

Proposal to Encode the Gurung Khema in Universal Character Set

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1. Introduction

This is a proposal to encode the Gurung Khema in the Universal Character Set. It supersedes the following documents:

- ‘N4019 L2/11-106’ Introducing the Khema Script for Writing Gurung[2]
- ‘L2/11-047’ Submission of Gurung Script[1]

The major changes include:

- Renaming of the block and character names to refer to “Gurung Khema”, after script creator Pim Bahadur Gurung, rather than “Khema”.
- Inclusion of LineBreak, Syllabic Categories and Positional Categories.[§ 6.2,6.3 & 6.4]
- Inclusion of Punctuation “Double Danda”. [§ 3.13]

2. Background

Gurung Khema (also called ‘*Khemā Phīri*’ ཀློལ་ རྩི་, ‘*Khemā lipi*’ ཀློལ་ ལྷོ་ or ‘*Tamū Khemā Phīri*’ ཏཱུ་ ཀློལ་ རྩི་) is an alphasyllabary based upon the Brahmi model. Gurung Khema (ཀློལ་) is a script used for writing Gurung (ISO 639:ggn) and (ISO 639:gvr)[3], a Tibeto-Burman minority language of 325,622 people (census 2011) [6] primarily spoken in Kaski District, Syangja District, Lamjung District, Tanahu District, Gorkha District, Manang District, Mustang District and Parbat District Nepal [6] and in the South Sikkim District, West Sikkim District and East Sikkim District of Sikkim, India[25][see fig.7]. It was recognized as an official language of Sikkim. The Sikkim state government has been recognizing the Gurung Khema as the Gurung script in year 1997 [see fig.25] and Indian government in year 2020. And till class 12th, Gurung language class is being conducted by preparing textbooks in Gurung Khema.

Gurung people also known as *Tamū* ཏཱུ་ / ཏཱུ་. The autonyms are *Tamū Kyui* (ཏཱུ་ རྩི་ལྷོ་ / ཏཱུ་ རྩི་ལྷོ་), Tamuki, Tamukya, Tamu Qi, Tamu Kui, Tamu Ta, etc. Gurung Language written in five scripts i.e. Gurung Khema, Khe Phri, Devanagari, Tibetan and Roman. Devanagari is commonly used by Gurung people specifically in Nepal, but Gurung Khema and Khe Phri are the own script of Gurung Language.

Khe Phri created by Jagan Lal Gurung during 1944’s World War. In 1944, when Jagan Lal Gurung was fighting in Burma during World War II, he came up with an ingenious method of communication. As his battalion was composed primarily of Gurungs, Jagan Lal began to communicate in Gurung language. When the war ended, Jagan Lal had acquired a newfound interest in his native tongue, an interest that led to him developing a script for the oral Gurung language. Combining various signs and symbols, Jagan Lal developed a rudimentary script, which today is known as Khe Phri. When Jagan Lal returned to Nepal, he began teaching Khe Phri to the children in his village of Hyanjakot. But Jagan Lal received a lot of threats from Kings of Nepal for teaching the children, but he did not budge. When he was about to be arrested, he ran away from Nepal, back to his duty in the Indian Army. Jagan Lal came back to Nepal in 1965, and immediately began lobbying for his beloved script. He taught many, but he made little progress in his lifetime.[17][19]

Central Board of Secondary Education (CBSE) of India conducting Gurung Board Examination for class 10th every year. In 2019, due to lack of Unicode standard font they used handwritten form of Gurung Khema for making question paper [see fig.13][21]. Sample paper of Gurung language for Class 10th is now available in Gurung Khema, using “KHEMA” font.[see fig.14][22]
Gurung language and Gurung Khema is teaching in the schools of Sikkim (South and West District), India. [see fig.19]

- **Newspaper:** A Gurung edition of the ‘*Sikkim Herald*’ མེ་མོ་མེ་མོ་ is produced in Gurung Khema. The newspaper was first published in July 16, 2001 edited by Pradeep Gurung. For some kinds of reason **this newspaper is not publishing, last publishing date was July 24, 2019**. This newspaper used **unofficial font** of Gurung Khema, which is not comprehensible by most of the people. Because its glyphs and diacritics are different from official Gurung Khema, many Gurung Associations rejected this font .[see fig.17][see table no.1][23]
- **Ephemera:** *Tamu Hyul Cōj Dhī Gurung Rāṣṭriya Pariṣad* མེ་མོ་ ལྷོ་ལྷོ་ མེ་མོ་ མེ་མོ་ མེ་མོ་ མེ་མོ་ མེ་མོ་ produces and distributes calendars using Gurung Khema.[see fig.15]
- **Linguistic works:** Tamu Samaj Belgium has published a textbook ‘*Ngyoi Tamu Kyufhi*’ མེ་མོ་ མེ་མོ་ མེ་མོ་ written by linguists Ratna Bahadur Tamu and Bhim Gurung, is the first ever Gurung book written in Gurung Khema [see fig.10][26] and the book ‘*Sigre Cō Thō Pe Chogi*’ མེ་མོ་ མེ་མོ་ མེ་མོ་ མེ་མོ་ written in both Gurung and Nepali for to learn Gurung Khema. [see fig.11]
- **Ritualistic works:** People using the Gurung Khema in their rituals, they are used it to write on tombstones.[see fig.18]
- **Literary Works:** Anthologies of Gurung poetry are printed in the Gurung Khema in the book of ‘*Ādhī Layā*’ མེ་མོ་ མེ་མོ་ . [see fig.9]
- **Digital Resources:** Gurung Khema has been adapted for use in digital media. It is based upon a non-Unicode encoding. An Android Application ‘*Khema Lipi མེ་མོ་ མེ་མོ་ -Type Tamu*’ is available in Google Playstore.[see fig.12][4]
- **Workshops:** Many workshops still conducting by the various Gurung associations throughout the years in Nepal, in India and in other countries also. [see fig.21(a)][see fig.21(b)][see fig.1(e)]
Tamu Lhosār མེ་མོ་ མེ་མོ་ and *Khemālipi Tālim* མེ་མོ་ མེ་མོ་ མེ་མོ་ are the yearly and quarterly workshops, conducted in several parts of all over the Nepal and Sikkim. [see fig.21(a)]

3. Implementation Details

3.1 Script

The script is assigned the name ‘*Gurung Khema*’. The proposed characters are intended for presenting current forms of Gurung Khema. The set consists of 58 characters: 1 vowel, 29 consonants, 11 vowel signs, 6 various signs, 1 punctuation and 10 digits.

3.2 Structure

Gurung Khema is an abugida/alphasyllabary writing system. It is written from left-to-right. Consonants may have an inherent vowels; it typically is pronounced [a] or [ə], normally never occurs in final position. The script has no regular system of conjuncts but it has virama to mute the inherent vowel [§ 3.10]. There is a vowel letter, functions as a vowel carrier. There are 6 auxiliary signs along with 11 dependent vowel signs. All the letters are the same as those of Devanagari but the vowel and consonants are read with post-fixed ‘-Mā’ (𑒧) and ‘-khe’ (𑒧) like ‘amā’, ‘kakhe’, ‘khakhe’, ‘gakhe’, etc. Its ligature is based on Brahmic model but GURUNG KHEMA CONSONANT HA, GURUNG KHEMA CONSONANT VA are in place of ‘nya’ and ‘nna’ as per Brahmic order; and there is one SA letter. Pim Bahadur created the alphabet with HA and VA where ‘nya’ and ‘nna’ would be expected in the usual Brahmic order as defined by Pim Bahadur is still taught today. [see table 1] [see fig.1(f)]

𑒧	𑒧	𑒧	𑒧	𑒧
KA	KHA	GA	GHA	NGA
𑒧	𑒧	𑒧	𑒧	𑒧
CA	CHA	JA	JHA	HA
𑒧	𑒧	𑒧	𑒧	𑒧
TTA	TTHA	DDA	DDHA	VA
𑒧	𑒧	𑒧	𑒧	𑒧
TA	THA	DA	DHA	NA
𑒧	𑒧	𑒧	𑒧	𑒧
PA	PHA	BA	BHA	MA
𑒧	𑒧	𑒧	𑒧	
YA	RA	LA	SA	

Table 1: showing the letter HA and VA are in place of letters ‘nya’ and ‘nna’ as per Brahmic model.

3.2 Vowel

Letter	Character name
𑒧	GURUNG KHEMA VOWEL A

VOWEL LETTER A 𑒧 functions as a vowel carrier. Other vowels are represented as dependent signs. Independent forms of other vowels are produced by writing dependent vowel signs with this letter. [see fig.1(c)], [see fig.2] and [see fig.5 (a) & 5 (b)]. [§ 4.1]

3.3 Consonants

There are 29 consonants letters, indigenously known as ‘Khephiri’ (𑒧) and the consonants are the same as those of Devanagari but the consonants are read with post-fixed ‘-khe’ (𑒧) like ‘kakhe’, ‘khakhe’, ‘gakhe’, etc [see fig.1(c)].

<i>Letter</i>	<i>Character name</i>	<i>IPA</i>
क	GURUNG KHEMA CONSONANT KA	[ka]
का	GURUNG KHEMA CONSONANT KHA	[k ^h a]
ख	GURUNG KHEMA CONSONANT GA	[ga]
खा	GURUNG KHEMA CONSONANT GHA	[g ^h a]
ङ	GURUNG KHEMA CONSONANT NGA	[ŋa]
च	GURUNG KHEMA CONSONANT CA	[tsa]
चा	GURUNG KHEMA CONSONANT CHA	[tʃ ^h a]
झ	GURUNG KHEMA CONSONANT JA	[dza]
झा	GURUNG KHEMA CONSONANT JHA	[dʒ ^h a]
ह	GURUNG KHEMA CONSONANT HA	[ha]
ट	GURUNG KHEMA CONSONANT TTA	[ta]
टा	GURUNG KHEMA CONSONANT TTHA	[t ^h a]
ड	GURUNG KHEMA CONSONANT DDA	[da]
डा	GURUNG KHEMA CONSONANT DDHA	[d ^h a]
व	GURUNG KHEMA CONSONANT VA	[wa]
त	GURUNG KHEMA CONSONANT TA	[ta]
ता	GURUNG KHEMA CONSONANT THA	[t ^h a]
द	GURUNG KHEMA CONSONANT DA	[da]
दा	GURUNG KHEMA CONSONANT DHA	[d ^h a]
न	GURUNG KHEMA CONSONANT NA	[na]
प	GURUNG KHEMA CONSONANT PA	[pa]
पा	GURUNG KHEMA CONSONANT PHA	[p ^h a]
ब	GURUNG KHEMA CONSONANT BA	[ba]
बा	GURUNG KHEMA CONSONANT BHA	[b ^h a]
म	GURUNG KHEMA CONSONANT MA	[ma]
य	GURUNG KHEMA CONSONANT YA	[ja]
र	GURUNG KHEMA CONSONANT RA	[ra]
ल	GURUNG KHEMA CONSONANT LA	[la]
स	GURUNG KHEMA CONSONANT SA	[sa]

3.3.1 Other uses of Consonants

- There is only one sibilant phoneme *s* [s] स 'GURUNG KHEMA CONSONANT SA' in Gurung, but to spell Nepali loanwords which has ङ [ŋ] श and ङ [s] ष sounds they use this only 'GURUNG KHEMA CONSONANT

SA' letter to represent both the sounds. For example: राष्ट्रिय *Rāṣṭriya* राष्ट्रीय 'National', श्यामने *Śyāmne* श्यामने 'with Shyam'.

- 'GURUNG KHEMA CONSONANT NA' is also used to write Nepali loanword phoneme *ɲ* [ɲ] ञ. For example: झण्डा *Jhaṇḍā* झण्डा 'Flag'.
- 'GURUNG KHEMA CONSONANT JHA' and 'GURUNG KHEMA CONSONANT DDHA' are usually used to write Nepali, Sanskrit loanwords. For example: खिाँ *Jhyāl* खियाँल 'Window', , दौद *Dhād* दाड 'Black'.
- Gurung Khema र is also used to write Nepali and Sanskrit loanword phoneme 'VOCALIC R' *r* [ri] ऋ for the initial position. For example: रतु *Rtu* ऋतु 'Season'.
- चा [tsʰa] and छ [gja] are used to write Devanagari conjunctions 'kssa' क्ष and 'jnya' ज्ञ respectively[5]. For example: क्सा *kṣetra* क्षेत्र 'Area', ज्ञान *Jñān* ज्ञान 'Knowledge'.

