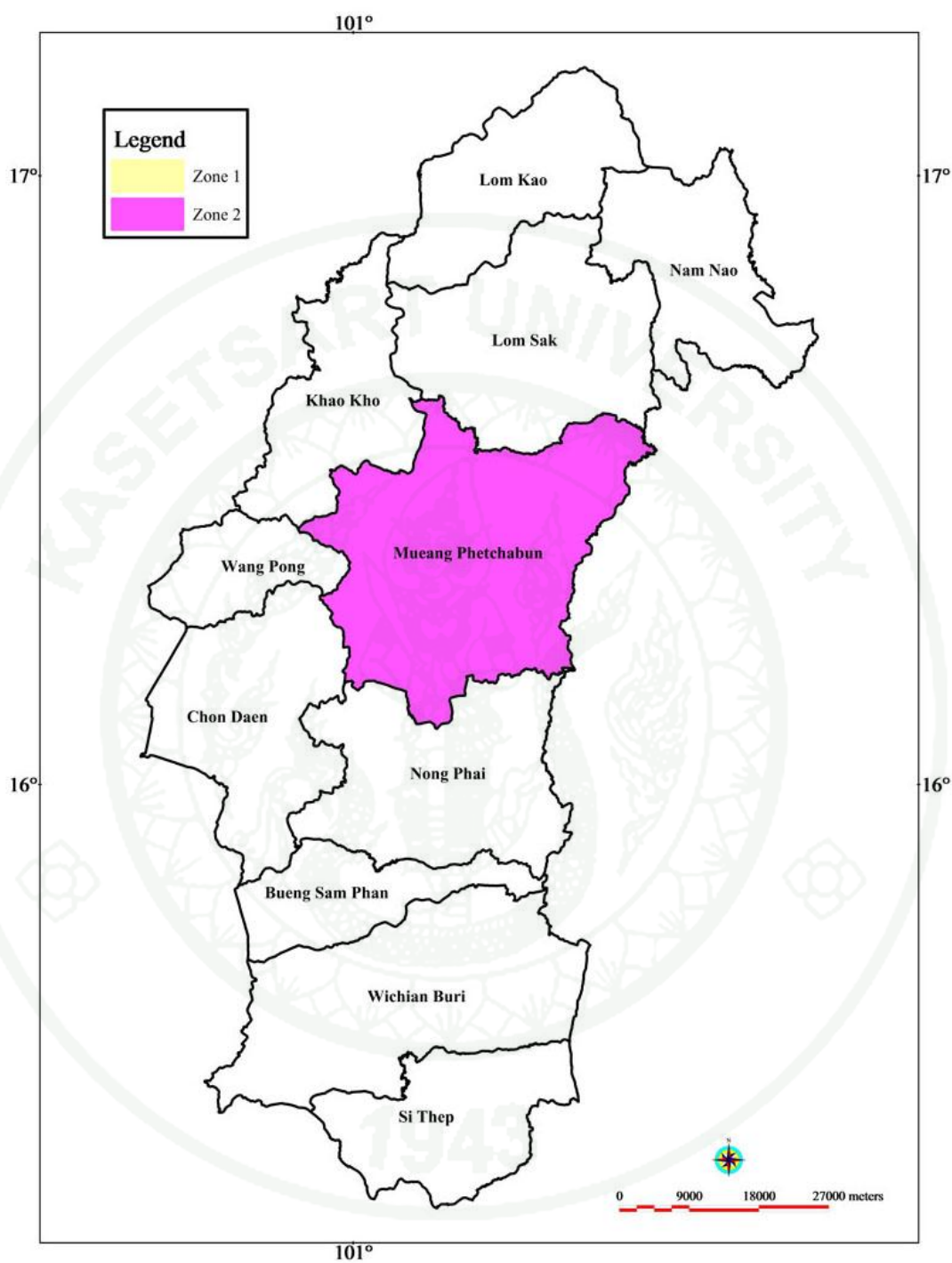
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 22 Map of Zoning for Rambutan in Phetchabun Province

Appendix Table 34 Classification of Land Suitability for Rambutan in
Loei Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	38,684	0.54
3. Unsuitable	2,778,424	38.91
4. Existing Forest	2,013,113	28.19
5. Deforestation	1,134,999	15.90
6. Water	22,162	0.31
7. Built-up areas	1,152,999	16.15
Total	7,140,382	100.00

Appendix Table 35 Land Suitability for Rambutan in Loei Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Loei	Chiang Khan	Khao Kaeo		22,014	22,014	5,436	27,449
		Chiang Khan		7,638	7,638	17,490	25,128
		Chom Si		6	6	2,205	2,211
		That		263	263	70,366	70,629
		Na Sao		1,978	1,978	46,687	48,665
		Bu Hom				36,510	36,510
		Pak Tom				54,577	54,577
		Hat Sai Khao		1,712	1,712		1,712
	Chiang Khan Total			33,611	33,611	233,270	266,881
	Mueang Loei	Mueang				13,143	13,143
		Siao				19,904	19,904
		Kok Du				65,035	65,035
		Kok Thong				19,383	19,383

Appendix Table 35 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mueang Loei		Kut Pong				1,353	1,353
		Na Khaem		2,335	2,335	41,975	44,310
		Na Pong				40,087	40,087
		Na Din Dam				80,276	80,276
		Na An				22,248	22,248
		Nam Suai				84,012	84,012
		Si Song Rak		539	539	27,437	27,976
		Mueang Loei Total		2,875	2,875	414,852	417,727
	Erawan	Erawan				51,097	51,097
		Sap Phaiwan				32,641	32,641
Erawan		Pha Sam Yot				37,334	37,334
		Pha In Plaeng				33,148	33,148
		Erawan Total				154,220	154,220

Appendix Table 35 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nong Hin	Puan Phu				716	716
		Nong Hin				45,820	45,820
	Nong Hin Total					46,536	46,536
	Dan Sai	Khok Ngam				48,849	48,849
		Pong				23,001	23,001
		Phon Sung				41,788	41,788
		Kok Sathon				70,222	70,222
		Dan Sai				22,748	22,748
		Na Di				27,077	27,077
		Na Ho				3,923	3,923
		Pak Man				23,539	23,539
		Wang Yao				1,645	1,645
		Ipum				3,610	3,610

Appendix Table 35 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Dan Sai Total					266,400	266,400
	Tha Li	Tha Li				24,686	24,686
		Nam Khaem				52,283	52,283
		Nam Thun				27,812	27,812
		Nong Phue				34,562	34,562
		A Hi				30,071	30,071
	Tha Li Total					169,414	169,414
	Na Haeo	Lao Ko Hok				25,410	25,410
		Saeng Pha				4,881	4,881
		Na Haeo				1,075	1,075
		Na Phueng				14,641	14,641
	Na Haeo Total					46,006	46,006
	Na Duang	Tha Sawan				44,549	44,549

Appendix Table 35 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Na Duang				61,134	61,134
		Na Dok Kham				83,514	83,514
	Na Duang Total					189,196	189,196
	Pak Chom	Chiang Klom				75,732	75,732
		Pak Chom				59,347	59,347
		Huai Bo Suen				46,252	46,252
		Huai Phichai				46,554	46,554
		Hat Khamphi				7,682	7,682
	Pak Chom Total					235,568	235,568
	Pha Khao	Non Po Daeng				625	625
		Non Pa Sang				35,348	35,348
		Tha Chang Khlong				35,049	35,049
		Ban Phoem				33,030	33,030

Appendix Table 35 (Continued)

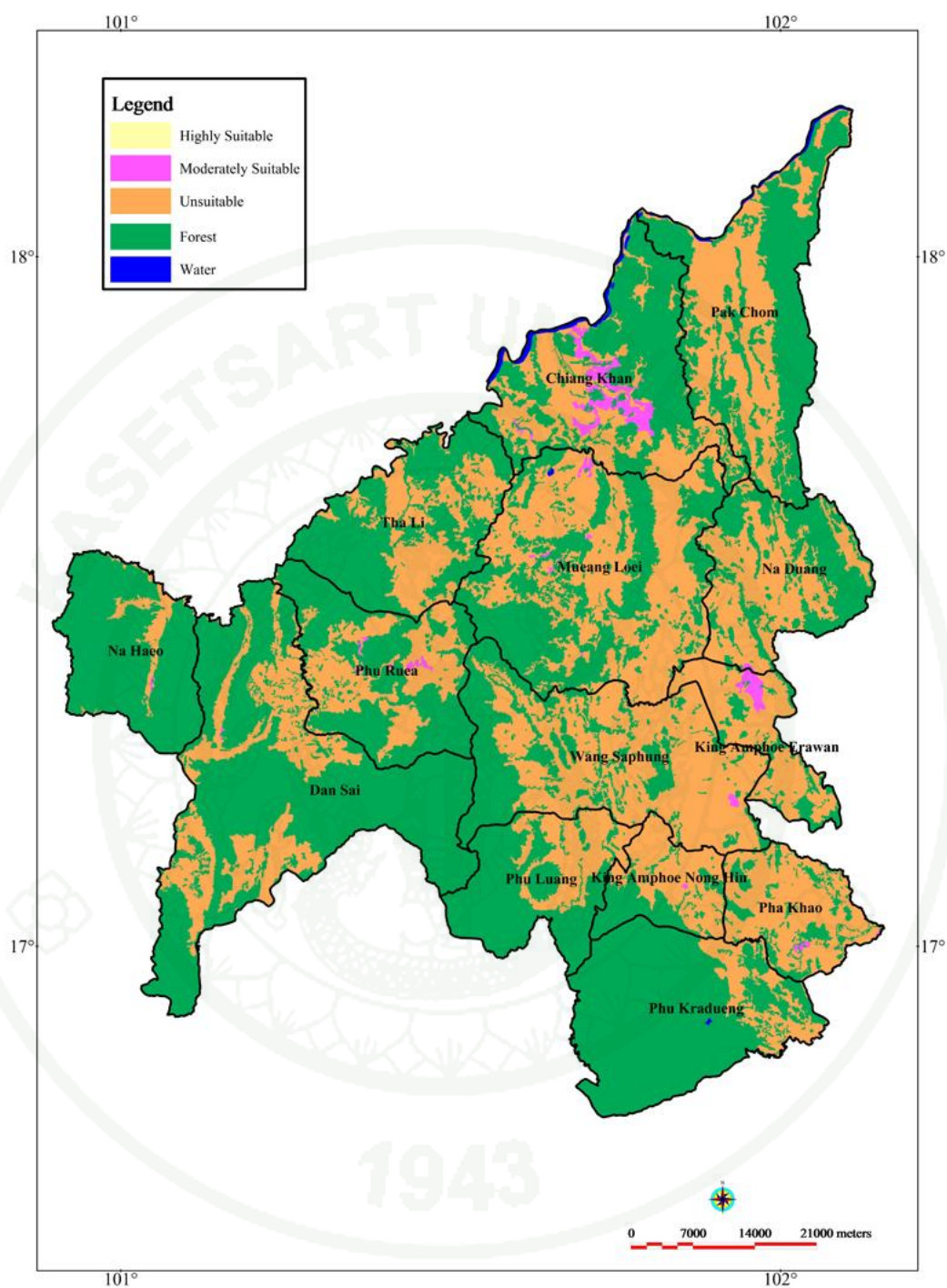
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Pha Khao				36,753	36,753
	Pha Khao Total					140,805	140,805
	Phu Ruea	Tha Sala				24,921	24,921
		Pla Ba				58,937	58,937
		Rong Chik				39,768	39,768
		Lat Khang				15,975	15,975
		San Tom				36,515	36,515
		Nong Bua		2,199	2,199	24,339	26,537
	Phu Ruea Total			2,199	2,199	200,455	202,654
	Phu Kradueng	Pha Nok Khao				42,312	42,312
		Phu Kradueng				1,218	1,218
		Si Than				44,763	44,763
		Huai Som				18,998	18,998

Appendix Table 35 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
						Unsuitable	Whole total
			Highly	Moderately	Total		
	Phu Kradueng Total					107,291	107,291
	Phu Luang	Loei Wang Sai				25,697	25,697
		Kaeng Si Phum				24,039	24,039
		Phu Ho				32,588	32,588
		Nong Khan				11,159	11,159
		Huai Sisiat				28,800	28,800
	Phu Luang Total					122,284	122,284
	Wang Saphung	Khao Luang				40,599	40,599
		Khok Khamin				62,584	62,584
		Sai Khao				71,139	71,139
		Pak Puan				28,010	28,010
		Pha Noi				47,334	47,334
		Pha Bing				25,216	25,216

Appendix Table 35 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Wang Saphung	Wang Saphung				32,201	32,201
		Si Songkham				28,345	28,345
		Nong Ngio				34,077	34,077
		Nong Ya Plong				82,620	82,620
		Wang Saphung Total				452,126	452,126
Loei Total				38,684	38,684	2,778,424	2,817,108



Appendix Figure 23 Map of Land Suitability for Rambutan in Loei Province

Appendix Table 36 Zoning For Rambutan in Loei Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Loei		2,875	666	98	2
Erawan			26	0	0
Dan Sai			114	79	0
Tha Li			38	45	0
Na Haeo			47	977	0
Phu Ruea		2,199	7	0	0
Wang Saphung			189	31	0
Loei Total	0	5,073	1,087	118	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 36 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Loei					2,875			666	
Erawan									26
Dan Sai									114
Tha Li									38
Na Haeo									47
Phu Ruea						2,199			7
Wang Saphung									189
Loei Total	0	0	0	0	2,875	2,199	0	666	421

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

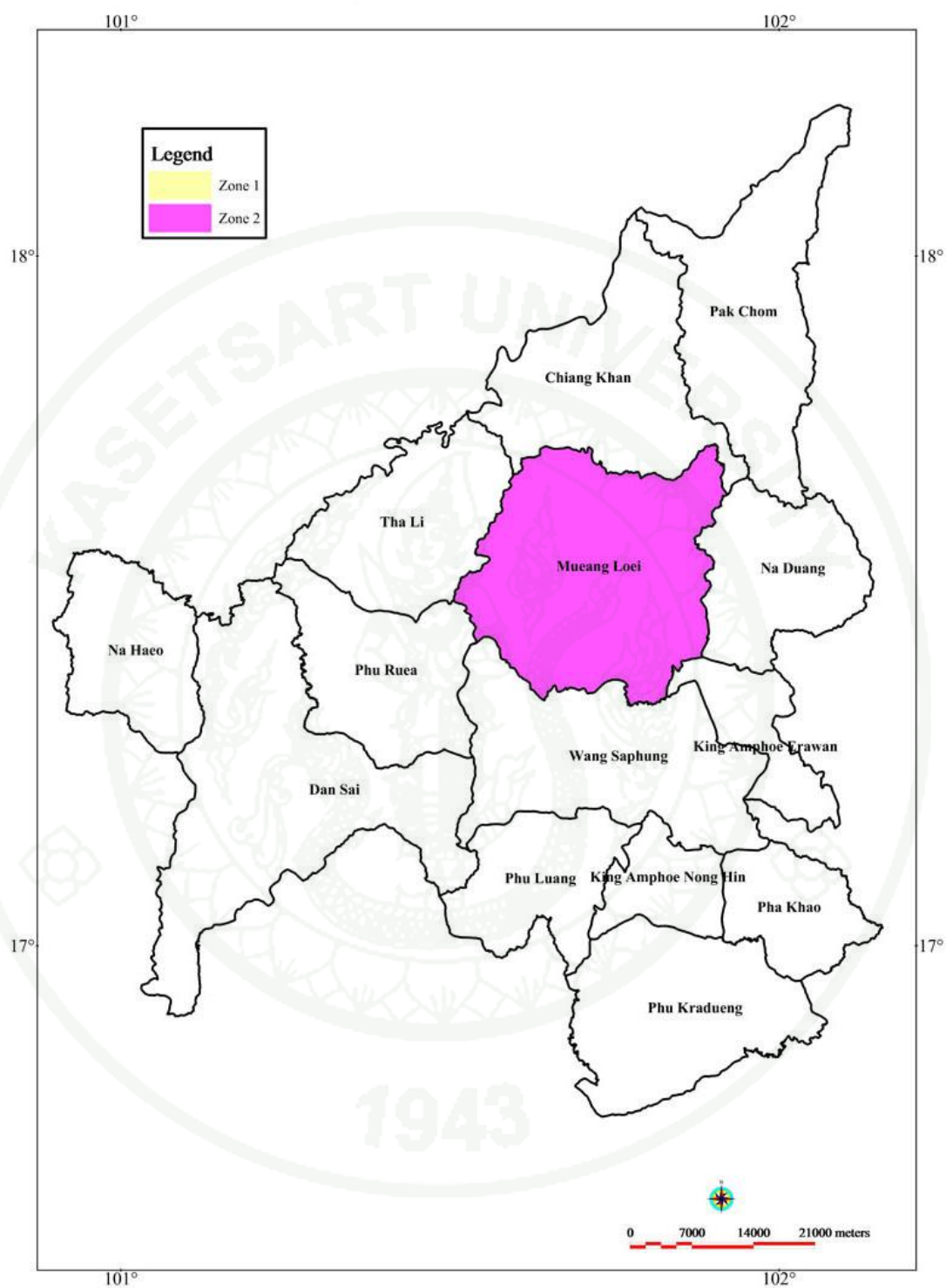
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 24 Map of Zoning for Rambutan in Loei Province

Appendix Table 37 Classification of Land Suitability for Rambutan in Udon
Thani Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	14,392	0.20
2. Moderately Suitable	422,915	5.77
3. Unsuitable	3,482,834	47.51
4. Existing Forest	525,009	7.16
5. Deforestation	1,408,534	19.21
6. Water	51,220	0.70
7. Built-up areas	1,426,534	19.46
Total	7,331,439	100.00

Appendix Table 38 Land Suitability for Rambutan in Udon Thani Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Udon Thani	Phen	Chiang Wang		1,106	1,106	44,082	45,187
		Tao Hai				91	91
		Phen				36,328	36,328
		Khok Klang				26,841	26,841
		Chom Si				30,007	30,007
		Na Bua		8,228	8,228	7,522	15,750
		Ban Lao		5,078	5,078	23,606	28,684
		Ban That		7,890	7,890	30,442	38,333
		Sang Paen		1,488	1,488	13,347	14,834
		Sum Sao				21,220	21,220
	Phen Total		23,790	23,790	233,486	257,276	
	Mueang Udon Thani	Chiang Phin				24,942	24,942
Chiang Yuen			14,957	14,957	13,378	28,334	

Appendix Table 38 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Khok Sa-at				18,241	18,241
		Non Sung		16,264	16,264	3,347	19,611
		Kut Sa		1,660	1,660	11,271	12,931
		Na Kwang		7,663	7,663	13,499	21,162
		Na Kha				38,975	38,975
		Nikhom Songkhro				23,360	23,360
		Ban Lueam		8,744	8,744		8,744
		Ban Khao				36,039	36,039
		Ban Chan		803	803	15,858	16,661
		Sam Phrao		4,756	4,756	42,649	47,405
		Nong Hai				27,233	27,233
		Nong Khon Kwang		6,698	6,698	464	7,162
		Nong Na Kham				41,885	41,885

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mueang Udon Thani	Nong Bua		1,308	1,308	13	1,321
		Mu Mon		2,459	2,459		2,459
		Total		65,312	65,312	311,155	376,467
	Non Sa-at	Khok Klang		3,620	3,620	34,152	37,772
		Non Sa-at				12,036	12,036
		Pho Si Samran		10,760	10,760	18,361	29,121
		Thom Na Ngam		8,485	8,485	43,278	51,762
		Bung Kaeo		18,405	18,405	15,277	33,681
		Nong Kung Si				29,191	29,191
		Non Sa-at Total		41,269	41,269	152,295	193,564
	Chai Wan	Phon Sung		20,232	20,232	37,327	57,560
		Chai Wan				4,762	4,762
		Kham Lo		2,003	2,003	65,044	67,047

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Chai Wan	Total		22,235	22,235	107,133	129,368
	Ku Kaeo	Non Thong In		1,766	1,766	27,446	29,213
		Kho Yai				4,068	4,068
		Khon Sai		949	949	16,200	17,149
		Ban Chuet				30,205	30,205
	Ku Kaeo	Total		2,716	2,716	77,919	80,634
	Prachak Sinlapakhom	Na Muang		3,748	3,748	29,060	32,808
		Huai Sam Phat		6,423	6,423	3,692	10,116
	Prachak Sinlapakhom	Total		10,171	10,171	32,753	42,924
	Kut Chap	Chiang Pheng		19,263	19,263		19,263
		Mueang Phia	6,602	8,064	14,666	3,844	18,510
		Kut Chap	1,065	6,832	7,897	3,176	11,073
		Khon Yung		1,431	1,431	40,701	42,132

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kut Chap Total Kumphawapi		Tan Lian		660	660	38,958	39,618
		Pa Kho		16,131	16,131	18,521	34,652
		Sang Ko	872	3,241	4,113	26,769	30,882
			8,539	55,621	64,160	131,970	196,130
		Chiang Wae		4,718	4,718	14,332	19,049
		Wiang Kham		281	281	48,567	48,848
		Soephloe		17,851	17,851	22,047	39,898
		Chaelae		1,809	1,809	14,495	16,303
		Tum Tai		7,801	7,801	6,380	14,181
		Tha Li		6,684	6,684	22,947	29,631
		Pha Suk		6,861	6,861	1,680	8,541
		Phan Don		21,067	21,067	7,560	28,627
		Nong Wa		9,514	9,514	10,227	19,741

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Huai Koeng		218	218	3,318	3,535
	Kumphawapi Total			76,803	76,803	151,552	228,355
	Thung Fon	Thung Yai				22,779	22,779
		Thung Fon		7,135	7,135	52,023	59,158
	Thung Fon Total			7,135	7,135	74,802	81,937
	Na Yung	Non Thong		14	14	59,943	59,958
		Na Khae				30,376	30,376
		Na Yung				54,048	54,048
		Ban Kong				31,637	31,637
	Na Yung Total			14	14	176,004	176,018
	Nam Som	Na Ngua		31	31	46,709	46,740
		Nam Som				68,690	68,690
		Ban Yuak				44,367	44,367

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat		Si Samran				21,332	21,332
		Samakkhi				20,854	20,854
		Nong Waeng				18,810	18,810
	Nam Som Total			31	31	220,761	220,792
	Ban Dung	Phon Sung				45,463	45,463
		Dong Yen		1,934	1,934	7,678	9,612
		Thon Na Lap	586		586	40,828	41,414
		Na Mai	424	268	692	83,403	84,095
		Na Kham				32,336	32,336
		Ban Chan				54,929	54,929
		Ban Chai				34,706	34,706
		Ban Dung	1,050	2,181	3,231	28,898	32,129
		Ban Tat				16,432	16,432

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Ban Dung	Ban Muang		250	250	22,644	22,894
		Wang Thong	136		136	24,516	24,651
		Si Suttho				13,763	13,763
		Om Ko		15	15	4,058	4,073
	Ban Dung Total		2,196	4,648	6,844	409,654	416,498
	Ban Phue	Khuea Nam		3,538	3,538	35,359	38,897
		Mueang Phan		1,918	1,918	34,806	36,724
		Non Thong				70,201	70,201
		Klang Yai				37,965	37,965
		Khao San				16,112	16,112
		Kham Duang		1,594	1,594	21,482	23,075
		Kham Bong		4,437	4,437	21,843	26,280
		Champa Mong		1,056	1,056	33,496	34,552

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ban Phue		4,139	4,139	14,753	18,892
		Nong Waeng		5	5	22,280	22,285
		Nong Hua Khu		127	127	13,988	14,115
		Hai Sok		5,518	5,518	41,891	47,409
		Ban Phue Total		22,330	22,330	364,176	386,507
	Phibun Rak	Don Kloi		87	87	6	93
		Na Sai		880	880	35,848	36,728
	Phibun Rak Total		967	967	35,854	36,821	
	Wang Sam mo	Kham Khok Sung				28,394	28,394
		Ba Yao		5,088	5,088	84,912	90,001
		Phasuk				63,226	63,226
		Wang Sam Mo		2,958	2,958	44,157	47,115
		Nong Kung Thap Ma		2,591	2,591	41,668	44,259

Appendix Table 38 (Continued)

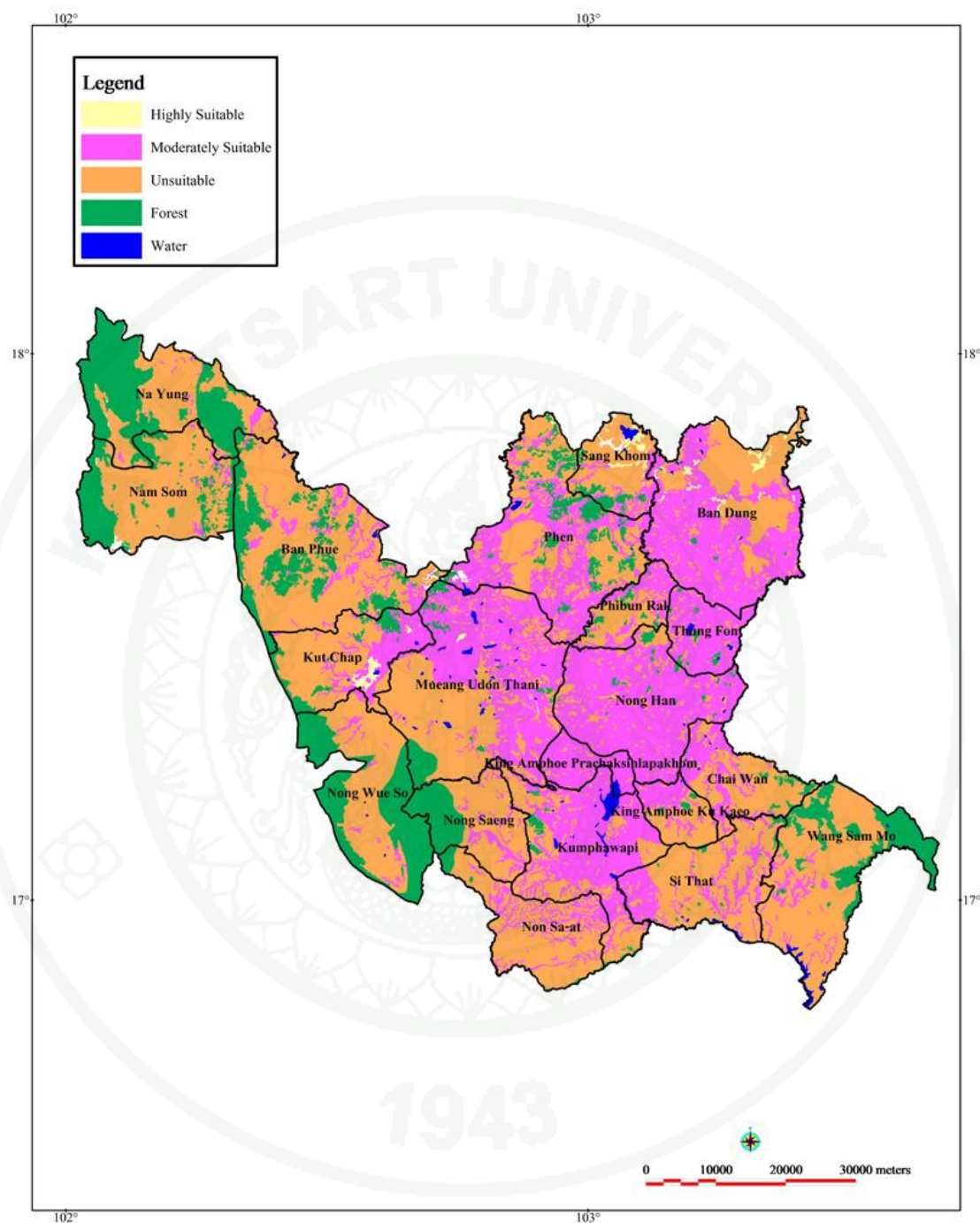
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Wang Sam mo	Nong Ya Sai		1,195	1,195	32,226	33,421
	Si That	Champi				53,629	53,629
		Tat Thong		278	278	31,507	31,786
		Na Yung		661	661	19,036	19,697
		Ban Prong		9,790	9,790	6,841	16,631
		Si That		4,517	4,517	13,206	17,722
		Hua Na Kham		7,963	7,963	61,032	68,995
	Si That Total		23,209	23,209	185,252	208,460	
	Sang Khom	Ban Khok		1,756	1,756	17,468	19,224
		Ban Hin Ngom				8,488	8,488
		Sang Khom	3,656		3,656	17,488	21,144
	Sang Khom Total		3,656	1,756	5,412	43,444	48,856

Appendix Table 38 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nong Saeng	Saeng Sawang		8,111	8,111	28,434	36,545
		Thap Kung		1,197	1,197	35,464	36,661
		Na Di		7,536	7,536	23,157	30,694
		Nong Saeng		2,547	2,547	16,140	18,687
	Nong Saeng Total			19,392	19,392	103,195	122,587
	Nong Wua So	Non Wai		476	476	15,257	15,733
		Nam Phon		4,309	4,309	26,341	30,650
		Nong Wua So		400	400	27,046	27,446
		Nong O				26,721	26,721
		Up Mung				32,011	32,011
	Nong Wua So Total			5,185	5,185	127,376	132,561
	Nong Han	Phon Ngam		15,070	15,070	10,222	25,292
		Doi Hai Sok		3,792	3,792	18,617	22,409

Appendix Table 38 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Ban Chiang				18,825	18,825
		Ban Ya				279	279
		Phak Top				28,528	28,528
		Phang Ngu				45,342	45,342
		Soi Phrao				15,298	15,298
		Sabaeng		4,933	4,933	26,148	31,081
		Nong Phai				43,497	43,497
		Nong Sa Pla		4,705	4,705	6,596	11,300
		Nong Han				36,119	36,119
	Nong Han Total			28,499	28,499	249,471	277,971
Udon Thani	Total		14,392	422,915	437,307	3,482,834	3,920,142



Appendix Figure 25 Map of Land Suitability for Rambutan in Udon Thani Province

Appendix Table 39 Zoning For Rambutan in Udon Thani Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Na Yung		14	75	1,677	2
Nam Som		31	30	733	2
Sang Khom	3,656	1,756	12	0	2
Udon Thani Total	3,656	1,801	117	127	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 39 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Na Yung					14			75	
Nam Som					31			30	
Sang Khom			3,656			1,756			12
Udon Thani Total	0	0	3,656	0	45	1,756	0	105	12

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

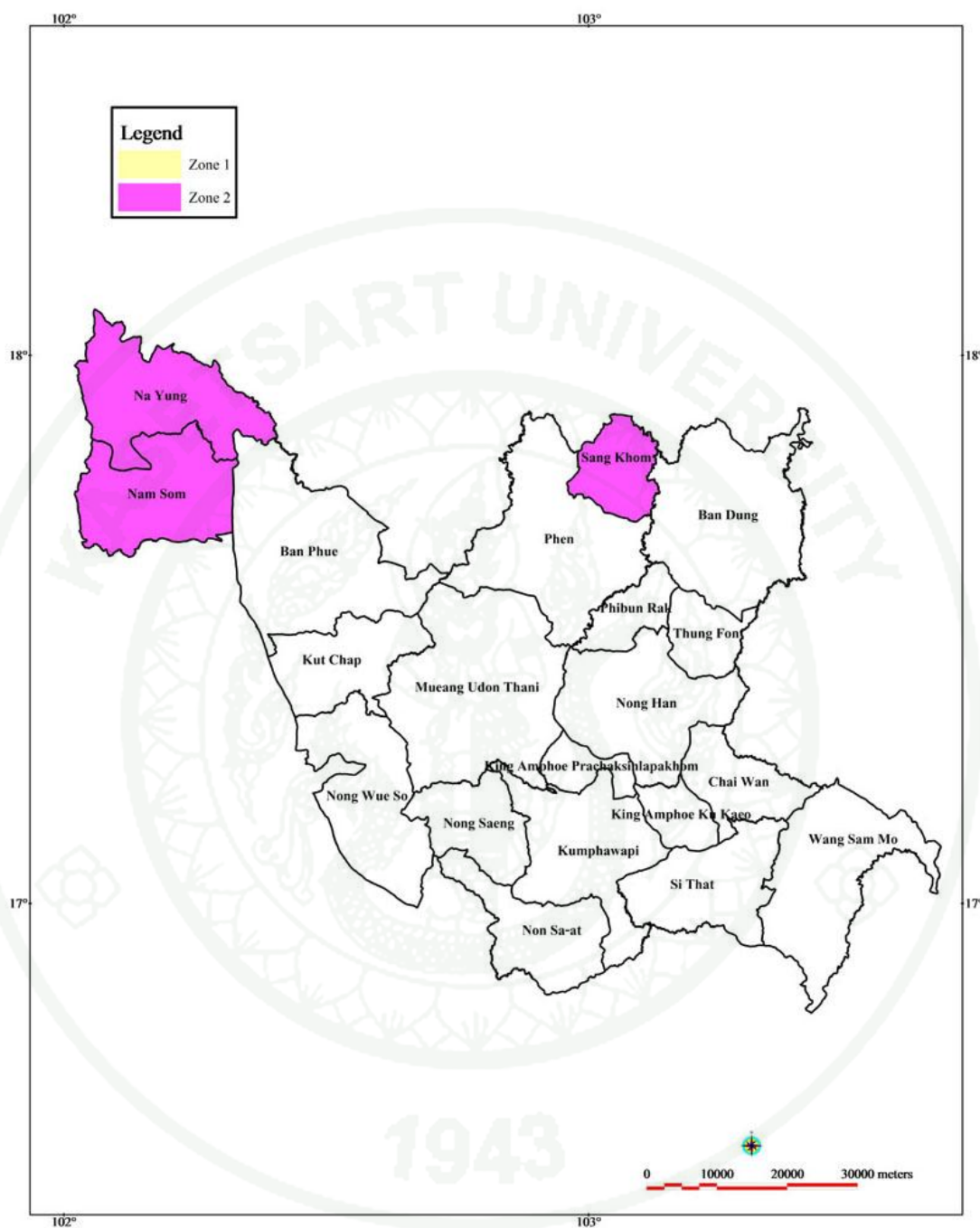
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 26 Map of Zoning for Rambutan in Udon Thani Province

Appendix Table 40 Classification of Land Suitability for Rambutan in Nong Khai Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	11,098	0.59
2. Moderately Suitable	145,510	7.69
3. Unsuitable	1,002,617	52.99
4. Existing Forest	84,902	4.49
5. Exhausted Forest	283,595	14.99
6. Water	22,731	1.20
7. Other	341,596	18.05
Total	1,892,050	100.00

Appendix Table 41 Land Suitability for Rambutan in Nong Khai Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nong Khai	Mueang Nong Khai	Mueang Mi				1,349	1,349
		Wiang Khuk		60	60	963	1,023
		Pho Chai		969	969	13,889	14,858
		Kuan Wan				3,025	3,025
		Khai Bok Wan		5,969	5,969	14,741	20,710
		Ban Duea				19,761	19,761
		Pakho		127	127	443	571
		Phra That Bang Phuan		5,094	5,094	32,612	37,706
		Wat That				9,186	9,186
		Song Hong		5,893	5,893	13,176	19,069
		Si Kai	822	4,943	5,765	1,771	7,536
		Hat Kham	1,001	9,759	10,760	3,560	14,320
		Hin Ngom		2,001	2,001	1,871	3,872

Appendix Table 41 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mueang Nong Khai Total		1,823	34,816	36,639	116,346	152,985
	Phon Phisai	Soem		6,312	6,312	20,384	26,697
		Lao Tang Kham				22,541	22,541
		Kut Bong	1,424		1,424	22,273	23,697
		Chumphon	474		474	44,286	44,760
		Chum Chang	444		444	41,940	42,384
		Thung Luang	523		523	21,566	22,089
		Na Nang				36,110	36,110
		Ban Pho	2,685		2,685	25,300	27,985
		Ban Phue		6,078	6,078	22,738	28,817
		Wat Luang				25,856	25,856
	Phon Phisai Total		5,551	12,391	17,941	282,994	300,936
	Fao Rai	Na Di	1,161		1,161	28,810	29,971

Appendix Table 41 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wang Luang				58,233	58,233
		Nong Luang		7,582	7,582	38,717	46,299
		Udom Phon	625		625	48,930	49,556
	Fao Rai	Total	1,787	7,582	9,368	174,691	184,059
	Pho Tak	Pho Tak		6,768	6,768	890	7,658
		Phon Thong		8,575	8,575	5,910	14,485
		Dan Si Suk		8,010	8,010	18,605	26,615
	Pho Tak	Total		23,353	23,353	25,405	48,758
	Rattana-wapi	Phon Phaeng				3,659	3,659
		Na Thap Hai				36,583	36,583
		Ban Ton				9,297	9,297
		Phra Bat Na Sing	894		894	57,733	58,627
		Rattana-wapi	1,043		1,043	27,211	28,254

Appendix Table 41 (Continued)

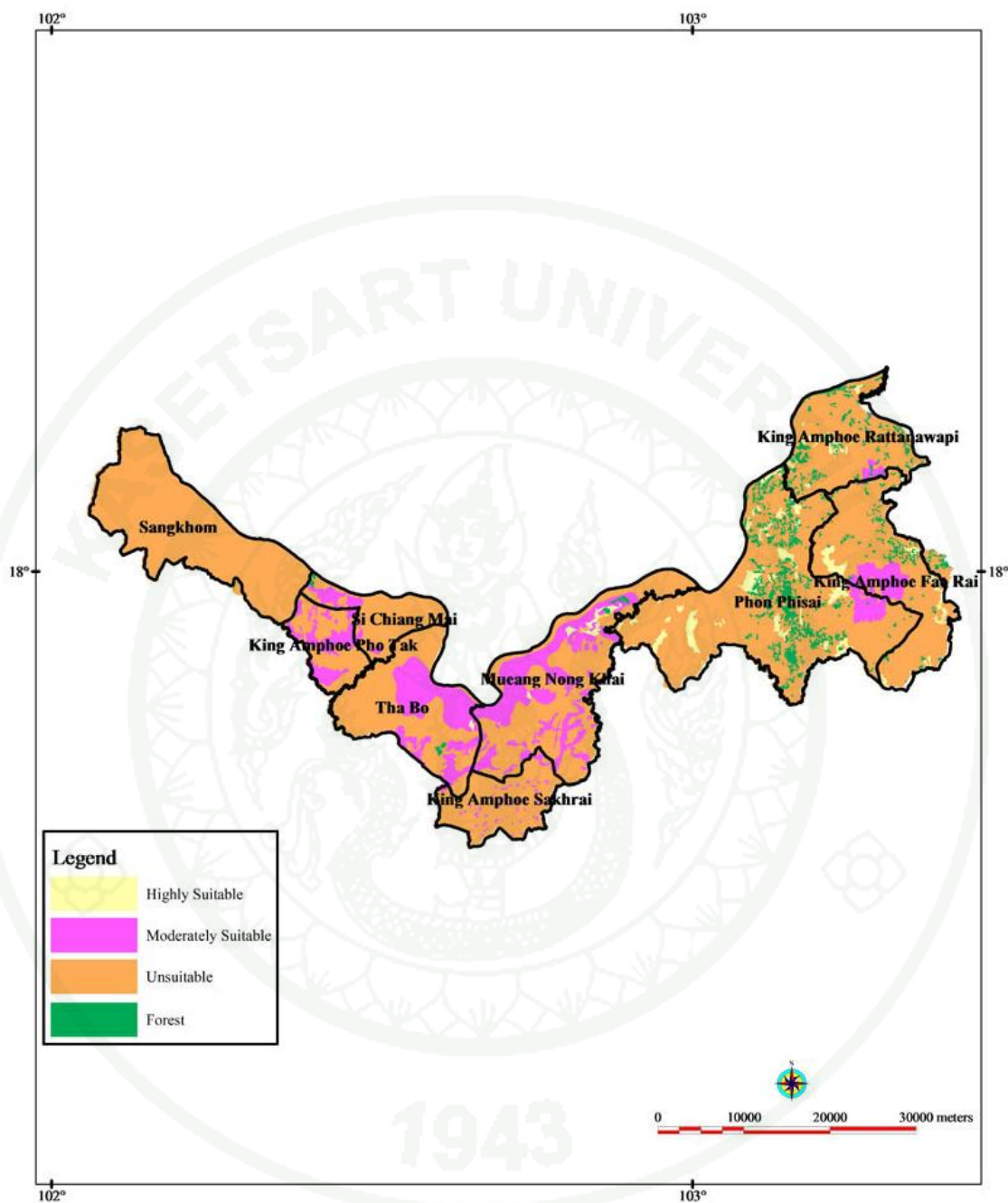
Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Rattana-wapi	Total	1,937		1,937	134,483	136,420
	Sakhrai	Ban Fang		20,249	20,249	28,294	48,544
		Sa Khrai				8,508	8,508
	Sakhrai	Total		20,249	20,249	36,803	57,052
	Tha Bo	Kong Ngang				8,168	8,168
		Tha Bo		14,749	14,749		14,749
		Nam Mong		831	831	8,280	9,111
		Ban Duea				19,121	19,121
		Ban Wan		4,425	4,425	10,043	14,467
		Nong Nang		7,531	7,531	6,972	14,503
	Tha Bo	Total		27,535	27,535	52,585	80,120
	Si Chiang Mai	Ban Mo		2,602	2,602	8,560	11,163
		Phra Phutthabat		6,333	6,333	5,978	12,310

Appendix Table 41 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phan Phrao				7,762	7,762
		Nong Pla Pak				34,786	34,786
	Si Chiang Mai Total			8,935	8,935	57,087	66,022
	Sangkhom	Kaeng Kai		5,782	5,782	3,760	9,542
		Na Ngio				34,733	34,733
		Ban Muang				29,813	29,813
		Pha Tang		3,676	3,676	40,386	44,062
		Sangkhom		1,192	1,192	13,531	14,723
	Sangkhom Total			10,650	10,650	122,224	132,874
Nong Khai Total			22,195	291,020	313,215	2,005,235	2,318,450



Appendix Figure 27 Map of Land Suitability for Rambutan in Nong Khai Province

Appendix Table 42 Zoning For Rambutan in Nong Khai Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Phon Phisai	5,551	12,391	41	8,305	1
Fao Rai	1,787	7,582	25	0	0
Pho Tak		23,353	49	673	2
Rattana-wapi	1,937		94	56	0
Sakhray		20,249	100	0	2
Tha Bo		27,535	5	0	2
Si Chiang Mai		8,935	15	2,567	2
Sangkham		10,650	378	523	2
Nong Khai Total	9,275	110,694	707	870	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 42 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Phon Phisai	5,551			12,391			41		
Fao Rai			1,787			7,582			25
Pho Tak					23,353			49	
Rattana-wapi			1,937						94
Sakhray					20,249			100	
Tha Bo					27,535			5	
Si Chiang Mai					8,935			15	
Sangkhom					10,650			378	
Nong Khai Total	5,551	0	3,724	12,391	90,722	7,582	41	547	119

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

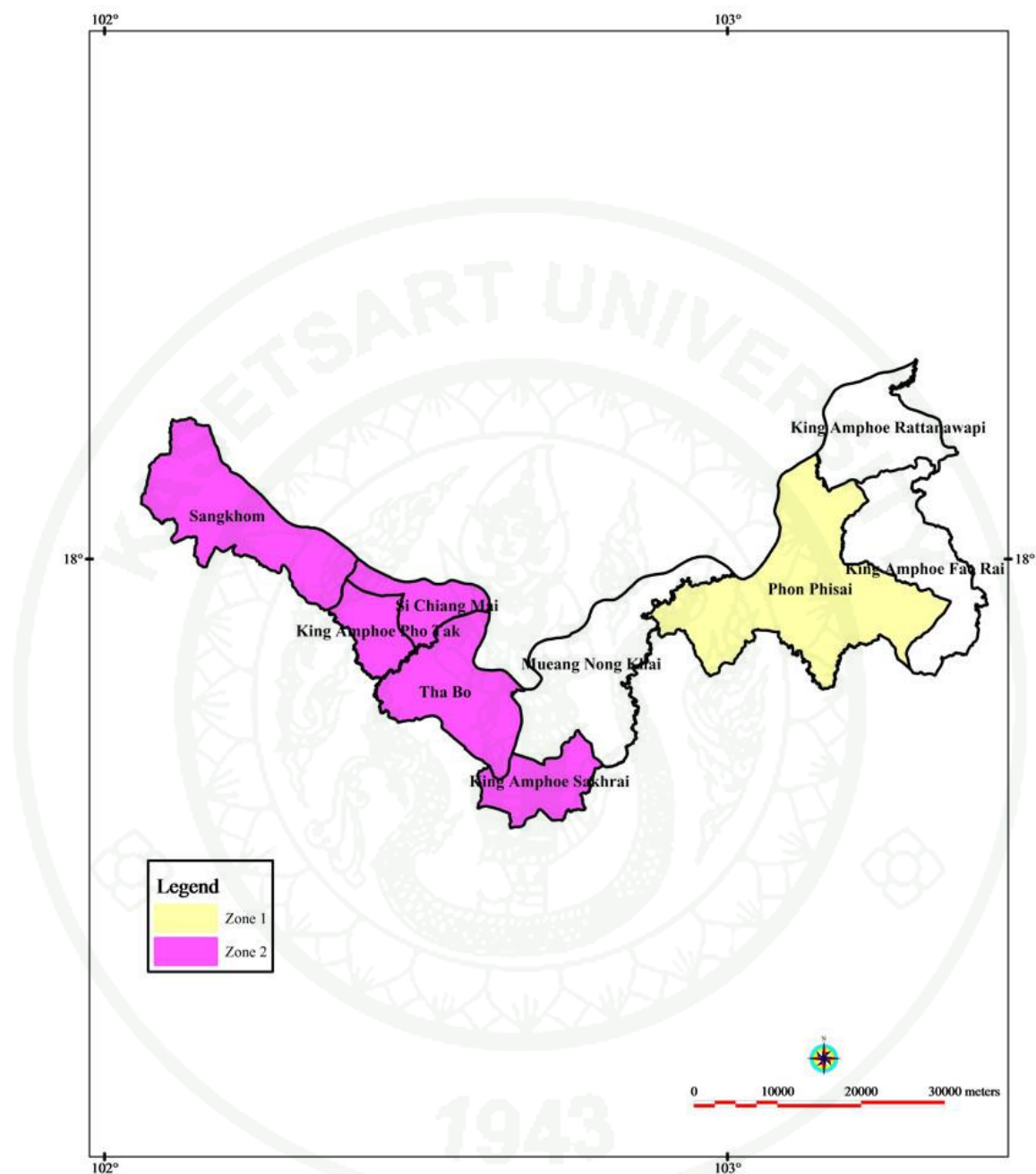
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 28 Map of Zoning for Rambutan in Nong Khai Province

Appendix Table 43 Classification of Land Suitability for Rambutan in Bueng Kan Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	23,413	0.87
2. Moderately Suitable	178,042	6.62
3. Unsuitable	1,348,069	50.10
4. Existing Forest	117,663	4.37
5. Deforestation	510,892	18.99
6. Water	41,655	1.55
7. Built-up areas	470,892	17.50
Total	2,690,625	100.00

Appendix Table 44 Land Suitability for Rambutan in Bueng Kan Province by Amphoe, Tambon, Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Bueng Kan	So Phisai	So		498	498	31,753	32,251
		Kham Kaeo	541	784	1,325	30,362	31,687
		Tham Charoen		832	832	16,303	17,135
		Bua Tum				26,837	26,837
		Si Chomphu				28,299	28,299
		Nong Phan Tha				15,103	15,103
	So Phisai Total		541	2,114	2,655	148,658	151,313
	Seka	Seka				34,605	34,605
		Sang	1,160	1,481	2,641	25,521	28,162
		Tha Kok Daeng	546	1,756	2,302	18,237	20,539
		Tha Sa-at				20,487	20,487
		Ban Tong				14,933	14,933
Pong Hai		295		295	15,693	15,988	

Appendix Table 44 (Continued)

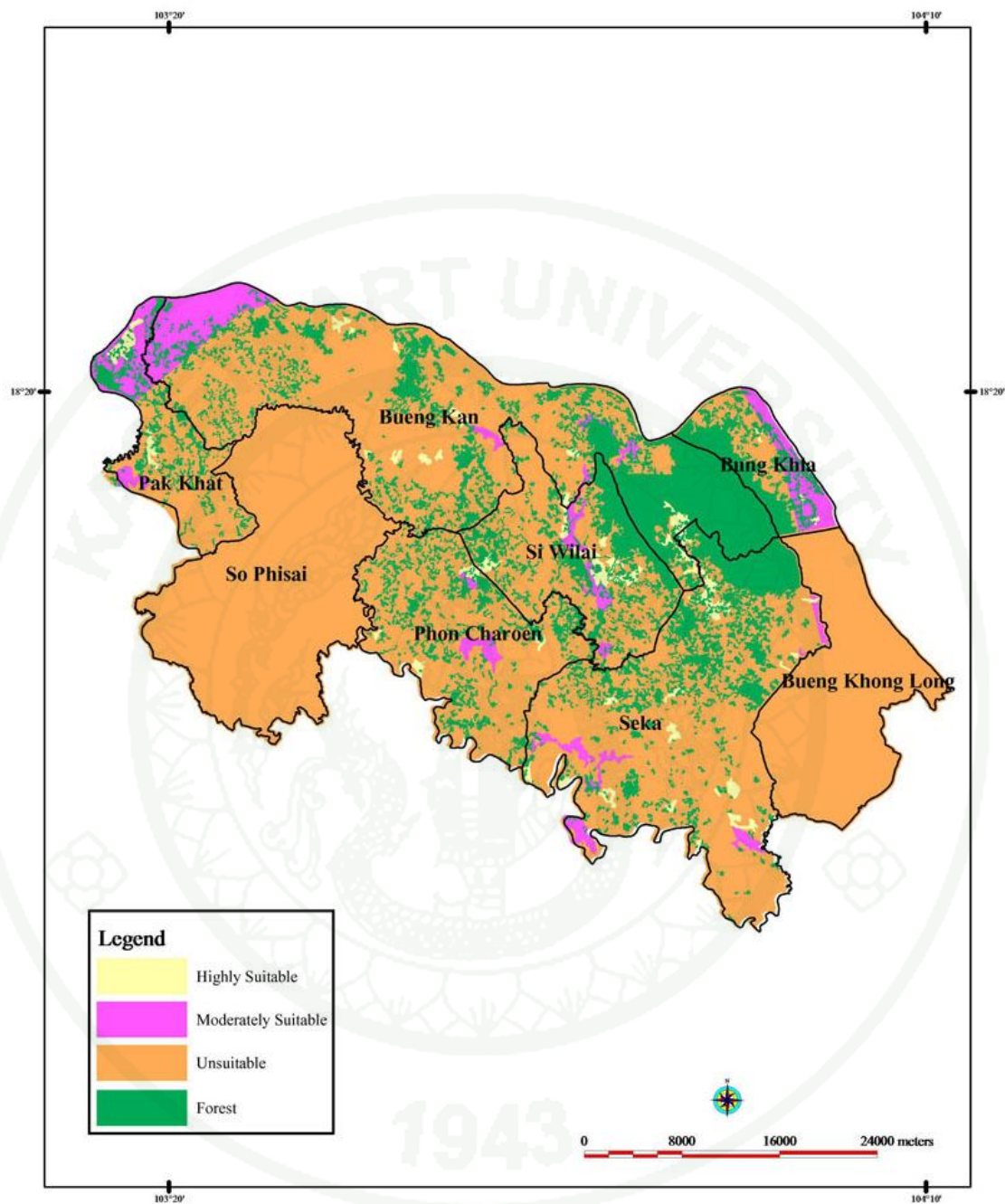
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Thum				16,431	16,431
	Seka Total		2,001	3,237	5,238	145,906	151,144
	Bung Khong Long	Pho Mak Khaeng		2,062	2,062	23,615	25,678
		Dong Bang	1,843	20,219	22,062		22,062
		Tha Dok Kham		20,928	20,928		20,928
		Bueng Khong Long		2,357	2,357	21,475	23,832
	Bung Khong Long Total		1,843	45,567	47,410	45,090	92,500
	Mueang Bueng Kan	Khok Kong				6,066	6,066
		Non Sombun		816	816	15,270	16,087
		Pong Pueai				8,601	8,601
		Kai Si	434		434	11,087	11,521
		Kham Na Di				22,590	22,590
		Chaiyaphon	936	1,027	1,963	18,998	20,961

Appendix Table 44 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Sawan				33,835	33,835
		Bueng Kan				9,117	9,117
		Nong Kheng				28,213	28,213
		Nong Loeng				24,153	24,153
		Ho Kham		20,563	20,563	5,073	25,635
	Mueang Bueng Kan Total		1,370	22,406	23,776	183,003	206,780
	Bung Khla	Khok Kwang	153	7,540	7,693	238	7,931
		Bueng Khla				5,796	5,796
		Nong Doen				8,324	8,324
	Bung Khla Total		153	7,540	7,693	14,357	22,050
	Pak Khat	Na Kang		209	209		209
		Som Sanuk				14,852	14,852
		Nong Yong				11,137	11,137

Appendix Table 44 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Pak Khat Total			209	209	25,989	26,198
	Phon Charoen	Wang Chomphu				8,999	8,999
		Si Chomphu		2,238	2,238	13,967	16,205
		Si Samran		773	773	11,579	12,352
	Phon Charoen Total			773	2,238	34,544	37,556
	Si Wilai	Chomphu Phon		1,054	1,054	19,218	20,272
		Na Saeng			1,396	19,743	21,139
		Na Sabaeng		3,140	1,817	6,045	11,002
		Na Sing		830	2,498	19,777	23,104
		Si Wilai				11,704	11,704
	Si Wilai Total			5,025	5,710	76,487	87,222
Bueng Kan Total				23,413	178,042	1,348,069	1,549,525



Appendix Figure 29 Map of Land Suitability for Rambutan in Bueng Kan Province

Appendix Table 45 Zoning For Rambutan in Bueng Kan Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
So Phisai	1,081	4,229	15	967	2
Seka	4,002	6,474	50	985	2
Bung Khong Long	3,687	91,133	44	23	2
Mueang Bueng Kan	2,741	44,812	180	282	2
Bung Khla	307	15,079	28	514	2
Pak Khat	0	418	412	463	0
Phon Charoen	1,547	4,476	60	725	2
Si Wilai	10,050	11,421	181	540	2
Bueng Kan Total	23,413	178,042	970	47,603	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 45 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
So Phisai		1,081			4,229			15	
Seka		4,002			6,474			50	
Bung Khong Long		3,687			91,133			44	
Mueang Bueng Kan		2,741			44,812			180	
Bung Khla		307			15,079			28	
Pak Khat						418			412
Phon Charoen		1,547			4,476			60	
Si Wilai		10,050			11,421			181	
Bueng Kan Total	0	23,413	0	0	177,625	418	0	558	412

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

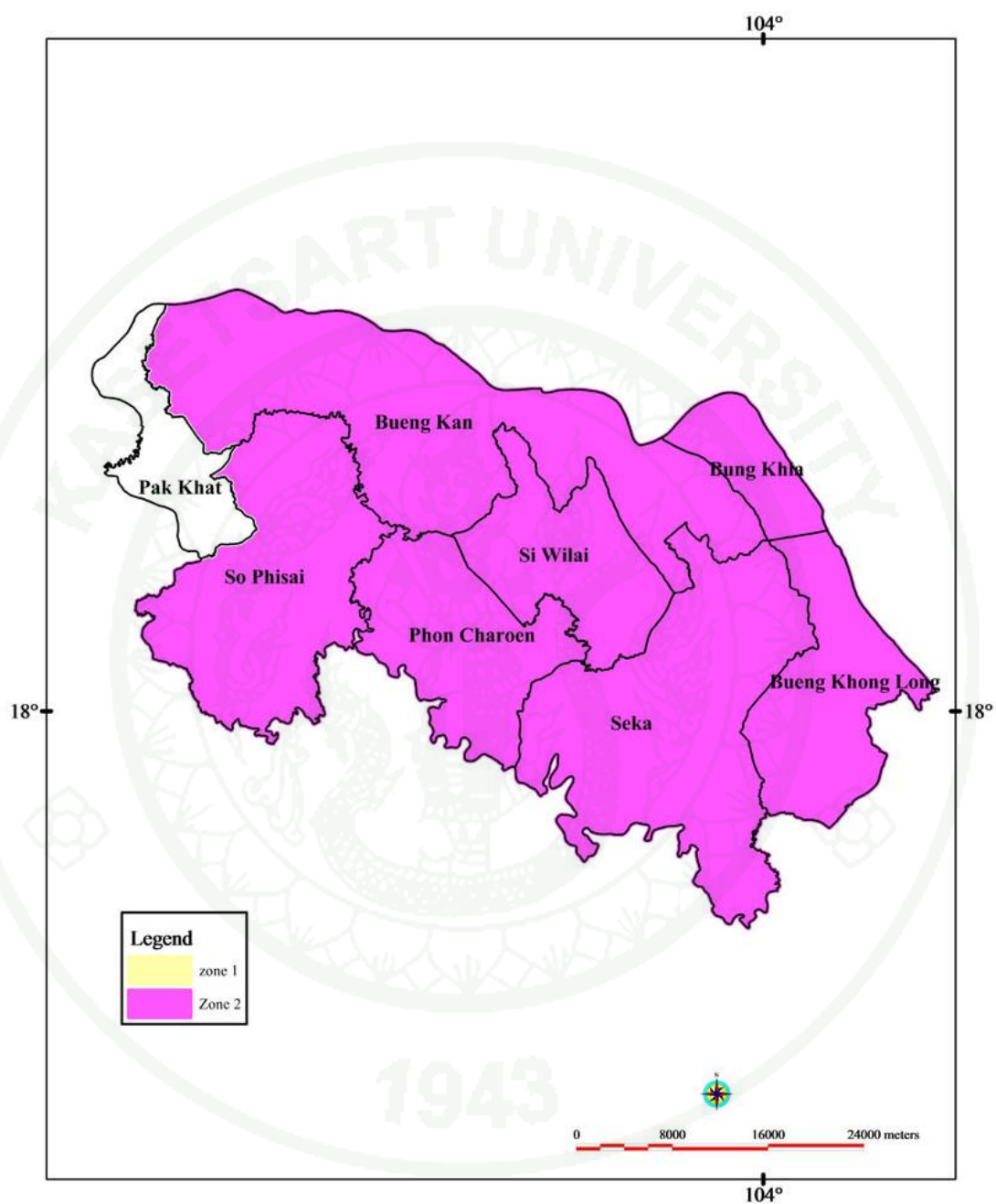
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 30 Map of Zoning for Rambutan in Bueng Kan Province

Appendix Table 46 Classification of Land Suitability for Rambutan in
Sakon Nakhon Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	51,684	0.86
2. Moderately Suitable	268,833	4.48
3. Unsuitable	2,694,057	44.87
4. Existing Forest	783,552	13.05
5. Deforestation	1,056,579	17.60
6. Water	74,318	1.24
7. Built-up areas	1,074,579	17.90
Total	6,003,602	100.00

Appendix Table 47 Land Suitability for Rambutan in Sakon Nakhon Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Sakon Nakhon	Charoen Sin	Charoen Sin				36,009	36,009
		Khok Sila				27,875	27,875
		Thung Kae		4,686	4,686	39,650	44,336
		Ban Lao		1,343	1,343	60,516	61,858
		Nong Paen		9,573	9,573	33,303	42,876
	Charoen Sin Total			15,602	15,602	197,352	212,954
	Tao Ngoi	Chan Phen		3,561	3,561	30,798	34,359
		Na Tan				1,681	1,681
	Tao Ngoi Total			3,561	3,561	32,479	36,040
	Mueang Sakon Nakhon	Chiang Khruea	6,480	16,597	23,077	6,181	29,258
		Lao Po Daeng		2,258	2,258	7,718	9,976
		Non Hom		2,613	2,613	12,944	15,556
		Khamin		443	443	14,403	14,846

Appendix Table 47 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Mueang Sakon Nakhon		Dong Chon		7,183	7,183	5,281	12,464	
		Dong Mafai		3,342	3,342	21,088	24,429	
		That Na Weng		3,631	3,631	12,741	16,372	
		Phang Khwang		4,281	4,281	28,873	33,154	
		Nong Lat				13,192	13,192	
		Huai Yang		6,769	6,769	7,742	14,511	
		Hang Hong	7,294	1,732	9,026	2,678	11,704	
		Mueang Sakon Nakhon Total		13,774	48,848	62,622	132,841	195,463
	Khok Si Suphan		Lao Phon Kho		1,795	1,795	13,359	15,154
			Maet Na Thom				15,317	15,317
		Tong Khop		2,690	2,690	7,525	10,215	
Khok Si Suphan Total			4,485	4,485	36,201	40,686		
Phon Na Kaeo		Chiang Sue				11,645	11,645	

Appendix Table 47 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Na Kaeo				29,176	29,176
		Na Tong Watthana				15,557	15,557
		Ban Paen				21,257	21,257
		Ban Phon				36,011	36,011
	Phon Na Kaeo Total					113,646	113,646
	Kut Bak	Kut Bak		2,222	2,222	38,152	40,375
		Kut Hai				24,617	24,617
		Na Mong				3,979	3,979
	Kut Bak Total			2,222	2,222	66,748	68,970
	Kusuman	Pho Phaisan				36,721	36,721
		Kusuman				31,367	31,367
		Na Phiang				29,696	29,696
		Na Pho				25,910	25,910

Appendix Table 47 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Um Chan				30,143	30,143
	Kusuman Total					153,838	153,838
	Kham Ta Kla	Phaet	139		139	47,545	47,684
		Kham Ta Kla				6,729	6,729
		Na Tae				42,452	42,452
		Nong Bua Sim				41,245	41,245
	Kham Ta Kla Total		139		139	137,971	138,110
	Nikhom Nam Un	Nikhom Nam Un		9,579	9,579	10,154	19,733
		Suwannakham				36	36
		Nong Bua				9,468	9,468
		Nong Pling		2,590	2,590	3,753	6,343
	Nikhom Nam Un Total			12,168	12,168	23,412	35,580
	Ban Muang	Non Sa-at				38,650	38,650

Appendix Table 47 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit	Ban Muang	Dong Nuea	2,064		2,064	50,017	52,081
		Dong Mo Thong				33,506	33,506
		Dong Mo Thong ๓	3,185		3,185	43,394	46,579
		Bo Kaeo				41,333	41,333
		Mai				54,238	54,238
		Nong Kwang	2,023		2,023	33,000	35,024
		Huai Lua	804		804	34,896	35,700
		Ban Muang Total	8,077		8,077	329,034	337,111
	Phanna Nikhom	Choeng Chum				26,213	26,213
		Rai				41,842	41,842
		Chang Ming	3,070	6,457	9,526	16,213	25,739
		Na Nai		1,487	1,487	37,873	39,360
		Na Hua Bo				26,366	26,366

Appendix Table 47 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phanna Nikhom	Ba Hi				38,189	38,189
		Phok Noi		13,682	13,682	2,263	15,945
		Sawang		2,167	2,167	31,216	33,383
		Phanna Nikhom Total	3,070	23,793	26,862	220,174	247,037
	Phang Khon	Ton Phueng	1,871	5,944	7,815	15,891	23,706
		Phang Khon		329	329	17,730	18,059
		Muang Khai		12,595	12,595	14,002	26,597
	Phang Khon Total	1,871	18,868	20,739	47,624	68,363	
	Phu Phan	Khok Phu		13,510	13,510	38,889	52,399
		Kok Pla Sio		1,852	1,852	7,492	9,343
Sang Kho			3,360	3,360	22,345	25,705	
Lup Lao					49,421	49,421	
Phu Phan Total			18,722	18,722	118,146	136,868	

Appendix Table 47 (Continued)

							Unit : rai
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Wanon Niwat	Duea Si Khan C	3,528	7,354	10,882	32,075	42,957
		Kut Ruea Kham				21,878	21,878
		Khua Kai				31,708	31,708
		Khu Sakham	1,277		1,277	24,807	26,083
		That		555	555	52,140	52,694
		Na Kham	411		411	26,942	27,353
		Na So	1,055		1,055	27,996	29,051
		Wanon Niwat				41,852	41,852
		Si Wichai				38,400	38,400
		Nong Waeng				31,602	31,602
		Nong Waeng Tai				39,715	39,715
		Nong Sanom				70,877	70,877
		Wanon Niwat Total		6,270	7,909	14,179	439,992

Appendix Table 47 (Continued)

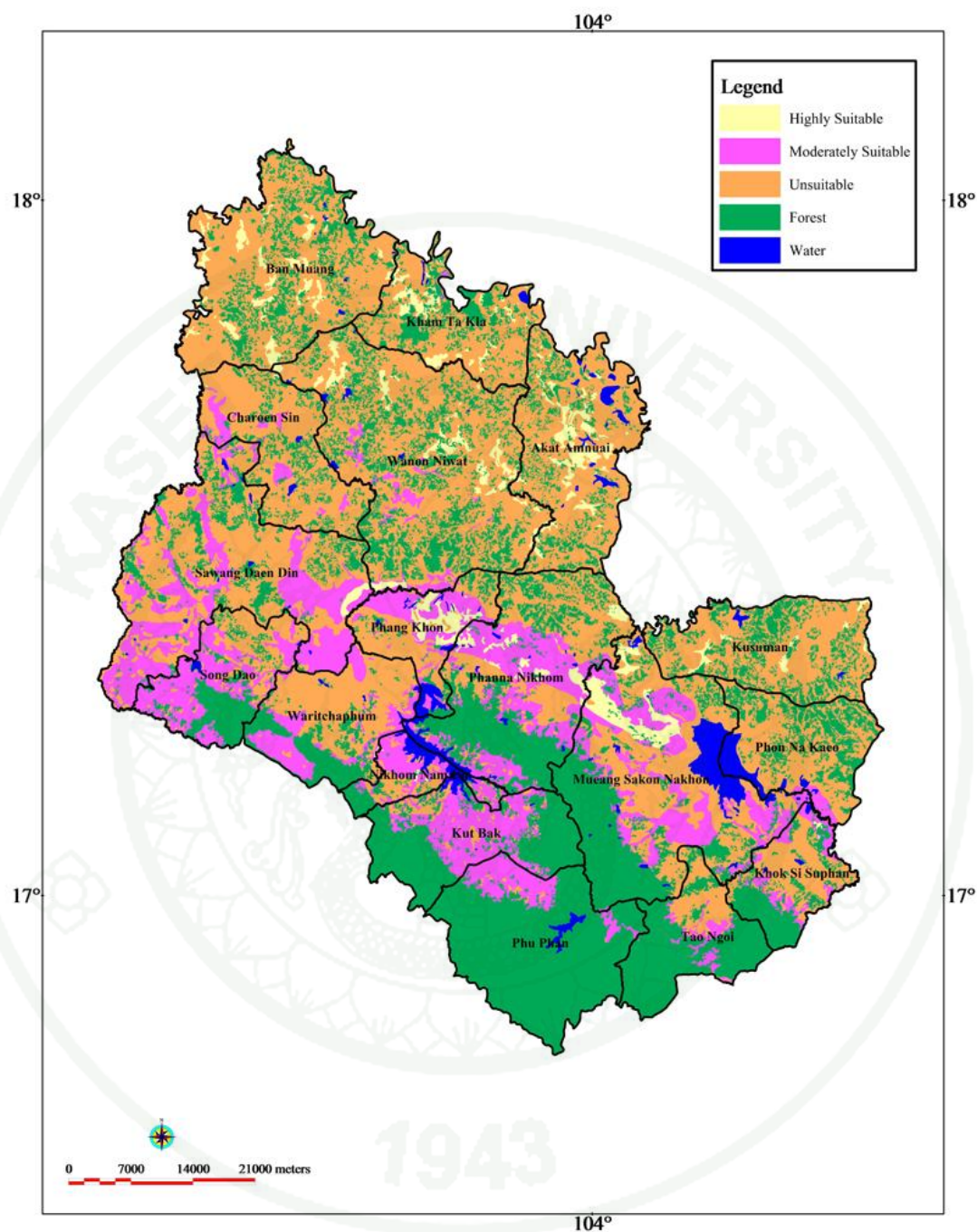
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Waritchaphum	Kho Khiao				16,488	16,488
		Kham Bo		3,909	3,909	42,858	46,767
		Pla Lo				36,631	36,631
		Waritchaphum	506	6,558	7,064	61,474	68,539
		Nong Lat		1,175	1,175	18,252	19,426
	Waritchaphum Total		506	11,642	12,148	175,703	187,851
	Sawang Daen Din	Waeng	4,992	11,150	16,142	14,351	30,493
		Phon Sung		1,479	1,479	20,026	21,505
		Kham Sa-at		224	224	47,034	47,258
		Sai Mun		8,757	8,757	38,062	46,819
		That Thong		10,285	10,285	17,963	28,248
		Bong Tai		11,235	11,235	28,260	39,495
		Ban Tai		13,612	13,612	5,538	19,150

Appendix Table 47 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phan Na		10,878	10,878		10,878
		Sawang Daen Din		6,961	6,961	28,044	35,005
		Nong Luang		12,110	12,110	7,166	19,276
	Sawang Daen Din Total		4,992	86,691	91,683	206,444	298,127
	Song Dao	Tha Sila		1,189	1,189	47,157	48,346
		Pathum Wapi		5,670	5,670	3,826	9,495
		Watthana		7,464	7,464	29,689	37,153
	Song Dao Total			14,322	14,322	80,672	94,994
	Akat Amnuai	Phon Paeng				23,486	23,486
		Phon Ngam	2,310		2,310	20,014	22,325
Tha Kon					24,619	24,619	
Na Hi					10,507	10,507	
		Ba Wa			22,583	22,583	

Appendix Table 47 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Akat Amnuai	Wa Yai	9,221		9,221	50,005	59,226
		Samakkhi Phattha	1,454		1,454	30,567	32,020
	Akat Amnuai	Total	12,985		12,985	181,780	194,765
Sakon Nakhon	Total		51,684	268,833	320,517	2,694,057	3,014,574



Appendix Figure 31 Map of Land Suitability for Rambutan in Sakon Nakhon Province

Appendix Table 48 Zoning For Rambutan in Sakon Nakhon Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Tao Ngoi		3,561	5	8,000	2
Kham Ta Kla	139		6	100	0
Nikhom Nam Un		12,168	16	1,603	2
Ban Muang	8,077		11	545	2
Phu Phan		18,722	24	4,000	2
Waritchaphum	506	11,642	5	1,450	2
Sakon Nakhon Total	8,722	46,094	67	2,619	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 48 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Tao Ngoi					3,561			5	
Kham Ta Kla			139					6	
Nikhom Nam Un					12,168			16	
Ban Muang		8,077						11	
Phu Phan					18,722			24	
Waritchaphum		506			11,642			5	
Sakon Nakhon Total	0	8,583	139	0	46,094	0	0	67	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

