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NATIONAL STANDARDIZATION: TOPONYMIC GUIDELINES FOR MAP
EDITORS AND OTHER EDITORS

Toponymic Guidelines for Map Editors and Other Editors, Thailand

(Submitted by Thailand)**

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Toponymic Guidelines for Maps and other Editors

1. The National Cornmittee on Geographical Narnes

Pursuant to the resolution 4 of the first United Nations Conference on the Standardization of Geographical Narnes in 1967, rnernber countries should set up their National Comrnittee to be responsible for standardization of géographical names. And at the United Nations Conference on the Standardization of Geographical Narnes in 1992, the meeting agreed upon as the resolution 12 to urge the rernaining mernber countries to set up such National Cornmittee or organizations.

As a national rnapping agency, the Royal Thai Survey Departrnent realized that the work on geographical narnes plays an irnportant role in rnapping and other related activities and that Thailand should provide the cooperation to the United Nations in accordance with the resolution mentioned above. Therefore, the Royal Thai Survey Department representing the Ministry of Defense subrnitted the proposal to appoint the National Comrnittee on Geographical Narnes to the Cabinet for consideration and approval.

On 4 August 1992, the cabinet approved the National Cornrnittee on Geographical Names as proposed by the Ministry of Defense. The National Cornmittee consisting of 20 rnernbers who are representatives of related governrnent agencies and experts has been chaired by the Director of Royal Thai Survey Departrnent. However, being a non - perrnanent board ,its existence shall be reviewed by every new governrnent.

1.1 The National Cornrnittee on Geographical Names as approved by the Cabinet on 4 August 1992 cornprises as follows:

1.1.1 Composition

1.1.1.1	Director of Royal Thai Survey Department	Chairman
1.1.1.2	Representative of the Ministry of Interior	Mernber
1.1.1.3	Representative of the Ministry of Education	Member
1.1.1.4	Representative of the Royal Institute	Mernber
1.1.1.5	Representative of the Ministry of Foreign Affairs	Mernber
1.1.1.6	Representative of the Ministry of Transport and Cornmunication	Member

1.1.1.7 Representative of the Ministry of University Affairs Member

1.1.1.8 Representative of Naval Hydrographic Department Member

1.1.1.9 Representative of National Library Division   Member

1.1.1.10 Representative of Royal Thai Survey Department Member

1.1.1.11 Representative of Department of Land   Member

1.1.1.12 Representative of The Royal Irrigation Department Member

1.1.1.13 Representative of Land Development Department Member

1.1.1.14 The Chairman of the Committee of the Thai   Member

Geographical Names Gazetteer of the Royal Institute

1.1.1.15 Representative of Department of Local   Member

Administration

1.1.1.16 Representative of Royal Forest Department   Member

1.1.1.17 Expert   Member

1.1.1.18 Expert   Member

1.1.1.19 Expert   Member

1.1.1.20 Representative of Royal Thai Survey Department Member /

Secretary

1.1.1.21 Representative of Royal Thai Survey Department Member /

Assistant Secretary

1.1.2 Terms of Reference of National Committee on Geographical Names

    1.1.2.1 To standardize the geographical names to be used as the national standard.

    1.1.2.2 To name the natural features which still remain unnamed or discrepant.

    1.1.2.3 To determine policies, principles and procedures for naming endonyms (local geographical names), exonyms (foreign names), environmental features under water or sea surface and so on.

    1.1.2.4 To appoint a Sub-Committee, working group and expert as it may deem necessary to assist in the National Committee's activities.

1.1.2.5 To plan and use the Geographic Information System in the production of gazetteer and other related publications to meet the international standards.

1.1.2.6 To cooperate and coordinate with the United Nations concerning geographical names and to follow up the resolutions of the United Nations Conference on Geographical Names Standardization.

1.2 The National Committee on Geographical Names has appointed the National Sub-Committee on Geographical Names Standardization and the National Sub-Committee on Toponymic Guidelines for Maps and other Editors to assist the National Committee on Geographical Names,

1.2.1 The National Sub-Committee on Geographical Names Standardization which is chaired by the Chairman of the Committee of Thai Geographical Gazetteer comprises 21 members who are experts and representatives of the related government agencies. Its terms of reference are as follows:

1.2.1.1 To standardize the geographical names to meet the international standards.

1.2.1.2 To determine discrepancy of geographical names.

1.2.1.3 To provide technical advice and comments on geographical names to the National Committee on Geographical Names.

1.2.1.4 To seek the cooperation and support from other related agencies in carrying out the assignments of the Sub-Committee.

1.2.1.5 To report periodically to the National Committee on Geographical Names.

1.2.1.6 To carry out other tasks assigned by the National Committee on Geographical Names.

1.2.2 The National Sub-Committee on Toponymic Guidelines for Maps and other Editors which is chaired by the Deputy Director of Royal Thai Survey Department for Technical Affairs comprises 12 representatives from the related government agencies and has terms of reference as follows:

1.2.2.1 To consider, plan and produce the Toponymic Guidelines for Maps and other Editors in accordance with the resolutions

adopted at the UN conference on Geographical Narnes Standardization.

- 1.2.2.2- To cooperate with other related agencies in the production of Toponyrnic Guidelines for Maps and other Editors.

1.2.2.3 To report periodically the progress of work to the National Cornrnittee on Geographical Narnes.

1.2.2.4 To carry out other tasks as assigned by the National Cornrnittee on Geographical Narnes.

2. Place Names or Toponyms of Thailand

2.1 Background

Place narnes or toponyms are generally created by man to call or identify places. Based on their intellect and knowledge, people name their places rneaningfully or according to the place history as perceived by thern. Place narnes tend to correcpond to local cultural, geographical, historical and natural environments. After being used widely by the public, they became geographical names as described on national and international maps. Names places usually reflects local unique culture, languages and history. In geography, the toponyrnic process is a significant phenornenon of landscapes and linguistic culture.