3.4 Vowel Signs

There are 11 dependent vowel signs, indigenously called Vowel signs as 'Prima' (फ्रिमा) and the vowel signs are the same as those of Devanagari but the vowel signs are read with post-fixed '-ma' (म). [see fig.4(b), 5(a) & 3(b)][§ 4.2]

Letter	Character name
◌ा	GURUNG KHEMA VOWEL SIGN AA
◌ि	GURUNG KHEMA VOWEL SIGN I
◌ी	GURUNG KHEMA VOWEL SIGN II
◌ु	GURUNG KHEMA VOWEL SIGN U
◌ू	GURUNG KHEMA VOWEL SIGN UU
◌े	GURUNG KHEMA VOWEL SIGN E
◌ै	GURUNG KHEMA VOWEL SIGN EE
◌ो	GURUNG KHEMA VOWEL SIGN AI
◌ौ	GURUNG KHEMA VOWEL SIGN O
◌ाँ	GURUNG KHEMA VOWEL SIGN OO
◌ाँ	GURUNG KHEMA VOWEL SIGN AU

3.5 Various Signs

There are 6 various signs, also known as *Lhomā* (लहोमा), means ancillary or auxiliary signs [see fig.3(b) & 4(a)]. These *Lhomās* were included in Gurung Khema in year of 2000 by Bal Narsingh Gurung during reshaping the all letters. [see fig.1(f)]

Letter	Character name
᳚	GURUNG KHEMA CONSONANT SIGN MEDIAL YA
᳛	GURUNG KHEMA CONSONANT SIGN MEDIAL VA
᳜	GURUNG KHEMA CONSONANT SIGN MEDIAL HA
᳝	GURUNG KHEMA CONSONANT SIGN MEDIAL RA
᳞	GURUNG KHEMA SIGN VIRAMA
᳟	GURUNG KHEMA SIGN ANUSVARA

3.6 Gurung Khema Consonant sign Medial Ya <᳚>

It is also known as ‘Yakār’ (यक़र). The sign <᳚> is written in the left side of the consonants in question. When it combines with consonants it kills the inherent /a/ of the consonants. Its IPA is [-ja]. For examples:

		<i>recommended</i>		<i>not recommended</i>		
᳚	→	᳚+᳚+᳚+᳚		᳚+᳚+᳚+᳚	<i>Nakyu</i>	‘Dog’
᳛	→	᳛+᳚+᳚		᳛+᳚+᳚	<i>Myā</i>	‘Cow’
᳜	→	᳜+᳚+᳚+᳚		᳜+᳚+᳚+᳚	<i>Bācyo</i>	‘Uncle’

3.7 Gurung Khema Consonant sign Medial Va <᳛>

It is also known as ‘Vakār’ (वक़र). The sign <᳛> is written in the left side of the consonants in question. When it combines with consonants it kills the inherent [a] of the consonants. Its IPA is [-wa]. For examples:

		<i>recommended</i>		<i>not recommended</i>		
᳛	→	᳛+᳛+᳚+᳚+᳚		᳛+᳛+᳚+᳚+᳚	<i>Nvār</i>	‘Cat’
᳜	→	᳜+᳛+᳚+᳚+᳚		᳜+᳛+᳚+᳚+᳚	<i>Mvoi</i>	‘Body’s’

3.8 Gurung Khema Consonant sign Medial Ha <᳜>

- It is also known as ‘Hakār’ (हक़र). The sign <᳜> is written in the right side of the GURUNG KHEMA VOWEL A, GURUNG KHEMA VOWEL AA and consonants in question. GURUNG KHEMA CONSONANT SIGN MEDIAL HA represents breathiness on the syllable in the Gurung Khema. When it combines with consonants, it kills the inherent [a] of the consonants. Its IPA is [-h̄a]. For examples:

		<i>recommended</i>		<i>not recommended</i>		
᳜	→	᳜+᳚+᳚+᳚+᳚		᳜+᳚+᳚+᳚+᳚	<i>Ahdhā</i>	‘Half’

𑌕𑌃𑌆𑌔 → 𑌕+𑌔+𑌃+𑌆+𑌔 𑌕+𑌔+𑌃+𑌆+𑌔 *Tinhor* ‘Inside’

- Gurung Khema does not have Visarga. Devanagari Sign Visarga and GURUNG KHEMA CONSONANT SIGN MEDIAL HA are quite different from each other in case of shape, position and uses. Devanagari Sign Visarga does not kill the initial letter’s inherent vowel or inherent schwa, but GURUNG KHEMA CONSONANT SIGN MEDIAL HA does and vowel signs can be carried by GURUNG KHEMA CONSONANT SIGN MEDIAL HA. GURUNG KHEMA SIGN MEDIAL HA represented by Devanagari in form of (्+ह) for example: यं॑ (यही), Human, ब॑ (बह), Son, etc.
- In Gurung, aspirations of a voiced stop or affricate are phonemically breathiness on the syllable and are marked by [h] and [ɦ]. The departure from the traditional bh [bʰ], dh [dʰ], etc., for voiced aspirates is necessitated by the contrast in Gurung between aspirated and breathiness following voiceless stops: षं॑ (षिह) Phi [pʰi] ‘Carrying Basket’, षं॑ (फि)Phi [pʰi] ‘Bark, Peel’.[5]

3.9 Gurung Khema Consonant sign Medial Ra <𑌃>

It is also known as ‘*Rakār*’ (रक़र). The sign <𑌃> is written in the beneath of the consonants in question. When it combines with consonants it kills the inherent /a/ of the consonants. It carries all the vowel signs and it does not carry various signs (*Lhomā*). Its IPA is [-ra]. It has similarity in glyph with ‘COMBINING CIRCUMFLEX ACCENT BELOW’ U+032D (̣), but this proposal for separate encoding for GURUNG KHEMA CONSONANT SIGN MEDIAL RA.

For examples:

		<i>recommended</i>		<i>not recommended</i>		
𑌕𑌃𑌆	→	𑌕+𑌃+𑌆+𑌃		𑌕+𑌃+𑌆+𑌃		<i>Pugrī</i> ‘Snake’
𑌕𑌃𑌆	→	𑌕+𑌃+𑌆+𑌃		𑌕+𑌃+𑌆+𑌃		<i>Prukī</i> ‘Breakfast’

- **Other uses of Gurung Khema Consonant sign Medial Ra <𑌃>**

Gurung Khema does not have VOWEL SIGN VOCALIC R (𑌃) like Devanagari, but to write Sanskrit and Nepali loanwords in Gurung Khema, users used <1612C,1611F> 𑌃+𑌃 = 𑌃 for Vocalic R sound. For example:

𑌕𑌃𑌆𑌔 → 𑌕+𑌃+𑌆+𑌃+𑌆𑌔 ‘ghriṇā’ घृणा [gḥriṇa:], Hate

3.10 Gurung Khema sign Virama <𑌃>

also known as ‘*Palithobā*’ (पलिथोबा). The sign <𑌃> is written in the beneath of the consonants in question. It functions as like to mute the inherent vowel [a] of the consonants. For example:

𑌕𑌃𑌆	→	𑌕+𑌃+𑌆+𑌃	<i>Tāngā</i>	‘Fish’
𑌕𑌃𑌆	→	𑌕+𑌃+𑌆+𑌃	<i>Lardid</i>	‘Fight’

It never carries vowel signs and other signs, but the modified syllable can also carry MEDIAL HA to create glottal stop phoneme [ʔ]. For example:

		IPA		
कृःयैज	→	क+्+ः+यै+ज	[kʔhjuɪ]	<i>K'hyui</i> 'Gurung'

3.11 Gurung Khema sign Anusvara <◌̣>

It is also known as 'Laūcve' (लौचवे). The sign <◌̣> is written on the top of the vowels and consonants in question. It is a nasalization mark of Gurung Khema. It corresponds to the Candrabindu (◌̣) in Devanagari. Its IPA is [̣].

It has similarity in glyph with 'CARON' U+02C7 (◌̣) and 'COMBINING CARON' U+030C (◌̣), but this proposal for separate encoding for GURUNG KHEMA SIGN ANUSVARA.

Position of GURUNG KHEMA SIGN ANUSVARA is in the exactly same place of all other vowel signs, so it looks serried that because due to limitations of the non-Unicode standard font. The exact position of the GURUNG KHEMA SIGN ANUSVARA would be atop of the all vowel signs. [see fig.4(a)] For example:

कृः	→	क+्+ः+कृ̣	<i>Krḥō</i>	'Master of slave'
ज	→	ज+ज̣	<i>Nā</i>	'Take it'

3.12 Digits

There is full set of decimal digits: O ZERO, १ ONE, २ TWO, ३ THREE, ४ FOUR, ५ FIVE, ६ SIX, ७ SEVEN, ८ EIGHT, ९ NINE. [see fig.2][see fig.1(c)]

3.13 Punctuation

Gurung Khema uses DOUBLE DANDA (||) at the end of the sentence. Full stop is used for to make abbreviations only. There are no script-specific punctuation marks. Latin marks, such as : , < > ; _ " () ? \ / - and ! are used. [see fig.22]

3.14 Basis for Character Shapes

The Gurung Khema proposed here for encoding in the UCS in the Standard Gurung Khema developed and promoted by the various Gurung Associations and provisional government of Sikkim, India after 2019.the proposed script is an extension of Standard Gurung Khema, which includes not commonly found in written or printed documents (before 2000) like in the book 'The Evaluation of Man and the Modern Society in Mountainous Sikkim' by Jash Raj Subba [see fig.25][16] and in the blog of 'Gorkha Times'[see fig.26][20].

Pim Bahadur Gurung created initial Gurung Khema, has 8 vowel letters (A,AA,I,U,E,AI,O,AU), 7 vowel signs (AA,I,U,E,AI,O,AU) and 29 consonants. But due to lack of printing font and good communications Gurung people of various regions started to write their own style of Gurung Khema letters. So variations in shapes of letter are very common in old handwritten texts [see fig.23].

The Newspaper *Sikkim Herald* Gurung Edition started to print newspaper by using their own non official font in the year 2001 [§2.1]. Sikkim Herald’s shapes of various letters of Gurung Khema are different from official Gurung Khema, they used their own style of vowel signs and anusvara sign in their newspaper. The dependent vowel sign u of *Sikkim Herald* and Official VOWEL SIGN II both are quite similar in glyphs, and so faults are there in *Sikkim Herald’s* font. For that reason most of the Gurung Khema users of Sikkim and Nepal they are not able to read this newspaper properly. This newspaper is not publishing yet. The last time it was published in July 24, 2019. [see table no.3]

In year of 2000, Bal Narsingh Gurung reshaped the Gurung Khema and added 6 more auxiliaries (*Lhomã*). The modern Standard font is totally based on Bal Narsingh’s design [see fig.1 (f)]. There are few documents has been written in old style of Gurung Khema. After 2000, maximum books and other materials were published in current form of letters. [see fig. 24]

The font “GURUNG KHEMA” for the proposed Gurung Khema was drawn by Tilak Gurung in the year 2000 and revised in 2019[see fig.1(c)]. This font is the official script font accepted by the various Gurung Associations. Modern printed books are publishing with this font. Gurung Language has long vowel sounds ([i:], [u:], [e:], [o:]) but Khe Prih and initial Gurung Khema hasn’t the long vowel letters and long vowel signs too. To represent these long vowel sounds , *Gurung Khema Lipi Board* decided to make new letters and signs and revised the Gurung Khema and created 4 new vowels (II,UU,EE,OO) and 4 new vowel signs (II,UU,EE,OO) in the year of 2019.

The comparison table no. 3 doesn’t include Lhomã and vowel signs. It includes only Subba, Gorkha Time’s handwritten styles, *Sikkim Herald’s* non-official self-made font with Standard Gurung Khema font “KHEMA”. [see table no.3]

4. Encoded Representations

4.1 Vowel letters

Some independent vowel may be a combination of a vowel letter and a dependent vowel sign. This is recommended. The encoded character for the independent vowel should be used.

		Use
𑄂	letter aa	<16100,1611E>
𑄃	letter i	<16100,1611F>
𑄄	letter ii	<16100,16120>
𑄅	letter u	<16100,16121>
𑄆	letter uu	<16100,16122>
𑄇	letter e	<16100,16123>
𑄈	letter ee	<16100,16124>
𑄉	letter ai	<16100,16125>
𑄊	letter o	<16100,16126>
𑄋	letter oo	<16100,16127>
𑄌	letter au	<16100,16128>

4.2 Vowel Signs

There 11 dependent vowel signs in GURUNG KHEMA. The dependent vowel signs should be atomically encoded with no decomposition. *Table no.2* shows vowel signs that can be analyzed, the single code point that should used to represent them in text, and the sequence of code points resulting from analysis that should not be used.

Table -2

	Use	Do Not Use
◌◌̄	1611E	<0304>
◌◌̄◌◌̄	1611F	<030A>
◌◌̄◌◌̄◌◌̄	16120	<1611F,1611F>
◌◌̄◌◌̄◌◌̄◌◌̄	16121	<1611E,1611E>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16122	<16121,030D>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16123	<1611E,1611F>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16124	<16123,030D>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16125	<16123,1611F> <1611E,16120>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16126	<1611E,16123> <16121,1611F>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16127	<1611E,16124> <16122,1611F>
◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄◌◌̄	16128	<16126,1611F> <16121,16120> <1611E,16125>

5. Collation

The collation order is as follows:

अ A < क KA < का KHA < ग GA < गा GHA < ङ NGA < च CA < चा CHA < ज JA < जा JHA < ण HA < ट TTA < द TTHA < द DDA < दा DDHA < व VA < ट TA < ट THA < ड DA < डा DHA < ण NA < ष PA < ष PHA < ब BA < बा BHA < म MA < य YA < र RA < ल LA < ल SA < ◌◌̄ SIGN AA < ◌◌̄ SIGN I < ◌◌̄ SIGN II < ◌◌̄ SIGN U < ◌◌̄ SIGN UU < ◌◌̄ SIGN E < ◌◌̄ SIGN EE < ◌◌̄ SIGN AI < ◌◌̄ SIGN O < ◌◌̄ SIGN OO < ◌◌̄ SIGN AU < ◌◌̄ CONSONANT SIGN MEDIAL YA < ◌◌̄ CONSONANT SIGN MEDIAL VA < ◌◌̄ CONSONANT SIGN MEDIAL HA < ◌◌̄ CONSONANT SIGN MEDIAL RA < ◌◌̄ VIRAMA < ◌◌̄ ANUSVARA < || DOUBLE DANDA < 0 DIGIT ZERO < 1 DIGIT ONE < 2 DIGIT TWO < 3 DIGIT THREE < 4 DIGIT FOUR < 5 DIGIT FIVE < 6 DIGIT SIX < 7 DIGIT SEVEN < 8 DIGIT EIGHT < 9 DIGIT NINE