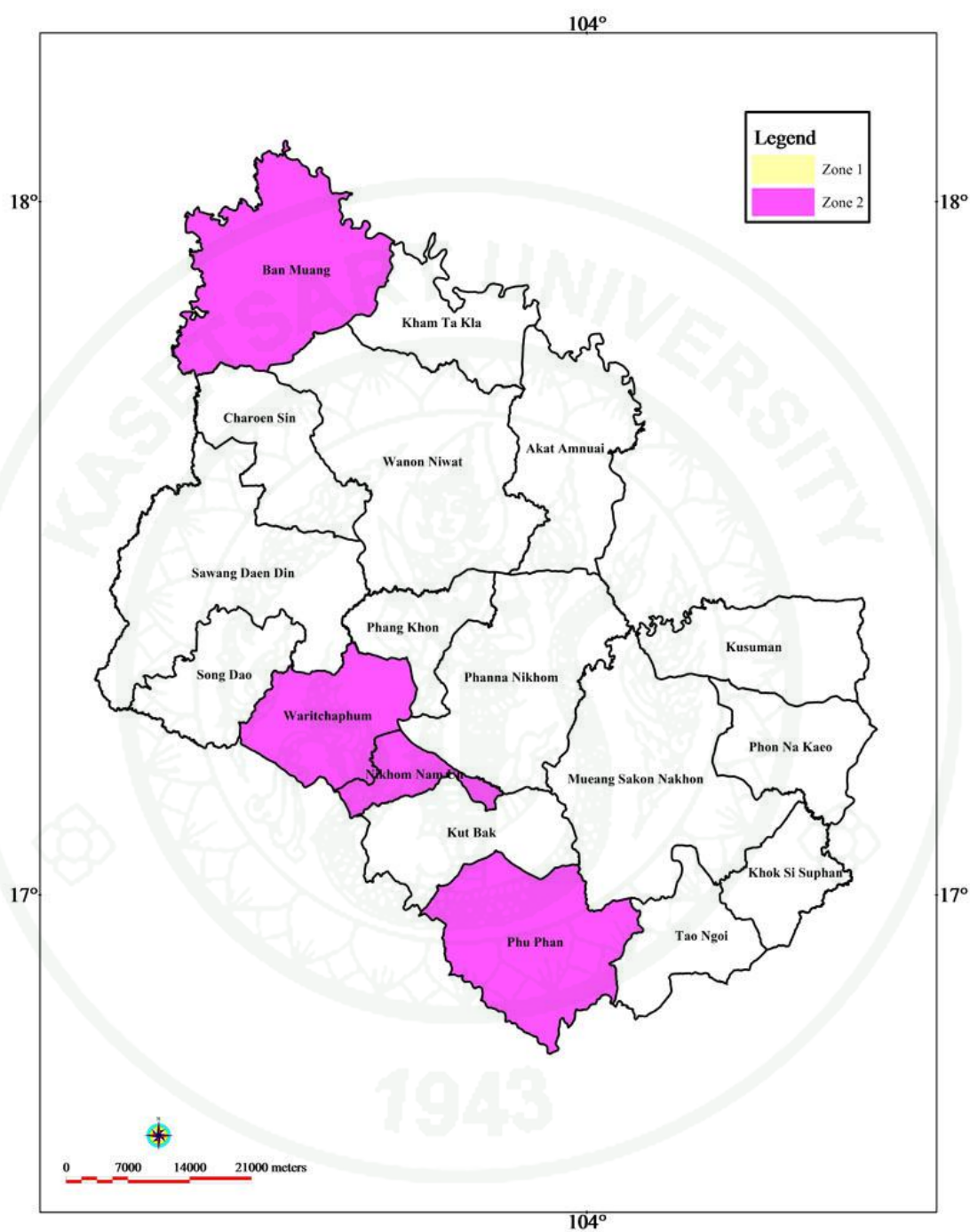
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 32 Map of Zoning for Rambutan in Sakon Nakhon Province

Appendix Table 49 Classification of Land Suitability for Rambutan in Nakhon Phanom Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	54,437	1.58
2. Moderately Suitable	106,711	3.10
3. Unsuitable	1,267,259	36.78
4. Existing Forest	374,160	10.86
5. Deforestation	787,805	22.87
6. Water	49,241	1.43
7. Built-up areas	805,805	23.39
Total	3,445,418	100.00

Appendix Table 50 Land Suitability for Rambutan in Nakhon Phanom Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Phanom	Mueang Nakhon Phanom	Kurukhu				4,552	4,552
		Kham Thao	10,852		10,852	4,660	15,511
		Kham Toei	6,231		6,231	4,971	11,201
		Dong Khwang				7,789	7,789
		Tha Kho	516		516	7,375	7,891
		Na Sai	247		247	995	1,242
		Na Rat Khwai	255		255	12,757	13,012
		Ban Klang				16,434	16,434
		Ban Phueng	762		762	41,752	42,514
		Wang Ta Mua				23,837	23,837
		Pho Tak				1,177	1,177
		At Samat	630		630	12,258	12,888
	Mueang Nakhon Phanom Total		19,492		19,492	138,557	158,049

Appendix Table 50 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Renu Nakhon		Renu		14,141	14,141	3,337	17,477
		Renu Tai		7,623	7,623	5,245	12,869
		Na Kham				9,333	9,333
		Na Ngam	1,702	13,879	15,581	1,459	17,040
		Renu Nakhon Total	1,702	35,643	37,345	19,373	56,719
Phon Sawan		Phon Chan				11,763	11,763
		Phon Bok				19,454	19,454
		Phon Sawan				29,077	29,077
		Na Nai				25,715	25,715
		Na Khamin				38,672	38,672
		Na Hua Bo				22,260	22,260
		Ban Kho	4,407		4,407	35,514	39,921
Phon Sawan Total		4,407		4,407	182,455	186,862	

Appendix Table 50 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Wang Yang	Khok Si				18,991	18,991
		Yot Chat		3,671	3,671	7,103	10,774
	Wang Yang Total			3,671	3,671	26,094	29,765
	Tha Uthen	Woen Phrabat	326		326	17,848	18,174
		Non Tan				765	765
		Tha Champa	238		238	30,583	30,821
		Tha Uthen				7,947	7,947
		Phanom				19,869	19,869
		Ram Rat	2,220		2,220	18,832	21,052
		Nong Thao	190		190	10,891	11,081
	Tha Uthen Total		2,974		2,974	106,735	109,709
	That Phanom	That Phanom		153	153	17,156	17,309
That Phanom Nuea					41	41	

Appendix Table 50 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
That Phanom	Na Kae	Na Nat		2,170	2,170	7,239	9,410
		Fang Daeng				8,888	8,888
		Um Mao		187	187	27,246	27,434
		That Phanom Total		2,511	2,511	60,571	63,082
		Kan Lueang		2,119	2,119	10,836	12,955
		Kham Phi		2,319	2,319	8,427	10,746
		Na Liang				14,017	14,017
		Na Kae		4,052	4,052	13,625	17,677
		Na Khu		1,912	1,912	10,466	12,378
		Ban Kaeng		689	689	9,673	10,362
		Phiman				19,836	19,836
		Phum Kae				28,496	28,496
		Si Chomphu				13,173	13,173

Appendix Table 50 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Bo		3,582	3,582	5,899	9,481
		Nong Sang		478	478	15,945	16,423
	Na Kae Total			15,152	15,152	150,392	165,544
	Na Thom	Don Toei				29,483	29,483
		Na Thom				45,098	45,098
		Nong Son				8,116	8,116
	Na Thom Total					82,697	82,697
	Na Wa	Lao Phatthana	1,653		1,653	28,894	30,548
		Tha Ruea	1,756		1,756	1,392	3,148
		Na Ngua	4,255		4,255	40,935	45,190
		Na Wa	1,242		1,242	19,259	20,502
		Ban Siao	5,523		5,523	5,200	10,723
	Na Wa Total		14,430		14,430	95,681	110,111

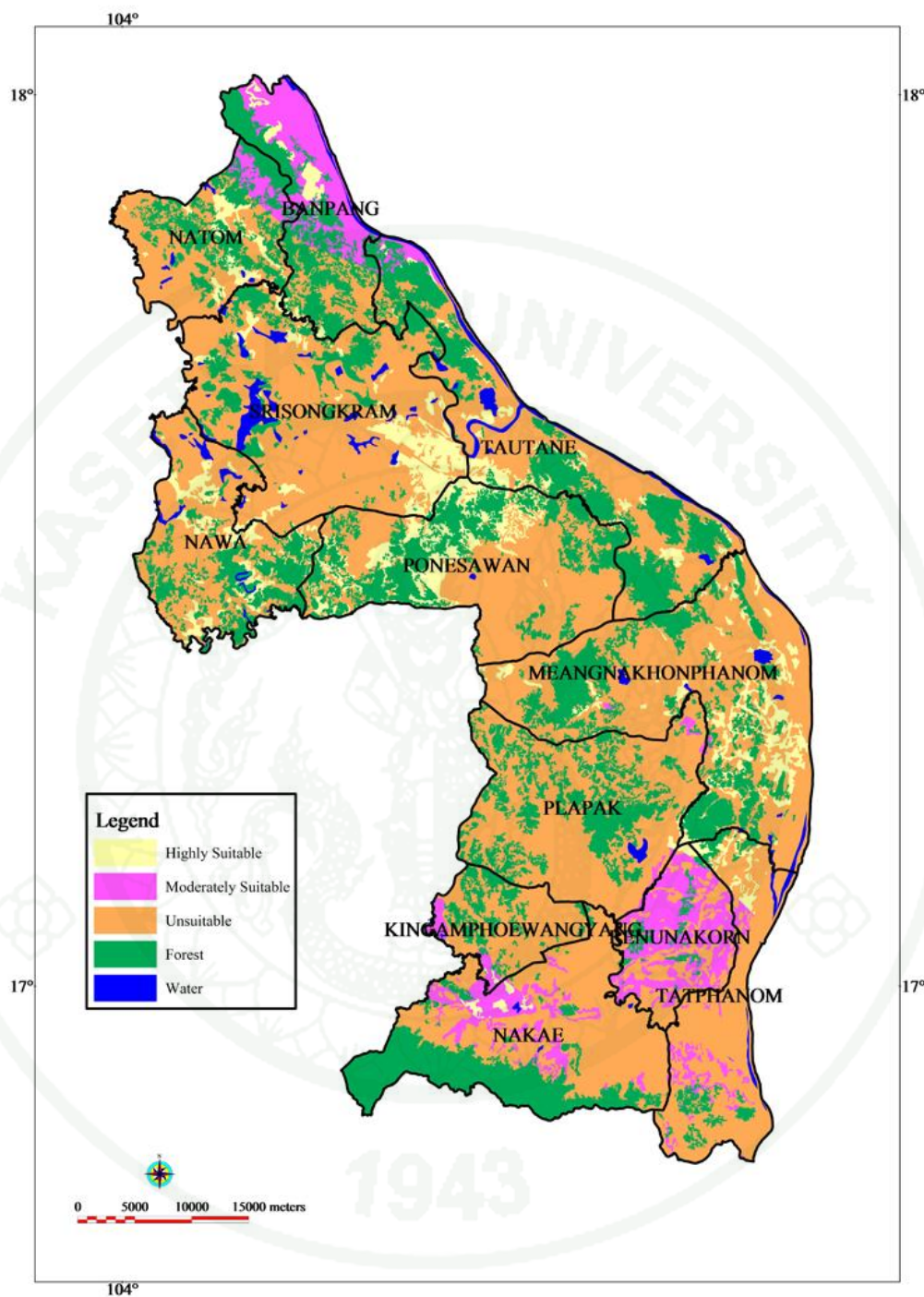
Appendix Table 50 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ban Phaeng	Phon Thong	6,073	21,148	27,221		27,221
		Na Ngua	3,054	9,410	12,465		12,465
		Ban Phaeng		10,851	10,851		10,851
		Nong Wang	70	7,226	7,297	40,294	47,591
	Ban Phaeng Total		9,197	48,636	57,833	40,294	98,127
Pla Pak		Khok Sung				21,292	21,292
		Kutakai	64		64	39,600	39,664
		Na Makhuea		1,099	1,099	21,217	22,315
		Pla Pak				31,628	31,628
		Maha Chai				25,837	25,837
		Nong Thao Yai				13,527	13,527
		Nong Hi	283		283	25	308
	Pla Pak Total		347	1,099	1,445	153,125	154,570

Appendix Table 50 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Si Songkhram		Phon Sawang				13,252	13,252
		Tha Bo Songkham				31,110	31,110
		Na Kham	923		923	46,804	47,727
		Ban Ueang				19,016	19,016
		Ban Kha	964		964	32,922	33,887
		Si Songkhram				4,385	4,385
		Sam Phong				37,807	37,807
		Hat Phaeng				25,988	25,988
Si Songkhram Total			1,888		1,888	211,285	213,172
Nakhon Phanom Total			54,437	106,711	161,148	1,267,259	1,428,407



Appendix Figure 33 Map of Land Suitability for Rambutan in Nakhon Phanom Province

Appendix Table 51 Zoning For Rambutan in Nakhon Phanom Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Nakhon Phanom	19,492		5	173	2
Pla Pak	347	1,099	16	1,313	2
Nakhon Phanom Total	19,839	1,099	21	1,062	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 51 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Nakhon Phanom		19,492						5	
Pla Pak		347			1,099			16	
Nakhon Phanom Total	0	19,839	0	0	1,099	0	0	21	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

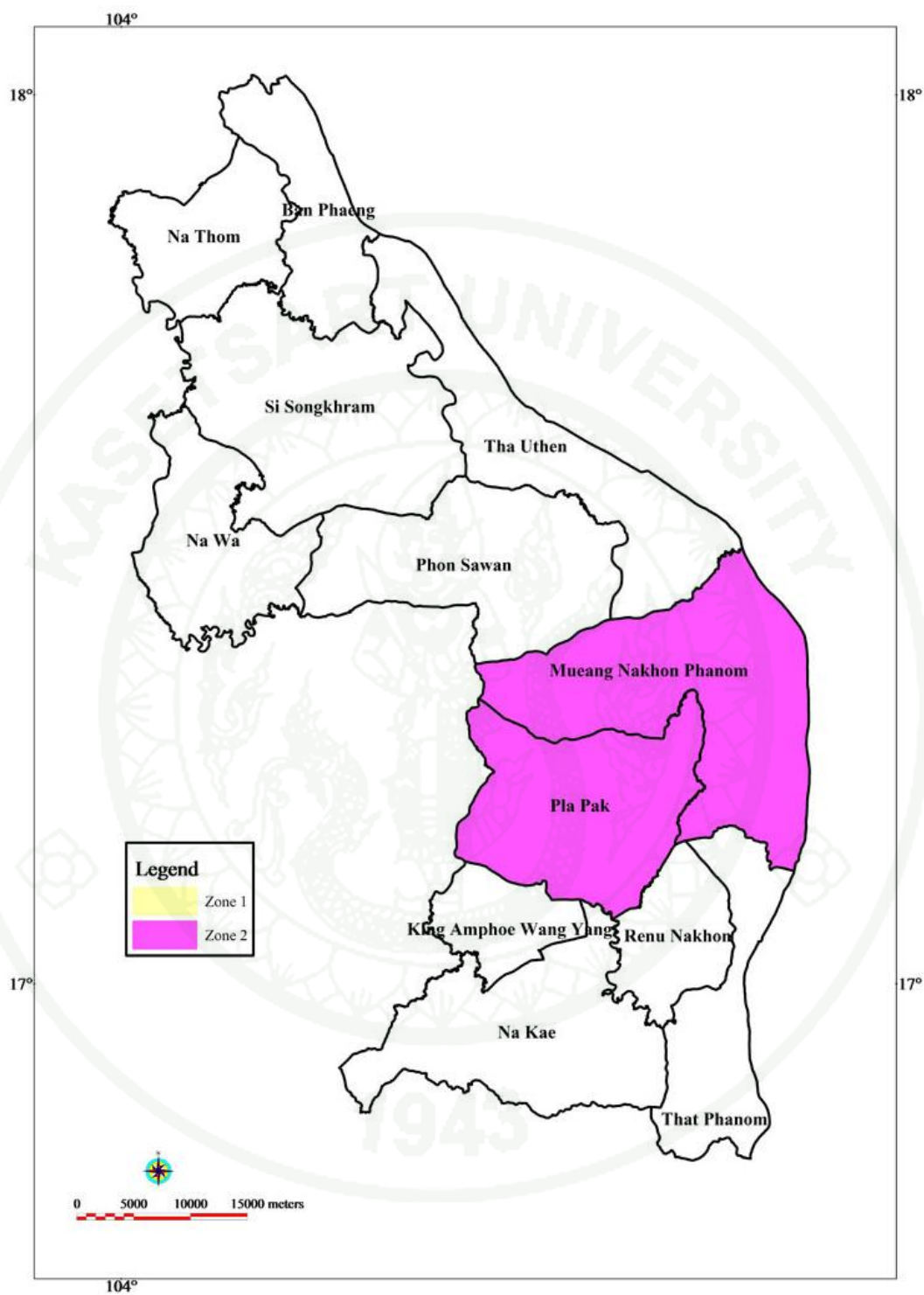
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 34 Map of Zoning for Rambutan in Nakhon Phanom Province

Appendix Table 52 Classification of Land Suitability for Rambutan in Mukdahan Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	7,789	0.29
2. Moderately Suitable	32,401	1.19
3. Unsuitable	873,919	32.22
4. Existing Forest	864,623	31.88
5. Deforestation	452,233	16.67
6. Water	11,196	0.41
7. Built-up areas	470,233	17.34
Total	2,712,394	100.00

Appendix Table 53 Land Suitability for Rambutan in Mukdahan Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mukdahan	Mueang Mukdahan	Phon Sai		604	604	45,397	46,000
		Kham Pa Lai		4,054	4,054	40,889	44,944
		Kham Ahuan		132	132	44,408	44,540
		Dong Yen				58,155	58,155
		Dong Mon				24,809	24,809
		Na Sok		4,202	4,202	46,909	51,111
		Na Si Nuan				17,109	17,109
		Ban Khok		117	117	14,101	14,218
		Phueng Daet				10,630	10,630
		Mukdahan				29,622	29,622
		Mueang Mukdahan Total		9,109	9,109	332,028	341,136
Khamcha-i		Phon Ngam				24,439	24,439
		Kham Cha-i		7,032	7,032	20,119	27,151

Appendix Table 53 (Continued)

Unit : rai

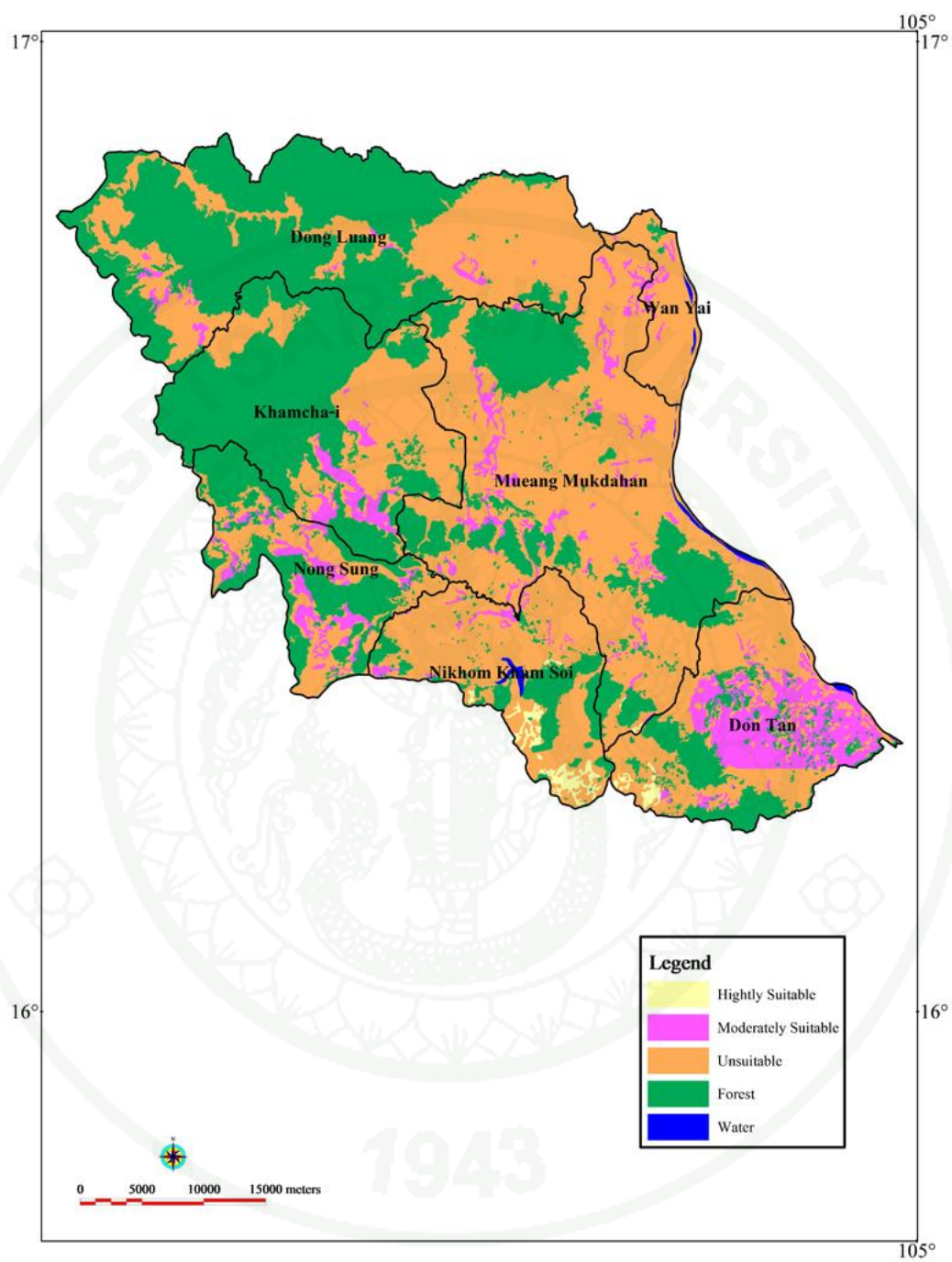
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nam Thiang		2,696	2,696		2,696
		Ban Lao				24,590	24,590
		Ban Kho				13,506	13,506
	Khamcha-i Total			9,728	9,728	82,653	92,381
	Dong Luang	Kok Tum		1,249	1,249	53,562	54,811
		Chanot Noi				23,242	23,242
		Dong Luang		177	177	27,213	27,390
		Phang Daeng		188	188	24,451	24,639
		Nong Khaen		1,999	1,999	23,817	25,816
	Dong Luang Total			3,613	3,613	152,286	155,899
	Don Tan	Lao Mi		784	784	35,347	36,131
		Pho Sai				18,904	18,904
		Don Tan				19,094	19,094

Appendix Table 53 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Don Tan	Na Sameng				35,906	35,906	
		Ban Kaeng				13,044	13,044	
		Ban Bak				10,435	10,435	
		Don Tan Total		784	784	132,730	133,514	
		Kikhom Kham Soi	Chok Chai	624		624	13,259	13,883
			Kok Daeng				30,297	30,297
			Na Udom	7,166		7,166	37,099	44,265
			Nikhom Kham Soi				10,391	10,391
		Nong Waeng		556	556	35,385	35,940	
		Kikhom Kham Soi Total	7,789	556	8,345	126,431	134,776	
	Nong Sung	Non Yang				2,642	2,642	
		Ban Pao		2,354	2,354	4,935	7,289	
Phu Wong					9,764	9,764		

Appendix Table 53 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Sung		2,708	2,708	2,612	5,320
		Nong Sung Nuea				359	359
		Nong Sung Tai		3,550	3,550	15,035	18,586
		Nong Sung Total		8,612	8,612	35,348	43,960
		Wan Yai	Chanot			6,075	6,075
		Wan Yai	Wan Yai			6,369	6,369
		Wan Yai Total				12,443	12,443
		Mukdahan Total		7,789	32,401	40,191	873,919



Appendix Figure 35 Map of Land Suitability for Rambutan in Mukdahan Province

Appendix Table 54 Zoning For Rambutan in Mukdahan Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khamcha-i		9,728	3	500	2
Dong Luang		3,613	33	39	0
Mukdahan Total	0	13,341	36	78	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 54 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Khamcha-i					9,728			3	
Dong Luang						3,613			33
Mukdahan Total	0	0	0	0	9,728	3,613	0	3	33

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

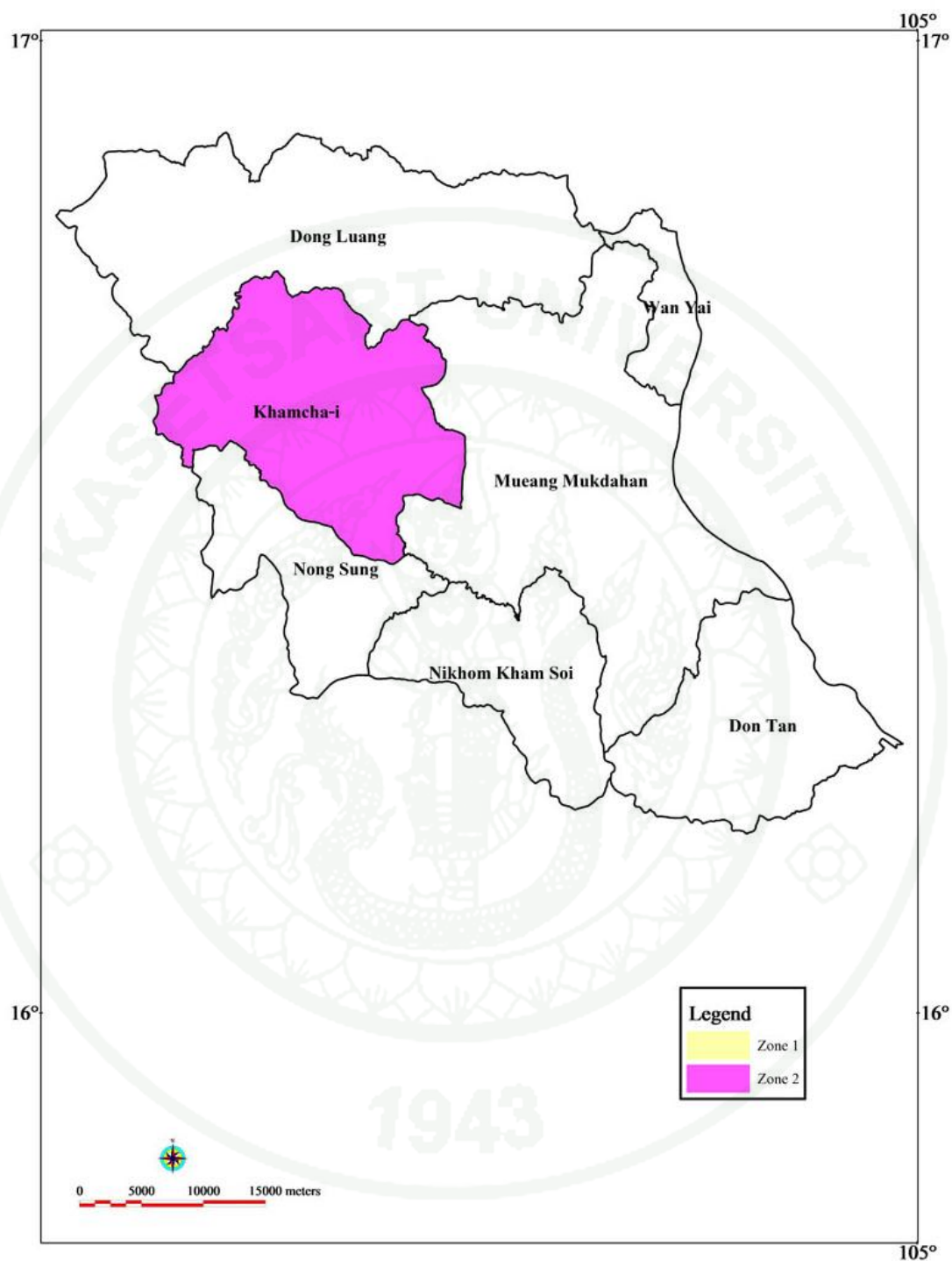
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 36 Map of Zoning for Rambutan in Mukdahan Province

Appendix Table 55 Classification of Land Suitability for Rambutan in Yasothon
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	57,687	2.22
2. Moderately Suitable	94,323	3.63
3. Unsuitable	1,012,636	38.93
4. Existing Forest	97,342	3.74
5. Deforestation	648,819	24.94
6. Water	23,414	0.90
7. Built-up areas	666,819	25.64
Total	2,601,040	100.00

Appendix Table 56 Land Suitability for Rambutan in Yasothon Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Yasothon	Mueang Yasothon	Doet				26,079	26,079
		Khandai Yai				18,377	18,377
		Khum Ngoen				7,636	7,636
		Du Thung				5,013	5,013
		Tat Thong				16,503	16,503
		Thung Tae		961	961	10,470	11,431
		Na Samai		1,220	1,220	27,062	28,282
		Samran				3,516	3,516
		Sing				19,683	19,683
		Nong Ruea		590	590	8,545	9,135
		Nong Khu				12,513	12,513
		Mueang Yasothon Total			2,772	2,772	155,397
	Loeng Nok Tha	Khok Samran	21,813		21,813		21,813

Appendix Table 56 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Kut Hae	6,500		6,500	10,924	17,425
		Bung Kha	11,354	284	11,639	34,738	46,377
		Si Kaeo				45,829	45,829
		Sang Ming		8,643	8,643	13,353	21,996
		Sawat	7,858	9,168	17,027	9,737	26,764
		Sam Yaek	10,160		10,160	20,877	31,037
		Samakkhi		26	26	35,179	35,206
		Hong Saeng				47,498	47,498
		Loeng Nok Tha Total		57,687	18,122	75,809	218,135
	Thai Charoen	Kham Toei		18,408	18,408	5,920	24,327
		Kham Phai				8,978	8,978
		Nam Kham		1,089	1,089	8,910	9,998
		Som Pho		5,734	5,734	2,939	8,673

Appendix Table 56 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Thai Charoen Total			25,230	25,230	26,747	51,977
	Kut Chum	Non Pueai		12,181	12,181	5,156	17,338
		Kammaet				33,108	33,108
		Kham Nam Sang				22,045	22,045
		Nong Nae		1,052	1,052	33,411	34,464
		Nong Mi				11,056	11,056
		Huai Kaeng		16,502	16,502	14,270	30,772
	Kut Chum Total			29,736	29,736	119,048	148,784
	Kho Wang	Kut Nam Sai				22,048	22,048
		Kho Wang				20,382	20,382
		Nam Om				26,752	26,752
	Kho Wang Total					69,181	69,181
	Kham Khuean Kaeo	Lao Hai				6,604	6,604

Appendix Table 56 (Continued)

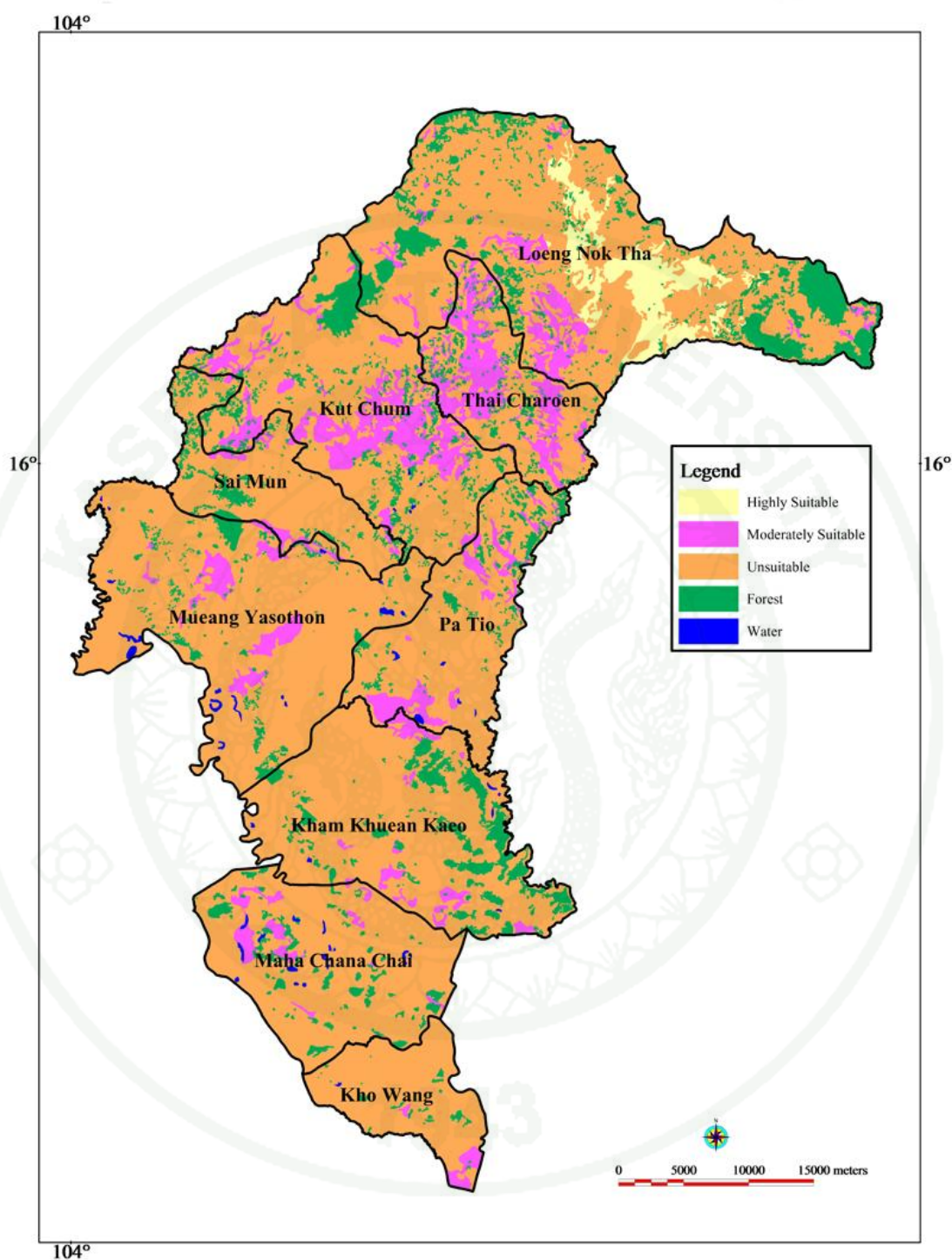
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khan Noi				15,411	15,411
		Phon Than				9,192	9,192
		Kut Kung				15,111	15,111
		Ku Chan				15,158	15,158
		Dong Charoen				11,969	11,969
		Dong Khaen Yai		1,306	1,306	25,561	26,867
		Thung Mon		3,523	3,523	827	4,350
		Yo				23,303	23,303
		Lumpuk				42,644	42,644
		Song Pueai				9,298	9,298
	Kham Khuean Kao	Total		4,829	4,829	175,077	179,906
	Sai Mun	Phai		496	496	19,881	20,377
		Du Lat				16,538	16,538

Appendix Table 56 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
KASEN	Sai Mun	Sai Mun		2,456	2,456	27,286	29,742
		Sai Mun Total		2,952	2,952	63,706	66,657
	Pa Tio	Khok Na Ko		3,655	3,655	30,517	34,171
		Pho Sai				24,139	24,139
		Krachai				16,212	16,212
		Si Than		5,728	5,728	6,176	11,904
	Pa Tio Total		9,382	9,382	77,043	86,426	
	Maha Chana Chai	Bak Ruea				8,907	8,907
		Bueng Kae		587	587	27,145	27,732
		Phue Hi				12,186	12,186
		Fa Yat		126	126	13,677	13,803
		Muang				21,072	21,072
		Song Yang		588	588	17,402	17,989

Appendix Table 56 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Hua Mueang				7,913	7,913
	Maha Chana Chai	Total		1,300	1,300	108,303	109,603
Yasothon Total			57,687	94,323	152,009	1,012,636	1,164,646



Appendix Figure 37 Map of Land Suitability for Rambutan in Yasothon Province

Appendix Table 57 Zoning For Rambutan in Yasothon Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Thai Charoen	0	25,230	10	7,000	2
Yasothon Total	0	25,230	10	7,000	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 57 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Thai Charoen	0	0	0	0	25,230	0	0	2	0
Yasothon Total	0	0	0	0	25,230	0	0	2	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

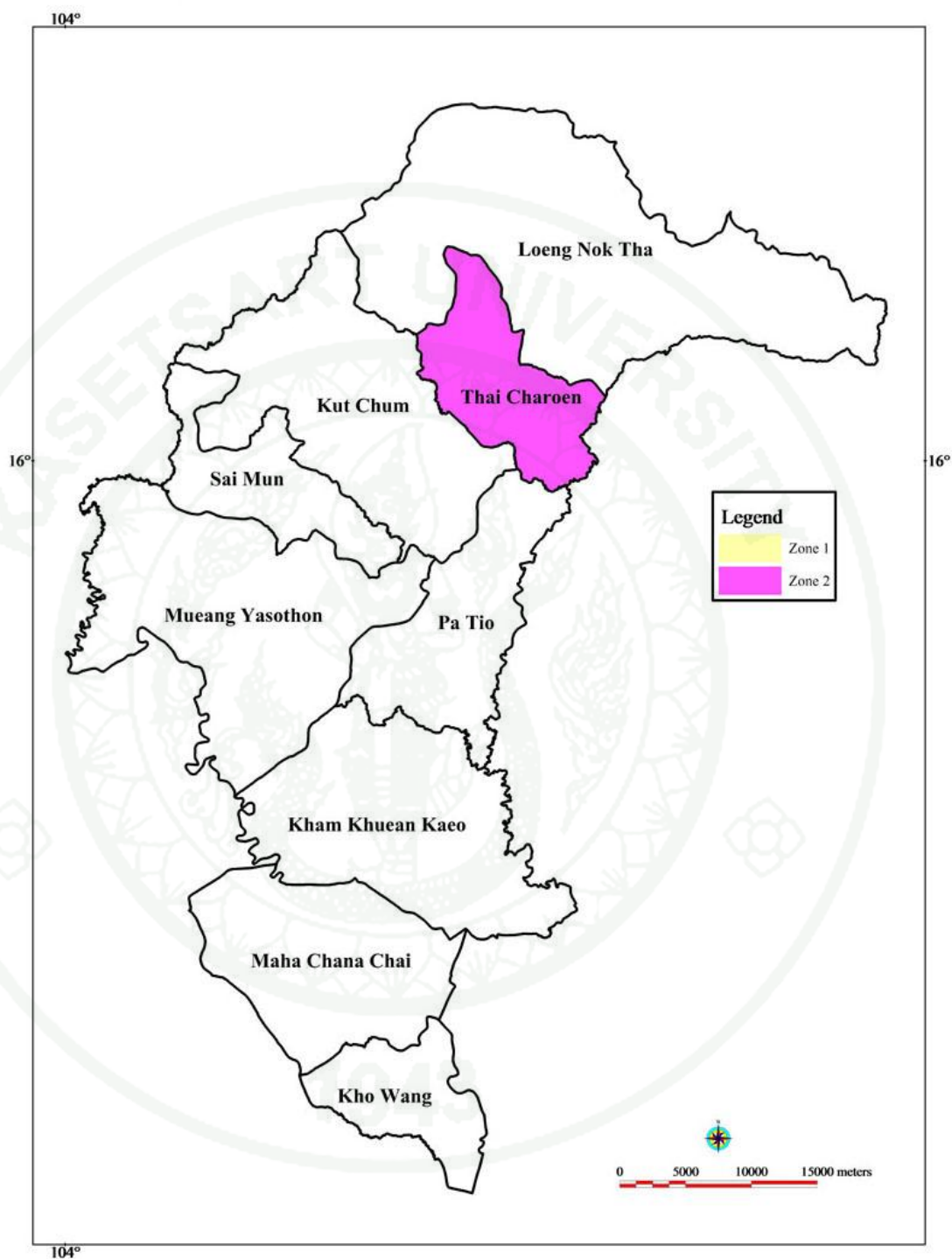
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 38 Map of Zoning for Rambutan in Yasothon Province

Copyright by Kasetsart University. All rights reserved.

Appendix Table 58 Classification of Land Suitability for Rambutan in Ubon
Ratchathani Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	43,723	0.44
2. Moderately Suitable	191,040	1.94
3. Unsuitable	3,724,208	37.85
4. Existing Forest	2,583,407	26.25
5. Deforestation	1,546,257	15.71
6. Water	187,634	1.91
7. Built-up areas	1,564,257	15.90
Total	9,840,526	100.00

Appendix Table 59 Land Suitability for Rambutan in Ubon Ratchathani Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ubon Ratchathani	Khemarat	Khemarat				2,208	2,208
		Chiat	7,685		7,685	25,176	32,862
		Kaeng Nuea		3,128	3,128	14,515	17,643
		Kham Pom	123	3,079	3,202	30,018	33,220
		Nong Nok Tha				26,965	26,965
		Nong Phue				56,174	56,174
	Khemarat Total		7,808	6,207	14,015	155,056	169,072
	Khueang Nai	Daeng Mo				7,468	7,468
		Non Rang				19,277	19,277
		Ko E				9,806	9,806
		Chi Thuan				16,126	16,126
		Ban Thai		1,320	1,320	26,843	28,163
		Yang Khi Nok		1,135	1,135	24,476	25,611

Appendix Table 59 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
KASEN	Khueang Nai	Si Suk				23,373	23,373	
		Sang Tho		4,611	4,611	33,203	37,814	
		Nong Lao				24,519	24,519	
		Hua Don				27,561	27,561	
		Khueang Nai Total		7,066	7,066	212,652	219,718	
		Det Udom	Mueang Det		5,491	5,491	47,331	52,822
			Kaeng				13,718	13,718
			Non Sombun				29,603	29,603
		Kut Prathai	Phon Ngam		88	88	8,009	8,096
			Klang		319	319	75,367	75,686
	Kut Prathai					88,859	88,859	
	Kham Khrang	Kham Khrang				41,327	41,327	
		Top Hu				25,700	25,700	

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Tha Pho Si				447	447
		Na Charoen				28,232	28,232
		Na Krasaeng				52,887	52,887
		Bua Ngam				58,025	58,025
		Pa Mong				28,668	28,668
		Som Sa-at				41,464	41,464
	Det Udom Total			5,898	5,898	539,636	545,534
	Mueang Ubon Ratchathan	Chaeramae				12,364	12,364
		Rai Noi				22,831	22,831
		Krasop				21,634	21,634
		Ku Talat				17,604	17,604
		Kham Yai				19,221	19,221
		Khilek				12,842	12,842

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Hua Ruea				19,413	19,413
	Mueang Ubon Ratchathani	Total				125,910	125,910
	Khong Chiam	Khong Chiam	105		105	1,024	1,129
		Na Pho Klang				3,961	3,961
		Nong Saeng Yai	117		117	1,584	1,701
		Huai Yang				6,991	6,991
	Khong Chiam	Total	222		222	13,561	13,783
	Pho Sai	Lao Ngam				6,982	6,982
		Pho Sai				11,800	11,800
		Song Khon				19,341	19,341
		Saraphi				444	444
		Samrong				552	552
	Pho Sai	Total				39,119	39,119

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Lao Suea Kok	Lao Suea Kok				20,104	20,104
		Phaeng Yai				19,955	19,955
		Phon Mueang				22,186	22,186
		Nong Bok				18,080	18,080
	Lao Suea Kok Total					80,327	80,327
	Na Yia	Na Yia				25,069	25,069
		Na Rueang				25,081	25,081
		Na Di				35,711	35,711
	Na Yia Total					85,861	85,861
	Na Tan	Kong Phon	1,297		1,297	14,053	15,350
		Na Tan	3,623		3,623	8,710	12,332
		Phalan				2,680	2,680
Phang Khen		7,029	46	7,075	24,265	31,340	

Appendix Table 59 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Na Tan Total		11,949	46	11,995	49,708	61,703
	Nam Khun	Khok Sa-at				32,406	32,406
		Khilek				43,778	43,778
		Ta Kao				53,299	53,299
	Nam Khun Total					129,483	129,483
	Sawang Wirawong	Kaeng Dom				7,044	7,044
		Tha Chang				1,963	1,963
		Bung Malaeng				527	527
		Sawang	124		124	2,485	2,609
	Sawang Wirawong Total		124		124	12,019	12,144
	Kut Khaopun	Kaeng Kheng	1,308		1,308	19,278	20,587
		Non Sawang				35,855	35,855
		Ka Bin				22,783	22,783

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Than Nam				30,425	30,425
	Kut Khaopun Total		1,308		1,308	108,341	109,649
	Don Mot Daeng	Don Mot Daeng	14		14	23,664	23,678
		Tha Muaeng				18,241	18,241
	Don Mot Daeng Total		14		14	41,906	41,920
	Trakan Phuet Phon	Kasem				18,961	18,961
		Pao				27,565	27,565
		Khok Chan		1,408	1,408	22,912	24,320
		Lai Thung				27,084	27,084
		Kradian	1,618		1,618	6,342	7,960
		Kut Ya Luan				15,050	15,050
		Kutsakon	2,610		2,610	22,366	24,976
		Kham Pia				42,548	42,548

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khon Sai				15,117	15,117
		Trakan		1,501	1,501	43,463	44,964
		Tham Khae		1,581	1,581	16,946	18,527
		Na Samai				14,537	14,537
		Ban Daeng	2,331		2,331	6,097	8,429
		Nong Tao				14,702	14,702
	Trakan Phuet Phon	Total	6,559	4,491	11,049	293,689	304,739
	Tan Sum	Chik Thoeng				5,085	5,085
		Na Khai	3,388	1,440	4,828	39,260	44,087
		Samrong	91	2,038	2,130	20,288	22,417
		Nong Kung	6,196		6,196	25,591	31,786
	Tan Sum Total		9,675	3,478	13,153	90,223	103,376
	Thung Si Udom	Khok Chamrae				29,103	29,103

Appendix Table 59 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem		Kut Ruea		946	946	36,258	37,204
		Na Kasem				26,548	26,548
		Nong Om				15,642	15,642
	Thung Si Udom	Total		946	946	107,551	108,497
	Na Chaluai	Non Sombun				18,901	18,901
		Non Sawan				27,410	27,410
		Sok Saeng				46,937	46,937
		Na Chaluai				67,355	67,355
		Ban Tum				22,012	22,012
		Phon Sawan				24,667	24,667
		Na Chaluai Total				207,281	207,281
	Nam Yuen	Kao Kham				27,931	27,931
		Song				41,509	41,509

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Dom Pradit				51,608	51,608
		Bu Pueai				15,849	15,849
		Yang				47,632	47,632
		Yang Yai				4,587	4,587
		Nam Yuen Total				189,116	189,116
	Buntharik	Non Kho	2		2	41,831	41,833
		Kho Laen				14,082	14,082
		Na Pho				45,657	45,657
		Bua Ngam				17,102	17,102
		Ban Maet				33,965	33,965
		Nong Sano				88,071	88,071
		Huai Kha	660		660	56,720	57,380
		Buntharik Total	661		661	297,428	298,090

Appendix Table 59 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phibun Mangsahan	Non Klang				7,042	7,042
		Pho Sai	836	3,162	3,998	30,243	34,241
		Pho Si	188		188	25,481	25,669
		Rai Tai				48,064	48,064
		Kut Chomphu		28,162	28,162	809	28,971
		Dok Chik		61,767	61,767		61,767
		Sai Mun	257		257	870	1,127
		Na Pho		5,232	5,232	886	6,118
		Rawe	468		468	42,465	42,933
		Nong Bua Hi		24,926	24,926	17,529	42,456
	Phibun Mangsahan Total		1,750	123,250	125,000	173,390	298,390
	Muang Sam Sip	Toei				34,211	34,211
		Lao Bok				27,494	27,494

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phon Phaeng				14,297	14,297
		Na Loeng				26,489	26,489
		Muang Sam Sip				31,912	31,912
		Yang Yo Phap				25,034	25,034
		Yang Sak Krapho Lum				31,667	31,667
		Nong Lao				29,334	29,334
		Nong Khai Nok				8,033	8,033
		Nong Chang Yai				22,612	22,612
		Nong Hang				22,732	22,732
	Muang Sam Sip Total					273,815	273,815
	Warin Chamrap	Mueang Si Khai				25,037	25,037
		Saen Suk				6,993	6,993
		Non Non				17,973	17,973

Appendix Table 59 (Continued)

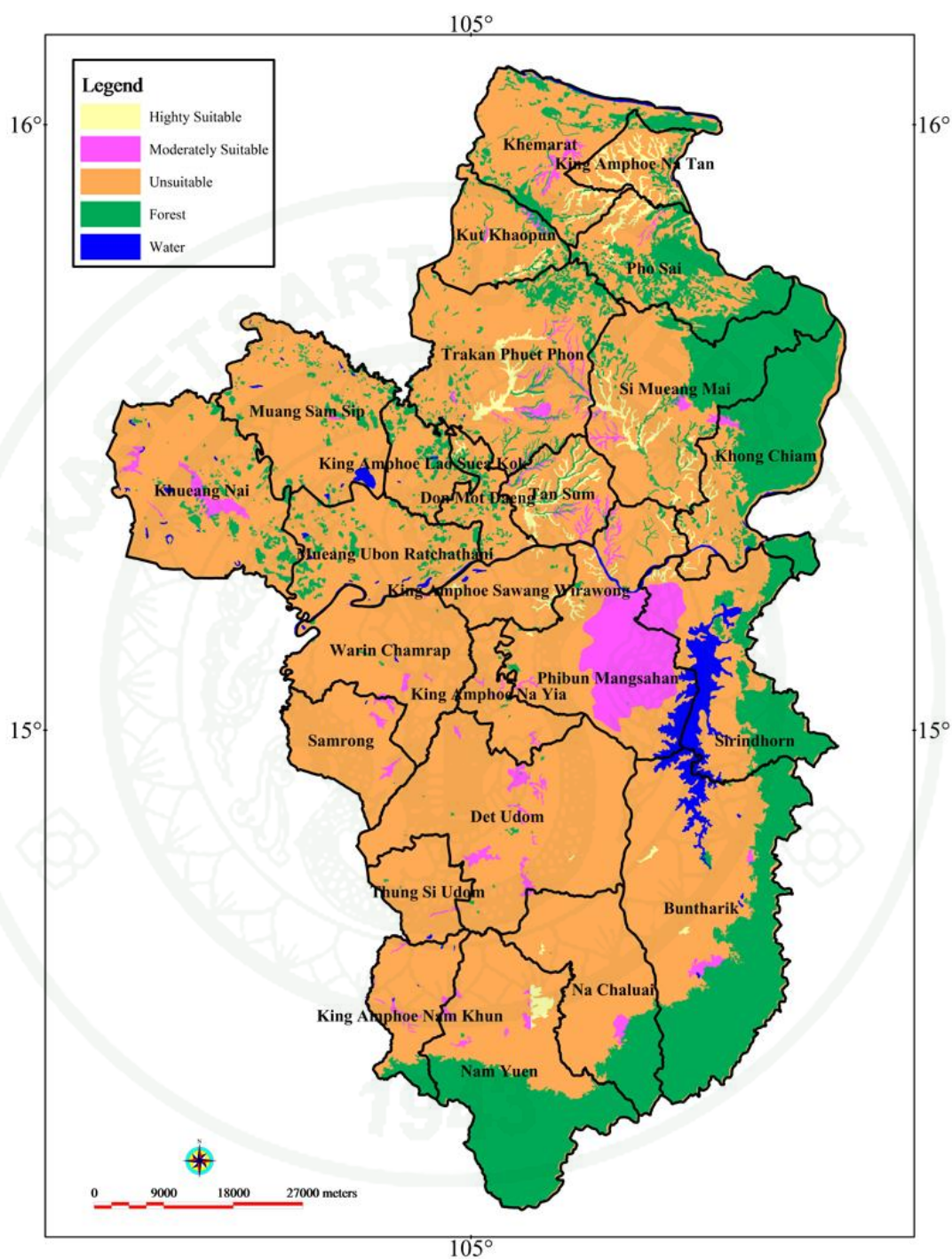
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Non Phueng				15,728	15,728
		Pho Yai				31,067	31,067
		Kham Khwang				13,467	13,467
		Kham Nam Chaep				3,870	3,870
		Tha Lat				15,982	15,982
		Bung Mai		120	120	6,295	6,415
		Bung Wai				19,727	19,727
		Sa Saming				36,264	36,264
		Nong Kin Phen		114	114	18,916	19,031
	Warin Chamrap	Total		234	234	211,318	211,552
	Si Mueang Mai	Uaet Yai	1,632	480	2,112	3,289	5,401
		Kaeng Kok		3,350	3,350	9,242	12,591
		Kham Lai	839		839	19,502	20,341

Appendix Table 59 (Continued)

						Unit : rai		
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
KASEM	Si Mueang Mai	Tabai	916		916	8,148	9,063	
		Na Loen				9,987	9,987	
		Na Dam				6,815	6,815	
		Lat Khwai				1,422	1,422	
		Warin				29,984	29,984	
		Nam Thaeng				1,565	1,565	
		Si Mueang Mai Total	3,386	3,830	7,216	89,954	97,170	
		Samrong	Khok Kong				24,835	24,835
		Khok Sawang		2,422	2,422	33,798	36,219	
		Kham Pom				19,784	19,784	
		Kho Noi				30,959	30,959	
		Bon				17,193	17,193	
	Samrong				13,564	13,564		

Appendix Table 59 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ubon Ratchathani	Samrong	Nong Hai				19,336	19,336
		Samrong Total		2,422	2,422	159,469	161,891
	Sirindhorn	Non Ko				24,454	24,454
		Khan Rai	266	33,173	33,439	6,305	39,743
		Kham Khuean Kaeo				3,331	3,331
		Chong Mek				411	411
		Fang Kham				2,893	2,893
	Sirindhorn Total	266	33,173	33,439	37,394	70,833	
	Ubon Ratchathani Total		43,723	191,040	234,763	3,724,208	3,958,970



Appendix Figure 39 Map of Land Suitability for Rambutan in Ubon Ratchathani Province

Appendix Table 60 Zoning For Rambutan in Ubon Ratchathani Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Nam Khun			200	0	0
Nam Yuen			846	1,466	2
Ubon Ratchathani Total	0	0	1,046	1,185	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 60 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Nam Khun									200
Nam Yuen								846	
Ubon Ratchathani Total	0	0	0	0	0	0	0	846	200

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

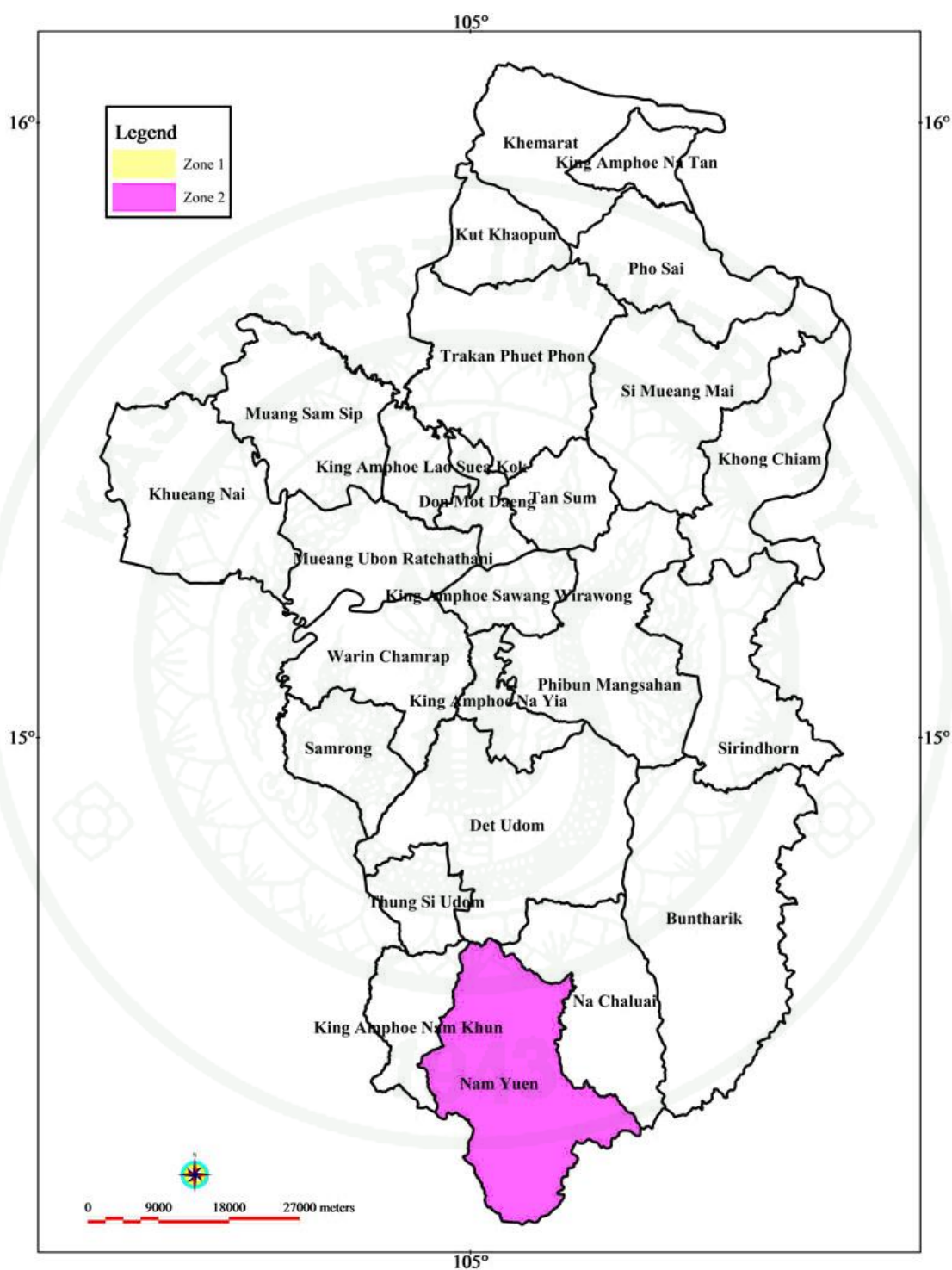
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 40 Map of Zoning for Rambutan in Ubon Ratchathani Province

Appendix Table 61 Classification of Land Suitability for Rambutan in Si Sa Ket Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	544,885	9.86
3. Unsuitable	2,475,029	44.80
4. Existing Forest	651,592	11.79
5. Deforestation	910,091	16.47
6. Water	15,298	0.28
7. Built-up areas	928,091	16.80
Total	5,524,985	100.00

Appendix Table 62 Land Suitability for Rambutan in Si Sa Ket Province by Amphoe,Tambon,Thailand

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Si Sa Ket	Benchalak	Siao				20,685	20,685
		Tha Khlo				39,597	39,597
		Nong Ngu Lueam				30,159	30,159
	Benchalak Total					90,441	90,441
	Mueang Chan	Mueang Chan				22,704	22,704
		Ta Kon				16,336	16,336
		Nong Yai				8,139	8,139
	Mueang Chan Total					47,179	47,179
	Mueang Si Sa Ket	Pho				9,624	9,624
		Phon Kha				10,504	10,504
		Phon Kho		7,135	7,135	1,029	8,164
		Chan		2,881	2,881		2,881
		Thum		24,250	24,250		24,250

Appendix Table 62 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Mueang Si Sa Ket	Nam Kham		1,370	1,370	21,385	22,755	
		Ya Plong				9,727	9,727	
		Nong Kaeo				24,743	24,743	
		Nong Phai				16,894	16,894	
		Mak Khiap		7,412	7,412	1,718	9,130	
		Mueang Si Sa Ket Total		43,048	43,048	95,625	138,672	
		Non Khun	Lao Kwang				29,001	29,001
			Non Kho				36,091	36,091
			Pho				25,975	25,975
			Pok				35,626	35,626
		Nong Kung				43,113	43,113	
		Non Khun Total				169,806	169,806	
		Phrai Bueng	Phrai Bueng		8,754	8,754	20,076	28,830

Appendix Table 62 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
Kantharalak	Phrai Bueng	Prasat Yoe		4,469	4,469	10,414	14,883
		Samrong Phlan				40,252	40,252
		Suk Sawat				18,500	18,500
		Total		13,224	13,224	89,242	102,465
	Kantharalak	Mueang		980	980	21,376	22,356
		Wiang Nuea				10,776	10,776
		Sao Thong Chai				42,067	42,067
		Non Samran				26,959	26,959
		Krachaeng		17,440	17,440	28,304	45,744
		Kut Salao				41,772	41,772
		Khanun				20,556	20,556
		Chan Yai				28,345	28,345
		Nam Om		13	13	11,904	11,917

Appendix Table 62 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Bueng Malu				59,259	59,259
		Phu Pha Mok				24,242	24,242
		Rung				23,854	23,854
		Lalai				53,223	53,223
		Suan Kluai				22,608	22,608
		Sang Mek				55,948	55,948
		Nong Ya Lat		9,995	9,995	5,387	15,382
	Kantharalak Total			28,427	28,427	476,580	505,007
	Kanthararom	Mueang Noi				3,255	3,255
		Non Sang				26,627	26,627
		Chan				22,213	22,213
		Du				12,035	12,035
		Tham				21,883	21,883

Appendix Table 62 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
		Bua Noi		8,452	8,452	19,947	28,400	
		Phak Phaeo				27,166	27,166	
		Yang				33,977	33,977	
		Lathai				17,331	17,331	
		Nong Kaeo				15,526	15,526	
		Nong Waeng				20,076	20,076	
		Nong Bua				16,470	16,470	
		Nong Hua Chang				30,679	30,679	
		I Pat				18,517	18,517	
		Kanthararom Total			8,452	8,452	285,703	294,155
		Pho Si Suwan	Dot				20,909	20,909
			Nong Ma		822	822	10,973	11,795
Pho Si Suwan Total			822	822	31,881	32,703		

Appendix Table 62 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Sila Lat	Kung		13,916	13,916	8,022	21,938
		Khli Kling		8,029	8,029	532	8,561
		Nong Bua Dong				11,765	11,765
	Sila Lat Total			21,946	21,946	20,319	42,264
	Khukhan	Sano				58,878	58,878
		Kritsana				15,708	15,708
		Kanthararom				11,582	11,582
		Chakong		10,080	10,080	8,612	18,692
		Takian		13,559	13,559	3,146	16,705
		Ta Ut				10,575	10,575
		Nikhom Phatthana		307	307	7,179	7,486
		Prasat		8,379	8,379	12,070	20,449
		Prue Yai		7,442	7,442	46,654	54,096

Appendix Table 62 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
		Si Sa-at		10,509	10,509		10,509	
		Nong Chalong				12,030	12,030	
		Huai Nuea				14,905	14,905	
		Huai Tai		9,919	9,919	14,233	24,152	
		Huai Samran				17,186	17,186	
		KhukhanTotal		60,194	60,194	232,758	292,953	
		Khun Han	Pho Krasang				31,326	31,326
			Pho Wong				9,437	9,437
			Phrai				24,032	24,032
			Krawan				17,293	17,293
			Khanthrom				43,293	43,293
			Khun Han				12,164	12,164
		Bak Dong				37,493	37,493	

Appendix Table 62 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phran				41,990	41,990
		Phu Fai		2,368	2,368	29,120	31,488
		Huai Chan				35,770	35,770
	Khun Han Total		2,368	2,368	281,916	284,284	
	Nam Kiang	Khoen		7,107	7,107		7,107
		Nam Kiang		8,473	8,473	21,940	30,413
		Rung Rawi		11,472	11,472	779	12,252
		La - o		10,296	10,296	813	11,109
	Nam Kiang Total		37,348	37,348	23,532	60,880	
	Bueng Bun	Po		8,049	8,049	20,134	28,183
	Bueng Bun Total		8,049	8,049	20,134	28,183	
	Prang Ku	Pho Si		13,150	13,150	2,754	15,904
		Ku				38,356	38,356

Appendix Table 62 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Prang Ku		Tum				18,985	18,985
		Phimai Nuea		4,592	4,592	16,247	20,839
		Samo		11,864	11,864	6,834	18,698
		Sawai				12,776	12,776
		Samrong Prasat		16,534	16,534	3,732	20,266
		Nong Chiang Thun		20,270	20,270	6,334	26,604
	Prang Ku Total			66,409	66,409	106,018	172,427
	Phayu	Nong Phek		12,164	12,164	4,720	16,884
		Tamyae		15,549	15,549		15,549
		Phayu		17,714	17,714		17,714
		Phrom Sawat		1,011	1,011	3,946	4,958
		Nong Kha		2,015	2,015		2,015
	Phayu Total			48,454	48,454	8,666	57,120

Appendix Table 62 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phu Sing	Khok Tan				30,737	30,737
		Phrai Phatthana		190	190	25,709	25,899
		Dong Rak				5,552	5,552
		Lalom				13,913	13,913
		Huai Ta Mon				27,820	27,820
	Phu Sing Total			190	190	103,732	103,922
	Yang Chum Noi	Non Khun		13,805	13,805	5,023	18,828
		Khon Kam		7,198	7,198	1,426	8,624
		Yang Chum Yai		9,388	9,388	4,572	13,960
		Lin Fa		13,833	13,833	6,436	20,269
	Yang Chum Noi Total			44,225	44,225	17,456	61,681
	Rasi Salai	Mueang Khaen		7,439	7,439	7,460	14,900
		Phai		11,665	11,665	1,855	13,521

Appendix Table 62 (Continued)

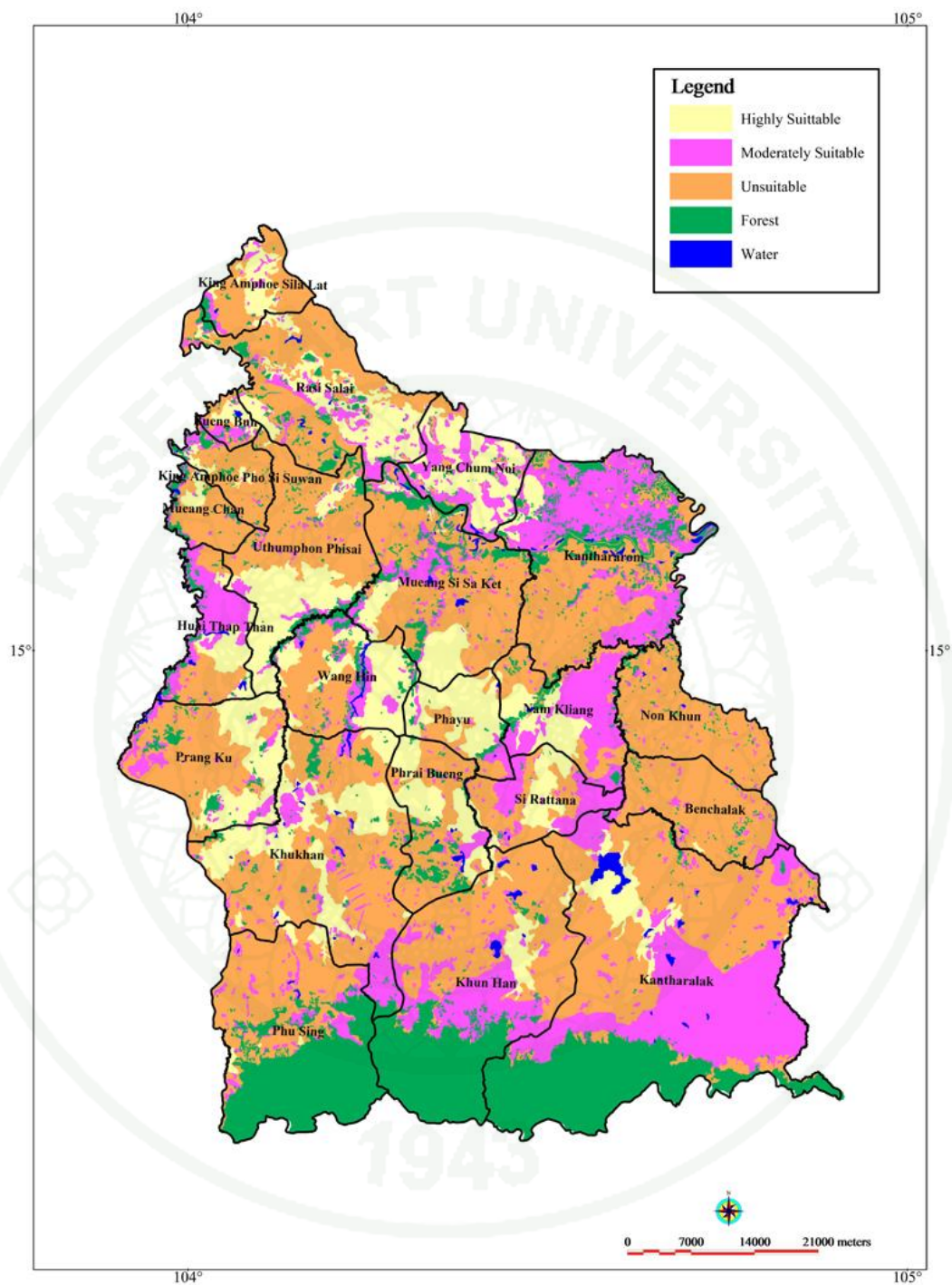
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Rasi Salai		Dan		1,453	1,453	10,738	12,191
		Du		237	237	19,520	19,756
		Bua Hung		7,861	7,861	14,456	22,317
		Sam Poi		11,274	11,274	3,343	14,617
		Nong Khae				19,594	19,594
		Nong Ueng		213	213	25,642	25,855
		Wan Kham		27	27	25,950	25,977
		Nong Mi		4,218	4,218	4,990	9,208
		Total		44,388	44,388	133,547	177,935
	Wang Hin	Phon Yang				20,580	20,580
		Duan Yai		15,402	15,402	2,194	17,596
		Thung Sawang		5,288	5,288		5,288
		That		5,109	5,109	16,830	21,939

Appendix Table 62 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Wang Hin	Bu Sung		0	0	23,313	23,314
		Wang Hin		12,567	12,567	4,631	17,198
		Wang Hin Total		38,367	38,367	67,549	105,916
	Si Rattana	Sueang Khao		2,495	2,495	26,456	28,951
		Tum		5,055	5,055		5,055
		Sa Yao		5,856	5,856	34,104	39,960
	Si Rattana Total		13,407	13,407	60,560	73,967	
	Huai Thap Than	Mueang Luang		10,370	10,370		10,370
		Kluai Kwang		5,156	5,156		5,156
		Phak Mai		80	80	18,098	18,178
	Huai Thap Than Total		15,606	15,606	18,098	33,704	
	Uthumphon Phisai	Khaem				14,565	14,565
		Khok Chan		11,930	11,930		11,930

Appendix Table 62 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Pho Chai				12,943	12,943
		Khayung				17,758	17,758
		Thung Chai		10,807	10,807		10,807
		Pa Ao		6,555	6,555	8,021	14,576
		Rang Raeng		3,156	3,156	5,638	8,794
		Samrong				15,149	15,149
		Nong Hai				15,037	15,037
		Nong Hang		12,498	12,498	3,174	15,672
		I Lam		5,016	5,016	1,998	7,013
	Uthumphon Phisai Total			49,961	49,961	94,285	144,247
Si Sa Ket Total				544,885	544,885	2,475,029	3,019,913



Appendix Figure 41 Map of Land Suitability for Rambutan in Si Sa Ket Province

Appendix Table 63 Zoning For Rambutan in Si Sa Ket Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Phrai Bueng		13,224	3	1,700	2
Kantharalak		28,427	1,217	2,000	1
Khun Han		2,368	382	2,414	2
Prang Ku		66,409	4	7,500	2
Phu Sing		190	52	808	0
Si Rattana		13,407	73	1,151	2
Si Sa Ket Total	0	124,025	1,731	2,032	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 63 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Phrai Bueng					13,224			3	
Kantharalak				28,427			1,217		
Khun Han					2,368			382	
Prang Ku					66,409			4	
Phu Sing						190			52
Si Rattana					13,407			73	
Si Sa Ket Total	0	0	0	28,427	95,408	190	1,217	462	52