According to the interviews with the senior rnembers and leaders of comrnunities in the Northeast of Thailand, it was found that 98.64 % of sample Muban were originally settled in fertile lands which are suitable for cultivation and safe frorn natural danger, and 96.87% of thern are narned according to local geographical features or conditions which can be grouped into 11 categories as follows:

2.1.1 Water Bodies, e.g. Kut, Kaeng, Khlong, Khu, Kham, Sap, Sorn, Dun, Tha, Nam, Bung, Bueng, Bo, Bang, Barai, Pak, Pong, Fai, Phang Rong, Wang, Sa, Sang, Nong, Huai, and Hong

2.1.2 High lands, e.g. Khao, Khok, Don, Thoeng, Noen, Non, Phon, Phu, Mo, Sok, and Hae

2.1.3 Terrains, e.g.
- flat lands ; Nam and Thung
- low lands; Tham, Map, Loeng, Lurn

- high lands ; Krok, Khao Chi, Din, Saimun, Ba, Bang, Phanom, Phu, Lat, and Hup

2.1.4   Vegetation features, e.g. Kok, Kok, Kae, Kung, Kraphi, Kluai, Khai, Khaem, Khwao, Khun, Kho, Du, Ngio, Chan, Chik, Chot, Chat, Daeng, Tio, Teng, Tong, Thon, Sai, Bon, Khaen, Pueai, Mek, Muang, Makha, Makluea, Mapring,Yang, Rang, Phai, Lao, Waeng, Sa, Saeng, Sang, Salao, Sadao, Som Poi, Sarnrong, Mak Mi, Mak Khiap, Wai, and Hai

2.1.5   Occupation, e.g. Bo Kluea, Rai, Suan and Mo

2.1.6   Local faunas, e.g. It, Pla

- Pla Dap, Pla Khao, Pla Kradoet, Pla Pakpao, Pla Hang Khaeng, Pla Kluai, Pla Pak, Pla Muek

- Kwang, Kai Thuean, Krasu, Krathing, Chang, Tun, Tao, Moei, Men, Maeo, Wua, Suea, Hu Chang, I - Keng

- Nok Kratha, Nok Karian, Nok I - Aen

- Duang ,Mot Ngam, Maeng Mi, and Hinghoi

2.1.7   Ancient settement sites, e.g. Khu, Kamphaeng, Ku, Tao, That, Mueang, Wat, Sa, Serna, Song Chan, Hai

2.1.8   Ancestor names e.g. Ban Ta Mek and Ban Ta Li

2.1.9   Dialect, e.g. Tammalang, Ba ngu, Panyi, Lanta Noi, Losin, Sinthai, Similan, Samui and which are islands

2.1.10 Appearance, e.g. Krabung, Klet Kaeo, Krok Kho Khao, Chueak, Ta Pu, Tao Mo, Loi, Lan, Sak   and which are the islands named after what people imagined they look like.

2.1.11 Others, e.g. Kudi ,Thai Ta Muen, Phra, Yai Thao, and Saket

2.2   Administrative Divisions of Thailand

Names of Thailand's administrative divisions from the smallest to the biggest units are *Muban, Tambon, King Arnphoe, Arnphoe* and *Changwat* respectiviely.   The criteria for dividing the administrative divicions are in Annex A.   Formeriy, places were named according to the local geographical features as stated in para 2.1 ; however, they can be renarned as per the criteria in Annex A.   The laws concerning administrative division names are as follows:

2.2.1 *Muban* : An official narne of a srnallest unit which is cornpounded of *Mu Thi*...its nurnber and *Muban* narne, e.g. *Mu Thi* 1 Ban *Pla Khao* shall be legalized by Provincial Declaration of *Muban's* Narnes as agreed upon by the Board of *Muban, Tarnbon* Council or *Tarnbon* Adrninistrative Organization and the meeting of Heads of goverrnrnent agencies in that Arnphoe.

2.2.2 *Tarnbon* : An official narne of *Tambon* shall be declared by Ministry of Interior as agreed by *Tambon* Council or *Tarnbon* Administrative Organization and the meeting of *Amphoe's* Heads of governrnent agencies.

2.2.3 *King Arnphoe* : An official name of *King Arnphoe* shall be declared by Ministry of Interior as agreed by *Tarnbon* Council or Tarnbon Administrative Orgaization, the rneetings of Changwat and Tambon Heads of governrnent agencies and Changwat Council.

2.2.4 *Amphoe* : An Amphoe shall be named by the Royal Decree as agreed by Tambon Council or Tambon Administrative Organization, the meeting of Changwat Heads of governrnent agencies and Changwat Council.

2.2.5 *Changwat* : A changwat shall be narned by Act as agreed by the rneetings of Heads of governrnent agencies of Arnphoe / King Arnphoe and Changwat, Changwat Council, public opinions, 'rnernber of House of Representatives and the parliarnent.

3. Mapping Systems of Thailand

The official base rnaps of Thailand are produced by the Royal Thai Survey Departrnent (RTSD) and Naval Hydrographic Departrnent.

3.1 Maps produced by the Royal Thai Survey Department:

3.1.1 Topographic Maps

3.1.1.1 Topographic Map Series L 7018, digital topographic line rnaps at a scale of 1:50,000 including 830 sheets covering the country Produced in the following rnapping systerns and daturn.

1) Transverse Mercator Map Projection

2) Mean Sea Level at Ko Lak, Prachuapkhirikhan Province as the vertical datum

3) WGS 84 as the horizontal datum

3.1.1.2 Topographic Maps of Thailand, Series L7017 at a scale of 1:50,000, totaling 830 sheets.

3.1.1.3 Topographic Maps of Thailand Series L7017S at a scale of 1:50,000, totaling 620 sheets excluding border sheets.

3.1.1.4 Maps of Thailand Series L8019 at a scale of 1:25,000 sheets over certain important areas, totaling 344 sheets.

3.1.1.5 Maps of Thailand Series 1501 G, A and S at a scale of 1:250,000, 52 sheets a series.

3.1.1.6 City maps of Thailand Series L9013, scale 1:12,500 including 150 sheets over urban areas of each province (Changwat) and important districts. (Arnphoe)

3.1.1.7 City Maps of Bangkok, series L9013S scale 1:20,000 consisting of 20 sheets over Bangkok and its vicinity.

(The maps in para 3.1.1.2 – 3.1.1.7 use Transverse Mercator Map Projection, Everest Spheroid, Mean Sea Level and 1975 Indian Datum.)