6. Character Data

6.1 Character Properties

In the format of UnicodeData.txt:

```
16100;GURUNG KHEMA LETTER A;Lo;0;L;;;;N;;;;;
16101;GURUNG KHEMA LETTER KA;Lo;0;L;;;;N;;;;;
16102;GURUNG KHEMA LETTER KHA;Lo;0;L;;;;N;;;;;
16103;GURUNG KHEMA LETTER GA;Lo;0;L;;;;N;;;;;
16104;GURUNG KHEMA LETTER GHA;Lo;0;L;;;;N;;;;;
16105;GURUNG KHEMA LETTER NGA;Lo;0;L;;;;N;;;;;
16106;GURUNG KHEMA LETTER CA;Lo;0;L;;;;N;;;;;
16107;GURUNG KHEMA LETTER CHA;Lo;0;L;;;;N;;;;;
16108;GURUNG KHEMA LETTER JA;Lo;0;L;;;;N;;;;;
16109;GURUNG KHEMA LETTER JHA;Lo;0;L;;;;N;;;;;
1610A;GURUNG KHEMA LETTER HA;Lo;0;L;;;;N;;;;;
1610B;GURUNG KHEMA LETTER TTA;Lo;0;L;;;;N;;;;;
1610C;GURUNG KHEMA LETTER TTHA;Lo;0;L;;;;N;;;;;
1610D;GURUNG KHEMA LETTER DDA;Lo;0;L;;;;N;;;;;
1610E;GURUNG KHEMA LETTER DDHA;Lo;0;L;;;;N;;;;;
1610F;GURUNG KHEMA LETTER VA;Lo;0;L;;;;N;;;;;
16110;GURUNG KHEMA LETTER TA;Lo;0;L;;;;N;;;;;
16111;GURUNG KHEMA LETTER THA;Lo;0;L;;;;N;;;;;
16112;GURUNG KHEMA LETTER DA;Lo;0;L;;;;N;;;;;
16113;GURUNG KHEMA LETTER DHA;Lo;0;L;;;;N;;;;;
16114;GURUNG KHEMA LETTER NA;Lo;0;L;;;;N;;;;;
16115;GURUNG KHEMA LETTER PA;Lo;0;L;;;;N;;;;;
16116;GURUNG KHEMA LETTER PHA;Lo;0;L;;;;N;;;;;
16117;GURUNG KHEMA LETTER BA;Lo;0;L;;;;N;;;;;
16118;GURUNG KHEMA LETTER BHA;Lo;0;L;;;;N;;;;;
16119;GURUNG KHEMA LETTER MA;Lo;0;L;;;;N;;;;;
1611A;GURUNG KHEMA LETTER YA;Lo;0;L;;;;N;;;;;
1611B;GURUNG KHEMA LETTER RA;Lo;0;L;;;;N;;;;;
1611C;GURUNG KHEMA LETTER LA;Lo;0;L;;;;N;;;;;
1611D;GURUNG KHEMA LETTER SA;Lo;0;L;;;;N;;;;;
1611E;GURUNG KHEMA VOWEL SIGN AA;Mn;0;NSM;;;;;N;;;;;
1611F;GURUNG KHEMA VOWEL SIGN I;Mn;0;NSM;;;;;N;;;;;
16120;GURUNG KHEMA VOWEL SIGN II;Mn;0;NSM;;;;;N;;;;;
16121;GURUNG KHEMA VOWEL SIGN U;Mn;0;NSM;;;;;N;;;;;
16122;GURUNG KHEMA VOWEL SIGN UU;Mn;0;NSM;;;;;N;;;;;
16123;GURUNG KHEMA VOWEL SIGN E;Mn;0;NSM;;;;;N;;;;;
16124;GURUNG KHEMA VOWEL SIGN EE;Mn;0;NSM;;;;;N;;;;;
16125;GURUNG KHEMA VOWEL SIGN AI;Mn;0;NSM;;;;;N;;;;;
16126;GURUNG KHEMA VOWEL SIGN O;Mn;0;NSM;;;;;N;;;;;
16127;GURUNG KHEMA VOWEL SIGN OO;Mn;0;NSM;;;;;N;;;;;
16128;GURUNG KHEMA VOWEL SIGN AU;Mn;0;NSM;;;;;N;;;;;
16129;GURUNG KHEMA CONSONANT SIGN MEDIAL YA;Mc;0;L;;;;N;;;;;
```

1612A;GURUNG KHEMA CONSONANT SIGN MEDIAL VA;Mc;0;L;;;;N;;;;;
 1612B;GURUNG KHEMA CONSONANT SIGN MEDIAL HA;Mc;0;L;;;;N;;;;;
 1612C;GURUNG KHEMA CONSONANT SIGN MEDIAL RA;Mn;0;NSM;;;;;N;;;;;
 1612D;GURUNG KHEMA SIGN VIRAMA;Mn;9;NSM;;;;;N;;;;;
 1612E;GURUNG KHEMA SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;;
 1612F;GURUNG KHEMA DOUBLE DANDA;Po;0;L;;;;N;;;;;
 16130;GURUNG KHEMA DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
 16131;GURUNG KHEMA DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
 16132;GURUNG KHEMA DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
 16133;GURUNG KHEMA DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
 16134;GURUNG KHEMA DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
 16135;GURUNG KHEMA DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
 16136;GURUNG KHEMA DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
 16137;GURUNG KHEMA DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
 16138;GURUNG KHEMA DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
 16139;GURUNG KHEMA DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;

6.2 Linebreaking

In the format of LineBreak.txt:

16100..1611D ; AL # [30] GURUNG KHEMA LETTER A .. GURUNG KHEMA LETTER SA
 1611E..16128 ; CM # [11] GURUNG KHEMA VOWEL SIGN AA .. GURUNG KHEMA VOWEL SIGN AU
 16129..1612C ; SA # [04] GURUNG KHEMA CONSONANT SIGN MEDIAL YA .. GURUNG KHEMA CONSONANT SIGN MEDIAL RA
 1612D..1612E ; CM # [02] GURUNG KHEMA SIGN VIRAMA .. GURUNG KHEMA SIGN ANUSVARA
 1612F ; BA # GURUNG KHEMA DOUBLE DANDA
 16130..16139 ; NU # [10] GURUNG KHEMA DIGIT ZERO .. GURUNG KHEMA DIGIT NINE

6.3 Syllabic Categories

In the format of IndicSyllabicCategory.txt:

Indic_Syllabic_Category=Bindu
 1612E ; Bindu # Mn GURUNG KHEMA SIGN ANUSVARA
 # Indic_Syllabic_Category=Virama
 1612D ; Virama # Mn GURUNG KHEMA SIGN VIRAMA
 # Indic_Syllabic_Category=Vowel_Dependent
 1611E..16128 ; Vowel_Dependent # Mn [11] GURUNG KHEMA VOWEL SIGN AA .. GURUNG KHEMA VOWEL SIGN AU
 # Indic_Syllabic_Category=Consonant_Placeholder
 16100 ; Consonant_Placeholder # Lo GURUNG KHEMA VOWEL A
 # Indic_Syllabic_Category=Consonant
 16101..1611D ; Consonant # Lo [29] GURUNG KHEMA LETTER KA .. GURUNG KHEMA LETTER SA
 # Indic_Syllabic_Category=Consonant_Medial
 16129..1612B ; Consonant_Medial # Mc [03] GURUNG KHEMA CONSONANT SIGN MEDIAL YA.. GURUNG KHEMA CONSONANT SIGN
 MEDIAL HA
 1612C ; Consonant_Medial # Mn GURUNG KHEMA CONSONANT SIGN MEDIAL RA
 # Indic_Syllabic_Category=Number
 16130..16139 ; Number # Nd [10] GURUNG KHEMA DIGIT ZERO .. GURUNG KHEMA DIGIT NINE

6.4 Positional Categories

In the format of IndicPositionalCategory.txt:

```
# Indic_Positional_Category=Right
1612B      ; Right # Mc GURUNG KHEMA CONSONANT SIGN MEDIAL HA
# Indic_Positional_Category=Left
16129..1612A ; Left # Mc [02] GURUNG KHEMA CONSONANT SIGN MEDIAL YA .. GURUNG KHEMA CONSONANT SIGN MEDIAL VA
# Indic_Positional_Category=Top
1611E..16128 ; Top # Mc [11] GURUNG KHEMA VOWEL SIGN AA .. GURUNG KHEMA VOWEL SIGN AU
1612E      ; Top # Mn GURUNG KHEMA SIGN ANUSVARA
# Indic_Positional_Category=Bottom
1612C      ; Bottom # Mn GURUNG KHEMA CONSONANT SIGN MEDIAL RA
1612D      ; Bottom # Mn GURUNG KHEMA SIGN VIRAMA
```

7. Acknowledgement

I would like to thank Resham Gurung, Tilak Gurung, Bhim Gurung and The National Council House of Tamu for support on a draft of this proposal and sharing insights on various aspects of encoding Gurung Khema.

U+16100

GURUNG KHEMA

U+1613F

	1610	1611	1612	1613
0	ᱠ	ᱡ	ᱢ	ᱣ
1	ᱤ	ᱥ	ᱦ	ᱧ
2	ᱨ	ᱩ	ᱪ	ᱫ
3	ᱬ	ᱭ	ᱮ	ᱯ
4	ᱰ	ᱱ	ᱲ	ᱳ
5	ᱴ	ᱵ	ᱶ	ᱷ
6	ᱸ	ᱹ	ᱺ	ᱻ
7	ᱼ	ᱽ	᱾	᱿
8	ᱠ	ᱡ	ᱢ	ᱣ
9	ᱤ	ᱥ	ᱦ	ᱧ
A	ᱨ	ᱩ	ᱪ	
B	ᱬ	ᱭ	ᱮ	
C	ᱰ	ᱱ	ᱲ	
D	ᱴ	ᱵ	ᱶ	
E	ᱸ	ᱹ	ᱺ	
F	ᱼ	ᱽ	᱾	

Independent Vowel

16100 अ GURUNG KHEMA LETTER A

Consonants

16101 क GURUNG KHEMA LETTER KA
16102 का GURUNG KHEMA LETTER KHA
16103 ख GURUNG KHEMA LETTER GA
16104 खा GURUNG KHEMA LETTER GHA
16105 ङ GURUNG KHEMA LETTER NGA
16106 च GURUNG KHEMA LETTER CA
16107 चा GURUNG KHEMA LETTER CHA
16108 झ GURUNG KHEMA LETTER JA
16109 झा GURUNG KHEMA LETTER JHA
1610A ण GURUNG KHEMA LETTER HA
1610B ट GURUNG KHEMA LETTER TTA
1610C दा GURUNG KHEMA LETTER TTHA
1610D व GURUNG KHEMA LETTER DDA
1610E दा GURUNG KHEMA LETTER DDHA
1610F ष GURUNG KHEMA LETTER VA
16110 ऌ GURUNG KHEMA LETTER TA
16111 ऍ GURUNG KHEMA LETTER THA
16112 ड़ GURUNG KHEMA LETTER DA
16113 ड़ा GURUNG KHEMA LETTER DHA
16114 ङ GURUNG KHEMA LETTER NA
16115 ङ GURUNG KHEMA LETTER PA
16116 ङा GURUNG KHEMA LETTER PHA
16117 ष GURUNG KHEMA LETTER BA
16118 षा GURUNG KHEMA LETTER BHA
16119 ष GURUNG KHEMA LETTER MA
1611A ष GURUNG KHEMA LETTER YA
1611B ऌ GURUNG KHEMA LETTER RA
1611C ऌ GURUNG KHEMA LETTER LA
1611D ऌ GURUNG KHEMA LETTER SA

Dependent Vowel Signs

1611E ॐ GURUNG KHEMA VOWEL SIGN AA
1611F ॐ GURUNG KHEMA VOWEL SIGN I
16120 ॐ GURUNG KHEMA VOWEL SIGN II
16121 ॐ GURUNG KHEMA VOWEL SIGN U
16122 ॐ GURUNG KHEMA VOWEL SIGN UU
16123 ॐ GURUNG KHEMA VOWEL SIGN E
16124 ॐ GURUNG KHEMA VOWEL SIGN EE
16125 ॐ GURUNG KHEMA VOWEL SIGN AI
16126 ॐ GURUNG KHEMA VOWEL SIGN O
16127 ॐ GURUNG KHEMA VOWEL SIGN OO
16128 ॐ GURUNG KHEMA VOWEL SIGN AU

Various Signs

16129 ॐ GURUNG KHEMA CONSONANT SIGN MEDIAL YA
1612A ॐ GURUNG KHEMA CONSONANT SIGN MEDIAL VA
1612B ॐ GURUNG KHEMA CONSONANT SIGN MEDIAL HA
1612C ॐ GURUNG KHEMA CONSONANT SIGN MEDIAL RA
1612D ॐ GURUNG KHEMA SIGN VIRAMA

1612E ॐ GURUNG KHEMA SIGN ANUSVARA

Punctuation

1612F || GURUNG KHEMA DOUBLE DANDA

Digits

16130 0 GURUNG KHEMA DIGIT ZERO

16131 १ GURUNG KHEMA DIGIT ONE

16132 २ GURUNG KHEMA DIGIT TWO

16133 ३ GURUNG KHEMA DIGIT THREE

16134 ४ GURUNG KHEMA DIGIT FOUR

16135 ५ GURUNG KHEMA DIGIT FIVE

16136 ६ GURUNG KHEMA DIGIT SIX

16137 ७ GURUNG KHEMA DIGIT SEVEN

16138 ८ GURUNG KHEMA DIGIT EIGHT

16139 ९ GURUNG KHEMA DIGIT NINE

A	B	C	D	A	B	C	D
ཨ	ཨ	ཨ	ཨ	ཨ	ཨ	ཨ	ཨ
ཨྀ	ཨྀ	ཨྀ	ཨྀ	ཨྀ	ཨྀ	ཨྀ	ཨྀ
ཨྂ	ཨྂ	ཨྂ	ཨྂ	ཨྂ	ཨྂ	ཨྂ	ཨྂ
N/A	N/A	N/A	ཨྃ	ཨྃ	ཨྃ	ཨྃ	ཨྃ
ཨ྄	ཨ྄	ཨ྄	ཨ྄	ཨ྄	ཨ྄	ཨ྄	ཨ྄
N/A	N/A	N/A	ཨ྅	ཨ྅	ཨ྅	ཨ྅	ཨ྅
ཨ྆	ཨ྆	ཨ྆	ཨ྆	ཨ྆	ཨ྆	ཨ྆	ཨ྆
N/A	N/A	N/A	ཨ྇	ཨ྇	ཨ྇	ཨ྇	ཨ྇
ཨྈ	ཨྈ	ཨྈ	ཨྈ	ཨྈ	ཨྈ	ཨྈ	ཨྈ
N/A	N/A	N/A	ཨྉ	ཨྉ	ཨྉ	ཨྉ	ཨྉ
ཨྐ	ཨྐ	ཨྐ	ཨྐ	ཨྐ	ཨྐ	ཨྐ	ཨྐ
ཨྑ	ཨྑ	ཨྑ	ཨྑ	ཨྑ	ཨྑ	ཨྑ	ཨྑ
ཨྒ	ཨྒ	ཨྒ	ཨྒ	ཨྒ	ཨྒ	ཨྒ	ཨྒ
ཨྒྷ	ཨྒྷ	ཨྒྷ	ཨྒྷ	ཨྒྷ	ཨྒྷ	ཨྒྷ	ཨྒྷ
ཨྔ	ཨྔ	ཨྔ	ཨྔ	ཨྔ	ཨྔ	ཨྔ	ཨྔ
ཨྕ	ཨྕ	ཨྕ	ཨྕ	ཨྕ	ཨྕ	ཨྕ	ཨྕ
ཨྖ	ཨྖ	ཨྖ	ཨྖ	ཨྖ	ཨྖ	ཨྖ	ཨྖ
ཨྗ	ཨྗ	ཨྗ	ཨྗ	ཨྗ	ཨྗ	ཨྗ	ཨྗ
ཨ྘	ཨ྘	ཨ྘	ཨ྘	ཨ྘	ཨ྘	ཨ྘	ཨ྘
ཨྙ	ཨྙ	ཨྙ	ཨྙ	ཨྙ	ཨྙ	ཨྙ	ཨྙ
ཨྚ	ཨྚ	ཨྚ	ཨྚ	ཨྚ	ཨྚ	ཨྚ	ཨྚ
ཨྛ	ཨྛ	ཨྛ	ཨྛ	ཨྛ	ཨྛ	ཨྛ	ཨྛ
ཨྜ	ཨྜ	ཨྜ	ཨྜ	ཨྜ	ཨྜ	ཨྜ	ཨྜ
ཨྜྷ	ཨྜྷ	ཨྜྷ	ཨྜྷ	ཨྜྷ	ཨྜྷ	ཨྜྷ	ཨྜྷ
ཨྞ	ཨྞ	ཨྞ	ཨྞ	ཨྞ	ཨྞ	ཨྞ	ཨྞ
ཨྟ	ཨྟ	ཨྟ	ཨྟ	ཨྟ	ཨྟ	ཨྟ	ཨྟ
ཨྠ	ཨྠ	ཨྠ	ཨྠ	ཨྠ	ཨྠ	ཨྠ	ཨྠ
ཨྡ	ཨྡ	ཨྡ	ཨྡ	ཨྡ	ཨྡ	ཨྡ	ཨྡ