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

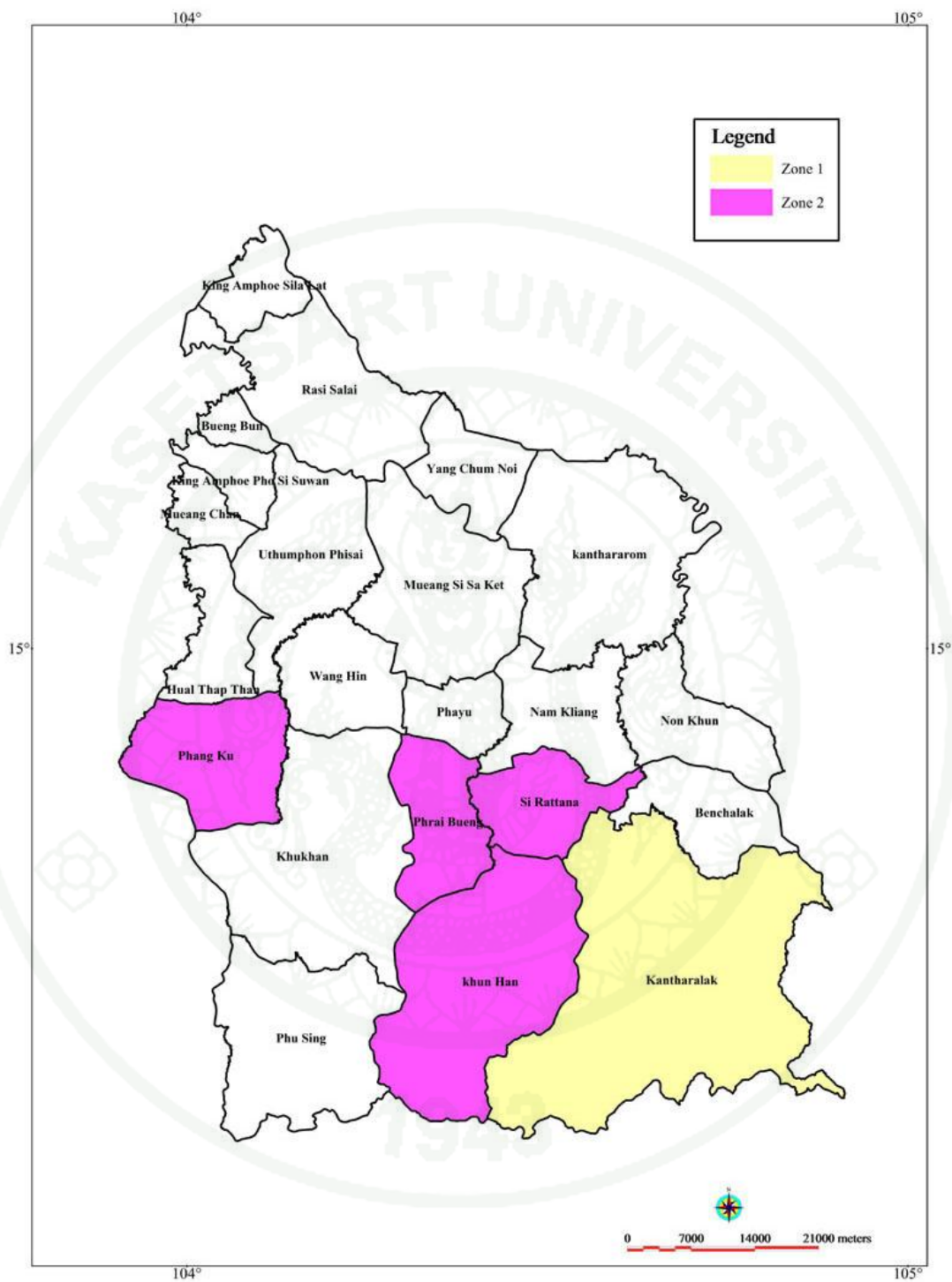
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 42 Map of Zoning for Rambutan in Si Sa Ket Province

Appendix Table 64 Classification of Land Suitability for Rambutan in Buri Ram
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	25,973	0.40
2. Moderately Suitable	214,933	3.33
3. Unsuitable	3,305,943	51.25
4. Existing Forest	448,528	6.95
5. Deforestation	1,214,067	18.82
6. Water	9,667	0.15
7. Built-up areas	1,232,067	19.10
Total	6,451,178	100.00

Appendix Table 65 Land Suitability for Rambutan in Buri Ram Province by Amphoe,Tambon,Thailand

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Buri Ram	Chaloem Phra Kiat	Thawon				27,452	27,452
		Isan Khet				36,996	36,996
		Chaloem Phra Kiat Total				64,448	64,448
	Mueang Buri Ram	Mueang Fang				14,574	14,574
		Samet				14,615	14,615
		Kalantha		3,694	3,694	19,469	23,163
		Chum Het		5,675	5,675	14,838	20,513
		Thalung Lek		4,890	4,890	10,831	15,721
		Ban Bua		2,257	2,257	15,518	17,776
		Lumpuk		1,803	1,803	22,362	24,165
		Song Hong		11,302	11,302	24,047	35,350
		Sakae Phrong		9,508	9,508	14,844	24,352
		Sakae Cham				28,703	28,703

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Isan				13,163	13,163
	Mueang Buri Ram Total			39,129	39,129	192,964	232,093
	Non Din Daeng	Non Din Daeng				10,904	10,904
		Lam Nang Rong				23,516	23,516
	Non Din Daeng Total					34,420	34,420
	Non Suwan	Dong I Chan				34,356	34,356
		Thung Changan				32,184	32,184
	Non Suwan Total					66,540	66,540
	Krasang	Krasang		14,219	14,219	26,164	40,382
		Chom Saeng		4,849	4,849	13,491	18,340
		Lamduan		9,418	9,418	26,937	36,355
		Song Chan		2,786	2,786	40,950	43,735
		Sung Noen		1,758	1,758	27,677	29,434

Appendix Table 65 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Teng		5,769	5,769	26,646	32,416
	Krasang Total			38,798	38,798	161,864	200,662
	Khaen Dong	Khaen Dong				41,880	41,880
		Sa Bua				57,256	57,256
	Khaen Dong Total					99,136	99,136
	Ban Dan	Non Khwang				12,135	12,135
		Prasat		9,536	9,536	19,561	29,097
	Ban Dan Total			9,536	9,536	31,695	41,232
	Khu Mueang	Khu Mueang				36,752	36,752
		Tum Yai		3,265	3,265	29,400	32,664
		Ban Phae				29,977	29,977
		Prakhiam				38,545	38,545
		Phon Samran				35,535	35,535

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Khaman				31,348	31,348
		Hin Lek Fai		1,684	1,684	24,917	26,601
	Khu Mueang Total			4,949	4,949	226,473	231,422
	Chamni	Cho Phaka				17,864	17,864
		Chamni		2,403	2,403	17,243	19,646
		Nong Plong				13,963	13,963
	Chamni Total			2,403	2,403	49,069	51,473
	Na Pho	Na Pho		816	816	18,000	18,816
		Ban Khu				28,013	28,013
		Ban Du				27,628	27,628
		Si Sawang		1,571	1,571	17,573	19,144
	Na Pho Total			2,387	2,387	91,213	93,601
	Nang Rong	Kan Lueang				20,046	20,046

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Chum Saeng				15,292	15,292
		Thanon Hak				21,181	21,181
		Sap Phraya				25,315	25,315
		Nang Rong				26,274	26,274
		Ban Sing				18,862	18,862
		Lam Sai Yong				16,800	16,800
		Nong Bot				32,994	32,994
		Nong Kong				29,401	29,401
		Nong Yai Phim				29,038	29,038
		Hua Thanon				34,689	34,689
	Nang Rong Total					269,892	269,892
	Ban Mai Chaiyapot	Daeng Yai				18,676	18,676
		Thonglang				18,949	18,949

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Yueang				18,987	18,987
		Nong Waeng				26,454	26,454
	Ban Mai Chaiyapot	Total				83,066	83,066
	Ban Kruat	Non Charoen				32,569	32,569
		Ban Kruat				21,206	21,206
		Bueng Charoen				26,831	26,831
		Prasat				21,380	21,380
		Sai Taku				30,358	30,358
		Nong Mai Ngam				45,893	45,893
		Hin Lat				24,904	24,904
	Ban Kruat	Total				203,141	203,141
	Prakhon Chai	Khao Khok				35,602	35,602
		Khok Tum		2,872	2,872	24,611	27,484

Appendix Table 65 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Khok Makham				23,496	23,496
		Khok Ma				15,747	15,747
		Khok Yang				22,141	22,141
		Phaisan				32,306	32,306
		Cholakhe Mak				40,969	40,969
		Tako Taphi				26,018	26,018
		Ban Sai				40,984	40,984
		Prakhon Chai				16,569	16,569
		Prathat Bu				16,540	16,540
		Pang Ku				8,591	8,591
		Si Liam				22,327	22,327
		Nong Bon		3,921	3,921	26,298	30,218
	Prakhon Chai Total			6,793	6,793	352,200	358,992

Appendix Table 65 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Pakham	Khok Mamuang		5,062	5,062	29,598	34,660
		Thai Charoen		3,368	3,368	15,407	18,775
		Pakham	1,374	1,988	3,362	14,321	17,683
		Nong Bua		3,088	3,088	14,108	17,197
		Hu Thamnop				51,905	51,905
	Pakham Total		1,374	13,506	14,880	125,340	140,221
	Phlapphla Chai	Khok Khamin		828	828	29,964	30,793
		Chan Dum				34,801	34,801
		Pa San		739	739	24,227	24,966
		Sanrong				33,503	33,503
	Phlapphla Chai Total			1,567	1,567	122,495	124,062
	Phutthaisong	Ban Waeng				23,571	23,571
		Ban Chan				27,123	27,123

Appendix Table 65 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phutthaisong Total	Ban Yang				34,650	34,650
		Mafueang				44	44
		Hai Sok				21,196	21,196
						106,583	106,583
	Lahan Sai	Khok Wan	12,503		12,503		12,503
		Lata Chong		12,013	12,013	18,025	30,038
		Lahan Sai	1,996	6,768	8,764	24,256	33,020
		Samrong Mai	1,615	5,250	6,865	39,372	46,237
		Nong Waeng				62,411	62,411
	Lahan Sai Total	Nong Takhrong	8,484		8,484		8,484
			24,598	24,030	48,628	144,064	192,692
		Lam Plai Mat	Mueang Faek		829	829	42,573
		Salaeng Phan		8,736	8,736	24,274	33,009

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khok Klang		3,757	3,757	14,666	18,424
		Khok Lam		1,505	1,505	32,898	34,403
		Khok Sa-at				23,319	23,319
		Thamen Chai		1,028	1,028	19,976	21,004
		Phathairin		9,186	9,186	31,272	40,457
		Lam Plai Mat		107	107	3,111	3,218
		Nong Don				12,373	12,373
		Nong Khu		1,765	1,765	16,414	18,178
		Hin Khon		1,903	1,903	35,323	37,226
	Lam Plai Mat Total			28,815	28,815	256,198	285,013
	Satuek	Mueang Kae				31,226	31,226
		Krasang		2,440	2,440	14,029	16,470
		Chum Saeng		7,208	7,208	22,156	29,364

Appendix Table 65 (Continued)

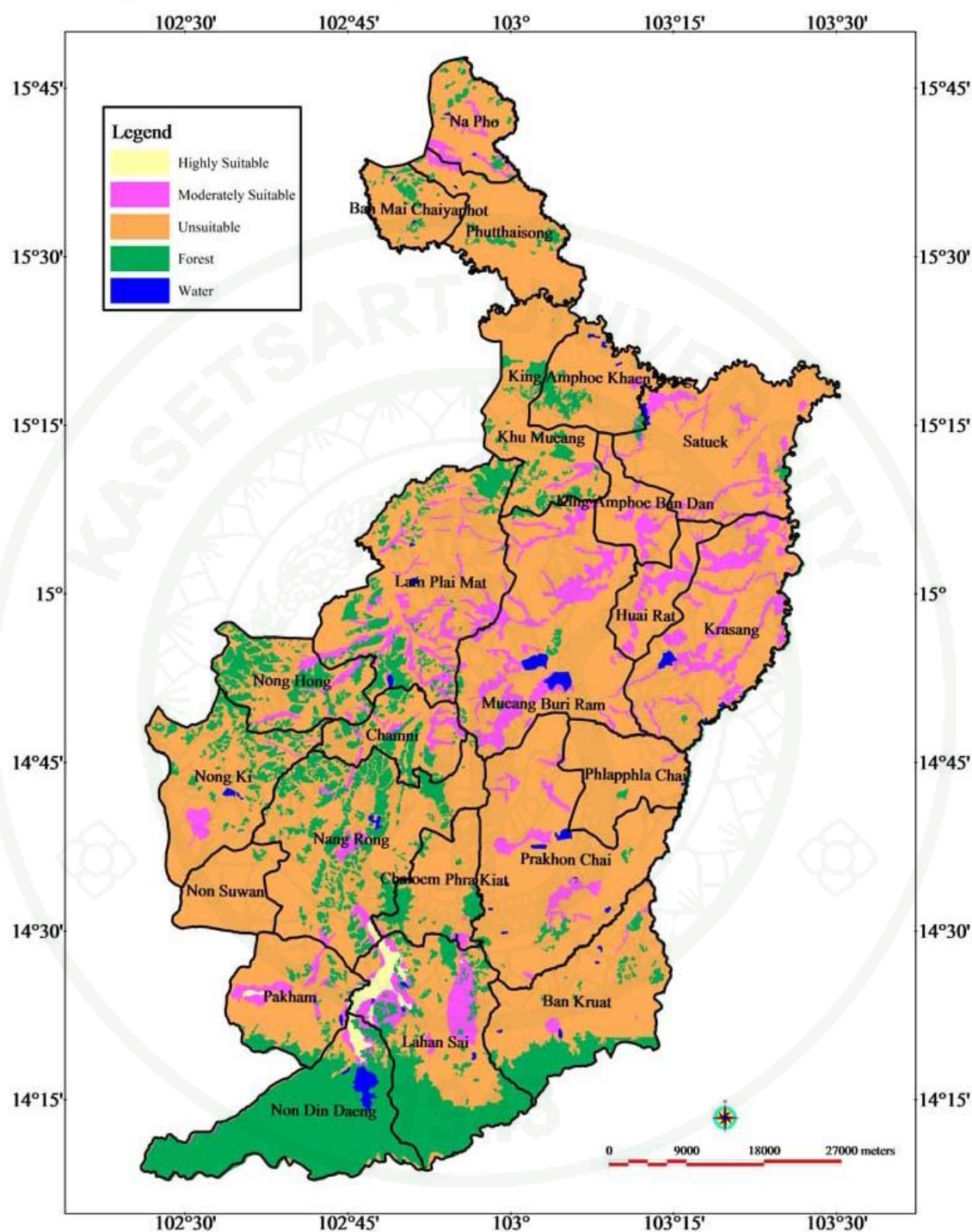
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Satuek	Don Mon				8,390	8,390
		Tha Muang				29,656	29,656
		Thung Wang		342	342	26,667	27,009
		Nikhom		9,408	9,408	20,082	29,490
		Ron Thong				47,339	47,339
		Sanam Chai		271	271	20,782	21,053
		Sakae				36,684	36,684
		Nong Yai				336	336
	Satuek Total		19,669	19,669	257,347	277,017	
	Nong Ki	Mueang Phai		1,447	1,447	42,801	44,248
		Yoei Prasat				22,375	22,375
		Khok Sung				37,660	37,660
Don Arang					44,287	44,287	

Appendix Table 65 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Thung Kraten				13,779	13,779
		Thung Kratat Phatthana		5,052	5,052	7,709	12,761
		Bu Krasang				31,228	31,228
		Nong Ki		211	211	7,597	7,808
	Nong Ki Total			6,710	6,710	207,436	214,146
	Nong Hong	Sao Diao				26,023	26,023
		Thai Samakkhi		1,789	1,789	5,322	7,111
		Sa Kaeo		763	763	22,484	23,247
		Sa Thong		1,920	1,920	17,937	19,857
		Huai Hin				38,124	38,124
	Nong Hong Total			4,472	4,472	109,890	114,362
	Huai Rat	Mueang Pho		1,808	1,808	7,072	8,881
		Khok Lek		7,916	7,916	1,901	9,817

Appendix Table 65 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Ban Tako				15,778
		Sanuan		2,443	2,443	18,789
		Sam Waeng				6,927
	Huai Rat Total			12,168	12,168	50,467
Buri Ram	Total		25,973	214,933	240,906	3,305,943



Appendix Figure 43 Map of Land Suitability for Rambutan in Buri Ram Province

Appendix Table 66 Zoning For Rambutan in Buri Ram Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Non Din Daeng			5	200	0
Non Suwan			12	1,250	2
Nang Rong			42	2,071	2
Buri Ram Total	0	0	59	1,746	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 66 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Non Din Daeng									5
Non Suwan								12	
Nang Rong								42	
Buri Ram Total	0	0	0	0	0	0	0	54	5

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

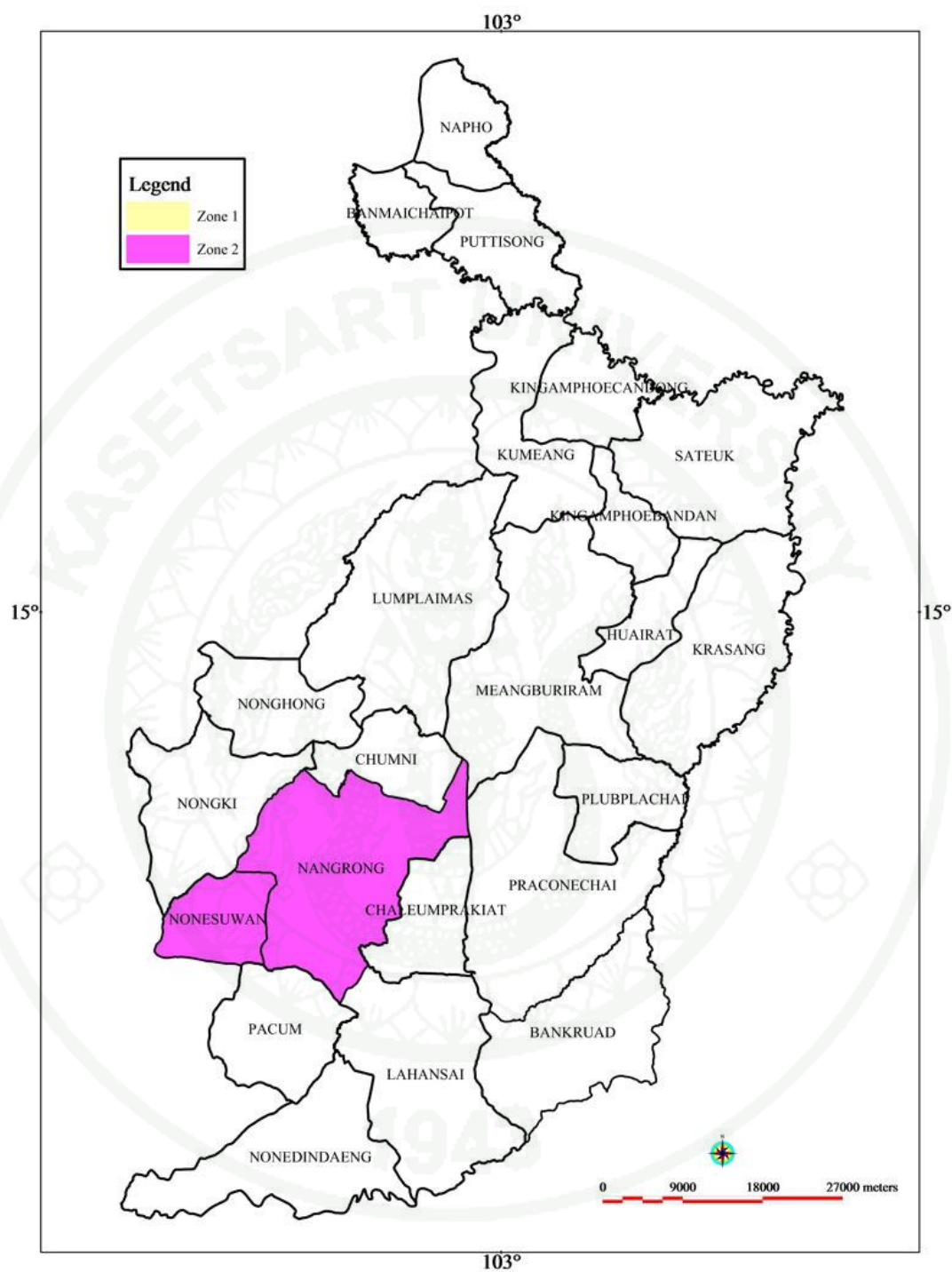
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 44 Map of Zoning for Rambutan in Buri Ram Province

Appendix Table 67 Classification of Land Suitability for Rambutan in Chaiphum
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	24,714	0.31
3. Unsuitable	3,116,417	39.02
4. Existing Forest	2,964,870	37.12
5. Deforestation	929,058	11.63
6. Water	4,313	0.05
7. Built-up areas	947,058	11.86
Total	7,986,429	100.00

Appendix Table 68 Land Suitability for Rambutan in Chaiyaphum Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chaiyaphum	Kaset Sombun	Non Kok				21,139	21,139
		Non Thong				13,177	13,177
		Kut Lo				18,311	18,311
		Sap Si Thong				3,507	3,507
		Ban Duea				62,113	62,113
		Ban Pao				22,320	22,320
		Ban Yang				20,082	20,082
		Ban Han				43,980	43,980
		Sa Phon Thong				24,541	24,541
		Nong Phon Ngam		1,567	1,567	64,383	65,950
		Nong Kha				28,330	28,330
		Kaset Sombun Total			1,567	1,567	321,884
	Thep Sathit	Pong Nok				58,964	58,964

Appendix Table 68 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Na Yang Klak				78,341	78,341
		Ban Rai				65,902	65,902
		Wa Tabaek				84,432	84,432
		Huai Yai Chio				58,006	58,006
	Thep Sathit Total					345,645	345,645
	Noen Sa-nga	Kahad				40,548	40,548
		Rang Ngam				36,763	36,763
		Nong Chim				41,972	41,972
	Noen Sa-nga Total					119,282	119,282
	Mueang Chaiyaphum	Khok Sung		926	926	23,248	24,173
		Non Samran				21,072	21,072
		Phon Thong				28,844	28,844
		Kut Tum				44,464	44,464

Appendix Table 68 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit Rajavidyalaya	Mueang Chaiyaphum	Chi Long				23,399	23,399
		Tha Hin Ngom				24,593	24,593
		Na Siao		2,241	2,241	43,197	45,438
		Na Fai		1,112	1,112	38,667	39,779
		Ban Khai				22,088	22,088
		Bung Khla				29,756	29,756
		Nong Phai				35,791	35,791
		Huai Ton		1,270	1,270	13,211	14,480
		Huai Bong				35,517	35,517
	Mueang Chaiyaphum Total		5,549	5,549	383,846	389,395	
	Kaeng Khro	Tha Mafai Wan				9,457	9,457
		Ban Kaeng				5,839	5,839
		Nong Phai				6,690	6,690

Appendix Table 68 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Nong Kham				2,072	2,072
		Lup Kha				26,829	26,829
	Kaeng Khro	Total				50,887	50,887
	Sap Yai	Sap Yai				53,073	53,073
		Tako Thong				25,753	25,753
		Tha Kup				68,850	68,850
	Sap Yai	Total				147,676	147,676
	Khon Sawan	Khok Mang Ngoi				30,614	30,614
		Non Sa-at		403	403	32,854	33,257
		Khon Sawan				24,332	24,332
		Chong Sam Mo				24,258	24,258
		Ban Sok				29,391	29,391
		Nong Kham				15,426	15,426

Appendix Table 68 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Huai Rai				34,835	34,835
	Khon Sawan Total			403	403	191,711	192,114
	Khon San	Non Khun				22,753	22,753
		Dong Klang				38,758	38,758
		Dong Bang				31,826	31,826
		Thung Phra				21,360	21,360
		Thung Luilai				437	437
		Huai Yang				40,853	40,853
	Khon San Total					155,988	155,988
	Chatturat	Kut Nam Sai				51,660	51,660
		Ban Kok				60,150	60,150
		Lahan				37,774	37,774
		Som Poi				34,493	34,493

Appendix Table 68 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Chatturat	Nong Bua Khok		454	454	57,641	58,095	
		Nong Bua Ban				37,557	37,557	
		Chatturat Total		454	454	279,274	279,728	
		Ban Khwao	Chi Bon				8,644	8,644
			Talat Raeng				52,449	52,449
			Ban Khwao				41,970	41,970
			Phu Laen Kha		915	915	34,876	35,791
		Lum Lamchi				31,839	31,839	
	Ban Khwao Total		915	915	169,779	170,694		
	Ban Thaen	Ban Tao				7,082	7,082	
		Ban Thaen				333	333	
		Sa Phang				1,639	1,639	
		Sam Suan				316	316	

Appendix Table 68 (Continued)

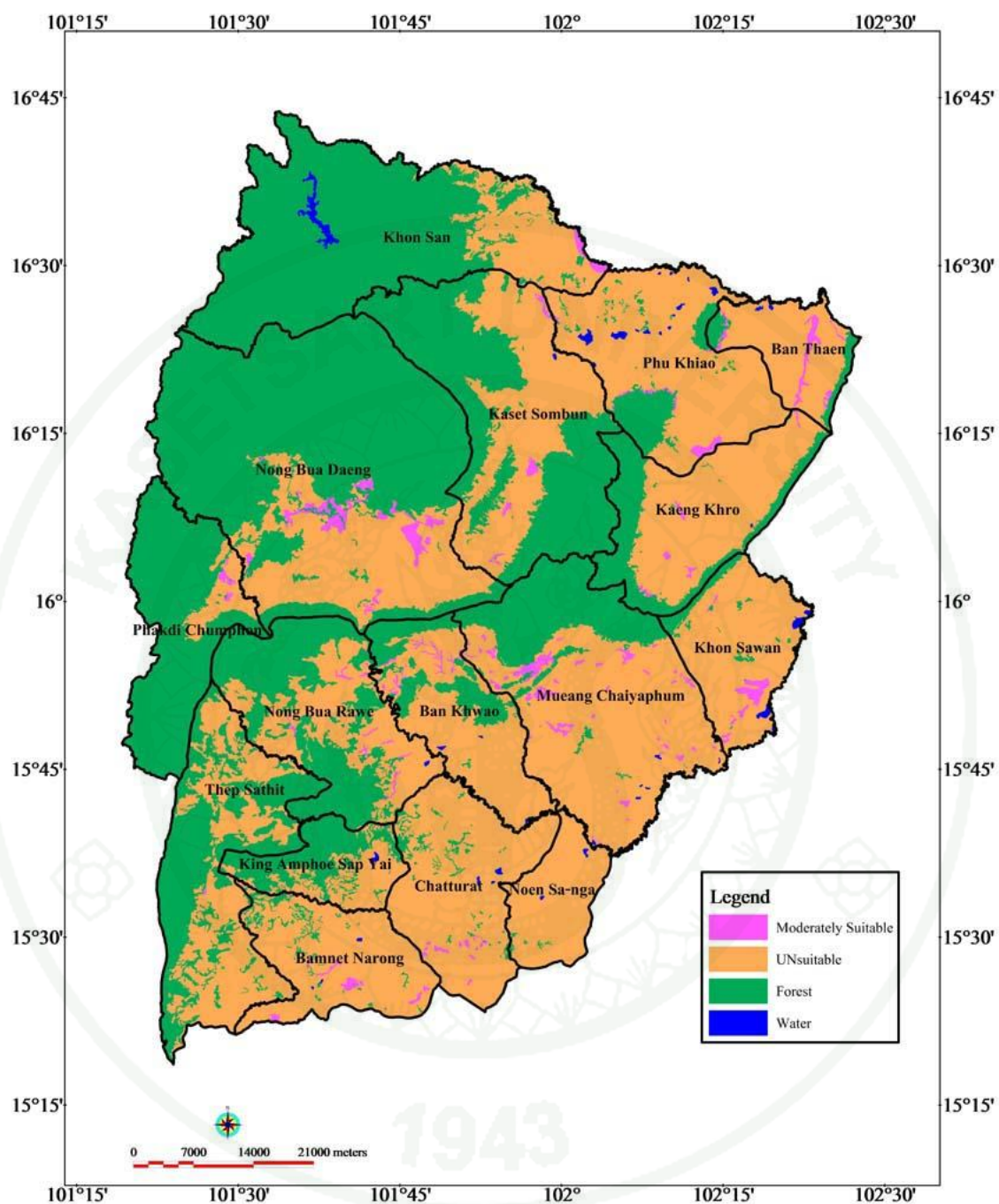
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Khu		1,518	1,518	9,450	10,968
	Ban Thaen Total			1,518	1,518	18,819	20,337
	Bamnet Narong	Khok Phet Phatthana				54,539	54,539
		Khok Roeng Rom		2,357	2,357	37,545	39,902
		Ban Phet		1,485	1,485	33,590	35,075
		Ban Chuan				51,848	51,848
		Ban Tan				20,863	20,863
		Hua Thale				38,955	38,955
	Bamnet Narong Total			3,842	3,842	237,340	241,181
	Phakdi Chumphon	Chao Thong				43,041	43,041
		Laem Thong				20,724	20,724
	Phakdi Chumphon Total					63,765	63,765
	Phu Khiao	Khok Sa-at				29,679	29,679

Appendix Table 68 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Kwang Chon				3,643	3,643
		Kut Yom				224	224
		That Thong				4,073	4,073
		Ban Phet				8,656	8,656
		Ban Kaeng				76,581	76,581
		Ban Don				401	401
		Phak Pang		1	1	11,781	11,782
		Nong Khon Thai				28,355	28,355
		Nong Tum				36,341	36,341
	Phu Khiao Total			1	1	199,735	199,736
	Nong Bua Daeng	Kut Chum Saeng		50	50	55,610	55,660
		Khu Mueang		561	561	30,808	31,369
		Tham Wua Daeng				35,618	35,618

Appendix Table 68 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Chaiyaphum	Nong Bua Daeng	Nang Daet				49,944	49,944	
		Wang Chomphu				17,445	17,445	
		Nong Waeng		9,794	9,794	39,960	49,754	
		Nong Bua Daeng				26,155	26,155	
		Nong Bua Daeng Total		10,405	10,405	255,541	265,946	
		Nong Bua Rawe	Khok Sa-at		22	22	59,428	59,449
			Sok Pla Duk				47,736	47,736
			Wang Takhe		37	37	44,573	44,610
			Huai Yae				23,509	23,509
		Nong Bua Rawe Total		59	59	175,245	175,305	
Chaiyaphum Total				24,714	24,714	3,116,417	3,141,131	



Appendix Figure 45 Map of Land Suitability for Rambutan in Chaiyaphum Province

Appendix Table 69 Zoning For Rambutan in Chaiyaphum Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Kaset Sombun		1,567	23	204	2
Phakdi Chumphon		0	12	0	2
Nong Bua Daeng		10,405	49	1,224	1
Nong Bua Rawe		59	5	0	2
Chaiyaphum Total	0	12,032	89	727	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 69 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Kaset Sombun					1,567			23	
Phakdi Chumphon								12	
Nong Bua Daeng				10,405			49		
Nong Bua Rawe					59			5	
Chaiyaphum Total	0	0	0	10,405	1,627	0	49	40	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

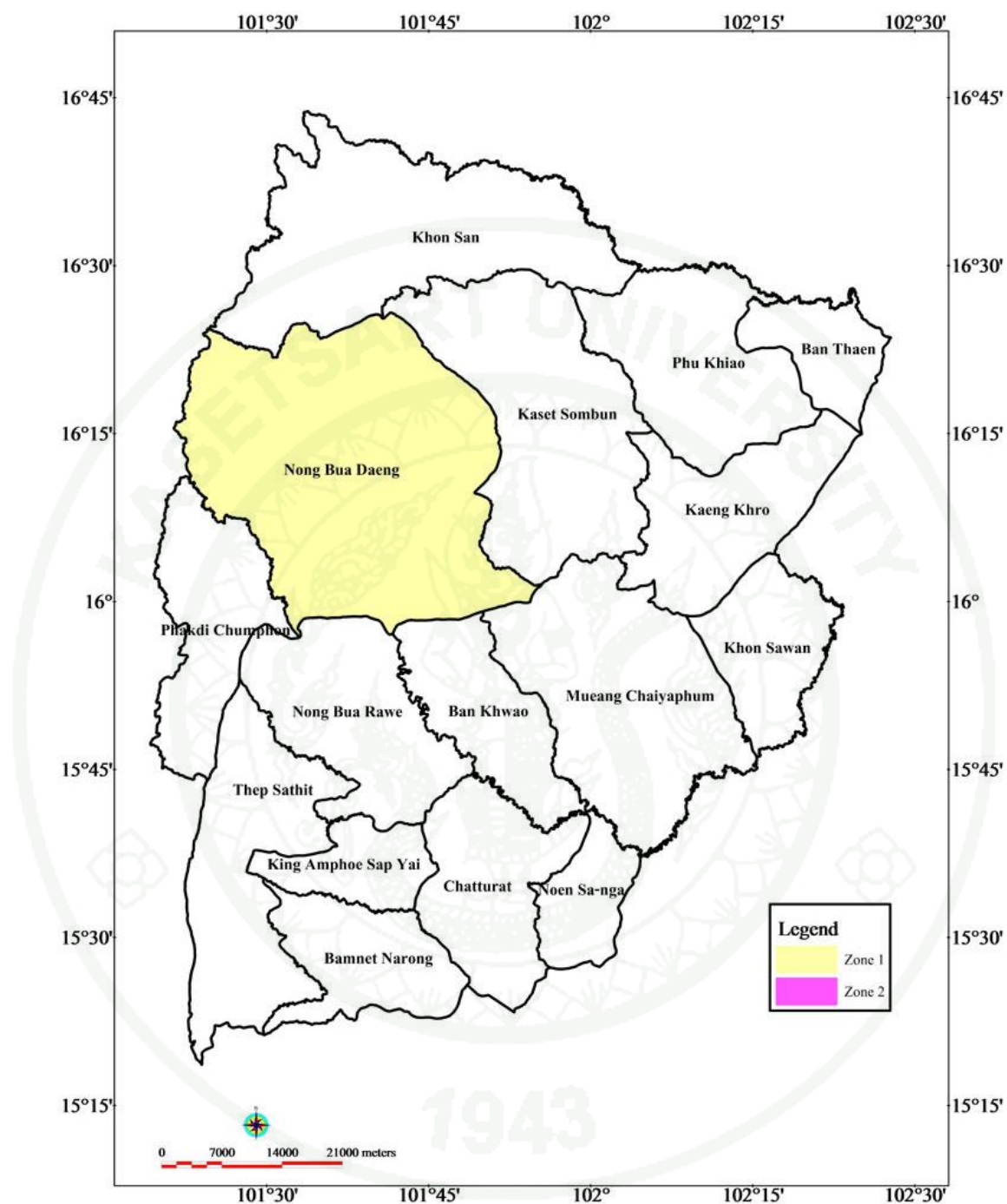
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 46 Map of Zoning for Rambutan in Chaiyaphum Province

Appendix Table 70 Classification of Land Suitability for Rambutan in Nakhon
Ratchasima Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	4,232	0.03
2. Moderately Suitable	415,756	3.25
3. Unsuitable	7,600,815	59.34
4. Existing Forest	1,798,864	14.04
5. Deforestation	1,469,154	11.47
6. Water	32,752	0.26
7. Built-up areas	1,487,154	11.61
Total	12,808,728	100.00

Appendix Table 71 Land Suitability for Rambutan in Nakhon Ratchasima Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Ratchasima	Chaloem Phra Kiat	Tha Chang				15,778	15,778
		Phra Phut		2,000	2,000	8,834	10,835
		Nong Yang				37,059	37,059
	Chaloem Phra Kiat Total			2,000	2,000	61,671	63,671
	Mueang Nakhon Ratchasima	Khok Kruat		642	642	38,221	38,864
		Khok Sung				36,490	36,490
		Pho Klang				8,532	8,532
		Chai Mongkhon				32,765	32,765
		Cho Ho				9,572	9,572
		Ban Ko		833	833	876	1,709
		Pru Yai				5,553	5,553
		Si Mum		12,089	12,089	3,441	15,530
		Suranari				12,726	12,726

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Phai Lom				7,300	7,300
		Nong Chabok				6,269	6,269
		Nong Bua Sala				29,673	29,673
		Nong Rawiang	2,662	8,771	11,433	9,091	20,524
	Mueang Nakhon Ratchasima	Total	2,662	22,335	24,998	200,509	225,506
	Soeng Sang	Soeng Sang				62,783	62,783
		Non Sombun		913	913	25,720	26,633
		Kut Bot		1,128	1,128	54,922	56,050
		Sa Takhian		2,134	2,134	74,833	76,966
		Suk Phaibun				95,975	95,975
	Soeng Sang	Total		4,174	4,174	314,233	318,406
	Kaeng Sanam Nang	Kaeng Sanam Nang				38,885	38,885
		Bueng Phalai				60,116	60,116

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Si Suk				25,020	25,020
	Kaeng Sanam Nang Total					124,020	124,020
	Chok Chai	Krathok		16,898	16,898		16,898
		Tha Yiam		19,989	19,989	49,191	69,179
		Tha Chalung				40,559	40,559
		Tha Lat Khao		8,947	8,947		8,947
		Tha Ang				22,859	22,859
		Phlapphla				32,106	32,106
		Lalom Mai Phatthana		9	9	28,892	28,901
	Chok Chai Total			45,843	45,843	173,607	219,450
	Non Daeng	Non Daeng				25,331	25,331
		Non Ta Then				16,194	16,194
		Don Yao Yai				14,669	14,669

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wang Hin				18,190	18,190
		Lam Phaniang				18,675	18,675
	Non Daeng Total					93,059	93,059
	Non Thai	Non Thai				38,751	38,751
		Khang Phu				48,538	48,538
		Dan Chak				28,217	28,217
		Thanon Pho				25,812	25,812
		Banlang				52,752	52,752
		Ban Wang				28,614	28,614
		Makha				14,018	14,018
	Non Thai Total					236,702	236,702
	Non Sung	Mueang Plasat				31,398	31,398
		Tanot				13,621	13,621

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Non Sung				2,638	2,638
		Mai				33,552	33,552
		Chan-at				23,149	23,149
		Don Chomphu				23,986	23,986
		Don Wai				4,861	4,861
		Dan Khla				20,673	20,673
		Than Prasat		8,093	8,093	21,261	29,354
		Phon Songkhram				31,850	31,850
		Lam Mun				12,115	12,115
		Lum Khao				54,727	54,727
	Non Sung Total			8,093	8,093	273,829	281,922
	Thepharak	Bueng Prue				28,601	28,601
		Wang Yai Thong		2,801	2,801	37,800	40,601

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Thepharak	Samnak Takro				28,883	28,883
		Nong Waeng				82,102	82,102
		Thepharak Total		2,801	2,801	177,386	180,187
		Mueang Yang	Mueang Yang			35,984	35,984
			Non Udom			27,779	27,779
			Krabueang Nok			39,823	39,823
	Mueang Yang	Lahan Pla Khao			40,363	40,363	
		Mueang Yang Total			143,949	143,949	
		Bua Lai	Mueang Phalai		10,105	10,105	9,544
	Non Chan			9,509	9,509	7,091	16,600
	Bua Lai			10,450	10,450	9,550	20,000
	Nong Wa				29,092	29,092	
Bua Lai Total			30,064	30,064	55,277	85,341	

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phra Thong Kham	Thap Rang		2,320	2,320	76,957	79,276
		Phang Thiam				38,778	38,778
		Sa Phra		308	308	28,499	28,807
		Nong Hoi				37,470	37,470
	Phra Thong Kham Total			2,627	2,627	181,704	184,331
	Lam Thamenchai	Phlai				15,709	15,709
		Chong Maeo				48,006	48,006
		Ban Yang				60,024	60,024
	Lam Thamenchai Total					123,739	123,739
	Sida	Phon Thong				19,457	19,457
		Sam Mueang				21,249	21,249
	Sida Total					40,706	40,706
	Kham Thale So	Kham Thale So		5,875	5,875	24,543	30,418

Appendix Table 71 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
		Bueng O				29,044 29,044
		Phan Dung				22,293 22,293
	Kham Thale So Total			5,875	5,875	75,880 81,755
	Kham Sakaesaeng	Mueang Kaset				34,634 34,634
		Mueang Nat				33,722 33,722
		Non Mueang				17,401 17,401
		Chiwuek				30,762 30,762
		Nong Hua Fan				29,568 29,568
	Kham Sakaesaeng Total					146,088 146,088
	Khong	Mueang Khong				27,547 27,547
		Non Teng				28,298 28,298
		Kham Sombun				18,577 18,577
		Khu Khat				54,522 54,522

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Don Yai				25,447	25,447
		Ta Chan				39,078	39,078
		Ban Prang				66,440	66,440
		Nong Bua				47,362	47,362
		Nong Manao				48,972	48,972
	Khong Total	Thephalai				356,243	356,243
	Khon Buri	Chaliang		10,157	10,157		10,157
		Chae		9,180	9,180	34,251	43,431
		Khok Krachai		3,978	3,978	31,480	35,458
		Khon Buri		20,398	20,398	16,961	37,358
		Khonburi Tai		181	181	28,502	28,683
		Chorakhe Hin		210	210	51,697	51,908
		Tabaek Ban				34,975	34,975

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ban Mai		6,730	6,730	12,786	19,516
		Map Tako En				66,897	66,897
		Lam Phiak		297	297	71,966	72,264
		Sa Wan Phraya				32,155	32,155
	Khon Buri Total			51,131	51,131	381,670	432,801
	Chakkarat	Khlong Mueang				47,406	47,406
		Chakkarat				38,190	38,190
		Si Lako		6,881	6,881	50,029	56,910
		Nong Kham				49,737	49,737
		Nong Phluang				26,421	26,421
		Si Suk				40,289	40,289
	Chakkarat Total			6,881	6,881	252,070	258,951
	Chum Phuang	Non Tum				22,831	22,831

Appendix Table 71 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
		Non Yo				33,126 33,126
		Non Rang				31,828 31,828
		Talat Sai				56,425 56,425
		Tha Lat				93,130 93,130
		Prasuk				35,755 35,755
		Sarai				31,937 31,937
		Nong Lak				19,814 19,814
	Chum Phuang Total					324,845 324,845
	Dan Khun Thot	Dan Nai				44,092 44,092
		Dan Khun Thot				25,270 25,270
		Dan Nok				18,437 18,437
		Takhian				84,213 84,213
		Ban Kao				44,021 44,021

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ban Praeng				537	537
		Phan Chana		1,132	1,132	66,459	67,592
		Sa Chorakhe				49,310	49,310
		Nong Sai		1,521	1,521	28,155	29,676
		Nong Krat		1,231	1,231	87,930	89,161
		Nong Bua Takiat		837	837	41,103	41,940
		Nong Bua Lakhon				26,061	26,061
		Huai Bong		2,146	2,146	147,042	149,187
		Hin Dat		1,539	1,539	72,951	74,489
	Dan Khun Thot Total			8,407	8,407	735,581	743,988
	Bua Yai	Sema Yai				16,929	16,929
		Non Thonglang				60,768	60,768
		Khun Thong				40,362	40,362

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Dan Chang				25,954	25,954
		Bua Yai				47,303	47,303
		Nong Chaeng Yai				12,152	12,152
		Nong Bua Sa-at				27,955	27,955
		Huai Yai				26,212	26,212
	Bua Yai Total					257,635	257,635
	Ban Lueam	Ban Lueam				14,429	14,429
		Wang Pho				13,992	13,992
	Ban Lueam Total					28,421	28,421
	Prathai	Khok Klang				29,519	29,519
		Non Phet				22,770	22,770
		Krathum Rai				43,529	43,529
		Don Man				30,433	30,433

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Thung Sawang				13,530	13,530
		Prathai				14,501	14,501
		Wang Mai Daeng				33,109	33,109
		Nong Phluang				25,752	25,752
		Han Huai Sai				23,843	23,843
	PrathaiTotal					236,986	236,986
	Pak Thong Chai	Kasem Sap				6,174	6,174
		Khok Thai				21,273	21,273
		Ngio		1,006	1,006	14,890	15,896
		Don	1,269	18,962	20,231	4,244	24,475
		Takhop	301	15,765	16,066	46,271	62,337
		Takhu		2,031	2,031	56,089	58,121
		Tum		8,453	8,453	11,615	20,068

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nok Ok		270	270	3,524	3,794
		Phu Luang		270	270	21,638	21,908
		Bo Pla Thong				18,481	18,481
		Samrong				12,314	12,314
		Suk Kasem				9,599	9,599
	Pak Thong Chai Total		1,570	46,758	48,328	226,112	274,440
	Pak Chong	Pong Talong				55,254	55,254
		Klang Dong				16,579	16,579
		Khanong Phra		3,487	3,487	53,164	56,651
		Khleng Muang				45,043	45,043
		Chanthuek		9,899	9,899	45,606	55,505
		Pak Chong		585	585	58,466	59,050
		Phaya Yen				40,320	40,320

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wang Sai		12,175	12,175	34,222	46,398
		Wang Katha		324	324	77,758	78,082
		Nong Nam Daeng				36	36
		Nong Sarai		8,800	8,800	63,111	71,911
		Mu Si				42,666	42,666
	Pak Chong Total			35,270	35,270	532,226	567,496
	Phimai	Bot				83,896	83,896
		Nai Mueang				17,525	17,525
		Krachon		54,848	54,848	1,488	56,336
		Chiwan		8,891	8,891	550	9,441
		Dong Yai		48,820	48,820	348	49,168
		Tha Luang		15,207	15,207	15,769	30,976
		Than Lalot				29,567	29,567

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nikhom Sang Ton-eng Phimai				41,614	41,614
		Rang Ka Yai				52,629	52,629
		Samrit		4,262	4,262	20,952	25,214
		Nong Rawiang				42,896	42,896
	Phimai Total			132,027	132,027	307,235	439,262
	Wang Nam Khiao	Thai Samakkhi				42,898	42,898
		Raroeng				65,288	65,288
		Wang Nam Khiao				41,625	41,625
		Wang Mi		468	468	121,386	121,854
		Udom Sap		151	151	48,920	49,071
	Wang Nam Khiao Total			619	619	320,117	320,736
	Sikhio	Kritsana				38,826	38,826
		Kut Noi		4,900	4,900	27,612	32,512

Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khlong Phai				35,970	35,970
		Don Mueang				59,528	59,528
		Ban Han				16,667	16,667
		Mittraphap				26,410	26,410
		Wang Rong Yai				55,553	55,553
		Sikhio				16,661	16,661
		Nong Nam Sai				30,597	30,597
		Nong Bua Noi				47,430	47,430
		Nong Ya Khao				74,755	74,755
	Sikhio Total			4,900	4,900	430,009	434,909
	Sung Noen	Sema		4,434	4,434	40,336	44,770
		Khong Yang				5,635	5,635
		Khorat				5,772	5,772

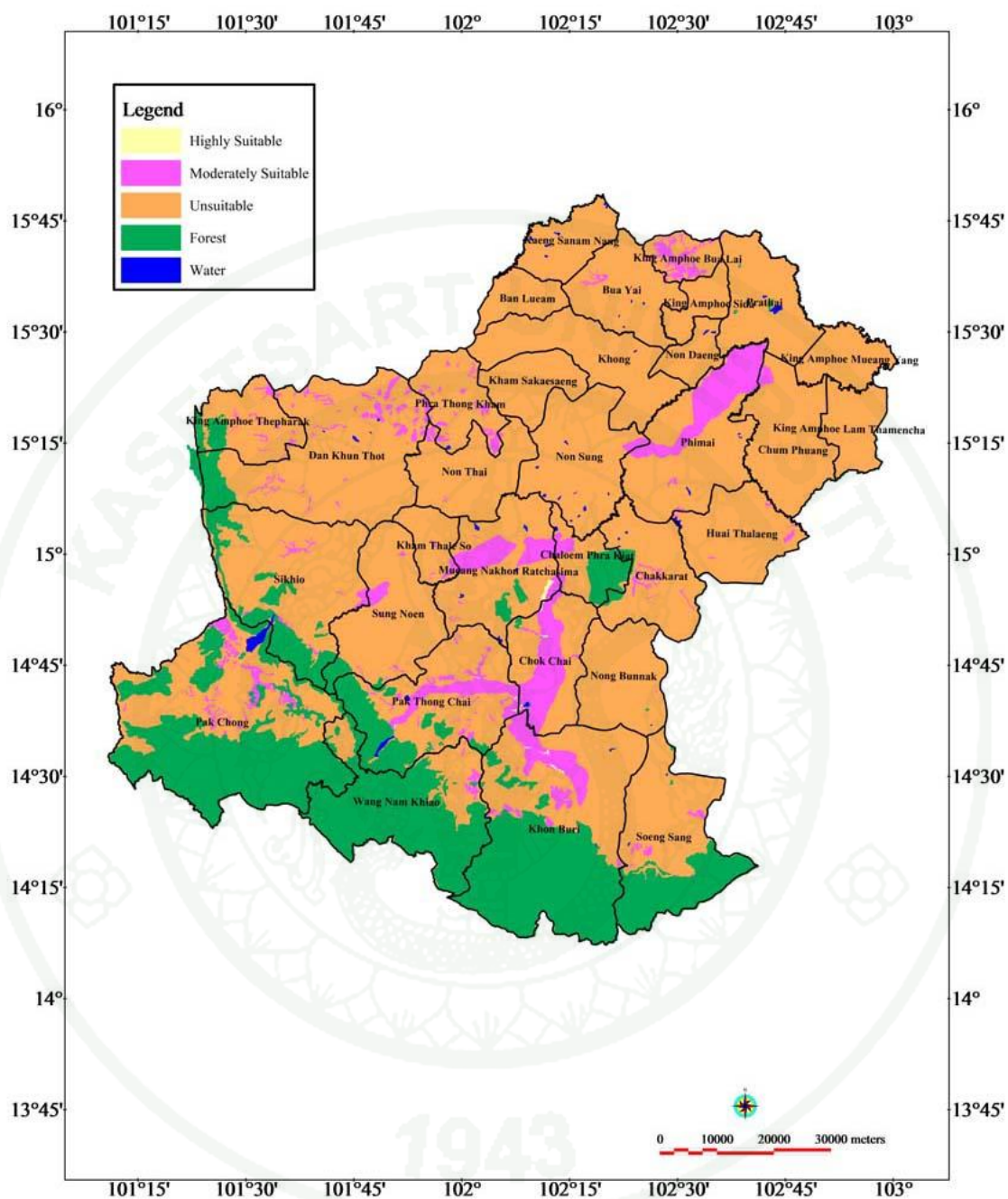
Appendix Table 71 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Klang				55,496	55,496
		Kut Chik				5,607	5,607
		Bung Khilek		794	794	16,878	17,672
		Makuea Kao		722	722	77,063	77,785
		Makuea Mai				54,212	54,212
		Sung Noen				33,506	33,506
	Sung Noen Total			5,950	5,950	294,506	300,456
	Nong Bunnak	Ban Mai				16,425	16,425
		Lung Khwao				32,349	32,349
		Saraphi				33,785	33,785
		Nong Mai Phai				66,945	66,945
		Nong Takai				28,134	28,134
		Nong Bunnak				37,392	37,392

Appendix Table 71 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
		Nong Hua Raet				40,027 40,027
	Nong Bunnak Total					255,057 255,057
	Huai Thalaeng	Ngio				37,501 37,501
		Tako				13,625 13,625
		Lung Takhian				48,032 48,032
		Lung Pradu				47,312 47,312
		Huai Khaen				13,443 13,443
		Huai Thalaeng				38,438 38,438
		Hin Dat				41,393 41,393
	Huai Thalaeng Total					239,744 239,744
Nakhon Ratchasima Total			4,232	415,756	419,988	7,600,815 8,020,803



Appendix Figure 47 Map of Land Suitability for Rambutan in Nakhon Ratchasima Province

Appendix Table 72 Zoning For Rambutan in Nakhon Ratchasimai Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khon Buri		51,131	3	1,900	1
Chok Chai		45,843	4	0	2
Pak Chong		35,270	159	903	2
Nong Bunnak			50	850	0
Nakhon Ratchasima Total	0	132,244	216	888	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 72 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Khon Buri				51,131			3		
Chok Chai					45,843			4	
Pak Chong					35,270			159	
Nong Bunnak									50
Nakhon Ratchasima Total	0	0	0	51,131	81,113	0	3	163	50

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

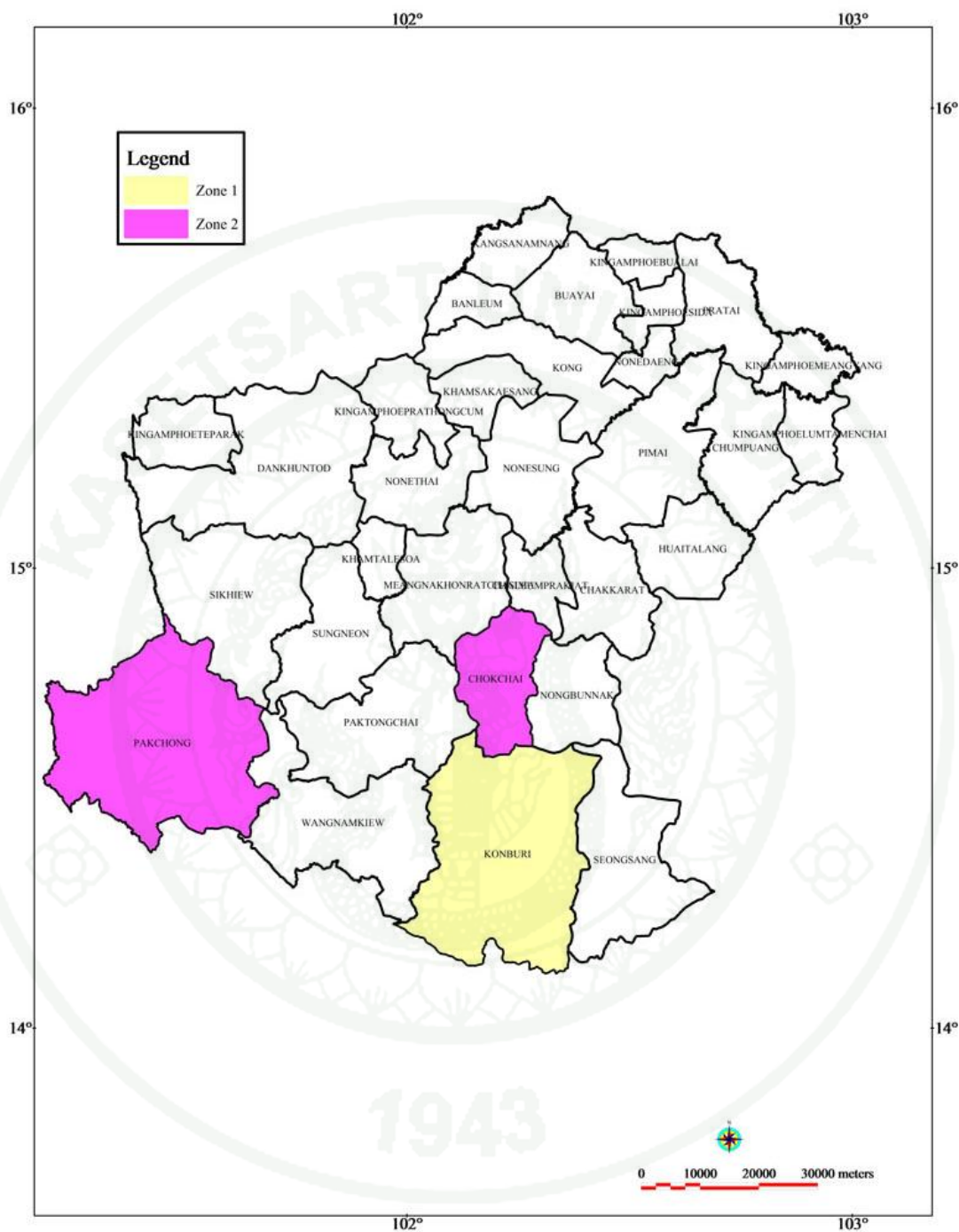
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 48 Map of Zoning for Rambutan in Nakhon Ratchasima Province

Appendix Table 73 Classification of Land Suitability for Rambutan in Saraburi
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	168,850	7.55
3. Unsuitable	704,479	31.52
4. Existing Forest	426,479	19.08
5. Deforestation	457,423	20.46
6. Water	2,649	0.12
7. Built-up areas	475,423	21.27
Total	2,235,304	100.00

Appendix Table 74 Land Suitability for Rambutan in Saraburi Province by Amphoe,Tambon,Thailand

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Saraburi	Chaloem Phra Kiat	Phu Khae				26,697	26,697
		Na Phra Lan				18,514	18,514
	Chaloem Phra Kiat Total					45,211	45,211
	Mueang Saraburi	Kut Nok Plao				15,848	15,848
		Nong No		8,099	8,099		8,099
		Nong Pla Lai		818	818	5,025	5,842
	Mueang Saraburi Total			8,917	8,917	20,873	29,790
	Sao Hai	Sao Hai		2,524	2,524		2,524
		Tha Chang				7,704	7,704
		Suan Dok Mai		3,052	3,052		3,052
		Hua Pluak				12,167	12,167
	Sao Hai Total			5,575	5,575	19,871	25,446
	Kaeng Khoi	Cha - om		13,021	13,021	5,294	18,316

Appendix Table 74 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Cham Phak Phaeo				5,709	5,709
		Tan Diao				11,151	11,151
		Thap Kwang				24,531	24,531
		Tha Khlo				24,380	24,380
		Tha Tum				8,830	8,830
		Tha Maprang		106	106	1,908	2,014
		Ban That		2,319	2,319	5,270	7,589
		Song Khon				21,097	21,097
		Huai Haeng		6,689	6,689	18,702	25,391
		Hin Son				32,093	32,093
	Kaeng Khoi	Total		22,136	22,136	158,965	181,101
	Don Phut	Dong Ta-ngao		285	285		285
		Ban Luang		310	310		310

Appendix Table 74 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Don Phut Total			595	595		595
	Ban Mo	Talat Noi		5,296	5,296		5,296
		Bang Khamot		9,112	9,112		9,112
		Ban Mo		7,992	7,992		7,992
	Ban Mo Total			22,399	22,399		22,399
	Phra Phutthabat	Khao Wong				11,016	11,016
		Phu Krang				8,439	8,439
		Phu Kham Chan				15,827	15,827
		Nong Kae				16,399	16,399
	Phra Phutthabat Total					51,681	51,681
	Muak Lek	Sap Sanun				59,936	59,936
		Muak Lek				9,396	9,396
		Mittraphap				7,155	7,155

Appendix Table 74 (Continued)

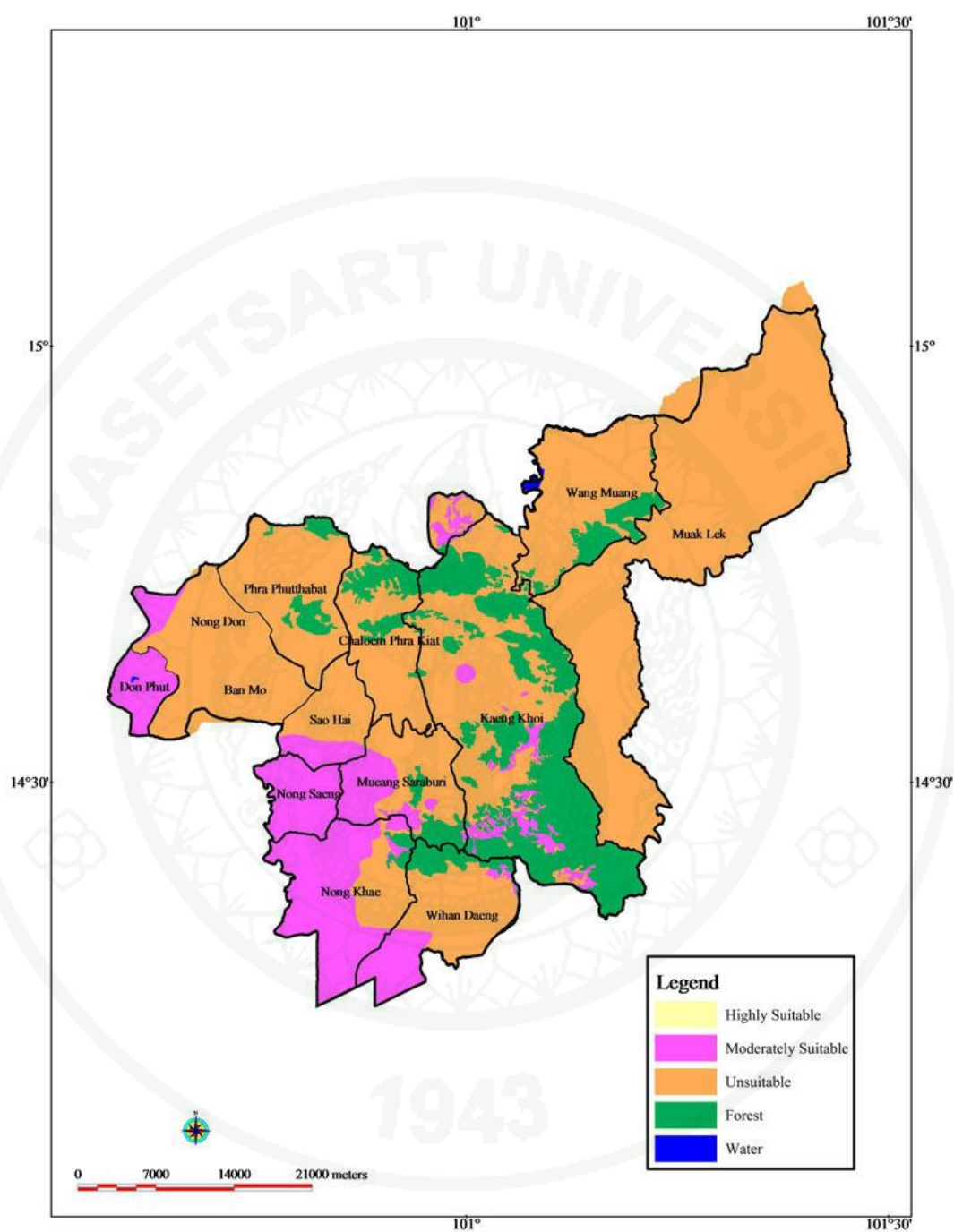
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Lam Phaya Klang		10,241	10,241	57,786	68,026
		Lam Somphung				24,332	24,332
		Nong Yang Suea				84,127	84,127
	Muak Lek Total			10,241	10,241	242,733	252,974
	Wang Muang	Salaeng Phan				27,804	27,804
		Kham Phran				26,953	26,953
		Wang Muang				70,943	70,943
	Wang Muang Total					125,701	125,701
	Wihan Daeng	Charoen Tham				10,940	10,940
		Wihan Daeng				10,563	10,563
		Nong Suang				219	219
	Wihan Daeng Total					21,721	21,721
	Nong Khae	Khok Tum		6,655	6,655		6,655

Appendix Table 74 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nong Khae		Phon Thong		5,583	5,583		5,583
		Kum Hak		11,513	11,513		11,513
		Bua Loi		10,140	10,140		10,140
		Nong Khae		1,707	1,707		1,707
		Nong Rong		12,681	12,681		12,681
		Nong Khai Nam		176	176		176
		Nong Chik		6,130	6,130		6,130
		Nong Pla Mo		7,611	7,611		7,611
		Huai Khamin		1,833	1,833	1,308	3,141
		Huai Sai		2,067	2,067	2,399	4,466
		Nong Khae Total		66,096	66,096	3,707	69,803
	Nong Don	Don Thong		23,151	23,151		23,151
		Ban Prong				2,396	2,396

Appendix Table 74 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Don		9,740	9,740	11,621	21,361
	Nong Don Total			32,891	32,891	14,016	46,908
Saraburi Total				168,850	168,850	704,479	873,329



Appendix Figure 49 Map of Land Suitability for Rambutan in Saraburi Province

Appendix Table 75 Zoning For Rambutan in Saraburi Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Kaeng Khoi		22,136	57	4,250	2
Muak Lek		10,241	10	6,000	2
Saraburi Total	0	32,376	67	4,511	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 75 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Kaeng Khoi					22,136			57	
Muak Lek					10,241			10	
Saraburi Total	0	0	0	0	32,376	0	0	67	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

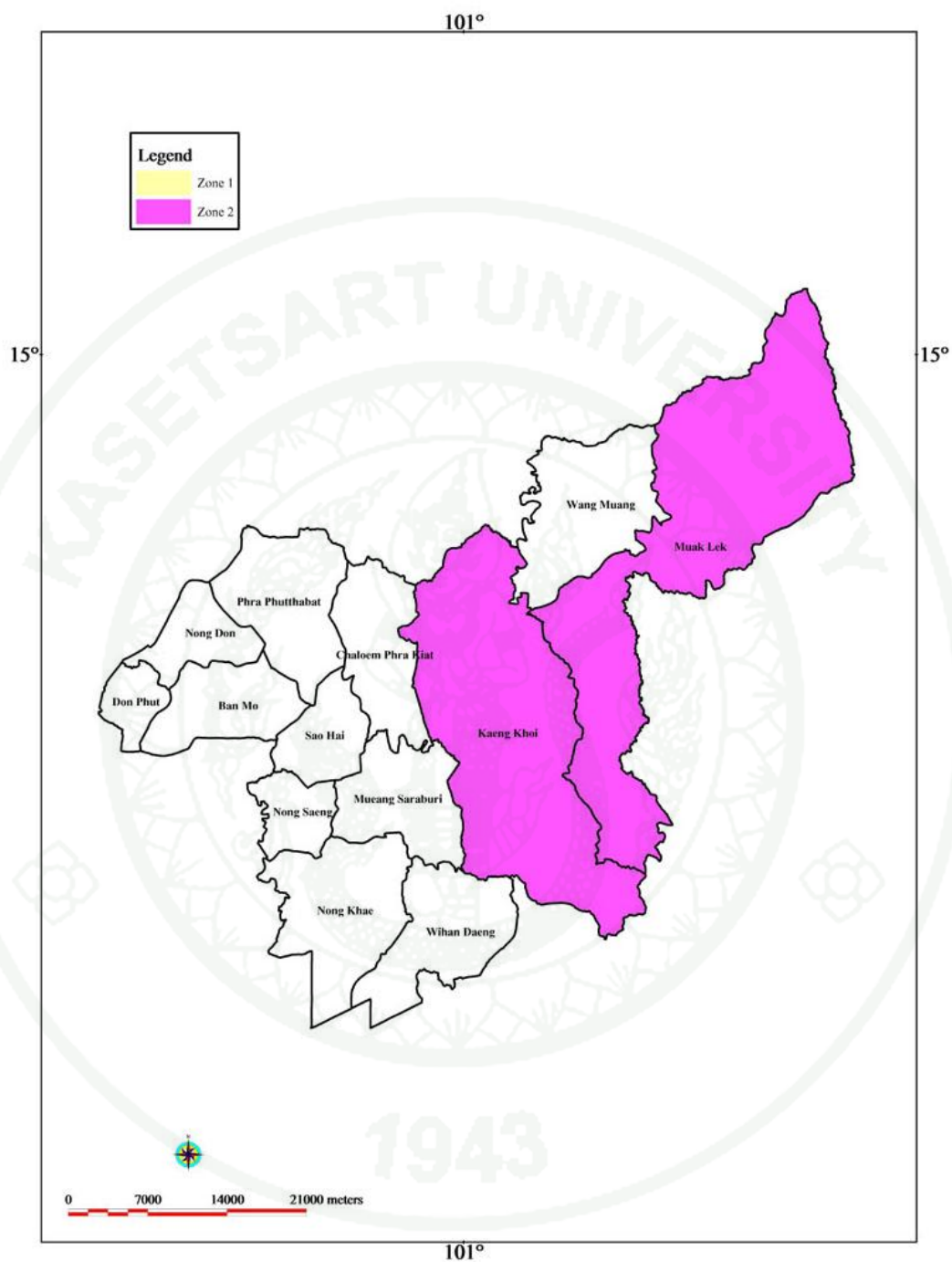
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 50 Map of Zoning for Rambutan in Saraburi Province

Appendix Table 76 Classification of Land Suitability for Rambutan in Suphan
Buri Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	1,225,213	36.59
3. Unsuitable	757,133	22.61
4. Existing Forest	322,102	9.62
5. Deforestation	511,881	15.29
6. Water	2,544	0.08
7. Built-up areas	529,881	15.82
Total	3,348,755	100.00

Appendix Table 77 Land Suitability for Rambutan in Suphan Buri Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Suphan Buri	Doem Bang Nang Buat	Khao Din		20,474	20,474		20,474
		Doem Bang		7,528	7,528		7,528
		Khok Chang		23,832	23,832		23,832
		Thung Khli		29,564	29,564		29,564
		Nang Buat		11,284	11,284		11,284
		Pak Nam		12,416	12,416	12,979	25,395
		Bo Kru		21,973	21,973		21,973
		Yang Non		5,458	5,458		5,458
		Nong Krathum		4,773	4,773	37,411	42,184
		Hua Khao		28,331	28,331	5,220	33,551
	Doem Bang Nang Buat Total			165,632	165,632	55,610	221,242
Mueang Suphan Buri		Phai Khwang		8,464	8,464		8,464
		Don Pho Thong		19,467	19,467		19,467

Appendix Table 77 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Don Kamyan		9,711	9,711	
		Don Masang		18,272	18,272	
		Taling Chan		14,230	14,230	
		Thap Ti Lek		5,327	5,327	
		Tha Rahat		3,919	3,919	
		Bang Kung		8,187	8,187	
		Sala Khao		8,044	8,044	5,880
		Sanam Khli		12,679	12,679	
		Sanam Chai		10,169	10,169	
		Sa Kaeo		19,082	19,082	
		Suan Taeng		15,251	15,251	
	Mueang Suphan Buri Total			152,803	152,803	5,880
Don Chedi		Rai Rot		12,181	12,181	

Appendix Table 77 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Don Chedi	Don Chedi		24,369	24,369		24,369
		Thale Bok		4,485	4,485	38,714	43,199
		Sa Krachom				45,823	45,823
		Nong Salai		23,738	23,738	15,142	38,880
		Don Chedi Total		64,773	64,773	99,678	164,451
	Dan Chang	Dan Chang		943	943	46,066	47,010
		Nikhom Krasiao				28,198	28,198
		Wang Khan				42,314	42,314
		Wang Yao				18,618	18,618
		Nong Makha Mong				71,400	71,400
		Huai Khamin		3,613	3,613	319	3,932
		Ong Phra				51,919	51,919
		Dan Chang Total		4,556	4,556	258,833	263,390