3.1.2 Thematic Maps

3.1.2.1 Regional Economic Atlas of Asia and Far East

RTSD had completed 3 of 6 sheets of Regional Econonmic Atlas of Asia and Far East at scale 1:5,000,000 namly

1) Transportation

2) Population distribution

3) Forestry

3.1.2.2 Natural Resources Atlas of Thailand

Natural Resources Atlas of Thailand had been revised as follows:

1) Use two scale of base maps ; 1:4,000,000 and 1: 2,500,000

2) There are two sizes of maps; 36 cms X 50 cms and

50 cms X 72 cms which measures the same size of 1:4,000,000 map when folded.

3) It comprises 51 thernatic maps in 3 categories narnely : Natural Resources, Human Resources and Economic Resources.

3.1.2.3 Thernatic rnaps on dernand

RTSD also produced other thematic rnaps on demand as follows:

1) Provincial Adrninistrative Division Map of Thailand at a scale of 1:2,500,000

2) Tourist Map of Thailand at a scale of 1:1,000,000

3) Road Map of Thailand at a scale of 1: 2,000,000

3.2 Maps Produced by Naval Hydrographic Department

Naval Hydrographic Department of Royal Thai Navy is responsible for producing sea 'maps of' nautical charts of Thailand covering about 1,500 nautical mile length of Thai coast plus about 523 islands. The products are as follows:

3.2.1 Nautical Charts

3.2.1.1 Thai coast is dívided into 3 sections namely,

1) Coast 1 : the east side of the Gulf of Thailand, frorn Ban Khlong Tale eastwards to the easternmost frontier of Thailand at Arnphoe Khlong Yai, Changwat Trat

2) Coast 2 : the west side of the Gulf of Thailand, from Ban Khlong Tale westwards and southwards *to* the end of the frontier at Amphoe Tak Bai, Changwat Narathiwat

3) Coast 3 : is entire western coast of Thailand, from the river mouth in Changwat Ranong to the frontier end in Changwat Satun

3.2.1.2 Chart Nurnbering

The number of a chart or map sheet has 3 digits. The first digit stands for the coast section ,ie 1,2 and 3 for the Coast 1, the Coast 2 and the Coast 3 and the nurnber zero is for a chart covering more than one coast section or other nations' seas. The second and third digits run in order of production.

3.2.2   The Naval Hydrographic Department has so far produced 70 nautical charts (in 2002) over the gulf of Thailand and the eastern coast at various scales. Among them are sets of adjoining charts at the same scale, including the chart numbers 001, 102, 203 through 206 over the gulf of Thailand and chart numbers 307 – 309 on the western coast. The department also produces a number of specific detailed charts on demand, e.g. Sea Ports Charts, Navigation Charts and Harbor Charts on which the data have been regularly updated. All nautical charts are produced to the international specifications and standardc and use mercator map projection.

3.2.3   Chart Scales

The Naval Hydrographic Department produces several kinds of nautical charts various scales as follows:

3.2.3.1   Harbor charts at a scale of 1:50,000 and larger scales for specific areas to include safety hazards to navigation and sea port details.

3.2.3.2   Approach charts covering sea ports and surrounding areas with helpful information for approaching sea ports.

3.2.3.3   Coastal charts at various scale ranging from 1:50,000 to 1:100,000 showing coastal lines, shallow water, rocks and other hazards to navigation.

3.2.3.4   General charts of the coast at various scale ranging from 1;1,000,000 to1:600,000 for navigation within a range where a point on the shore or a light house can be seen and used for locating the ship.

3.2.3.5   Sailing charts at a scale of 1 : 600,000 or smaller showing international sailing routes by which a ship can be located by an astronomical method the chart information includes water depth, dangerous points ,and landmarks.

3.2.3.6   International charts at a scale of 1:3,500,000 – 1:10,000,000 showing international sailing routes like a sailing chart but covering a larger area which is good for long distant sailing The

international charts are produced to the international standard and specifications.

3.2.4 Aero Nautical Charts

The aero nautical charts have been produced to support department of Aviation, Ministry of Transport and Cornrnunications. The coverage of Thailand cornprises 11 Charts at a scale of 1: 1,000,000 and 2 charts at a scale of 1 : 500,000

4. Transcription Romanization System for Thai Script

4.1 Background .

In 1939 the Royal Institute declared the two systems of rornanization for Thai script, i.e. the cornprehensive and normal systems, but not practical because there are too many diacritics. In fact the romanization system are difficult for foreigners in their attempt to pronounce accurately the romanized Thai words. Eventually, the official romanization systems have been forgotten and Thai words have been transcribed in numerous ways.

In 1951 Department of Mapping from Aerial Photographs was established under the Office of the Perrnanent Secretary, Ministry of Defence and in 1954 it was merged into Army Survey Department. In that period of time, the Arrny Survey Department, directed by Lt.Gen. Praya Sanlawithannithet, launched a project to produce 1 : 50,000 rnaps of Thailand by changing from the Plane Table System, known as Macathy's system introduced by James Macathy, the first Director of Royal Thai Army Survey Department (Present Royal Thai Survey Department) to rnapping from aerial photographs. The project was supported by the US government under a rnapping cooperation agreement between the two governrnents signed on 3 December 1952. The maps were produced to the international standards, with bilingual name places: Thai and romanized names. Considering the forgotten official romainization systerns inappropriate for transcribing Thai geographical names, the Royal Thai Arrny Survey Department simplified the official standard rornanization system by cutting off all diacritics and reducing vowels from 29 to 20, plus ฤ or ฤๅ (pronounced rue or ri or roe) and ฦ or ฦๅ (pronounced lue),e.g. ฤษี = ruesi, ฤทธิ์ = rit, ฤกษ์ = roek and ฦๅสาย = luesai

The simplified - romanization system has not only been applied by RTSD in placing geographical names on rnaps but also adopted by several government agencies and

state enterprises such as the State Railway of Thailand for names of railways stations , the Department of Highways for place name signs and Bangkok Metropolitan Administration for administrative division names and road names.

At the first United Nations Conference on the Standardization of Geographical Names held in Geneva, Switzerland, from 4 – 22 September 1967, the meeting approved the romanization system presented by RTSD.