Table 3: Comparison of Gurung Khema handwritten form used by Subba and Gorkha Times blog (columns 'A' and 'B') and Sikkim Herald's non official font (column 'C') with the digitized Official Gurung Khema font "KHEMA" developed by Tilak Gurung (column 'D').[16][20]

A	B	C	A	B	C	A	B	C
अ	ཨ	अ	आ	ཨ	ध	ँ	ཨ	ी
क	ཀ	क	उ	ཨ	न	ं	ཨ	ो
ख	ཁ	ख	ठ	ཨ	प	ं	ཨ	ौ
ग	ག	ग	ड	ཨ	फ	ि	ཨ	्य
घ	ག	घ	ण	ཨ	ब	ि	ཨ	्व
ङ	ཀ	ङ	श	ཨ	भ	ं	ཨ	्ह
च	ཅ	च	ष	ཨ	म	ं	ཨ	्र
छ	ཅ	छ	य	ཨ	य	ं	ཨ	्र
ज	ཇ	ज	र	ཨ	र	ं	ཨ	्र
झ	ཇ	झ	ल	ཨ	ल	०	०	०
ञ	ཇ	ञ	स	ཨ	स	१	१	१
ट	ཅ	ट	ा	०	ा	०	२	२
ठ	ཅ	ठ	ि	०	ि	०	३	३
ड	ཅ	ड	ी	०	ी	०	४	४
ण	ཅ	ण	े	०	े	०	५	५
श	ཅ	व/व	ै	०	ै	०	६	६
ष	ཅ	त	ै	०	ै	०	७	७
य	ཅ	थ	ै	०	ै	०	८	८
र	ཅ	द	ै	०	ै	०	९	९
ल	ཅ							

Table 4: Comparison table of Gurung Khema (column 'A') with Tibetan (column 'B') and Devanagari (column 'C').

KUHYI TALOKYE

Volume i

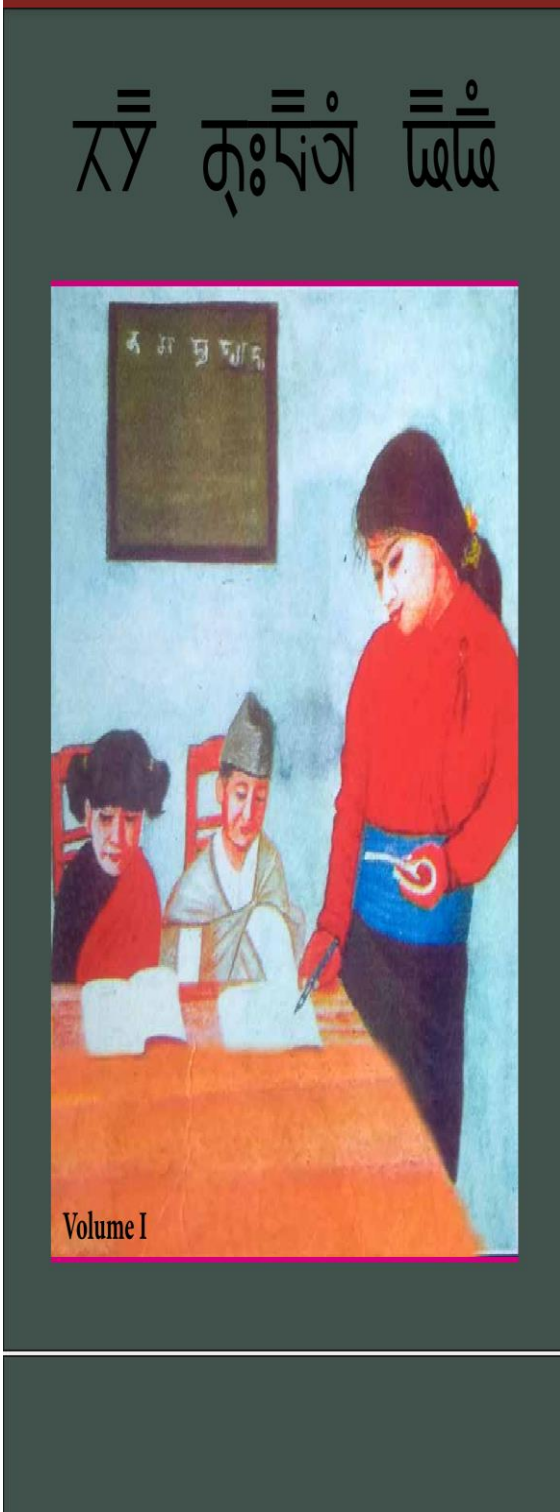
Prepared By : Megraj Gurung

Reprint - 2013

Published on behalf of the Human Resource
Development Department, Government of Sikkim and
Printed by Jana Pakshyan Prakashan-7, Super Market, Gangtok at
Systematic Designer and Printer Pvt.Ltd. Siliguri.

II

Figure 1(a): Picture from Khyui Talokye Volume-I ཀུམྱི་ཐལོཀུཡེ་ བོལུམ་-i for class one (2013:2).[13]



TAMU KHUYI LULEY

(Gurung Language)
Volume - II(Class-II)

Prepared By
Megraj Gurung 'Kon'
Padma Gurung



Published By:
Human resource Development Department,
Government of Sikkim, Gangtok.

Figure 1(b): Cover picture of Tamu Khyui Lule volume-I *सय क्खुयि लुले* *बोब-1* for class one (2006) and front page of Tamu Khyui Lule volume-II *सय क्खुयि लुले* *बोब-2* for class two (2013:1).[8]

खेमा फ़ी लुब
(सिक्ने तरिका)

अमाँ-ज	आमाँ- जै	इमाँ- जं	उमाँ- जै	
एमाँ- जै	ऐमाँ- जै	ओमाँ- जै	औमाँ- जै	
क	का	ख	खा	ख
कखे	खखे	गखे	घखे	ङखे
च	चा	झ	झा	ण
चखे	छखे	जखे	भखे	हखे
ट	टा	ड	दा	ण
टखे	ठखे	डखे	ढखे	वखे
र	रा	झ	झा	ऽ
तखे	थखे	दखे	धखे	नखे
ठ	ठा	ड	दा	ण
पखे	फखे	बखे	भखे	मखे
य	रा	ल	रु	
यखे	रखे	लखे	सखे	

Figure 1(c): Picture showing full Gurung Khema alphabetical chart (revised letters are not included) with their pronunciations in Nepali from book 'Ngyoi Tamu Kyufi' खैजे सरे खैजे written by linguists Ratna Bahadur Tamu and Bhim Gurung(2003:76).[26]

कौं

क	का	ख	खा	ख
ख	खा	ख	खा	क
द	दा	द	दा	द
र	रा	र	रा	र
च	चा	च	चा	च
ड	डा	ड	डा	ड

7

Figure 1(d): Consonants from Khyui Talokye Volume-I कःसं रःसं खः-i for class one (2013:7).[13]

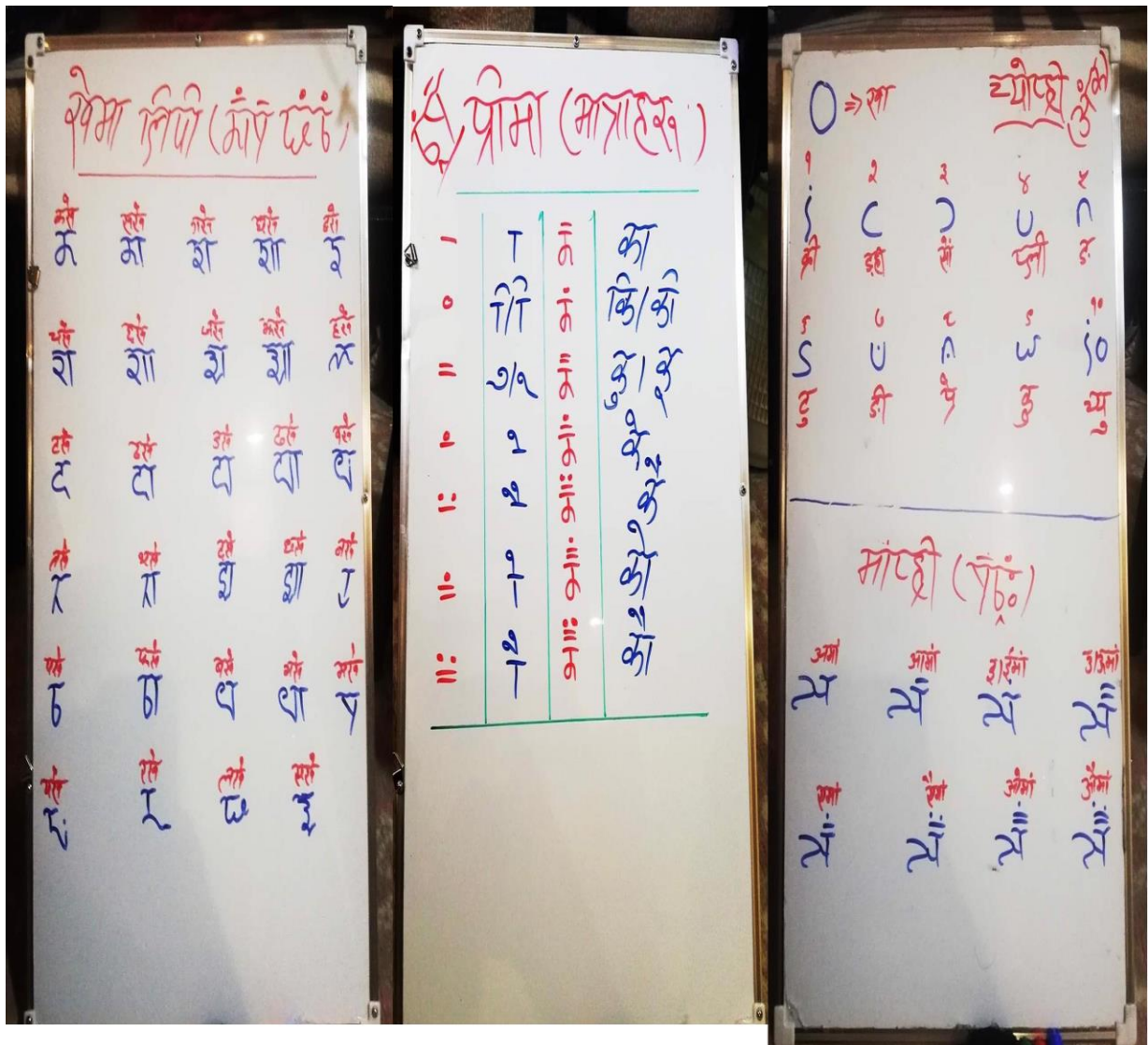


Figure 1(e): handwritten form of Gurung Khema used during workshop.2017. (Courtesy: Bhim Gurung)

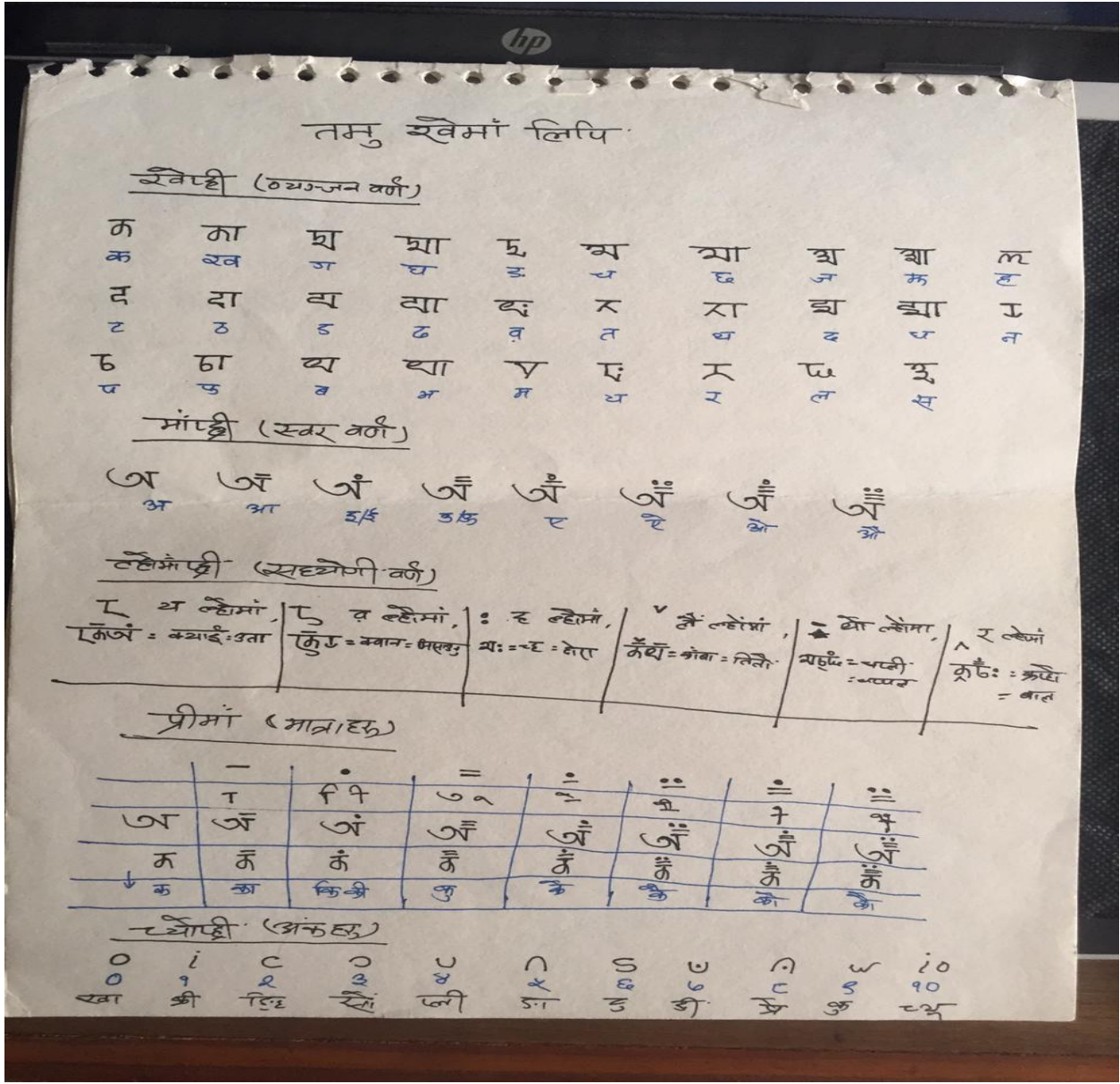


Figure 1(f): Picture showing real handwritten form of Gurung Khema, redesigned by Bal Narsingh Gurung in late 2000.