Unit : rai

Appendix Table 77 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bang Pla Ma	Khok Kham		22,186	22,186		22,186
		Kritsana		16,997	16,997		16,997
		Chorakhe Yai		22,057	22,057		22,057
		Takha		17,205	17,205		17,205
		Bang Pla Ma		16,398	16,398		16,398
		Ban Laem		3,324	3,324		3,324
		Makham Lom		2,014	2,014		2,014
		Wang Nam Yen		16,608	16,608		16,608
		Wat Bot		34,955	34,955		34,955
		Bang Pla Ma Total			151,745	151,745	
Si Prachan	Don Pru		22,271	22,271		22,271	
	Plai Na		22,464	22,464		22,464	
	Wang Nam Sap		12,410	12,410		12,410	

Appendix Table 77 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Si Prachan	Wang Yang		8,177	8,177		8,177
		Wang Wa		14,063	14,063		14,063
		Si Prachan		17,641	17,641		17,641
		Si Prachan Total		97,027	97,027		97,027
	Song Phi Nong	Noen Phra Prang		12,933	12,933		12,933
		Don Manao		18,876	18,876		18,876
		Thung Khok		42,638	42,638		42,638
		Bo Suphan		112,132	112,132		112,132
		Bang Len		18,521	18,521		18,521
		Bang Takian		14,331	14,331		14,331
		Bang Ta Then		47,178	47,178		47,178
		Bang Phlap		20,493	20,493		20,493
		Ban Chang		18,299	18,299		18,299

Appendix Table 77 (Continued)

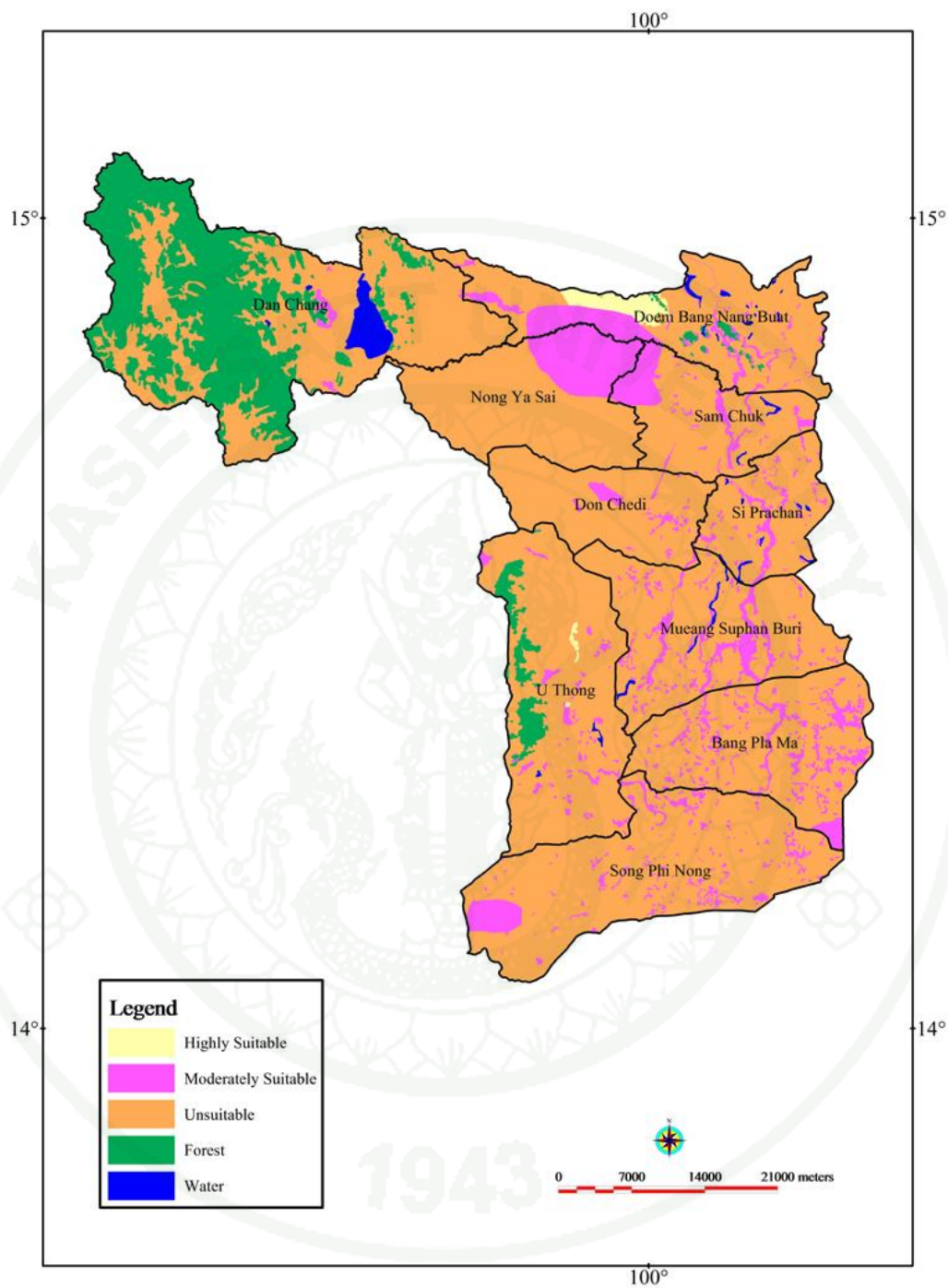
Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Si Samran		31,133	31,133	
		Song Phi Nong		1,699	1,699	
		Nong Bo		29,331	29,331	
		Hua Pho		17,951	17,951	
	Song Phi Nong Total			385,513	385,513	
	Sam Chuk	Krasiao		21,658	21,658	
		Ban Sa				10,149
		Wang Luek		37,271	37,271	
		Nong Phak Nak		18,711	18,711	13,837
		Nong Sadao		3,652	3,652	
	Sam Chuk Total			81,292	81,292	23,986
	Nong Ya Sai	Thap Luang		1,775	1,775	56,971
		Nong Pho		47,579	47,579	

Appendix Table 77 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	U Thong	Nong Kham				51,622	51,622
		Nong Ya Sai				51,752	51,752
		Nong Ya Sai Total		49,354	49,354	160,345	209,699
		Chedi				11,394	11,394
		Chorakhe Sam Phan		26,179	26,179	474	26,653
		Dong Kha		884	884	20,449	21,333
		Ban Khong				47,667	47,667
		Phlapphla Chai				43,301	43,301
		Yung Thalai				93	93
		Sa Phang Lan		16,390	16,390		16,390
		Sa Yai Som		20,405	20,405		20,405
		Nong Ong		8,659	8,659	21,256	29,915
		U Thong				8,165	8,165

Appendix Table 77 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
U Thong Total				72,517	72,517	152,800	225,317
Suphan Buri Total				1,225,213	1,225,213	757,133	1,982,346



Appendix Figure 51 Map of Land Suitability for Rambutan in Suphan Buri Province

Appendix Table 78 Zoning For Rambutan in Suphan Buri Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Dan Chang		4,556	16	710	2
Suphan Buri Total	0	4,556	16	710	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 78 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Dan Chang					4,556			16	
Suphan Buri Total	0	0	0	0	4,556	0	0	16	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

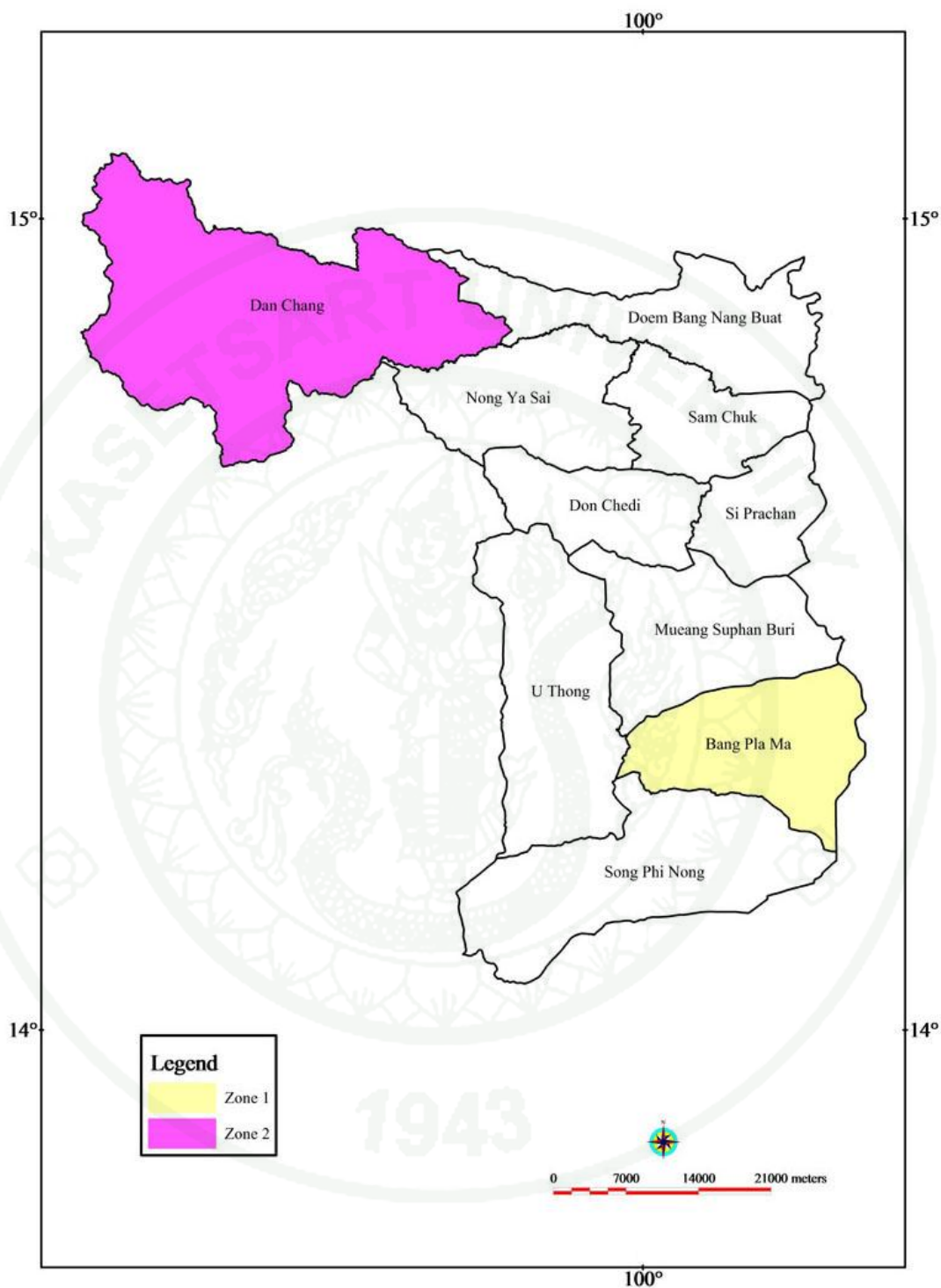
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 52 Map of Zoning for Rambutan in Suphan Buri Province

Appendix Table 79 Classification of Land Suitability for Rambutan in Nakhon
Nayok Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	22,348	1.69
2. Moderately Suitable	321,601	24.25
3. Unsuitable	41,821	3.15
4. Existing Forest	481,390	36.30
5. Deforestation	216,492	16.32
6. Water	8,106	0.61
7. Built-up areas	234,492	17.68
Total	1,326,250	100.00

Appendix Table 80 Land Suitability for Rambutan in Nakhon Nayok Province by Amphoe,Tambon,Thailand

Unit : rai

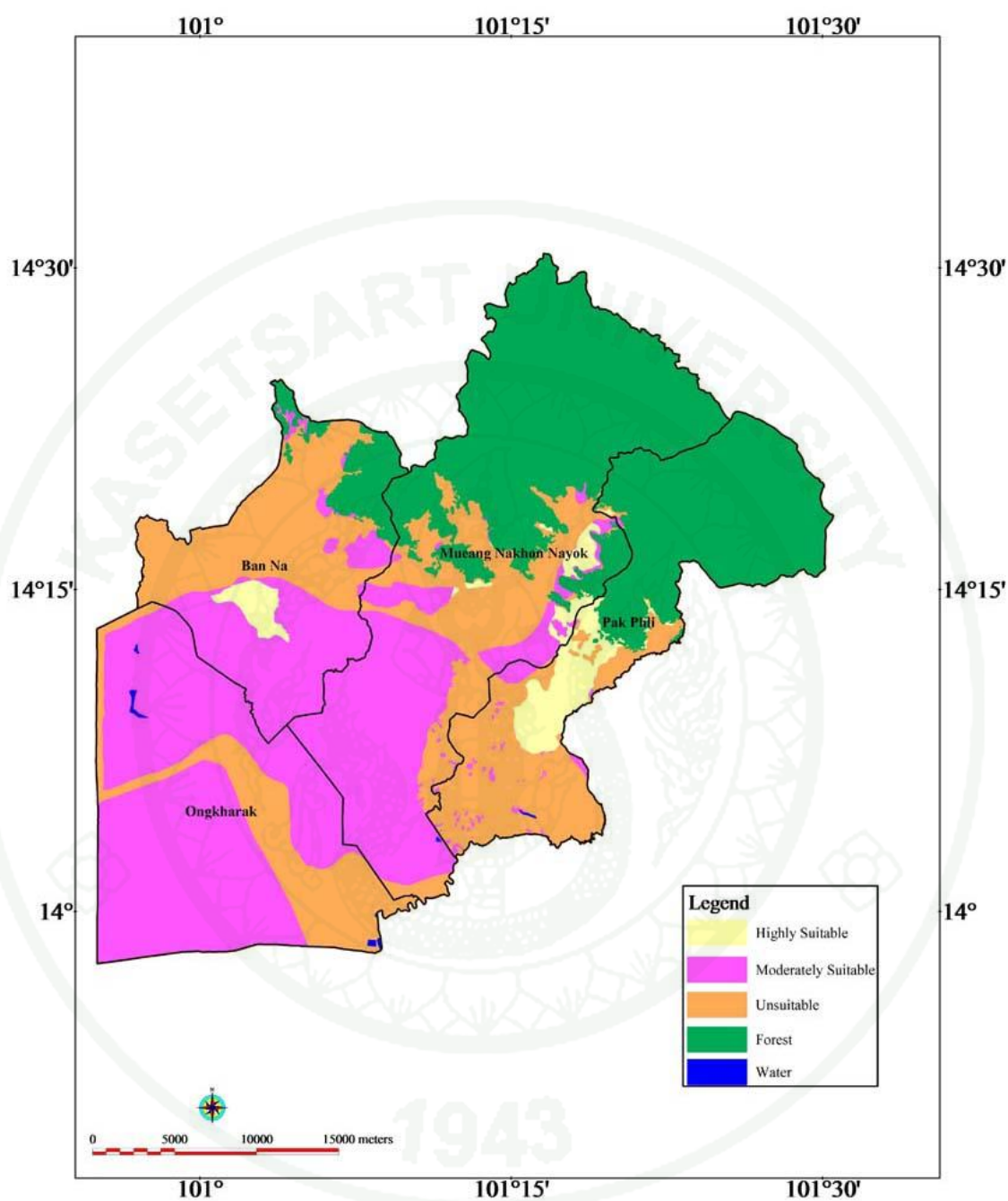
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Nayok	Mueang Nakhon Nayok	Dong Lakhon		25,634	25,634		25,634
		Don Yo		32,707	32,707		32,707
		Tha Chang		7,077	7,077		7,077
		Tha Sai		7,540	7,540		7,540
		Phrommani		4,778	4,778	137	4,915
		Wang Krachom		8,627	8,627		8,627
		Si Chula		28,372	28,372		28,372
		Si Nawa	3,160	6,973	10,133	501	10,633
		Sarika	282		282	9,383	9,666
		Hin Tang				121	121
		Mueang Nakhon Nayok Total	3,442	121,708	125,150	10,142	135,292
Ban Na		Bang O		28,170	28,170		28,170
		Asa		3,010	3,010		3,010

Appendix Table 80 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ban Na Total			31,180	31,180		31,180
	Pak Phli	Ko Pho		14,611	14,611	862	15,473
		Ko Wai	10,060		10,060	2,348	12,408
		Khok Kruat	4,827	118	4,945	3,286	8,231
		Tha Ruea		41,438	41,438	775	42,214
		Pak Phli	4,018	9,149	13,167		13,167
		Nong Saeng				222	222
	Pak Phli Total		18,906	65,316	84,222	7,493	91,715
	Ongkharak	Sai Mun		4,874	4,874	79	4,953
		Bang Pla Kot		26,122	26,122	1,454	27,576
		Bang Sombun				21,754	21,754
		Phra Achan		22,703	22,703		22,703
		Sisa Krabue		42,820	42,820		42,820

Appendix Table 80 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ongkharak		7,067	7,067	899	7,966
	Ongkharak Total			103,587	103,587	24,186	127,772
Nakhon Nayok Total			22,348	321,791	344,138	41,821	385,959



Appendix Figure 53 Map of Land Suitability for Rambutan in Nakhon Nayok Province

Appendix Table 81 Zoning For Rambutan in Nakhon Nayok Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Nakhon Nayok	3,442	121,708	251	1,565	1
Ban Na		31,180	59	1,200	1
Nakhon Nayok Total	3,442	152,888	310	1,495	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 81 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Nakhon Nayok	3,442			121,708			251		
Ban Na	0			31,180			59		
Nakhon Nayok Total	3,442	0	0	152,888	0	0	310	0	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

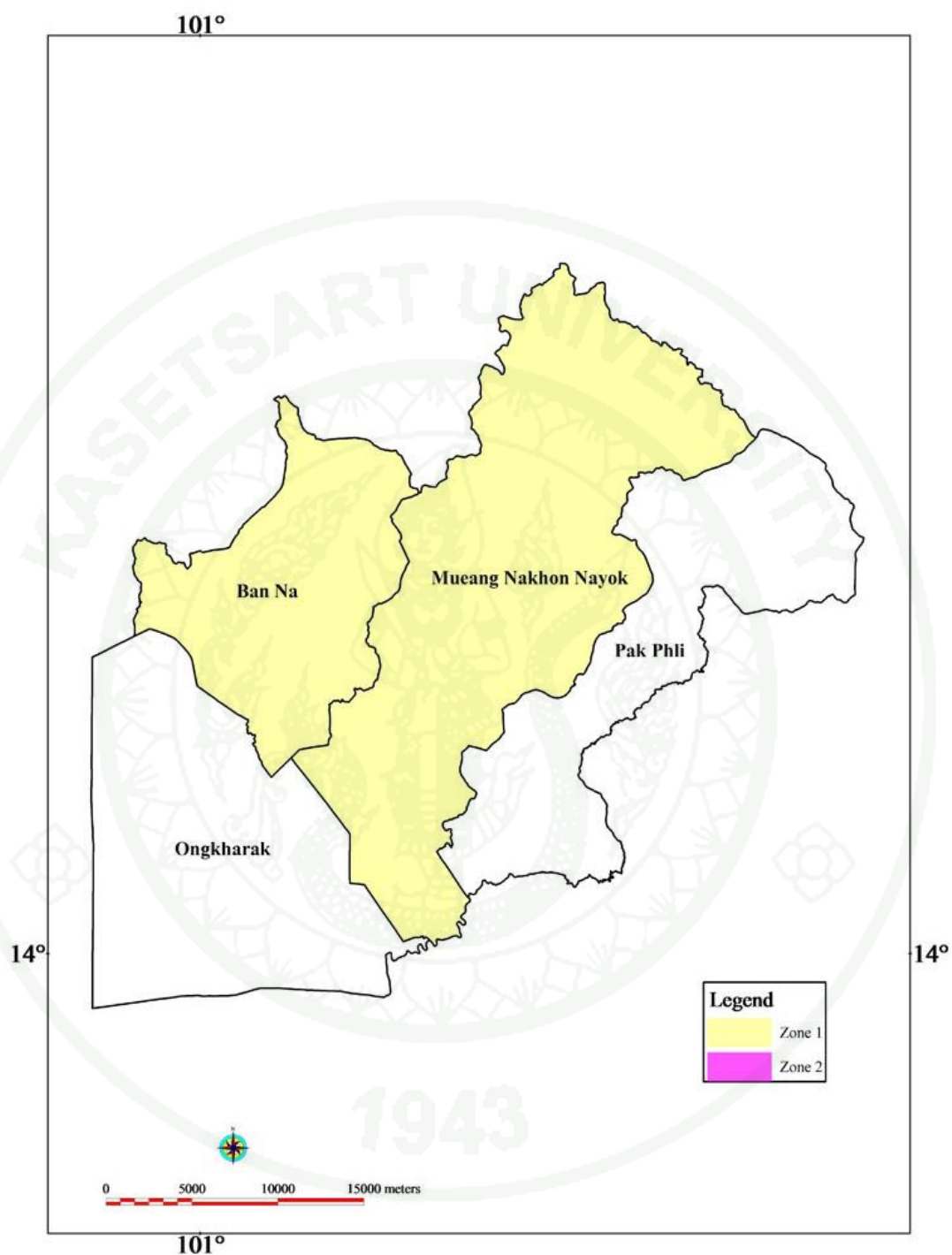
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 54 Map of Zoning for Rambutan in Nakhon Nayok Province

Appendix Table 82 Classification of Land Suitability for Rambutan in Prachin
Buri Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	91,351	3.07
2. Moderately Suitable	91,351	3.07
3. Unsuitable	1,029,581	34.59
4. Existing Forest	830,629	27.91
5. Deforestation	454,088	15.26
6. Water	7,387	0.25
7. Built-up areas	472,088	15.86
Total	2,976,476	100.00

Appendix Table 83 Land Suitability for Rambutan in Prachin Buri Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Prachin Buri	Mueang Prachin Buri	Noen Hom	10,378		10,378	20,937	31,315
		Dong Khilek		3,013	3,013	19,753	22,765
		Dong Phraram				7,759	7,759
		Tha Ngam		13,566	13,566	6,326	19,892
		Bang Boribun				1,429	1,429
	Mueang Prachin Buri Total		10,378	16,579	26,957	56,203	83,160
	Kabin Buri	Khao Mai Kaeo				44,510	44,510
		Kabin	3,776	2,633	6,410	32,811	39,221
		Nonsi	2,158		2,158	25,651	27,809
		Na Khaem	4,494		4,494	20,950	25,445
		Bo Thong		3,525	3,525	27,148	30,673
		Ban Na	7,889		7,889	60,547	68,436
		Yan Ri		3,333	3,333	56,076	59,409

Appendix Table 83 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Lat Takhian		1,073	1,073	83,349	84,422
		Wang Takhian	5,883	3,214	9,096	34,016	43,112
		Wang Tha Chang		3,357	3,357	141,441	144,798
		Nong Ki	21,294		21,294	12,317	33,611
		Hat Nang Kaeo				7,467	7,467
	Kabin Buri Total		45,494	17,134	62,629	546,283	608,911
	Na Di	Kaeng Din So				23,284	23,284
		Thung Pho	3,730		3,730	26,163	29,892
		Na Di	8,524		8,524	28,659	37,183
		Bu Phram				517	517
		Saphan Hin				13,816	13,816
	Na Di Total		12,254		12,254	92,438	104,692
	Ban Sang	Krathum Phaeo		24,391	24,391		24,391

Appendix Table 83 (Continued)

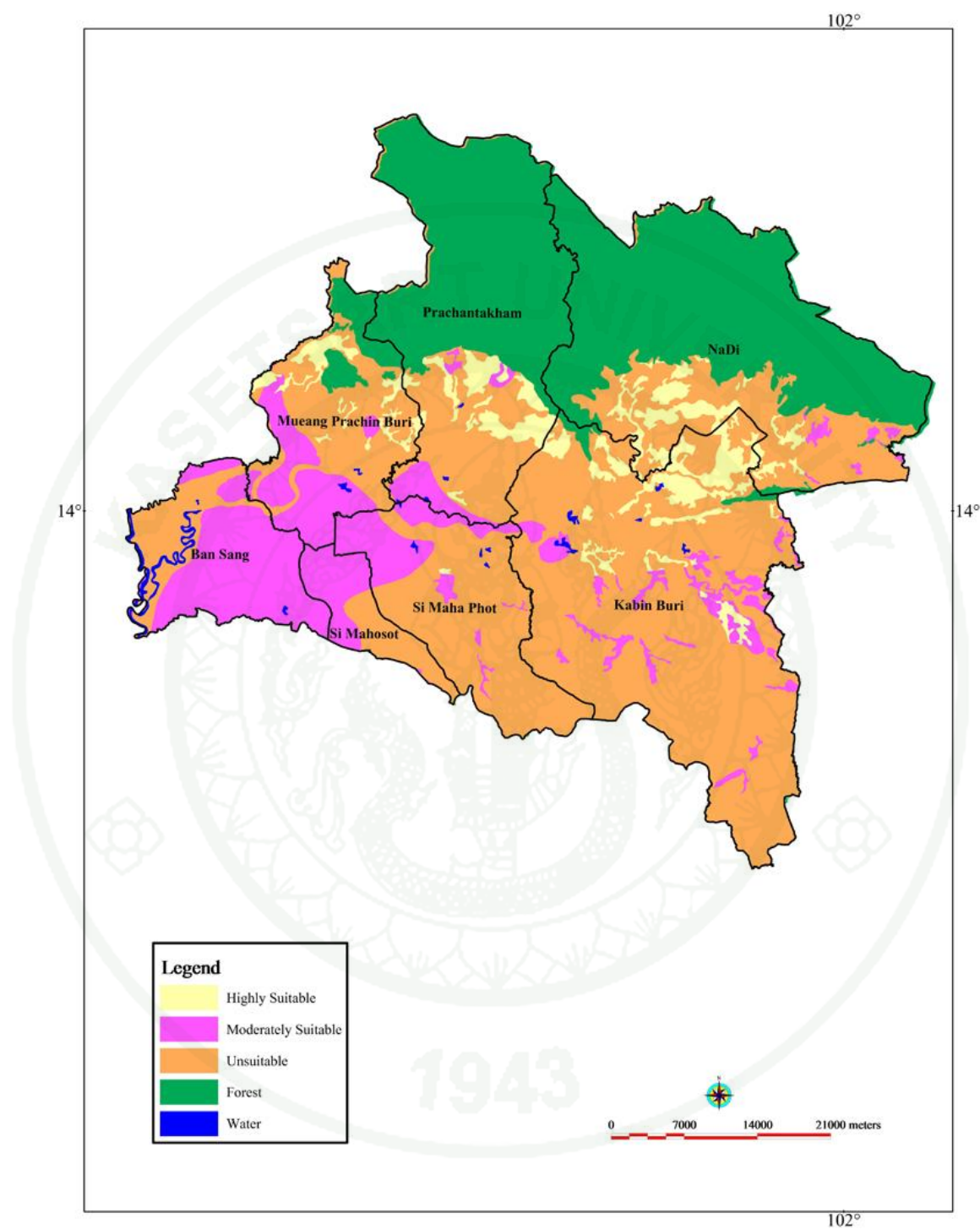
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ban Sang Total Prachantakham		Bang Toei				13,074	13,074
		Bang Taen				5,635	5,635
		Bang Kham		18,478	18,478		18,478
		Bang Pla Ra		17,784	17,784		17,784
		Bang Phluang		30,606	30,606	4,017	34,623
		Bang Yang		9,423	9,423	5,672	15,095
				100,683	100,683	28,397	129,080
		Pho Ngam	1,707		1,707	28,737	30,445
		Kham Tanot	13,361		13,361	9,237	22,598
		Dong Bang				19,750	19,750
		Ban Hoi		2,056	2,056	11,047	13,103
		Bu Fai	10,772	1,821	12,593	5,515	18,107
		Nong Kaeo	3,410	1,166	4,576	9,878	14,453

Appendix Table 83 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Saeng				8,012	8,012
	Prachantakham Total		29,250	5,042	34,292	92,176	126,468
	Si Mahosot	Khok Thai				26,781	26,781
		Khok Pip		298	298	12,506	12,804
		Phai Cha Lueat		20,340	20,340		20,340
		Khu Lam Phan		9,833	9,833		9,833
	Si Mahosot Total			30,471	30,471	39,287	69,758
	Si Maha Phot	Dong Krathong Yam		17,333	17,333		17,333
		Tha Tum				29,272	29,272
		Ban Tham		8,073	8,073	2,169	10,242
		Si Maha Phot		1,093	1,093	48,254	49,347
		Nong Phrong		4,787	4,787	48,787	53,573
		Hua Wa		4,369	4,369	46,315	50,684

Appendix Table 83 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Hat Yang		9,060	9,060	9,060
	Si Maha Phot	Total		44,715	44,715	174,797
Prachin Buri	Total		97,376	214,625	312,000	1,029,581
						1,341,582



Appendix Figure 55 Map of Land Suitability for Rambutan in Prachin Buri Province

Appendix Table 84 Zoning For Rambutan in Prachin Buri Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Prachin Buri	10,378	16,579	434	3,665	1
Kabin Buri	45,494	17,134	18	222	2
Na Di	12,254	0	132	240	2
Prachantakham	29,250	5,042	17	1,118	1
Si Maha Phot	0	44,715	223	1,324	1
Prachin Buri Total	97,376	83,471	824	2,355	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 84 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Prachin Buri	10,378			16,579			434		
Kabin Buri		45,494			17,134			18	
Na Di		12,254						132	
Prachantakham	29,250			5,042			17		
Si Maha Phot				44,715			223		
Prachin Buri Total	39,628	57,748	0	66,336	17,134	0	674	150	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

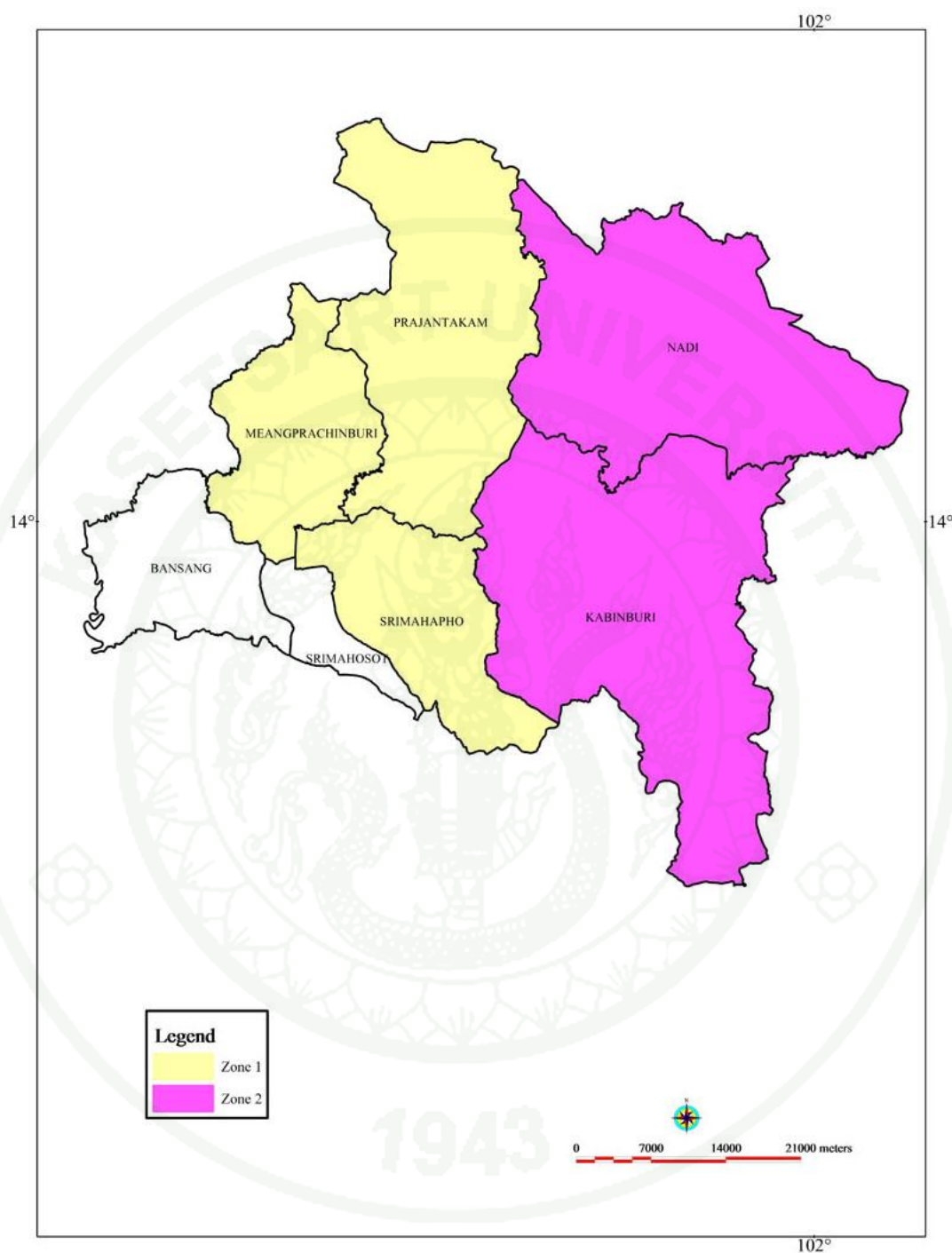
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 56 Map of Zoning for Rambutan in Prachin Buri Province

Appendix Table 85 Classification of Land Suitability for Rambutan in
Chachoengsao Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	5,680	0.17
2. Moderately Suitable	553,987	16.56
3. Unsuitable	1,133,856	33.90
4. Existing Forest	505,143	15.10
5. Deforestation	559,279	16.72
6. Water	9,152	0.27
7. Built-up areas	577,279	17.26
Total	3,344,375	100.00

Appendix Table 86 Land Suitability for Rambutan in Chachoengsao Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chachoengsao	Mueang Chachoengsao	Sothon		4,237	4,237	29	4,266
		Khlong Chuk Krachoe				3,744	3,744
		Khlong Nakhon Nueang Khet		16,639	16,639		16,639
		Khlong Luang Phaeng		24,064	24,064		24,064
		Bang Toei		19,902	19,902		19,902
		Bang Kaeo				7,184	7,184
		Bang Phai		2,347	2,347		2,347
		Bang Kahai		5,398	5,398		5,398
		Bang Tin Pet		478	478	5,528	6,006
		Wang Takhian		6,394	6,394		6,394
		Na Mueang		259	259		259
		Nam Daeng		4,549	4,549		4,549
		Mueang Chachoengsao Total		84,267	84,267	16,484	100,751

Appendix Table 86 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Plaeng Yao	Plaeng Yao		3,479	3,479	15,768	19,246
		Wang Yen				30,957	30,957
		Nong Mai Kaen				70,444	70,444
		Hua Samrong	2,838	11,053	13,891		13,891
	Plaeng Yao Total		2,838	14,532	17,370	117,169	134,539
	Khlong Khuean	Kon Kaeo		14,242	14,242	1,843	16,085
		Khlong Khuean		8,395	8,395		8,395
		Bang Lao				4,183	4,183
		Bang Rong		12,771	12,771		12,771
	Khlong Khuean Total			35,407	35,407	6,026	41,434
	Tha Takiab	Khlong Takrao		17,925	17,925	157,521	175,445
		Tha Takiap		4,160	4,160	213,575	217,735
Tha Takiab Total			22,084	22,084	371,096	393,180	

Appendix Table 86 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bang Khla	Samet Nuea		10,340	10,340		10,340
		Samet Tai		19,140	19,140		19,140
		Tha Thonglang		13,737	13,737		13,737
		Sao Cha-Ngok		2,903	2,903	2,597	5,500
	Bang Khla Total			46,120	46,120	2,597	48,717
	Bang Nam Prio	Yothaka		31,230	31,230	1,216	32,446
		Don Ko Ka		36,498	36,498		36,498
		Don Chimpfli		31,601	31,601		31,601
		Bang Khanak		16,015	16,015		16,015
		Bang Nam Prio		24,444	24,444		24,444
		Bueng Nam Rak		25,937	25,937		25,937
		Singto Thong		18,981	18,981		18,981
		Mon Thong		22,244	22,244		22,244

Appendix Table 86 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
	Bang Nam Piao	Total		206,950	206,950	1,216
	Bang Pakong	Tha Kham				226
		Tha Sa-an		2,692	2,692	1,298
		Bang Pakong				344
		Nong Chok		12,599	12,599	
	Bang Pakong	Total		15,291	15,291	1,869
	Ban Pho	Ko Rai		7,286	7,286	
		Theppharat		11,622	11,622	
		Saen Phu Dat		4,356	4,356	
		Khlong Prawet		3,108	3,108	
		Don Sai		3,391	3,391	
		Sip Et Sok		8,568	8,568	
	Ban Pho	Total		38,332	38,332	

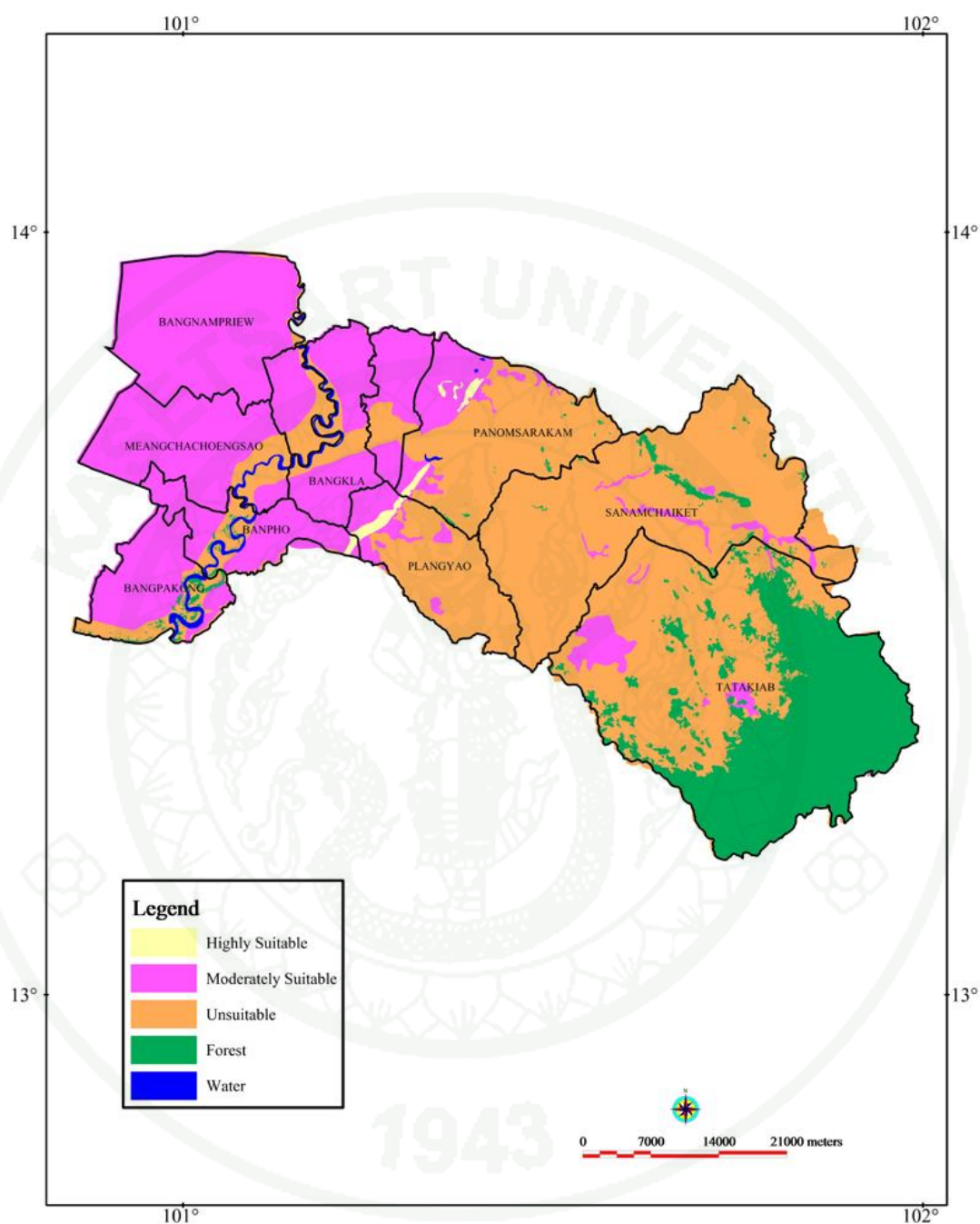
Appendix Table 86 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phanom Sarakham	Ko Khanun				51,659	51,659
		Khao Hin Son				82,913	82,913
		Ban Song		133	133	16,979	17,112
		Nong Nae	2,843	10,249	13,091	23,250	36,341
		Phanom Sarakham Total	2,843	10,381	13,224	174,801	188,025
Ratchasan	Mueang Mai		13,101	13,101	15,159	28,261	
	Dong Noi		38,169	38,169		38,169	
	Bang Kha		18,033	18,033	1,778	19,812	
Ratchasan Total			69,304	69,304	16,938	86,241	
Sanam Chai Khet	Ku Yai Mi		513	513	57,411	57,924	
	Tha Kradan		8,444	8,444	135,785	144,229	
	Thung Phraya		1,378	1,378	99,180	100,558	
	Lat Krathing		984	984	133,349	134,333	

Appendix Table 86 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Sanam Chai Khet Total			11,318	11,318	425,725	437,043
	Chachoengsao Total		5,680	553,987	559,668	1,133,921	1,693,589



Appendix Figure 57 Map of Land Suitability for Rambutan in Chachoengsao Province

Appendix Table 87 Zoning For Rambutan in Chachoengsao Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Tha Takiab		22,084	187	1,019	1
Chachoengsao Total	0	22,084	187	1,019	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 87 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Tha Takiab				22,084			187		
Chachoengsao Total	0	0	0	22,084	0	0	187	0	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

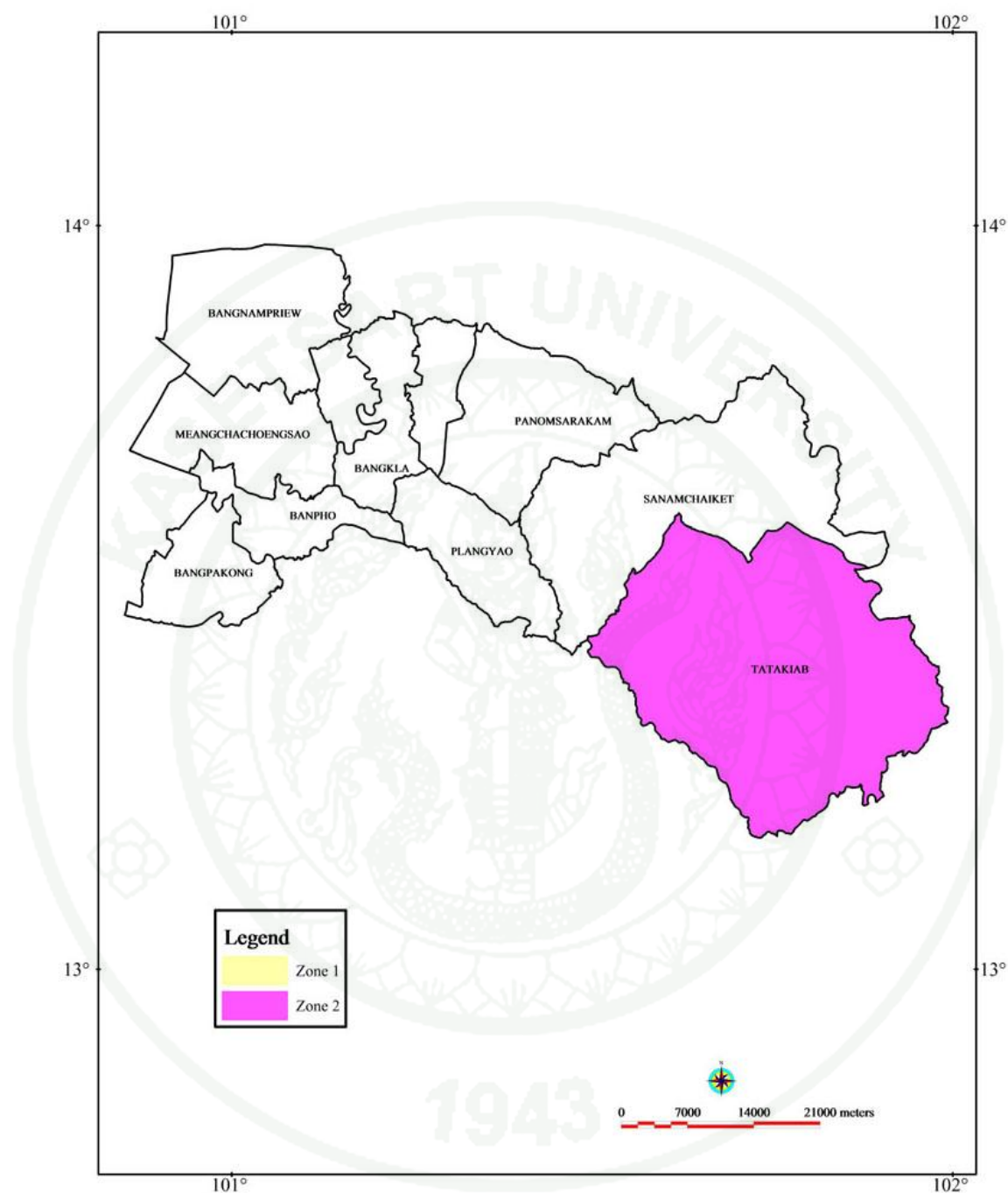
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 58 Map of Zoning for Rambutan in Chachoengsao Province

Appendix Table 88 Classification of Land Suitability for Rambutan in Sa Kaeo
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	104,511	2.32
3. Unsuitable	2,266,839	50.41
4. Existing Forest	1,035,109	23.02
5. Deforestation	530,457	11.80
6. Water	11,588	0.26
7. Built-up areas	548,457	12.20
Total	4,496,962	100.00

Appendix Table 89 Land Suitability for Rambutan in Sa Kaeo Province by Amphoe,Tambon,Thailand

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
Sa Kaeo	Khao Chakan	Khao Chakan		754	754	7,247
		Khao Sam Sip		442	442	16,180
		Phra Phloeng				92,985
		Nong Wa		3,776	3,776	110,423
	Khao Chakan Total			4,971	4,971	226,835
	Mueang Sa Kaeo	Khok Pi Khong		6,402	6,402	5,068
		Tha Kasem		178	178	50,531
		Tha Yaek		13,771	13,771	80,972
		Ban Kaeng		6,748	6,748	46,748
		Sala Lamduan		4,273	4,273	35,997
		Sa Khwan		296	296	33,162
		Nong Bon		24	24	17,100
	Mueang Sa Kaeo Total			31,694	31,694	269,579

Appendix Table 89 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Khok Sung	Khok Sung				23,987	23,987
		Non Mak Mun				35,819	35,819
		Nong Waeng		7,676	7,676	50,745	58,422
		Nong Muang				56,130	56,130
	Khok Sung Total			7,676	7,676	166,681	174,357
	Wang Sombun	Wang Mai		374	374	108,116	108,490
		Wang Thong		1,695	1,695	94,729	96,424
		Wang Sombun				85,831	85,831
	Wang Sombun Total			2,069	2,069	288,676	290,745
	Khlong Hat	Benchakhon				22,442	22,442
		Thai Udom		1,052	1,052	33,729	34,782
		Sai Diao				34,596	34,596
Sai Thong					32,537	32,537	

Appendix Table 89 (Continued)

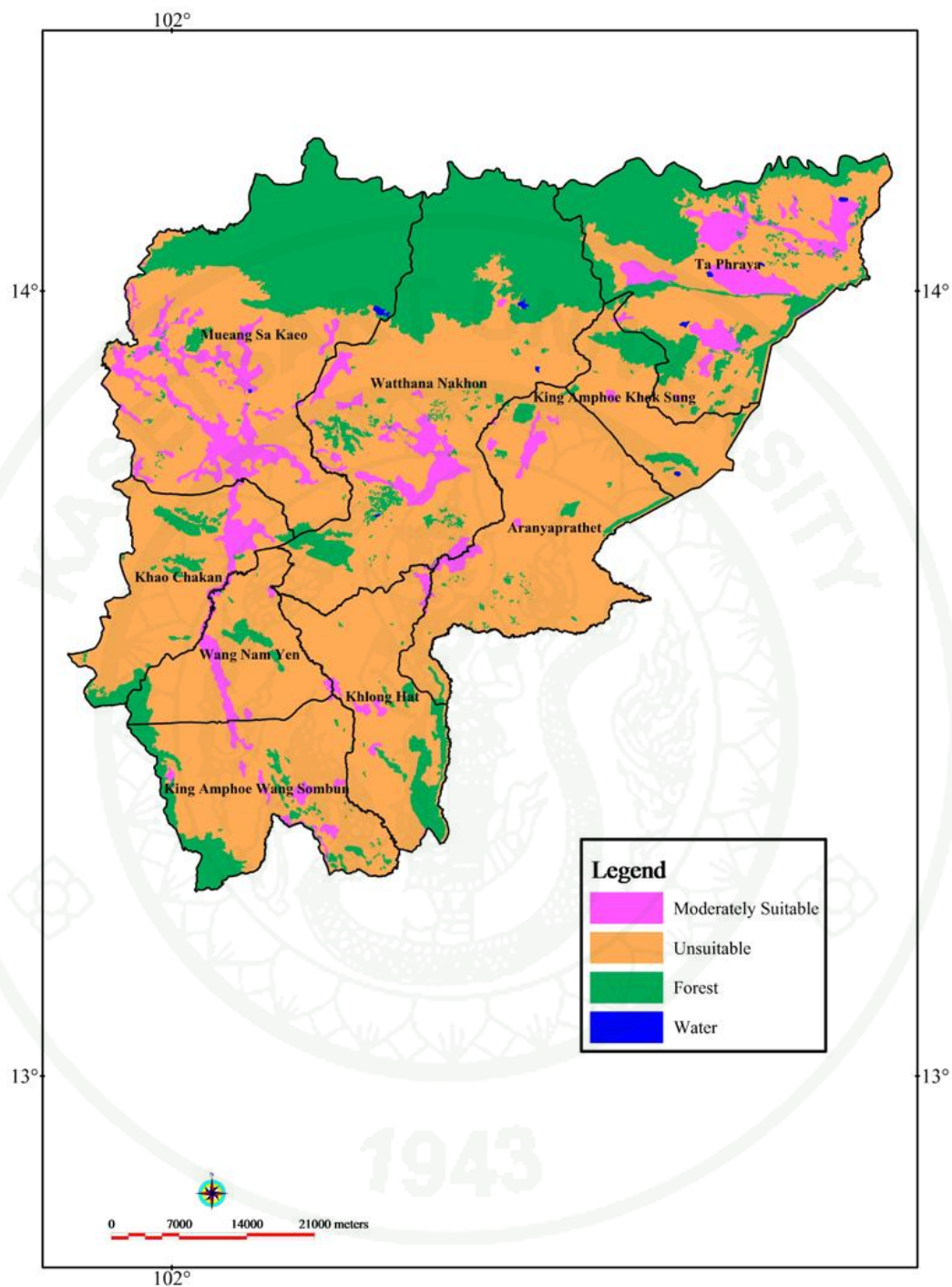
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Khlong Hat	Khlong Kai Thuean				34,898	34,898
		Khlong Hat		1,667	1,667	56,096	57,763
				2,719	2,719	214,297	217,016
		Ta Phraya	Ta Phraya	3,573	3,573	24,675	28,248
		Thap Sadet		10,419	10,419	31,000	41,419
		Thap Thai		279	279	36,657	36,935
	Ta Phraya	Thap Rat		20,283	20,283	68,118	88,401
				34,554	34,554	160,450	195,004
		Wang Nam Yen	Khlong Hin Pun	792	792	48,127	48,920
	Wang Nam Yen	Ta Lang Nai				45,767	45,767
		Thung Maha Charoen				55,113	55,113
		Wang Nam Yen				32,105	32,105
Wang Nam Yen Total			792	792	181,113	181,905	

Appendix Table 89 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Watthana Nakhon		Sae-o				14,169	14,169
		Non Mak Kheng				47,822	47,822
		Chong Kum				31,522	31,522
		Tha Kwian				88,891	88,891
		Phak Kha		3,433	3,433	35,327	38,759
		Watthana Nakhon				30,518	30,518
		Nong Waeng				12,718	12,718
		Nong Takian Bon		7,371	7,371	49,786	57,156
		Nong Nam Sai				35,698	35,698
		Nong Mak Fai				52,886	52,886
		Huai Chot		2,684	2,684	28,953	31,637
Watthana Nakhon Total			13,487	13,487	428,290	441,777	
Aranyaprathet	Mueang Phai				28,966	28,966	

Appendix Table 89 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Khlong Thap Chan		6,548	6,548	26,415
		Khlong Nam Sai				35,769
		Tha Kham				20,665
		Ban Dan				17,012
		Pa Rai				55,931
		Phan Suek				36,679
		Fak Huai				27,783
		Nong Sang				39,804
		Han Sai				38,727
		Aranyaprathet				3,166
	Aranyaprathet Total			6,548	6,548	330,918
Sa Kaeo Total				104,511	104,511	2,266,839



Appendix Figure 59 Map of Land Suitability for Rambutan in Sa Kaeo Province

Appendix Table 90 Zoning For Rambutan in Sa Kaeo Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khao Chakan		4,971	30	7,800	2
Wang Nam Yen		792	2	0	0
Sa Kaeo Total	0	5,764	32	7,313	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 90 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Khao Chakan					4,971			30	
Wang Nam Yen					0	792			2
Sa Kaeo Total	0	0	0	0	4,971	792	0	30	2

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

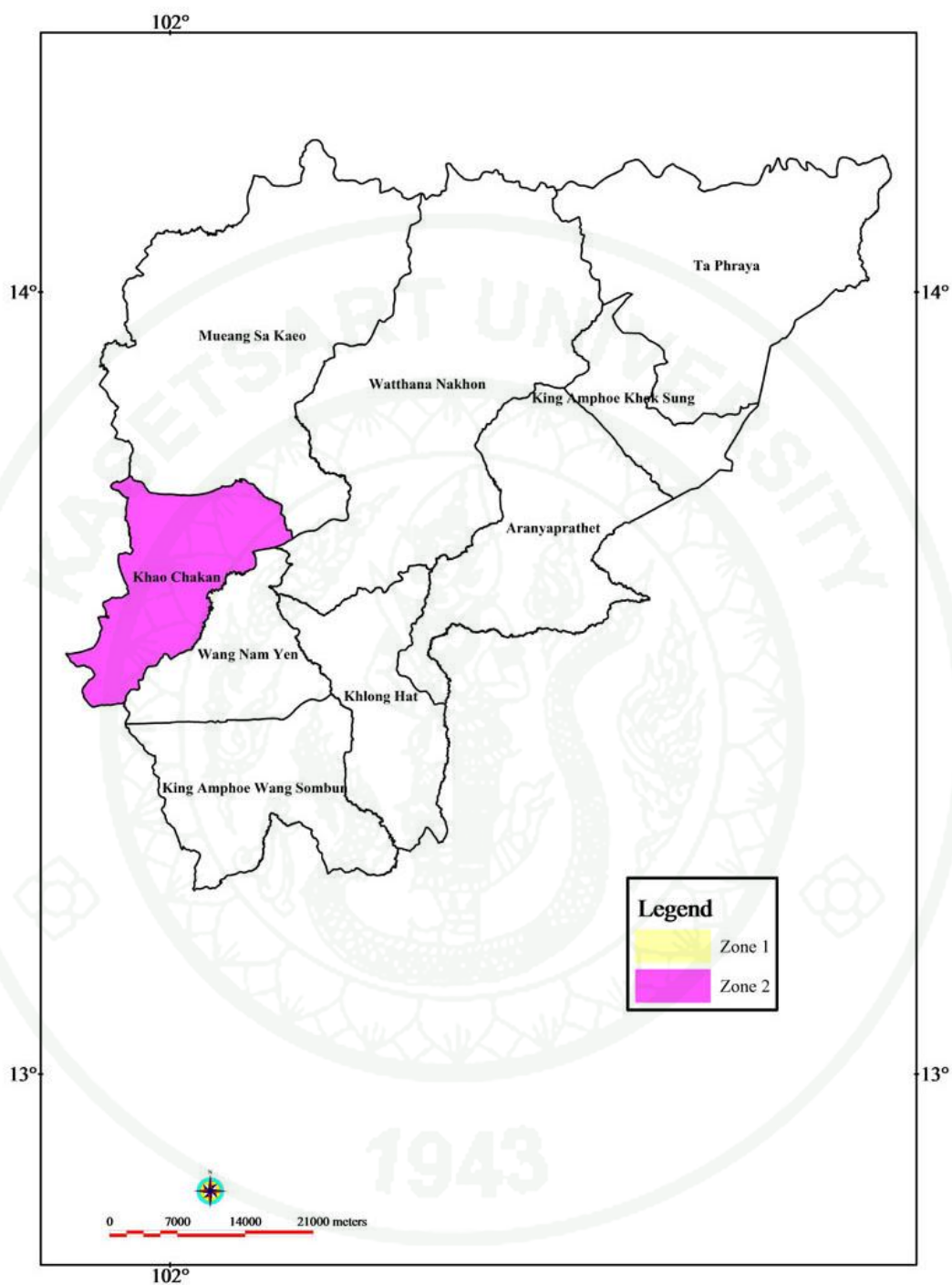
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 60 Map of Zoning for Rambutan in Sa Kaeo Province

Appendix Table 91 Classification of Land Suitability for Rambutan in Chanthaburi Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	381,599	9.63
2. Moderately Suitable	378,443	9.55
3. Unsuitable	750,014	18.93
4. Existing Forest	868,540	21.93
5. Deforestation	752,631	19.00
6. Water	59,392	1.50
7. Built-up areas	770,631	19.45
Total	3,961,250	100.00

Appendix Table 92 Land Suitability for Rambutan in Chanthaburi Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chanthaburi	Mueang Chanthaburi	Ko Kwang	21	1,614	1,635		1,635
		Sa Lang	18,480	983	19,463		19,463
		Klong Narai		6,220	6,220		6,220
		Chanthanimit	115	898	1,014		1,014
		Tha Chang	9,107	82	9,188		9,188
		Nong Bua	1,868	1,483	3,351		3,351
	Mueang Chanthaburi Total		29,591	11,281	40,872		40,872
	Kaeng Hang Maeo	Khao Wong Kod				28,673	28,673
		Kaeng Hang Maeo		23,717	23,717	67,536	91,253
		Khun Chong		35,452	35,452	85,151	120,603
		Pa Wa		13,039	13,039	27,005	40,043
		Sam Pi Nong		5,774	5,774	75,005	80,779
	Kaeng Hang Maeo Total			77,981	77,981	283,370	361,351

Appendix Table 92 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Laem Sing	Ko Perd			3,985	3,985		3,985
				1,756	1,756		1,756
			58		58		58
				1,876	1,876		1,876
				4,371	4,371		4,371
				450	450		450
	Laem Sing Total		58	12,439	12,496		12,496
	Pong Nam Ron	Pong Nam Ron	16,180	9,646	25,825	52,913	78,738
		Klong Yai	17,490		17,490		17,490
		Tab Sai	23,245	7,658	30,903	41,938	72,841
		Nong Ta Kong	9,728	1,215	10,943	47,757	58,700
Pong Nam Ron Total		66,643	18,518	85,161	142,608	227,769	
Khitchakut	Klong Plu	5,047	26,416	31,464	9,863	41,326	

Appendix Table 92 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bunditkul	King Amphoe Khao Khlung	Chan Tha Klem				948	948
		Chak Thai	30,341	3,819	34,160	264	34,424
		Ta Kian Thong	20,350		20,350		20,350
		Pluang	21,407		21,407	7,761	29,168
		Khitchakut Total	77,145	30,235	107,380	18,836	126,216
		Sing	12,630	8,294	20,924		20,924
		Tok prom	466	10,889	11,355		11,355
		Trok Nong	10,490	9,271	19,761		19,761
		Bo	2,970	7,388	10,358		10,358
		Bo Welu	2,822	22,739	25,561		25,561
	Mab Pi	9,009	5,635	14,644		14,644	
	Wan Yau	296	223	519		519	
	Khlung Total	38,682	64,439	103,122		103,122	

Appendix Table 92 (Continued)

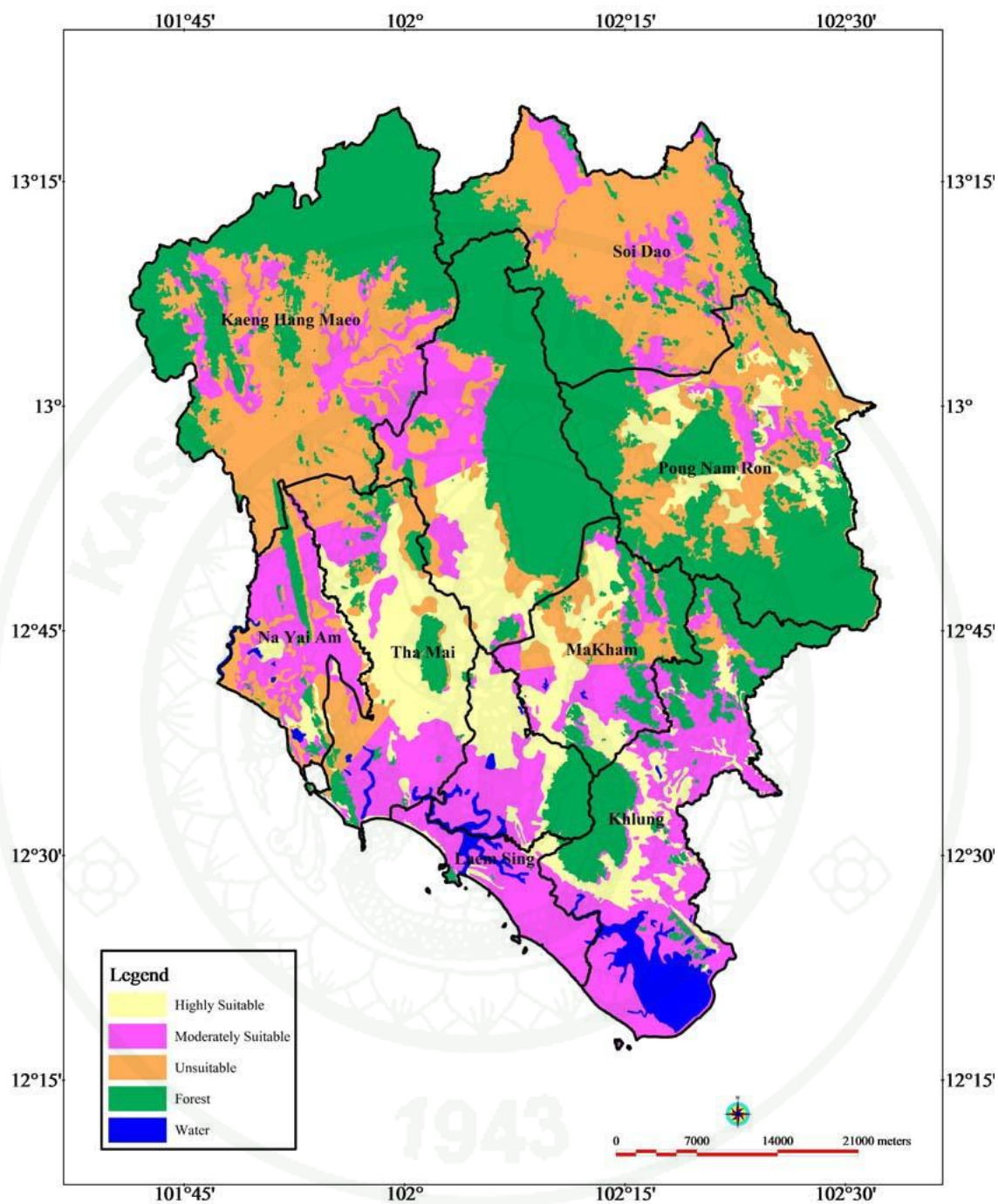
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Tha Mai	Khao Kaeo	3,564	375	3,939	36,799	40,738
		Khao By Si	33,410		33,410		33,410
		Khao Wua	6,194		6,194		6,194
		Ta Kad Ngo	302	4,131	4,433		4,433
		Tha Mai	1,155	2,882	4,038		4,038
		Tung Benja	40,769	6,813	47,582		47,582
		Ram Phan	475	1,954	2,429	9,274	11,704
		Song Pi Nong	32,944	128	33,072	2,502	35,574
	Tha Mai Total		118,813	16,283	135,097	48,575	183,672
	Na Yai Am	Kra jae	139	14,673	14,812	2,160	16,972
		Chang kam	1,100	9,352	10,452	45	10,497
		Na Yai Am	2,496	31,520	34,015	4,035	38,050
Wang Ta Node					1,337	1,337	

Appendix Table 92 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasem Bundit	Na Yai Am	Wang Mai				3,950	3,950
		Sa Nam Chai	7,680		7,680	62	7,741
			11,414	55,545	66,959	11,589	78,548
	Makham	Cha Man		1,621	1,621		1,621
		Tha Luang	10,477	14,560	25,037		25,037
		Pat Tha Wee	700	32,323	33,023	20,711	53,734
		Makham	15,199	9,365	24,564		24,564
		Ang Khi Ri	12,877	7,482	20,359		20,359
		Makham Total	39,253	65,352	104,605	20,711	125,316
	Soi Dao	Sai Kao		12,233	12,233	60,544	72,777
		Thap Chang				45,667	45,667
		Thung Ka Nan				35,004	35,004
		Pa Tong		2,476	2,476	50,461	52,937

Appendix Table 92 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Sa Ton		11,661	11,661	32,649	44,310
	Soi Dao	Total		26,369	26,369	224,325	250,695
Chanthaburi	Total		381,599	378,443	760,042	750,014	1,510,056



Appendix Figure 61 Map of Land Suitability for Rambutan in Chanthaburi Province

Appendix Table 93 Zoning For Rambutan in Chanthaburi Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Chanthaburi	29,591	11,281	5,790	1,042	1
Kaeng Hang Maeo	0	77,981	24,659	627	1
Laem Sing	58	12,439	30,709	1,526	1
Pong Nam Ron	66,643	18,518	850	443	2
King Amphoe Khao Khitchakut	77,145	30,235	16,283	1,263	1
Khlung	38,682	64,439	860	1,473	1
Tha Mai	118,813	16,283	624	741	1
Na Yai Am	11,414	55,545	2,886	1,769	1
Makham	39,253	65,352	4,938	1,257	1
Soi Dao	0	12,233	24,309	1,589	2
Chanthaburi Total	381,599	364,306	111,908	262	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 93 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Chanthaburi	29,591			11,281			5,790		
Kaeng Hang Maeo	0			77,981			24,659		
Laem Sing	58			12,439			30,709		
Pong Nam Ron		66,643			18,518			850	
King Amphoe Khao Khitchakut	77,145			30,235			16,283		
Khlung	38,682			64,439			860		
Tha Mai	118,813			16,283			624		
Na Yai Am	11,414			55,545			2,886		
Makham	39,253			65,352			4,938		
Soi Dao		0			12,233			24,309	
Chanthaburi Total	314,957	66,643	0	333,555	30,751	0	86,749	25,159	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

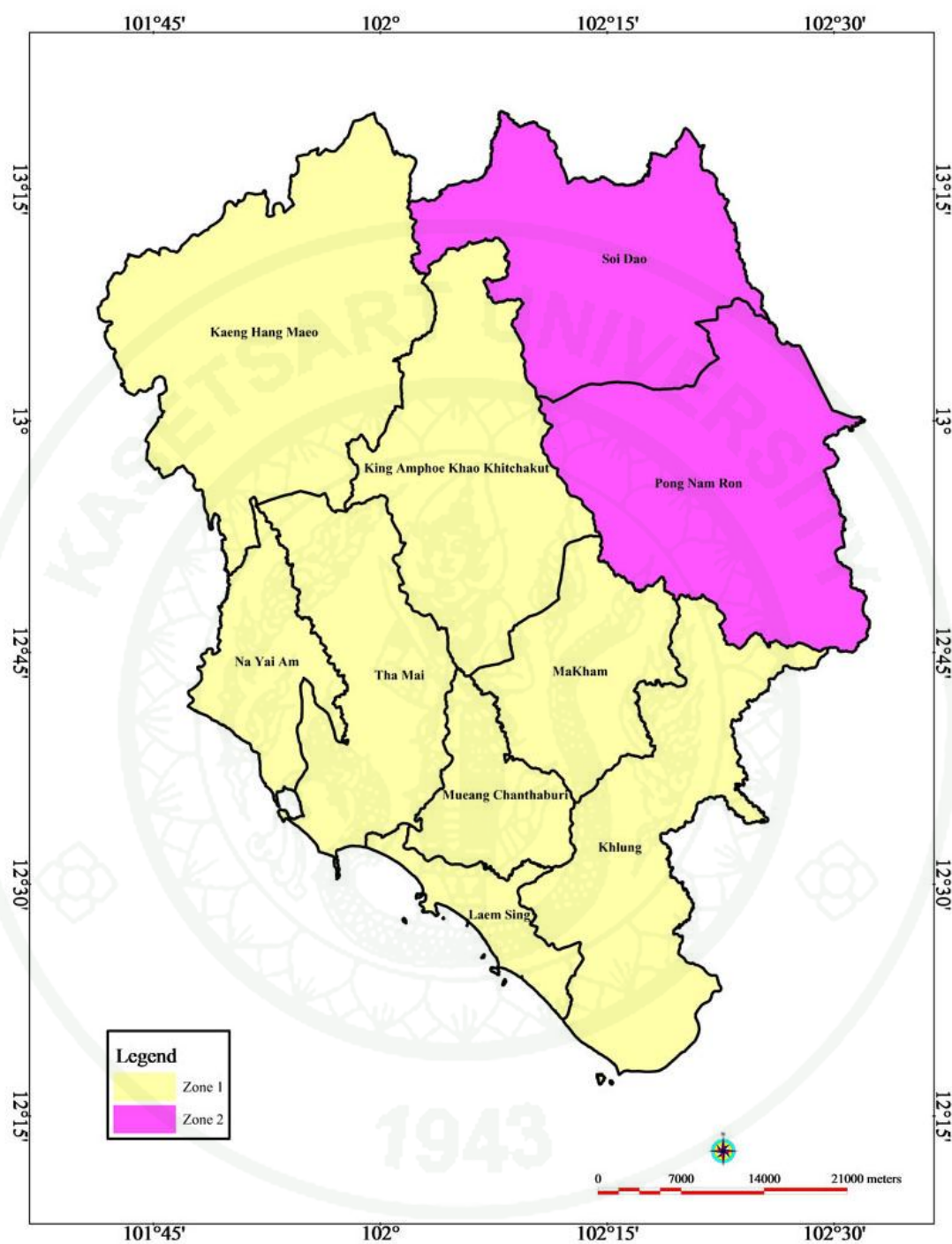
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 62 Map of Zoning for Rambutan in Chanthaburi Province

Appendix Table 94 Classification of Land Suitability for Rambutan in
Trat Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	24,015	1.36
2. Moderately Suitable	200,847	11.40
3. Unsuitable	364,104	20.67
4. Existing Forest	395,862	22.47
5. Deforestation	365,120	20.72
6. Water	28,807	1.64
7. Built-up areas	383,120	21.74
Total	1,761,875	100.00

Appendix Table 95 Land Suitability for Rambutan in Trat Province by Amphoe,Tambon,Thailand

Unit : rai

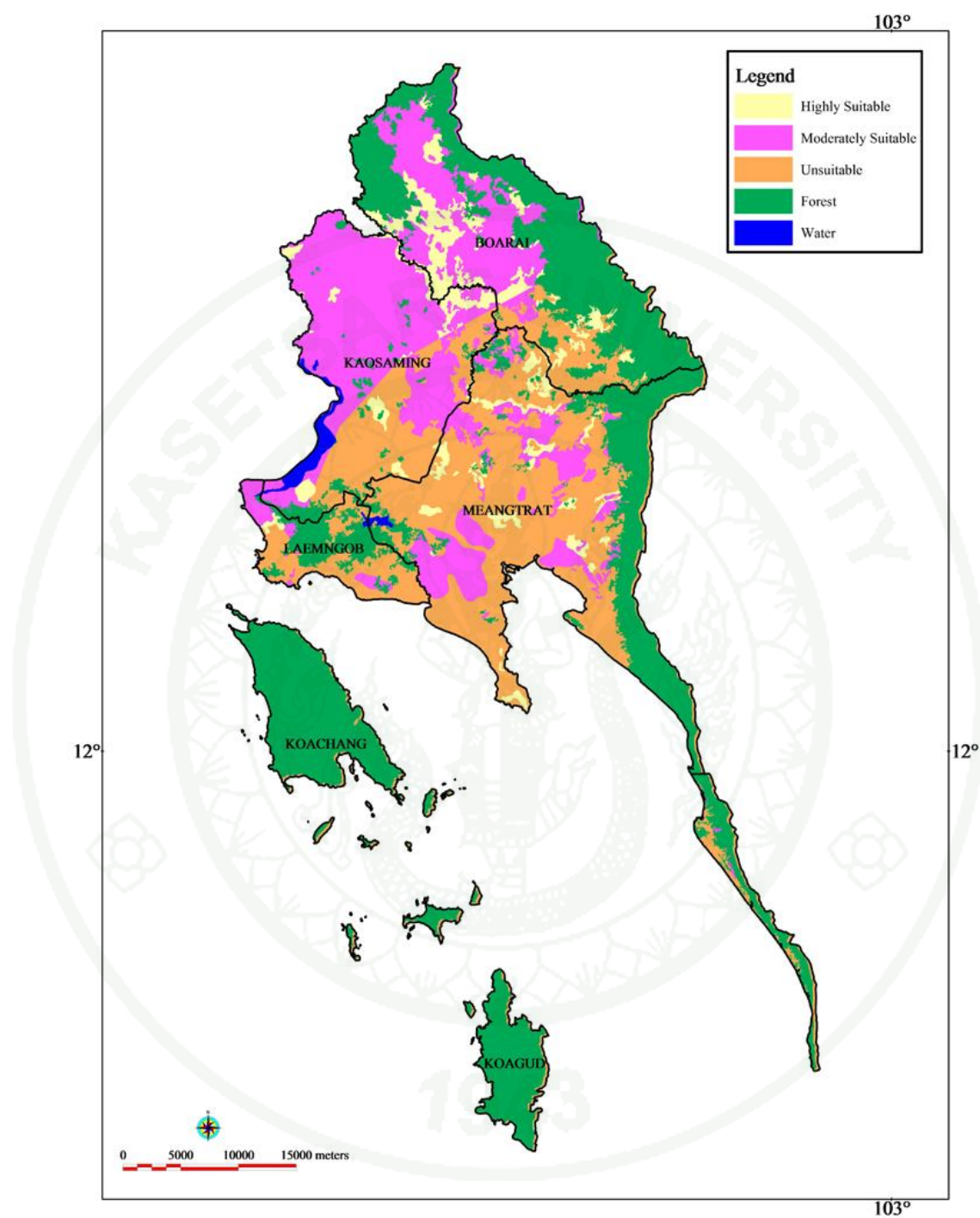
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Trat	Khao Saming	Khao Saming	3,381		3,381	29,940	33,321
		Thep Nimit		22,924	22,924		22,924
		Saen Tung		23,401	23,401	22,825	46,226
		Thung Nonsi		20,431	20,431	8,067	28,498
		Pranit		49,580	49,580		49,580
		Wang Takhian	4,332	10,189	14,522	13,127	27,649
		Sato	217	36,533	36,750		36,750
	Khao Saming Total		7,930	163,058	170,989	73,959	244,948
	Mueang Trat	Noen Sai				15,873	15,873
		Laem Kat				3,924	3,924
		Chamrak		2,552	2,552	12,722	15,273
		Takang	1,352	3,388	4,739	17,678	22,418
		Tha Kum		1,187	1,187	34,341	35,528

Appendix Table 95 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wang Krachae		1,690	1,690	26,119	27,809
		Huang Nam Khao				18,990	18,990
		Huai Raeng	4,503	12,670	17,174	36,493	53,666
		Ao Yai				4,579	4,579
	Mueang Trat Total		5,855	21,487	27,342	170,719	198,061
	Laem Ngop	Laem Ngop		3,141	3,141	8,395	11,536
		Khlong Yai				34,213	34,213
		Nam Chiao				15,870	15,870
	Laem Ngop Total			3,141	3,141	58,479	61,619
	Ko Kut	Ko Kut	431	653	1,084	8,635	9,719
	Ko Kut Total		431	653	1,084	8,635	9,719
	Ko Chang	Ko Chang Tai				23,669	23,669
	Ko Chang Total					23,669	23,669

Appendix Table 95 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Trat	Khlong Yai	Mai Rut				2,779	2,779
	Khlong Yai Total					2,779	2,779
	Bo Rai	Chang Thun	8,062	12,615	20,677		20,677
		Dan Chumphon	1,053		1,053	25,864	26,918
		Bo Phloi		152	152		152
		Nong Bon	683		683		683
	Bo Rai Total		9,798	12,767	22,565	25,864	48,429
	Trat Total		24,015	201,106	225,120	364,104	589,224



Appendix Figure 63 Map of Land Suitability for Rambutan in Trat Province

Appendix Table 96 Zoning For Rambutan in Trat Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Trat	5,855	21,487	11,212	1,252	1
Khlong Yai	0	0	162	769	0
Khao Saming	7,930	163,058	37,218	1,383	1
Bo Rai	9,798	12,767	9,954	1,300	1
Laem Ngop	0	3,141	1,034	1,212	1
Ko Kut	431	653	22	2,885	2
Ko Chang	0	0	22	1,000	0
Trat Total	24,015	201,106	59,624	1,340	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 96 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Trat	5,855			21,487			11,212		
Khlong Yai									162
Khao Saming	7,930			163,058			37,218		
Bo Rai	9,798			12,767			9,954		
Laem Ngop	0			3,141			1,034		
Ko Kut		431			653			22	
Ko Chang									22
Trat Total	23,583	431	0	200,453	653	0	59,418	22	184

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

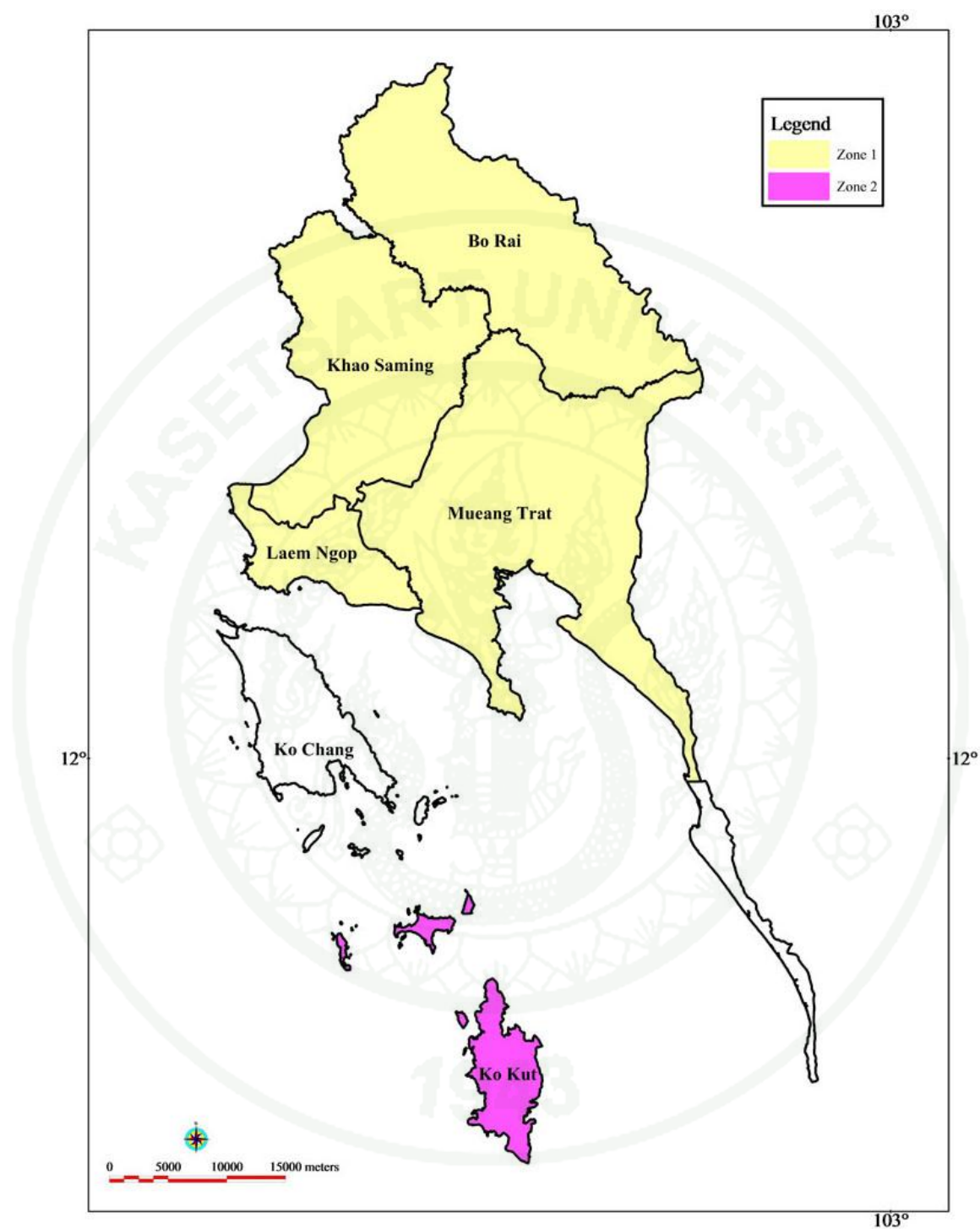
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 64 Map of Zoning for Rambutan in Trat Province

Appendix Table 97 Classification of Land Suitability for Rambutan in Rayong
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	9,155	0.41
2. Moderately Suitable	208,770	9.40
3. Unsuitable	972,230	43.79
4. Existing Forest	81,931	3.69
5. Deforestation	453,813	20.44
6. Water	22,288	1.00
7. Built-up areas	471,813	21.25
Total	2,220,000	100.00

Appendix Table 98 Land Suitability for Rambutan in Rayong Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Rayong	Mueang Rayong	Choeng Noen	1,969	1,333	3,302	1,660	4,962
		Phe		178	178	8,360	8,539
		Klaeng		1,324	1,324	12,035	13,358
		Kachet				26	26
		Taphong		7,964	7,964	17,056	25,019
		Nam Khok				1,249	1,249
		Ban Laeng				1,189	1,189
		Samnak Thong		19,187	19,187	46,143	65,330
		Huai Pong		19,976	19,976	3,535	23,511
	Mueang Rayong Total		1,969	49,962	51,931	91,252	143,183
	Klaeng	Krasae Bon		868	868	19,488	20,355
		Kram	1,957	3,383	5,340	873	6,213
		Kong Din		1,054	1,054	39,872	40,926

Appendix Table 98 (Continued)

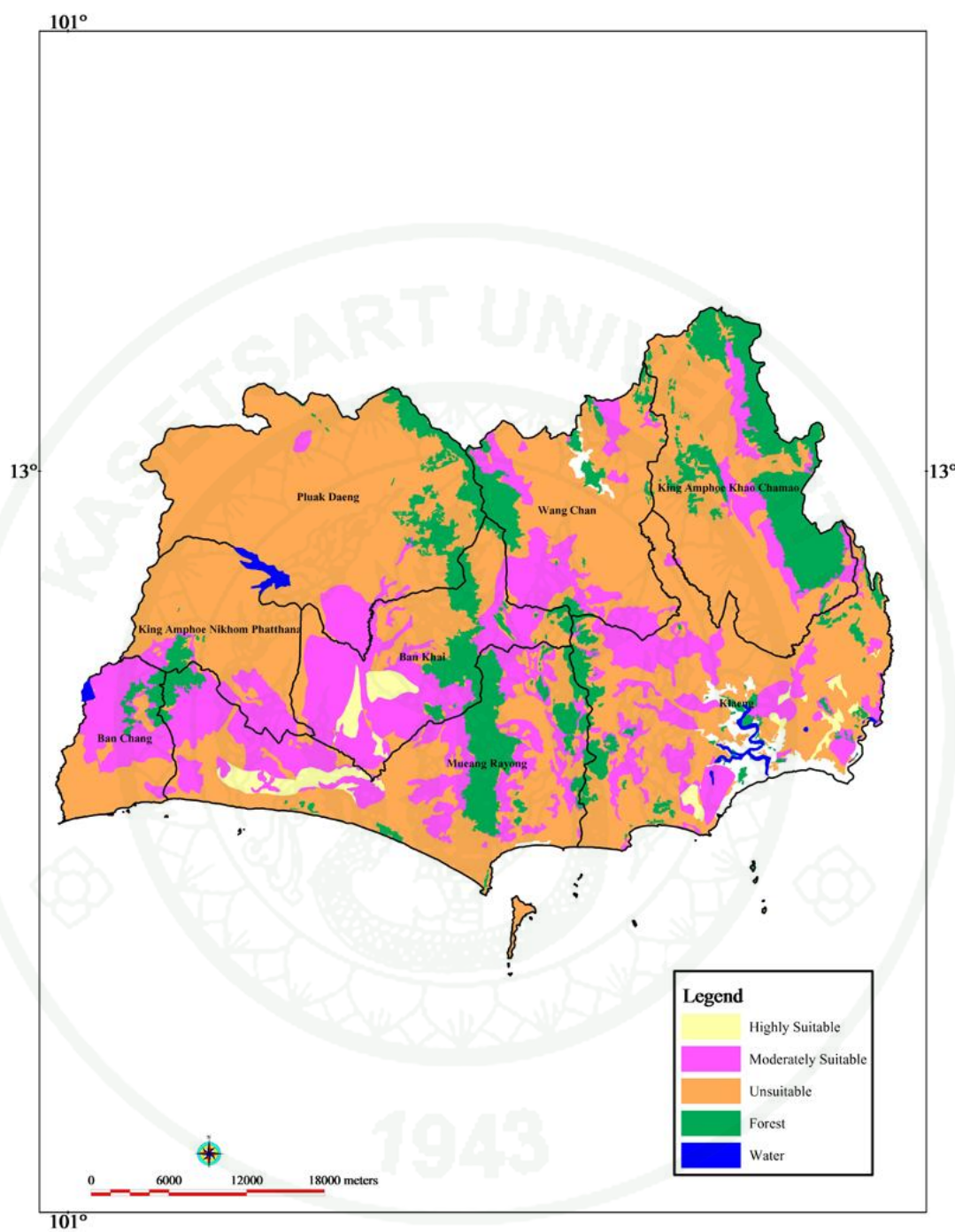
Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Klaeng		Khlong Pun				990	990	
		Chak Phong		321	321	10,715	11,036	
		Thang Kwian		20,294	20,294		20,294	
		Thung Khwai Kin		5,430	5,430	22,071	27,501	
		Pak Nam Krasae				1,329	1,329	
		Wang Wa		2,239	2,239	17,079	19,318	
		Song Salueng		5,662	5,662	7,244	12,905	
		Huai Yang				23,511	23,511	
		Klaeng Total		1,957	39,252	41,209	143,171	184,380
	Khao Chamao	Cham Kho		265	265	56,135	56,400	
		Nam Pen		13,166	13,166	43,108	56,273	
		Huai Thap Mon		10,021	10,021	36,461	46,482	
	Khao Chamao Total			23,452	23,452	135,704	159,156	

Appendix Table 98 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nikhom Phattana	Nikhom Phatthana				22,298	22,298
		Phana Nikhom				40,099	40,099
		Makham Khu				37,249	37,249
	Nikhom Phattana Total					99,645	99,645
	Ban Khai	Chak Bok		14,686	14,686		14,686
		Ta Khan		2,470	2,470	7	2,477
		Bang But		4,273	4,273	31,047	35,319
		Nong Taphan	2,458	1,863	4,321		4,321
		Nong Bua				11,883	11,883
		Nong Lalok	2,772	20,995	23,767		23,767
		Ban Khai Total		5,229	44,287	49,517	42,937
	Ban Chang	Phla				19,857	19,857
		Samnak Thon				6,888	6,888

Appendix Table 98 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Rayong	Ban Chang Total					26,745	26,745
	Pluak Daeng	Maenam Khu		18,254	18,254	46,383	64,637
		Pluak Daeng				52,202	52,202
		Map Yang Phon				63,029	63,029
		Lahan				32,491	32,491
		Nong Rai		967	967	83,906	84,873
	Pluak Daeng Total			19,221	19,221	278,010	297,231
	Wang Chan	Chum Saeng		13,161	13,161	70,292	83,453
		Pa Yup Nai		10,499	10,499	56,797	67,296
		Phlong Ta Iam				15,937	15,937
		Wang Chan		8,935	8,935	11,740	20,675
	Wang Chan Total			32,596	32,596	154,766	187,361
	Rayong Total		9,155	208,770	217,926	972,230	1,190,155



Appendix Figure 65 Map of Land Suitability for Rambutan in Rayong Province

Appendix Table 99 Zoning For Rambutan in Rayong Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Rayong	1,969	49,962	3,386	859	1
Klaeng	1,957	39,252	3,610	1,147	1
Khao Chamao		23,452	1,773	610	1
Nikhom Phattana			120	433	
Ban Khai	5,229	44,287	503	1,041	2
Pluak Daeng		19,221	8	563	2
Wang Chan		32,596	246	603	2
Rayong Total	9,155	208,770	9,646	918	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 99 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Rayong	1,969			49,962			3,386		
Klaeng	1,957			39,252			3,610		
Khao Chamao				23,452			1,773		
Nikhom Phattana									120
Ban Khai		5,229			44,287			503	
Pluak Daeng					19,221			8	
Wang Chan					32,596			246	
Rayong Total	3,926	5,229	0	112,666	96,104	0	8,769	757	120

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

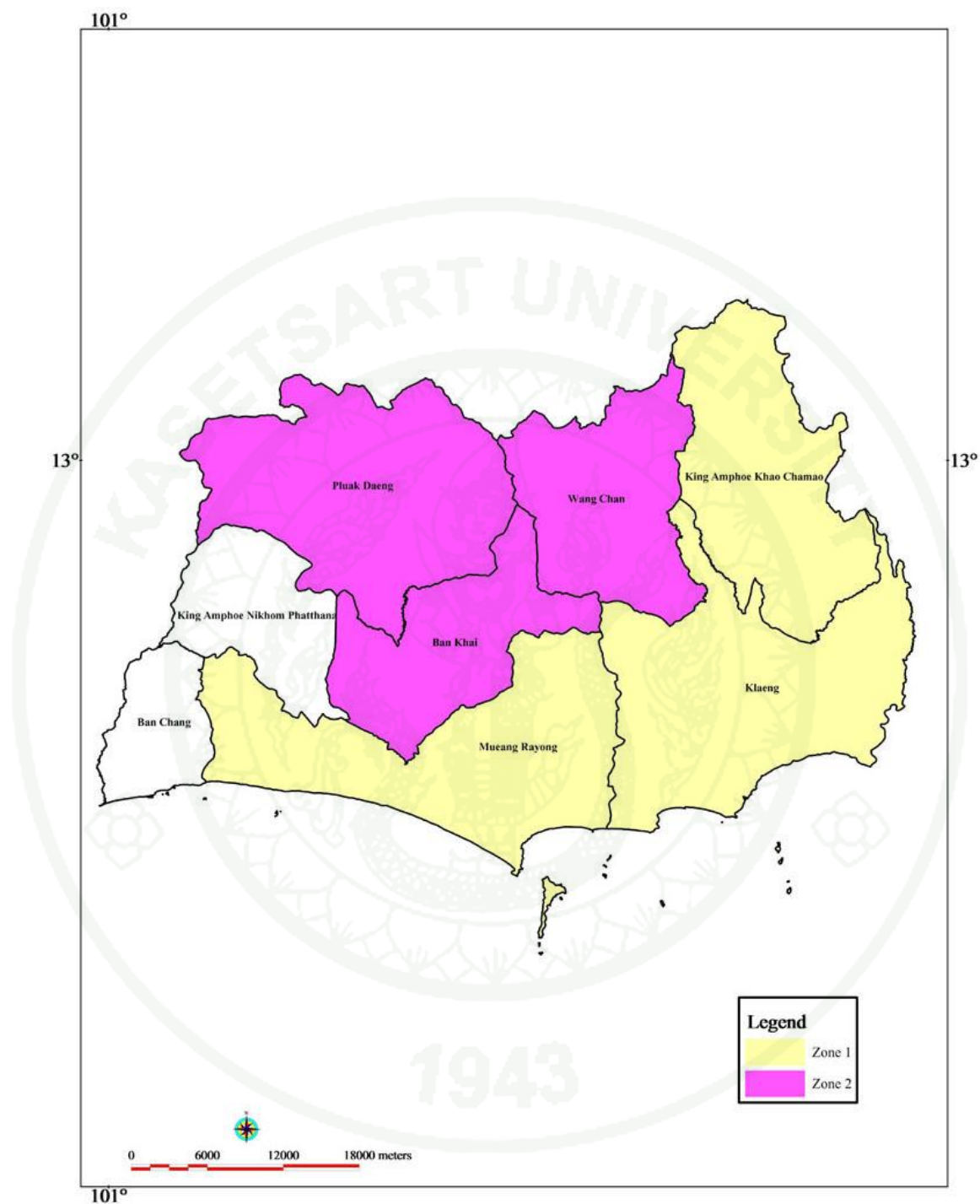
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 66 Map of Zoning for Rambutan in Rayong Province

Appendix Table 100 Classification of Land Suitability for Rambutan in Chon Buri Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	1,340	0.05
2. Moderately Suitable	34,613	1.27
3. Unsuitable	43,104	1.58
4. Existing Forest	1,647,716	60.43
5. Deforestation	482,440	17.69
6. Water	103	0.00
7. Built-up areas	517,560	18.98
Total	2,726,875	100.00

Appendix Table 101 Land Suitability for Rambutan in Chon Buri Province by Amphoe,Tambon,Thailand

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
Chon Buri	Mueang Chon Buri	Khlong Tamru		253	253	594 847
		Don Hua Lo		5,162	5,162	3,194 8,356
		Pa Na		514	514	514
		Ban Suan				3,983 3,983
		Nong Mai Daeng	1,340	1,817	3,157	3,157
		Nong Khang Khok				8,604 8,604
	Mueang Chon Buri Total		1,340	7,747	9,087	16,375 25,461
	Ko Chan	Ko Chan				102,358 102,358
		Tha Bun Mi				41,875 41,875
	Ko Chan Total					144,233 144,233
	Bo Thong	Kaset Suwan				55,820 55,820
		That Thong				47,115 47,115
		Bo Kwang Thong				28,036 28,036

Appendix Table 101 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Bo Thong				146,616	146,616
		Phluang Thong				64,748	64,748
		Wat Suwan				39,264	39,264
	Bo Thong Total					381,600	381,600
	Bang Lamung	Khao Mai Kaeo				54,308	54,308
		Pong				24,835	24,835
		Takhian Tia				28,691	28,691
		Na Kluea				6,305	6,305
		Nong Prue				26,099	26,099
		Nong Pla Lai				19,989	19,989
		Huai Yai				75,113	75,113
	Bang Lamung Total					235,342	235,342
	Ban Bueng	Khlong Kio				69,843	69,843

Appendix Table 101 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ban Bueng	Phanat Nikhom	Ban Bueng				4,770	4,770
		Nong Phai Kaeo				45,339	45,339
		Nong Chak				18,657	18,657
		Nong Bon Daeng				20,635	20,635
		Nong Irun				51,656	51,656
		Ban Bueng Total				210,900	210,900
		Khok Phlo		6,795	6,795		6,795
		Na Roek				17,521	17,521
		Na Matum				2,782	2,782
		Na Wang Hin				21,277	21,277
		Ban Choet		1,654	1,654	5,200	6,854
		Wat Bot		4,805	4,805	3,376	8,181
		Nong Hiang				36,998	36,998

Appendix Table 101 (Continued)

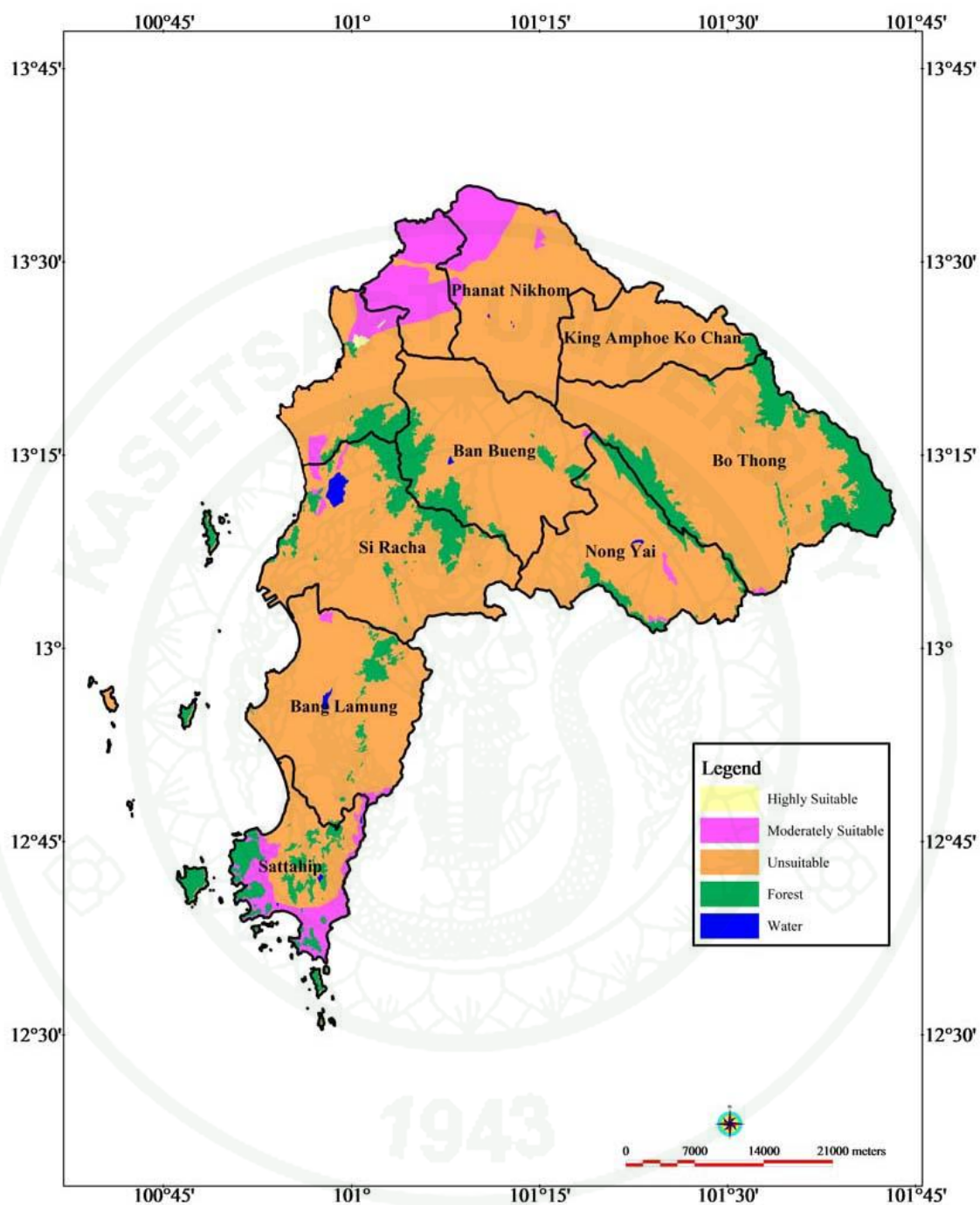
						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Nong Khayat				13,005	13,005
		Nong Prue				16,866	16,866
		Na Phrathat		2,252	2,252	3,201	5,453
		Mon Nang				31,713	31,713
		Hua Thanon				17,077	17,077
	Phanat Nikhom Total			15,506	15,506	169,018	184,524
	Phan Thong	Khok Khi Non		4,551	4,551		4,551
		Map Pong				7,395	7,395
		Nong Kakha				841	841
		Nong Tamlueng				8,938	8,938
		Phan Thong Total		4,551	4,551	17,174	21,725
	Si Racha	Khao Khansong				65,258	65,258
		Bo Win				29,283	29,283

Appendix Table 101 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kasat	Si Racha	Bang Phra				29,085	29,085
		Bueng				32,157	32,157
		Surasak				21,424	21,424
		Nong Kham				48,106	48,106
		Si Racha Total				225,313	225,313
	Sattahip	Bang Sare		1,830	1,830	28,865	30,695
		Phlu Ta Luang		3,390	3,390	6,337	9,727
	Sattahip Total		5,220	5,220	35,202	40,422	
	Nong Yai	Khao Sok		547	547	51,746	52,293
		Khlong Phlu		1,041	1,041	24,996	26,037
		Nong Suea Chang				71,222	71,222
		Nong Yai				32,971	32,971
		Hang Sung				31,625	31,625

Appendix Table 101 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nong Yai Total				1,588	1,588	212,559	214,148
Chon Buri Total			1,340	34,613	35,953	1,647,716	1,683,669



Appendix Figure 67 Map of Land Suitability for Rambutan in Chon Buri Province

Appendix Table 102 Zoning For Rambutan in Chon Buri Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Bo Thong			57	787	0
Bang Lamung			7	1,000	0
Si Racha			39	1,227	2
Sattahip		5,220	5	1,000	2
Nong Yai		1,588	30	767	2
Chon Buri Total	0	6,808	138	926	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 102 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Bo Thong									57
Bang Lamung									7
Si Racha								39	
Sattahip					5,220			5	
Nong Yai					1,588			30	
Chon Buri Total	0	0	0	0	6,808	0	0	74	64

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

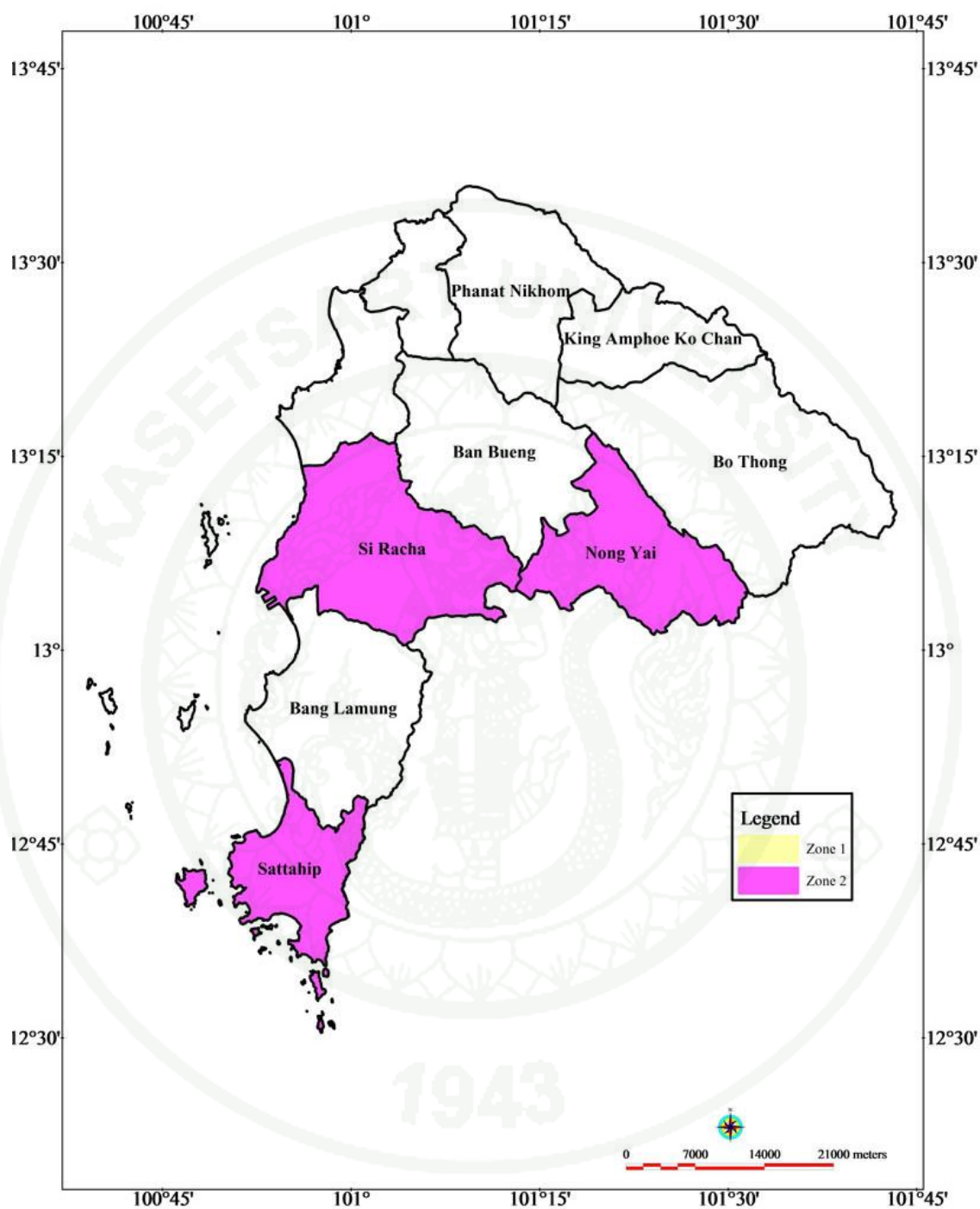
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 68 Map of Zoning for Rambutan in Chon Buri Province

Appendix Table 103 Classification of Land Suitability for Rambutan in
Kanchanaburi Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	224,047	1.84
3. Unsuitable	3,056,098	25.10
4. Existing Forest	7,034,168	57.77
5. Deforestation	732,958	6.02
6. Water	378,739	3.11
7. Built-up areas	750,958	6.17
Total	12,176,968	100.00

Appendix Table 104 Land Suitability for Rambutan in Kanchanaburi Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kanchanaburi	Mueang Kanchanaburi	Ko Samrong				16,508	16,508
		Kaeng Sian				40,591	40,591
		Chong Sadao		892	892	61,820	62,712
		Ban Kao				139,265	139,265
		Talat Ya				44,387	44,387
		Wang Yen				7,476	7,476
		Wang Dong				93,087	93,087
		Nong Bua				19,509	19,509
		Nong Ya				10,844	10,844
	Mueang Kanchanaburi Total			892	892	433,486	434,378
	Lao Khwan	Lao Khwan		5,130	5,130	40,968	46,098
		Thung Krabam				63,421	63,421
		Nong Sano				44,714	44,714

Appendix Table 104 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
		Nong Nok Kaeo				88,125	88,125	
		Nong Pradu				98,882	98,882	
		Nong Pling				93,927	93,927	
		Nong Fai				66,992	66,992	
		Lao Khwan Total		5,130	5,130	497,028	502,159	
		Sai Yok	Sai Yok				22,514	22,514
		Tha Sao				47,386	47,386	
		Bongti				29,613	29,613	
		Lum Sum				18,390	18,390	
		Wang Khrachae				27,728	27,728	
		Si Mongkhon				100,114	100,114	
		Sing				38,174	38,174	
		Sai Yok Total				283,919	283,919	

Appendix Table 104 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Dan Makham Tia	Klondo				54,381	54,381
		Chorakhe Phueak				61,688	61,688
		Dan Makham Tia				67,557	67,557
		Nong Phai				36,545	36,545
	Dan Makham Tia Total					220,171	220,171
	Thong Pha Phum	Chalae				34,947	34,947
		Tha Khanun				48,707	48,707
		Pilok				5,660	5,660
		Linthin				29,823	29,823
		Sahakon Nikhom				31,409	31,409
Huai Khayeng					27,841	27,841	
	Hin Dat				27,697	27,697	
Thong Pha Phum Total					206,082	206,082	

Appendix Table 104 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Tha Muang	Khao Noi				16,256	16,256
		Tha Takro		15,336	15,336		15,336
		Tha Lo				3,977	3,977
		Ban Mai		4,973	4,973	10,106	15,079
		Phang Tru		2,211	2,211	37,210	39,421
		Muang Chum				10,490	10,490
		Rang Sali				46,239	46,239
		Wang Sala		11	11		11
		Nong Khao				1,129	1,129
		Nong Tak Ya				37,419	37,419
Tha Muang Total			22,531	22,531	162,826	185,357	
	Tha Maka	Khao Samsip Hap		5,161	5,161	7,866	13,027
		Saen To		7,648	7,648		7,648

Appendix Table 104 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khok Tabong				2,872	2,872
		Takhram En		24,330	24,330	3,829	28,159
		Tha Ruea		1,541	1,541		1,541
		Tha Mai		611	611	2,220	2,831
		Tha Maka		5,152	5,152	4,071	9,223
		Yang Muang		12,094	12,094		12,094
		Sanam Yae		19,194	19,194		19,194
		Wai Niao		7,990	7,990		7,990
		Ulok Si Muen		25,949	25,949		25,949
	Tha Maka Total			109,670	109,670	20,858	130,528
	Bo Phloi	Chong Dan		7,532	7,532	84,579	92,111
		Bo Phloi				69,286	69,286
		Nong Kum				144,270	144,270

Appendix Table 104 (Continued)

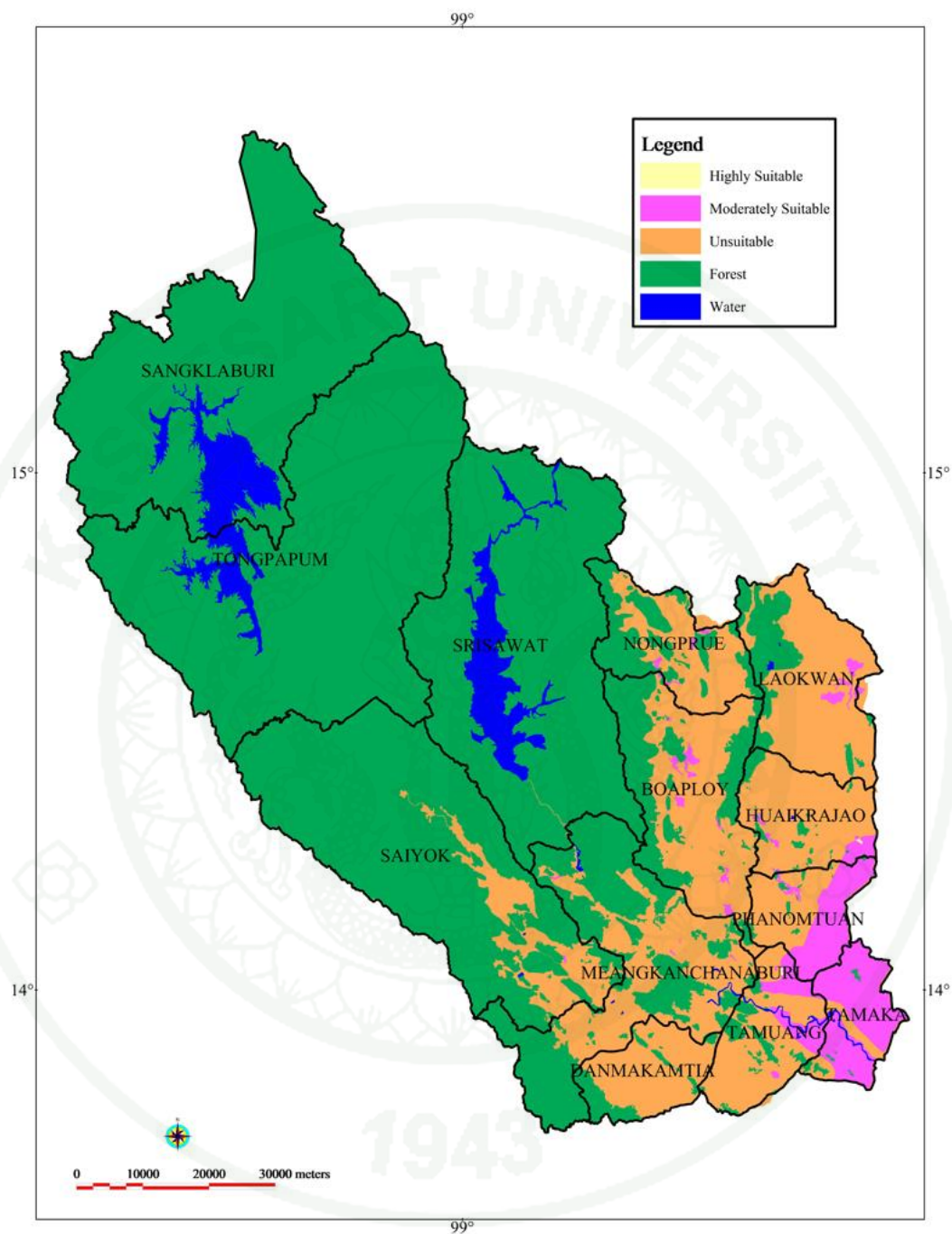
Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Bo Phloi	Nong Ri				99,652	99,652	
		Lum Rang		716	716	65,986	66,702	
		Bo Phloi Total		8,248	8,248	463,773	472,021	
		Phanom Thuan	Don Ta Phet		12,869	12,869	10,617	23,486
			Phanom Thuan		20,785	20,785	41,368	62,154
			Phang Tru		29,487	29,487		29,487
			Nong Rong				52,760	52,760
		Nong Sarai		11,289	11,289		11,289	
	Phanom Thuan Total		74,429	74,429	104,746	179,175		
	Si Sawat	Khao Chot				3,905	3,905	
		Mae Krabung				3,860	3,860	
		Dan Mae Chalaep				5,831	5,831	
		Tha Kradan				7,051	7,051	

Appendix Table 104 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Suan				1,200	1,200
		Nong Pet				8,229	8,229
	Si Sawat Total					30,077	30,077
	Sangkhla Buri	Laiwo				49,579	49,579
		Plangphle				18,092	18,092
		Nong Lu		3,082	3,082	21,053	24,135
	Sangkhla Buri Total			3,082	3,082	88,725	91,806
	Nong Prue	Somdet Charoen				51,548	51,548
		Nong Prue		24	24	115,890	115,914
		Nong Pla Lai		1,546	1,546	94,786	96,332
	Nong Prue Total			1,570	1,570	262,223	263,794
	Nong Prue	Don Salaep				44,751	44,751
		Wang Phai				70,128	70,128

Appendix Table 104 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kanchanaburi	Nong Prue	Sa Long Ruea				74,427	74,427
		Huai Krachao		1,410	1,410	92,877	94,286
				1,410	1,410	282,183	283,592
		Nong Prue Total		1,410	1,410	282,183	283,592
Kanchanaburi Total				226,962	226,962	3,056,098	3,283,059



Appendix Figure 69 Map of Land Suitability for Rambutan in Kanchanaburi Province

Appendix Table 105 Zoning For Rambutan in Kanchanaburi Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Sai Yok			461	2,243	2
Si Sawat			7	0	2
Thong Pha Phum			779	1,632	0
Sangkhla Buri			402	1,010	2
Nong Prue			5	0	0
Kanchanaburi Total	0	0	4,885	1,639	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 105 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Sai Yok								461	
Si Sawat								7	
Thong Pha Phum									779
Sangkhla Buri								402	
Nong Prue								5	
Kanchanaburi Total	0	0	0	0	0	0	0	875	779

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

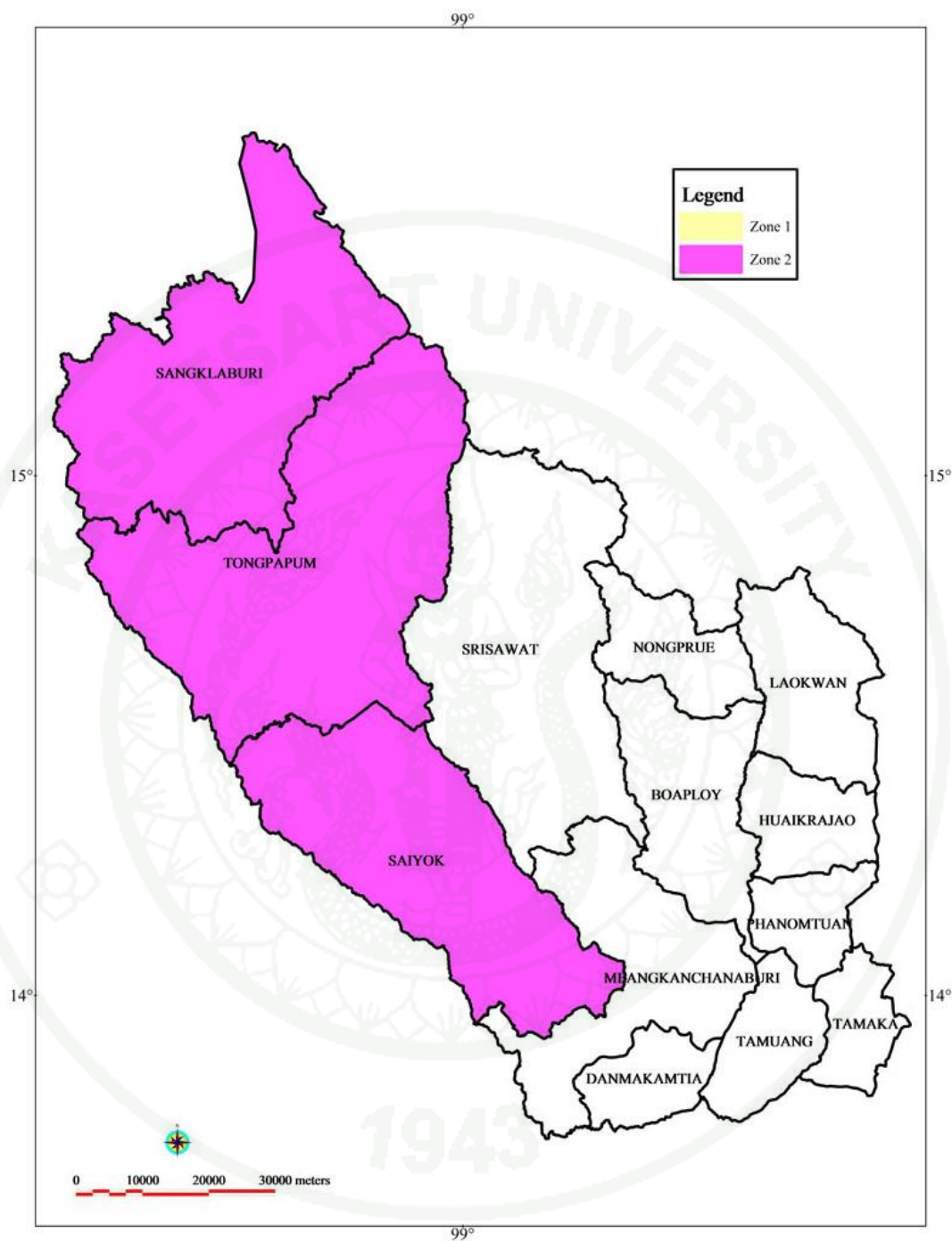
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 70 Map of Zoning for Rambutan in Kanchanaburi Province

Appendix Table 106 Classification of Land Suitability for Rambutan in
Ratchaburi Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	-	-
2. Moderately Suitable	393,237	12.11
3. Unsuitable	936,640	28.84
4. Existing Forest	818,919	25.21
5. Deforestation	538,700	16.59
6. Water	3,592	0.11
7. Built-up areas	556,700	17.14
Total	3,247,789	100.00

Appendix Table 107 Land Suitability for Rambutan in Ratchaburi Province by Amphoe,Tambon,Thailand

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ratchaburi	Mueang Ratchaburi	Ko Phlapphla			14,385		14,385
		Khao Raeng		7,468	7,468		7,468
		Khung Krathin		1,744	1,744	10,194	11,938
		Don Rae				7,320	7,320
		Bang Pa		7,834	7,834	3,845	11,679
		Phikun Thong		6,739	6,739		6,739
		Sam Ruean		9,980	9,980		9,980
		Huai Phai		6,713	6,713	11,199	17,912
		Hin Kong		7,343	7,343		7,343
	Mueang Ratchaburi Total			62,206	62,206	32,558	94,764
	Photharam	Khao Cha-ngum		7,619	7,619	3,086	10,706
		Tao Pun		18,695	18,695		18,695
		Khlong Khoi		447	447	3,807	4,254

Appendix Table 107 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khlong Ta Khot		6,374	6,374	1,919	8,293
		Don Sai		8,215	8,215		8,215
		Tha Chumphon		11,059	11,059		11,059
		Thammasen		10,368	10,368	4,012	14,380
		Bang Tanot		11,073	11,073		11,073
		Ban Lueak		10,774	10,774		10,774
		Ban Khong		3,725	3,725		3,725
		Ban Sing		16,564	16,564		16,564
		Nong Kwang				33,551	33,551
		Photharam Total		104,914	104,914	46,375	151,289
Ban Kha		Ban Kha				64,993	64,993
		Ban Bueng				63,298	63,298
		Nong Phan Chan				14,296	14,296

Appendix Table 107 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ban Kha	Total				142,587	142,587
	Chom Bueng	Boek Phrai				41,080	41,080
		Kaem On				91,986	91,986
		Chom Bueng				49,486	49,486
		Dan Thap Tako		5,957	5,957	54,328	60,286
		Pak Chong		7,627	7,627	46,794	54,421
		Rang Bua				85,426	85,426
	Chom Bueng	Total		13,585	13,585	369,101	382,685
	Damnoen Saduak	Khun Phithak		9,933	9,933		9,933
		Don Phai		11,861	11,861		11,861
		Bua Ngam		8,159	8,159		8,159
		Prasat Sit		9,176	9,176		9,176
	Damnoen Saduak	Total		39,129	39,129		39,129

Appendix Table 107 (Continued)

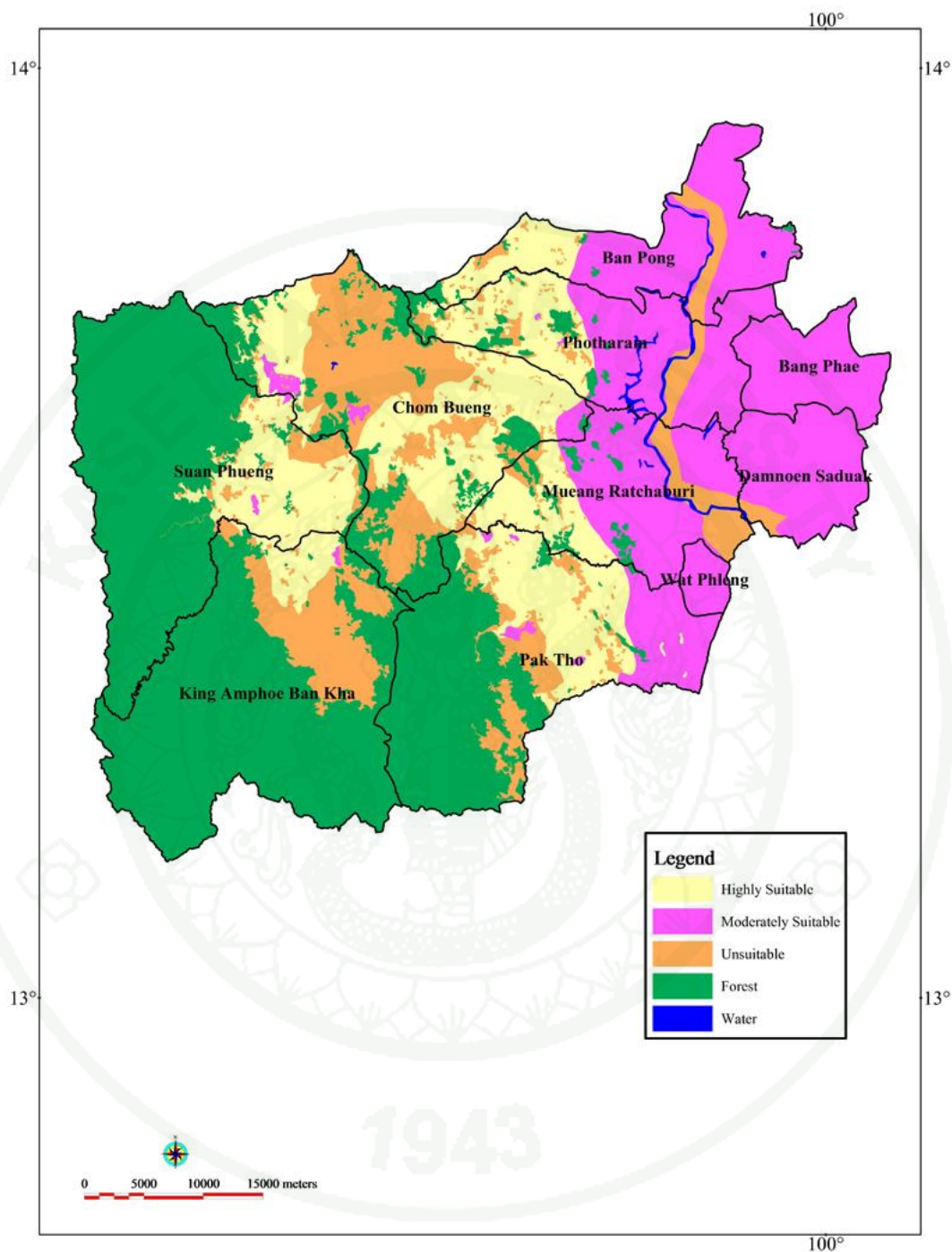
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bang Phae	Pho Hak		9,043	9,043		9,043
		Don Yai		10,891	10,891		10,891
		Don Kha		2,325	2,325		2,325
		Bang Phae		25,010	25,010		25,010
		Wat Kaeo		12,351	12,351		12,351
		Hua Pho		9,535	9,535		9,535
	Bang Phae Total			69,155	69,155		69,155
	Ban Pong	Khao Khlung		14,262	14,262	47,512	61,774
		Krap Yai		20,365	20,365		20,365
		Tha Pha		15,534	15,534	3,982	19,516
		Nakhon Chum		4,096	4,096	7,878	11,974
		Ban Pong				1,283	1,283
	Pak Raet				2,710	2,710	

Appendix Table 107 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Suan Kluai				1,943	1,943
	Ban Pong	Total		54,258	54,258	65,308	119,566
	Pak Tho	Don Sai				7,632	7,632
		Thung Luang		871	871	59,011	59,882
		Pa Kai		7,185	7,185		7,185
		Yang Hak				30,895	30,895
		Wat Yang Ngam		6,682	6,682		6,682
		Nong Krathum		9,240	9,240		9,240
		Huai Yang Thon				20,181	20,181
		Ang Hin				190	190
	Pak Tho	Total		23,977	23,977	117,908	141,886
	Wat Phleng	Ko San Phra		10,137	10,137		10,137
		Chom Prathat		7,093	7,093		7,093

Appendix Table 107 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Wat Phleng		8,784	8,784		8,784
	Wat Phleng Total			26,014	26,014		26,014
	Suan Phueng	Tanao Si				1,797	1,797
		Tha Khoei				51,592	51,592
		Pa Wai				71,217	71,217
		Suan Phueng				38,197	38,197
	Suan Phueng Total					162,802	162,802
Ratchaburi Total				393,237	393,237	936,640	1,329,877



Appendix Figure 71 Map of Land Suitability for Rambutan in Ratchaburi Province

Appendix Table 108 Zoning For Rambutan in Ratchaburi Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Pak Tho		23,977	210	2,000	2
Ratchaburi Total	0	23,977	210	2,000	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 108 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Pak Tho					23,977			210	
Ratchaburi Total	0	0	0	0	23,977	0	0	210	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

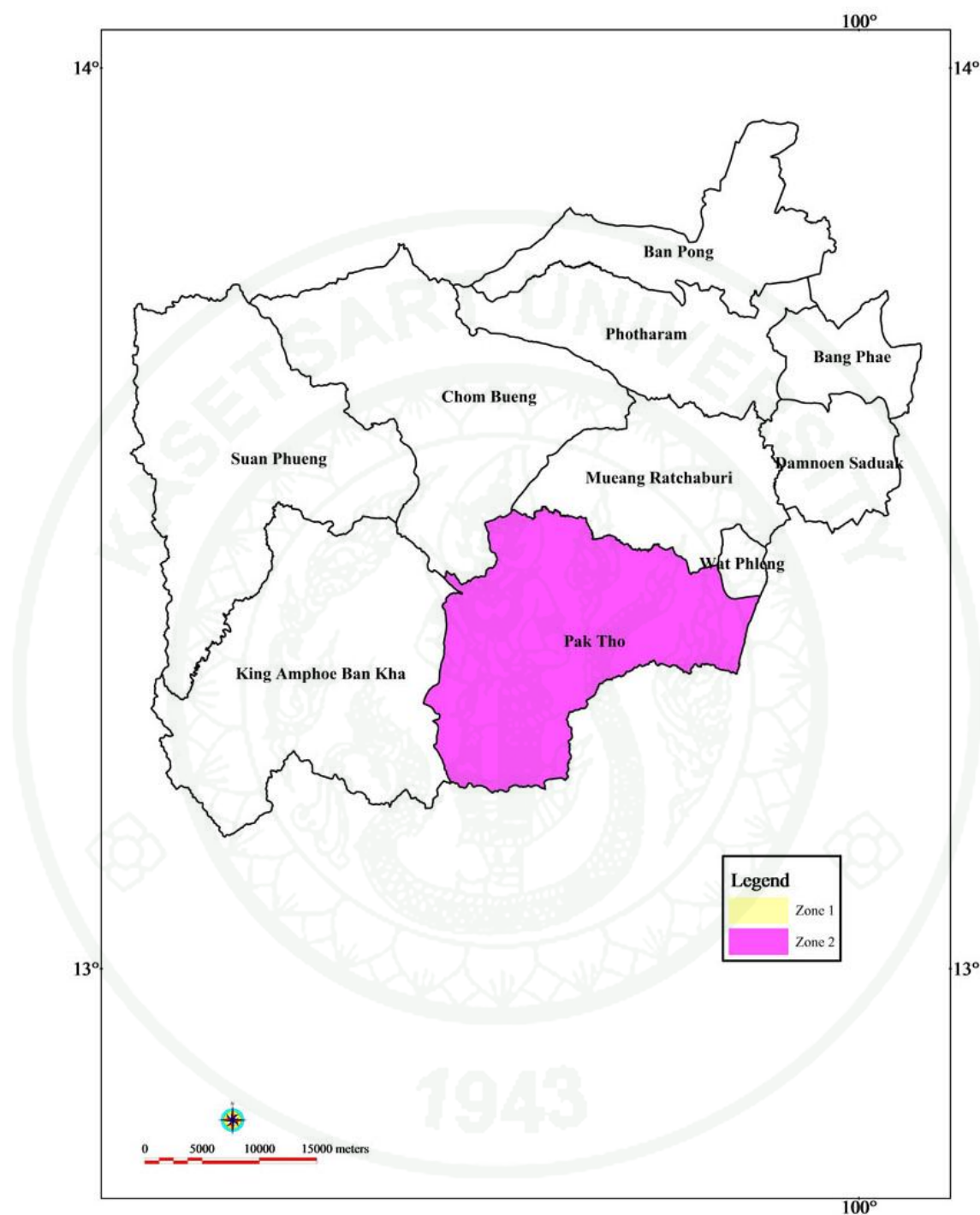
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 72 Map of Zoning for Rambutan in Ratchaburi Province

Appendix Table 109 Classification of Land Suitability for Rambutan in
Prachuap Khiri Khan Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	2,527	0.06
2. Moderately Suitable	208,997	5.25
3. Unsuitable	1,164,841	29.27
4. Existing Forest	1,340,507	33.68
5. Deforestation	615,255	15.46
6. Water	14,379	0.36
7. Built-up areas	633,255	15.91
Total	3,979,762	100.00

Appendix Table 110 Land Suitability for Rambutan in Prachuap Khiri Khan Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Prachuap Khiri Khan	Mueang Prachuap Khiri Khan	Ko Lak				38,055	38,055
		Khlung Wan				31,883	31,883
		Bo Nok		3,806	3,806	44,146	47,952
		Huai Sai				46,547	46,547
		Ao Noi				113,373	113,373
		Mueang Prachuap Khiri Khan Total		3,806	3,806	274,004	277,810
	Sam Roi Yot	Rai Kao				83	83
		Rai Mai				8,683	8,683
		Salalai		18,851	18,851		18,851
		Sila Loi		24,097	24,097	1,131	25,227
	Sam Roi Yot Total			42,948	42,948	9,896	52,844
	Kui Buri	Kui Nuea	2,527	7,495	10,022		10,022
		Don Yai Nu		4,721	4,721	7,465	12,186

Appendix Table 110 (Continued)

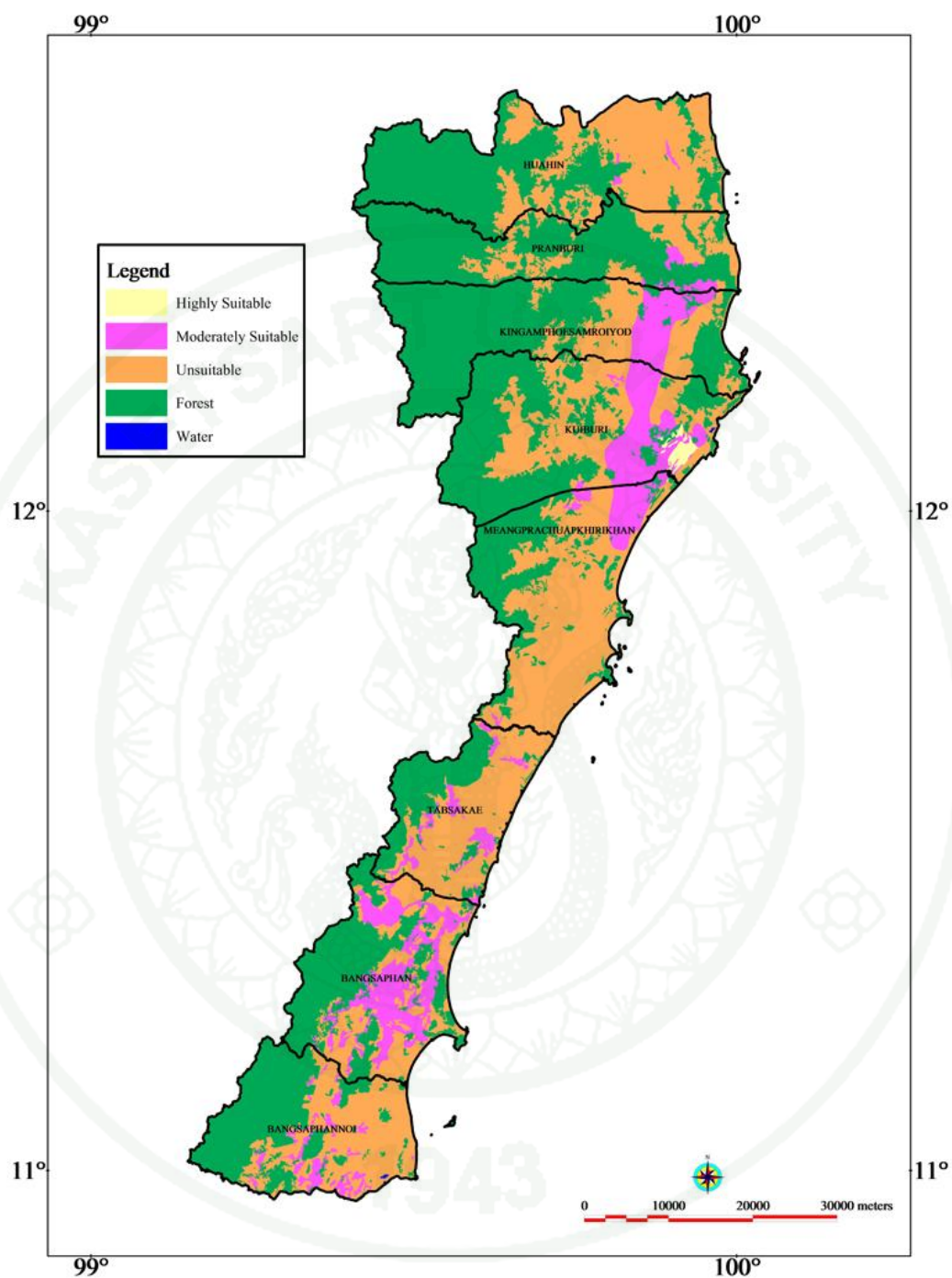
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kui Buri	Thap Sakae	Sam Krathai		34,093	34,093	64,133	98,226
		Hat Kham				41,869	41,869
			2,527	46,309	48,836	113,467	162,304
		Khao Lan		1,485	1,485	18,241	19,727
		Saeng Arun				25,857	25,857
		Na Hu Kwang		3,206	3,206	23,227	26,433
		Huai Yang		1,817	1,817	31,057	32,874
		Ang Thong		4,813	4,813	29,088	33,901
		Thap Sakae Total		11,321	11,321	127,471	138,792
	Bang Saphan	Chai Kasem		20,130	20,130	26,257	46,386
		Thong Mongkhon		716	716	27,467	28,182
		Thong Chai		15,398	15,398	3,039	18,437
		Phong Prasat		13,831	13,831	18,868	32,699

Appendix Table 110 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ron Thong		29,001	29,001	1,790	30,792
	Bang Saphan Total			79,077	79,077	77,420	156,497
	Bang Saphan Noi	Chaiyarat		3,267	3,267	38,860	42,127
		Chang Raek		4,624	4,624	40,145	44,769
		Sai Thong				36,220	36,220
		Bang Saphan				25,290	25,290
		Pak Phraek				31,569	31,569
	Bang Saphan Noi Total			7,892	7,892	172,084	179,976
	Pran Buri	Khao Chao				51,939	51,939
		Khao Noi		4,854	4,854	23,658	28,512
		Pak Nam Pran				437	437
		Wang Phong				22,677	22,677
		Nong Ta Taem		13,343	13,343	28,392	41,735

Appendix Table 110 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Prachuap Khiri Khan	Pran Buri Total			18,197	18,197	127,104	145,301
	Hua Hin	Thap Tai				86,930	86,930
		Bueng Nakhon				39,098	39,098
		Nong Phlap				52,331	52,331
		Huai Sat Yai				46,286	46,286
		Hin Lek Fai				38,749	38,749
	Hua Hin Total					263,395	263,395
	Prachuap Khiri Khan Total		2,527	209,549	212,077	1,164,841	1,376,918



Appendix Figure 73 Map of Land Suitability for Rambutan in Prachuap Khiri Khan Province

Appendix Table 111 Zoning For Rambutan in Prachuap Khiri Khan Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Bang Saphan		79,077	255	611	2
Pran Buri		18,197	50	240	2
Prachuap Khiri Khan Total	0	97,274	305	550	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 111 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Bang Saphan					79,077			255	
Pran Buri					18,197			50	
Prachuap Khiri Khan Total	0	0	0	0	97,274	0	0	305	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

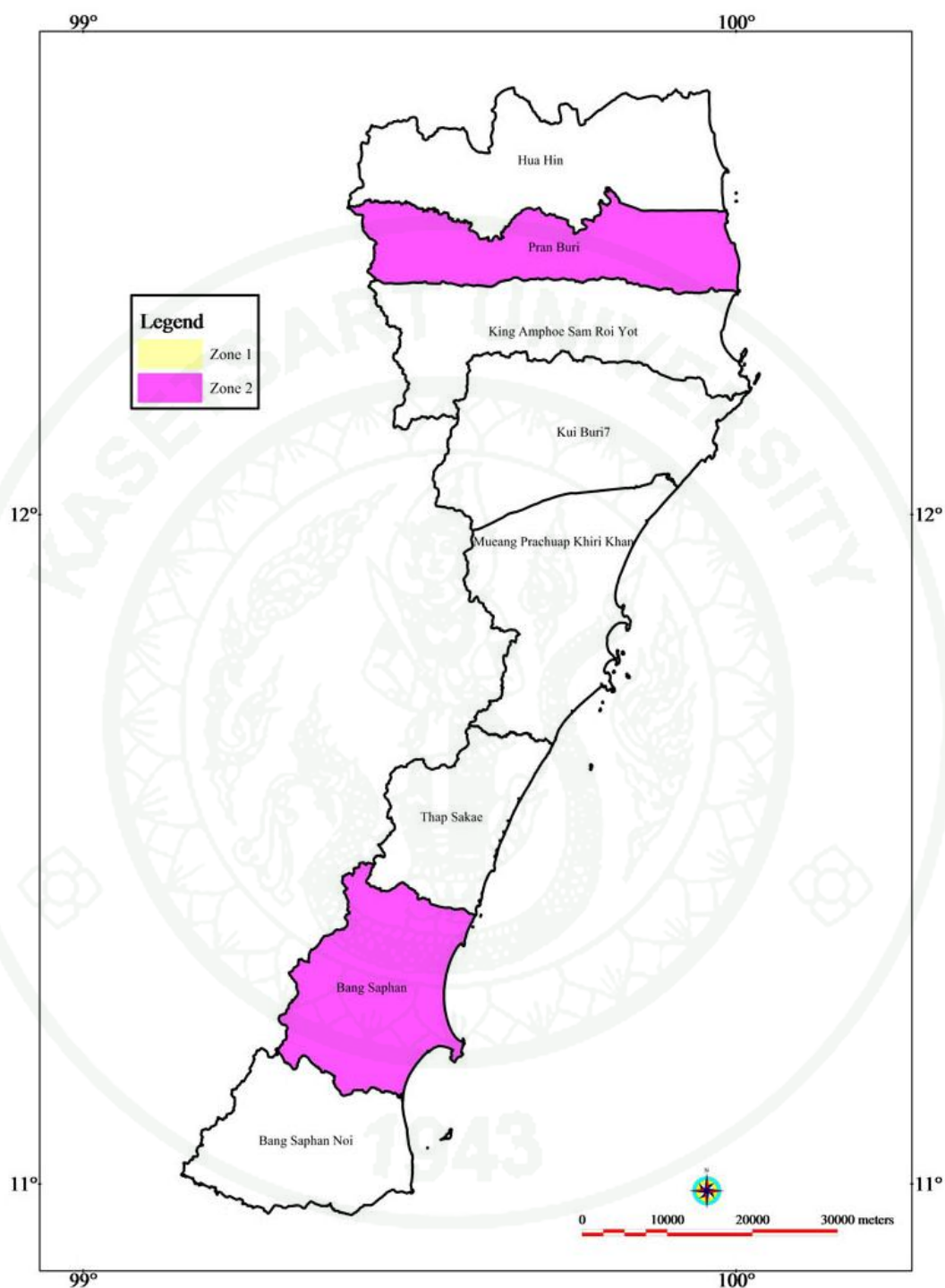
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 74 Map of Zoning for Rambutan in Prachuap Khiri Khan Province

Appendix Table 112 Classification of Land Suitability for Rambutan in
Chumphon Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	490,807	13.07
2. Moderately Suitable	399,641	10.64
3. Unsuitable	1,128,578	30.05
4. Existing Forest	1,036,849	27.61
5. Deforestation	338,726	9.02
6. Water	4,303	0.11
7. Built-up areas	356,726	9.50
Total	3,755,630	100.00

Appendix Table 113 Land Suitability for Rambutan in Chumphon Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chumphon	Mueang Chumphon	Khun Krathing	1,439	255	1,694	5,219	6,913
		Tak Daet	1,643	2,754	4,397	1,163	5,560
		Tham Sing	8,212	1,037	9,249	4,270	13,519
		Tha Yang	122	13,232	13,353	2,582	15,936
		Thung Kha	1,616	8,709	10,325	18,947	29,272
		Na Thung		6,174	6,174		6,174
		Bang Luek	3,124	10,484	13,608	184	13,792
		Bang Mak	14	15,508	15,522		15,522
		Ban Na	7,111	2,338	9,449	18,659	28,107
		Pak Nam	577	6,071	6,648		6,648
		Wang Mai	8,398	524	8,922	39,731	48,653
		Wang Phai	244	2,239	2,482	33	2,516
		Wisai Nuea	12,118	7,831	19,949	14,604	34,553

Appendix Table 113 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasat	Mueang Chumphon	Hut Sai Ri	1,675	5,440	7,116	6,988	14,103	
		Hat Phan Krai	2,864	1,848	4,712	7,110	11,822	
		Mueang Chumphon Total	49,156	84,443	133,599	119,491	253,090	
	Tha Sae	Khuring	6,278		6,278	2,243	8,521	
		Tha Sae	17,566	3,532	21,099	12,485	33,583	
		Tha Kham	23,059		23,059	15,825	38,884	
		Na Kratam	5,047	3,567	8,614	12,113	20,727	
		Rap Ro		6,484	6,484	63,683	70,168	
		Salui	1,481	427	1,908	9,682	11,590	
		Song Phi Nong		1,959	1,959	43,871	45,830	
		Hong Charoen	34,824	163	34,987	24,047	59,035	
		Hin Kaeo	3,368	2	3,370	33,739	37,110	
		Tha Sae Total	Sap Anan	91,624	16,135	107,759	217,689	325,447

Appendix Table 113 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Thung Tako	Chong Mai Kaeo	17,621		17,621	22,661	40,282
		Tako	14,730	1,332	16,062	33,210	49,272
		Thung Takrai	13,017	1,930	14,946	5,035	19,981
		Pak Tako	1,622	6,928	8,550	10,355	18,905
	Thung Tako Total		46,989	10,190	57,179	71,260	128,440
	Pathio	Khao Chai Rat		10,563	10,563	54,453	65,016
		Chum Kho		21,390	21,390	24,186	45,575
		Don Yang		25,116	25,116	27,158	52,274
		Thale Sap				20,707	20,707
		Bang Son		1,607	1,607	17,426	19,034
Pak Khlong					23,257	23,257	
	Saphi	3,248	609	3,857	13,350	17,207	
	Pathio Total		3,248	59,285	62,533	180,539	243,072

Appendix Table 113 (Continued)

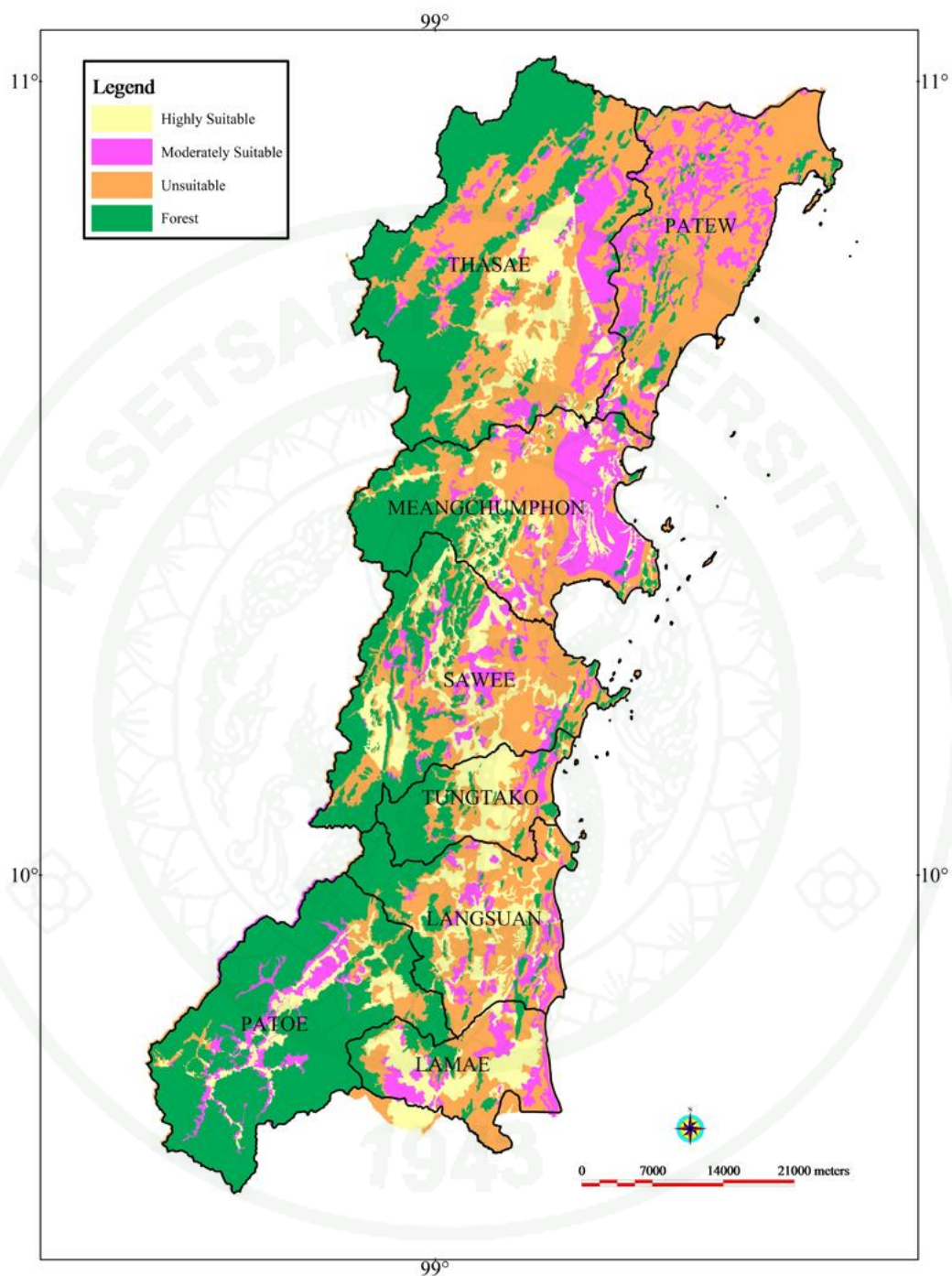
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phato	Pang Wan	18,279	6,034	24,313	50,984	75,297
		Pak Song	9,604	16,363	25,967	10,419	36,386
		Phra Rak	9,569	12,201	21,770	6,752	28,522
		Phato	24,165	52,571	76,736	1,336	78,072
	Phato Total		61,617	87,169	148,786	69,491	218,276
	Lamae	Thung Kha Wat	11,035	3,501	14,536	12,061	26,597
		Thung Luang	5,057	8,437	13,493	18,609	32,102
		Lamae	40,830	17,525	58,355	42,537	100,891
		Suan Taeng	3,276	6,864	10,140	16,017	26,158
	Lamae Total		60,197	36,327	96,524	89,225	185,749
Sawi	Khao Khai	9,237	2,742	11,979	40,392	52,371	
	Khao Thalu	14,383	2,300	16,683	20,325	37,007	
	Khron	22,128	15,409	37,537	26,269	63,806	

Appendix Table 113 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasat		Dan Sawi	693	3,008	3,701	16,619	20,320	
		Tha Hin	5,924	7,226	13,150	12,337	25,487	
		Thung Raya	11,265	11,712	22,977	15,786	38,763	
		Na Pho	2,567	1,610	4,177	16,124	20,301	
		Na Sak	20,864	8,899	29,763	49,979	79,742	
		Pak Phraek	564	15	579	5,344	5,924	
		Wisai Tai	14,358	2,627	16,985	18,308	35,293	
		Sawi	4,258	9,361	13,619	7,231	20,850	
		Sawi Total	106,241	64,909	171,150	228,714	399,864	
		Lang Suan	Laem Sai	5,989	71	6,060	4,343	10,403
			Khan Ngoen	3,230		3,230	2,548	5,778
			Tha Maphla	4,226		4,226	4,492	8,718
			Na Kha	12,133	2,765	14,897	23,468	38,365

Appendix Table 113 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chumphon		Na Phaya	3,654	12,393	16,046	11,890	27,936
		Bang Nam Chuet	4,037	1,508	5,544	12,340	17,884
		Bang Maphrao	4,748	5,604	10,352	5,344	15,696
		Ban Khuan	12,585	8,865	21,450	27,540	48,990
		Pak Nam	395	1,237	1,632	744	2,376
		Pho Daeng	2,871		2,871	3,920	6,791
		Wang Tako	8,422	8,742	17,164	33,961	51,125
		Lang Suan	605		605	24	629
		Hat Yai	8,841		8,841	21,555	30,396
	Lang Suan Total		71,735	41,184	112,919	152,169	265,088
Chumphon Total			490,807	399,641	890,448	1,128,578	2,019,026



Appendix Figure 75 Map of Land Suitability for Rambutan in Chumphon Province

Appendix Table 114 Zoning For Rambutan in Chumphon Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Chumphon	49,156	49,156	665	272	2
Tha Sae	91,624	91,624	718	222	2
Lang Suan	71,735	71,735	2,177	0	2
Lamae	60,197	60,197	432	19	2
Phato	61,617	61,617	2,592	10	2
Sawi	106,241	106,241	917	1	2
Thung Tako	46,989	46,989	2,054	47	2
Chumphon Total	487,559	487,559	571	49	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 114 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Chumphon		49,156			49,156			665	
Tha Sae		91,624			91,624			718	
Lang Suan		71,735			71,735			2,177	
Lamae		60,197			60,197			432	
Phato		61,617			61,617			2,592	
Sawi		106,241			106,241			917	
Thung Tako		46,989			46,989			2,054	
Chumphon Total	0	487,559	0	0	487,559	0	0	9,555	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

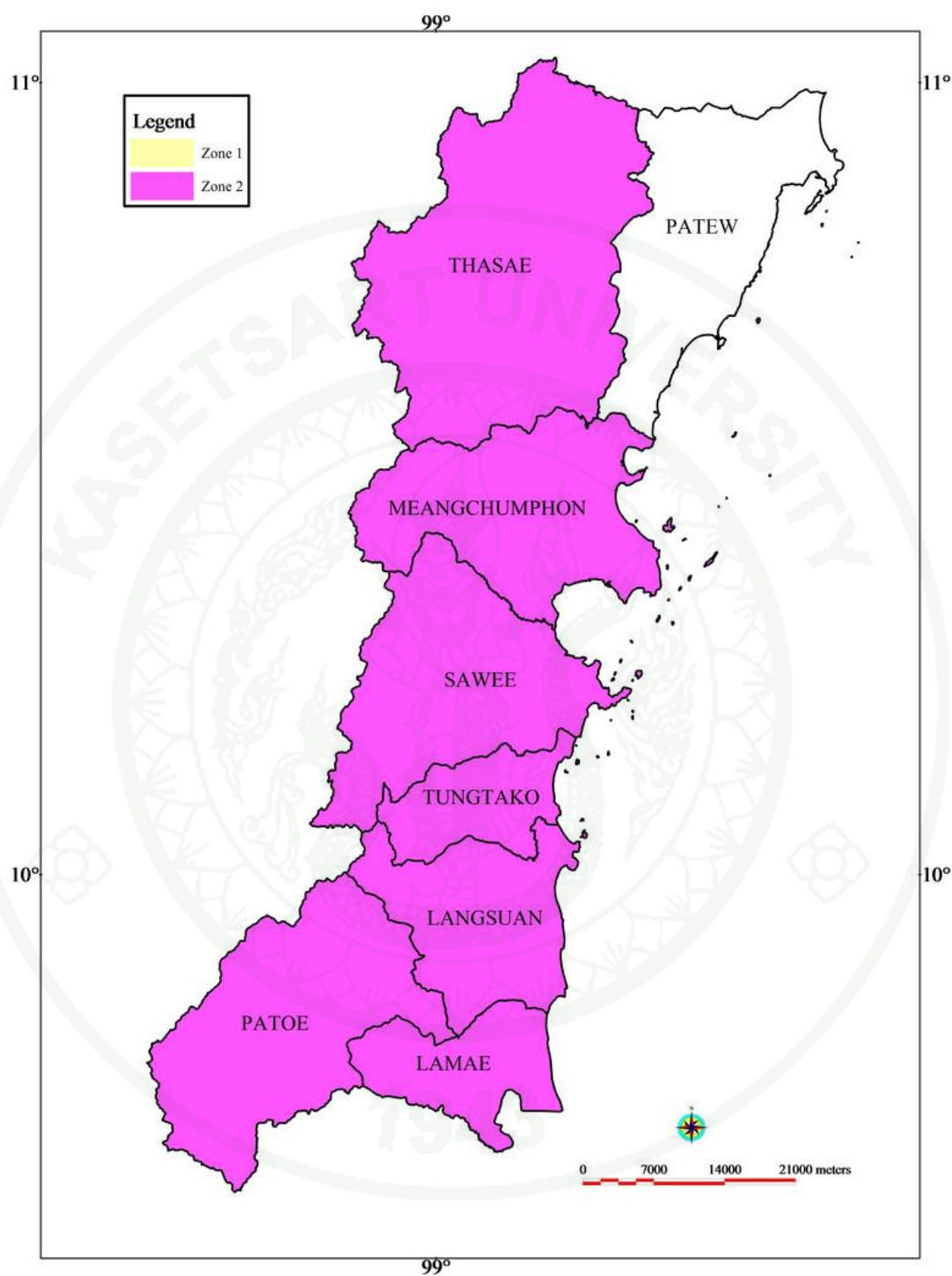
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 76 Map of Zoning for Rambutan in Chumphon Province

Appendix Table 115 Classification of Land Suitability for Rambutan in Ranong
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	107,662	5.22
2. Moderately Suitable	126,162	6.12
3. Unsuitable	139,678	6.78
4. Existing Forest	1,485,506	72.07
5. Deforestation	65,536	3.18
6. Water	53,198	2.58
7. Built-up areas	83,536	4.05
Total	2,061,278	100.00

Appendix Table 116 Land Suitability for Rambutan in Ranong Province by Amphoe,Tambon,Thailand

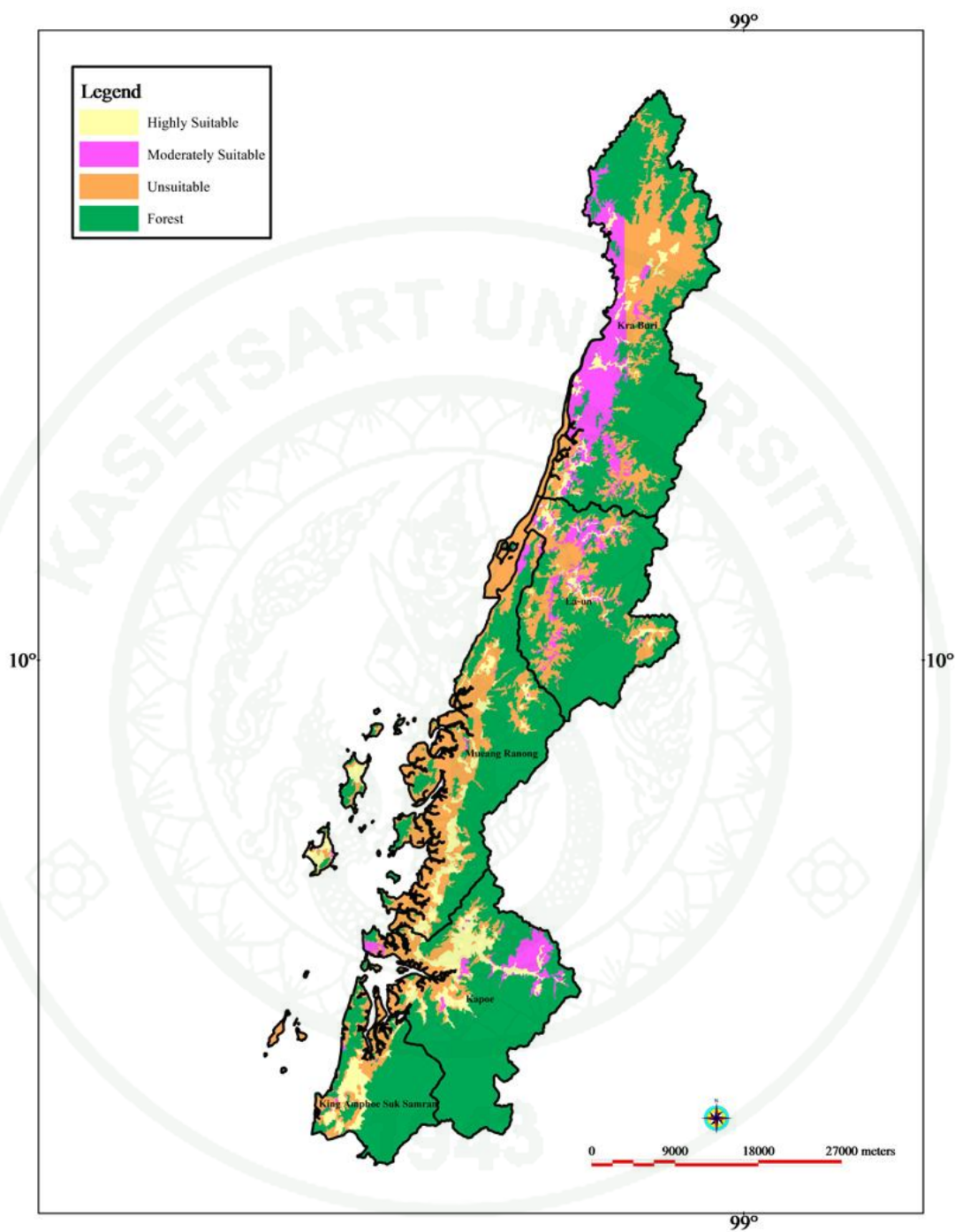
Province,Thailand						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ranong	Mueang Ranong	Ko Phayam	4,066	144	4,210	2,537	6,747
		Khao Niwet				287	287
		Sai Daeng	142	4,609	4,751	4,652	9,402
		Bang Non	2,811	69	2,881	7,635	10,515
		Bang Rin	2,055		2,055	5,484	7,538
		Pak Nam	421		421	8,281	8,701
		Ratchakrut	11,745		11,745	12,899	24,644
		Ngao	2,101	12	2,113	7,415	9,528
		Hat Som Paen	1,252	264	1,516	8,061	9,577
		Mueang Ranong Total	24,594	5,098	29,692	57,250	86,942
	Kra Buri	Choporo	3,845	280	4,125	26,594	30,720
		Nam Chuet	3,077	12,263	15,340	907	16,247
		Nam Chuet Noi	1,494	5,426	6,920	108	7,028

Appendix Table 116 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
		Bang Yai	4,168	6,534	10,702	
		Pak Chan	3,448	14,000	17,448	17,278
		Mamu	1,367	7,641	9,008	2,157
		Lam Liang	261	20,422	20,683	4,126
	Kra Buri Total		17,658	66,568	84,226	51,170
	Kapoe	Chiao Liang	2,323	10,342	12,665	
		Kapoe	17,458	2,812	20,270	6,177
		Bang Hin	7,013	753	7,766	4,227
		Ban Na	4,097	9,210	13,307	
		Muang Klang	2,789	1,332	4,121	2,900
	Kapoe Total		33,680	24,449	58,129	13,305
	Suk Samran	Kamphuan	5,516	431	5,947	6,103
		Nakha	16,492	434	16,926	10,303

Appendix Table 116 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Ranong	Suk Samran Total		22,008	865	22,873	16,407	39,280
	La-un	Nai Wong Nuea	1,144	805	1,950	41	1,991
		Nai Wong Tai	473		473	788	1,261
		Bang Kaeo	4,741	14,767	19,507	650	20,157
		Bang Phra Nuea		5,118	5,118	58	5,176
		Bang Phra Tai	33	2,575	2,608		2,608
		La-un Nuea	2,200	3,489	5,688	10	5,698
		La-un Tai	1,131	2,430	3,561		3,561
		La-un Total	9,722	29,183	38,905	1,547	40,452
	Ranong Total		107,662	126,162	233,824	139,678	373,503



Appendix Figure 77 Map of Land Suitability for Rambutan in Ranong Province

Appendix Table 117 Zoning For Rambutan in Ranong Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Ranong	24,594	5,098	463	137	2
Kra Buri	17,658	66,568	722	117	2
Kapoe	33,680	24,449	926	132	2
Suk Samran	22,008	865	740	155	2
La-un	9,722	29,183	266	170	2
Ranong Total	107,662	126,162	3,117	138	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 117 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Ranong		24,594			5,098			463	
Kra Buri		17,658			66,568			722	
Kapoe		33,680			24,449			926	
Suk Samran		22,008			865			740	
La-un		9,722			29,183			266	
Ranong Total	0	107,662	0	0	126,162	0	0	3,117	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

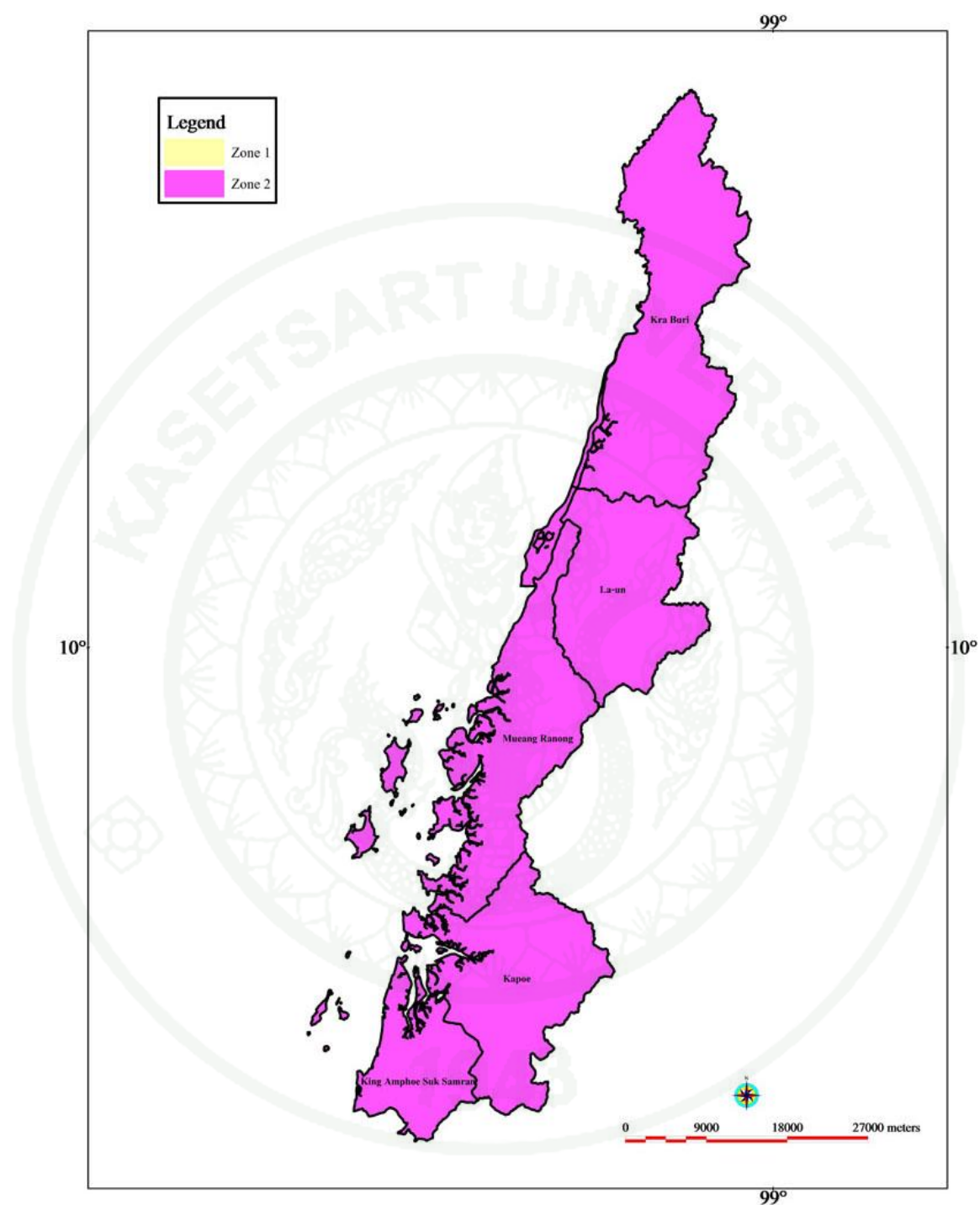
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 78 Map of Zoning for Rambutan in Ranong Province

Appendix Table 118 Classification of Land Suitability for Rambutan in
Surat Thani Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	914,557	11.35
2. Moderately Suitable	1,246,919	15.48
3. Unsuitable	2,722,570	33.79
4. Existing Forest	2,672,166	33.17
5. Deforestation	159,791	1.98
6. Water	163,375	2.03
7. Built-up areas	177,791	2.21
Total	8,057,168	100.00

Appendix Table 119 Land Suitability for Rambutan in Surat Thani Province by Amphoe,Tambon,Thailand

Surat Thani Province,Thailand						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Surat Thani	Ko Pha-ngan	Ko Tao		15	15	1,150	1,165
		Ko Pha-ngan	5,250	12,951	18,201	0	18,201
		Ban Tai	2,099	10,046	12,145		12,145
	Ko Pha-ngan Total		7,349	23,012	30,361	1,150	31,511
	Ko Samui	Mae Nam	3,278	714	3,992	10,097	14,089
		Taling Ngam	4,753	1,268	6,022	11,670	17,692
		Bo Phut	7,103	1,770	8,873	14,217	23,091
		Maret	2,113	672	2,786	13,184	15,970
		Lipa Noi	2,304	1,762	4,066	6,561	10,627
		Na Mueang	6,242	497	6,739	11,347	18,085
		Ang Thong	982	1,976	2,958	12,616	15,574
	Ko Samui Total		26,776	8,660	35,436	79,692	115,128
	Khian Sa	Khao Tok		253	253	6,176	6,429

Appendix Table 119 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Khian Sa		10,939	10,939	27,659	38,598
		Ban Sadet	10	127,841	127,851	39,779	167,630
		Phuang Phromkhon	19,361	74,429	93,790	24,910	118,700
		Aranyakham Wari	2,784	32,326	35,110	13,652	48,762
	Khian Sa Total		22,155	245,788	267,943	112,176	380,119
	Mueang Surat Thani	Khun Thale	10,084	8,784	18,868	44,881	63,749
		Khlong Chanak				3	3
		Khlong Noi				11,739	11,739
		Talat				27	27
		Bang Pho				10,774	10,774
		Bang Bai Mai				6,256	6,256
		Bang Sai				4,483	4,483
		Bang Kung		53	53	2,317	2,369

Appendix Table 119 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Bang Chana				3,206	3,206
		Makham Tia		561	561	10,250	10,811
		Wat Pradu	402	3,609	4,011	21,177	25,188
	Mueang Surat Thani	Total	10,485	13,007	23,493	115,115	138,608
	Wiang Sa	Khao Niphan	4,009	10,148	14,157	17,682	31,839
		Wiang Sa	11,248	15,597	26,845	592	27,437
		Khlong Chanuan	4,003	5,681	9,684	8,396	18,079
		Thung Luang	7,699	13,942	21,641	25,938	47,579
		Ban Song	15,249	5,016	20,265	38,088	58,353
	Wiang Sa	Total	42,207	50,384	92,591	90,696	183,287
	Chaiya	Lamet	1,008	6,633	7,641	842	8,483
		Wiang	1,987	433	2,420	9,366	11,786
		Mo Thai	15,887	11	15,898	29,505	45,403

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kanchanaburi	Chaiya	Talat Chaiya	1,204	2,050	3,254	2,323	5,577
		Takrop	116	5,402	5,518	5,595	11,113
		Thung	2,695	572	3,267	16,208	19,475
		Pa We	8,457	3,599	12,057	28,652	40,709
		Pak Mak	41,773	26,298	68,071	62,284	130,355
		Phumriang				1,149	1,149
	Chaiya Total		73,127	44,998	118,126	155,925	274,050
	Kanchanadit	Krut	11,625	3,037	14,662	43,197	57,859
		Kadae	910	6,102	7,012	3,374	10,386
		Khleng Sa	2,962	4,399	7,361	56,062	63,424
		Chang Khwa	4,293	674	4,967	34,020	38,987
		Chang Sai	26,891	7,713	34,604	53,055	87,658
		Takian Thong		639	639	7,290	7,930

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kanchanadit		Tha Thong	492	3,327	3,819	2,787	6,607
		Tha Thong Mai				4,071	4,071
		Tha U-thae	19,491	14,606	34,098	38,370	72,467
		Thung Kong	1,974	2,062	4,036	13,362	17,398
		Thung Rang	1,238		1,238	23,353	24,592
		Pa Ron	17,790	1,106	18,896	34,698	53,595
		Phlai Wat	5,168	4,901	10,069	10,934	21,003
		Kanchanadit Total	92,835	48,567	141,402	324,573	465,975
	Vibhavadi	Takuk Nuea	12,518	7,566	20,085	35,805	55,890
		Takuk Tai	9,595	16,052	25,647	39,389	65,037
Vibhavadi Total		22,114	23,618	45,732	75,195	120,927	
Khiri Rat Nikhom	Kapao		750	750	24,231	24,981	
	Tham Singkhon		13,493	13,493	10,054	23,546	

Unit : rai

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Tha Kradan		2,885	2,885	9,717	12,602
		Tha Khanon				51,824	51,824
		Nam Hak		13,599	13,599	32,360	45,959
		Ban Thamniap		65,102	65,102	40,320	105,422
		Ban Yang		2,406	2,406	16,930	19,336
		Yan Yao		17,554	17,554	6,476	24,030
		Khiri Rat Nikhom Total		115,789	115,789	191,911	307,700
	Chai Buri	Sai Thong	23,892	5,830	29,723	59,256	88,978
		Khlong Noi	7,481	3,728	11,209	46,051	57,260
		Chai Buri	16,818	2,256	19,074	41,635	60,709
	Song Phraek	5,790	1,873	7,663	14,159	21,822	
	Chai Buri Total		53,982	13,687	67,669	161,100	228,769
Don Sak	Chaiyakhram	7,705	2,893	10,598	5,242	15,840	

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Don Sak	Chonlakhram	2,160	1,629	3,789		3,789
		Don Sak	21,028	17,797	38,825	16,565	55,390
		Pak Phraek	30,753	4,347	35,100	49,409	84,508
		Don Sak Total	61,646	26,666	88,311	71,216	159,527
	Tha Chang	Khao Than	376	15,452	15,828	13,621	29,449
		Sawiat	17,717	19,579	37,295	36,716	74,012
		Khlong Sai		6,009	6,009	46,261	52,270
		Tha Khoei	4,306	5,299	9,604	23,950	33,554
		Tha Chang	3,778	6,299	10,077		10,077
	Tha Chang	Pak Chalui	2,974	78,907	81,881	86,034	167,915
		Tha Chang Total	29,150	131,545	160,696	206,582	367,277
		Tha Chana	Khlong Pha	14,782	4,765	19,547	37,706
			Khan Thuli	32,005	9,104	41,109	52,971

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
KASAT	Tha Chana	Tha Chana	4,932	3,274	8,205	10,677	18,882
		Prasong	36,936	11,632	48,568	27,854	76,421
		Wang	3,276	4,124	7,400	6,787	14,187
		Samo Thong	34,889	6,352	41,241	44,955	86,196
		Tha Chana Total	126,821	39,249	166,070	180,950	347,019
	Ban Ta Khun	Khao Phang	163	1,882	2,045	8,355	10,400
		Khao Wong		9,904	9,904	13,421	23,325
		Phru Thai		19,950	19,950	12,484	32,434
		Phasaeng	4	9,904	9,908	9,618	19,526
	Ban Ta Khun Total		166	41,640	41,806	43,879	85,685
	Ban Na Doem	Sap Thawi	6,328	2,720	9,048	17,965	27,013
		Tha Ruea	3,530		3,530	9,364	12,894
		Na Tai	13,763	13	13,777	17,549	31,326

Unit : rai

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
KASAT		Ban Na	7,143		7,143	41,991	49,134
	Ban Na Doem	Total	30,764	2,733	33,497	86,870	120,367
	Ban Na San	Phoem Phun Sap	4,619	5,852	10,471	11,099	21,571
		Khlong Prap	3,754	5,169	8,923	12,656	21,580
		Khuan Si	5,183	17,767	22,950	613	23,563
		Khuan Suban	10,408	1,535	11,943	1,720	13,663
		Tha Chi	9,261		9,261	12,186	21,447
		Thung Tao	5,321	2,620	7,941	19,244	27,185
		Thung Tao Mai	3,747	3,711	7,458	28,797	36,255
		Na San	6,057	8,522	14,579	16,815	31,394
		Nam Phu	9,263	3,099	12,361	11,934	24,295
		Phru Phi	14,585	7,727	22,311	11,457	33,769
		Lamphun	11,497	3,185	14,682	29,169	43,851

Unit : rai

Appendix Table 119 (Continued)

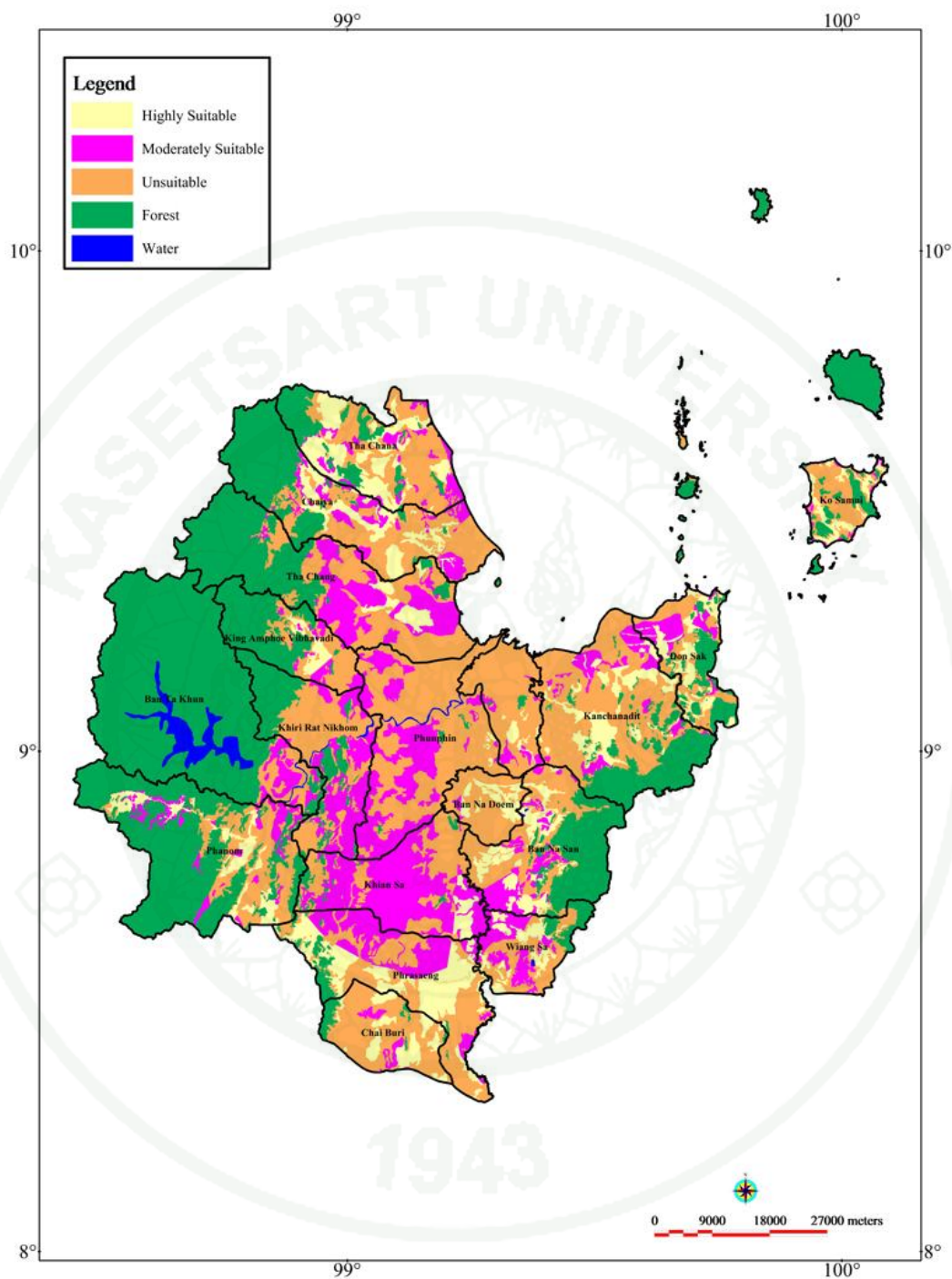
							Unit : rai
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ban Na San	Total	83,696	59,186	142,882	155,690	298,572
	Phanom	Khlong Cha-un	24,778	9,592	34,369	83,154	117,524
		Khlong Sok	23,164	20,481	43,645	18,673	62,319
		Ton Yuan		17,511	17,511	12,193	29,704
		Phanom	16,339	2,259	18,598	19,536	38,134
		Phlu Thuean	3,712	13,075	16,787	20,184	36,971
		Phang Kan	2,470	4,737	7,207	12,885	20,092
	Phanom	Total	70,463	67,655	138,118	166,626	304,743
	Phrasaeng	Sai Sopha	4,427	12,378	16,805	22,655	39,461
		Sai Khueng	39,455	13,349	52,804	38,965	91,769
		Bang Sawan	57,323	52,589	109,912	41,532	151,443
		Sakhu	5,161	25,428	30,589	3,387	33,976
		Sin Charoen	9,187	9,080	18,267	59,561	77,828

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Phrasaeng	Sin Pun	9,894		9,894	19,020	28,914
		I-pan	32,615	3,810	36,424	7,607	44,031
		Phrasaeng Total	158,061	116,634	274,695	192,727	467,422
	Phunphin	Khao Hua Khwai	84	342	425	14,635	15,061
		Krut		36,265	36,265	45,468	81,733
		Tapan		55,300	55,300	45,961	101,261
		Tha Rong Chang		17,802	17,802	7,723	25,525
		Tha Kham		3,367	3,367	12,947	16,315
		Tha Sathon	2,676	1,964	4,640	29,152	33,792
		Nam Rop		2,631	2,631	15,306	17,937
		Bang Duean		6,449	6,449	16,751	23,199
		Bang Ngon		11,747	11,747	23,090	34,837
		Bang Maduea		19,922	19,922	8,354	28,276

Appendix Table 119 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Surat Thani	Phunphin	Phunphin				7,159	7,159
		Maluan		18,311	18,311	44,731	63,043
		Lilet				4,967	4,967
		Si Wichai				10,269	10,269
		Nong Sai				15,510	15,510
		Hua Toei				8,474	8,474
		Phunphin Total		2,760	174,099	176,859	310,498
Surat Thani Total			914,557	1,246,919	2,161,475	2,722,570	4,884,045



Appendix Figure 79 Map of Land Suitability for Rambutan in Surat Thani Province

Appendix Table 120 Zoning For Rambutan in Surat Thani Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Ko Pha-ngan	7,349	23,012	119	229	2
Ko Samui	26,776	8,660	206	500	2
Khian Sa	22,155	245,788	714	3	2
Mueang Surat Thani	10,485	13,007	70	834	2
Wiang Sa	42,207	50,384	4,282	190	2
Kanchanadit	92,835	48,567	2,345	0	2
Vibhavadi	22,114	23,618	100	503	2
Khiri Rat Nikhom	0	115,789	786	113	2
Chai Buri	53,982	13,687	106	4	2
Don Sak	61,646	26,666	219	259	2
Tha Chang	29,150	131,545	136	31	2
Tha Chana	126,821	39,249	739	348	2
Ban Ta Khun	166	41,640	412	152	2

Appendix Table 120 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Ko Pha-ngan		7,349			23,012			119	
Ko Samui		26,776			8,660			206	
Khian Sa		22,155			245,788			714	
Mueang Surat Thani		10,485			13,007			70	
Wiang Sa		42,207			50,384			4,282	
Kanchanadit		92,835			48,567			2,345	
Vibhavadi		22,114			23,618			100	
Khiri Rat Nikhom		0			115,789			786	
Chai Buri		53,982			13,687			106	
Don Sak		61,646			26,666			219	
Tha Chang		29,150			131,545			136	
Tha Chana		126,821			39,249			739	
Ban Ta Khun		166			41,640			412	

Appendix Table 120 (Continued)

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Ban Na Doem	30,764	2,733	3,417	834	1
Ban Na San	83,696	59,186	22,159	65	1
Phanom	70,463	67,655	1,401	1,117	1
Phrasaeng	158,061	116,634	815	1	2
Phunphin	2,760	174,099	959	347	2
Surat Thani Total	841,430	1,201,920	38,985	198	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 120 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Ban Na Doem	30,764			2,733			3,417		
Ban Na San	83,696			59,186			22,159		
Phanom	70,463			67,655			1,401		
Phrasaeng		158,061			116,634			815	
Phunphin		2,760			174,099			959	
Surat Thani Total	184,923	656,506	0	129,574	1,072,346	0	26,977	12,008	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

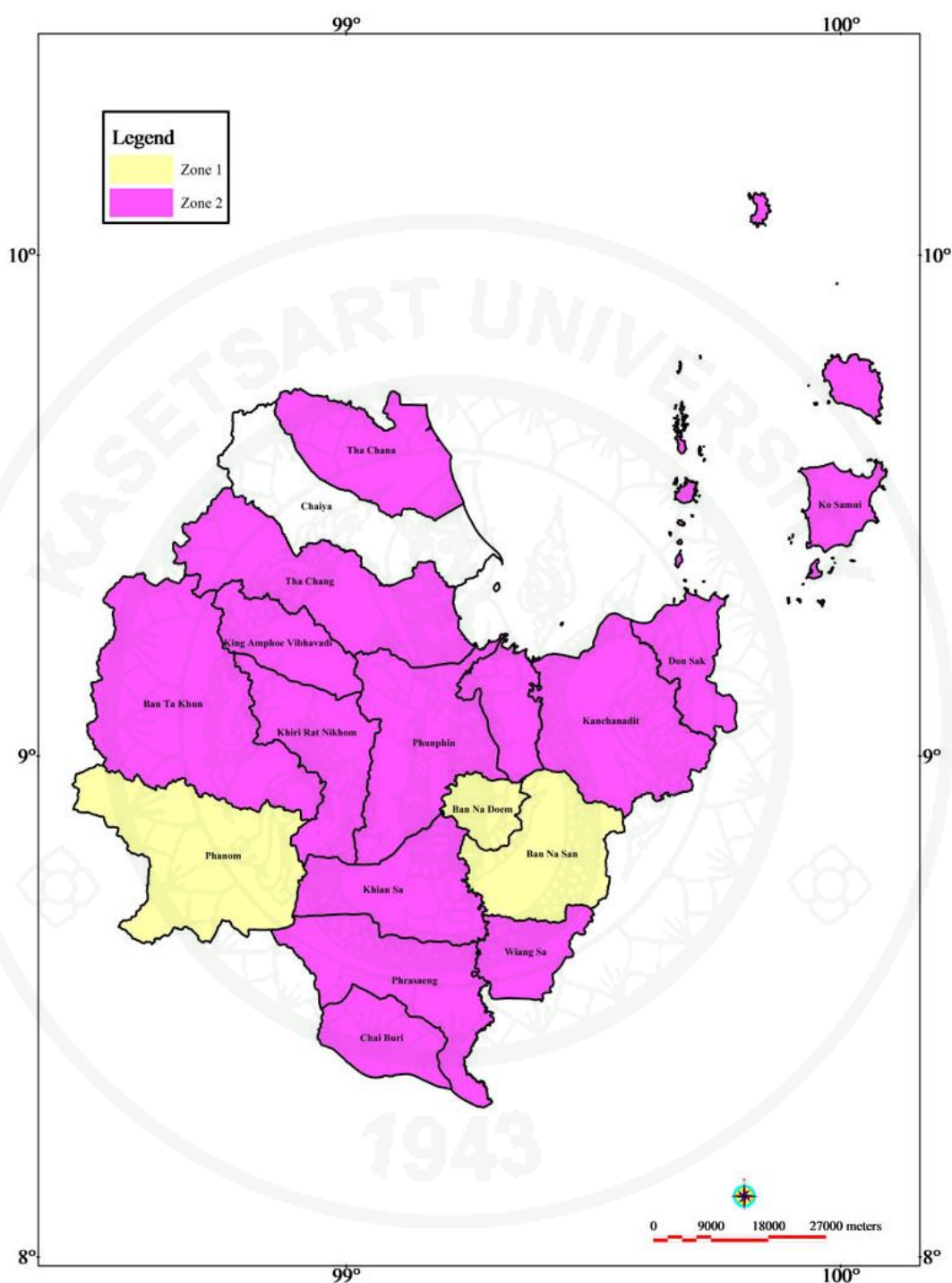
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 80 Map of Zoning for Rambutan in Surat Thani Province

Appendix Table 121 Classification of Land Suitability for Rambutan in
Phang-nga Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	421,360	16.16
2. Moderately Suitable	349,796	13.42
3. Unsuitable	338,497	12.99
4. Existing Forest	1,205,594	46.25
5. Deforestation	57,135	2.19
6. Water	159,293	6.11
7. Built-up areas	75,135	2.88
Total	2,606,809	100.00

Appendix Table 122 Land Suitability for Rambutan in Phang-nga Province by Amphoe,Tambon,Thailand

							Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Phang-nga	Ko Yao	Ko Yao Yai	2,478	1,016	3,495	9,272	12,767	
		Ko Yao Noi	3,269	1,486	4,756	13,242	17,998	
		Phru Nai	3,154	519	3,673	9,948	13,621	
	Ko Yao Total		8,902	3,022	11,924	32,462	44,386	
	Mueang Phang-nga	Ko Panyi		111	111		111	
		Tak Daet	8,325	12,134	20,459		20,459	
		Tham Nam Phut	3,915	4,784	8,699		8,699	
		Thai Chang		1,032	1,032		1,032	
		Thung Kha Ngok	10,319	1,608	11,927	14,554	26,481	
		Nop Pring	5,404	22,868	28,273	2,282	30,554	
		Bang Toei	4,066	8,246	12,311	419	12,731	
		Pa Ko	5,338	14,641	19,979		19,979	
		Song Phraek	183	4,558	4,742	1,154	5,896	

Appendix Table 122 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mueang Phang-nga Total		37,551	69,982	107,533	18,409	125,943
	Kapong	Mo	9,808	530	10,338	22,368	32,706
		Le	10,918	1,020	11,939	8,735	20,674
		Kapong	3,160	306	3,467	9,955	13,422
		Tha Na	7,756	127	7,883	18,137	26,020
		Rommani	13,469	792	14,261	9,271	23,532
	Kapong Total		45,112	2,776	47,888	68,467	116,354
	Khura Buri	Ko Phra Thong		3,640	3,640	651	4,291
		Mae Nang Khao	9,470	286	9,756	13,932	23,688
		Khura	19,144	2,968	22,112	22,677	44,789
		Bang Wan	43,631	3,698	47,329	17,051	64,380
	Khura Buri Total		72,245	10,592	82,837	54,311	137,147
	Takua Thung	Khok Kloi	12,438	23,423	35,861		35,861

Appendix Table 122 (Continued)

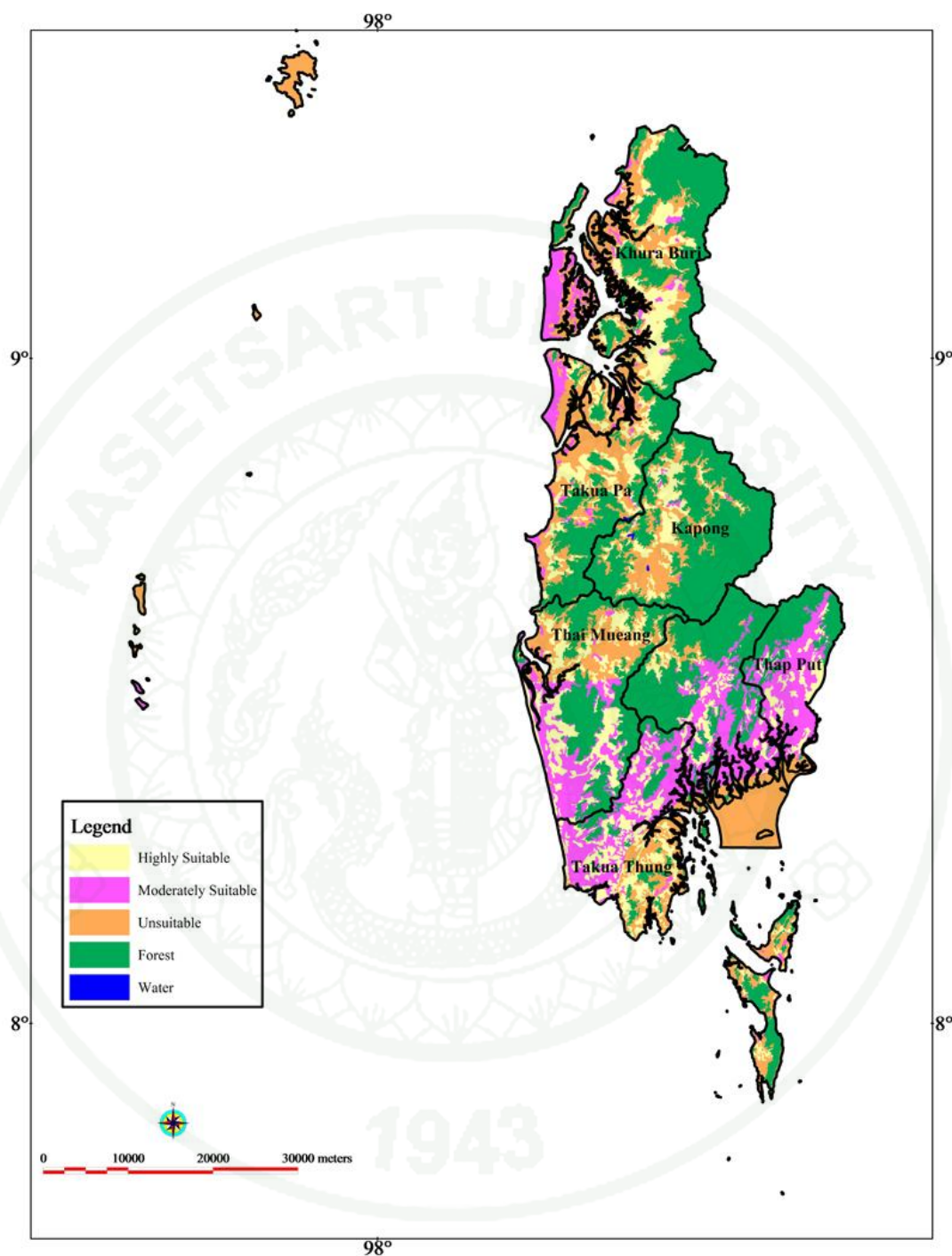
Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasat	Takua Thung	Krasom	2,451	13,684	16,134		16,134	
		Kalai	10,015	12,963	22,977	903	23,881	
		Khlong Khian	9,995	1,356	11,351	15,712	27,063	
		Tham	7,896	25,807	33,704		33,704	
		Tha Yu	15,757	5,688	21,445	13,660	35,105	
		Lo Yung	20,706	8,457	29,163	4,868	34,030	
		Takua Thung Total	79,258	91,376	170,634	35,143	205,777	
		Takua Pa	Ko Kho Khao	1,258	2,144	3,401	3,157	6,558
			Khok Khian	8,985		8,985	7,810	16,795
			Khuekkhak	11,262	4,669	15,931	20,187	36,119
			Takua Pa	986		986	470	1,456
			Tam Tua	2,833	236	3,069	2,724	5,794
			Bang Sai	2,215	577	2,792	7,351	10,143

Appendix Table 122 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Kasat	Takua Pa	Bang Nai Si	10,449	229	10,678	13,112	23,790	
		Bang Muang	12,001	2,569	14,570	8,458	23,028	
		Takua Pa Total	49,990	10,423	60,413	63,269	123,682	
		Thap Put	Khok Charoen	5,820	16,393	22,213		22,213
			Tham Thonglang	2,695	8,113	10,808		10,808
			Thap Put	7,003	15,831	22,834		22,834
			Bo Saen	4,772	8,945	13,717		13,717
		Bang Rieng	5,076	16,349	21,426		21,426	
		Marui	2,308	11,385	13,693	11	13,704	
	Thap Put Total	27,674	77,016	104,691	11	104,702		
	Thai Mueang	Thai Mueang	24,897	19,450	44,348	0	44,348	
		Thung Maphrao	15,287	13,166	28,454	15,595	44,048	
		Na Toei	7,591	26,536	34,126		34,126	

Appendix Table 122 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Thai Mueang	Bang Thong	24,096	22,452	46,548		46,548
		Lam Kaen	11,084	2,012	13,095	13,024	26,120
		Lam Phi	17,672	992	18,664	37,808	56,472
		Thai Mueang Total	100,628	84,608	185,236	66,426	251,662
Phang-nga Total			421,360	349,796	771,156	338,497	1,109,653



Appendix Figure 81 Map of Land Suitability for Rambutan in Phang-nga Province

Appendix Table 123 Zoning For Rambutan in Phang-nga Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Ko Yao	8,902	3,022	13	269	2
Mueang Phang-nga	37,551	69,982	364	28	2
Kapong	45,112	2,776	1,660	435	2
Khura Buri	72,245	10,592	2,681	520	1
Takua Thung	79,258	91,376	424	867	2
Takua Pa	49,990	10,423	1,275	30	2
Thap Put	27,674	77,016	129	388	2
Thai Mueang	100,628	84,608	906	502	2
Phang-nga Total	421,360	349,796	3,040	408	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 123 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Ko Yao		8,902			3,022			13	
Mueang Phang-nga		37,551			69,982			364	
Kapong		45,112			2,776			1,660	
Khura Buri	72,245			10,592			2,681		
Takua Thung		79,258			91,376			424	
Takua Pa		49,990			10,423			1,275	
Thap Put		27,674			77,016			129	
Thai Mueang		100,628			84,608			906	
Phang-nga Total	72,245	349,115	0	10,592	339,205	0	2,681	4,771	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

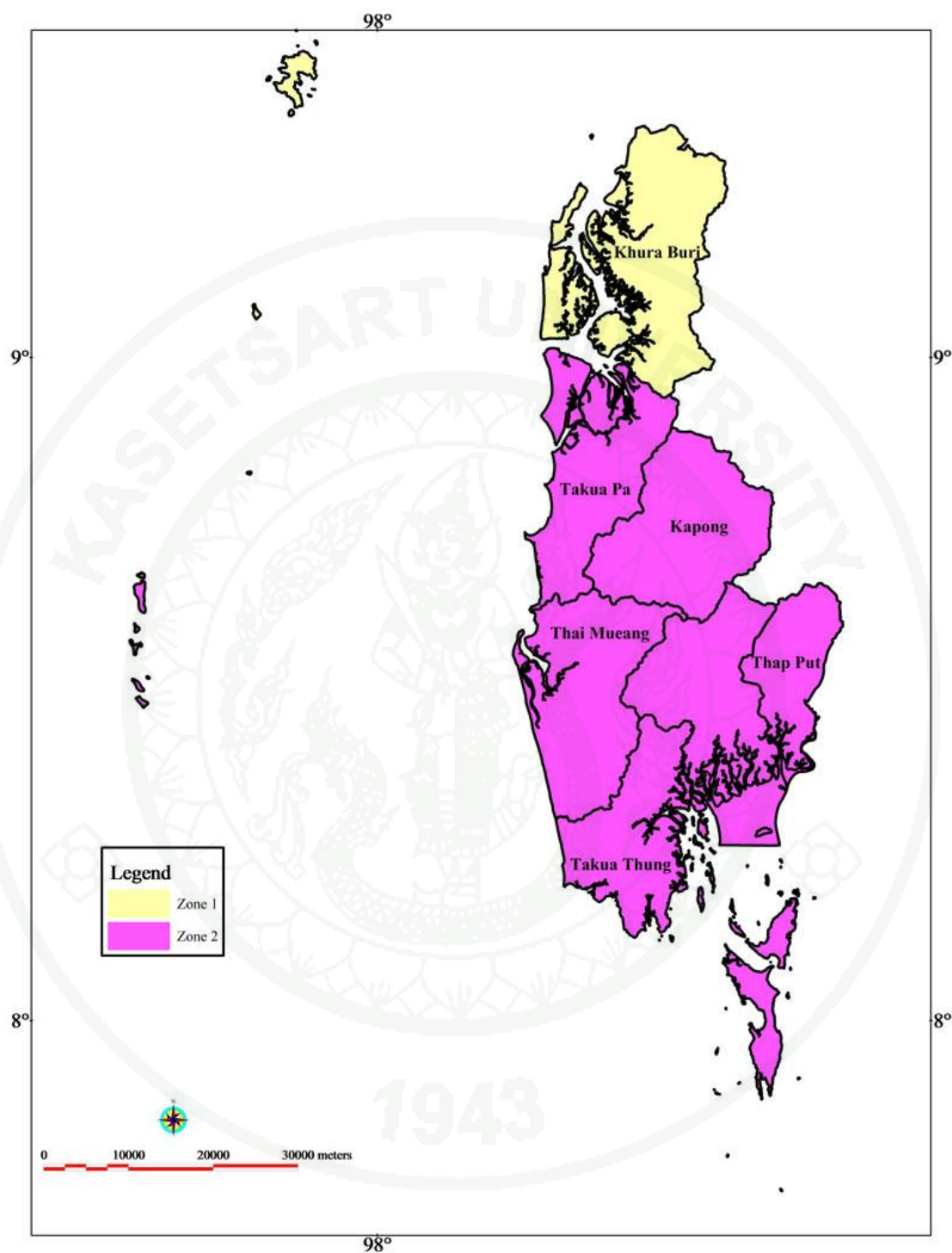
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 82 Map of Zoning for Rambutan in Phang-nga Province

Table 124 Classification of Land Suitability for Rambutan in Phuket Province, Thailand

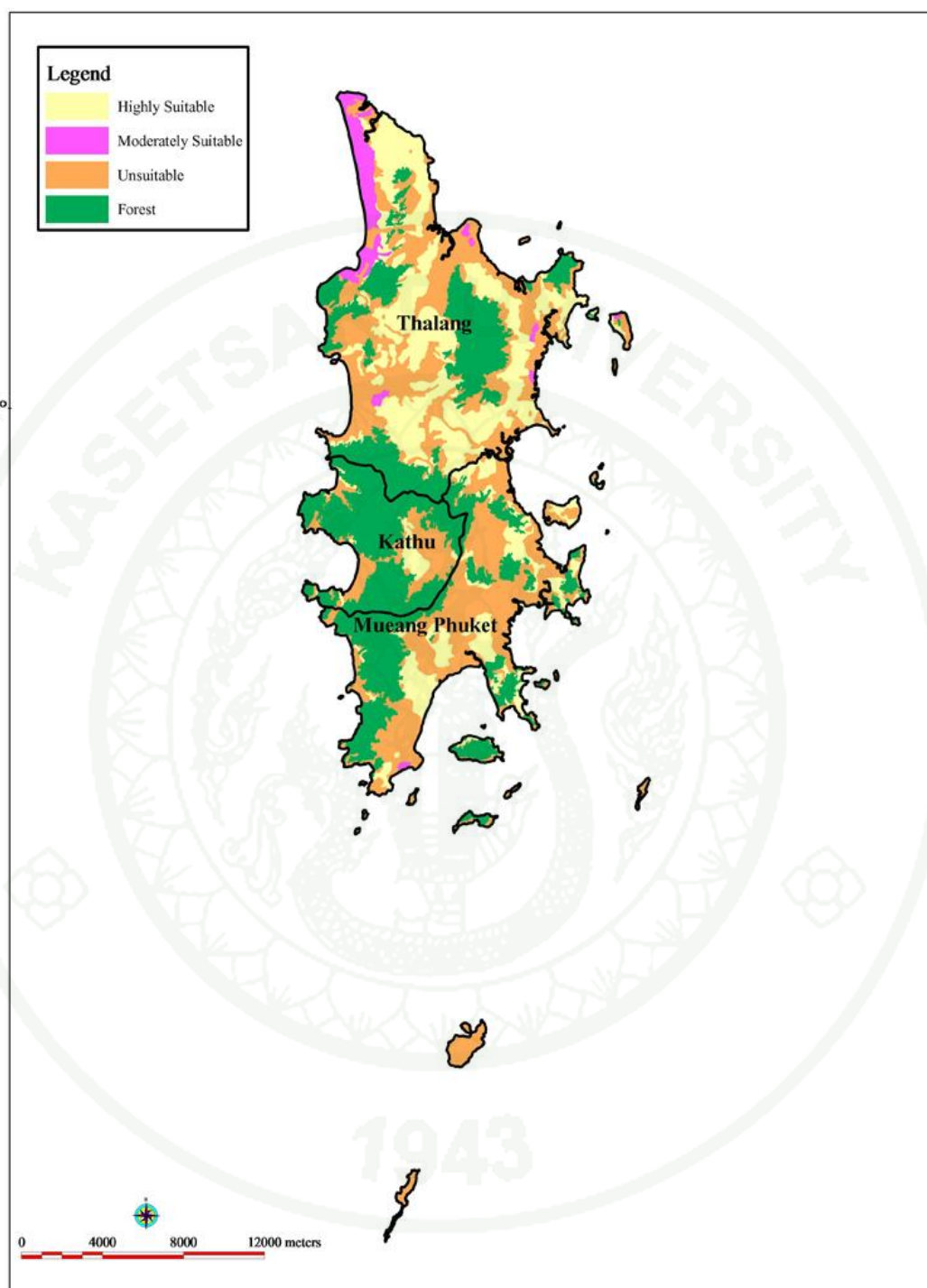
Class	Area (rai)	Percentage (%)
1. Highly Suitable	75,541	22.26
2. Moderately Suitable	5,270	1.55
3. Unsuitable	117,489	34.62
4. Existing Forest	55,686	16.41
5. Deforestation	32,786	9.66
6. Water	1,838	0.54
7. Built-up areas	50,786	14.96
Total	339,396	100.00

Table 125 Land Suitability for Rambutan in Phuket Province by Amphoe,Tambon,Thailand

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phuket	Mueang Phuket	Ko Kaeo	2,769		2,769	2,711	5,479
		Karon	134		134	6,581	6,715
		Chalong	4,782		4,782	8,539	13,321
		Talat Nuea	44		44	30	74
		Ratsada	2,704		2,704	3,097	5,801
		Rawai	3,285	242	3,527	11,889	15,416
		Wichit	3,437		3,437	5,381	8,819
	Mueang Phuket Total		17,154	242	17,396	38,228	55,624
	Kathu	Kamala	547		547	6,941	7,487
		Kathu	1,677		1,677	12,748	14,426
		Pa Tong	357		357	7,327	7,684
	Kathu Total		2,581		2,581	27,016	29,597
	Thalang	Choeng Thale	3,048	295	3,343	6,766	10,109

Appendix Table 125 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Thalang	Thep Krasatti	14,180	340	14,519	15,477	29,996
		Mai Khao	11,937	3,836	15,772	4,147	19,920
		Pa Khlok	13,688	338	14,026	9,617	23,643
		Si Sunthon	11,624		11,624	8,900	20,524
		Sakhu	1,329	220	1,549	7,338	8,887
		Thalang Total	55,806	5,028	60,834	52,245	113,079
		Phuket Total	75,541	5,270	80,811	117,489	198,301



Appendix Figure 83 Map of Land Suitability for Rambutan in Phuket Province

Table 126 Zoning For Rambutan in Phuket Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Phuket	17,154	242	25	0	2
Kathu	2,581		504	22	0
Thalang	55,806	5,028	313	406	2
Phuket Total	75,541	5,270	842	164	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 126 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Phuket		17,154			242			25	
Kathu	2,581						504		
Thalang		55,806			5,028			313	
Phuket Total	2,581	72,960	0	0	5,270	0	504	338	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

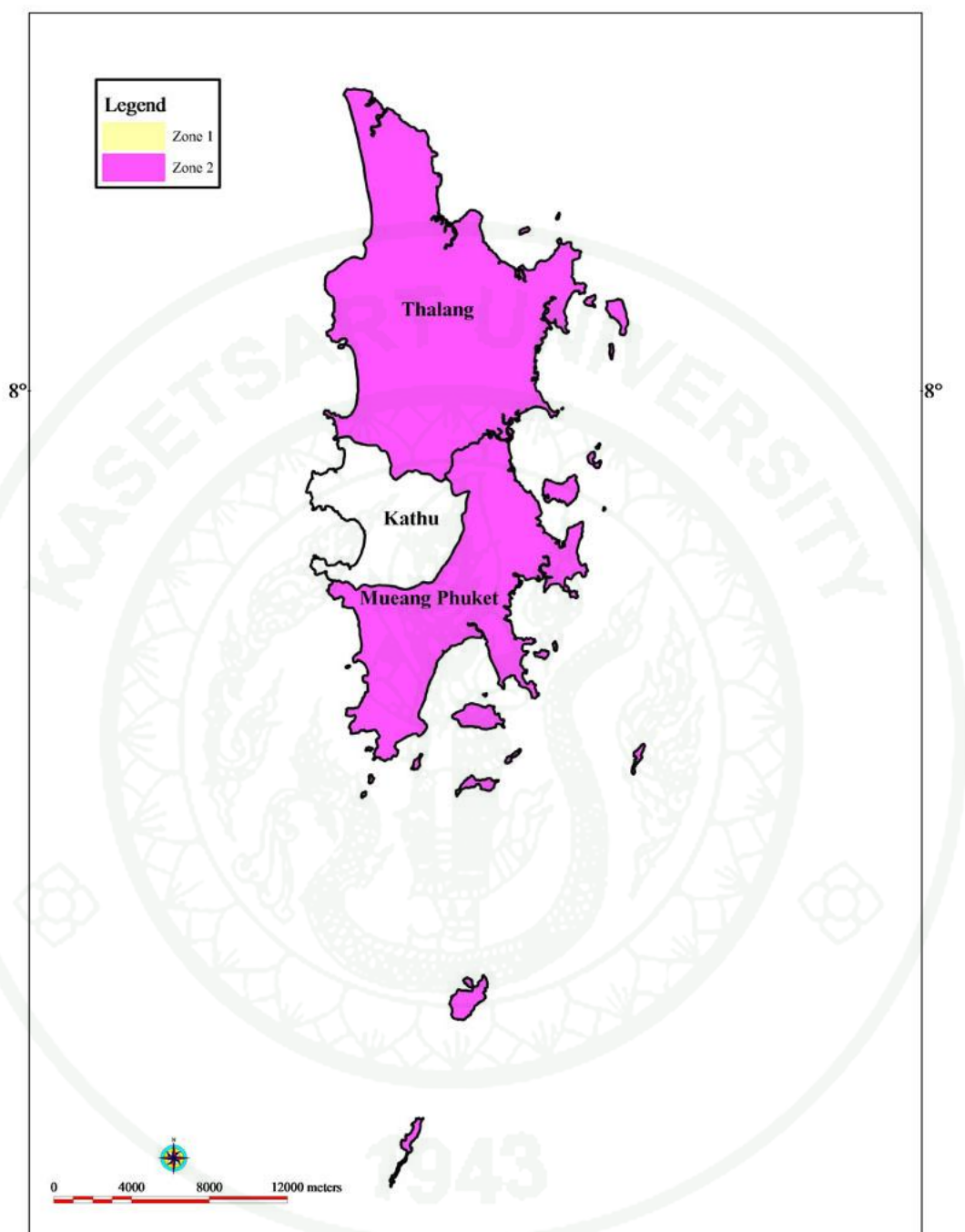
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 84 Map of Zoning for Rambutan in Phuket Province

Appendix Table 127 Classification of Land Suitability for Rambutan in Krabi
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	1,034,846	35.17
2. Moderately Suitable	81,986	2.79
3. Unsuitable	1,085,346	36.88
4. Existing Forest	78,259	2.66
5. Deforestation	283,062	9.62
6. Water	78,259	2.66
7. Built-up areas	301,062	10.23
Total	2,942,820	100.00

Appendix Table 128 Land Suitability for Rambutan in Krabi Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Krabi	Ko Lanta	Ko Klang	5,004	1,240	6,244	26,833	33,078
		Ko Lanta Yai		1,507	1,507	12,988	14,495
		Ko Lanta Noi				16,761	16,761
		Khlong Yang	29,426	339	29,765	12,101	41,867
		Sala Dan	142	3,350	3,491	9,049	12,540
	Ko Lanta Total		34,572	6,436	41,008	77,732	118,740
	Khao Phanom	Khao Din	32,093	6,894	38,987	21,074	60,061
		Khao Phanom	12,798	2,275	15,074	65,735	80,809
		Khok Han	28,071		28,071	66,404	94,475
		Phru Tiao	59,609	1,251	60,859	34,466	95,326
		Sin Pun	29,820		29,820	50,955	80,775
		Na Khao	28,523	6,920	35,443	39,197	74,640
	Khao Phanom Total		190,915	17,340	208,255	277,830	486,085

Appendix Table 128 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mueang Krabi	Mueang Krabi	Khao Thong	44,788	350	45,138	40,758	85,896
		Sai Thai	10,553	829	11,382	3,260	14,642
		Krabi Yai	696		696	2,574	3,271
		Krabi Noi	28,236	842	29,078	42,096	71,174
		Khlong Prasong	1,039	227	1,266	218	1,484
		Thap Prik	19,060	365	19,425	27,182	46,607
		Pak Nam	470		470	2,575	3,044
		Nong Thale	16,894	942	17,836	24,669	42,505
		Ao Nang	3,435	1,602	5,038	7,211	12,249
Mueang Krabi Total			125,172	5,157	130,329	150,542	280,871
Nuea Khlong	Nuea Khlong	Nuea Khlong	784	1,241	2,025	5,463	7,488
		Nuea Khlong	8,790	867	9,657	7,674	17,331
		Khok Yang	9,310		9,310	33,674	42,984

Appendix Table 128 (Continued)

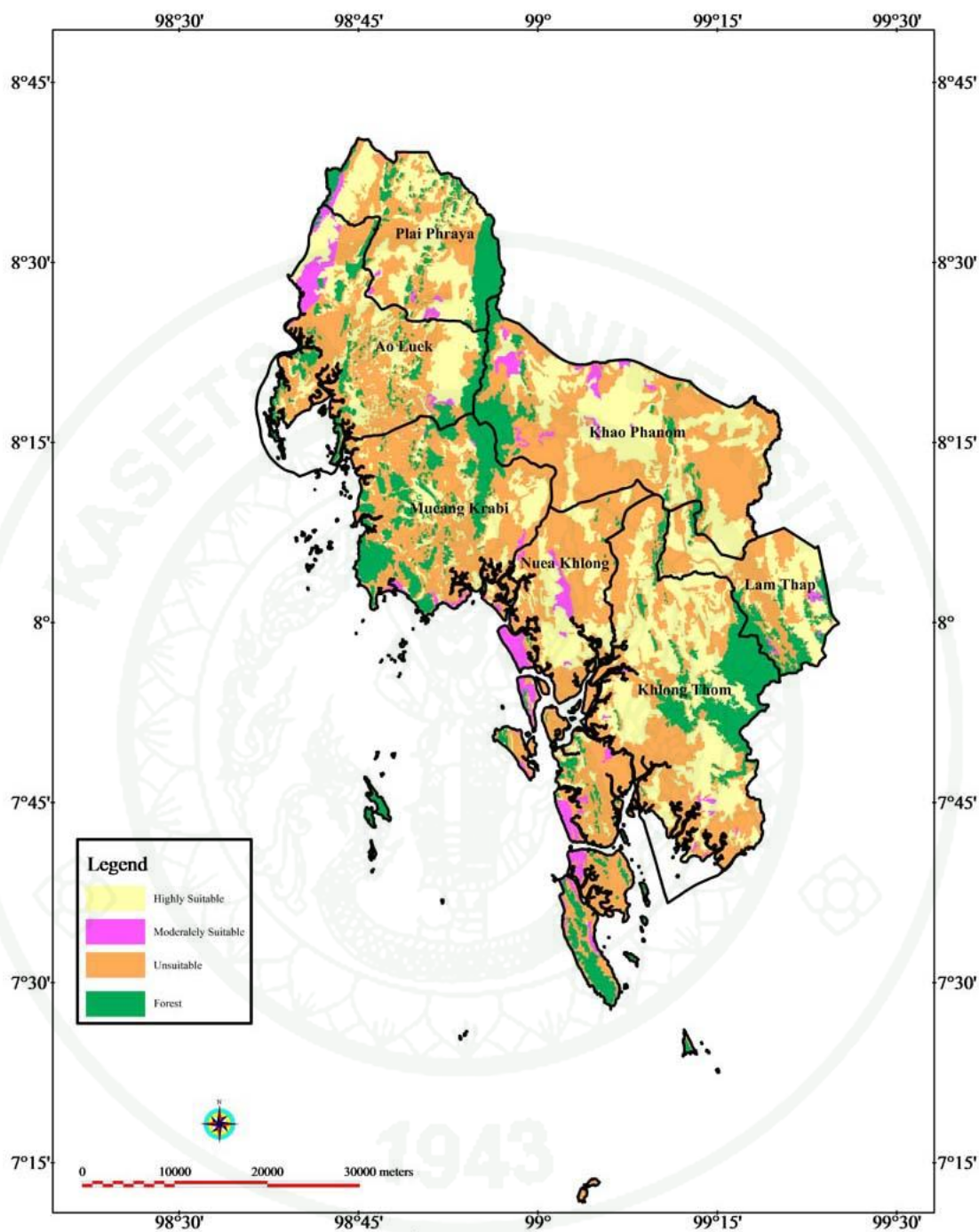
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Rambutan	Nuea Khlong	Khlong Khamao	1,932		1,932	4,819	6,751
		Khlong Khanan	23,736	1,959	25,695	10,891	36,585
		Taling Chan	246	10,366	10,612	6,100	16,712
		Pakasai	10,405	4,201	14,605	20,488	35,093
		Huai Yung	8,971	517	9,487	27,567	37,055
	Nuea Khlong Total		64,173	19,149	83,322	116,676	199,998
	Khlong Thom	Khlong Thom Nue	44,444		44,444	15,100	59,544
		Khlong Thom Tai	22,072	259	22,331	18,453	40,784
		Khlong Phon	2,248	977	3,225	11,552	14,777
		Sai Khao	94,770	1,650	96,420	111,499	207,919
		Phru Din Na	33,740		33,740	20,968	54,708
	Khlong Thom Total		197,274	2,886	200,160	177,572	377,732
	Plai Phraya	Khao Khen	27,628	69	27,697	30,910	58,607

Appendix Table 128 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Plai Phraya	Khao To	29,052	2,204	31,255	21,963	53,219
		Khiri Wong	37,881	3,714	41,595	12,612	54,207
		Plai Phraya	52,506		52,506	34,459	86,965
		Plai Phraya Total	147,066	5,987	153,053	99,945	252,997
	Lam Thap	Din Daeng	16,942	3,051	19,993	4,269	24,262
		Din Udom	15,447	86	15,533	12,406	27,939
		Thung Sai Thong	27,460	275	27,735	39,071	66,805
		Lam Thap	23,199	521	23,720	28,942	52,662
	Lam Thap Total	83,047	3,934	86,981	84,687	171,668	
	Ao Luek	Khao Yai	23,204	4,220	27,424	15,488	42,912
		Laem Sak	5,561		5,561	11,534	17,095
		Khlong Ya	27,914		27,914	13,480	41,394
		Khlong Hin	36,366	2,093	38,459	13,169	51,628

Appendix Table 128 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ao Luek	Na Nuea	19,771	14,783	34,554	17,626	52,180
		Ban Klang	24,261		24,261	2,048	26,309
		Ao Luek Nuea	33,803	2	33,805	6,206	40,011
		Ao Luek Tai	7,218		7,218	17,808	25,027
		Ao Luek Noi	14,527		14,527	3,003	17,530
		Ao LuekTotal	192,627	21,097	213,724	100,362	314,086
		Krabi Total	1,034,846	81,986	1,116,832	1,085,346	2,202,177



Appendix Figure 85 Map of Land Suitability for Rambutan in Krabi Province

Appendix Table 129 Zoning For Rambutan in Krabi Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Ko Lanta	34,572	6,436	6	1,000	2
Khao Phanom	190,915	17,340	436	406	2
Mueang Krabi	125,172	5,157	1,042	865	1
Nuea Khlong	64,173	19,149	72	653	2
Khlong Thom	197,274	2,886	314	332	2
Plai Phraya	147,066	5,987	274	140	2
Lam Thap	83,047	3,934	196	281	2
Ao Luek	192,627	21,097	411	237	2
Krabi Total	842,219	60,888	2,751	519	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 129 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Ko Lanta		5,004			1,240			6	
Khao Phanom		6,894			6,894			436	
Mueang Krabi	44,788			350			1,042		
Nuea Khlong		784			1,241			72	
Khlong Thom		44,444			0			314	
Plai Phraya		27,628			69			274	
Lam Thap		16,942			3,051			196	
Ao Luek		23,204			4,220			411	
Krabi Total	44,788	101,695	0	350	12,496	0	1,042	1,709	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

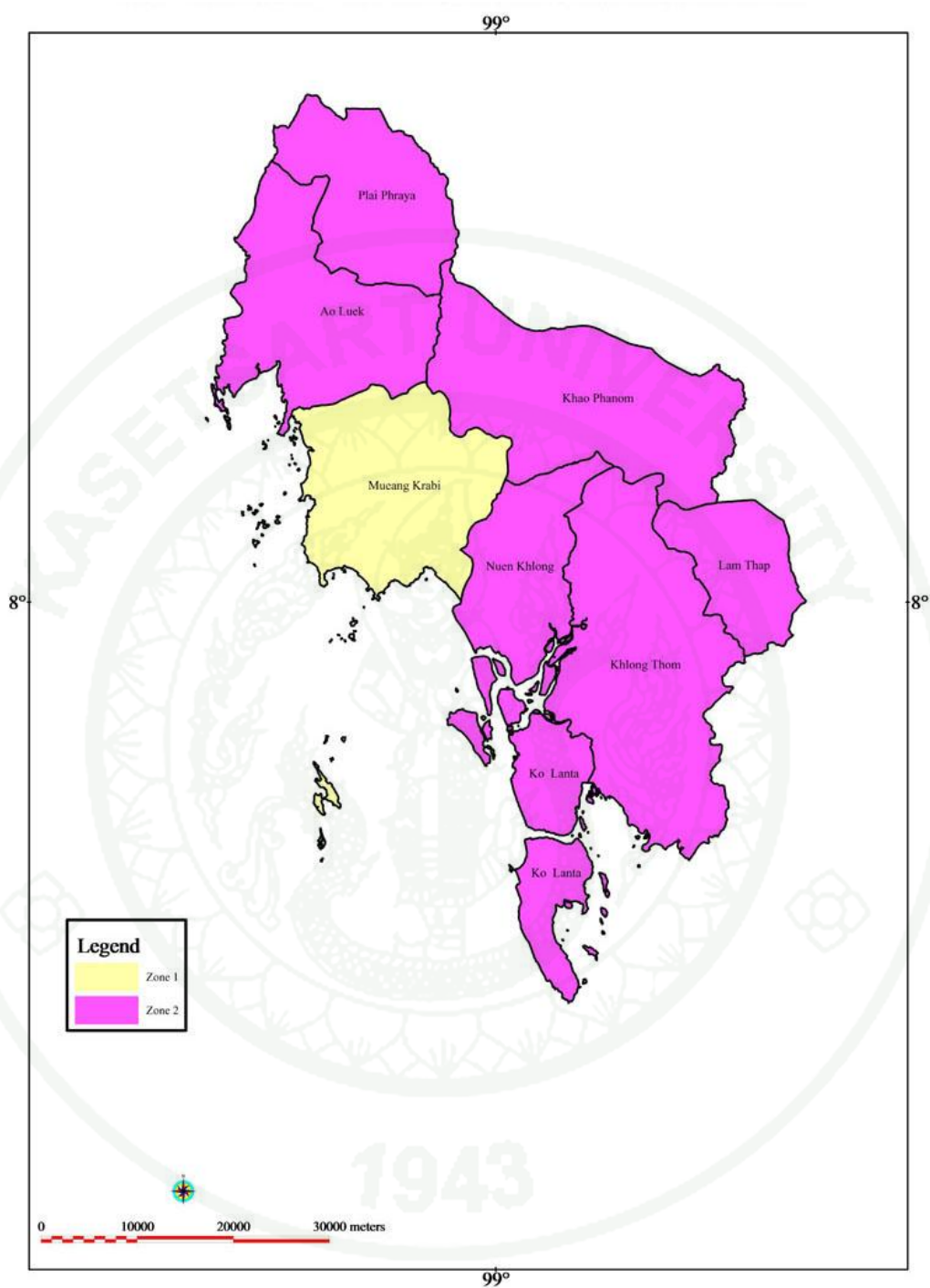
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 86 Map of Zoning for Rambutan in Krabi Province

Appendix Table 130 Classification of Land Suitability for Rambutan in Trang Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	626,587	20.39
2. Moderately Suitable	333,936	10.87
3. Unsuitable	1,035,294	33.69
4. Existing Forest	876,296	28.51
5. Deforestation	61,714	2.01
6. Water	59,908	1.95
7. Built-up areas	79,714	2.59
Total	3,073,449	100.00

Appendix Table 131 Land Suitability for Rambutan in Trang Province by Amphoe,Tambon,Thailand

Province	Amphoe	Tambon	Unit : rai				
			Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Trang	Mueang Trang	Khok Lo	470	2,179	2,649	5,064	7,713
		Khuan Pring	176	1,054	1,230	4,545	5,775
		Thap Thiang		456	456	1,026	1,482
		Na To Ming	712	10,262	10,975	2,243	13,218
		Na Yong Tai	2,648	2,859	5,507	713	6,220
		Na Ta Luang	832	3,607	4,439	3,270	7,710
		Na Tham Nuea	22,815	7,973	30,788	10,450	41,238
		Na Bin La	409	1,306	1,715	7,865	9,581
		Na Phlala	1,588	1,205	2,792	4,641	7,433
		Nam Phut	20,175	5,634	25,809	23,199	49,008
		Bang Rak	143	3,791	3,934	1,933	5,867
		Ban Pho	5,820	2,940	8,761	7,712	16,473
		Ban Khuan	119	1,990	2,109	3,505	5,614

Appendix Table 131 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Kantang	Mueang Trang	Nong Trut	8,981	17,152	26,133	7,558	33,691
		Na Tham Tai	8,821	9,711	18,532		18,532
		Mueang Trang Total	73,710	72,118	145,828	83,725	229,553
	Kantang	Ko Libong	5,311	2,909	8,220	5,191	13,411
		Khok Yang	2,151	2,052	4,204	15,262	19,465
		Kantang				185	185
		Kantang Tai	470	144	614	5,172	5,786
		Khlong Chi Lom	318	969	1,287	14,404	15,691
		Khlong Lu	1,749	89	1,838	10,146	11,984
		Khuan Thani	1,839		1,839	8,816	10,655
		Bo Nam Ron	2,588	6,219	8,807	33,125	41,932
		Bang Pao		523	523	6,874	7,397
		Bang Sak	20,052	5,283	25,335	20,641	45,976

Appendix Table 131 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan				Unit : rai	
						Unsuitable	Whole total	
			Highly	Moderately	Total			
		Bang Mak	4,339	21	4,360	16,489	20,849	
		Yan Sue	362	5,718	6,081	3,459	9,539	
		Wang Won	4,804	26	4,830	5,378	10,208	
	Kantang	Total	43,984	23,953	67,937	145,142	213,079	
	Hat Samran	Tase		2,630	2,630	8,386	11,017	
		Ban Wi				17,116	17,116	
		Hat Samran	2,149	5,112	7,261	13,284	20,546	
	Hat Samran	Total	2,149	7,743	9,891	38,787	48,678	
	Na Yong	Khok Saba	9,784	469	10,253	10,101	20,354	
		Chong	9,105		9,105	4,459	13,564	
		Na Yong Nuea	2,091	2,433	4,524	55	4,579	
		Na Khao Sia	5,612	4,055	9,667	5,780	15,447	
		Na Muen Si	9,252	2,089	11,341	4,131	15,472	

Appendix Table 131 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Phanom	Na Yong	Lamo	10,047	1,641	11,687	21,985	33,672
		Na Yong Total	45,890	10,686	56,577	46,511	103,088
	Palian	Ko Sukon	1,547	2,093	3,640	2,606	6,246
		Laem Som	10,610	8,380	18,989	4,406	23,396
		Tha Kham	438	1,864	2,302	6,237	8,539
		Tha Phaya	4,600	3,252	7,852	1,549	9,401
		Thung Yao	8,458	10,009	18,466	26,579	45,046
		Bang Duan	11,317	8,127	19,445	1,501	20,946
		Ban Na	14,062	14,813	28,876	17,743	46,619
		Palian	23,323	1,988	25,311	13,657	38,968
		Liphang	8,716	2,434	11,150	48,215	59,366
		Suso	6,087	15,744	21,832	16,254	38,086
		Palian Total	89,159	68,705	157,863	138,748	296,612

Appendix Table 131 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Yan Ta Khao		Ko Pia	6,193	964	7,157	10,873	18,030
		Phrong Cholakhe	7,854	4,366	12,220	6,899	19,119
		Nai Khuan	10,327	18,336	28,663	9,953	38,616
		Thung Krabue	17,316	3,043	20,359	31,327	51,685
		Na Chum Het	5,189	1,269	6,458	16,550	23,008
		Yan Ta Khao	100		100	11,909	12,009
		Nong Bo	1,446	30	1,476	15,205	16,681
Yan Ta Khao Total			48,425	28,006	76,432	102,717	179,148
Ratsada		Khao Phrai	9,336	2,249	11,584	3,108	14,692
		Khlong Pang	2,845	724	3,569	2,737	6,306
		Khuan Mao	10,438	1,949	12,387	11,225	23,612
		Nong Bua	6,906	749	7,654	4,640	12,294
		Nong Prue	32,513	4,088	36,602	13,484	50,086

Appendix Table 131 (Continued)

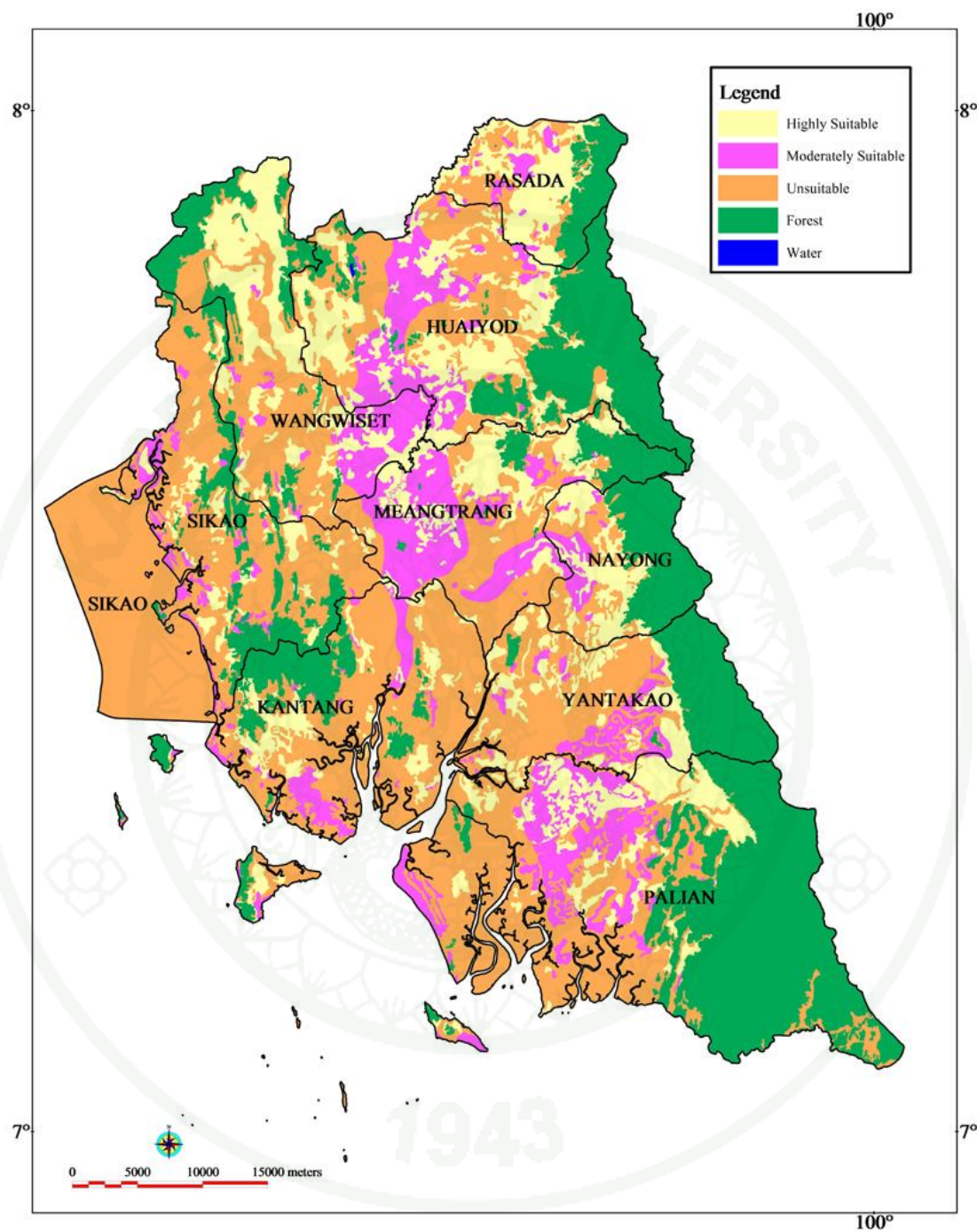
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Ratsada Total		62,037	9,759	71,796	35,194	106,991
	Wang Wiset	Khao Wiset	15,142	11,659	26,802	29,665	56,467
		Tha Saba	9,705	21,751	31,456		31,456
		Wang Maprang	10,461	1,805	12,265	33,050	45,315
		Wang Maprang Nuea	12,513	1,605	14,118	25,929	40,047
		Ao Tong	50,041	429	50,469	37,735	88,205
	Wang Wiset Total		97,862	37,249	135,111	126,379	261,489
	Sikao	Mai Fat	7,693	820	8,513	13,103	21,616
		Kalase	16,946	10,010	26,956	114,161	141,117
		Na Mueang Phet	9,721	234	9,956	44,639	54,594
	Sikao Total		34,361	11,064	45,425	171,902	217,327
	Huai Yot	Khao Kop	5,565	8,895	14,461	12,213	26,674
		Khao Khao	766	810	1,576	6,977	8,553

Appendix Table 131 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan				Unit : rai	
						Unsuitable	Whole total	
			Highly	Moderately	Total			
		Khao Pun	10,293	535	10,828	11,226	22,054	
		Nai Tao	1,608	161	1,769	1,166	2,935	
		Tha Ngio	5,239	3,092	8,330	7,229	15,559	
		Thung To	9,988	1,004	10,992	3,339	14,332	
		Na Wong	3,936	12,724	16,661	268	16,929	
		Bang Kung	14,068	1,722	15,790	8,659	24,449	
		Bang Di	10,228	13,247	23,475	25,524	48,999	
		Pak Chaem	14,161	320	14,482	17,928	32,409	
		Pak Khom	8,808	3,311	12,119	3,157	15,276	
		Lamphu Ra	6,847	5,007	11,855	3,303	15,157	
		Wang Khiri	11,502	1,950	13,452	7,779	21,232	
		Nong Chang Laen	8,051	6,873	14,924	9,163	24,087	
		Huai Nang	9,001	5,000	14,001	20,109	34,110	

Appendix Table 131 (Continued)

						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Huai Yot	8,949		8,949	8,147	17,096
	Huai Yot Total		129,011	64,652	193,663	146,188	339,851
Trang Total			626,587	333,936	960,523	1,035,294	1,995,817



Appendix Figure 87 Map of Land Suitability for Rambutan in Trang Province

Appendix Table 132 Zoning For Rambutan in Trang Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Trang	73,710	72,118	523	750	2
Kantang	43,984	23,953	323	1,399	1
Yan Ta Khao	48,425	28,006	477	311	2
Palian	89,159	68,705	563	201	2
Sikao	34,361	11,064	30	1,127	1
Huai Yot	129,011	64,652	1,041	319	2
Wang Wiset	97,862	37,249	680	401	2
Na Yong	45,890	10,686	1,043	545	1
Ratsada	62,037	9,759	311	1,057	1
Hat Samran	2,149	7,743	55	1,057	2
Trang Total	626,587	333,936	5,046	538	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 132 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Trang		73,710			72,118			523	
Kantang	43,984			23,953			323		
Yan Ta Khao		48,425			28,006			477	
Palian		89,159			68,705			563	
Sikao	34,361			11,064			30		
Huai Yot		129,011			64,652			1,041	
Wang Wiset		97,862			37,249			680	
Na Yong	45,890			10,686			1,043		
Ratsada	62,037			9,759			311		
Hat Samran		2,149			7,743			55	
Trang Total	186,273	440,315	0	55,463	278,473	0	1,707	3,339	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

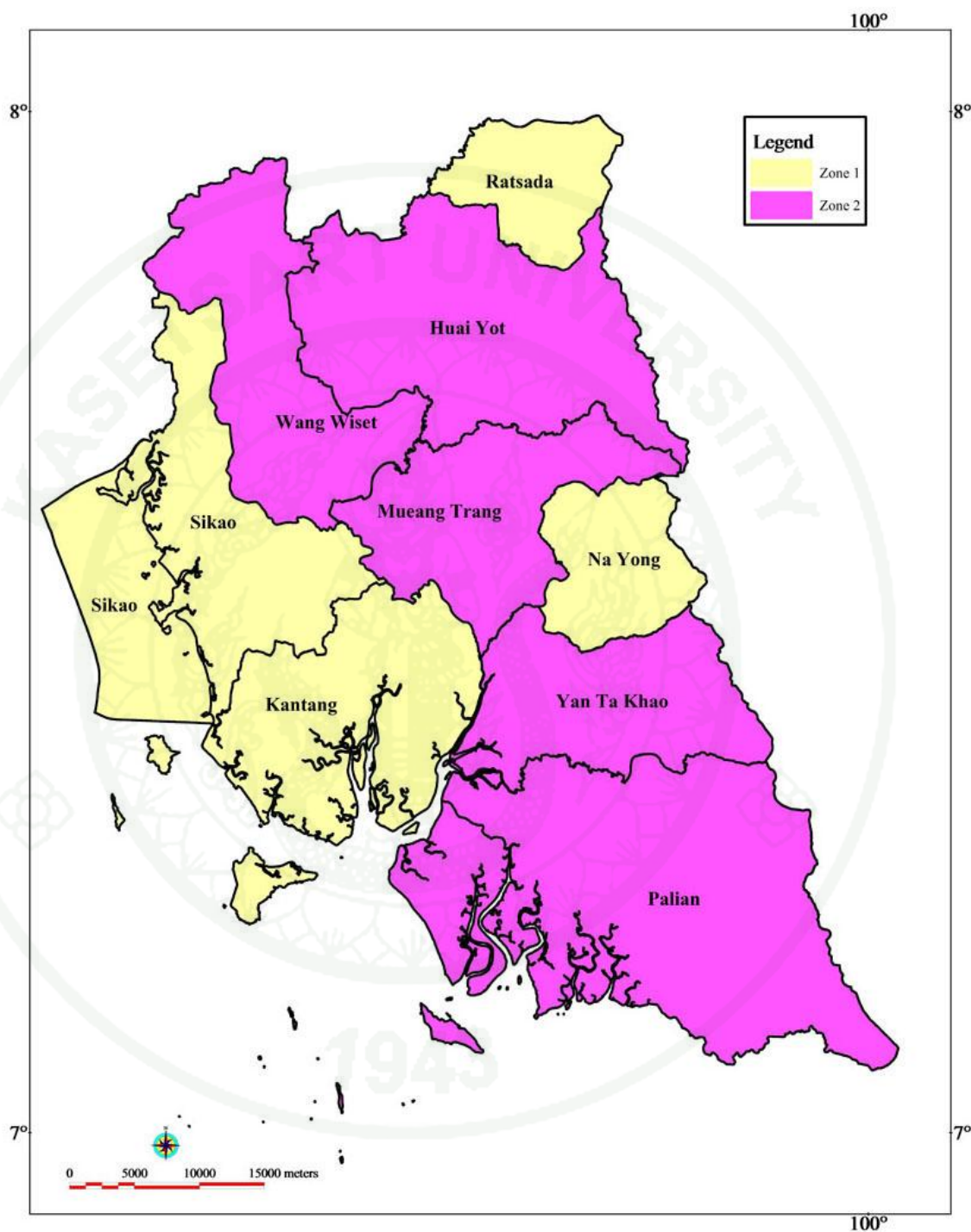
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 88 Map of Zoning for Rambutan in Trang Province

Appendix Table 133 Classification of Land Suitability for Rambutan in Nakhon
Si Thammarat Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	936,606	15.07
2. Moderately Suitable	936,606	15.07
3. Unsuitable	2,275,152	36.61
4. Existing Forest	1,511,669	24.33
5. Deforestation	247,365	3.98
6. Water	41,301	0.66
7. Built-up areas	265,365	4.27
Total	6,214,064	100.00

Appendix Table 134 Land Suitability for Rambutan in Nakhon Si Thammarat Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Nakhon Si Thammarat	Chaloem Phra Kiat	Chian Khao	878	25,408	26,285	323	26,608
		Don Tro	343	13,969	14,312	6,776	21,088
		Thang Phun		3,311	3,311	21,347	24,658
		Suan Luang	1,460	12,590	14,050	1,918	15,968
		Chaloem Phra Kiat Total	2,681	55,278	57,958	30,364	88,322
	Chian Yai	Kao Phrabat	169	20,774	20,943		20,943
		Chian Yai		10,467	10,467		10,467
		Suea Hueng		15,525	15,525	23	15,548
		Mae Chao Yu Hua	2,530	9,555	12,085	2,600	14,685
		Sai Mak		4,654	4,654		4,654
		Karaket		25,309	25,309	229	25,538
		Thong Lamchiak		19,284	19,284		19,284
		Tha Khanan		11,890	11,890		11,890

Appendix Table 134 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Chian Yai Total	Mueang Nakhon Si Thammarat	Ban Noen		9,372	9,372		9,372
		Ban Klang		5,691	5,691		5,691
			2,699	132,522	135,221	2,852	138,072
		Pho Sadet	9,293	2,127	11,420	346	11,766
		Chaiyamontri	4,195	2,478	6,673	1,070	7,743
		Kamphaeng Sao	7,009	2,109	9,119	6,495	15,614
		Tha Ruea	201	13,974	14,175	29,546	43,721
		Tha Rai		5,028	5,028	11,240	16,268
		Tha Ngio	10,498	1,061	11,559	27,208	38,767
		Tha Sak	6	4,327	4,332	1,765	6,098
		Tha Wang		8	8		8
		Na Khian	8,797	625	9,422	2,128	11,550
		Na Sai	2,614	1,246	3,860	5,427	9,287

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Bang Chak		2,149	2,149	21,996	24,145
		Pak Nakhon		7,970	7,970	3,463	11,433
		Pak Phun		10,305	10,305	9,610	19,915
		Mamuang Song To	303	3,375	3,678	927	4,605
	Mueang Nakhon Si Thammarat	Total	42,916	56,782	99,697	121,221	220,918
	Chang Klang	Chang Klang	3,828		3,828	60,184	64,012
		Suan Khan	8,998		8,998	9,201	18,199
		Lak Chang	521		521	21,902	22,423
	Chang Klang	Total	13,348		13,348	91,286	104,634
	Nopphitam	Krung Ching	10,340		10,340	68,365	78,705
		Kalo	7,116		7,116	19,057	26,173
		Nopphitam	703		703	28,984	29,687
		Na Reng	14,620		14,620	29,978	44,598

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Nopphitam	Total	32,779		32,779	146,384	179,163
	Khanom	Khanom	3,763	8,882	12,645	14,884	27,529
		Khuan Thong	28,257	1,172	29,429	29,026	58,455
		Thong Nian	9,332	784	10,116	2,861	12,978
	Khanom	Total	41,352	10,838	52,190	46,771	98,962
	Chulabhorn	Khuan Nong Khwa	1,692	740	2,432	7,759	10,191
		Thung Pho	3,759	1,733	5,492	20,899	26,391
		Mo Bun	3,963	8	3,972	26,057	30,029
		Khuan Mut	1,114	179	1,293	4,001	5,294
		Ban Cha-uat	1,229	2,315	3,544	4,465	8,009
		Sam Tambon	4,551	3,660	8,212	25,749	33,960
	Chulabhorn	Total	16,309	8,635	24,944	88,931	113,875
	Chawang	Mai Rieng	646		646	18,388	19,034

Appendix Table 134 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Chawang		Saira	3,103		3,103	24,061	27,164	
		Kabiat	273		273	18,441	18,714	
		Chan Di	3,955		3,955	7,709	11,664	
		Chawang	3,310		3,310	19,793	23,103	
		Na Khliang	2,765	1,042	3,807	14,910	18,717	
		Na Wae	675	546	1,220	21,106	22,327	
		Na Kacha	1,540		1,540	14,892	16,432	
		La-ai	12,356		12,356	29,981	42,337	
		Huai Prik	543	2,302	2,846	36,309	39,154	
		Chawang Total	29,166	3,890	33,056	205,590	238,646	
	Cha-uat		Ko Khan	15,212	2,493	17,705	6,871	24,576
			Khao Phra Thong	8,463	8,695	17,158	27,626	44,784
		Khreng	253	21,321	21,574		21,574	

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Khon Hat	2,243	27,976	30,219	3,135	33,354
		Khuan Nong Hong	4,457	4,230	8,688	8,157	16,844
		Cha-uat	161	2,624	2,785	4,494	7,278
		Tha Samet	3,043	9,595	12,638		12,638
		Tha Pracha	4,245	4,648	8,894	10,571	19,465
		Nang Long	11,570	13,489	25,059	646	25,705
		Ban Tun	1,011	6,785	7,796	2,964	10,760
		Wang Ang	3,964	10,181	14,145	67,712	81,856
	Cha-uat Total		54,622	112,038	166,660	132,175	298,835
	Tham Phannara	Khlong Se	3,510		3,510	23,524	27,034
		Dusit	20,202	6,392	26,594	32,620	59,214
		Tham Phanna	8,620	994	9,614	17,651	27,265
	Tham Phannara Total		32,332	7,387	39,718	73,795	113,514

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Tha Sala		Pho Thong	1,351	4,010	5,361	3,294	8,655
		Mokhlalan	12,214	1,790	14,003	10,222	24,225
		Thai Buri	694	8,141	8,835	11,350	20,185
		Klai	2,118	9,919	12,037	7,651	19,688
		Don Tako	8,144	4,951	13,095	4,532	17,626
		Taling Chan	13,333	6,270	19,603	20,753	40,356
		Tha Khuen	9,812	9,209	19,021	28,735	47,756
		Tha Sala	1,350	6,062	7,412	3,844	11,256
		Sa Kaeo	8,128	4,013	12,141	14,342	26,483
		Hua Taphan	2,329	66	2,395	22,480	24,874
Tha Sala Total			59,472	54,431	113,903	127,202	241,106
Thung Yai		Krung Yan	24,948	645	25,593	28,870	54,463
		Kurae	50,873	430	51,303	15,851	67,154

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Tha Yang	5,453	2,752	8,205	31,614	39,819
		Thung Yai	16,450	2,930	19,380	23,765	43,146
		Thung Sang	2,791	8,802	11,593	17,311	28,904
		Bang Rup	2,832	21,086	23,918	26,312	50,230
		Prik	16,186	173	16,359	48,548	64,906
	Thung Yai Total		119,533	36,818	156,351	192,271	348,622
	Thung Song	Khao Ro	16,476	11,126	27,602	18,464	46,066
		Khao Khao	14,432	6,098	20,530	26,062	46,593
		Kapang	12,731	10,269	23,000	14,074	37,074
		Khuan Krot	327		327	24,172	24,499
		Chamai	430		430	7,213	7,643
		Tham Yai	10,383		10,383	28,994	39,377
		Thi Wang	2,683	5,120	7,803	26,751	34,554

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Na Pho	8,446	3,085	11,531	9,576	21,107
		Na Mai Phai	6,428	302	6,730	32,608	39,338
		Na Luang Sen	6,423		6,423	22,761	29,183
		Nam Tok	428		428	42,921	43,349
		Pak Phraek				793	793
		Nong Hong	184		184	25,274	25,458
	Thung Song Total		79,371	36,000	115,371	279,664	395,034
	Na Bon	Kaeo Saen	1,796	8,086	9,882	20,204	30,087
		Thung Song	17,595	995	18,590	25,358	43,948
		Na Bon	2,018		2,018	49,648	51,666
	Na Bon Total		21,410	9,081	30,491	95,210	125,701
	Bang Khan	Bang Khan	25,373	4,726	30,099	64,636	94,735
		Ban Nikhom	19,907	1,270	21,177	13,053	34,230

Appendix Table 134 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
	Bang Khan Total Pak Phanang	Ban Lamnao	48,389	1,917	50,306	31,764 82,070
		Wang Hin	25,521	2,074	27,595	20,183 47,778
			119,190	9,987	129,177	129,635 258,812
		Ko Thuat		24,191	24,191	
		Laem Talumphuk				161 161
		Khanap Nak		1,029	1,029	6,883 7,912
		Khlong Krabue		16,943	16,943	
		Khlong Noi		32,407	32,407	93 32,500
		Chamao		25,453	25,453	6,608 32,061
		Tha Phaya		9,602	9,602	4,355 13,957
		Bang Taphong		13,488	13,488	
		Bang Sala		8,359	8,359	70 8,429
		Ban Phoeng		2,842	2,842	3,659 6,500

Appendix Table 134 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
		Ban Mai		12,945	12,945	12,945
		Pak Phraek		446	446	10,662
		Pak Phanang		145	145	75
		Pak Phanang Fang Tawan Tok		5,846	5,846	5,846
		Pak Phanang Fang Tawan Ok				5,348
		Pa Rakam		22,719	22,719	22,719
		Hu Long		12,328	12,328	209
	Pak Phanang Total			188,742	188,742	38,122
	Phrom Khiri	Thon Hong	12,714	1,393	14,107	16,805
		Na Rieng	3,035	8	3,043	12,106
		Ban Ko	4,763		4,763	9,110
		Phrommalok	6,462		6,462	11,459
		In Khiri	6,146	2,616	8,762	4,271

Appendix Table 134 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
	Phrom Khiri Total		33,121	4,017	37,137	53,751 90,888
	Phra Phrom	Chang Sai	400	8,236	8,636	28,774 37,410
		Thai Samphao	3,285	13,335	16,620	5,528 22,149
		Na Phru	6,352	10,674	17,025	1,549 18,574
		Na San	9,164	668	9,831	88 9,919
	Phra Phrom Total		19,200	32,913	52,113	35,939 88,051
	Phipun	Khao Phra	3,372	4,387	7,759	33,245 41,004
		Kathun	4,623	5,456	10,079	16,261 26,340
		Khuan Klang	8,199	839	9,038	15,215 24,253
		Phipun	1,318	945	2,263	14,986 17,249
		Yang Khom	6,236	1,607	7,843	16,721 24,564
	Phipun Total		23,749	13,234	36,982	96,428 133,410
	Ron Phibun	Sao Thong	6,639	1,317	7,956	9,545 17,501

Appendix Table 134 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable Whole total
			Highly	Moderately	Total	
		Khuan Koei	6,380		6,380	7,414 13,794
		Khuan Chum	3,194	12	3,206	20,744 23,950
		Khuan Phang	315	10,612	10,927	8,433 19,361
		Ron Phibun	15,365	8	15,373	28,820 44,193
		Hin Tok	27,297	2	27,299	4,509 31,808
	Ron Phibun Total		59,189	11,952	71,141	79,466 150,607
	Lan Saka	Khao Kaeo	5,727		5,727	15,031 20,757
		Kamlon	4,065	1,473	5,538	5,636 11,174
		Khun Thale	14,942	3,295	18,237	11,952 30,189
		Tha Di	12,677		12,677	3,887 16,563
		Lan Saka	1,296		1,296	5,654 6,950
	Lan Saka Total		38,705	4,768	43,474	42,160 85,633
	Sichon	Khao Noi	6,949		6,949	25,060 32,009

Appendix Table 134 (Continued)

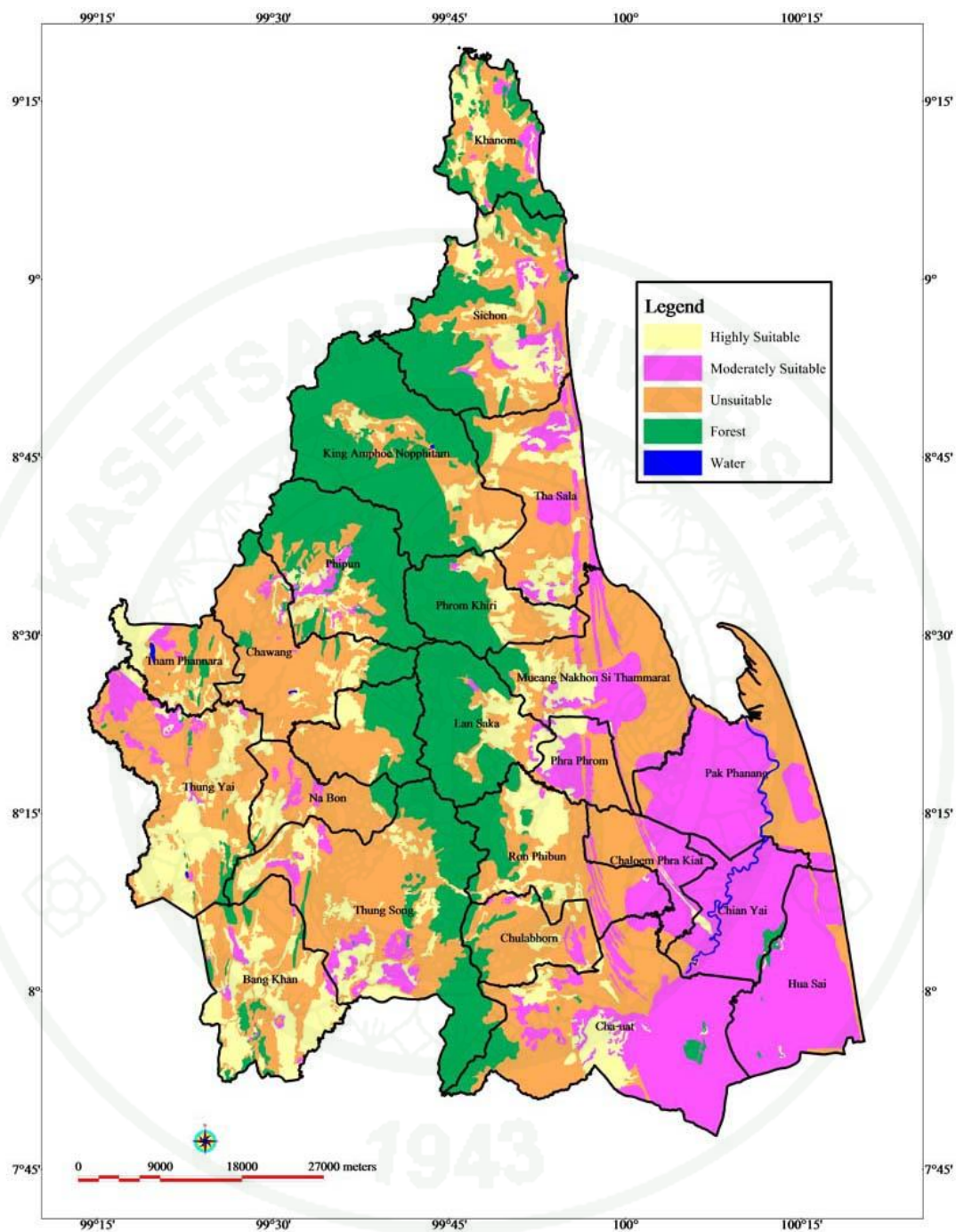
Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Theppharat	15,061	2,472	17,533	9,981	27,515
		Plian	7,444	1,582	9,026	35,534	44,560
		Sao Phao	9,968	8,357	18,324	3,252	21,576
		Chalong	14,788	1,802	16,590	6,999	23,589
		Thung Sai	2,567	708	3,275	13,047	16,322
		Thung Prang	6,808	3,179	9,987	19,875	29,861
		Sichon	6,072	2,749	8,821	12,905	21,726
		Si Khit	24,468	4,683	29,152	35,360	64,512
	Sichon Total		94,124	25,533	119,657	162,012	281,669
	Hua Sai	Ko Phet		5,189	5,189	6	5,194
		Khao Phang Krai		27,298	27,298		27,298
		Laem		25,053	25,053		25,053
		Khuan Chalik	368	21,091	21,459	473	21,932

Appendix Table 134 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Sai Khao	878	25,816	26,693		26,693
		Tha Som		13,756	13,756	151	13,907
		Bang Nop		6,558	6,558		6,558
		Ban Ram	93	11,094	11,187		11,187
		Ram Kaeo		11,928	11,928	2,388	14,316
		Na Saton		2,281	2,281	534	2,815
		Hua Sai		26,507	26,507	372	26,879
	Hua Sai	Total	1,339	176,570	177,909	3,923	181,832
Nakhon Si Thammarat Total			936,606	991,412	1,928,018	2,275,152	4,203,170



Appendix Figure 89 Map of Land Suitability for Rambutan in Nakhon Si Thammarat Province

Appendix Table 135 Zoning For Rambutan in Nakhon Si Thammarat Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Nakhon Si Thammarat	42,916	56,782	2,432	610	1
Phrom Khiri	33,121	4,017	3,062	59	2
Lan Saka	38,705	4,768	996	36	2
Chawang	29,166	3,890	3,832	102	2
Phipun	23,749	13,234	2,369	311	2
Cha-uat	54,622	112,038	885	908	2
Tha Sala	59,472	54,431	2,079	40	2
Thung Song	79,371	36,000	1,295	3,250	1
Na Bon	21,410	9,081	249	1	2
Thung Yai	119,533	36,818	114	96	2
Ron Phibun	59,189	11,952	2,375	14	2
Sichon	94,124	25,533	5,866	96	1
Bang Khan	119,190	9,987	529	750	2

Appendix Table 135 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Nakhon Si Thammarat	42,916			56,782			2,432		
Phrom Khiri		33,121			4,017			3,062	
Lan Saka		38,705			4,768			996	
Chawang		29,166			3,890			3,832	
Phipun		23,749			13,234			2,369	
Cha-uat		54,622			112,038			885	
Tha Sala		59,472			54,431			2,079	
Thung Song	79,371			36,000			1,295		
Na Bon		21,410			9,081			249	
Thung Yai		119,533			36,818			114	
Ron Phibun		59,189			11,952			2,375	
Sichon	94,124	0		25,533			5,866		
Bang Khan		119,190			9,987			529	

Appendix Table 135 (Continued)

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Tham Phannara	32,332	7,387	1,025	464	2
Chulabhorn	16,309	8,635	1,148	56	2
Phra Phrom	19,200	32,913	1,410	39	2
Nopphitam	32,779	0	2,978	196	2
Chang Klang	13,348	0	1,564	59	2
Nakhon Si Thammarat Total	888,536	427,463	34,208	298	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 135 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Tham Phannara		32,332			7,387			1,025	
Chulabhorn		16,309			8,635			1,148	
Phra Phrom		19,200			32,913			1,410	
Nopphitam		32,779						2,978	
Chang Klang		13,348						1,564	
Nakhon Si Thammarat Total	216,411	672,125	0	118,315	309,148	0	9,593	24,615	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

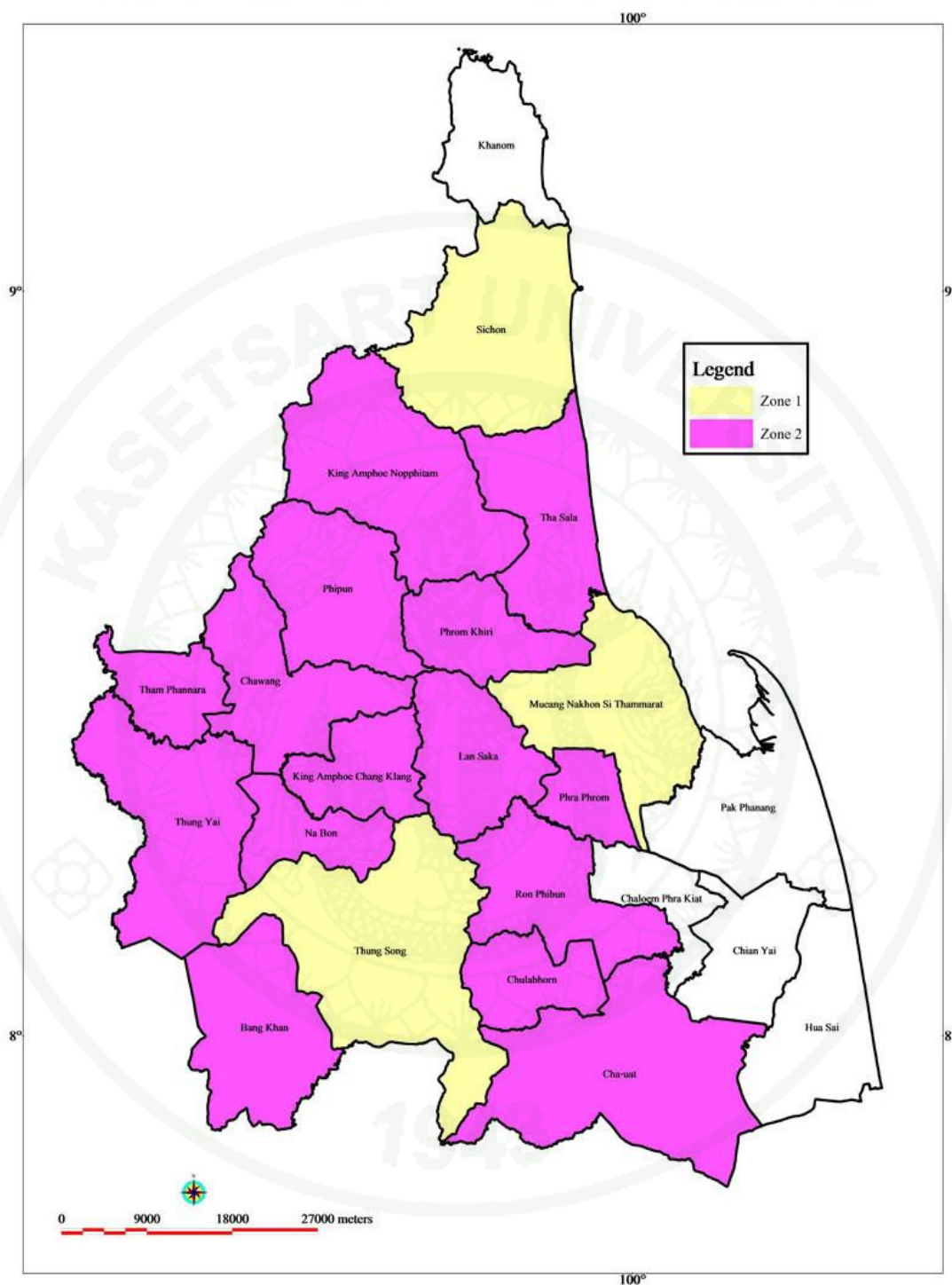
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 90 Map of Zoning for Rambutan in Nakhon Si Thammarat Province

Appendix Table 136 Classification of Land Suitability for Rambutan in
Phatthalung Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	282,879	13.22
2. Moderately Suitable	532,327	24.87
3. Unsuitable	558,519	26.10
4. Existing Forest	379,107	17.71
5. Deforestation	30,130	1.41
6. Water	287,465	13.43
7. Built-up areas	69,870	3.26
Total	2,140,296	100.00

Appendix Table 137 Land Suitability for Rambutan in Phatthalung Province by Amphoe,Tambon,Thailand

Phatthalung Province,Thailand						Unit : rai	
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Phatthalung	Khao Chaison	Khao Chaison	13,207	28,854	42,061	16,922	58,983
		Khok Muang	5,519	13,216	18,736	22,892	41,628
		Khuan Khanun	2,655	12,333	14,988	12,230	27,219
		Chong Thanon	1,016	7,298	8,314	328	8,642
		Han Pho	143	31,014	31,156	7,821	38,977
	Khao Chaison Total		22,540	92,715	115,256	60,193	175,449
	Mueang Phatthalung	Khao Chiak	783	8,386	9,169	1,051	10,220
		Khok Cha-ngai	947	8,507	9,453	2,130	11,584
		Khuan Maphrao	25	16,620	16,646	4,505	21,151
		Khuha Sawan	151	1,887	2,038	888	2,926
		Chai Buri	1	23,749	23,750	7,343	31,093
		Tamnan	1,144	13,040	14,184	1,251	15,435
		Tha Kae	3,062	7,538	10,600	11,395	21,994

Appendix Table 137 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Tha Miram	2,053	4,707	6,760		6,760
		Prang Mu		3,463	3,463	6,138	9,601
		Phaya Khan	91	11,217	11,308	69	11,377
		Rom Mueang	4,852	1,569	6,421	7,749	14,170
		Lampam		7,711	7,711	6,158	13,870
	Mueang Phatthalung Total		25,032	123,644	148,675	58,003	206,679
	Kong Ra	Kong Ra		3,048	3,048	12,501	15,549
		Khleng Chaloem	7,251	13,932	21,183	17,747	38,930
		Khleng Sai Khao		8,392	8,392	10,025	18,417
		Charat	897	7,028	7,926	2,595	10,520
		Som Wang	1,905	5,971	7,876	4,060	11,936
	Kong Ra Total		10,053	38,371	48,424	46,927	95,352
	Srinagarindra	Chumpon	4,438	37	4,475	39,836	44,310

Appendix Table 137 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ban Na	9,728	835	10,563	28,893	39,456
		Lam Sin	6,499	2,394	8,892	14,670	23,563
		Ang Thong	3,667	2,483	6,150	5,172	11,322
	Srinagarindra Total		24,331	5,749	30,080	88,570	118,650
	Khuan Khanun	Phraek Ha	1,438	205	1,642	8,696	10,339
		Laem Tanot	1,345	16,202	17,547	11,920	29,467
		Tanot Duan	344	2,122	2,467	12,414	14,881
		Khuan Khanun	1,283	578	1,862	10,550	12,412
		Chamuang	2,144	4,330	6,474	19,600	26,074
		Don Sai	207	360	567	11,962	12,529
		Thale Noi		1,319	1,319		1,319
		Na Khayat	3,773	881	4,654	18,220	22,874
		Pan Tae	2,103	2,482	4,586	15,968	20,554

Appendix Table 137 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Phanom Wang	1,198	617	1,814	14,049	15,864
		Phanang Tung	2,777	18,732	21,509	250	21,759
		Makok Nuea	283	5,060	5,343	9,783	15,125
	Khuan Khanun Total		16,896	52,888	69,784	133,412	203,196
	Tamot	Mae Khari	7,182	8,913	16,095	8,233	24,329
		Khlong Yai	16,037	8,705	24,741	9,192	33,933
		Tamot	15,708	5,796	21,504	10,274	31,778
	Tamot Total		38,927	23,413	62,340	27,699	90,039
	Bang Kaeo	Khok Sak	7,379	28,955	36,334	718	37,052
		Tha Maduea	4,718	12,686	17,404		17,404
		Na Pakho	2,215	33,444	35,659	9,449	45,108
	Bang Kaeo Total		14,311	75,086	89,397	10,167	99,564
	Pak Phayun	Ko Nang Kham	82	5,001	5,083	4,814	9,897

Appendix Table 137 (Continued)

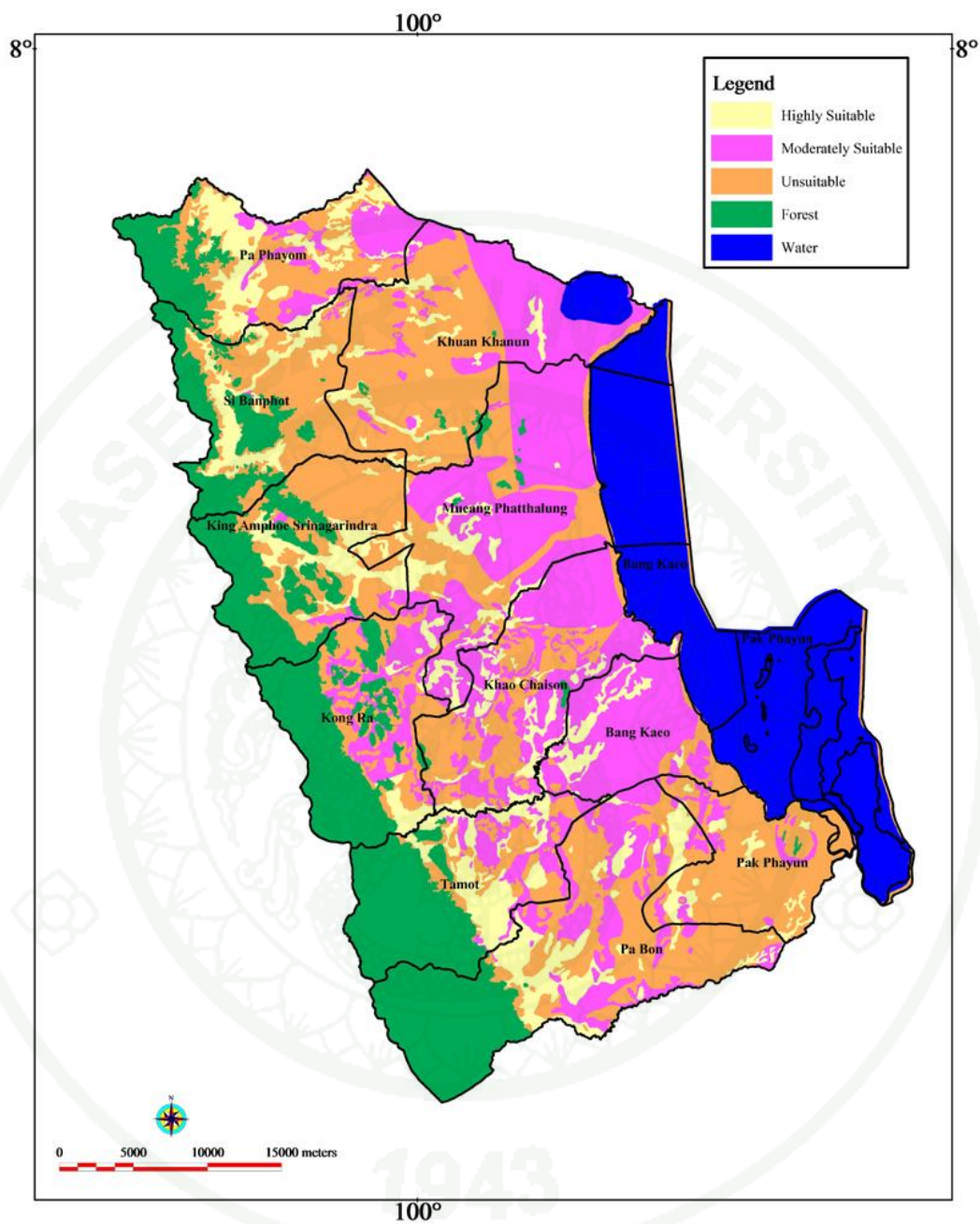
Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ko Mak		6,482	6,482	8,957	15,439
		Don Sai	1,177	26	1,203	2,857	4,061
		Don Pradu	1,074	359	1,433	17,923	19,356
		Pak Phayun	378	2,860	3,238	17,796	21,034
		Falami	1,913	5,222	7,135	15,547	22,682
		Han Thao	6,206	3,008	9,214	33,456	42,670
	Pak Phayun Total		10,831	22,957	33,788	101,350	135,138
	Pa Bon	Khok Sai	2,907	7,725	10,632	32,138	42,770
		Thung Nari	17,427	17,511	34,938	21,146	56,084
		Pa Bon	4,084	19,024	23,108	11,078	34,185
		Wang Mai	7,197	9,215	16,412	17,632	34,044
		Nong Thong	13,120	10,291	23,411	20,109	43,520
	Pa Bon Total		44,734	63,767	108,501	102,103	210,603

Appendix Table 137 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Pa Phayom	Ko Tao		23,738	12,289	36,028	34,344	70,371
		Ban Phrao	5,128	9,411	14,539	12,291	26,830
		Pa Phayom	7,330	9,418	16,749	4,493	21,242
		Lan Khoi	11,799	1,065	12,864	6,446	19,310
	Pa Phayom Total		47,996	32,184	80,179	57,574	137,753
	Si Banphot	Khao Pu	13,968	387	14,356	23,114	37,469
		Khao Ya	6,576	1,165	7,741	27,184	34,924
		Taphaen	6,685		6,685	31,631	38,316
	Si Banphot Total		27,229	1,552	28,781	81,929	110,710
	Phatthalung Total		282,879	532,327	815,206	767,928	1,583,133



Appendix Figure 91 Map of Land Suitability for Rambutan in Phatthalung Province

Appendix Table 138 Zoning For Rambutan in Phatthalung Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Khao Chaison	22,540	92,715	242	210	2
Mueang Phatthalung	25,032	123,644	358	47	2
Kong Ra	10,053	38,371	2,085	155	2
Srinagarindra	24,331	5,749	1,324	508	1
Khuan Khanun	16,896	52,888	418	248	2
Tamot	38,927	23,413	2,072	209	2
Bang Kaeo	14,311	75,086	530	72	2
Pak Phayun	10,831	22,957	70	1,164	1
Pa Bon	44,734	63,767	99	289	2
Pa Phayom	47,996	32,184	924	311	2
Si Banphot	27,229	1,552	95	528	2
Phatthalung Total	282,879	532,327	8,217	254	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 138 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Khao Chaison		22,540			92,715			242	
Mueang Phatthalung		25,032			123,644			358	
Kong Ra		10,053			38,371			2,085	
Srinagarindra	24,331			5,749			1,324		
Khuan Khanun		16,896			52,888			418	
Tamot		38,927			23,413			2,072	
Bang Kaeo		14,311			75,086			530	
Pak Phayun	10,831			22,957			70		
Pa Bon		44,734			63,767			99	
Pa Phayom		47,996			32,184			924	
Si Banphot		27,229			1,552			95	
Phatthalung Total	35,162	247,717	0	28,706	503,621	0	1,394	6,823	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

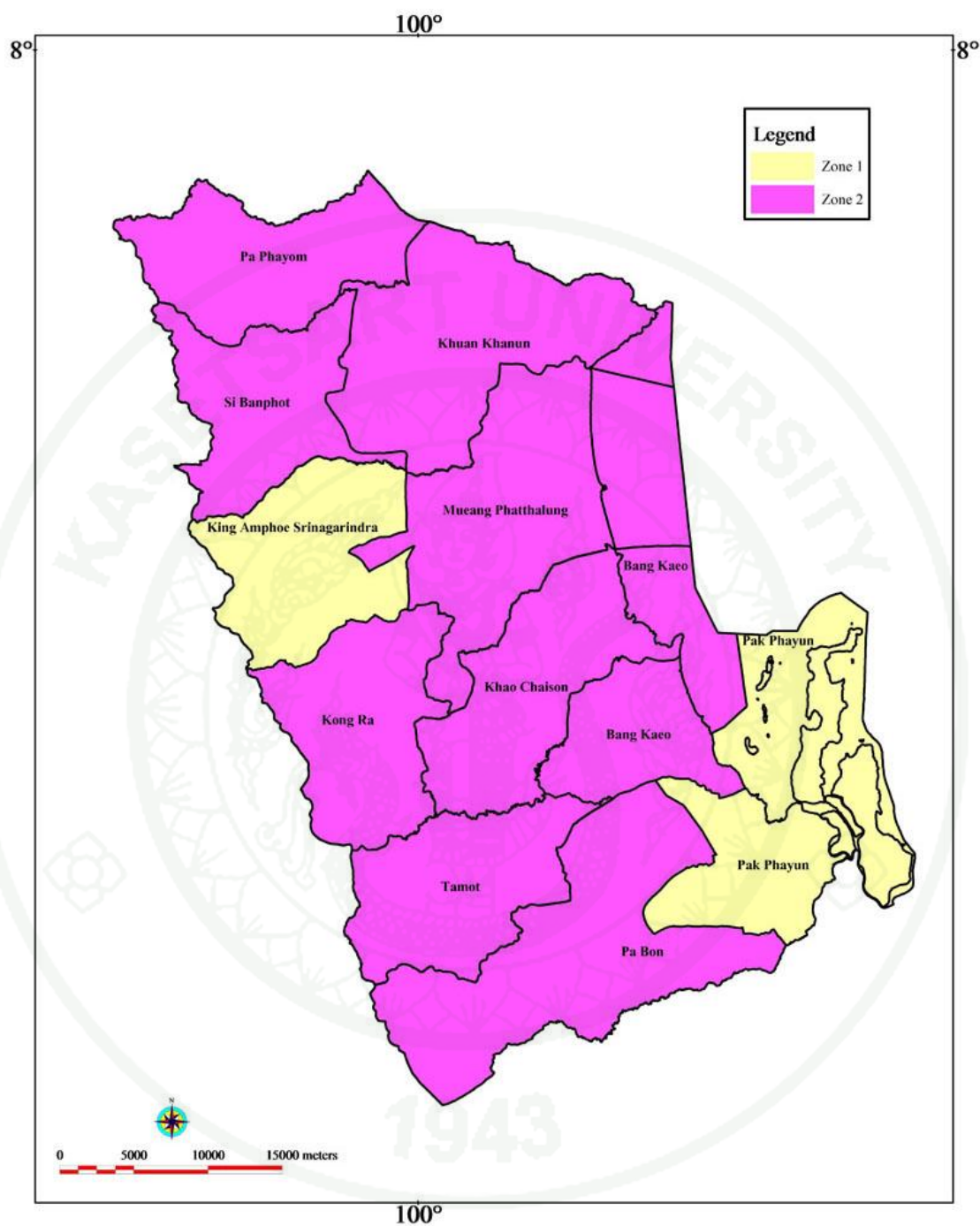
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 92 Map of Zoning for Rambutan in Phatthalung Province

Appendix Table 139 Classification of Land Suitability for Rambutan in Songkhla Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	288,159	6.24
2. Moderately Suitable	741,785	16.05
3. Unsuitable	2,398,527	51.90
4. Existing Forest	715,275	15.48
5. Deforestation	8,737	0.19
6. Water	441,960	9.56
7. Built-up areas	26,737	0.58
Total	4,621,181	100.00

Appendix Table 140 Land Suitability for Rambutan in Songkhla Province by Amphoe, Tambon, Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Songkhla	Thepha	Ko Saba		6,174	6,174	35,675	41,849
		Thepha	78	158	236	23,623	23,858
		Tha Muang	9,486	15,270	24,756	32,613	57,369
		Pak Bang	7,616	8,204	15,819	10,598	26,417
		Lam Phlai	8,356	2,874	11,230	62,622	73,853
		Wang Yai		1,948	1,948	74,669	76,618
		Sakom		11,596	11,596	25,820	37,416
	Thepha Total		25,536	46,223	71,759	265,621	337,380
	Mueang Songkhla	Ko Tao	532	3,213	3,745	9,045	12,790
		Ko Yo	187		187	2,038	2,225
		Khao Rup Chang	629	3,990	4,619	4,509	9,128
		Thung Wang	1,327	4,811	6,138	16,257	22,394
		Bo Yang		11	11	13	23

Appendix Table 140 (Continued)

Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
	Mueang Songkhla	Phawong	10,245	660	10,905	13,934	24,838	
		Mueang Songkhla Total		12,920	12,684	25,604	45,795	71,399
		Krasae Sin	Ko Yai	5,061	5,103	10,164	4,655	14,819
	Krasae	Choeng Sae	356		356	15,251	15,607	
		Rong				20,272	20,272	
		Krasae Sin		9	9	6,733	6,742	
		Krasae Sin Total		5,417	5,111	10,528	46,912	57,440
		Khlong Hoi Khong	Khok Muang	3,572	6,636	10,208	24,094	34,303
	Khlong Hoi Khong	Khlong La	4,673	11,555	16,228	7,620	23,848	
		Khlong Hoi Khong	849	18,921	19,770	41,157	60,927	
		Thung Lan	8,592	3,038	11,630	13,381	25,011	
		Khlong Hoi Khong Total		17,686	40,150	57,836	86,253	144,089
	Khuan Niang	Khuan So	344	15,104	15,447	3,357	18,805	

Appendix Table 140 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Bang Riang	4,672	21,239	25,911	20,242	46,153
		Rattaphum	3,560	17,586	21,145	12,760	33,906
		Huai Luek	117	6,825	6,942	2,883	9,825
	Khuan Niang Total		8,693	60,753	69,446	39,242	108,688
	Chana	Khae	5,483	4,353	9,836	19,185	29,021
		Khun Tat Wai	1,630	1,878	3,508	269	3,777
		Khlong Pia	4,162	5,611	9,772	14,475	24,247
		Khu	7,055	5,892	12,946	2,337	15,284
		Chanong	723	10,227	10,949	14,792	25,742
		Taling Chan	3,790	9,575	13,365	5,148	18,513
		Tha Mo Sai	8,516	5,239	13,755	27,021	40,776
		Na Thap		8,139	8,139	3,249	11,388
		Na Wa	11,307	8,605	19,912	32,945	52,857

Appendix Table 140 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Nam Khao	1,576	3,413	4,989	27,603	32,592
		Ban Na	2,569	7,142	9,711	4,254	13,965
		Pa Ching	976	5,500	6,476	6,901	13,378
		Sakom	153	5,930	6,083	4,305	10,388
		Saphan Mai Kaen	1,702	5,848	7,551	21,622	29,173
	Chana Total		49,642	87,352	136,994	184,106	321,100
	Na Thawi	Khlong Kwang				17,697	17,697
		Khlong Sai	1,232	5,634	6,866	38,093	44,959
		Chang	384	2,393	2,777	7,980	10,758
		Thap Chang		4,910	4,910	26,763	31,674
		Tha Pradu		443	443	22,912	23,355
		Na Thawi		9,036	9,036	55,780	64,816
		Na Mo Si		1,365	1,365	993	2,358

Appendix Table 140 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Na Thawi	Prakop	6,354	12,489	18,844	39,758	58,602
		Plak Nu		1,694	1,694	22,700	24,394
		Sathon	524	2,868	3,392	51,606	54,998
		Na Thawi Total	8,495	40,835	49,329	284,281	333,611
	Na Mom	Khlong Rang		4,104	4,104	17,524	21,629
		Thung Khamin		1,697	1,697	15,524	17,221
		Na Mom	353	2,336	2,689	16,999	19,688
		Phichit	9,373	1,745	11,118	11,967	23,085
	Na Mom Total	9,726	9,882	19,608	62,014	81,623	
	Bang Klam	Ban Han	659	1,654	2,314	183	2,496
		ท่าช้าง	7,539	20,628	28,167	29,176	57,343
		บางกล้า	1,510	6,926	8,436	998	9,435
		บ้านหาร	681	2,742	3,423	798	4,221

Appendix Table 140 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bang Klam Total		10,389	31,951	42,340	31,155	73,495
	Ranot	Daen Sa-nguan		6,044	6,044	20,214	26,258
		Khlong Daen		6,006	6,006	1,397	7,403
		Takhria		19,770	19,770	2,569	22,339
		Tha Bon		1,853	1,853	12,238	14,091
		Bo Tru		1,195	1,195	2,764	3,960
		Ban Mai		24,103	24,103	1,999	26,102
		Ban Khwa		23,861	23,861	1,423	25,283
		Pak Trae				2,278	2,278
		Phang Yang		4,089	4,089	6,715	10,804
		Ranot		50	50	20,573	20,623
		Rawa		987	987	2,500	3,487
		Wat Son		208	208	6,507	6,715

Appendix Table 140 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
	Ranot Total			88,166	88,166	81,177	169,344
	Rattaphum	Khao Phra	15,889	17,788	33,677	50,924	84,601
		Kamphaeng Phet	12,811	38,472	51,283	21,714	72,997
		Khuan Ru	1,082	10,639	11,721	6,168	17,889
		Khuha Tai	3,457	27,313	30,770	1,917	32,687
		Tha Chamuang	20,640	15,104	35,744	48,359	84,103
	Rattaphum Total		53,878	109,317	163,195	129,082	292,277
	Sathing Phra	Kradang-nga		1,552	1,552	2,821	4,373
		Khlung Ri				9,194	9,194
		Khu Khot				8,920	8,920
		Chathing Phra		2,415	2,415	4,142	6,557
		Chumphon	651	2,076	2,727	4,633	7,361
		Di Luang		1,962	1,962	1,754	3,716

Appendix Table 140 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Tha Hin				10,282	10,282
		Bo Daeng		1,278	1,278	3,372	4,650
		Bo Dan		2,038	2,038	3,203	5,242
		Wat Chan		1,464	1,464	3,003	4,468
		Sanam Chai		1,655	1,655	2,511	4,166
	Sathing Phra Total		651	14,442	15,093	53,835	68,928
	Sadao	Khao Mi Kiat	341	7,327	7,668	20,320	27,988
		Tha Pho		6,144	6,144	17,085	23,229
		Thung Mo		9,072	9,072	58,991	68,063
		Prik		16,439	16,439	75,416	91,855
		Padang Besa	1,131	804	1,935	80,593	82,527
		Phang La		7,474	7,474	23,115	30,590
		Sadao		93	93	27,928	28,020

Appendix Table 140 (Continued)

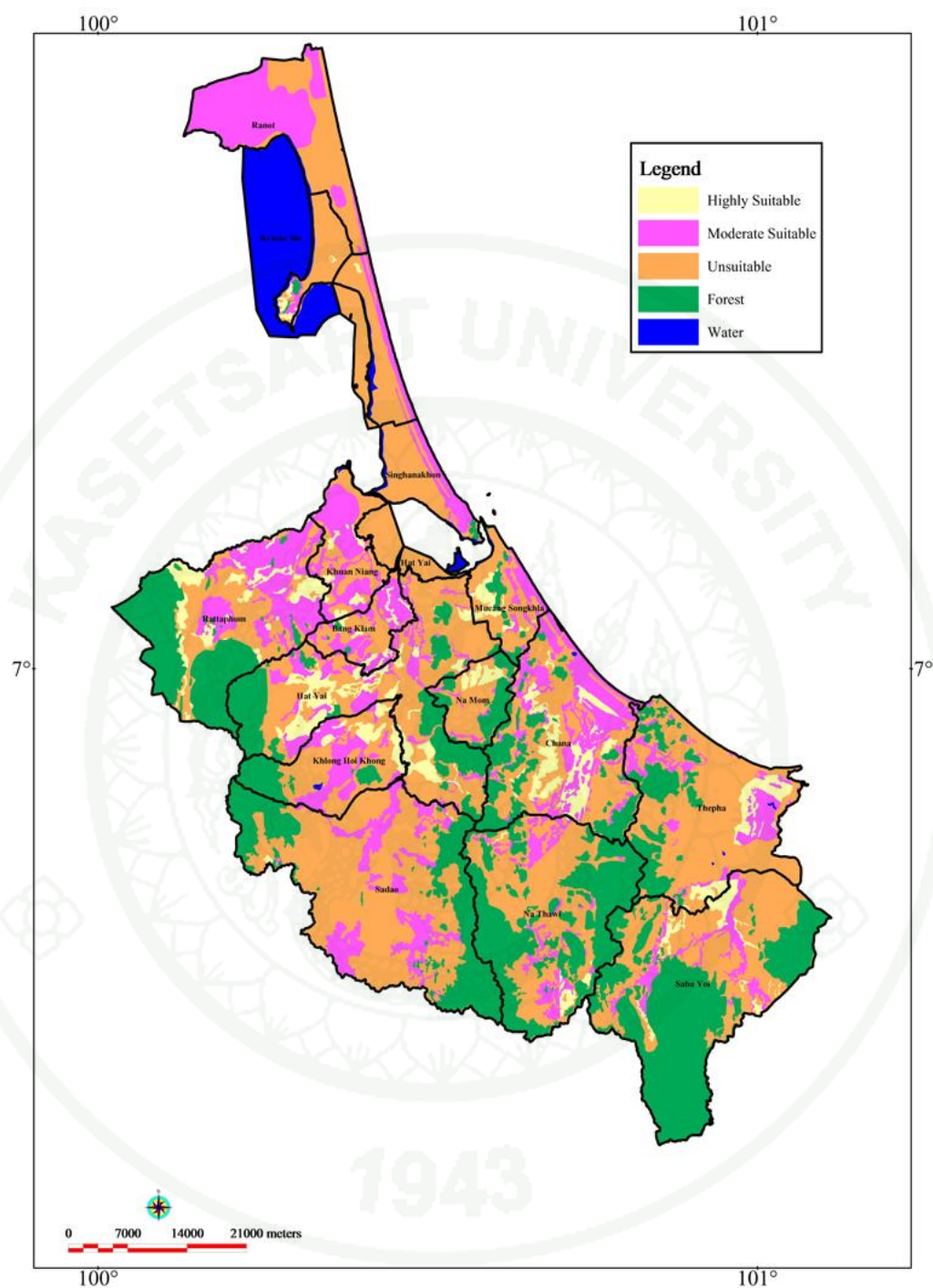
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Samnak Taao		29,775	29,775	100,917	130,692
		Samnak Kham		21,306	21,306	51,302	72,608
	Sadao Total		1,472	98,434	99,906	455,666	555,571
	Saba Yoi	Khao Daeng	2,587	7,594	10,181	43,233	53,414
		Pian		234	234	34,252	34,486
		Khuha	5,785	2,638	8,423	59,449	67,872
		Chanae	1,850	5,137	6,987	22,618	29,605
		Thung Pho	420	4,176	4,596	41,520	46,116
		Than Khiri	565	1,736	2,301	31,829	34,130
		Ba Hoi		210	210	56,606	56,815
		Ban Not		3	3	24,532	24,535
		Saba Yoi	11,410	9,554	20,964	29,756	50,720
	Saba Yoi Total		22,617	31,282	53,899	343,796	397,695

Appendix Table 140 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Singhanakhon		Chalae				5,426	5,426
		Ching Kho		4,795	4,795	3,095	7,891
		Thamnop		48	48	8,442	8,490
		Bang Khiat				10,810	10,810
		Pak Ro				2,107	2,107
		Pa Khat				8,648	8,648
		Muang Ngam		4,296	4,296	5,809	10,105
		Ram Daeng				5,330	5,330
		Wat Khanun		3,264	3,264	3,499	6,764
		Sathing Mo	65	2,651	2,716	1,051	3,767
		Hua Khao		1,102	1,102	1,003	2,105
Singhanakhon Total			65	16,157	16,222	55,222	71,444
Hat Yai		Khlong Hae	527	3,811	4,338	7,454	11,792

Appendix Table 140 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Songkhla		Khlong U Taphao	191	1,807	1,998	351	2,349
		Khuan Lang	7,556	4,313	11,870	10,888	22,758
		Kho Hong	44	968	1,011	8,904	9,916
		Khu Tao	19	1,368	1,388	151	1,539
		Chalung	6,780	13,133	19,914	24,168	44,081
		Tha Kham	1,741	414	2,155	17,284	19,440
		Thung Yai	1,653	1,926	3,579	17,417	20,996
		Thung Tam Sao	25,280	10,532	35,812	42,700	78,512
		Nam Noi	718	1,039	1,757	13,370	15,127
		Ban Phru	5,250	4,421	9,671	29,858	39,529
		Phatong	10,582	5,121	15,704	61,084	76,788
		Hat Yai	630	192	823	740	1,562
		Hat Yai Total		60,972	49,047	110,018	234,370
Songkhla Total			288,159	741,785	1,029,944	2,398,527	3,428,471



Appendix Figure 93 Map of Land Suitability for Rambutan in Songkhla Province

Appendix Table 141 Zoning For Rambutan in Songkhla Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Thepha	25,536	46,223	252	940	2
Khlong Hoi Khong	17,686	40,150	297	1,102	2
Chana	49,642	87,352	295	397	2
Na Thawi	8,495	40,835	1,813	327	1
Na Mom	9,726	9,882	260	521	2
Bang Klam	10,389	31,951	275	133	2
Rattaphum	53,878	109,317	825	3,920	2
Sadao	1,472	98,434	398	910	2
Saba Yoi	22,617	31,282	971	538	2
Hat Yai	60,972	49,047	24	0	2
Songkhla Total	260,413	544,471	5,410	1,029	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 141 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Thepha		25,536			46,223			252	
Khlung Hoi Khong		17,686			40,150			297	
Chana		49,642			87,352			295	
Na Thawi	8,495			40,835			1,813		
Na Mom		9,726			9,882			260	
Bang Klam		10,389			31,951			275	
Rattaphum		53,878			109,317			825	
Sadao		1,472			98,434			398	
Saba Yoi		22,617			31,282			971	
Hat Yai		60,972			49,047			24	
Songkhla Total	8,495	251,918	0	40,835	503,637	0	1,813	3,597	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

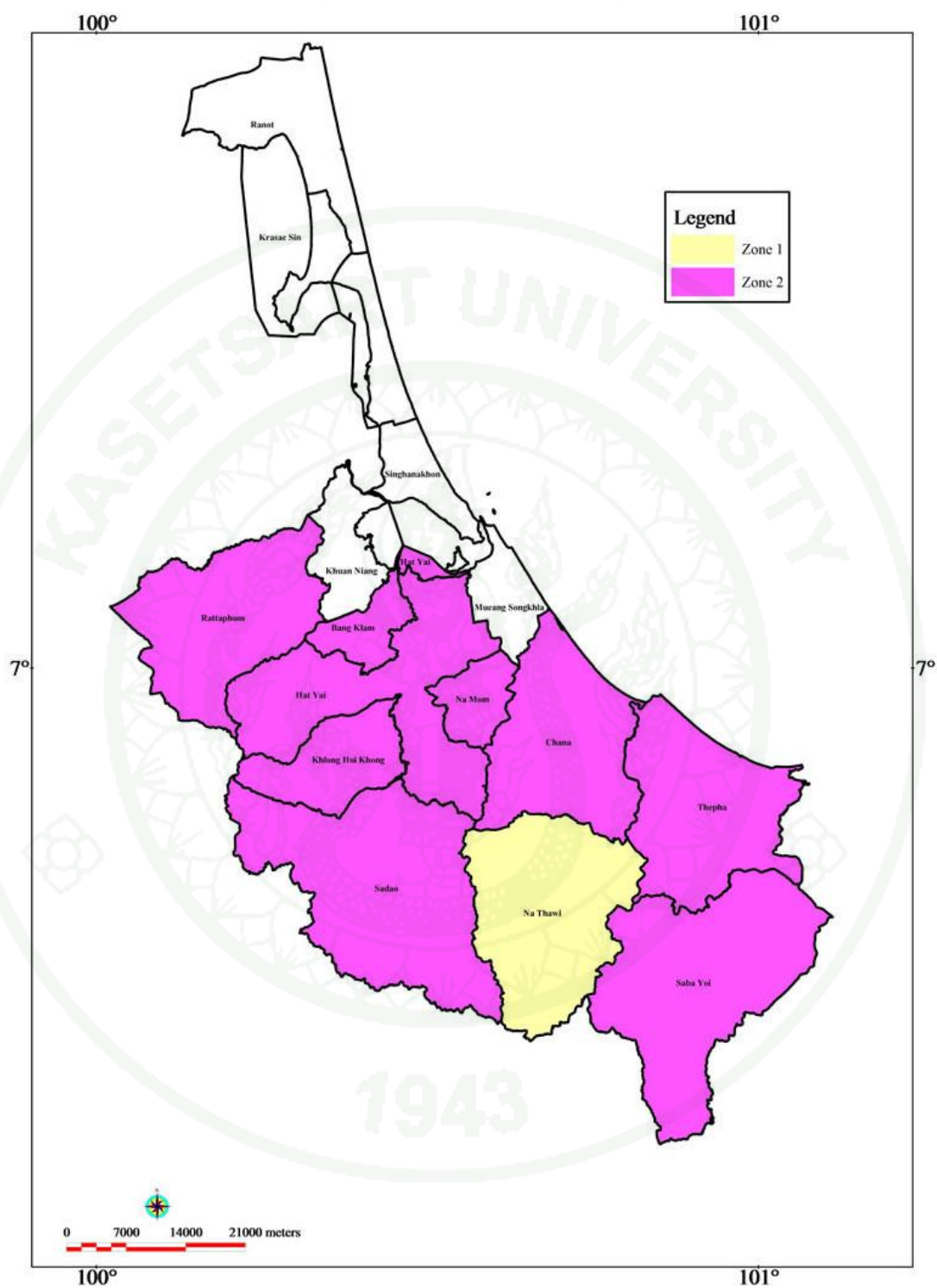
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 94 Map of Zoning for Rambutan in Songkhla Province

Appendix Table 142 Classification of Land Suitability for Rambutan in Satun
Province,Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	133,256	8.60
2. Moderately Suitable	216,535	13.98
3. Unsuitable	397,743	25.67
4. Existing Forest	653,199	42.16
5. Deforestation	46,588	3.01
6. Water	37,452	2.42
7. Built-up areas	64,588	4.17
Total	1,549,361	100.00

Appendix Table 143 Land Suitability for Rambutan in Satun Province by Amphoe,Tambon,Thailand

Province,Thailand			Unit : rai				
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Satun	Mueang Satun	Kretri	1,222	6,949	8,171	5,477	13,647
		Ko Sarai	159	1,007	1,166	948	2,114
		Che Bilang	10,977	23,571	34,548	6,546	41,093
		Khlong Khut	2,209	5,467	7,676	2,753	10,429
		Khuan Pho	2,019	3,609	5,628	11,868	17,495
		Khuan Khan	3,390	2,795	6,185	10,496	16,681
		Chalung	2,360	4,556	6,915	3,002	9,918
		Tanyong Po	658	946	1,604	151	1,755
		Tam Malang		1,268	1,268	435	1,703
		Ban Khuan	3,290	6,515	9,805	1,247	11,053
		Puyu		168	168	284	452
		Phiman				898	898
	Mueang SatunTotal		26,285	56,849	83,133	44,103	127,237

Appendix Table 143 (Continued)

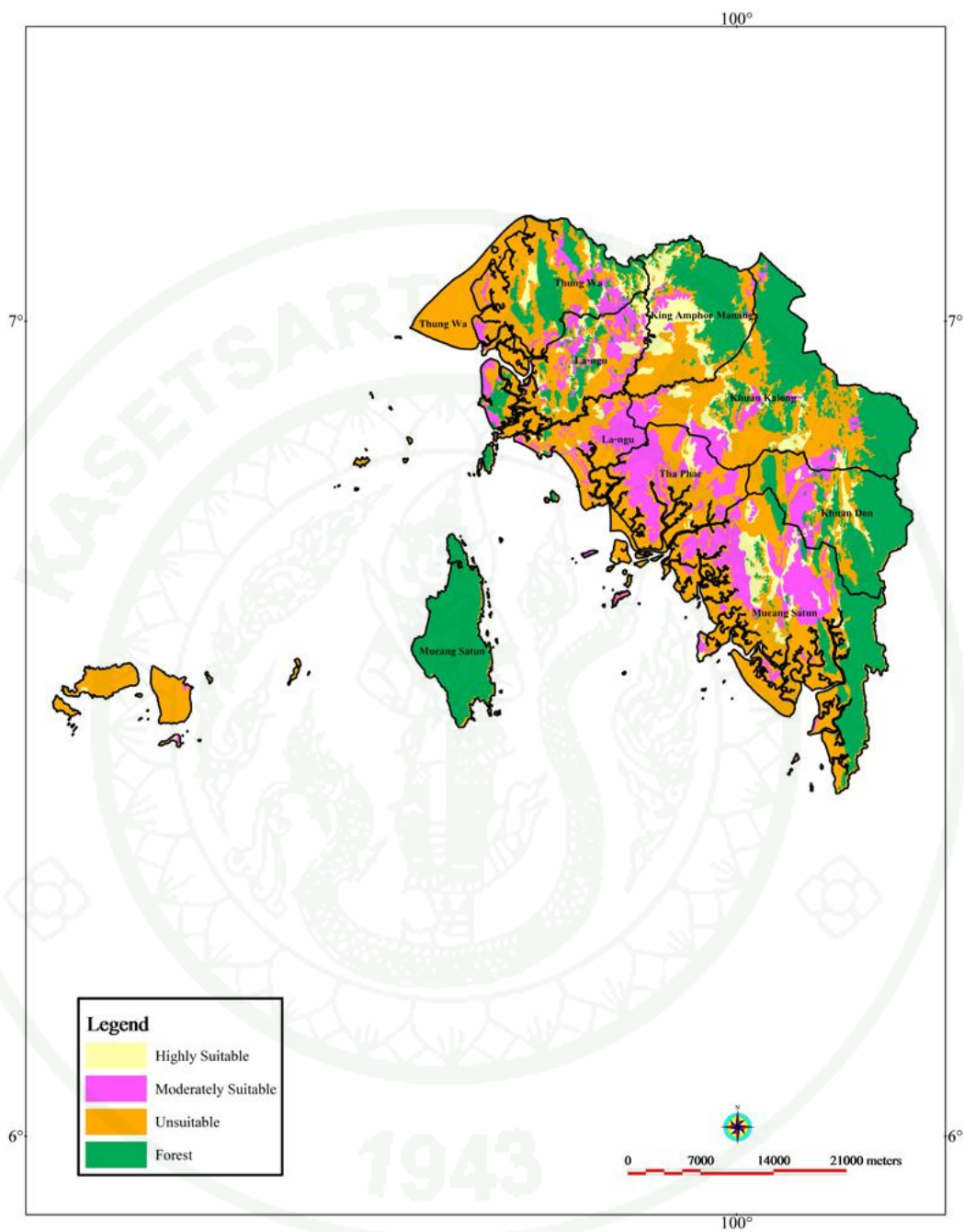
Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Manang	Nikhom Phatthana	10,465	228	10,693	39,311	50,004
		Palm Phatthana	33,518	5,720	39,238	28,299	67,537
	Manang Total		43,982	5,948	49,931	67,610	117,541
	Khuan Don	Khuan Don	1,607	8,665	10,272	18,407	28,679
		Khuan Sato	4,323	3,674	7,997	4,300	12,297
		Yan Sue	211	4,145	4,357	283	4,640
		Wang Prachan	3,336		3,336	4,664	8,000
Khuan Don Total		9,478	16,484	25,962	27,654	53,616	
	Khuan Kalong	Khuan Kalong	13,117	10,328	23,445	40,263	63,708
		Thung Nui	2,634	5,807	8,441	34,960	43,401
		Udai Charoen	8,253	10,669	18,922	47,695	66,618
Khuan Kalong Total		24,004	26,805	50,809	122,919	173,727	
Tha Phae	Pae-ra		2,834	6,697	9,531	6,577	16,109

Appendix Table 143 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Tha Ruea	755	16,013	16,768	8,396	25,164
		Tha Phae	133	11,425	11,559	14,865	26,424
		Sakhon	42	11,339	11,381	3,045	14,426
	Tha Phae Total		3,764	45,475	49,240	32,884	82,123
	Thung Wa	Khon Khlan	4,900	3,266	8,166	24,921	33,087
		Thung Bulang		444	444	704	1,147
		Na Thon	1,406	2,663	4,069	9,618	13,687
		Pa Kae Bo Hin	7,771	11,926	19,696	18,375	38,071
	Thung Wa Total		14,077	18,298	32,375	53,618	85,993
	La-ngu	Khao Khao	475	2,808	3,282	7,618	10,900
		Laem Son	201	3,592	3,793	3,992	7,785
		Nam Phut	8,221	13,650	21,871	11,311	33,182
		Pak Nam	391	4,034	4,426	4,519	8,945

Appendix Table 143 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Satun		La-ngu	1,543	22,592	24,134	21,515	45,650
	La-ngu Total		10,831	46,676	57,507	48,955	106,461
	Satun Total		132,421	216,535	348,956	397,743	746,698



Appendix Figure 95 Map of Land Suitability for Rambutan in Satun Province

Appendix Table 144 Zoning For Rambutan in Satun Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Satun	26,285	56,849	254	496	2
Manang	43,982	5,948	261	1,394	2
Khuan Don	9,478	16,484	1,347	670	1
Khuan Kalong	24,004	26,805	2,489	399	1
Tha Phae	3,764	45,475	179	290	2
Thung Wa	14,077	18,298	78	803	2
La-ngu	10,831	46,676	535	1,084	2
Satun Total	132,421	216,535	5,144	599	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 144 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Mueang Satun		26,285			56,849			254	
Manang		43,982			5,948			261	
Khuan Don	9,478			16,484			1,347		
Khuan Kalong	24,004			26,805			2,489		
Tha Phae		3,764			45,475			179	
Thung Wa		14,077			18,298			78	
La-ngu		10,831			46,676			535	
Satun Total	33,482	98,940	0	43,289	173,246	0	3,836	1,308	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

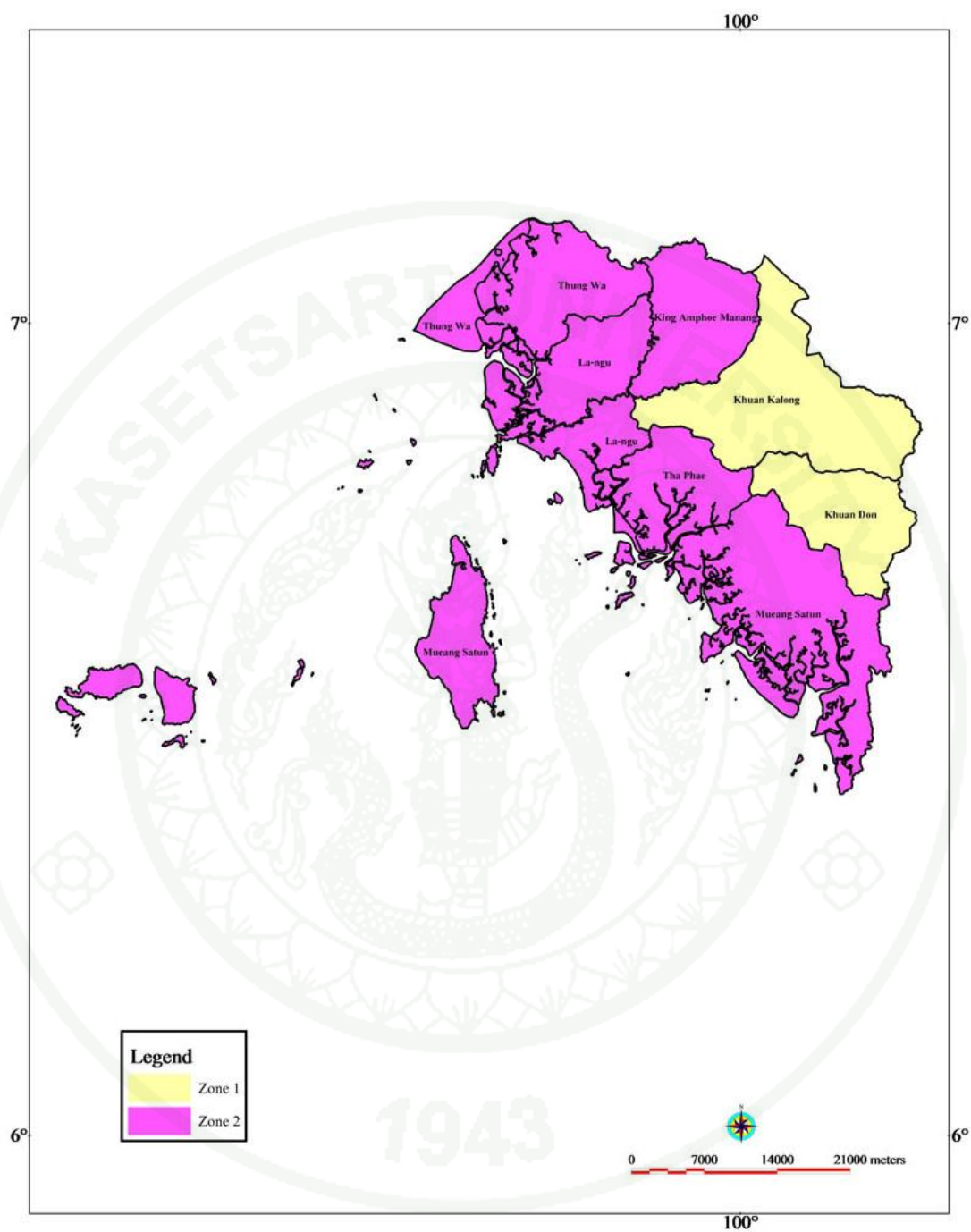
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 96 Map of Zoning for Rambutan in Satun Province

Appendix Table 145 Classification of Land Suitability for Rambutan in Pattani
Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	225,624	18.60
2. Moderately Suitable	417,187	34.40
3. Unsuitable	275,252	22.70
4. Existing Forest	92,616	7.64
5. Deforestation	80,330	6.62
6. Water	23,383	1.93
7. Built-up areas	98,330	8.11
Total	1,212,722	100.00

Appendix Table 146 Land Suitability for Rambutan in Pattani Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Pattani	Mueang Pattani	Kamiyo	1,324	2,508	3,832		3,832
		Khlong Maning	2,502	1,238	3,740		3,740
		Talubo	531	1,955	2,486	12	2,498
		Tanyong Lulo	62	49	112	342	454
		Bana	525	1,199	1,725	538	2,263
		Baraho	2,188	4,590	6,778		6,778
		Barahom	126	157	283	132	415
		Paka Harang	1,518	4,071	5,589		5,589
		Puyut	564	3,522	4,086		4,086
		Rusa Milae	4	279	284	1,645	1,928
		Sabarang				229	229
		Mueang Pattani Total	9,345	19,569	28,913	2,897	31,811
	Mae Lan	Mae Lan	3,385	338	3,723	12,345	16,068

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Mae Lan Total	Pa Rai	3,971	2,909	6,879	10,128	17,008
		Muang Tia	3,326	7,885	11,211	3,306	14,517
			10,682	11,131	21,813	25,780	47,593
	Khok Pho	Khok Pho	1,027	5,521	6,548	12,287	18,835
		Khuan Nori	1,013	614	1,628	13,269	14,897
		Chang Hai Tok	748	336	1,084	6,062	7,146
		Sai Khao	632	830	1,462	8,226	9,688
		Tha Ruea	1,684	9,919	11,603	6,126	17,729
		Thung Phala	4,827		4,827	6,393	11,221
		Na Ket	498	8,643	9,141	7,923	17,064
		Na Pradu	4,748	1,381	6,129	14,584	20,713
		Bang Kro	626	6,333	6,959		6,959
		Pak Lo	4,352		4,352	10,864	15,216

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Khok Pho	Pa Bon	351	3,600	3,951	4,064	8,015
		Makrut	19	5,183	5,203	5,876	11,079
		Khok Pho Total	20,527	42,360	62,887	95,674	158,562
	Mai Kaen	Sai Thong	3,331	5,800	9,131	3,168	12,299
		Mai Kaen	1,076	4,853	5,929	1,641	7,570
		Don Sai	1,701	4,551	6,252	944	7,196
		Talo Kraithong	575	2,021	2,595		2,595
	Mai Kaen Total	6,682	17,226	23,907	5,752	29,659	
	Kapho	Karubi	3,603	10,032	13,635	13	13,647
		Talo Tue Raman	3,266	4,113	7,379		7,379
		Plong Hoi	7,445	15,439	22,885	304	23,189
	Kapho Total	14,314	29,584	43,898	316	44,215	
	Thung Yang Daeng	Talo Maena	4,333	1,369	5,702	6,609	12,311

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Thung Yang Daeng		Nam Dam	3,005	1,305	4,310	3,540	7,850
		Paku	8,234	6,850	15,084	4,059	19,143
		Phithen	8,165	2,036	10,201	17,550	27,751
		Thung Yang Daeng Total	23,737	11,561	35,298	31,757	67,055
	Panare	Khuan	457	2	459	2,430	2,889
		Khok Krabue	320	679	999	823	1,822
		Don	662	3,931	4,593		4,593
		Tha Kham	1,183	1,409	2,592		2,592
		Tha Nam	82	1,239	1,321	2,425	3,746
		Ban Klang	3,236	3,201	6,436	614	7,051
		Ban Nok	784	5,858	6,642		6,642
		Nam Bo		687	687	1,044	1,731
		Pho Ming		317	317	2,642	2,960

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mayo	Panare Total	Panare	2,745	1,177	3,922	61	3,983
			9,468	18,501	27,968	10,039	38,008
	Mayo	Ko Chan	1,997	7,269	9,266		9,266
		Kraso		2,438	2,438		2,438
		Krawa	30	574	604	208	811
		Trang	1,825	6,425	8,250	3,170	11,420
		Thanon	1,279	3,432	4,711	311	5,022
		Pado	2,266	2,936	5,202	5,131	10,333
		Panan	661	5,711	6,373		6,373
		Mayo	2,641	1,892	4,533	2,867	7,399
		La-nga	1,425	2,115	3,540	3,325	6,866
		Lubo Yilai	6,946	5,850	12,795	20,475	33,271
		Sakam	2,134	60	2,194	3,672	5,866

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Mayo	Yarang	Sakho Tai	433	3,127	3,560		3,560
		Sakho Bon	711	2,058	2,769		2,769
		Mayo Total	22,347	43,887	66,234	39,160	105,393
		Khao Tum	8,857	6,376	15,233	17,305	32,539
		Mo Mawi	1,609	6,505	8,113	3,654	11,768
		Krado	1,462	2,100	3,562		3,562
		Kolam	3,432	5,089	8,521	7,674	16,195
		Khlong Mai	1,600	8,607	10,207		10,207
		Prachan	48	6,315	6,363		6,363
		Pitu Mudi	1,222	4,343	5,565		5,565
		Yarang	1,205	5,656	6,861		6,861
		Rawaeng	2,928	3,670	6,598		6,598
		Wat	4,440	3,476	7,916		7,916

Appendix Table 146 (Continued)

Unit : rai						
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable
			Highly	Moderately	Total	
	Yarang	Sadawa	3,265	5,687	8,952	
		Sano	1,115	4,297	5,412	
		Yarang Total	31,183	62,120	93,303	28,634
	Yaring	Laem Pho		0	0	3,174
		Charang	2,268	2,921	5,189	
		Tolang	797	2,436	3,233	
		Talo	1,223	7,120	8,342	
		Talo Kapo	503	7,181	7,684	1,822
		Tanyong Chueng-n	2,119	3,795	5,914	
		Tanyong Talo	525	2,393	2,919	
		Takae	1,321	2,991	4,312	
		Tali-ai	6,341	1,661	8,002	
		Baloi	1,066	1,758	2,824	

Appendix Table 146 (Continued)

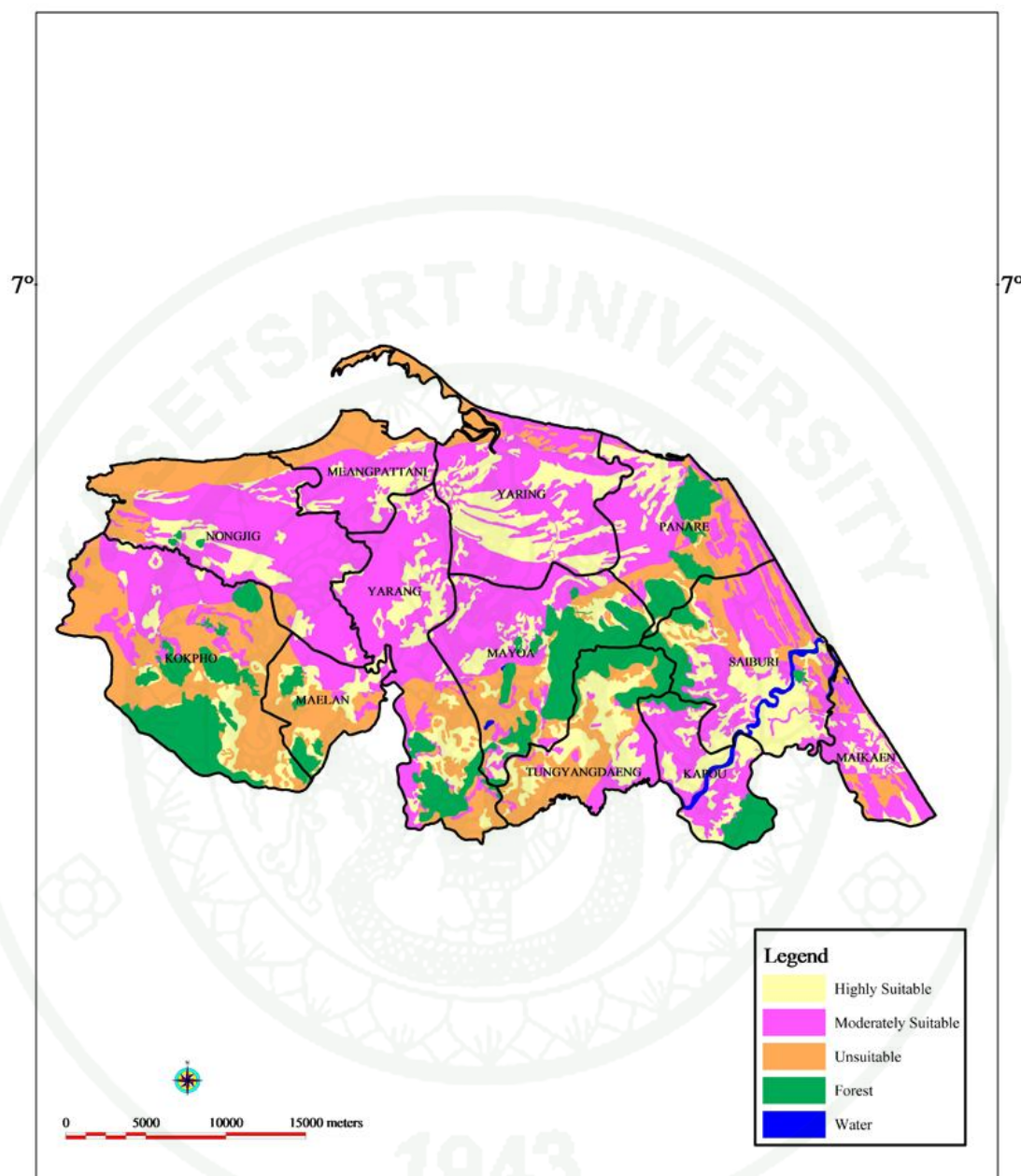
Unit : rai								
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total	
			Highly	Moderately	Total			
Yaring		Bang Pu	17	831	848	6	855	
		Piya Mumang	635	2,323	2,958		2,958	
		Pulakong	190	5,033	5,223		5,223	
		Manang Yong	1,799	3,710	5,509		5,509	
		Yamu	1,812	2,223	4,035	6	4,041	
		Rata Panyang	4,212	2,914	7,126		7,126	
		Saban	101	2,037	2,138		2,138	
		Nong Raet	1,276	2,890	4,166	62	4,227	
		Yaring Total	26,204	54,218	80,422	5,070	85,491	
	Sai Buri		Tro Bon	4,163	11,673	15,836	652	16,488
			Paen	0	1,936	1,936	3,666	5,602
			Kadunong	3,523	2,592	6,115		6,115
		Tabing	6,514	3,234	9,748	739	10,487	

Appendix Table 146 (Continued)

Unit : rai							
Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Sai Buri		Taluban	882	2,422	3,305	2,562	5,867
		Thung Khla	822	40	862	3,879	4,741
		Bang Kao		753	753	649	1,402
		Bue Re	908	2,922	3,830	1,951	5,780
		Pase Yawo	600	3,584	4,184	1,672	5,856
		Manang Damlam	9,775	684	10,459		10,459
		Lahan	5,792	4,559	10,351	773	11,124
		Sai Buri Total	32,978	34,400	67,378	16,543	83,921
		Nong Chik					
		Ko Po	94	2,827	2,921		2,921
		Kholo Tanyong	720	10,211	10,931	2,098	13,029
		Don Rak	1,088	3,845	4,933	780	5,713
		Dato	1,846	10,086	11,931	455	12,386
	Tuyong	784	8,420	9,204	1,311	10,515	

Appendix Table 146 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Tha Kamcham	994	1,599	2,593	5,849	8,442
		Bo Thong	6,891	5,837	12,728	67	12,795
		Bang Khao	1,877	6,129	8,006	2,883	10,889
		Bang Tawa				169	169
		Pulo Puyo	3,165	8,008	11,173	17	11,190
		Yabi	689	8,121	8,811		8,811
		Lipa Sa-ngo	11	7,548	7,559		7,559
	Nong Chik Total		18,158	72,631	90,790	13,629	104,418
Pattani Total			225,624	417,187	642,811	275,252	918,063



Appendix Figure 97 Map of Land Suitability for Rambutan in Pattani Province

Appendix Table 147 Zoning For Rambutan in Pattani Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Mueang Pattani	9,345	19,569	31	0	2
Mae Lan	10,682	11,131	203	217	2
Khok Pho	20,527	42,360	453	479	2
Kapho	14,314	29,584	578	370	2
Thung Yang Daeng	23,737	11,561	87	1,186	1
Mayo	22,347	43,887	13	8	2
Yarang	31,183	62,120	138	80	2
Yaring	26,204	54,218	1	0	2
Sai Buri	32,978	34,400	124	0	2
Pattani Total	191,316	308,830	1,628	362	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 147 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable			level 1	level 2	level 0
	level 1	level 2	level 0	level 1	level 2	level 0			
Mueang Pattani		9,345			19,569			31	
Mae Lan		10,682			11,131			203	
Khok Pho		20,527			42,360			453	
Kapho		14,314			29,584			578	
Thung Yang Daeng	23,737			11,561			87		
Mayo		22,347			43,887			13	
Yarang		31,183			62,120			138	
Yaring		26,204			54,218			1	
Sai Buri		32,978			34,400			124	
Pattani Total	23,737	167,579	0	11,561	297,268	0	87	1,541	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

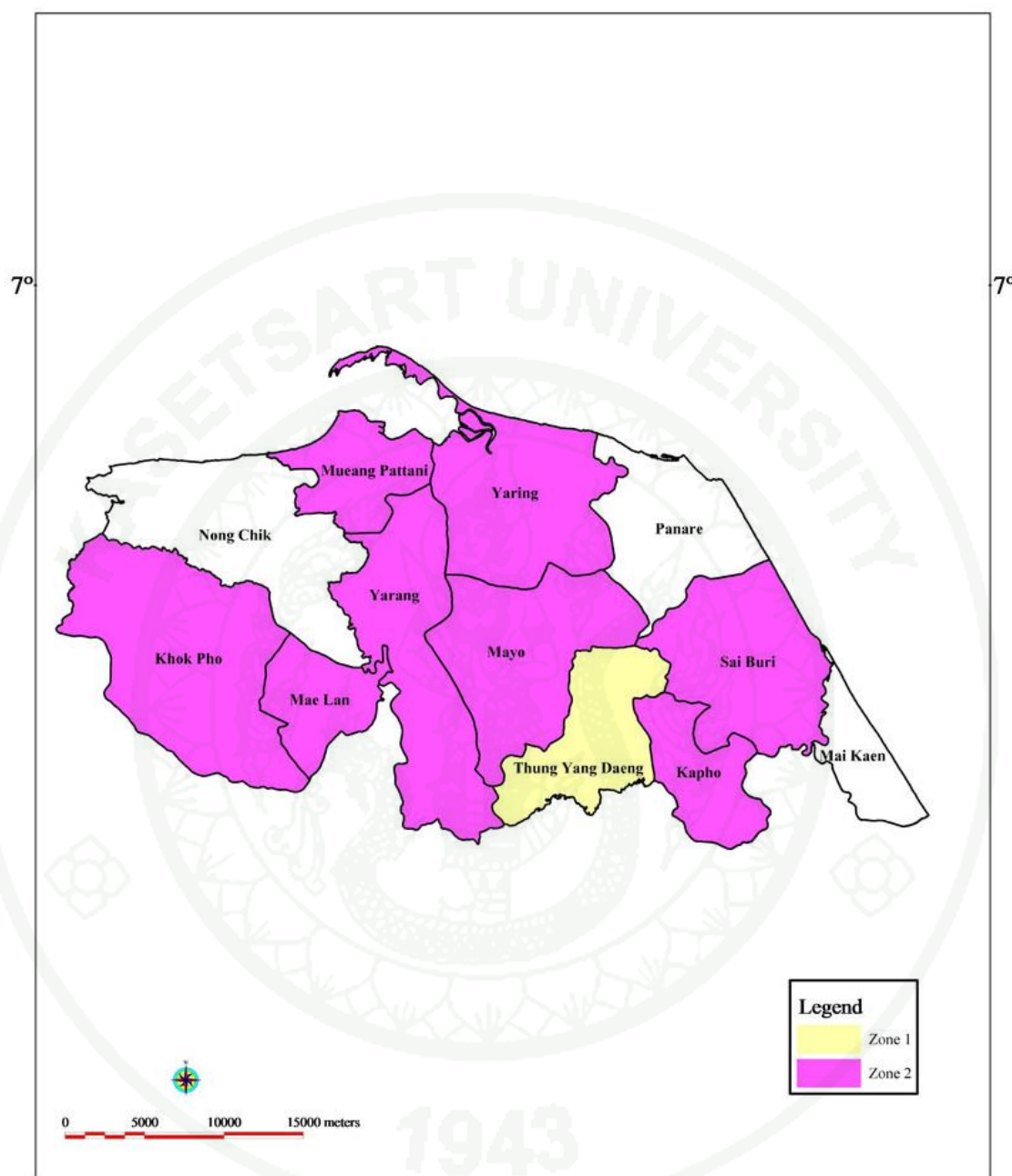
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 98 Map of Zoning for Rambutan in Pattani Province

Appendix Table 148 Classification of Land Suitability for Rambutan in Yala Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	223,905	7.92
2. Moderately Suitable	154,427	5.47
3. Unsuitable	1,343,006	47.53
4. Existing Forest	964,606	34.14
5. Deforestation	39,491	1.40
6. Water	42,747	1.51
7. Built-up areas	57,491	2.03
Total	2,825,674	100.00

Appendix Table 149 Land Suitability for Rambutan in Yala Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Yala	Betong	Betong	3,217		3,217	37,942	41,160
		Tano Maero	51	280	330	116,018	116,348
		Than Nam Thip	930	1,039	1,969	17,206	19,175
		Yarom	1,203	605	1,809	113,216	115,024
		Aiyoeweng				104,780	104,780
	Betong Total		5,401	1,924	7,325	389,162	396,487
	Mueang Yala	Po Seng	3,513	6,550	10,064	451	10,515
		Tase	3,470	4,419	7,888	4,075	11,964
		Tha Sap	1,718	6,780	8,497	2,432	10,930
		Bannang Sareng	6,849	5,026	11,875	306	12,181
		Budi	4,873	7,398	12,271	4,737	17,008
		Phron	718	2,742	3,460	6,622	10,082
		Yupo	2,150	9,405	11,555	4,576	16,131

Appendix Table 149 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Lam Mai	1,496	786	2,282	12,205	14,487
		Lam Phaya	837		837	12,817	13,654
		Lidon	1,594	2,891	4,485	2,909	7,394
		Sateng	250	2,634	2,884		2,884
		Sateng Nok	4,167	3,595	7,761	4,082	11,843
		Na Tham	2,186	807	2,993		2,993
		Yala		166	166	3,665	3,831
	Mueang Yala Total		33,820	53,198	87,019	58,878	145,896
	Kabang	Kabang	9,299	8,227	17,526	37,922	55,448
		Bala	9,849	2,824	12,672	60,773	73,445
	Kabang Total		19,148	11,050	30,198	98,695	128,894
	Krong Pinang	Krong Pinang	10,265	4,534	14,799	4,932	19,731
		Purong	5,317	3,497	8,814	4,890	13,705

Appendix Table 149 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Sa-ae	8,107	2,446	10,553	33,070	43,623
		Huai Krathing	2,696	856	3,551	10,643	14,194
	Krong Pinang Total		26,385	11,333	37,718	53,535	91,253
	Than To	Mae Wat				86,300	86,300
		Khiri Khet				26,153	26,153
		Than To				34,820	34,820
		Ban Rae				38,460	38,460
	Than To Total					185,733	185,733
	Bannang Sata	Khuean Bang Lang				39,026	39,026
		Taling Chan	4,760	936	5,696	58,745	64,442
		Tanao Pute	8,331	329	8,660	23,917	32,577
		Tham Thalu				27,480	27,480
		Bannang Sata	10,074	505	10,579	64,469	75,048

Appendix Table 149 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Bacho	4,319	44	4,364	24,160	28,523
	Bannang Sata Total		27,485	1,814	29,299	237,796	267,095
	Yaha	Katong	1,085	8,958	10,043	11,734	21,777
		Tasi	4,634		4,634	17,817	22,451
		Ba-ngoi Sinae	2,693		2,693	6,217	8,910
		Baro	8,917	492	9,409	28,386	37,796
		Patae	17,721	9,300	27,022	85,622	112,644
		Yaha	2,693		2,693	21,724	24,417
		La-ae	4,202	5,692	9,894	18,682	28,575
	Yaha Total		41,945	24,442	66,387	190,182	256,570
	Raman	Kero	17,257	7,716	24,972	2,001	26,974
		Noen Ngam	1,077		1,077	10,960	12,037
		Kota Baru	415		415	3,999	4,414

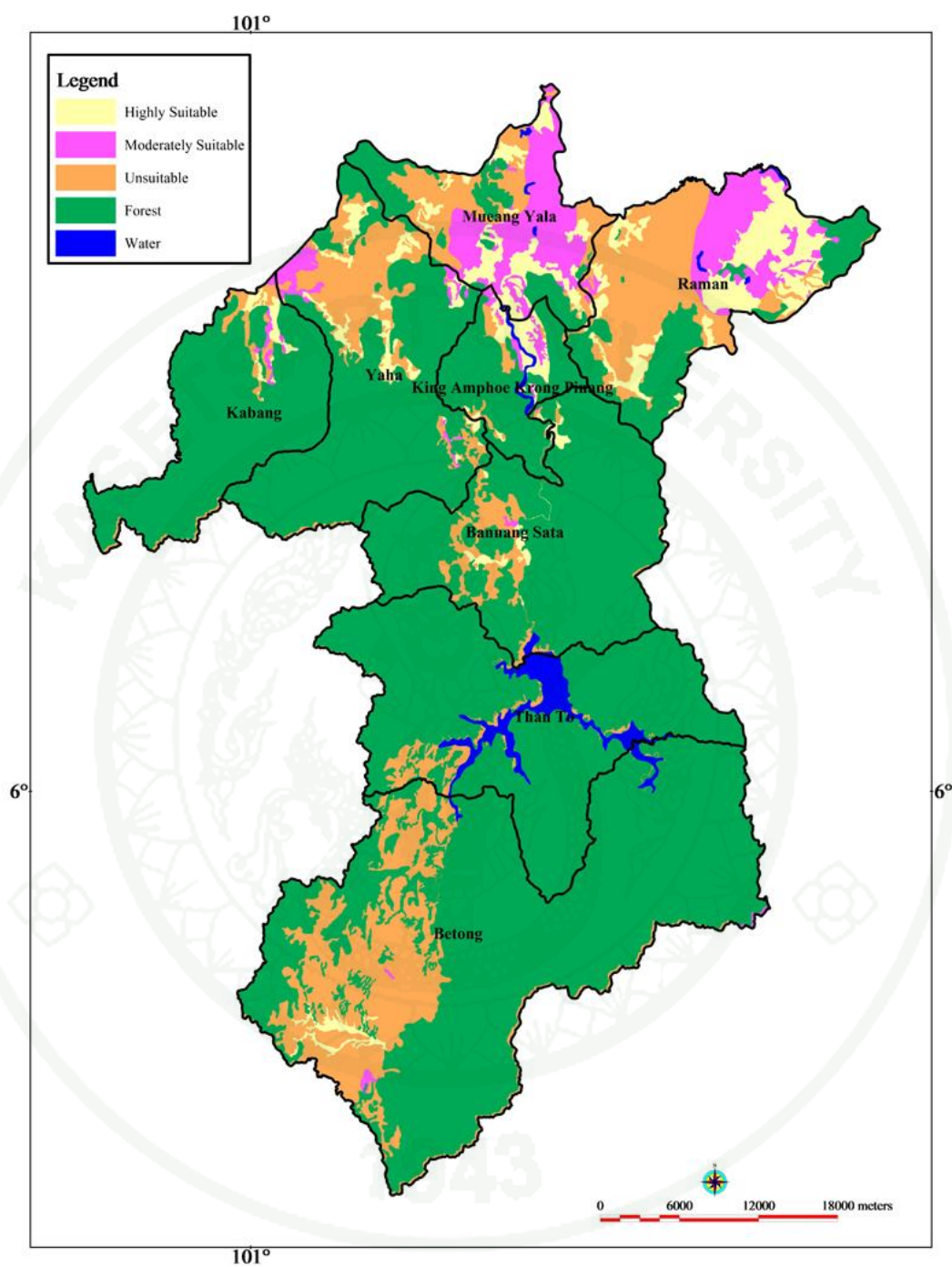
Appendix Table 149 (Continued)

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unit : rai	
			Highly	Moderately	Total	Unsuitable	Whole total
		Koto Tuera				9,752	9,752
		Kayu Boko	808	1,961	2,769	14,340	17,109
		Kalo	5,300	0	5,301	11,100	16,401
		Kalupang				5,320	5,320
		Cha-kwa	9,647	3,681	13,328	1,948	15,276
		Talo Halo	13,152	6,304	19,456	5,886	25,342
		Tha Thong	987	12,233	13,221	9,696	22,917
		Ba-ngoi	2,045	1,298	3,343	4,920	8,263
		Balo	4,205	835	5,039	9,425	14,464
		Buemang	4,312		4,312	12,864	17,176
		Yata	3,516		3,516	10,942	14,457
		Wang Phaya	3,526		3,526	13,808	17,334
		A-song	3,474	16,638	20,112	2,065	22,176

Appendix Table 149 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Raman Total		69,720	50,665	120,386	129,025	249,411
	Yala Total		223,905	154,427	378,332	1,343,006	1,721,338



Appendix Figure 99 Map of Land Suitability for Rambutan in Yala Province

Appendix Table 150 Zoning For Rambutan in Yala Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Betong	5,401	1,924	463	835	2
Krong Pinang	26,385	11,333	456	1,218	2
Than To			2,291	514	2
Bannang Sata	27,485	1,814	142	619	2
Yaha	41,945	24,442	283	409	2
Raman	69,720	50,665	625	518	2
Yala Total	170,936	90,179	4,260	622	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 150 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Betong		5,401			1,924			463	
Krong Pinang		26,385			11,333			456	
Than To								2,291	
Bannang Sata		27,485			1,814			142	
Yaha		41,945			24,442			283	
Raman		69,720			50,665			625	
Yala Total	0	170,936	0	0	90,179	0	0	4,260	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

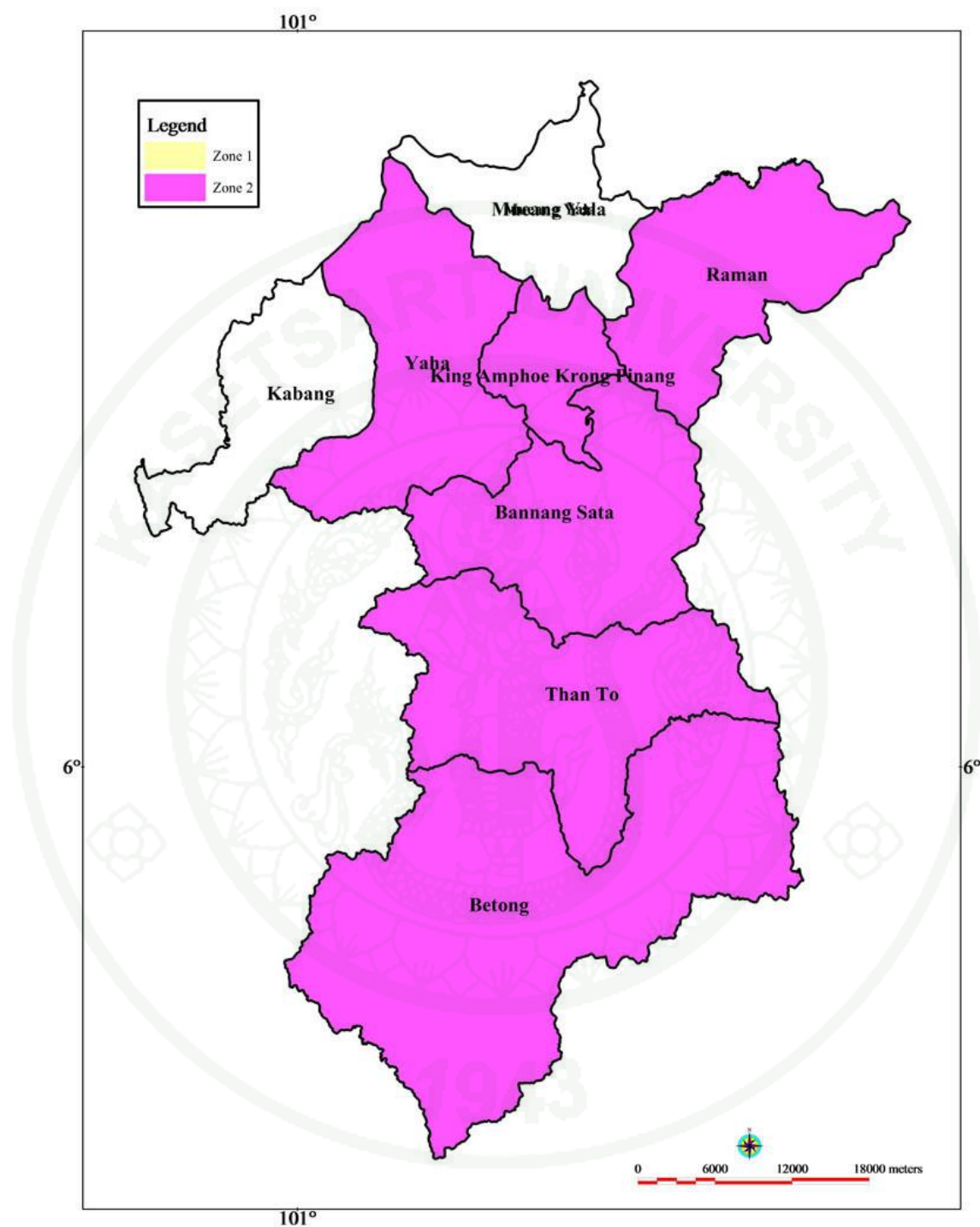
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 100 Map of Zoning for Rambutan in Yala Province

Appendix Table 151 Classification of Land Suitability for Rambutan in Narathiwat Province, Thailand

Class	Area (rai)	Percentage (%)
1. Highly Suitable	631,187	22.57
2. Moderately Suitable	600,214	21.46
3. Unsuitable	523,698	18.72
4. Existing Forest	875,564	31.30
5. Deforestation	63,686	2.28
6. Water	21,108	0.75
7. Built-up areas	81,686	2.92
Total	2,797,144	100.00

Appendix Table 152 Land Suitability for Rambutan in Narathiwat Province by Amphoe,Tambon,Thailand

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Narathiwat	Cho-airong	Chuap	14,517	1,938	16,454	7,532	23,986
		Bukit	7,366	8,961	16,328	13,421	29,748
		Maruebo Ok	11,185	7,375	18,560	2,909	21,470
	Cho-airong Total		33,068	18,274	51,342	23,862	75,204
	Mueang Narathiwat	Khok Khian	5,466	7,938	13,405	2,161	15,566
		Kaluwo	15,784	5,571	21,355		21,355
		Kaluwo Nuea	4,440	7,055	11,495	1,799	13,294
		Bang Nak	15	240	255	469	724
		Bang Po	6,274	10,928	17,202	1,202	18,404
		Manang Tayo	4,215	851	5,065	13,149	18,214
		Lamphu	9,591	7,441	17,032	1,709	18,741
	Mueang Narathiwat Total		45,785	40,024	85,810	20,489	106,298
	Waeng	Erawan	9,780	2,367	12,147		12,147

Appendix Table 152 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Mae Dong	10,452	2,814	13,266		13,266
		Waeng	11,085	7,413	18,497		18,497
		Lochut	19,304	16,691	35,995		35,995
		Kayu Khla	17,672	7,738	25,410		25,410
		Kolo	13,482	9,031	22,513		22,513
	Waeng Total		81,774	46,054	127,828		127,828
	Chanae	Chanae	20,910	22,632	43,542		43,542
		Chang Phueak	24,248	75,129	99,377	1,611	100,988
		Dusongyo	13,167	25,589	38,756	12,163	50,920
		Phadung Mat	6,404	6,031	12,435		12,435
	Chanae Total		64,729	129,382	194,110	13,774	207,885
	Tak Bai	Ko Sathon		8,801	8,801	617	9,418
		Chehe	790	2,261	3,051	3,117	6,168

Appendix Table 152 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Kosit	342	14,724	15,066		15,066
		Phraiwan	6,799	8,623	15,422	2,277	17,699
		Na Nak	188	6,100	6,288	1,097	7,385
		Bang Khun Thon;	4,140	12,134	16,275		16,275
		Phron		13,986	13,986	50	14,035
		Sala Mai	1,072	3,831	4,902	2,229	7,131
	Tak Bai Total		13,332	70,460	83,791	9,386	93,178
	Bacho	Kayo Mati	3,816	4,626	8,442	4,799	13,241
		Bacho	4,976	3,551	8,527	7,252	15,779
		Bare Nuea	3,347	3,824	7,171	4,075	11,246
		Bare Tai	2,205	4,728	6,934	1,540	8,473
		Paluka Samo	4,739	9,172	13,911	4,639	18,550
		Lubo Sawo	2,641	8,232	10,873	1,683	12,557

Appendix Table 152 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
	Bacho Total		21,724	34,133	55,858	23,988	79,845
	Yi-ngo	Cho Bo		485	485	15,979	16,464
		Tapoyo	2,359	3,935	6,294	7,767	14,060
		Yi-ngo		6,000	6,000	7,515	13,515
		Lahan	2,577	5,296	7,873	4,944	12,817
		Lubo Baya	1,986	437	2,424	5,899	8,323
		Lubo Buesa	1,574	8,196	9,769	4,376	14,145
	Yi-ngo Total		8,496	24,349	32,845	46,479	79,324
	Ra-ngae	Chaloem	984		984	30,149	31,132
		Kalicha	6,296	4,675	10,971	27,966	38,937
		Tanyong Mat	2,505	623	3,129	22,477	25,606
		Tanyong Limo	9,958	7,267	17,225	5,909	23,134
		Bo-ngo	27,419	17,390	44,809	16,264	61,073

Appendix Table 152 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Ba-ngo Sato	3,617	74	3,691	10,170	13,861
		Marue Botok	4,192		4,192	15,069	19,261
	Ra-ngae Total		54,971	30,030	85,001	128,004	213,005
	Rueso	Riang	7,653	946	8,598	14,167	22,766
		Khok Sato	5,961		5,961	22,808	28,769
		Batong	13,021		13,021	19,472	32,493
		Rueso	12,687	481	13,168	16,790	29,958
		Rueso Ok	2,934		2,934	14,507	17,441
		Lalo	3,864	717	4,581	22,612	27,193
		Samakkhi				19,694	19,694
		Sawo	16,150	5	16,154	12,030	28,184
		Suwari	3,900	314	4,214	20,726	24,940
	Rueso Total		66,170	2,462	68,631	162,806	231,438

Appendix Table 152 (Continued)

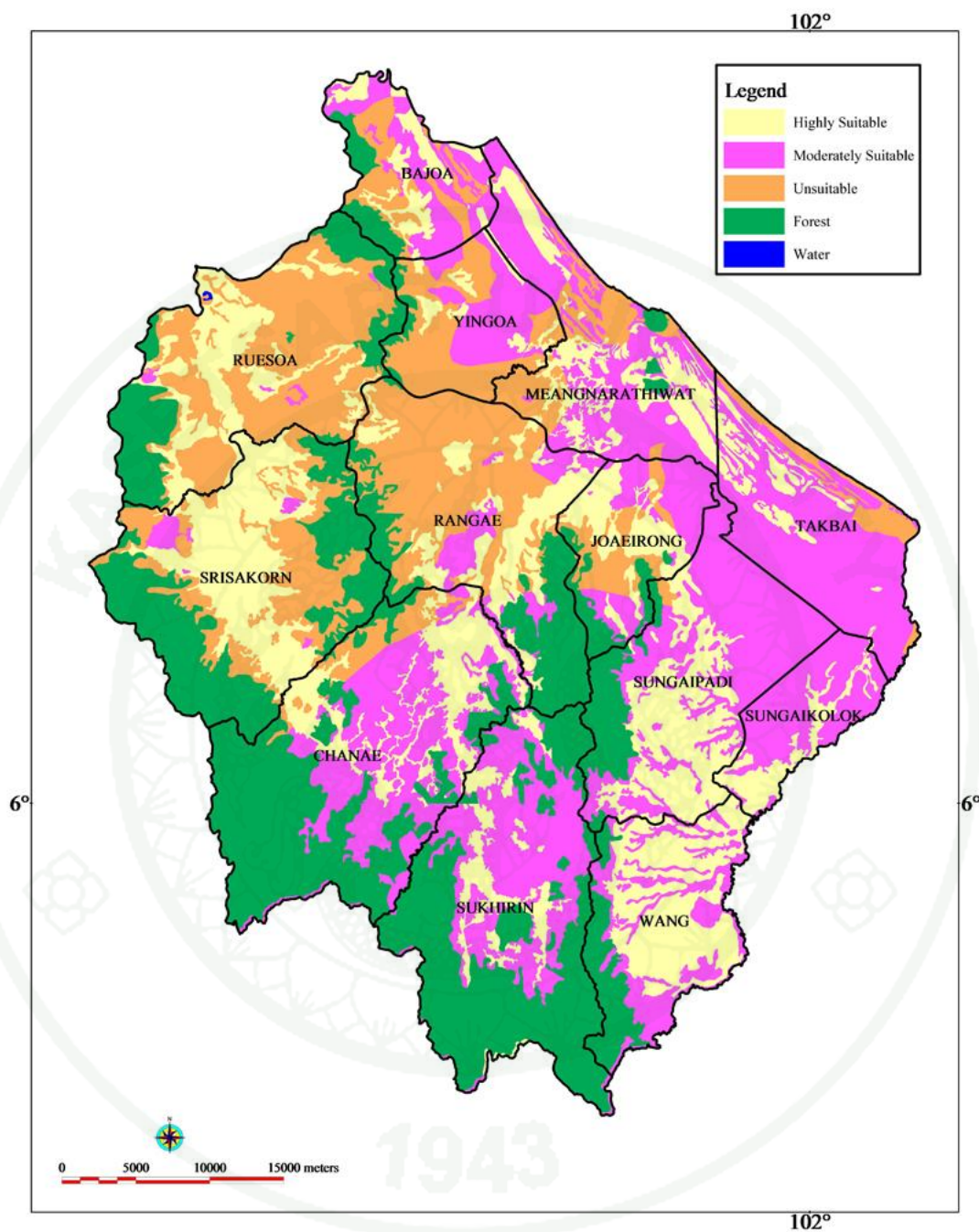
Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
Si Sakhon		Choeng Khiri	7,705	878	8,583	13,314	21,898
		Kalong	10,397	5,129	15,526	18,732	34,257
		Sako	14,010		14,010	16,310	30,320
		Tamayung	16,640	487	17,127	884	18,011
		Si Banphot	12,862	389	13,251	24,734	37,985
		Si Sakhon	40,002		40,002	18,281	58,283
Si Sakhon Total			101,616	6,883	108,499	92,255	200,754
Su-ngai Kolok		Pasemat	6,081	6,322	12,403		12,403
		Puyo	2,101	8,393	10,494		10,494
		Muno	2,709	10,016	12,725		12,725
		Su-ngai Kolok	5,453	1,483	6,936		6,936
Su-ngai Kolok Total			16,343	26,214	42,558		42,558
Su-ngai Padi		Toteng	8,624	12,477	21,100		21,100

Appendix Table 152 (Continued)

Unit : rai

Province	Amphoe	Tambon	Land Suitability for Rambutan			Unsuitable	Whole total
			Highly	Moderately	Total		
		Kawa	12,098	1,639	13,737		13,737
		Paluru	26,077	5,364	31,441		31,441
		Ri Ko	8,221	3,024	11,245		11,245
		Sako	11,187	8,018	19,205		19,205
		Su-ngai Padi	11,979	13,332	25,311	2,655	27,966
	Su-ngai Padi Total		78,186	43,852	122,039	2,655	124,694
	Sukhirin	Kia	569	21,038	21,607		21,607
		Phukhao Thong	9,918	7,590	17,508		17,508
		Mamong	14,988	42,150	57,138		57,138
		Rom Sai	9,713	28,445	38,158		38,158
		Sukhirin	9,804	28,875	38,678		38,678
	Sukhirin Total		44,992	128,098	173,089		173,089
Narathiwat Total			631,187	600,214	1,231,401	523,698	1,755,100



Appendix Figure 101 Map of Land Suitability for Rambutan in Narathiwat Province

Appendix Table 153 Zoning For Rambutan in Narathiwat Province

Province /Amphoe	Suitable Area (rai)		Existing Planted Area (rai)	Yield (kg./rai)	Zone
	Highly	Moderately			
Cho-airong	33,068	18,274	1,862	6	2
Mueang Narathiwat	45,785	40,024	1,737	54	2
Waeng	81,774	46,054	4,402	35	2
Chanae	64,729	129,382	2,407	397	2
Tak Bai	13,332	70,460	881	40	2
Bacho	21,724	34,133	313	0	2
Yi-ngo	8,496	24,349	496	1	2
Ra-ngae	54,971	30,030	5,961	0	2
Rueso	66,170	2,462	1,049	20	2
Si Sakhon	101,616	6,883	980	312	2
Su-ngai Kolok	16,343	26,214	789	115	2
Su-ngai Padi	78,186	43,852	6,178	0	2
Sukhirin	44,992	128,098	5,910	4	1
Narathiwat Total	631,187	600,214	32,965	51	

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.

Appendix Table 153 (Continued)

Province /Amphoe	Analyse Zoning Area						Existing Planted Area (rai)		
	Highly Suitable			Moderately Suitable					
	level 1	level 2	level 0	level 1	level 2	level 0	level 1	level 2	level 0
Cho-airong		33,068			18,274			1,862	
Mueang Narathiwat		45,785			40,024			1,737	
Waeng		81,774			46,054			4,402	
Chanae		64,729			129,382			2,407	
Tak Bai		13,332			70,460			881	
Bacho		21,724			34,133			313	
Yi-ngo		8,496			24,349			496	
Ra-ngae		54,971			30,030			5,961	
Rueso		66,170			2,462			1,049	
Si Sakhon		101,616			6,883			980	
Su-ngai Kolok		16,343			26,214			789	
Su-ngai Padi		78,186			43,852			6,178	
Sukhirin	44,992		128,098			5,910			
Narathiwat Total	44,992	586,195	128,098	0	472,117	5,910	0	27,055	0

Remark

Rambutan 30 : 40 : 30 Weight analyse For Zoning among Suitable Area:Existing area :Yield related to ratio 30 : 40 : 30 by order.

Suitable area Calculated from spatial map by Office of Agricultural Economics.

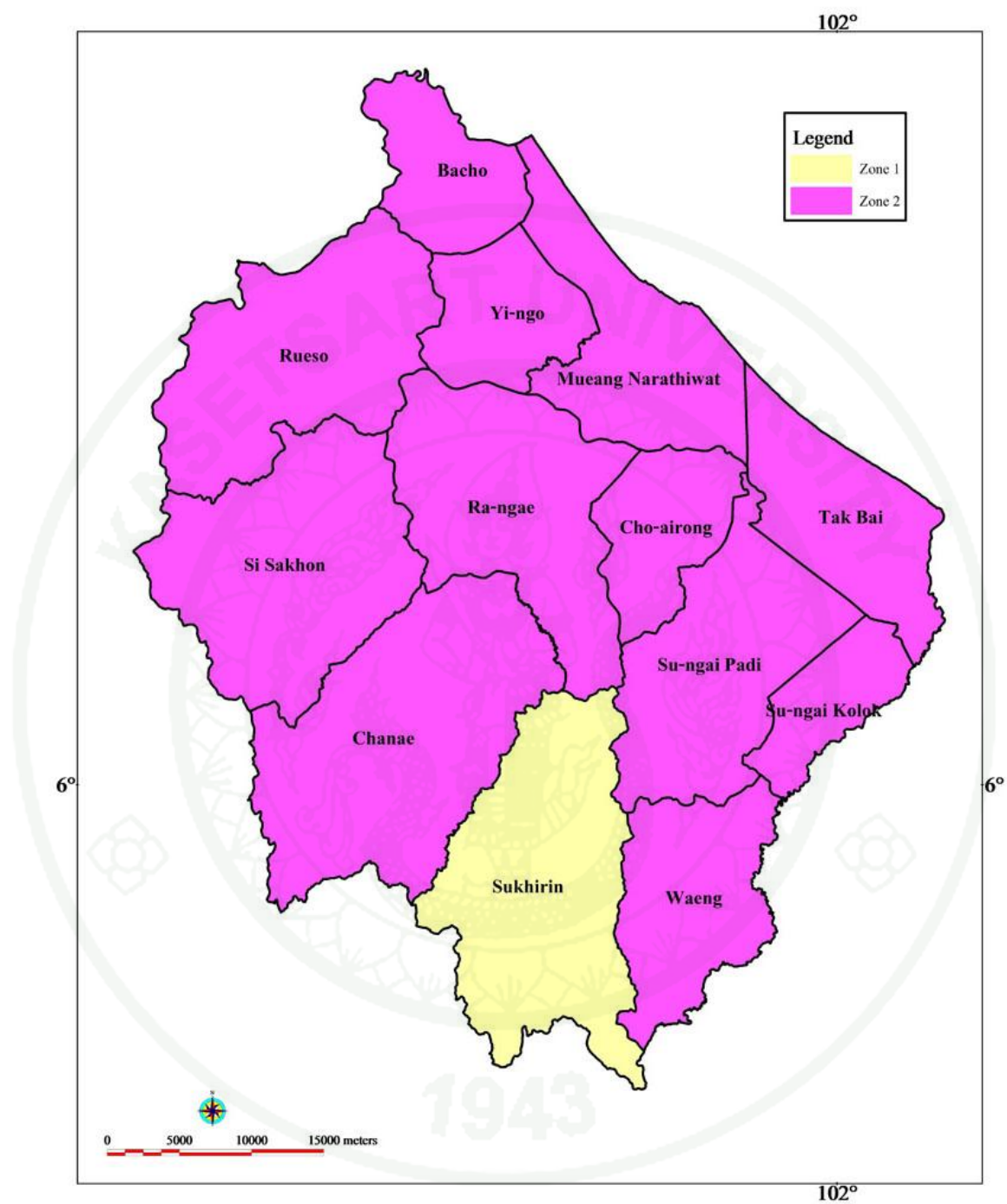
Existing area From Department of Agricultural Extension by Amphoe.

Yield From Department of Agricultural Extension by Amphoe.

Zone 1 refers to suitable area more than 10,000 rai , Existing area more than 5,000 rai , Yield more than 1,000 kilogram per rai.

Zone 2 refers to suitable area more than 1,000-9,999 rai , Existing area between 1,000-4,999 rai , Yield between 500-999 kilogram per rai.

Zone 0 No potential for zoning because lower than lever zone 2.



Appendix Figure 102 Map of Zoning for Rambutan in Narathiwat Province

CURRICULUM VITAE

NAME : Ms. Yupa Limsawad

BIRTH DATE : January 17, 1960

BIRTH PLACE : Phetchabun, Thailand

EDUCATION :	YEAR	INSTITUTE	DEGREE/DIPLOMA
	1981	Kasetsart Univ.	B.S.(Agriculture)
	1999	The National Institute of Development Administration	M.S. (Public Admin.)

POSITION/TITLE : Senior Statistician

WORK PLACE : Office of Agricultural Economics

Ministry of Agriculture and cooperatives