4.2 Principles of Present Romanization System for Thai by Transcription Method

The Royal Institute had revised the conventional Thai transcription romanization system (1967 version) so that as many speech sounds as pocsible could be transcribed regardless *of* original spelling* and voice tones, e.g. จันทร์ = chan, พระ = phra, and แก้ว = kaeo. On 23 April 1999, the government approved the revised version as follows:

4.2.1 Consonant Transcription

THAI CONSONANT	ROMANIZED CHARACTER		EXAMPLE	NOTES:
	INITIAL	FINAL		
ก	k	k	กิ = ka, นก = nok	1. Phonetically **h** is the symbol for
ข ฃ ค ฅ ฆ	kh'	k	ขอ = kho, สุข = suk	aspirated sound (sound followed
			โค = kho, ยุค = yuk	by a puff of air when pronounced)
			ฆ้อง = **kh**ong, เมฆ = rnek	Thus **h** that follows k **p t** behaves
ง	ng	ng	งาม = ngarn, สงฆ์ = song	according to the following

* One must bear in mind that Romanization *of* Thai in this case ernploys a transcription method, nota transliteration method. Thus, a tone mark, a diacritic mark including a silencing mark, and vowel length are completely ignored. It means that one who can transcribe Thai words must correctly know how to read them or to pronounce them. There are many words that carry a character/ characters) which is/ are not pronounced such as สามารถ (ร is silent), พรหม (ห is silent), ลักษณม์ (ษณม์ are silent), ธาตุ (ุ is silent), อินทรธนู (ทร are silent) and there are also a number of words in Thai where a syllable with an intruding vowel [a] must be inserted such as ปรารถนา [pratthana] (ร is silent and [tha] is inserted), and รัตนา [rattana] ([ta] is inserted.) when pronouncing them.

THAI CONSONANT	ROMANIZED CHARACTER — INITIAL	FINAL	EXAMPLE	NOTES:
ฉ ช ฌ	ch²	t	จีน = chin, อำนาจ = amnat ฉิง = ching, ชิน = chin, คช = khot , เฌอ = choe	phonetic rules:
ซ (pronounced ซ) ช ส	s	t	ซา = sa, ก๊าซ = kat ทราย = sai ศาล = san, ทศ = thot รักษา = raksa, กฤษณ์ = krit สี = si, รส = rot	- k represents ก because it is an unaspirated sound (sound without a puff of air when pronounced). kh represents ข ฃ ค ฅ ฆ because they are aspirated sounds
ญ	y	n	ญาติ = yat, ชาญ = chan	- p represents ป which is an Unaspirated sound. Thus ph
ฎ ฑ (pronounced ด)	d	t	ฎีกา = dika, กฎ = kot บัณฑิต = bandit, ษัฑ = sat ด้าย = dai, เป็ด = pet	represents ผ พ ภ because they are aspirated sounds. Therefore ph does not represent ฟ .
ฏ ต	t	t	ปฏิมา =patima, ปรากฏ = prakot ตา = ta, จิต = chit	- t represents ฏ ต which are unaspirated sounds. Thus th represents ฐ ฑ ฒ ถ ท 6 because they are aspirated sounds.
ฐ ฑ ฒ ถ ท ธ	th'	t	ฐาน = than, รัฐ = rat มณฑล = monthon เฒ่า = thao. วัฒน์ = wat ถ่าน = than, นาถ = nat ทอง = thong, บท = bot ธง = thong, อาวุธ = awut	2. Phonetically c should represent จ which is an unaspirated sound and ch should represent ฉ ช ฌ which are aspirated sounds, as observed in Pali-Sanskrit, Carnbodian, Hindi, Bahasa Indonesia and many other languages. But Thai does not
น ณ	n	n	ประณีต = pranit, ปราณ = pran น้อย = noi, จน = chon	observe this rule because it may be confused with the sound of c in English which represents ค or ซ in Thai. For example, if จน and จิต are
บ	b	p	ใบ = bai, กาบ = kap	phonetically written as con and cit,
ป	p	p	ไป = pai, บาป = bap	c in con may be pronounced ค and c in cit may be pronounced ซ .
ผ พ ภ	ph¹	p	ผา = pha พงศ์ = phong, ลัพธ์ = lap	Therefore ch represents จ

THAI CONSONANT	ROMANIZED CHARACTER		EXAMPLE	NOTES:
	INITIAL	FINAL		
ฟ	-		สำเภา = sarnphao, ลาภ = la**p**	according to the farniliarity, e.g. จุฬา = chula
	f	p	ฝัง = fang	and จิตรา = chittra.
			ฟ้า = fa, เสิร์ฟ = soep	3. An initail อ as a vowel-bearer whicɦ
	m	m	ม้าม = mam	is phonetically a glottal stop [ʔ], is
	y	-	ยาย = **y**ai	ignored.
	r	n	ร้อน = ron, พร = phon	
ฬ	l	n	ลาน = lan, ศาล = san	
			กีฬา = kila, กาฬ = kan	
	w	-	วาย = wai	
ฮ	h	-	หา = ha	
			ฮา = ha	
3	-	-	ออก = **o**k, อก = **o**k	

4.2.3 Vowel Transcription

THAI VOWEL	ROMANIZED CHARACTER	EXAMPLE	NOTES
อะ, ◌ั (reduced form of อะ), รร (with final consonant), อา	a	ปะ = pa, วัน = wan, สรรพ = sap, มา = ma	1. According to the old rules, thefour sounds, อี อี อุ อู, are represented by the same sound, u, According to the new rules, in
รร (without final consonant)	an	สรรหา = sanha, สวรรค์ = sawan	order to differentiate between อุ อู
อำ	am	รำ = ram	and อี อี, u represents อุ อู and ue
อิ, อี	i	มิ = mi, มีด = rnit	represents อี อี.
อึ, อื, ◌ือ	ue'	นึก = nuek, หรือ = rue, ถือ = thue	2. According to the old rules ,
อุ, อู	u	ลุ = lu, หรู = ru	the four sounds, เอือะ เอือ อัวะ
เอะ, เ◌็ (reduced form of เอะ), เอ	e	เละ = le, เล็ง = leng, เลน = len	อัว, are represents by the sarne sound, u a .According to the new
แอะ, แ◌็ (reduced form of แอะ) แอ	ae	และ = lae, แข็ง = khaeng, แสง = saeng	rules, to differentiate between เอือะ เอือ and อัวะ อัว, u a

THAI VOWEL	ROMANIZED CHARACTER	EXAMPLE	NOTES
โอะ, – (reduced form of โอะ) Fa, เอาะ, ออ	o	โละ = lo, ลม = lom, โล้ = lo, เลาะ = lo, ลอม = lom	represents อัวะ อัว and uea represents เอือะ เอือ since they
เออะ, เ◌ิ (reduced form of เออะ), เออ	oe	เลอะ = loe, เหลิง = loeng, เธอ = thoe	are diphthongs consisting of อี or อื (ue) and อะ or อา (a). 3. According to the new rules,
เอียะ, เอีย	ia	เผียะ = phie, เลียน = lian	all sounds ending with a are
เอือะ, เอือ	uea[2]	-*, เลือก = lueak	represented by o ,i.e. เอา, อาว
อัวะ, อัว, -ว- (reduced form of อัว)	ua	ผัวะ = phua, มัว = rnua, รวม = ruam	(ao) , เอ็ว เอว (eo) ,แอ็ว แอว (aeo), thus อิว (อิ + a) becornes io
ใอ, ไอ, อัย, ไอย, อาย	ai	ใย = yai, ไล่ = lai, วัย = wai, ไทย = thai, สาย = sai	and เอียว (เอีย + ว) becornes iao. *There is no Thai word
เอา, อาว	ao	เมา = rnao, น้าว = nao	with this vowel
อุย	ui	ลุย = lui	
โอย, ออย	oi	โรย = roi, ลอย = loi	
เอย	oei	เลย = loei	
เอือย	ueai	เลื้อย = lueai	
อวย	uai	มวย = rnuai	
อิว	io[3]	ลิว = lio	
เอ็ว, เอว	eo	เร็ว = reo, เลว = leo	
แอ็ว, แอว	aeo	แผล็ว = phlaeo, แมว = rnaeo	
เอียว	iao	เลี้ยว = liao	
ฦ (pronounced รึ) ฤๅ	rue	ฤษี , ฤๅษี = ruesi	
ฤ (pronounced ริ)	ri	ฤทธิ์ = rit	
ฦ (pronounced เรอ)	roe	ฤกษ์ = roek	
ฦ, ฦๅ	lue	-*,ฦๅสาย = luesai	

4.3   MORPHEME, WORD AND NOUN

4.3.1   MORPHEME is the smallest meaningful unit in a language. It may consist

of one or more syllables, e.g. นา (na), ที (thi), นาที (nathi), ลอง (long), กอง

(kong),ลองกอง (longkong), นาฬิกา (nalika), นานัปการ (nanappakan), เชื่อ

(chuea),ก็ (ko), เครื่อง (khrueang)

4.3.2 WORD may consist of one or more morphemes, e.g. หน้า (na), โต๊ะ (to) ลูกเสือ (luksuea), จานผี (chanphi), มหาราช (maha rat), ประชาชน (prachachon) ราชูปถัมภ์ (rachupatham), อภิมหาอำนาจ (aphimaha-amnat)

4.3.3 COMPOUND WORD consists of two or more morphemes. The combination may render new or additional meaning, e.g. ลูกเสือ (luksuea), จานผี (chanphi), ลมกรด (lomkrot)

4.3.4 COMMON NOUN

4.3.4.1 GENERAL NOUN e.g. พระ (phra), คน (khon), เสื้อ (suea), สัตว์ (sat) แมว (maeo), นก (nok), ต้นไม้ (tonmai), มะม่วง (mamuang), โต๊ะ (to), วิทยุ (witthayu), บันได (bandai), วัด (wat), วัง (wang), ถนน (thanon) จังหวัด (changwat), แม่น้ำ (rnaenam), องค์กร (ongkon), บริษัท (borisat)

4.3.4.2 GEOGRAPHICAL NAME is general noun describing natural geographical features, e.g. ภู (phu), เขา (khao), ภูเขา (phukhao), ควน (khuan), ดอย (doi), พนม (phanom), แม่น้ำ (maenam), ลำคลอง (lam khlong), ห้วย (huai), หนอง (nong), บึง (bueng), เกาะ (ko), ทะเล (thale), มหาสมุทร (mahasamut), แหลม (laem), อ่าว (ao) ; or man-made geographical features, e.g. ท่าเรือ (tharuea), ถนน (thanon) ซอย (soi), สะพาน (saphan) ; including political geography, e.g. ประเทศ (prathet), จังหวัด (changwat), อำเภอ (amphoe), แขวง (khwaeng), ตำบล (tambon), หมู่บ้าน (muban)

4.3.5 PROPER NOUN is the name of particular person, place, or thing.

4.3.5.1 PERSONAL NAME e.g. name , family names , title :

name of a king:	พระบาทสมเด็จพระเจ้าอยู่หัว**ภูมิพลอดุลยเดช**
	His Majesty King Bhumibol Adulyadej or
	Phrabat Somdet Prachao Yu Hua Bhumibol Adulyadej
name of a crown:	สมเด็จพระ**เทพรัตนราชสุดาฯ** สยามบรมราชกุมารี
prince / princess	Her Royal Highness Princess Maha Chakri Sirindhorn or
	Somdet Phra Theppharat Ratchasuda Sayam
	Borornaratchakumari

royal-name : .   สมเด็จฯกรมพระยาดำรงราชานุภาพ

                  (Somdet Krom Phraya Damrongrachanuphap)

narne conferred :   เจ้าพระยาจักรี

by the king   (Chao Phraya Chakkri)

name, family narne: นาย **สมชาย คนจริง**

                  (Nai Somchai Khonching)

      4.3.5.2 PLACE NAMES AND ORGANIZATION NAMES e.g. organization,

temple, palace, school:

organization: มูลนิธิคนพิการแห่งประเทศไทย

                  Foundation for the Welfare Crittled or

                  Munlanithi Khon Phikan Haeng Prathet Thai

      work unit :   กรม**สรรพากร**

                  The Revenue Department or Krorn Sanphakon

      temple :   วัดดวงแข

                  (Wat Duang Khae)

      palace :   วังศุโขทัย

                  (Wang Sukhothai)

      school :   โรงเรียนสตรีวิทยา

                  (Rongrian Sattri Witthaya)

4.3.6 TITLE is the word used before the proper name, e.g. royal rank, order *of*

precedence, ecclesiastical title ,rank and title.

      · royal rank: **พระเจ้าวรวงศ์เธอ** พระองค์เจ้าจุลจักรพงษ์

                  Phrachao Worawongthoe Phra - ongchao

                  Chunlachakkaphong

order *of* precedence:หม่อมเจ้าสุภัทรดิศ ดิศกุล

                  Momchao Suphattharradit Disakul

ecclesiastical title: **สมเด็จ**พระวันรัต

                  Somdet Phrawannarat

      Rank: เจ้าพระยาธรรมศักดิ์มนตรี

                  Chaophraya Thammasak Montri

      title: **พลเอก** เปรม ติณสูลานนท์

                  Phon – ek Prem Tinsulananda

4.3.7 BORROWED WORD is a foreign word written in Thai language. Borrowed words may be common nouns, e.g. คอมพิวเตอร์ (computer), เทคโนโลยี (technology), ฟุตบอล (football), or proper nouns, e.g. แปซิฟิก (Pacific), เมดิเตอร์เรเนียน (Mediterranean), ไอบีเอ็ม (IBM), ยูเนสโก (UNESCO)

4.4 HYPHENATION FOR SYLLABLE SEPARATION

In multi-syllable words , the final character of the preceding syllable and the initial character of the succeeding syllable rnay cauce reading arnbiguity. Therefore hyphen is used for syllable ceparation according to the following rules:

4.4.1 Hyphen is inserted when the final character of the preceding syllable ic a vowel and the initial character of the succeeding syllable is ng (ง), e.g. สง่า = Sa-nga

4.4.2 Hyphen is inserted when the final character of the preceding syllable is ng (ง) and the initial character of the succeeding syllable is a vowel, e.g. บังอร = Bang-on

4.4.3 Hyphen is inserted when the initial character of the cucceeding syllable is a vowel, e.g. สะอาด = sa-at, สำอาง = cam-ang.

4.5 WORD SEPARATION

Each word is written separately, e.g.

สถาบันไทยคดีศึกษา	=	Sathaban Thai Khadi Sueksa
ห้างแก้วฟ้า	=	Hang Kaeo Fa
ถนนโชคชัย	=	Thanon Chok Chai
ซอยบุญมา	=	Soi Bun Ma

However cornpound words and personal narne proper nouns are not, e.g.

ลูกเสือ (คน)	=	luksuea
จานผี	=	chanphi
รถไฟ	=	rotfai
หลวงไพเราะเสียงซอ	=	Luang Phairosiangco
นายโชคชัย จิตงาม	=	Nai Chokchai Chitngarn

4.6 CAPITALIZATION

4.6.1 The initial character of the proper noun and that of the preceding title are capitalized, e.g.

นายปรีดา **อยู่เย็น**	=	Nai Prida Yuyen
เด็กหญิงอุ้มบุญ ทองมี	=	Dekying Urnbun Thongrni
ร้านร่วมเสริมกิจ	=	Ran Ruarn Soern Kit
จังหวัดกำแพงเพชร	=	Changwat Karnphaeng Phet

4.6.2   The first character of the first word in each paragraph is capitalized, e.g.

"ขอให้ทุกคนประสบความสำเร็จสมปรารถนาได้สมหมาย... ตามพุทธภาษิตที่ยกมา

- ข้างต้น" -

"Kho hai thuk khon prasop khwarn sarnret tam pratthana dai sornrnai ...tam phutthaphasit thi yok rna khang ton."

4.7   TRANSCRIPTION OF GEOGRAPHICAL NAME

Geographical narnes proper nouns are not translated ; general transcription rules are applied instead. For exarnple,

เขาสอยดาว	=	Khao Soi Dao (not Soi Dao Hill)
แม่น้ำป่าสัก	=	Maenam Pa Sak (not Pa Sak River)
ถนนท่าพระ	=	Thanon Tha Phra (not Tha Phra Road)
เกาะสีชัง	=	Ko Si Chang (not Si Chang Island)

4.8   TRANSCRIPTION OF BORROWED WORD

4.8.1   Borrowed word which is a proper narne is written as the original word, e.g.

บริษัท เฟิสต์คลาส จำกัด	=	First Class Co.Ltd.

4.8.2   Borrowed word which is a part of proper name and not intended to be translated is transcribed according to Thai pronunciation, e.g.

สถาบันเทคโนโลยีการเกษตรแม่โจ้	=	Sathaban Theknoloyi Kankaset Mae Cho

4.9   TRANSCRIPTION OF PUNCTUATION MARK

4.9.1   Word followed by "rnaiyarnok" (ๆ) are written twice according to the reading rules, e.g.

ทำบ่อย ๆ	=	tharn boi boi
ไฟไหม้ ๆ	=	fai rnai fai rnai

4.9.2   Words followed by "paiyannoi" (ฯ), shortening succeeding well-known word or words, are written in full according to the reading rules, e.g.

กรุงเทพฯ	=	Krung Thep Maha Nakhon
โปรดเกล้าฯ	=	protklao protkramom
ทูลเกล้าฯ	=	thunklao thunkrarnorn

4.9.3 The second or later appearance of the same words with "paiyannoi" may be written in full or in short forms, e.g.

กรมพระราชวังบวรฯ = Kromphraratchawangbowon

Sathanmongkhon

or Kromphraratchawangbowon.

4.9.4 The word ฯพณฯ is written in full as Phanathan. (พะนะท่าน)

4.9.5 "Paiyanyai" (ฯลฯ) which may be read "la (ละ)" or "lae uen uen (และอื่น ๆ)" is written as such, e.g.

ในตลาดมีเนื้อสัตว์ ผัก ผลไม้ น้ำตาล น้ำปลา ฯลฯ

= nai talat mi nueasat phak phonlarnai narntan nampla **la**

or nai talat mi nueasat phak phonlarnai narntan narnpla **lae** uen-uen.

4.9.6 "Paiyanyai" (ฯลฯ) in the middle of the sentence is written "la thueng",

e.g. พยัญชนะไทย ๔๔ ตัว มี ก ฯลฯ ฮ

= phayanchana thai si sip si tua mi ko **la** thueng ho.

4.10 TRANSCRIPTION OF ABBREVIATION

4.10.1 Abbreviation of well-known and not too long word, which is read according to the reading rules, is written as such, e.g.

จ. abbreviated from จังหวัด = changwat.

อ. abbreviated from อำเภอ = amphoe.

ชม. abbreviated from ชั่วโมง = chuamong.

น. abbreviated from นาฬิกา = nalika.

พ.ศ. abbreviated from พุทธศักราช = phutthasakkarat.

รร. abbreviated from โรงเรียน = rongrian.

4.10.2 Abbreviation of multi-compound-words, which may be too long, may be written either in short or in full reading, e.g.

อตร. abbreviated from อธิบดีกรมตำรวจ = otoro or athipbodi krorn tamruat.

ผอ. abbreviated from ผู้อำนวยการ = pho – oor phu – arnnuaikan.

สปช. abbreviated from สำนักงานคณะกรรมการการประถมศึกษาแห่งชาติ

= sopocho

or Samnakngan Khanakammakan Kanprathornsueksa Haeng Chat.

4.11 TRANSCRIPTION OF NUMBER

Number is transcribed according to the reading rules, e.g.

๔.๕๐ บาท	=	si bat ha sip satang.
๐๕.๐๐ น	=	ha nalika.
๓.๑.๑	=	sam chut nueng chut nueng.
๑ : ๒	=	nueng to song.
๑ + ๑ = ๒	=	nueng buak nueng thaokap song.
๑๐๐๐	=	nueng phan.

Annex A

1. Criteria for founding new Muban, Tambon, King Amphoe and Amphoe according to the cabinet's decision on 14 May 1996.

1.1 Foundation of a New Muban

1.1.1 Densely populated community

- population of Muban to be divided shall not be less than 1,200 or 240 households.

- A new Muban shall have population *of* 600 or 120 house holds at least.

- Require approval from Board of Muban, Tambon Council or Tambon Administrative Organization and the meeting of Heads of Amphoe government agencies.

1.1.2 Remote community

- population at least 600 or 120 housholds

- A new Muban must have population not less than 200 or 40 ñouseholds.

- A distance between a new community and the present one shall not be less than 6 kms.

- Require approval from Board of Muban, Tambon Council or Tambon Administrative Organization and the meeting of Heads of government agencies of Amphoe.

1.2 Foundation of a New Tambon

1.2.1 Densely populated community

- Population not less than 4,800

- Consist of at least 8 Muban

- Require approval from Tambon Council or Administrative Organization and the meeting of Heads of government agencies of Amphoe

1.2.2 Remote Community

- Population not less than 3,600

- Consist of at least 6 Muban

- A distance between a new cornmunity and the present one shall not be less than 6 Kms.
- Require approval from Tambon Council or Administrative Organization and the meeting of Heads government agencies of Amphoe.

1.3 Foundation of a New King Amphoe

    1.3.1 Densely populated community

- Population not less than 30,000 or
- Consist of at least 5 Tambon
- Require approval frorn Tambon Council or Administrative Organization, the meeting of Heads of government agencies of Amphoe and Changwat and Changwat Council

    1.3.2 Remote area

- Population not less than 15,000 or
- Consist of at least 4 Tarnbon
- The office of a new King Amphoe is far from the present one's not less than 25 kms.
- Require approval from Tambon Council or Administrative Organization, the meetings of Heads of government agencies of Amphoe and Changwat and Changwat Council

1.4 Foundation of a New Amphoe

    1.4.1 Remain the status as King Arnphoe at least 5 years or

    1.4.2 In case of administrative and public service needs (population of 30,000 or more) the new Amphoe shall have been King Amphoe for at least 3 years

    1.4.3 Require approval from the meeting of Head of government agencies of Changwat and Changwat Council

2. Criteria for Changing Names of Changwat, Amphoe, Tambon and Muban or other government places

    2.1 A current narne has negative, irnpolite or inauspicious meanings.

    2.2 Change in accordance with geographical or historical background of a place that can be proved by documents, persons or places.

2.3 A proposed new narne rnust not be against peoples culture and morals, and should have a better meaning.

2.4 Change to a former name which has a better meaning and is better known arnongst the public.

2.5 Change to a name in a dialect which has a good meaning and also for a language conservation reason.

2.6 Change to a name given by His Majesty the King, rnembers of Royal family or Supreme Patriarch .

2.7 Change the narnes of a newly founded Muban, Tambon, Amphoe and Changwat which are later found the sarne as or similar to the existing place names.

2.8 In case there are more than one wat (Buddhist Temple) located in the sarne Tambon having the same name which often causes mistaking or confusion.

2.9 Change the name of wat after Muban or Tambon This is only if there is no other wat in the same Tambon which has the same name as that Tarnbon.

2.10 Change after the name of land for Ubosot construction given by the King.

Annex B : **Glossary** of Topographic Maps of Thailand

AkhanSongkhro	อาคารสงเคราะห์	housing project
Alor	อะโลร์	deep channel of river
Arnphoe	อำเภอ	town (secondaty administrative division offices)
Angkepnam	อ่างเก็บน้ำ	reservoir
Anusawari	อนุสาวรีย์	rnonument
Ao	อ่าว	bay, cove, gulf
Ban	บ้าน	populated place,village
Baroh	บาโระห์	low lying area,flat land
Batu	บาตู	rock
Belukar	บลูการ์	jungle
Bendang	เบินดัง	rice swamp
Bo	บ่อ	pond
Boriwen	บริเวณ	area name
Borisat	บริษัท	company, factory
Bu	บู	stream
Bukit	บูกิต	hill, mountain
Bueng	บึง	marsh, pond
Changwat	จังหวัด	city (primary administrative division offices)
Chedi	เจดีย์	pagoda, stupa
Chong	ช่อง	mountain pass
Chuat	ชวด	canal, strearn
Chumnum	ชุมนุม	campsite
Dan	ด่าน	customhouse, fort
Doi	ดอย	hill, mountain
Don	ดอน	islet, island, hill
Dong	ดง	dense forest
Farm	ฟาร์ม	farm
Fai	ฝาย	darn ,embankment ,weir, pond