ཨོཾ་ VOWELS					
ཨ	ཨི	ཨུ	ཨེ	ཨོ	ཨཱ
ཨི	ཨུ	ཨེ	ཨོ	ཨོ	ཨཱ
ཀོཾ་ CONSONANTS					
ཀ	ཀཱ	ཁ	ཁཱ	ཁ	
ཁ	ཁཱ	ཁ	ཁཱ	ཁ	
ང	ངཱ	ད	དཱ	ད	
ར	རཱ	ཟ	ཟཱ	ཟ	
ཅ	ཅཱ	ཅ	ཅཱ	ཅ	
པ	པ	ཕ	ཕ		
མྱོཾ་ NUMERALS					
༠	༡	༢	༣	༤	༥

Figure 2: Revised Gurung Khema alphabetical chart provided by Tilak Gurung (2019).

स्वरलाई आमाँ आमाँ, इमाँ गरी पढिन्छ भने व्यञ्जनवर्णलाई कखे खखे, गखे गरि पढिन्छ तर, अक्षर संयुक्त भएर आउँदा खे र माँ उच्चरण स्वतः हटेर जान्छ ।

च्योफ्ही (अंक)

०	१	२	३	४	५	६	७	८	९	१०
ख	क्री	डिह	सों	प्ली	डा	टु	डि	प्रे	कु	च्यू

ल्होमा (सहयोगी अक्षर)

└ (य ल्होमा):

कूनै अक्षरसँग जोडिएर “य” आउँदा यो प्रायोग गरिन्छ ।

जस्तै : क्याई - क्रीं, छयाँबा - ख्रौं

└ व ल्होमा:

कूनै अक्षरसँग जोडिएर “व” आउँदा यो प्रयोग गरिन्छ ।

जस्तै : क्वाल्बा - क्रीं, क्वोन - ख्रौं

ॐ ह ल्होमा :

कूनै अक्षरसँग “ह” स्वर भएर आउँछ भने यो प्रयोग गरिन्छ ।

जस्तै : फ्ले - ह्रौं, न्हे - ह्रौं

√ लैं ल्होमा :

नाकेश्वर आजने अक्षरमा यो प्रयोग गरिन्छ ।

जस्तै : काँबा - क्रीं, छयाँबा - ख्रौं

Figure 3(a): Picture showing various signs Lhomā (𑄧𑄱𑄲𑄳), their usage in Nepali and numerals from book ‘Ngyoi Tamu Kyufhi’ 𑄧𑄱𑄲𑄳 𑄧𑄱𑄲𑄳 written by linguists Ratna Bahadur Tamu and Bhim Gurung(2003:77).[26]

र ल्होमाँ:

कुनै अक्षर सँग “र” जोडेर लगाउनु परेमा यो प्रयोग गरिन्छ ।

जस्तै र कृष्णो- कृष्णोः ह्रब - लृष

थो ल्होमाँ :

कुनै अक्षर आधा लाउनु परेमा यो प्रयोग गरिन्छ ।

जस्तै र नप्ली - नप्लीः, ह्रबस्यो- लृषाँइ

प्रीमा मात्राहरु

ज	जै	जं	जै	जं	जं	जै	जं
क	कै	कं	कै	कं	कं	कै	कं
	-	०	=	०	००	०	००
	।	िी	ुु	ँ	ँ	ो	ो
ब	बै	बं	बै	बं	बं	बै	बं

Figure 3(b): Picture showing various signs Lhomā (ल्होमाँ), Vowels and Vowels signs (revised vowels and vowel signs are not included) from book 'Ngyoi Tamu Kyufhi' [ह्यैजं स्रै कृष्णो] written by linguists Ratna Bahadur Tamu and Bhim Gurung(2003:78).[26]

ཨོཾྱ

འདྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ
འཇྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ
འཇྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ
འཇྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ
འཇྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ
འཇྲཱཾྱ	=	ཀྱ	ཀྱཱ	ཅྱ	ཅྱཱ	ཉྱ

Figure 4(a): Picture showing various signs Lhomã (ཨོཾྱ) and their positions, from the book Tamu Khyui Lule volume-I སྲོཾྱ ཀྱཱཾྱ ཨོཾྱ ལྱཱཾྱ (2006:28)[8]

ᱠᱟᱹ

—	=	ᱠᱟᱹ
◦	=	ᱠᱟᱹ
	=	ᱠᱟᱹ
◦	=	ᱠᱟᱹ
◦ ◦	=	ᱠᱟᱹ
◦	=	ᱠᱟᱹ
◦	=	ᱠᱟᱹ

Figure 4(b): Picture representing vowel signs (revised vowel signs are not included) from the book Tamu Khyui Lule volume-1 ᱠᱟᱹ ᱠᱟᱹ ᱠᱟᱹ ᱠᱟᱹ (2006:26)[8]

ꠘꠣꠤ प्रीमा (मात्रा)

ꠘ	ꠘꠤ	ꠘꠥ	ꠘꠦ	ꠘꠧ	ꠘ꠨	ꠘ꠩	ꠘ꠪	ꠘ꠫	ꠘ꠬	ꠘ꠭	ꠘ꠮
	-	◦	◦◦	=	=	◌	◌	◌	◌	◌	◌
ꠚ	ꠚꠤ	ꠚꠥ	ꠚꠦ	ꠚꠧ	ꠚ꠨	ꠚ꠩	ꠚ꠪	ꠚ꠫	ꠚ꠬	ꠚ꠭	ꠚ꠮
ꠛ	ꠛꠤ	ꠛꠥ	ꠛꠦ	ꠛꠧ	ꠛ꠨	ꠛ꠩	ꠛ꠪	ꠛ꠫	ꠛ꠬	ꠛ꠭	ꠛ꠮
ꠜ	ꠜꠤ	ꠜꠥ	ꠜꠦ	ꠜꠧ	ꠜ꠨	ꠜ꠩	ꠜ꠪	ꠜ꠫	ꠜ꠬	ꠜ꠭	ꠜ꠮
ꠝ	ꠝꠤ	ꠝꠥ	ꠝꠦ	ꠝꠧ	ꠝ꠨	ꠝ꠩	ꠝ꠪	ꠝ꠫	ꠝ꠬	ꠝ꠭	ꠝ꠮
ꠞ	ꠞꠤ	ꠞꠥ	ꠞꠦ	ꠞꠧ	ꠞ꠨	ꠞ꠩	ꠞ꠪	ꠞ꠫	ꠞ꠬	ꠞ꠭	ꠞ꠮
ꠟ	ꠟꠤ	ꠟꠥ	ꠟꠦ	ꠟꠧ	ꠟ꠨	ꠟ꠩	ꠟ꠪	ꠟ꠫	ꠟ꠬	ꠟ꠭	ꠟ꠮
ꠠ	ꠠꠤ	ꠠꠥ	ꠠꠦ	ꠠꠧ	ꠠ꠨	ꠠ꠩	ꠠ꠪	ꠠ꠫	ꠠ꠬	ꠠ꠭	ꠠ꠮
ꠡ	ꠡꠤ	ꠡꠥ	ꠡꠦ	ꠡꠧ	ꠡ꠨	ꠡ꠩	ꠡ꠪	ꠡ꠫	ꠡ꠬	ꠡ꠭	ꠡ꠮
ꠢ	ꠢꠤ	ꠢꠥ	ꠢꠦ	ꠢꠧ	ꠢ꠨	ꠢ꠩	ꠢ꠪	ꠢ꠫	ꠢ꠬	ꠢ꠭	ꠢ꠮
ꠣ	ꠣꠤ	ꠣꠥ	ꠣꠦ	ꠣꠧ	ꠣ꠨	ꠣ꠩	ꠣ꠪	ꠣ꠫	ꠣ꠬	ꠣ꠭	ꠣ꠮
ꠤ	ꠤꠤ	ꠤꠥ	ꠤꠦ	ꠤꠧ	ꠤ꠨	ꠤ꠩	ꠤ꠪	ꠤ꠫	ꠤ꠬	ꠤ꠭	ꠤ꠮
ꠥ	ꠥꠤ	ꠥꠥ	ꠥꠦ	ꠥꠧ	ꠥ꠨	ꠥ꠩	ꠥ꠪	ꠥ꠫	ꠥ꠬	ꠥ꠭	ꠥ꠮
ꠦ	ꠦꠤ	ꠦꠥ	ꠦꠦ	ꠦꠧ	ꠦ꠨	ꠦ꠩	ꠦ꠪	ꠦ꠫	ꠦ꠬	ꠦ꠭	ꠦ꠮
ꠧ	ꠧꠤ	ꠧꠥ	ꠧꠦ	ꠧꠧ	ꠧ꠨	ꠧ꠩	ꠧ꠪	ꠧ꠫	ꠧ꠬	ꠧ꠭	ꠧ꠮
꠨	꠨ꠤ	꠨ꠥ	꠨ꠦ	꠨ꠧ	꠨꠨	꠨꠩	꠨꠪	꠨꠫	꠨꠬	꠨꠭	꠨꠮
꠩	꠩ꠤ	꠩ꠥ	꠩ꠦ	꠩ꠧ	꠩꠨	꠩꠩	꠩꠪	꠩꠫	꠩꠬	꠩꠭	꠩꠮
꠪	꠪ꠤ	꠪ꠥ	꠪ꠦ	꠪ꠧ	꠪꠨	꠪꠩	꠪꠪	꠪꠫	꠪꠬	꠪꠭	꠪꠮
꠫	꠫ꠤ	꠫ꠥ	꠫ꠦ	꠫ꠧ	꠫꠨	꠫꠩	꠫꠪	꠫꠫	꠫꠬	꠫꠭	꠫꠮
꠬	꠬ꠤ	꠬ꠥ	꠬ꠦ	꠬ꠧ	꠬꠨	꠬꠩	꠬꠪	꠬꠫	꠬꠬	꠬꠭	꠬꠮
꠭	꠭ꠤ	꠭ꠥ	꠭ꠦ	꠭ꠧ	꠭꠨	꠭꠩	꠭꠪	꠭꠫	꠭꠬	꠭꠭	꠭꠮
꠮	꠮ꠤ	꠮ꠥ	꠮ꠦ	꠮ꠧ	꠮꠨	꠮꠩	꠮꠪	꠮꠫	꠮꠬	꠮꠭	꠮꠮
꠯	꠯ꠤ	꠯ꠥ	꠯ꠦ	꠯ꠧ	꠯꠨	꠯꠩	꠯꠪	꠯꠫	꠯꠬	꠯꠭	꠯꠮
꠰	꠰ꠤ	꠰ꠥ	꠰ꠦ	꠰ꠧ	꠰꠨	꠰꠩	꠰꠪	꠰꠫	꠰꠬	꠰꠭	꠰꠮
꠱	꠱ꠤ	꠱ꠥ	꠱ꠦ	꠱ꠧ	꠱꠨	꠱꠩	꠱꠪	꠱꠫	꠱꠬	꠱꠭	꠱꠮
꠲	꠲ꠤ	꠲ꠥ	꠲ꠦ	꠲ꠧ	꠲꠨	꠲꠩	꠲꠪	꠲꠫	꠲꠬	꠲꠭	꠲꠮
꠳	꠳ꠤ	꠳ꠥ	꠳ꠦ	꠳ꠧ	꠳꠨	꠳꠩	꠳꠪	꠳꠫	꠳꠬	꠳꠭	꠳꠮
꠴	꠴ꠤ	꠴ꠥ	꠴ꠦ	꠴ꠧ	꠴꠨	꠴꠩	꠴꠪	꠴꠫	꠴꠬	꠴꠭	꠴꠮
꠵	꠵ꠤ	꠵ꠥ	꠵ꠦ	꠵ꠧ	꠵꠨	꠵꠩	꠵꠪	꠵꠫	꠵꠬	꠵꠭	꠵꠮
꠶	꠶ꠤ	꠶ꠥ	꠶ꠦ	꠶ꠧ	꠶꠨	꠶꠩	꠶꠪	꠶꠫	꠶꠬	꠶꠭	꠶꠮
꠷	꠷ꠤ	꠷ꠥ	꠷ꠦ	꠷ꠧ	꠷꠨	꠷꠩	꠷꠪	꠷꠫	꠷꠬	꠷꠭	꠷꠮
꠸	꠸ꠤ	꠸ꠥ	꠸ꠦ	꠸ꠧ	꠸꠨	꠸꠩	꠸꠪	꠸꠫	꠸꠬	꠸꠭	꠸꠮
꠹	꠹ꠤ	꠹ꠥ	꠹ꠦ	꠹ꠧ	꠹꠨	꠹꠩	꠹꠪	꠹꠫	꠹꠬	꠹꠭	꠹꠮
꠺	꠺ꠤ	꠺ꠥ	꠺ꠦ	꠺ꠧ	꠺꠨	꠺꠩	꠺꠪	꠺꠫	꠺꠬	꠺꠭	꠺꠮
꠻	꠻ꠤ	꠻ꠥ	꠻ꠦ	꠻ꠧ	꠻꠨	꠻꠩	꠻꠪	꠻꠫	꠻꠬	꠻꠭	꠻꠮
꠼	꠼ꠤ	꠼ꠥ	꠼ꠦ	꠼ꠧ	꠼꠨	꠼꠩	꠼꠪	꠼꠫	꠼꠬	꠼꠭	꠼꠮
꠽	꠽ꠤ	꠽ꠥ	꠽ꠦ	꠽ꠧ	꠽꠨	꠽꠩	꠽꠪	꠽꠫	꠽꠬	꠽꠭	꠽꠮
꠾	꠾ꠤ	꠾ꠥ	꠾ꠦ	꠾ꠧ	꠾꠨	꠾꠩	꠾꠪	꠾꠫	꠾꠬	꠾꠭	꠾꠮
꠿	꠿ꠤ	꠿ꠥ	꠿ꠦ	꠿ꠧ	꠿꠨	꠿꠩	꠿꠪	꠿꠫	꠿꠬	꠿꠭	꠿꠮

Figure 5(a): Gurung Khema vowels and vowel signs with Devanagari pronunciation, provided by Tilak Gurung (2019).

ꠘꠣꠤ माफ्ही (स्वरवर्ण)

ꠘ	ꠘꠤ	ꠘꠥ	ꠘꠦ	ꠘꠧ	ꠘ꠨	ꠘ꠩	ꠘ꠪	ꠘ꠫	ꠘ꠬	ꠘ꠭	ꠘ꠮
ꠚꠤꠤ	ꠚꠤꠤꠤ	ꠚꠤꠤꠥ	ꠚꠤꠤꠦ	ꠚꠤꠤꠧ	ꠚꠤꠤ꠨	ꠚꠤꠤ꠩	ꠚꠤꠤ꠪	ꠚꠤꠤ꠫	ꠚꠤꠤ꠬	ꠚꠤꠤ꠭	ꠚꠤꠤ꠮

खेमालिपि अन्तराष्ट्रिय गोष्ठी २०१६ वाट थपिएका स्वरवर्णहरु

ꠘꠦ - ईꠤꠤꠤ, हेंꠤꠤꠤ 'ई' । ꠘꠧ - ऊꠤꠤꠤ, हेंꠤꠤꠤ 'ऊ'

ꠘ꠨ - एꠤꠤꠤ, हेंꠤꠤꠤ 'ए' । ꠘ꠩ - ओꠤꠤꠤꠤ, हेंꠤꠤꠤ 'ओ'

Figure 5(b): Vowels of Gurung Khema revised by Khema Lipi International Committee in 2019. Courtesy: Tilak Gurung (2019).



कौश्रुलं कर्णुद्विरुसुं चूंष्य (खेमा लिपि कम्प्युटरमा टाइप गर्ने)
 कौश्रुलं खेपी (व्यञ्जन वर्ण)

क s	ख का v	ग बा u	घ बा q	ङ म	च ब r
छ बा i	ज बा h	झ बा G	ह ल x	ट द H	ठ दा J
ड द F	ढ दा K	व थ j	त स t	थ सा y	द बा b
घ बा w	न ङ g	प ठ k	फ ठ L	व थ a	भ था e
म य d	य प o	र र M	ल ञ n	स झ z	

श्रुं मांषी (स्वरवर्ण)

c	- f	. i	.. w	= p	z	z B	z P	z C	z Q	z R	z S
अ	अ	अं	अं	अं	अं	अं	अं	अं	अं	अं	अं

लुं ल्होमा (सहयोगी वर्ण)

┌ = य ल्होमा	T	कू = क्य	कूा = ख्य	कूँअ = क्याई = उता
└ = व ल्होमा	E	कू = क्व	कूा = ख्व	कूँऱ = क्वोन = मिसाउनु
इ = ह ल्होमा	U	कूः = कह	कूः = मह	कूँऱ = फना = भोलि
˘ = लै ल्होमा	O	कू = क	कू = न	कूँथ = कांवा = तितो
ˆ = र ल्होमा	V	कू = क	कूा = ख	कूँऱ = कफो = कपाल
˙ = थो ल्होमा	I	कू = क	कूा = रु	कूँऱ = नप्ली = थेप्लो

श्रुं च्योपी (अंक)

0	o	1	ı	2	c	3	o	4	u	5	n	6	s	7	u	8	n	9	w	10	ıo
खा	क्री	इही	सो	प्ली	डा	ट	डी	प्रे	कु	च्यु											

Figure 6: De-facto Gurung Khema keyboard layout, for those that use the current ASCII-encoded fonts (2019).

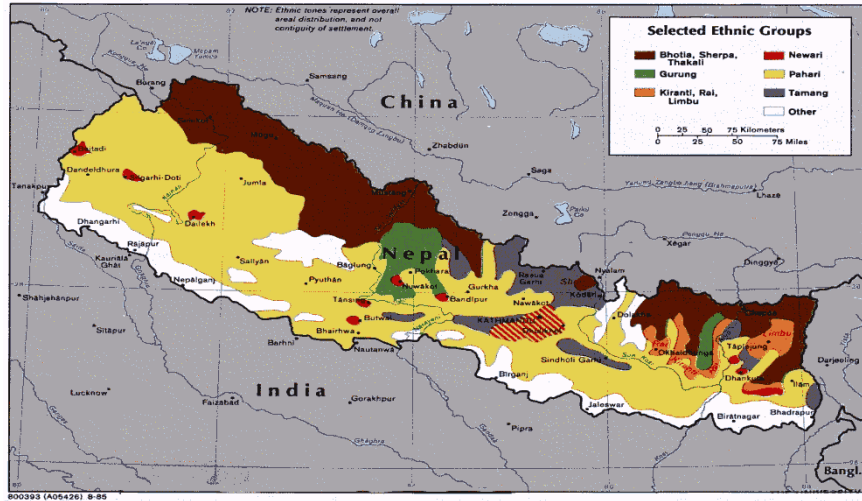


Figure 7: Map of Sikkim (sky blue) and Nepal (green) showing Gurung speaking areas (2021).[6][24]



Figure 8: Picture showing First International Conference of Tamu Gurung Khema Script (2019) and the 'Historical 1st International Tamu Conference-2019' (2019).

आधो लय

लोकबहादुर गुरुङद्वारा
रचना तथा सङ्गीतबद्ध गुरुङ तथा
नेपाली गीतहरू

जेशा यप



लोकबहादुर गुरुङ स्मृति प्रतिष्ठान

य॑र बैँडाँ जेँडाँ लंर॑यँ जेँडाँ
कँर काथे ब॑रकाड्जे ज॑रै रँज॑उ जेँडाँ C

ब॑रुडैथे च॑न्द जेँरै थैँद थब॑उ च॑ड्जे स॑यै C
च॑न्दथे क॑थे जेँडाँ ब॑ ड्जे ठाँ क॑थे यैँड्जे स॑यै C

य॑र बैँडाँ जेँडाँ लंर॑यँ जेँडाँ
कँर काथे ब॑रकाड्जे ज॑रै रँज॑उ जेँडाँ C

य॑रै बा॑उ जेँडाँ ड्जेड्जेर क॑रुदाँ यैँड्जे स॑यै C
द॑ ड्जेरु ब॑थे जेँडाँ ड्जेड्जे थ॑ड्जे यैँड्जे स॑यै C

य॑र बैँडाँ जेँडाँ लंर॑यँ जेँडाँ
कँर काथे ब॑रकाड्जे ज॑रै रँज॑उ जेँडाँ U

Figure 9: Picture showing front page and inside of the book 'Ādhī Layā', Note that the poem 'Mārā Cādi Ācaudi' य॑र बैँडाँ जेँडाँ written in Gurung Khema script (2021), published by Lok Bahadur Gurung Smriti Pratishthan (2021).

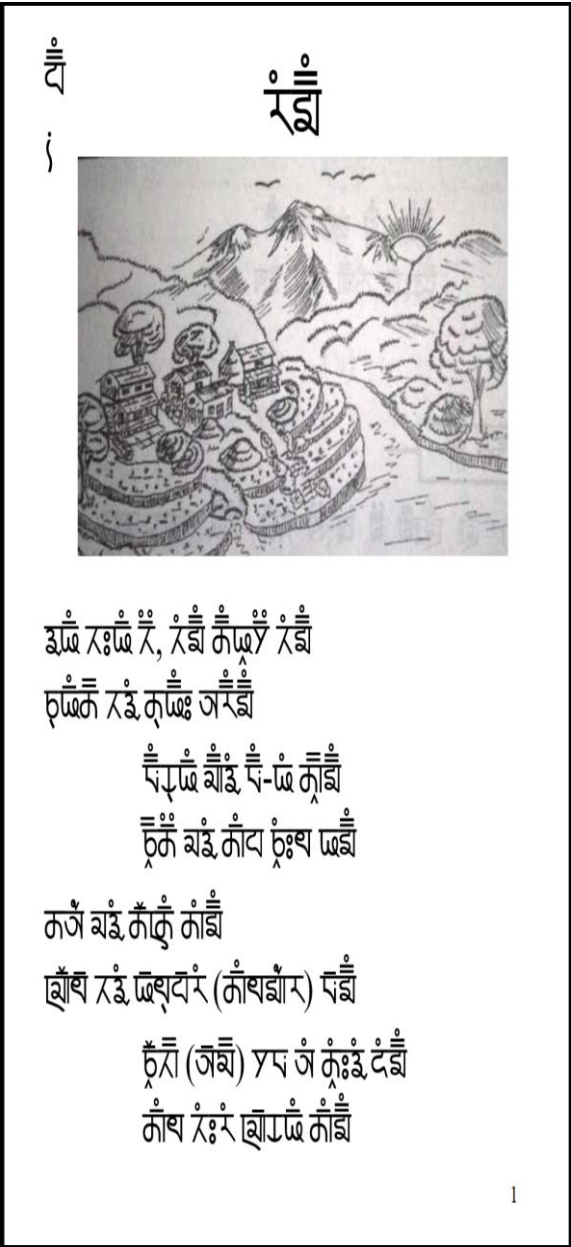
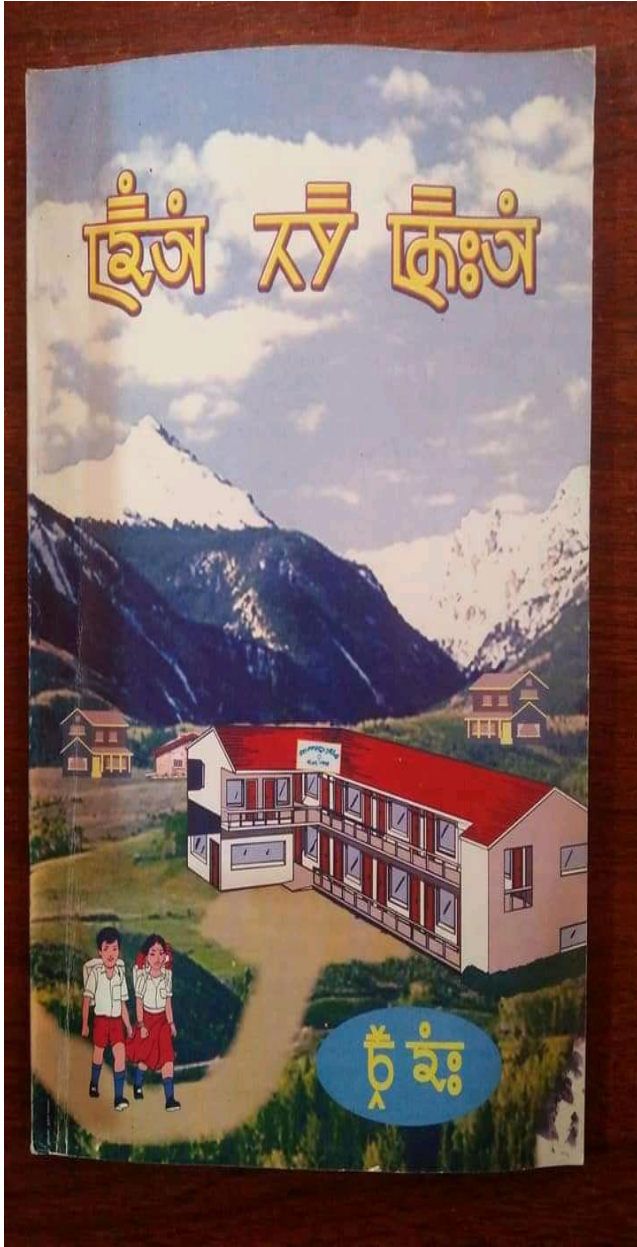


Figure 10: Picture representing the cover and first page of first ever Gurung Khema book 'Ngyoi Tamu Kyufi' रूंखूं रूंखूं रूंखूं written by linguists Ratna Bahadur Tamu and Bhim Gurung(2003).[26]



Figure 11: Picture showing the cover and inside of book 'Sigre Cō Ṭhō Pe Chogi' **सिग्ने चो ढ्हो पे छोगी** (2018).