Genting	เก็นติง	mountain, pass
Gua	กัว	cave
Han	หาน	marsh, pond, stream
Hat	หาด	beach, sand bar
Hatsay	ฮัตเซย์	mosque
Hin	หิน	rock
Hong	ฮอง	stream
Hua	หัว	point
Huai	ห้วย	stream
Hutan Simpan	ฮูตัน ซิมปน	forest reserve
Jeram	จรัม	rapids
Kaeng	แก่ง	pond, rapids
Kampong	กำปง	village
Khai	ค่าย	camp
Khankannam	คันกั้นน้ำ	dam
Khao	เขา	mountain
Khlong	คลอง	canal, stream
Khlung	ขลุง	canal, stream
Khok	โคก	hill
Khu	คู	canal, marsh
Khuean	เขื่อน	dam
Khuan	ควน	hill, mountain
Kuala	กัวลา	river mouth
Khun	ขุน	stream, mountain
Khwae	แคว	stream
King Amphoe	กิ่งอำเภอ	town (tertiary administrative division offices)
King Mae	กิ่งแม่	stream
King Nam	กิ่งน้ำ	stream
Kio	กิ่ว	hill, mountain
Ko	เกาะ	island, rock, islet
Kong Phan	กองพัน	barracks
Kromthahan	กรมทหาร	barracks, military camp

Ku	กู่	pagoda
Kuala	กัวลา	river mouth
Kubang	กูบัง	wallow
Kut	กุด	marsh
Kwan	กว๊าน	lake
Laem	แหลม	cape, point
Lahan	ละหาน	marsh
Lam	ลำ	stream,canal,irrigation channel
Lam Nam	ลำน้ำ	stream
Lam Rang	ลำราง	irrigation channel,stream,canal
Lat Khlong	ลาดคลอง	irrigation canal,stream
Loeng	เลิง	marsh
Lam Than	ลำธาร	marsh, stream
Mae	แม่	stream,river
Maenam	แม่น้ำ	river
Map	มาบ	marsh,stream
Masjid	มัสยิด	mosque
Mon	ม่อน	hill, mountain
Muangrae	เหมืองแร่	mine
Nam	น้ำ	river, stream
Nammae	น้ำแม่	stream
Namtok	น้ำตก	waterfall
Nikhom	นิคม	settlement, village
Noen	เนิน	hill, mountain
Non	โนน	forest, hill, island
Nong	หนอง	marsh, pond, stream, swamp
Pa	ป่า	forest
Pacha	ป่าช้า	cementery
Padang	ปาดัง	plain,open space,moor land
Pae	แป	mountain
Pak	ปาก	estuary,river mouth
Pak Nam	ปากน้ำ	estuary

Pang	ปาง	village ,campsite
Pantai	ปันไต	beach
Parit	ปาริต	ditch drain
Pha	ผา	mountain
Phalan	พลาญ	mountain,plateau
Phang	พัง	pond
Phanom	พนม	mountain
Phra Chedi	พระเจดีย์	stupa
Phraek	แพรก	canal,stream
Pratunam	ประตูน้ำ	lock
Phra Phutthabat	พระพุทธบาท	shrine,Lord Buddha's footprint
Phra Prang	พระปรางค์	stupa
Phra Ratchawang	พระราชวัง	palace
Phra That	พระธาตุ	pagoda, stupa
Phra Wihan	พระวิหาร	temple
Phru	พรุ	bog,pond,spring,stream,hill
Plai Huai	ปลายห้วย	strearn
Plai Khlong	ปลายคลอง	stream
Pom	ป้อม	fort
Pono	ปอเนาะ	school
Prae	แป	mountain
Pratu	ประตู	locks
Pulau	ปูเลา	island
Pulo	ปูโล	island
Rang	ราง	canal
Rizab	รีซับ	reserve
Roi Phra Phutthabat	รอยพระพุทธบาท	lord Buddha's footprint
Rong	ร่อง	stream
Ronglueai	โรงเลื่อย	sawmill
Ronglueaichak	โรงเลื่อยจักร	sawmill
Rongngan	โรงงาน	factory
Rongphayaban	โรงพยาบาล	hospital

Rongrian	โรงเรียน	school
Rongsi	โรงสี	rice mill
Rongsifai	โรงสีไฟ	rice mill
Rongsupnam	โรงสูบน้ำ	pumping station
Rueancham	เรือนจำ	prison
Sa	สระ	marsh,pond,stream
Sai	สาย	stream
Samnak	สำนัก	campsite
Samnakngan	สำนักงาน	office
Samnaksong	สำนักสงฆ์	monastery
Sanchao	ศาลเจ้า	shrine
San Doi	สันดอย	mountain
San Khao	สันเขา	mountain ridge
Sanambin	สนามบิน	airfield
Saphan	สะพาน	bridge
Sathani	สถานี	railroad station
Sathani Anamai	สถานีอนามัย	health center
Sathani Tamruat	สถานีตำรวจ	police station
Sathani Witthayu	สถานีวิทยุ	broadcasting station
Satung	สตึง	stream
Sop	สบ	strearn confluence
Su – ngai	สุไหง	stream
Sunkanfuek	ศูนย์การฝึก	training center
Sunlakakon	ศุลกากร	custom house
Surao	สุเหร่า	mosque
Takut	ตะกุด	canal, pond
Talat	ตลาด	market
Tamnak	ตำหนัก	villa,royal residence
Tanjung	ตันจง	head land,cape,point
Terusan	ตรุซัน	channel
Tat	ตาด	waterfall
Tha	ท่า	ferry

Thale	ทะเล	sea,lagoon,lake
Thalu	ทะลุ	pond
Tham	ถ้ำ	cave
Thamnop	ทำนบ	dam
Thang	ทาง	road,stream
Thang Rotfai	ทางรถไฟ	railroad
Thanon	ถนน	road
That	ธาตุ	pagoda,stupa
Thithamkan Pamai	ที่ทำการป่าไม้	forestry office
Thio Khao	ทิวเขา	mountain,mountain range
Thueak Khao	เทือกเขา	mountain,mountain range
Thung	ทุ่ง	field, meadow
Trok	ตรอก	road
U – mong	อุโมงค์	tunnel
Wang	วัง	marsh,bend(of stream),pond
Wang	วัง	palace
Wat	วัด	monastery

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