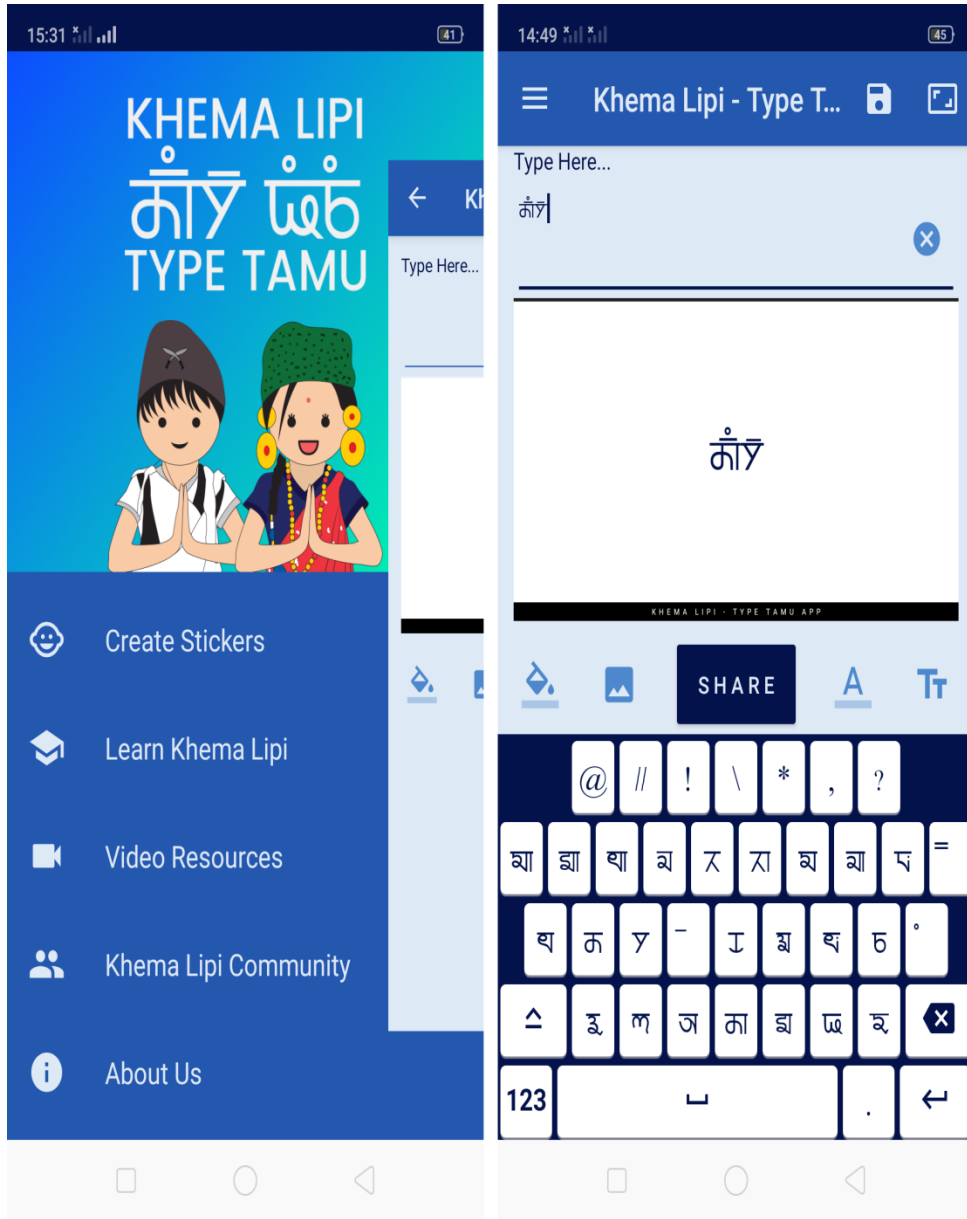


Figure 12: Picture of Android Application 'Khema Lipi ཀྱིྱ ཡོེྱ -Type Tamu'(Oct 29 2019).[4]

Series JMS

SET-4

Code No. 59

Roll No.

Candidates must write the Code on the title page of the answer-book.

- Please check that this question paper contains 7 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 10 questions.
- Please write down the Serial Number of the question before attempting it.
- 15 minute time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

GURUNG

Time allowed : 3 hours

Maximum Marks : 80

The question paper is divided into **four** sections :

Section A : Reading Comprehension (Unseen Passage)	15
Section B : (i) Letter Writing	08
(ii) Essay Writing	12
(iii) Translation	05
Section C : Applied Grammar	15
Section D : Literature (Prose & Poetry)	25

59

1

P.T.O.

59

2

SECTION A : **अज्ञात पाठ**

Q. 1. **पठो चतुर्षु पद्येषु त्रयाण्येव कौतुहलं शब्दं**
द्विजयति। शेषे चैव :-

संस्थापितं तत्र अ. च. 500 रं चतुर्षु
पद्येषु एवै कृत्स्नं चैव चैव चैव चैव
यत् ॥ अ संस्थापितं च, अ संस्थापितं चैव चैव
पत्रं चैव अ संस्थापितं चैव चैव ॥ अ संस्थापितं
चैव चैव चैव चैव ॥ अ संस्थापितं
चैव चैव चैव चैव चैव चैव चैव

यत् ॥ अ संस्थापितं चैव चैव चैव ॥
अ संस्थापितं चैव चैव चैव ॥ अ संस्थापितं
चैव चैव चैव चैव चैव चैव चैव
चैव चैव ॥

Figure 13: Picture representing front page and second page of CBSE class 10th Gurung question paper (2019, page no.1).[21]

SAMPLE QUESTION -2020-2021
SUBJECT: GURUNG (CODE-132)
CLASS – X

Time Allowed: 3 Hrs

Max. Marks- 80

Read the following instructions very carefully and follow them

- There are two parts in this question paper, Part 'A' & Part 'B'.
- Objective questions are asked in Part 'A'
- There are total 9 questions in Part 'A' in which optional questions of questions have been included
- Descriptive questions are asked in Part 'B'.
- There are total 7 questions in Part 'A' in which optional questions of questions have been included.

	PART 'A' थङ्गुरं चरक इय अङ्गुरं चरक	Marks
		10
01	रुणं कं वदंइ डंइंथंइं काँइः- डंइं थंइं काँइं कं उरुं थंइंउं उंइं ॥ व अकाँइंथं उं वरुं डंइंथं रूँइं ॥ वरुं काँइं डंइंउं अरुं उंइं उंइंउं उंइं थंइं रूँइं ॥ व उंइंथंउं उंइं उं इरुं उंइं उंइं व इरुं डंइं रूँइं ॥ वरुं उंइं उंइं उंइं उंइं रूँइं काँइं रूँइं रूँइं उंइं उंइं रूँइं रूँइं ॥ वरुं उंइं उंइं उंइं ॥ व वरुं उंइं - उंइं उंइं ॥ वरुं उंइं उंइं व कं कं उंइं उंइं ॥ वरुं वरुं उंइं उंइं कं कं रूँइं ॥ कं कं रूँइं उंइं व उंइं उंइं ॥ वरुं वरुं कं कं रूँइं उंइं उंइं अरुं वरुं कं कं उंइं उंइं वरुं व? उंइं उंइं रूँइं ॥ रूँइं उंइं उंइं रूँइं उंइं उंइं उंइं ॥ वरुं वरुं ॥ वरुं काँइं वरुं उंइं उंइं उंइं उंइं उंइं ॥ वरुं वरुं कं कं उंइं उंइं व रूँइं उंइं वरुं उंइं उंइं ॥ वरुं वरुं उंइं उंइं रूँइं रूँइं रूँइं ॥ वरुं उंइं रूँइं? वरुं उंइं उंइं उंइं? उंइं रूँइं उंइं रूँइं ॥ वरुं कं कं उंइं उंइं उंइं- वरुं उंइं रूँइं उंइं ॥ रूँइं उंइं कं कं रूँइं उंइं उंइं उंइं वरुं उंइं रूँइं उंइं कं कं रूँइं रूँइं वरुं उंइं ॥	5×1=5
	इंथ थंथ वरुं उंइंः-	
	रूँइं उंइं उंइं काँइं उंइं उंइं अरुं उंइं काँइं उंइं रूँइं ॥ क) उंइं उंइं उंइं रूँइं ॥ ग) उंइं उंइं उंइं रूँइं ॥	01

Figure 14: Picture representing class 10th Gurung sample question paper with official “KHEMA” font (2021).[22]



Figure 15: Pictures representing Tamu Hyul Cöj Dhi Gurung Rāṣṭriya Pariṣad सुत्रे लैखे बाँझ डाँ बाँसेर खड्कंफ ठरंडझ produces and distributes calendars using Gurung Khema (2017).



Figure 16: Showing various leaflets from street of Nepal using both Gurung Khema and Devanagari.



Figure 18: Usage of Gurung Khema in the tombstone of late Ram Pyaari Gurung (2010).



Figure 19: Picture showing teacher teaches Gurung Khema to the students in the govt. school of Sikkim (2019).

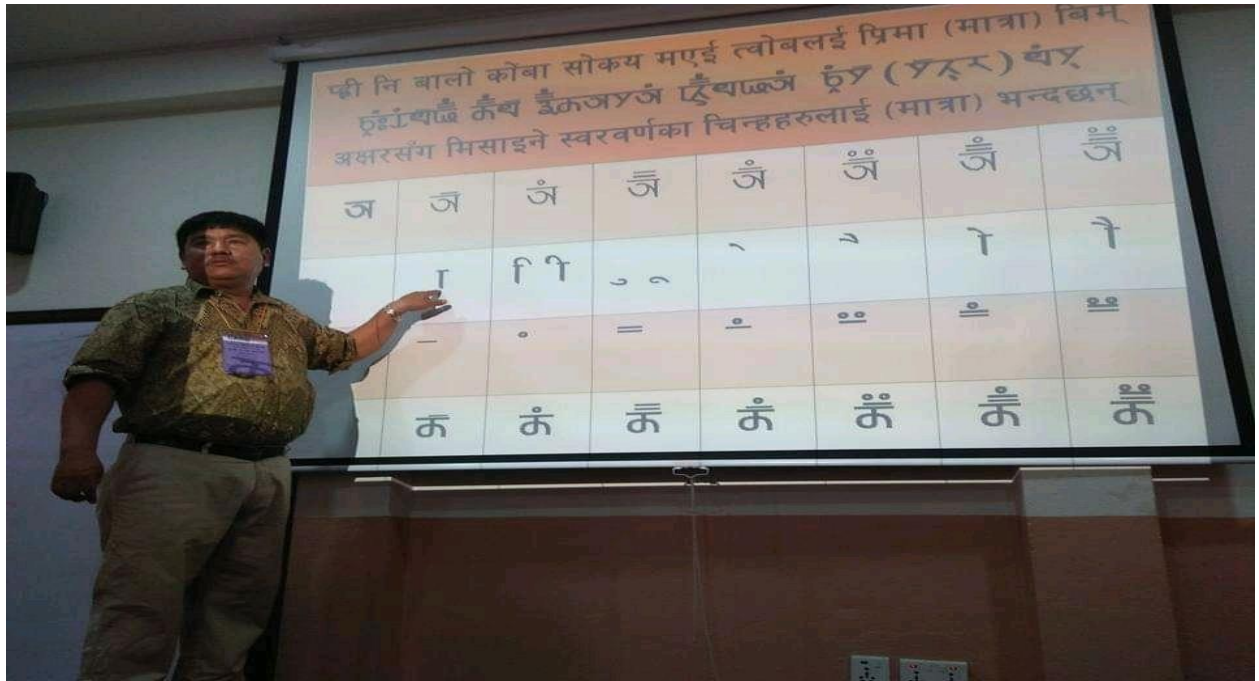


Figure 20(a): Picture representing Gurung Khema workshop conducting through video conferencing (2018).

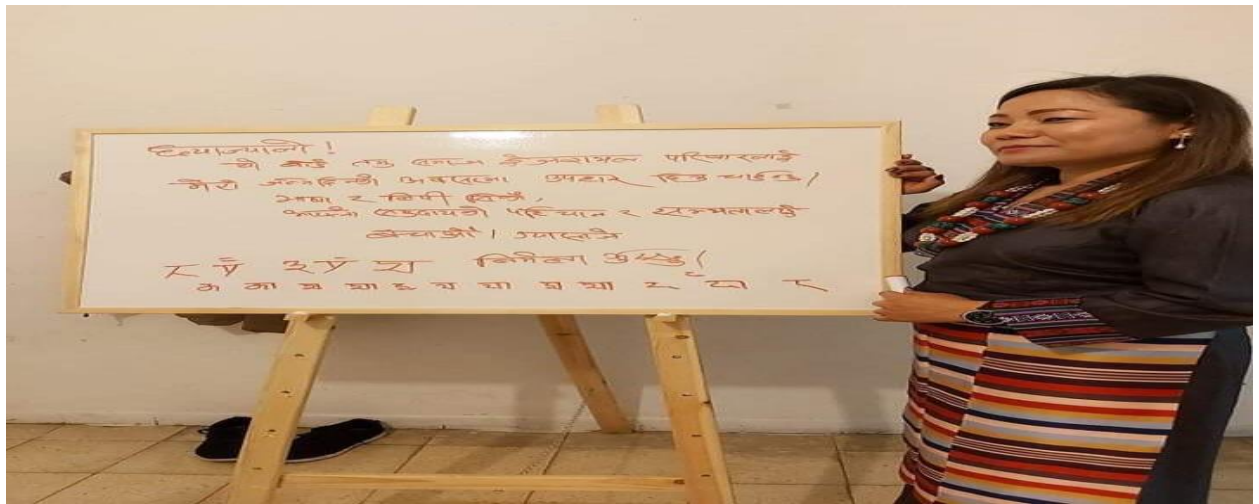


Figure 20(b): Picture representing Gurung Khema workshop in Israel, behalves of Tamu Samaj Israel (2020).



Figure 20(c): Picture representing participates of various age groups in Gurung Khema teaching-learning workshop (2018).

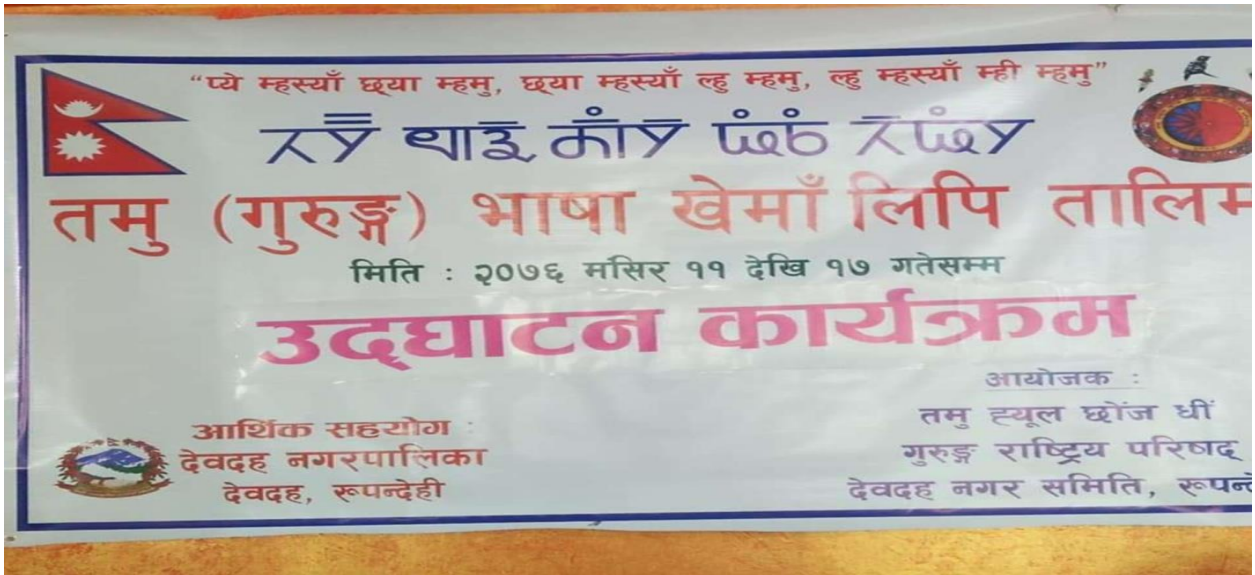


Figure 21(a): Picture showing the ‘Tamü Lhosar’ सुत्रे ळुङ्खुर programme of Nepal conducted by Tamü Hyul Cōj Dhī Guruṅg Rāṣṭriya Paṛiṣad (2020), and the banner of ‘Tamü Bhasha Gurung Khema Lipi Talim’ programme, conducted by Tamü Hyul Cōj Dhī Guruṅg Rāṣṭriya Paṛiṣad held in Devdaha (2019).

“थे म्हस्यां छ्या म्हमु, छ्या म्हस्यां ल्हु म्हमु, ल्हु म्हस्यां फि म्हमु”
 छिं यः छिं छिं यः छिं, छिं यः छिं छिं यः छिं, छिं यः छिं छिं यः छिं,

विश्व भर छरिएर रहन् भएका तम्हरु लगायत सम्पूर्ण नेपाली बाबा आमा,
 दाजु भाई तथा दिदी बहिनीहरुमा राष्ट्रिय पर्व तमू ल्होसार
 २०७७ को हार्दिक मंगलमय अशिमल ।

तमू ल्वो ल्हो ल्होसार शुभकामना आदान प्रदान
 जुम भर्चुअल कार्यक्रम २०२०

सः छिं छिं छिं छिं रं जं छिं छिं छिं रं छिं छिं छिं COCO

मिति : डिसेम्बर ३१ तारिख २०२० विहिवार
 इजरायली समय : सांझ ५ बजे देखि ८ : ३० बजे सम्म
 नेपाली समय : ८ : ४५ बजे देखि १२ : १५ बजे सम्म

माध्यम : ZOOM भर्चुअल

आयोजक
 सः छिं छिं छिं छिं रं जं छिं छिं छिं रं छिं छिं छिं
 तमू समाज इजरायल

Figure 21(b): A banner of Tamu Lhosar 2020 having Gurung Khema script used by Tamu Samaj Israel सः छिं छिं छिं छिं रं जं छिं छिं छिं रं छिं छिं छिं (31st Dec 2020).

दाकुदर डुधंन सत्रेडु

-डुधकण्ड

दाकुदर डुधंन सत्रेडुनं चिउ (WCU) जखडुन (रंरुनं
 नं) धरुधंनं अण्डर उंठुनं रंरुनं त्रिउ ॥ अ डुधंनं कानुध
 धरुधंन सत्रे उं डुधंनं चिउ धरुधंन सत्रेडुनं अण्डरं चिउ त्रिउ ॥
 अण्डरं चिउनं उं डुधंनं दं.धं. सत्रे उं
 अण्डरंनं उं चिउण्डर सत्रेडुनं चिउ ॥
 अण्डरं चिउ (WCU) रं डुधंन डुधंन
 ठा कानुध, कानुधधरुधंनं उंठुनं
 कानुधण्डर उण्डर ॥ चिउ (WNS) रं कण्डर
 कानुध उंठुनं कानुधधरुधंनं उंठुनं
 धं.धं. उंठुनं चिउ (WSO) रं उण्डर
 धरुधंनं चिउनं अण्डरंनं अण्डरंनं
 दं.धं. उंठुनं अण्डरंनं (Post Graduate in
 Obstetrics and gynecology) उण्डर उं चिउ (WNS) रं कानुध
 उंठुनं अण्डरंनं दं.धं. उंठुनं डुधंनं डुधंनं (Degree in civil
 Surgeon) उण्डर ॥ अण्डरं चिउ (WNS) रं धरुधंनं कानुध
 धरुधंनं उंठुनं अण्डरंनं रंरुनं चिउनं रं उण्डर ॥ चिउ (WNS)
 रं रंरुनं चिउनं अण्डरंनं अण्डरंनं चिउनं चिउनं चिउनं
 चिउनं उण्डर ॥ कानुधधरुधंनं धरुधंनं उंठुनं डुधंनं



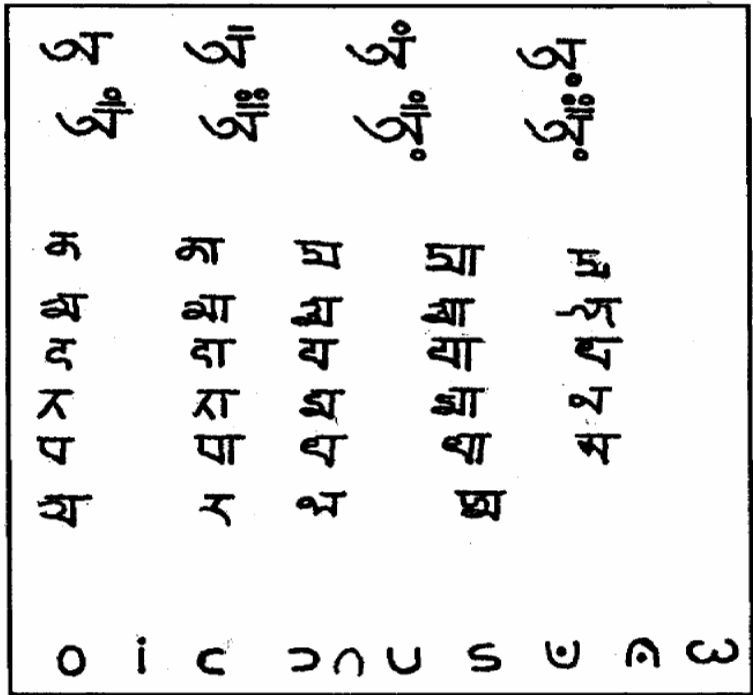
Figure 22: Picture showing various signs (blue) and Punctuations (green) from book Tamu Khyui Lule volume- VII सत्रे कुधंनं उण्डर धरुध-उ for class seven, chapter: दाकुदर डुधंन सत्रेडु “Dakṭar Sābitri Tamusvai” (2014:51) [12]

<p style="text-align: center;"> अंशन् पंशन्रुथे रं (सर्वे चोलयालमा आउने कराह्य) </p>			
अंशन्	ह्वीलब	स्वगत	WELCOME
अंशन्	ह्व्याजाली	नमस्का	NAMASTE
अंशन्	आशीमलां	शुभकामना	WISH
अंशन्	लहोसार	लहोसा	LHOSAR
अंशन् लेइ	ह्व्याल्ले ह्व्या	शुभयात्रा	SAFE JOURNEY
अंशन्	जंसाजि	दान्यबाद	THANK
अंशन्	खैपिनु	माफ गर्नु	EXCUSE
अंशन्	लोब	धनि	RICH
अंशन्	वल्थाब	गरिब	POOR
अंशन्	ली	कुंख	MISERY
अंशन्	ह्व्या	खुख	LUXURY
अंशन्	खेबादी	स्कूल	SCHOOL
अंशन्	लोपाही	शिक्षक	TEACHER
अंशन्	ह्व्यालई	वधाई	CONGRATULATION
अंशन्	ह्व्या	किताब	BOOK
अंशन्	ह्व्या	कपि	COPY

Figure 23: One of the few specimen of handwritten old form of Gurung Khema before redesigning by Bal Narsingh Gurung (2000).

7.8 Khema Script of Gurungs:

The Gurung language is written in Khema script and taught in the schools up to the primary level of education since the recognition



of Gurung language as one of the official languages of Sikkim in 1997. It is yet to be ascertained who, where and when the Khema script was developed. A majority of Gurung experts suggest that the script was developed in Nepal from the Sambhota Tibetan script, but looking at the form of the letters, the script has strong influences of both, the

Devnagari and Sambhota Tibetan scripts. In any case, the script was perhaps developed based on Brahmi script after the development of Sambhota and Devnagari scripts. The Khema script has the characters of both Sambhota and Devnagari scripts.

The Khema script of Gurungs has 7 vowels (a, e, u, i, ii, o, au), 7 vowel signs (aa, e, u, i, ii, o, au) and 29 consonants (same as Devnagari post-fixed with “khe”). The alphabets are the same as those of Devnagari but the vowels are read with post-fixed “ma” while the consonants post-fixed with “khe” (Gurung, Meghraj in Lipi Sangalo (ed) by Limboo, R.B.1998: 63-68).

Figure 24: Picture from Jash Raj Subba’s ‘The Evaluation of Man and the Modern Society Mountainous Sikkim.Delhi: Gyan Publishing House’, Hand written form of Old Gurung Khema chart and information about official status of Gurung Khema in Sikkim (2008:97).[16]

Gurung (Tamu Khema Phri) Scripts

Vowels

अ A	आ Ama	अं E-ma	अः U-ma
अि Ye-ma	अी Yai-ma	अु O-ma	अू Ou-ma

Consonants

www.gorkhatimes.wordpress.com

क Kakhe	का Khake	ख Gakhe	खा Ghake	ङ Ngakhe
च Chake	चा Chhakhe	ज Jakhe	जा Jhake	ञ Hakhe
ट Takhe	टा Thake	ड Dakhe	डा Dhake	ढ Wakhe
ण Takhe	णा thake	ष dakhe	षा dhakhe	न nakhe
प Pakhe	पा Phakhe	थ Bakhe	था Bhakhe	म Makhe
य Yakhe	र Rakhe	ल Lakhe	श Sakhe	

Figure 25: Gorkhatimes blogs 'Gurung(Tamu Gurung Khema Phri) scripts', variation in letters of Gurung Khema in handwritten form (2009).[20]

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जि.प्र.का.दर्ता.नं. : १०३२

स.क.प.आ.नं. : २७३१८



सुत्रे लैपु बाँझ झाँ बाँझ सुत्रेप ठरंझ
तम् हयुल धोज धी गुरुङ राष्ट्रिय परिषद
THE NATIONAL COUNCIL HOUSE OF TAMU

केन्द्रीय कार्यसमिति, मित्रनगर, काठमाडौं

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April, 7, 2021

To Dr. Deborah Anderson

Unicode Technical Director,

Unicode Technical Committee USA

Subject: Support application for 'Proposal to Encode Khema in Universal Character Set'

Dear Madam,

In reference to the above subject matter, it is to inform that The National Council House of Tamu is an umbrella organization of Tamu (Gurung). It is an Executive board member of The Government of Nepal National Foundation for Development of Indigenous Nationalities and council member of Nepal Federation of Indigenous Nationalities. It is a non-profitable organization. The Main objective of this organization is to preserve culture, religions, language of the Gurung's Community. It has 63 district communities, around 40 social organizations in Kathmandu valley and 35 country International Chapter.

History of Khema lipi (script)

The concept of Khema Lipi (script) was introduced by late shaman Pim Bahadur Gurung in 1977 AD. And it was developed by the intellectual and linguist Bal Narsing Gurung in 1993 AD. Due to the various proposals for the use and development of the Khema script, along with the need for a hrengo (long tone) in Gurung song, music and literature, the meeting of the International Coordinating Committee for Tamu (Gurung) Language and Khema Script Development held in Kathmandu in 2019 AD added four mapris (vowels) अँ, अँ, अँ, अँ. Khema script has 6 Supporting Letter (Lhoma) ལ, ལ, ལ, ལ, ལ, ལ. Lhomas are integrated part of Khema. Lhomas are very important characters of Khema.

"We are supporting tentative code table and Unicode block chart of Khema mentioned in 'Proposal to Encode Khema in Universal Character Set.' And our humble request to Unicode Committee to encode our Khema as soon as earlier. And try to give place Khema in Unicode version 14.0 and ISO as much as possible."

Yours sincerely,

Resham Gurung

A. Administrative

1. Title:

Proposal to Encode the Gurung Khema in Universal Character Set

2. Requester's name:

Biswajit Mandal (biswajitmandal.bm90@gmail.com)

3. Requester type (Member body/Liaison/Individual contribution):

Individual Contribution

4. Submission date: **14/07/2021**

5. Requester's reference (if applicable):

6. Choose one of the following:

This is a complete proposal:

Yes

(or) More information will be provided later:

No

B. Technical – General

1. Choose one of the following:

a. This proposal is for a new script (set of characters):

Yes

Proposed name of script:

Gurung Khema

b. The proposal is for addition of character(s) to an existing block:

Name of the existing block:

2. Number of characters in proposal:

57

3. Proposed category (select one from below - see section 2.2 of P&P document):

A-Contemporary **X** B.1-Specialized (small collection) B.2-Specialized (large collection)

C-Major extinct D-Attested extinct E-Minor extinct

F-Archaic Hieroglyphic or Ideographic G-Obscure or questionable usage symbols

4. Is a repertoire including character names provided?

Yes

a. If YES, are the names in accordance with the “character naming guidelines” in Annex L of P&P document?

Yes

b. Are the character shapes attached in a legible form suitable for review?

Yes

5. Fonts related:

a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

Biswajit Mandal (biswajitmandal.bm90@gmail.com)

b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

Tilak Gurung and The National Council House of Tamu (tamuhyula@gmail.com)

6. References:

a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes

b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes

7. Special encoding issues:

Yes

Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

See proposal for additional details

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before?

Yes

If YES explain

N4019

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes

If YES, with whom?

Tilak Gurung, Bhim Gurung, Resham Gurung, The National Council House of Tamu

If YES, available relevant documents:

See citations in text of proposal

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Yes

Reference:

See text of proposal

4. The context of use for the proposed characters (type of use; common or rare)

common

Reference:

See text of proposal

5. Are the proposed characters in current use by the user community?

If YES, where? Reference:

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

No

If YES, is a rationale provided?

If YES, reference:

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes

8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No

If YES, is a rationale for its inclusion provided?

If YES, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No

If YES, is a rationale for its inclusion provided?

If YES, reference:

10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?

No

If YES, is a rationale for its inclusion provided?

If YES, reference:

11. Does the proposal include use of combining characters and/or use of composite sequences? control function or similar semantics?

Yes

If YES, is a rationale for such use provided?

control function or similar semantics?

Yes

If YES, reference:

See text of proposal

Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

If YES, reference:

12. Does the proposal contain characters with any special properties such as control function or similar semantics?

No

If YES, describe in detail (include attachment if necessary)

13. Does the proposal contain any Ideographic compatibility characters?

No

If YES, are the equivalent corresponding unified ideographic characters identified?

If YES, reference: