

## PRELIMINARY PHONOLOGY OF RERA, A TANGSA VARIETY OF NORTHEAST INDIA<sup>1</sup>

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### Abstract

This paper provides a synchronic phonological analysis of the Rera language, a Tangsa language of the Northern Naga subgroup of Tibeto-Burman. It is spoken by approximately 2,000 people in Northeast India. Based on the author's own fieldwork, the study describes Rera Tangsa segmental phonology, tones, and phonotactics.<sup>2</sup> It differs from four previously described Tangsa languages in that it does not distinguish aspiration. Rera does not distinguish diphthongs like three other Tangsa varieties but has a relatively simple vowel inventory with eight monophthongs, similar to Hawa-Lak with five monophthongs.

**Keywords:** Rera, Tibeto-Burman, phonology  
**ISO 639-3 codes:** nst

### 1 Introduction

This paper provides a first description of the phonology of the Rera variety of Tangsa, a Tibeto-Burman language spoken in Northeast India with an estimated population of 2,000 speakers. They are commonly referred to by the exonyms Ronrang and Roira. Rera speakers themselves currently use the autonym Rera /re<sup>2</sup>ra<sup>2</sup>, ru<sup>2</sup>ra<sup>2</sup>/ in contemporary writings and official documents. The socio-political identity of the Rera in Northeast India is associated with the greater Tangsa ethnicity. The word Tangsa, containing the etyma /tan<sup>2</sup>/ 'mountain' and /sa<sup>1</sup>/ 'person', basically means 'mountaineers', a name coined by an Indian political officer (Morey 2017: 350). Another term for the Tangsa subgroup is Tase (Morey 2014). In Myanmar, the Tangsa people are also known as the *Tangshang*, though these two words are not cognate with Tangsa but a combination of the first names from a story of two siblings Tangnyu Wang and Shangnyu Wang (Statezni 2013: 5).

Rera does not have its own ISO code but is referred to by the larger Tangshang ISO 639-3 code: nst (Simons & Fennig, 2017). Within the greater Tibeto-Burman family, Tangsa languages are placed within the Bodo-Konyak group (Burling, 2002) and have been classified as Eastern Naga (Grierson 1903) and also Northern Naga (Voegelin 1977). Morey (2013) identifies around seventy Tangsa languages, which are further divided into the Pangwa and non-Pangwa groups. Pangwa differs from non-Pangwa in that it does not mark hierarchical relations in verbal person agreement markers (Morey 2013). The Pangwa groups are also known for their ritual and historical songs, called the Wihu songs, or Sahwi songs (Morey n.d.a). The Rera belong to the Eastern Pangwa subgroup of Northern Naga (Khan 2017).

The Rera people originally came from Myanmar, according to a 100-year-old map of Indo-Myanmar by a British colonist (Couchman 1934, see Appendix B). They were among the earliest Tangsa-speaking language groups to settle in Northeast India in the state of Arunachal Pradesh, Manmao district. There are also Rera communities in Changlang district. The location of Rera communities is shown in Figure 1. The

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red circles indicate the Rera villages situated in the frontier of Assam and Arunachal Pradesh states in India, including Balinong village, where the majority of the Rera people live.

The data collection for this project was made possible by a general interest on the part of native speakers in preserving their language and by collaboration with the “Rera Welfare Society”, which represents community interests and development work related to the community. While Manmao district is the Rera people’s original home, most of the research was carried out in Changlang district because of easy access to the villages. Audio recordings were created in .wav format with a sampling rate of 48 kHz, with a 16 bit depth. The recording equipment included a high definition ZoomQ3 audio-video recorder and, for most recording sessions, a high definition Olympus WS-852 audio recorder, along with omni-directional microphones. The recording process involved initial elicitation in groups of multiple speakers, which was later rechecked at the individual level and reanalysed for the best possible research and archiving results. In addition, most of the data was recorded from two native speakers, a female aged 55 and a male aged 27. The data comprised a total of 800 lexemes from various semantic domains. Each item was repeated three times at an interval of approximately two seconds, then recorded in a sentence frame to elicit connected speech. Transcriptions were then checked with community members across multiple sessions.

**Figure 1:** Location of Rera villages (Google maps 2017)



## 2 Previous research

Initial consonant inventories are similar across Tangsa languages in Northeast India. Stops usually occur in both the onset and coda positions, but voicing and aspiration contrasts are found only in the onset (Burling 2002). In-depth phonological descriptions are available for four Tangsa varieties. These include Moshang Tangsa with 22 consonants, nine monophthongs, and three diphthongs (Marrison 1967, as cited in Namkung 1996), Hawa-jap Tangsa with 23 consonants and five vowels (Das Gupta 1971, as cited in Namkung 1996), Chamchang Tangsa with 24 consonants, eight monophthongs, and three diphthongs (Morey n.d. b), and Shecyü Tangsa with 25 consonants, eight monophthongs and three diphthongs (Khan 2017). These phoneme inventories are summarized in Table 1.

All the varieties in Table 1 include contrastive voicing and aspiration for stop onsets, except for the alveolo-palatal phonemes which only contrast in aspiration. Shecyü has an additional dental obstruent, usually realized as a stop, which is the equivalent of the Chamchang /ts/ (Khan 2017). Furthermore, these two varieties are lexically identical (Jay and Khan 2012). Like Rera, Shecyü and Chamchang belong to the Eastern Pangwa subgroup of Tangsa.

While Moshang, Chamchang and Shecyü distinguish monophthongs and diphthongs, Hawa-jap only has monophthongs. Moshang, which is geographically closer to the Rera village where the current research was conducted, has more diphthongs than other Tangsa varieties (Morey n.d.a). It also shares many phonological as well as syntactic features with Rera (Morey p.c.). Therefore, the vowel inventory of Rera is expected to be

similar to Moshang, Chamchang, and Shecyü. Hawa-jap has five monophthong phonemes, whereas the other varieties distinguish six (Moshang) or eight (Chamchang, Shecyü) monophthongs and three diphthongs.

Recent descriptions of Tangsa tonal contrasts are provided for eight Tangsa varieties, i.e. Moshang, Chamchang, Mungray, Cholim, Lochhang, Ngaimong, Shecyü, and Rera (Morey 2014). The realisation of tones shows a high degree of variation for a three-way tonal contrast. Generally, Tone 2 appears to be the most stable across varieties, with pitch varying from mid to high to high falling. Tone 1 shows more variation with low, mid, high or high falling pitch. For example, Tone 1 in Chamchang is low-falling /21/, but in Rinkhu it is high level /55/ (Morey 2014: 662). In addition, Tone 1 is glottalized in some varieties. Glottalization in this context is final glottal closure interpreted as a laryngeal feature linked to tone, not a segment. Tone 3 has the most inconsistent patterns, varying between low, mid rising, mid falling, high falling and high pitch.

The distribution of contrastive tones in Tangsa varieties is sensitive to the syllable coda. A greater number of tonal contrasts are found in open or sonorant-final syllables than is found in stop-final syllables ending in /p, t, k, ʔ/. Stop-final syllables generally do not distinguish tone, with the exception of Cholim; this variety distinguishes all three tones in stop-final syllables (Morey 2013).

A few varieties may have up to four tones, such as Muklom, which has four tones in open and sonorant-final syllables and two tones in stop-final syllables (Mulder, forthcoming). The realization of glottalized tone on stop-final syllables (Mulder p.c.) corresponds well with Morey’s (2014) analysis. Mulder also proposes a two-way distinction between low and high tones for stop-final syllables.

The following sections are divided into the discussion of the Rera consonant inventory (§3), vowels (§4), and distinctive tonal categories (§5).

**Table 1:** *Previously described Tangsa phoneme inventories*

Variety	Consonants					Vowels				
<b>Moshang</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	c <sup>h</sup> ʃ	k k <sup>h</sup> g						
		s s <sup>h</sup>			h	i	u		ai	
	m	n	ɲ	ŋ		e ə	o		au	
	v	l, r	j			a			oi	
<b>Hawa-jap</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	c c <sup>h</sup>	k k <sup>h</sup>						
	m	n	ny	ŋ		i	u			
	v	s	ɛ		h	e	o			
	w	r, l	j			a				
<b>Chamchang</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	tɛ tɛ <sup>h</sup>	k k <sup>h</sup> g	ʔ					
	m	n	ɲ	ŋ		i	u	ɯ	ie	
	β	ts s	z		h	e ə	o	ɤ	uo	
		ɿ, l				a			ua	
<b>Shecyü</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	t t <sup>h</sup>	k k <sup>h</sup> g	ʔ	i	u	ɯ	ia	
	m	n	ɲ	ŋ		e ə	o	ɤ	əo	
	v	ð ts s	ɛ		h	a			əu	
		ɿ, l	j							

### 3 Rera consonant inventory

Rera has 20 consonant phonemes, contrasting at five points of articulation and four manners of articulation, in line with previously described Tangsa varieties (see Table 1). The inventory of Rera consonants is shown in Table 2. With kind permission by Prof. Stephen Morey,<sup>3</sup> recordings with Rera minimal pairs and a wordlist with body parts are accessible via the following links:

<https://hdl.handle.net/1839/00-0000-0000-0017-C47A-9> (minimal pairs)

<http://doi.org/10.5281/zenodo.1442403> (all minimal pairs)

<https://hdl.handle.net/1839/00-0000-0000-0017-C439-A> (body parts)

Individual word files are cited where relevant in the text.

**Table 2:** *Rera consonant inventory*

	Bilabial	Alveolar	Alveolo-palatal	Velar	Glottal
<b>Oral stops</b>	b p	d t	dz tɕ	g k	ʔ
<b>Nasal stops</b>	m	n	ɲ	ŋ	
<b>Fricatives</b>	β	s	ɕ		h
<b>Approximants</b>		r, l	j		

In Rera, aspiration is not contrastive and varies in its degree for both voiced and voiceless stops. Thus, /b, d, g, p, t, k/ represent phonemes that vary freely between [b ~ b<sup>h</sup>], [d ~ d<sup>h</sup>], [g ~ g<sup>h</sup>], [p ~ p<sup>h</sup>], [t ~ t<sup>h</sup>] and [k ~ k<sup>h</sup>], respectively. As for the fricatives, the bilabial voiced fricative /β/ has three allophones [β], [v] and [w]. The voiced labio-dental fricative [v] occurs preceding the mid rounded back vowel /o/ as in [voŋ<sup>1</sup>] ‘cooked rice’ (nst\_Rera\_SR\_DG\_155\_Rice (Cook).wav), while [w] precedes the open central vowel /a/ as in [wan<sup>2</sup>] ‘fire’ (nst\_Rera\_SR\_DG\_127\_Fire.wav). [β] occurs preceding all other vowels. The alveolo-palatal affricates /dz/ and /tɕ/ are in free allophonic variation with their retroflexed counterparts [dʒ, tʂ]. Evidence of contrast is presented in the following minimal and near-minimal sets.

**Onsets:**

<b>/p/</b> /pa <sup>2</sup> / ‘CL’ /pi <sup>1</sup> / ‘medicine to make liquor’ /i <sup>1</sup> pi <sup>3</sup> / ‘lift up (things)’ /po <sup>1</sup> ka <sup>3</sup> / ‘navel’	<b>/t/</b> /ta <sup>3</sup> / ‘arrive’ /to <sup>1</sup> / ‘type of plant’ /tap/ ‘farming house’ /təp/ ‘ash’	<b>/tɕ/</b> /tea <sup>2</sup> / ‘gold’ /tei <sup>2</sup> / ‘medicine’ /teap/ ‘type of wood’ /team <sup>2</sup> / ‘jumping’ /teum <sup>2</sup> / ‘grind’	<b>/k/</b> /ka <sup>1</sup> / ‘go’ /ku <sup>3</sup> / ‘mother’ /kat <sup>3</sup> / ‘cloth’ /kam <sup>2</sup> / ‘water’ /kɛ <sup>2</sup> / ‘going for sure’
<b>/b/</b> /bap <sup>1</sup> / ‘mud’ /bi <sup>1</sup> sən <sup>3</sup> / ‘special trap’ /i <sup>1</sup> bi <sup>3</sup> / ‘fall (by hitting something)’ /bo <sup>2</sup> le <sup>1</sup> / ‘elephant’	<b>/d/</b> /da <sup>2</sup> / ‘slave’ /do <sup>1</sup> / ‘hill’ /dap/ ‘releasing animal’ /dəp/ ‘bunch of folded clothes’	<b>/dz/</b> /dza <sup>2</sup> / ‘to make error (wrong)’ /dzi <sup>2</sup> / ‘intestine’ /dzap/ ‘game’ /dzam <sup>2</sup> / ‘blame’ /dzum <sup>2</sup> / ‘house’	<b>/g/</b> /ga <sup>1</sup> / ‘wet’ /gu <sup>3</sup> / ‘half dried’ /gap <sup>3</sup> / ‘hit’ /gak <sup>3</sup> / ‘spilt’ /ga <sup>2</sup> / ‘earth’
<b>/m/</b> /ma <sup>1</sup> / ‘stop (command)’ /mam <sup>3</sup> / ‘leave’ /min <sup>3</sup> / ‘name’ /mi <sup>2</sup> / ‘negative’	<b>/n/</b> /na <sup>2</sup> / ‘field’ /nam <sup>3</sup> / ‘rotten’ /nin <sup>2</sup> / ‘drink’	<b>/ɲ/</b> /ɲa <sup>2</sup> / ‘bee’ /ɲo <sup>2</sup> / ‘fried things’	<b>/ŋ/</b> /ŋa <sup>1</sup> / ‘1s’ /ŋam <sup>2</sup> / ‘animal meat’ /ŋa <sup>2</sup> / ‘fish’

<sup>3</sup> The Language Archive, Max Planck Institute for Psycholinguistics, Wundtlaan 1, 6525XD Nijmegen, The Netherlands.

<b>/β/</b> /βa <sup>3</sup> / ‘tooth’ /βan <sup>1</sup> / ‘fire’ /βok/ ‘pig’	<b>/l/</b> /la <sup>3</sup> / ‘eagle’ /laŋ <sup>1</sup> / ‘climb high’ /lak/ ‘forgot’ /a <sup>2</sup> .la <sup>2</sup> / ‘straight’ /li <sup>2</sup> / ‘boat’ /le <sup>3</sup> / ‘open’ /le <sup>2</sup> / ‘the whole tree’	<b>/s/</b> /sa <sup>1</sup> / ‘son (child)’ /sa <sup>3</sup> / ‘poison’ /se <sup>2</sup> / ‘bamboo skin peeling’ /i <sup>1</sup> sum <sup>3</sup> / ‘loss’	<b>/j/</b> /je <sup>3</sup> / ‘fall’ /jo <sup>2</sup> / ‘polarative’
<b>/ʔ/</b> /pa <sup>2</sup> / ‘stick’ /tea <sup>2</sup> / ‘gold’ /tei <sup>2</sup> / ‘medicine’ /dza <sup>2</sup> / ‘to err (wrong)’ /dzi <sup>2</sup> / ‘intestine’	<b>/r/</b> /ra <sup>3</sup> / ‘need’ /raŋ <sup>2</sup> / ‘sky’ /rak <sup>3</sup> / ‘disease’ /a <sup>2</sup> .ra <sup>2</sup> / ‘this’ /ri <sup>1</sup> / ‘thread’ /re <sup>2</sup> / ‘enemy’ /re <sup>2</sup> / ‘thin, weak guy’ /ro <sup>2</sup> / ‘bush (tree)’	<b>/ɕ/</b> /ɕa <sup>3</sup> / ‘give birth’ /ɕa <sup>2</sup> / ‘tiger’ /ɕe <sup>2</sup> / ‘fish net’ /i <sup>1</sup> eum <sup>3</sup> / ‘cut dry wood’ /ei <sup>1</sup> / ‘finger’	<b>/h/</b> /he <sup>1</sup> / ‘crab’ /ho <sup>1</sup> / ‘burn (vanquish)’ /ha <sup>2</sup> / ‘stay’ /he <sup>3</sup> / ‘joy’ /hu <sup>2</sup> / ‘to close a hole’ /hi <sup>2</sup> / ‘hanging bridge’
<b>Codas:</b>			
<b>/-p/</b> /bap <sup>1</sup> / ‘mud’ /tap <sup>3</sup> / ‘chicken hut’ /gap <sup>3</sup> / ‘hit’	<b>/-t/</b> /sat/ ‘dish (food)’ /a <sup>1</sup> ɕat <sup>3</sup> / ‘eight’ /rəpat <sup>3</sup> / ‘one above another’	<b>/-k/</b> /pak/ ‘eat’ /gak <sup>3</sup> / ‘spilt’ /rak <sup>3</sup> / ‘disease’	<b>/-ʔ/</b> /ga <sup>2</sup> / ‘earth’ /ɕa <sup>2</sup> / ‘tiger’ /ŋa <sup>2</sup> / ‘fish’
<b>/-m/</b> /nam <sup>3</sup> / ‘rotten’  /ŋam <sup>2</sup> / ‘meat’	<b>/-n/</b> /pən <sup>3</sup> / ‘what’s happening!’ /βan <sup>1</sup> / ‘fire’	<b>/-ŋ/</b> /βəŋ <sup>2</sup> / ‘rice (cooked)’  /laŋ <sup>1</sup> / ‘climb high’	

Consonants are not restricted to any vowels, except for the front open vowel /ɛ/, which only occurs with initial /p, tɕ, l/ in the data. All Rera consonants occur in syllable-initial position, except for the glottal stop /ʔ/. Only unaspirated oral stops and nasals /p, t, k, ʔ, m, n, ŋ/ and the glottal fricative /h/ can occur in the coda position. The phonological status of the final -h is unclear; it is clearly present and distinguishes /jo<sup>2</sup>/ ‘direction’ from /i<sup>2</sup>joh<sup>2</sup>/ ‘swallow’ (nst\_Rera\_SR\_DG\_361\_Swallow.wav). However, it is also found to vary in semantically related forms like /keh<sup>2</sup>ka<sup>2</sup>/ ‘goat’ (nst\_Rera\_SR\_DG\_713\_Goat.wav) and /keh<sup>2</sup>ka<sup>1</sup>sa<sup>1</sup>/ ‘lamb’ (nst\_Rera\_SR\_DG\_114\_Lamb.wav) but /ke<sup>1</sup>pəŋ<sup>2</sup>βa<sup>2</sup>/ ‘male goat’. The glottal stop is considered a consonant phoneme instead of a tonal feature, following Morey’s (n.d.b) Chamchang and Khan’s (2017) Shecyü descriptions. The glottal stop is treated as a coda consonant because it occurs only with Tone 3, like the other oral stop finals, (see section 4). If the glottal stop were a suprasegmental laryngeal feature, it could modify sonorant codas, which is not the case.

#### 4 Vowels

Rera has eight monophthongs in front, central and back positions (Table 3). Vowel length is not contrastive. For unrounded front vowels and rounded back vowels, three vowel heights are distinguished, which is not found in the previously described Tangsa varieties. In addition, there are two central vowels.

Table 3: Rera vowel inventory

	Front	Central	Back
<b>Close</b>	i		u
<b>Mid</b>	e	ə	o
<b>Open</b>	ɛ	a	ɔ

Contrastive pairs are provided as follows. For multisyllabic examples, bold font emphasizes the syllable in question.

/i/ vs /e/

/li<sup>2</sup>/ (nst\_Rera\_SR\_DG\_707\_Boat.wav) ‘boat’ vs. /le<sup>3</sup>/ (nst\_Rera\_SR\_DG\_471a\_Open.wav) ‘open’;  
 /hi<sup>2</sup>/ (nst\_Rera\_SR\_DG\_708\_Hanging Bridge.wav) ‘hanging bridge’ vs. /he<sup>1</sup>/  
 (nst\_Rera\_SR\_DG\_242\_Crab.wav) ‘crab’; /ni<sup>1</sup>/  
 (nst\_Rera\_SR\_DG\_683\_Trap\_MedicineToMakeLiquor.wav) ‘trap’ vs. /ne<sup>2</sup>/ ‘forbearance’; /mi-<sup>1</sup>ka<sup>1</sup>/  
 (nst\_Rera\_SR\_DG\_478\_No.wav) ‘NEG-go’ vs. /me<sup>1</sup>jaŋ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_246\_Festival.wav)  
 ‘festival’; /si<sup>1</sup>me<sup>3</sup>ka<sup>2</sup>/ (nst\_Rera\_SR\_DG\_349\_Sharp Shiny Stick.wav) ‘thin stick’ vs. /se<sup>1</sup>dzəŋ<sup>2</sup>ka<sup>3</sup>/  
 (nst\_Rera\_SR\_DG\_717\_Grub.wav) ‘grub’.

/e/ vs /ɛ/

/ne<sup>2</sup>/ ‘forbearance’ vs. /ne<sup>2</sup>/ (nst\_Rera\_SR\_DG\_455\_Tobacco.wav) ‘tobacco’;  
 /he<sup>1</sup>/ (nst\_Rera\_SR\_DG\_242\_Crab.wav) ‘crab’ vs. /he<sup>3</sup>/ (nst\_Rera\_SR\_DG\_710\_Joy.wav) ‘joy’;  
 /le<sup>3</sup>/ (nst\_Rera\_SR\_DG\_471a\_Open .wav) ‘open’ vs. /le<sup>2</sup>/ (nst\_Rera\_SR\_DG\_706\_Whole Tree.wav)  
 ‘whole tree’;  
 /me<sup>1</sup>jaŋ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_246\_Festival.wav) ‘festival’ vs. /mɛ<sup>2</sup>ke<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_247\_What.wav) ‘what’;  
 /ra<sup>2</sup>ɛ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_375\_Courtyard.wav) ‘courtyard’ vs. /ge<sup>3</sup>he<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_680\_Dog.wav) ‘dog’.

/u/ vs /o/

/pu<sup>3</sup>/ (nst\_Rera\_SR\_DG\_640\_Snake.wav) ‘snake’ vs. /mo<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_040\_You(Singular).wav) ‘2s’;  
 /muŋ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_262\_Country.wav) ‘country’ vs. /moŋ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_493\_Inside.wav)  
 ‘inside’;  
 /nu<sup>2</sup>/ (nst\_Rera\_SR\_DG\_701\_An Instrument to Clean Rice.wav) ‘instrument for cleaning rice’ vs. /no<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_059\_Child.wav) ‘child’;  
 /ŋu<sup>3</sup>/ (nst\_Rera\_SR\_DG\_702\_Infection.wav) ‘infection’ vs. /ŋo<sup>1</sup>/  
 (nst\_Rera\_SR\_DG\_079\_Say2.wav) ‘say’;  
 /hu<sup>2</sup>/ (nst\_Rera\_SR\_DG\_709\_Close a Hole.wav) ‘close a hole’ vs. /ho<sup>1</sup>/ (nst\_Rera\_SR\_DG\_711\_Burn  
 (Vanquish).wav) ‘burn (vanquish)’.

/o/ vs /ɔ/

/ko<sup>1</sup>/ (nst\_Rera\_SR\_DG\_014\_Nose.wav) ‘nose’ vs. /go<sup>1</sup>/ ‘go’; /ŋo<sup>1</sup>/ (nst\_Rera\_SR\_DG\_079\_Say2.wav)  
 ‘say’ vs. /ŋɔ<sup>2</sup>/ (nst\_Rera\_SR\_DG\_423\_King.wav) ‘great king’; /βok/ (nst\_Rera\_SR\_DG\_156\_Belly  
 (Exterior).wav) ‘belly’ vs. /βɔk/ (nst\_Rera\_SR\_DG\_157\_Pig.wav) ‘pig’;  
 /kam<sup>3</sup>bo<sup>1</sup>/ (nst\_Rera\_SR\_DG\_716\_Blister.wav) ‘blister’ vs. /pu<sup>1</sup>pɔ<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_272\_Burry.wav) ‘bury’;  
 /dzo<sup>2</sup>ko<sup>1</sup>/ ‘river’ vs. /dzɔ<sup>2</sup>/ ‘run’.

/e/ vs /ə/

/tʃɛ<sup>2</sup>pep/ (nst\_Rera\_SR\_DG\_473\_Wild Duck.wav) ‘duck’ vs. /raŋ<sup>2</sup>pe<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_715\_Thunder.wav) ‘thunder’.

/ɛ/ vs /a/

/ne<sup>2</sup>/ (nst\_Rera\_SR\_DG\_455\_Tobacco.wav) ‘tobacco’ vs. /na<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_688\_Stop\_Field.wav) ‘field’;  
 /he<sup>3</sup>/ (nst\_Rera\_SR\_DG\_710\_Joy.wav) ‘joy’ vs. /ha<sup>2</sup>/ (nst\_Rera\_SR\_DG\_117\_Stay.wav) ‘stay’.

/ə/ vs /a/

/təp/ (nst\_Rera\_SR\_DG\_663\_Ashes.wav) ‘ash’ vs. /tap/  
 (nst\_Rera\_SR\_DG\_689\_FarmingHouse\_ReleasingAnimal.wav) ‘farm house’;  
 /təən<sup>2</sup>/ (nst\_Rera\_SR\_DG\_712\_Face.wav) ‘face’ vs. /team<sup>2</sup>/  
 (nst\_Rera\_SR\_DG\_697\_Jumping\_Blame.wav) ‘jumping’;  
 /ləŋ<sup>3</sup>/ (nst\_Rera\_SR\_DG\_627\_Disobey.wav) ‘disobey’ vs. /lan<sup>3</sup>/ (nst\_Rera\_SR\_DG\_705\_Biting.wav)  
 ‘bitting’;  
 /rək/ (nst\_Rera\_SR\_DG\_619\_Push Ground.wav) ‘push in the ground’ vs. /rak/  
 (nst\_Rera\_SR\_DG\_618\_Disease.wav) ‘disease’.

The close-back rounded vowel /u/ has an unrounded allophone [u], which is in complementary distribution, conditioned by the final glottal stop. This is seen in the single example found in the data, [eu<sup>1</sup>] ‘to roast’ → [i<sup>1</sup>-eu<sup>2</sup>] ‘NMLZ-roast’.

The open central vowel /a/ shows allophonic variation with [æ] when occurring between two bilabial stop consonants as in [bæp<sup>3</sup>] ‘mud’. The mid front vowel occurs nasalized in one instance, with [ẽ] in /k<sup>h</sup>jẽ<sup>2</sup>/ ‘liquor’ which is most likely a loan word. Vowel-initial syllables are rare, most of them are prefixes. The prefix *i*<sup>1</sup>- is a nominalizer prefix, while the prefix *a*<sup>1</sup>- is an attributive prefix and *a*<sup>2</sup>- is the third-person possessive prefix. The only other vowel-initial syllables are found in /e<sup>2</sup>li<sup>2</sup>/ ‘seed’ (nst\_Rera\_SR\_DG\_384\_Seed.wav); /ε<sup>2</sup>kəm<sup>2</sup>ba<sup>1</sup>/ ‘few’ (nst\_Rera\_SR\_DG\_249\_Few2.wav); /u<sup>2</sup>tεe<sup>1</sup>kə<sup>3</sup>βa<sup>1</sup>/ ‘beak’ (nst\_Rera\_SR\_DG\_714\_Beak.wav). Examples for vowel-initial prefixes are given below.

- /i<sup>1</sup>-ri<sup>3</sup>/ (NMLZ-die) ‘death’
- /i<sup>1</sup>-nom<sup>2</sup>/ (NMLZ-dance) ‘dancing’
- /i<sup>1</sup>-məŋ<sup>2</sup>/ (NMLZ-dream) ‘dream’
- /a<sup>1</sup>-dzəŋ<sup>2</sup>/ (ATTR-big) ‘big’
- /a<sup>1</sup>dzəm<sup>2</sup>/ (ATTR-sweet) ‘sweet’
- /a<sup>1</sup>-kam<sup>2</sup>kam<sup>2</sup>/ (ATTR-hot) ‘hot’
- /a<sup>2</sup>-βa<sup>2</sup>/ ‘3s.POSS-grandfather’
- /a<sup>2</sup>-βi<sup>2</sup>/ ‘3s.POSS-grandmother’

Even though Moshang is geographically close to the Rera community and shares many phonological and syntactic features (Morey, p.c.), Rera has no diphthongs. The Moshang diphthongs /ai, au, oi/ and the Shecyü diphthongs /ia, əo, əu/ may correspond to the additional vowel height distinction of /e/ vs. /ε/ and /o/ vs. /ɔ/ in Rera. Further research is needed to investigate this.

## 5 Rera tones

Rera distinguishes three tones in open and sonorant-final syllables. In stop-final syllables, tone is always Tone 3. The Rera tones and their pitch realizations are as follows:

- Tone 1: High /45/
- Tone 2: Mid /33/
- Tone 3: Low /21/

Minimal tone sets are given below.

### High Tone 1

- /ŋa<sup>1</sup>/ ‘1s’  
(nst\_Rera\_SR\_DG\_072\_I.wav)
- /ka<sup>1</sup>/ ‘go’  
(nst\_Rera\_SR\_DG\_704\_Go.wav)
- /a<sup>2</sup>na<sup>1</sup>/ ‘sister’  
nst\_Rera\_SR\_DG\_051\_Sister

### Mid Tone 2

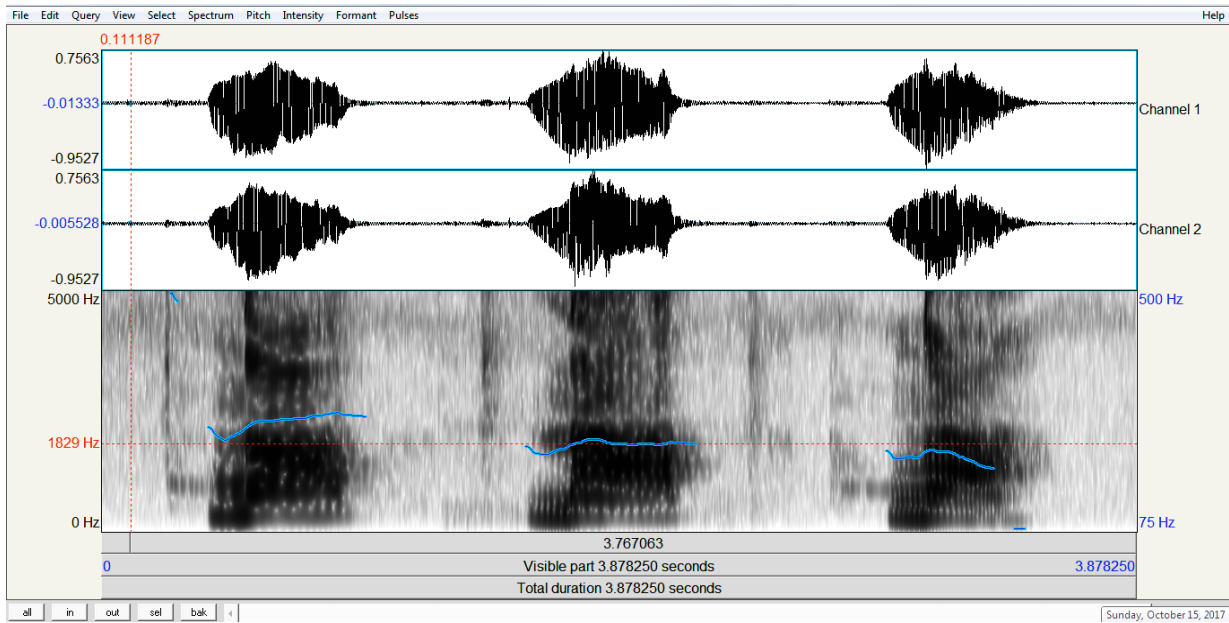
- /ŋa<sup>2</sup>/ ‘ear’  
(nst\_Rera\_SR\_DG\_056\_Ear.wav)
- /ka<sup>2</sup>/ ‘jaw’  
(nst\_Rera\_SR\_DG\_017\_Jaw.wav)
- /na<sup>2</sup>/ ‘field’  
(nst\_Rera\_SR\_DG\_703\_Field.wav)

### Low Tone 3

- /ŋa<sup>3</sup>/ ‘buffalo’  
(nst\_Rera\_SR\_DG\_074\_Buffalo.wav)
- /ka<sup>3</sup>/ ‘write’
- /na<sup>3</sup>/ ‘ear’  
(nst\_Rera\_SR\_DG\_056\_Ear.wav)
- /ŋa<sup>2</sup>/ ‘fish’  
(nst\_Rera\_SR\_DG\_075\_Fish.wav)

Pitch tracks of the three contrastive tones for the minimal set /ŋa<sup>1</sup>/ ‘1s’, /ŋa<sup>2</sup>/ ‘ear’, /ŋa<sup>3</sup>/ ‘buffalo’ are shown in Figure 2. Figure 3 shows the pitch track of Tone 3 in both open /ŋa<sup>3</sup>/ ‘buffalo’ and closed syllables /ŋa<sup>2</sup>/ ‘fish’. In Figure 3, the open syllable to the left displays a stronger drop in pitch, whereas the closed syllable, to the right, has a nearly level pitch contour.

Figure 2: Wave form, F0 tracks, and formants for tone contrasts on the syllable /ŋa/

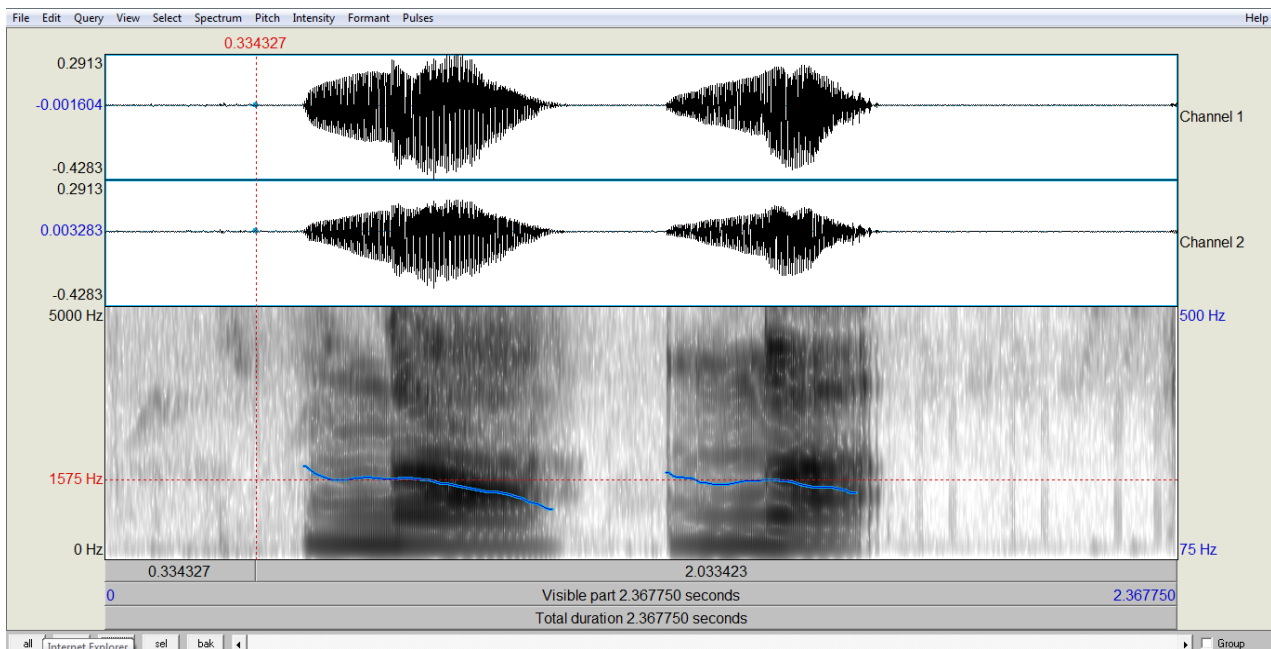


/ŋa<sup>1</sup>/ ‘1s’

/ŋa<sup>2</sup>/ ‘ear’

/ŋa<sup>3</sup>/ ‘buffalo’

Figure 3: Comparison of Tone 3 in the open and stop-final syllables /ŋa<sup>3</sup>/ ‘buffalo’, /ŋa<sup>2</sup>/ ‘fish’



/ŋa<sup>3</sup>/ ‘buffalo’

/ŋa<sup>2</sup>/ ‘fish’

For some lexical items, low falling Tone 3 has a low level allotone. This is found in word-final syllables when preceded by a syllable with a high-rising tone. For instance, the verb [pu<sup>21</sup>] ‘to fly’ changes to [i<sup>45</sup>pu<sup>11</sup>] ‘flying’ when preceded by the nominalizer prefix *i<sup>l</sup>-* with high Tone 1.

Contrary to Mulder’s (2017) study of contrastive tones in stop-final syllables, descriptions of the Tangsa varieties have not marked tone in stop-final syllables (also called checked or dead syllables, cf. Kirby & Brunelle, 2017) as tone is predictable in this environment, always Tone 3. For Rera, too, tone is contrastive only in open syllables and sonorant-final syllables (live syllables cf. Kirby & Brunelle, 2017). Examples of the tone distribution are presented below.

Open and sonorant-final syllables (live syllables):

High Tone 1: /ŋa<sup>1</sup>/ ‘1s’ (nst\_Rera\_SR\_DG\_072\_I.wav); /rin<sup>1</sup>/ ‘liver’  
(nst\_Rera\_SR\_DG\_182\_Liver.wav)

Mid Tone 2: /i<sup>2</sup>ti<sup>2</sup>/ ‘grandfather’ (nst\_Rera\_SR\_DG\_659\_Grand Father.wav); /œə<sup>2</sup>rum<sup>2</sup>/ ‘2PL’  
(nst\_Rera\_SR\_DG\_094\_You (PL).wav)

Low Tone 3: /ŋa<sup>3</sup>/ ‘buffalo’ (nst\_Rera\_SR\_DG\_074\_Buffalo.wav); /nam<sup>3</sup>/ ‘rotten’  
(nst\_Rera\_SR\_DG\_624\_Meat & Rotten.wav)

Stop-final syllables (dead/checked syllables) with predictable low pitch:

/dzɔ<sup>2</sup>kuk<sup>3</sup>/ ‘river bank’

/raŋ<sup>2</sup>mit<sup>3</sup>/ ‘sun’ (nst\_Rera\_SR\_DG\_193\_Sun.wav)

Unlike roots, prefixes do not necessarily carry tone and, in fact, only a small number of them do so. The data show that prefixes with a reduced vowel do not carry tone, e.g. /kəra<sup>2</sup>/ ‘that’. In contrast, the most common prefixes that carry tone are the nominalizing prefixes /i<sup>1</sup>-/ and /ke<sup>2</sup>ʔ<sup>3</sup>-, the third person possessive prefix /a<sup>2</sup>-/ and the attributive prefix /a<sup>1</sup>-. Examples are given below:

/i<sup>1</sup>-/ → /i<sup>1</sup>ŋam<sup>2</sup>/ ‘NMLZ-flesh, meat’ (nst\_Rera\_SR\_DG\_624\_Meat & Rotten.wav)

/ke<sup>2</sup>ʔ<sup>3</sup>/ → /ke<sup>2</sup>ʔ<sup>3</sup>-puŋ<sup>3</sup>pa<sup>2</sup>ʔ<sup>3</sup>/ ‘his particular hunting instrument’, /ke<sup>2</sup>ʔ<sup>3</sup>-ka<sup>1</sup>to<sup>2</sup>/ ‘his going’

/a<sup>2</sup>-/ → /a<sup>2</sup>po<sup>1</sup>/ ‘3s.POSS-mother’ (nst\_Rera\_SR\_DG\_649\_Mother.wav)

/a<sup>1</sup>-/ → /a<sup>1</sup>dzɔŋ<sup>2</sup>/ ‘ATTR-big’ (nst\_Rera\_SR\_DG\_566\_Big.wav)

Rera nominalized forms display tone sandhi, which is common in most of the Tangsa varieties, which is shown in the following examples:

- a) [məŋ<sup>1</sup>laŋ<sup>2</sup>] ‘dream (V)’ vs. [i<sup>1</sup>məŋ<sup>3</sup>] ‘dream (N)’
- b) [pu<sup>2</sup>to<sup>2</sup>] ‘flew’ vs. [i<sup>1</sup>pu<sup>3</sup>] ‘flying’
- c) [ka<sup>1</sup>to<sup>2</sup>] ‘went’ vs. [i<sup>1</sup>ka<sup>3</sup>] ‘going’

The verb stems in examples (a), (b), and (c) either carry Tone 1 or Tone 2. When the tense suffixes with Tone 2 are added, there is no change in the tone of the verb root. However, the nominalizer prefix /i<sup>1</sup>-/ with Tone 1 (high-rising tone) causes the verb roots with high Tone 1 or mid Tone 2 to change to low Tone 3. As nominalization is signalled by the nominalizer *i*<sup>1</sup>-, the change of the verb root to Tone 3 may be a form of tonal dissimilation to emphasize the nominalizer prefix. This is also seen in the noun forms [βaŋ<sup>2</sup>dzɔŋ<sup>2</sup>] ‘father’s elder brother’ and [i<sup>1</sup>βaŋ<sup>3</sup>] ‘father’s younger brother’, where the high-tone prefix *i*<sup>1</sup>- causes lowering of the tone on the following noun stem. However, with the exception of the forms for ‘brother’, this tonal process appears to be unique to the nominalizer prefix *i*<sup>1</sup>-; it is not found for the noun /i<sup>1</sup>ti<sup>2</sup>/ ‘juice’ or /i<sup>2</sup>tei<sup>1</sup>ku<sup>2</sup>/ ‘female’. Similarly, the high-tone prefix *a*<sup>1</sup>- does not lower the tone of the following root, seen in the forms /a<sup>2</sup>po<sup>2</sup>/ ‘my mother’ or /a<sup>1</sup>lu<sup>1</sup>/ ‘height’. Therefore, the tonal process seen for the nominalizer prefix *i*<sup>1</sup>- appears to be linked to its grammatical function. This is seen in the forms /pu<sup>2</sup>to<sup>2</sup>/ ‘flew’ to /pu<sup>3</sup>/ ‘flying’ or /ŋo<sup>1</sup>/ ‘say’ to /ŋo<sup>3</sup>/ ‘saying’, where the prefix is entirely dropped and the change in tone alone marks nominalization. It appears that Rera tone is in the process of being grammaticalized in this environment (for further discussion, see Goswami 2017).

Rera tone carries a low functional load. Similar to Konnerth’s (2014: 76) observations on Karbi, a related Tibeto-Burman language, it is hard to find true minimal sets for all three tones; they are also highly sensitive to context, and native speakers often experience difficulties in identifying tone if there is no minimal counterpart. This is not only true for the younger generations with their restricted use of the language and strong influence from surrounding Indic languages; it is also apparent in speakers from the older generations between the ages of 30 - 60. The large inventory of derivational or inflectional affixes has an effect on the tone of the lexical roots, and the syllable structure of the root, open or closed, in turn affects the tone of the affix. Compound words seem to have the same effect. The following section discusses the syllable structure in Rera.

## 6 Syllable structure

Rera has no consonant clusters in either onset or coda position, thus the language has a syllable template of (C) V (C)<sup>T</sup>, with tone represented by <sup>T</sup>. Disyllabic words are most common in the 800-item word list collected for this study, followed by monosyllables. Tri- and quadrisyllabic words exist but are less common. Only a few instances of five- or six-syllable words have been observed.

Most monosyllabic words are nouns. Some examples of monosyllabic words are shown below.

/ŋa <sup>1</sup> /	‘1s’
/pu <sup>3</sup> /	‘snake’
/βok/	‘pig’

Disyllables are the most common type of word in the word list.

/din <sup>2</sup> ka <sup>1</sup> /	‘neck’
/pa <sup>1</sup> lap/	‘tea’
/gən <sup>1</sup> βe <sup>1</sup> /	‘body hair’
/laŋ <sup>3</sup> ŋa <sup>2</sup> /	‘banana’
/sum <sup>1</sup> ləm <sup>2</sup> /	‘mushroom’

Verb roots are mostly monosyllabic but require affixation. The reason for this is that bare roots do not occur naturally in isolation in the language. There are very few verb roots with more than two syllables, and many of them are the result of partial reduplication. Other disyllabic roots the result of compounding.

The prefixed verb roots most commonly take the nominalizer prefix *i*<sup>1</sup>- and the attributive *a*<sup>1</sup>-. A few of them are given here.

/i <sup>1</sup> -rit <sup>3</sup> /	‘death’
/i <sup>1</sup> -dzup/	‘sleeping’
/i <sup>1</sup> -βəŋ <sup>3</sup> /	‘coming, moving’
/a <sup>1</sup> -dzəŋ <sup>2</sup> /	‘ATTR-big’

Suffixes in Rera are mostly monosyllabic, although there are also disyllabic suffixes, which tend to be multi-morphemic. Like roots and certain prefixes, they carry tone. Rera suffixes are shown below.

/-to <sup>2</sup> /	‘past.3’
/-ma <sup>2</sup> na <sup>1</sup> /	‘exclusive’
/-laŋ <sup>2</sup> /	‘present.1’
/-re <sup>2</sup> /	‘clause marker’

Trisyllabic words are found less frequently. Some trisyllables contain reduplicated syllables and rhymes more commonly found in kinship terms and nouns, as in the following examples.

/βi <sup>1</sup> ku <sup>2</sup> nu <sup>1</sup> /	‘old woman’
/ka <sup>2</sup> la <sup>2</sup> gə <sup>2</sup> /	‘crow’
/rəŋ <sup>2</sup> lum <sup>2</sup> ti <sup>2</sup> /	‘sweat’
/mən <sup>2</sup> su <sup>2</sup> ka <sup>1</sup> /	‘cattle’
/dzak <sup>3</sup> pa <sup>2</sup> dam <sup>2</sup> /	‘hand’
/pi <sup>1</sup> pi <sup>2</sup> leh <sup>3</sup> /	‘butterfly’

Quadrisyllabic words are rare in Rera, and the examples that exist are mainly nouns, as in /kan<sup>2</sup>re<sup>2</sup>si<sup>1</sup>ka<sup>3</sup>/ ‘cockroach’, /pun<sup>2</sup>əŋ<sup>2</sup>ku<sup>3</sup>leh<sup>3</sup>/ ‘tree bark’ and /sam<sup>2</sup>ka<sup>2</sup>ra<sup>3</sup>ka<sup>1</sup>/ ‘rib’. Words with five or more syllables in the data are a set of affixed compound words, e.g. /min<sup>2</sup>si<sup>1</sup>nə<sup>2</sup>not<sup>3</sup>sə<sup>2</sup>/ ‘sleepy’ and /jat<sup>3</sup>ei<sup>1</sup>ku<sup>2</sup>ei<sup>1</sup>ku<sup>2</sup>na<sup>1</sup>/ ‘second toe’.

## 7 Conclusion

Rera has three contrastive tones with 20 consonant phonemes and eight vowels. Rera does not distinguish aspiration. Otherwise, the consonant phoneme inventory resembles other previously described Tangsa varieties, e.g. Hawa-jap, Moshang, Shecyü, Chamchang. These varieties, including Rera, do not distinguish between the fricative [v] and the approximant [w], which, in Rera are allophones of the voiced fricative /β/,

while Hawa-jap does distinguish /v/ and /w/. A prominent distinction is the lack of contrastive aspiration. In addition, Rera lacks diphthongs but distinguishes three vowel heights for front and back vowels. The Rera Tangsa phoneme inventory compared to previous descriptions is summarized in Table 4.

As pointed out in this study, tone displays sandhi and cannot be explored sufficiently based on single-item word lists. Therefore, further research is needed. An exploration of tone sandhi requires a broader pool of speakers to investigate inter-and intra-speaker variation, and several carrier phrases in which to embed the three lexical tones according to their syllable structure in varying environments. The present study was not designed for this, but tone sandhi would be a worthwhile topic for further exploration in future research. For this work, 800 words were collected, however, more triplets/pairs are likely to be found with further word collection.

**Table 4: Phoneme inventories of five Tangsa varieties**

Variety	Consonants					Vowels			
<b>Moshang</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	c <sup>h</sup> ɟ	k k <sup>h</sup> g		i	u		ai
	m	n	ɲ	ŋ	h	e ə	o		au
	v	l, r	j			a			oi
<b>Hawa-jap</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	c c <sup>h</sup>	k k <sup>h</sup>					
	m	n	ny	ŋ		i	u		
	v	s	ɛ		h	e	o		
	w	r, l	j			a			
<b>Chamchang</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	tɕ tɕ <sup>h</sup>	k k <sup>h</sup> g	ʔ				
	m	n	ɲ	ŋ		i	u	ɯ	ie
	β	ts s	z		h	e ə	o	ɤ	uo
		ɹ, l				a			ua
<b>Shecyü</b>	p p <sup>h</sup> b	t t <sup>h</sup> d	t t <sup>h</sup>	k k <sup>h</sup> g	ʔ	i	u	ɯ	ia
	m	n	ɲ	ŋ		e ə	o	ɤ	əo
	v	ð ts s	ɛ		h	a			əu
		ɹ, l	j						
<b>Rera</b>	p b	t d	tɕ dz	k g	ʔ	i	u		
	m	n	ɲ	ŋ		e ə	o		
	β	s z	ɛ			ɛ	a	ɔ	
		r, l	j						

**References**

Burling, Robbins. 2003. The Tibeto-Burman languages of Northeastern India. In Graham Thurgood and Randy LaPolla (eds.), *The Sino-Tibetan languages*, 169-191. London: Routledge.

Couchman, H. J. 1934. Survey of India Map: Assam and Burma Sadiya frontier tract and tribal area. Map number 83N NE. Scale 1 inch to 2 miles.

Das Gupta, K. 1971. *An introduction to the Nocte language*. Shillong: The Philology Section, Research Development, North-East Frontier Agency.

Das Gupta, K. 1980. *The Tangsa language: A synopsis*. Shillong: The Philology Section, Research Development, North-East Frontier Agency.

Google Map of *Balinong village, Arunachal Pradesh*. 2017. (<https://www.google.co.th/maps/place/Balinong,+Arunachal+Pradesh+792122,+India/@26.8877112,93.9146745,418884m/data=!3m1!1e3!4m5!3m4!1s0x373ee989e8de78af:0xc63ce301bfed2d8a!8m2!3d27.451912!4d95.982452>) (Accessed 2017-07-15)

Goswami, Dipjyoti. 2017. *Lexical nominalization and the extended functions of the demonstrative kəra<sup>2</sup> in Rera, a Northern Naga language*. Unpublished Master’s thesis. Chiang Mai, Thailand: Payap University.

- Grierson, G. A. 1903. *Linguistic survey of India, Vol. 3. Tibeto-Burman family, 2*. Kolkata: Superintendent of Government Printing.
- Jay, Lee W. & Khan, Lann. 2012. Sociolinguistic survey of Makyam and southern Tangshang varieties in Lahe Township and Dungle sub-Township, Myanmar. Unpublished manuscript.
- Khan, Lann. 2017. *A phonological comparison of Shecyü and Mungre and its contribution to a common Tangshang Naga orthography*. Unpublished Master's thesis. Chiang Mai: Payap University
- Kirby, James, and Marc Brunelle. 2017. Southeast Asian tone in areal perspective. *The Cambridge Handbook of Areal Linguistics*.
- Konnerth, Linda Anna. 2014. *A grammar of Karbi*. Doctoral dissertation. Eugene: University of Oregon.
- Marrison, G. E. 1967. *The classification of the Naga languages of North-east India*. Doctoral dissertation. London: University of London.
- Morey, Stephen. 2013. Tones in Tangsa languages: A comparative study. Unpublished manuscript. *19th Himalayan Languages Symposium*.
- Morey, Stephen. 2014. Studying tones in North-East India: Tai, Singpho and Tangsa. *Language Documentation and Conservation* 8: 637-671.
- Morey, Stephen. 2017. Tangsa. In Graham Thurgood & Randy LaPolla (eds.), *The Sino-Tibetan languages*, 2nd edition, 350-368. New York: Routledge.
- Morey, Stephen. n.d. a. *Mueshaungx grammatical sketch*. Unpublished manuscript.
- Morey, Stephen. n.d. b. *Chamchang grammatical sketch*. Unpublished manuscript.
- Mulder, Mijke. 2017. *Documenting a fuzzy tone system: The case of Muklom Tangsa*. Unpublished manuscript.
- Needham, F. J. 1897. *A collection of a few Moshang Naga words*. Shillong: Assam Secretariat Printing Department.
- Namkung, Ju. (ed.) 1996. *Phonological inventories of Tibeto-Burman languages*. STEDT Monograph 3. Berkeley: University of California Press.
- Simons, Gary F. and Charles D. Fennig (eds.). 2017. *Ethnologue: Languages of the world, Twentieth edition*. Dallas, Texas: SIL International. (<http://www.ethnologue.com>)
- Statezni, N. D. 2013. *Fifty-five dialects and growing-literacy and comprehension of vernacular literature among the Tangshang Naga in Myanmar*. Master's thesis. Dallas: Graduate Institute of Applied Linguistics.
- Voegelin, C. F., & Voegelin, F. M. 1977. *Classification and index of the world's languages*. New York: Elsevier.

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## Appendix A: Rera word list

Bold face stands for the syllable with the onset or vowel in question.

/p/	<i>pi<sup>1</sup></i>	medicine to make liquor
	<i>pi<sup>1</sup>pi<sup>2</sup>leh<sup>3</sup></i>	butterfly
	<i>i<sup>2</sup>pi<sup>2</sup></i>	he/she
	<i>pin<sup>2</sup>po<sup>3</sup></i>	flower
	<i>i<sup>1</sup>pe<sup>1</sup></i>	vomit
	<i>pən<sup>3</sup></i>	what's happening
	<i>pəkse<sup>2</sup></i>	bat
	<i>pək, i<sup>1</sup>pək</i>	eat (dishes)
	<i>pa<sup>1</sup>lap</i>	tea
	<i>pa<sup>2</sup></i>	stick
	<i>a<sup>1</sup>paŋ<sup>1</sup></i>	tide
	<i>paŋ<sup>2</sup>toktok</i>	high tide
	<i>pu<sup>1</sup>jɔŋ<sup>3</sup>/a<sup>2</sup>pu<sup>1</sup>jɔŋ<sup>1</sup></i>	elder brother
	<i>pu<sup>2</sup> (V), i<sup>1</sup>pu<sup>2</sup> (N)</i>	fly
	<i>pa<sup>2</sup></i>	CL (cylindrical objects)
	<i>pu<sup>3</sup></i>	snake
	<i>pum<sup>1</sup> [pɔ:m<sup>1</sup>]</i>	mountain
	<i>pun<sup>1</sup></i>	wood
	<i>pun<sup>1</sup>jak</i>	leaf
	<i>pun<sup>1</sup>keh<sup>3</sup></i>	branch
	<i>pun<sup>1</sup>ri<sup>1</sup></i>	fruit
	<i>pun<sup>1</sup>ri<sup>1</sup>kɔ<sup>3</sup></i>	root
	<i>pun<sup>1</sup>tʃɔŋ<sup>2</sup>ku<sup>1</sup>leh<sup>3</sup></i>	tree bark
	<i>po<sup>1</sup>ka<sup>1</sup></i>	navel
	<i>a<sup>2</sup>po<sup>2</sup></i>	mother
	<i>pin<sup>2</sup>po<sup>3</sup></i>	flower
	<i>pɔm<sup>3</sup></i>	cloud
	<i>pan<sup>1</sup>sok</i>	cylinder stick
	<i>pan<sup>1</sup>pak</i>	leather belt
	<i>pin<sup>2</sup>dza<sup>1</sup></i>	idea
	<i>pa<sup>2</sup>ɛet</i>	handkerchief
	<i>pan<sup>2</sup>tei<sup>2</sup></i>	some
	<i>pe<sup>2</sup>la<sup>2</sup>la<sup>3</sup></i>	flat
	<i>pa<sup>1</sup>tei<sup>2</sup></i>	lesson
	<i>pon<sup>2</sup>βan<sup>2</sup>ri<sup>3</sup></i>	mango
	<i>pu<sup>2</sup>ɛaŋ<sup>2</sup></i>	snake hole
	<i>putei<sup>2</sup></i>	piece of paper
	<i>pe<sup>1</sup>ka<sup>3</sup></i>	gate
	<i>pɔ<sup>2</sup>βoŋ<sup>2</sup></i>	corn
	<i>pə<sup>2</sup>ren<sup>3</sup></i>	dragon
	<i>poŋ<sup>2</sup>ro<sup>2</sup>puŋ<sup>3</sup></i>	divide
	<i>poŋ<sup>3</sup></i>	other
	<i>pan<sup>1</sup>rop</i>	everything
	<i>pən<sup>2</sup>tei<sup>3</sup>ba<sup>1</sup></i>	half
	<i>pin<sup>2</sup>dza<sup>1</sup></i>	idea
	<i>pa<sup>2</sup>ku<sup>2</sup></i>	stick
	<i>pi<sup>1</sup>ɔt</i>	onion (Loan word)
	<i>pe<sup>1</sup>rut</i>	garden
	<i>pin<sup>2</sup>tɛɔŋ<sup>2</sup></i>	tree
	<i>pak</i>	eat (V)
	<i>pəkla<sup>2</sup></i>	meal meat
	<i>pu<sup>1</sup>pɔ</i>	bury
	<i>pu<sup>2</sup>pe<sup>2</sup></i>	alligator

	<i>pən<sup>2</sup></i>	class
/b/	<i>ba<sup>2</sup></i>	only
	<i>bi<sup>2</sup></i>	lip
	<i>bin<sup>1</sup>ti<sup>1</sup>kam<sup>3</sup></i>	dew
	<i>bə<sup>2</sup>li<sup>3</sup></i>	four
	<i>bə<sup>2</sup>ŋa<sup>3</sup></i>	five
	<i>bo<sup>2</sup>le<sup>2</sup></i>	elephant
	<i>bən<sup>2</sup>titβa<sup>1</sup></i>	teacher (male)
	<i>bən<sup>2</sup>titnu<sup>1</sup></i>	teacher (female)
	<i>bap<sup>1</sup></i>	mud
	<i>be<sup>1</sup>ra<sup>2</sup></i>	ram
	<i>i<sup>1</sup>bi<sup>3</sup></i>	fall (by hitting something)
	<i>beh<sup>3</sup></i>	vagina
	<i>be<sup>2</sup>tap</i>	garden house
	<i>bi<sup>1</sup>sən<sup>3</sup></i>	special trap
	<i>bo<sup>1</sup>tu<sup>2</sup></i>	penis
	<i>be<sup>2</sup>jaŋ<sup>2</sup></i>	all
	<i>bo<sup>1</sup>toto<sup>2</sup></i>	fat
	<i>bo<sup>2</sup>le<sup>2</sup>dza<sup>3</sup></i>	elephant trunk
	<i>bo<sup>2</sup>le<sup>2</sup>βa<sup>2</sup></i>	elephant tusk
	<i>bo<sup>1</sup>tu<sup>2</sup></i>	penis
	<i>be<sup>2</sup>tap</i>	garden house
	<i>bəŋ<sup>2</sup>βe<sup>2</sup>dam<sup>3</sup></i>	bread
<i>baŋ<sup>2</sup>rotna<sup>2</sup></i>	everywhere	
/t/	<i>ti<sup>1</sup>lu<sup>3</sup></i>	wash body or things
	<i>ti<sup>1</sup>ka<sup>2</sup>wa<sup>1</sup></i>	old man
	<i>tap<sup>3</sup></i>	chicken hut
	<i>a<sup>2</sup>ti<sup>1</sup></i>	grandfather
	<i>i<sup>1</sup>ti<sup>2</sup></i>	juice
	<i>i<sup>1</sup>tapbun<sup>2</sup></i>	grind, crush
	<i>təkrū<sup>2</sup>tu<sup>3</sup></i>	dove
	<i>təptea<sup>2</sup></i>	ashes
	<i>tam<sup>2</sup>kok</i>	lame
	<i>taŋ<sup>2</sup>ra<sup>2</sup></i>	poor
	<i>tum<sup>3</sup></i>	collect
	<i>ti<sup>1</sup>batbat</i>	band
	<i>təm<sup>1</sup>ri<sup>2</sup>po<sup>2</sup></i>	spine
	<i>tin<sup>2</sup>tin<sup>2</sup></i>	straight
	<i>tapbun<sup>2</sup>təlīt</i>	crash
	<i>tum<sup>3</sup></i>	collect
	<i>tətea<sup>2</sup>taŋ<sup>2</sup></i>	pregnant
	<i>tam<sup>2</sup>kok</i>	lame
	<i>tum<sup>1</sup>kaŋ<sup>2</sup>laŋ<sup>2</sup></i>	gnat large
	<i>ta<sup>3</sup></i>	arrive
	<i>to<sup>1</sup></i>	type of plant
<i>tap</i>	farming house	
<i>təp</i>	ash	
/d/	<i>din<sup>2</sup>kə<sup>2</sup></i>	neck
	<i>du<sup>3</sup>bin<sup>2</sup>, i<sup>1</sup>bin<sup>2</sup></i>	cook rice
	<i>duŋ<sup>2</sup>, i<sup>1</sup>duŋ<sup>2</sup></i>	emerge
	<i>də<sup>2</sup>, i<sup>1</sup>də<sup>2</sup></i>	ascend
	<i>dat</i>	fall
	<i>do<sup>1</sup></i>	hill

	<i>din</i> <sup>2</sup>	if
	<i>da</i> <sup>2</sup>	slave
	<i>du</i> <sup>1</sup>	rice
	<i>day</i> <sup>2</sup>	beam
	<i>din</i> <sup>2</sup> <i>kap</i>	collar
	<i>di</i> <sup>1</sup> <i>tɛo</i> <sup>3</sup>	ladder
	<i>du</i> <sup>1</sup>	rice
	<i>dak</i>	cut
	<i>diŋ</i> <sup>2</sup> <i>ka</i> <sup>2</sup> <i>ra</i> <sup>3</sup> <i>kɔ</i> <sup>3</sup>	collar bone
	<i>din</i> <sup>2</sup> <i>ka</i> <sup>2</sup> <i>ra</i> <sup>3</sup> <i>kɔ</i> <sup>2</sup>	neck nape
	<i>di</i> <sup>1</sup> <i>tɛo</i> <sup>3</sup>	ladder
	<i>day</i> <sup>2</sup>	beam
	<i>din</i> <sup>2</sup> <i>kap</i>	collar
	<i>di</i> <sup>1</sup> <i>go</i> <sup>2</sup>	defecate
	<i>dap</i>	releasing animal
	<i>dəp</i>	bunch of folded clothes
<i>/dz/</i>	<i>dze</i> ?	forest
	<i>dzakku</i> ?	elbow
	<i>dzakpa</i> <sup>3</sup> <i>dam</i> <sup>2</sup>	hand
	<i>dzakɛi</i> <sup>2</sup> <i>kə</i> ?	finger
	<i>dzakpa</i> <sup>3</sup> <i>mɔŋ</i> <sup>2</sup>	palm of hand
	<i>dzakpum</i> <sup>1</sup>	arm
	<i>dza</i> <sup>1</sup> <i>pa</i> <sup>3</sup>	foot, leg
	<i>dza</i> <sup>1</sup> <i>pum</i> <sup>1</sup>	calf of leg
	<i>dza</i> <sup>1</sup> <i>ɛi</i> <sup>2</sup> <i>ku</i> <sup>2</sup>	toe
	<i>dza</i> <sup>1</sup> <i>tse</i> <sup>3</sup>	waterfall
	<i>dza</i> <sup>1</sup> <i>se</i> <sup>1</sup> <i>lɔŋ</i> <sup>2</sup> <i>kɔ</i> <sup>3</sup>	shin
	<i>dzo</i> <sup>2</sup> <i>ko</i> <sup>1</sup>	river
	<i>dzo</i> <sup>2</sup> <i>βan</i> <sup>2</sup> <i>tɛap</i>	wave
	<i>dzap</i>	game
	<i>dzo</i> <sup>2</sup>	run
	<i>i</i> <sup>1</sup> <i>dzo</i> <sup>3</sup>	flee
	<i>dza</i> ?	to make error (wrong)
	<i>dzam</i> <sup>2</sup>	blame
	<i>dzɔŋ</i> <sup>1</sup> <i>ka</i> <sup>1</sup>	insect
	<i>a</i> <sup>2</sup> <i>dzɔŋ</i> <sup>2</sup>	big
	<i>dza</i> <sup>2</sup> <i>ɛi</i> <sup>3</sup>	January
	<i>dza</i> <sup>2</sup> <i>hut</i>	February
	<i>dza</i> <sup>2</sup> <i>tɛum</i> <sup>3</sup>	March
	<i>dza</i> <sup>2</sup> <i>ru</i> <sup>3</sup>	April
	<i>dza</i> <sup>2</sup> <i>haŋ</i> <sup>2</sup>	May
	<i>dza</i> <sup>2</sup> <i>ŋa</i> <sup>1</sup>	December
	<i>dza</i> <sup>2</sup> <i>ɛun</i> <sup>2</sup>	August
	<i>dza</i> <sup>2</sup> <i>ɛa</i> <sup>1</sup>	September
	<i>dza</i> <sup>1</sup> <i>kin</i> <sup>2</sup> <i>ko</i> <sup>1</sup>	finger nail:claw
	<i>dza</i> <sup>1</sup> <i>lɔŋ</i> <sup>2</sup> <i>ku</i> <sup>3</sup>	knee
	<i>dza</i> <sup>1</sup> <i>mek ku</i> <sup>3</sup>	ankle
	<i>dzay</i> <sup>2</sup>	machete
	<i>dzakse</i> <sup>1</sup> <i>na</i> <sup>2</sup>	right
	<i>dzakpa</i> <sup>2</sup> <i>na</i> <sup>2</sup>	left
	<i>dzu</i> <sup>2</sup> <i>mɔŋ</i> <sup>1</sup> <i>na</i> <sup>2</sup>	inside
	<i>dzu</i> <sup>1</sup> <i>pu</i> <sup>2</sup> <i>ka</i> <sup>3</sup> <i>tɛaŋ</i> <sup>3</sup>	insect that lives in a hole
	<i>dze</i> <sup>2</sup> <i>lo</i> <sup>1</sup> <i>ba</i> <sup>3</sup>	steel
	<i>dzi</i> <sup>1</sup> <i>jam</i> <sup>2</sup>	how long?
	<i>dzum</i> <sup>2</sup>	house

	<i>dzəŋ<sup>2</sup>ka<sup>3</sup></i>	maggot
	<i>dze<sup>3</sup></i>	falling apart
/tɕ/	<i>tei<sup>1</sup></i>	medicine
	<i>i<sup>2</sup>tei<sup>1</sup>ku<sup>2</sup></i>	female or classifier for animals
	<i>tɕɛ<sup>2</sup>pep</i>	duck
	<i>tɕən<sup>2</sup></i>	face
	<i>tɕa<sup>?</sup></i>	gold
	<i>a<sup>2</sup>teu<sup>1</sup></i>	grandchild
	<i>tɕum<sup>2</sup>be<sup>2</sup>ka<sup>2</sup></i>	worm
	<i>i<sup>1</sup>teut</i>	pound
	<i>ja<sup>1</sup>tɕoŋ<sup>2</sup>kəŋ<sup>2</sup></i>	heel
	<i>tɕo<sup>?</sup></i>	spit
	<i>tɕək<sup>3</sup>mo<sup>3</sup>/ ki<sup>1</sup>go<sup>3</sup></i>	deer
	<i>tɕək<sup>2</sup>tɕək</i>	cough
	<i>teu<sup>1</sup>tein<sup>2</sup>to<sup>?</sup>tan<sup>2</sup></i>	wooden stool
	<i>te<sup>2</sup>dəŋ<sup>3</sup></i>	east
	<i>te<sup>2</sup>nup</i>	west
	<i>tein<sup>1</sup>na<sup>2</sup></i>	behind
	<i>tein<sup>2</sup>na<sup>3</sup></i>	second
	<i>tein<sup>1</sup>na<sup>2</sup>zun<sup>3</sup></i>	chase after
	<i>tei<sup>2</sup>tɕək</i>	pack of medicine
	<i>tein<sup>3</sup>na<sup>2</sup>tein<sup>3</sup></i>	backward direction
	<i>tɕop</i>	drown
	<i>tein<sup>3</sup></i>	keep
	<i>teum<sup>3</sup></i>	pus
	<i>tei<sup>1</sup>ku<sup>2</sup>ti<sup>2</sup> a<sup>2</sup>joŋ<sup>2</sup></i>	doctor
	<i>teu<sup>2</sup>pəŋ<sup>3</sup>βa<sup>1</sup></i>	bull
	<i>tɕo<sup>1</sup>ka<sup>2</sup>ra<sup>3</sup>kə<sup>3</sup></i>	shoulder blade
	<i>tɕa<sup>1</sup>pən<sup>2</sup></i>	flour
	<i>tə<sup>2</sup>tɕa<sup>2</sup>taŋ<sup>2</sup></i>	pregnant
	<i>tɕam<sup>2</sup></i>	jumping
	<i>tɕeum<sup>2</sup></i>	grind
/g/	<i>gi<sup>1</sup></i>	blood
	<i>gin<sup>2</sup>βe<sup>?</sup></i>	wind
	<i>ge<sup>3</sup>he<sup>2</sup></i>	dog
	<i>gən<sup>1</sup></i>	body
	<i>gən<sup>1</sup>βe<sup>1</sup></i>	body hair
	<i>ga<sup>?</sup></i>	earth
	<i>ga<sup>1</sup></i>	wet
	<i>gak<sup>3</sup></i>	split
	<i>gu<sup>3</sup></i>	half dried
	<i>a<sup>2</sup>gu<sup>1</sup></i>	mother's brother
	<i>i<sup>1</sup>gut</i>	steal (n)
	<i>gu<sup>?</sup></i>	steal (v)
	<i>a<sup>1</sup>gu<sup>?</sup></i>	thief
	<i>gap<sup>3</sup></i>	hit
	<i>gan<sup>1</sup>ma<sup>2</sup>miŋ<sup>2</sup></i>	weak
	<i>gan<sup>1</sup>rakdəŋ<sup>2</sup></i>	fever
	<i>gi<sup>1</sup>ham<sup>2</sup></i>	bruise
	<i>gan<sup>2</sup>teu<sup>3</sup>maŋ<sup>2</sup></i>	valley
	<i>ga<sup>1</sup>do<sup>2</sup></i>	ass, donkey (Loan word)
	<i>gan<sup>2</sup>ŋam<sup>2</sup></i>	tendon, sinew
	<i>gah<sup>2</sup>ku<sup>2</sup>po<sup>3</sup></i>	north
	<i>gah<sup>2</sup>mi<sup>2</sup>ko<sup>2</sup></i>	south

	<i>gan<sup>2</sup>ta<sup>2</sup></i>	hour (Loan word)
	<i>gi<sup>1</sup>mi<sup>2</sup></i>	millet
	<i>ge<sup>3</sup></i>	shout
	<i>ge<sup>3</sup>he<sup>2</sup>sək</i>	bark (dog)
	<i>ga<sup>1</sup>nu<sup>2</sup>du<sup>2</sup></i>	down
	<i>go<sup>1</sup></i>	have
	<i>gu<sup>1</sup>taŋ<sup>2</sup></i>	who
	<i>gan<sup>2</sup>ta<sup>2</sup></i>	hour (Loan word)
/k/	<i>ki<sup>2</sup></i>	old
	<i>keh<sup>2</sup>ka<sup>2</sup></i>	goat
	<i>i<sup>1</sup>ke<sup>2</sup></i>	descend
	<i>kjē<sup>2</sup></i>	liquor
	<i>kək, i<sup>1</sup>kək</i>	bite
	<i>ka<sup>2</sup>teəp</i>	tongs
	<i>ka<sup>1</sup>la<sup>2</sup>gə<sup>2</sup></i>	crow
	<i>kam<sup>2</sup></i>	water (for drinking)
	<i>kan<sup>2</sup>re<sup>2</sup>si<sup>2</sup>ka<sup>1</sup></i>	cockroach
	<i>a<sup>2</sup>ku<sup>1</sup></i>	nine
	<i>ku<sup>2</sup>min<sup>1</sup></i>	hair/head
	<i>ku<sup>2</sup>pə<sup>3</sup></i>	head
	<i>ku<sup>2</sup>ri<sup>1</sup></i>	brain
	<i>ke<sup>2</sup></i>	going for sure
	<i>kutkih<sup>2</sup></i>	crocodile
	<i>ku<sup>2</sup>, i<sup>1</sup>kut</i>	give
	<i>kum<sup>2</sup>raŋ<sup>3</sup></i>	horse, donkey
	<i>kə<sup>1</sup></i>	nose
	<i>ku<sup>3</sup></i>	mother
	<i>i<sup>1</sup>ku<sup>2</sup>le<sup>2</sup></i>	skin
	<i>kək</i>	cake (Loan word)
	<i>kaŋ<sup>2</sup></i>	forehead
	<i>ka<sup>3</sup></i>	write
	<i>ka<sup>2</sup></i>	jaw
	<i>ka<sup>1</sup></i>	go
	<i>kat<sup>3</sup></i>	cloth
	<i>kat</i>	shirt
	<i>keh<sup>2</sup>ka<sup>1</sup></i>	ship
	<i>keh<sup>2</sup>ka<sup>1</sup>sa<sup>1</sup></i>	lamb
	<i>kum<sup>2</sup>raŋ<sup>3</sup>sa<sup>1</sup></i>	colt
	<i>kam<sup>3</sup>so<sup>1</sup></i>	pour liquid
	<i>ko<sup>1</sup>βe<sup>3</sup></i>	cup
	<i>ku<sup>1</sup>lak</i>	spoon
	<i>ku<sup>1</sup>lakteu<sup>2</sup></i>	fork
	<i>ka<sup>2</sup>teap</i>	tongue
	<i>kam<sup>1</sup>ne<sup>2</sup>pak</i>	thirst
	<i>kə<sup>3</sup>mun<sup>2</sup></i>	turmeric
	<i>kaŋ<sup>2</sup>se<sup>3</sup></i>	bold
	<i>ka<sup>2</sup>tu<sup>1</sup></i>	mute
	<i>ka<sup>2</sup>ta<sup>2</sup>ləŋ<sup>3</sup>kə<sup>2</sup>se<sup>2</sup></i>	sharp shiny stick
	<i>kum<sup>1</sup>be<sup>2</sup>li<sup>1</sup>tein<sup>3</sup></i>	wooden base
	<i>ka<sup>2</sup>ren<sup>3</sup>sin<sup>1</sup>pa<sup>2</sup></i>	hollow stick
	<i>kam<sup>1</sup>teə<sup>3</sup>ein<sup>2</sup>ko<sup>2</sup>lo<sup>3</sup></i>	brass vase
	<i>ke<sup>1</sup>pəŋ<sup>2</sup>βa<sup>2</sup></i>	he-goat
	<i>kan<sup>2</sup>ka<sup>2</sup></i>	civet cat
	<i>kut</i>	coat (Loan word)
	<i>katpi<sup>1</sup>ti<sup>2</sup></i>	tailor

	<i>ka<sup>2</sup>βe<sup>2</sup></i>	bowl
	<i>ka<sup>2</sup>pin<sup>2</sup>ri<sup>2</sup></i>	guava
	<i>ko<sup>1</sup>pi<sup>2</sup>ta<sup>2</sup></i>	papaya
	<i>kam<sup>2</sup>teoy<sup>2</sup></i>	pole, post
	<i>kəna<sup>1</sup></i>	there
	<i>ko<sup>2</sup>rod</i>	saw (Loan word)
	<i>ku<sup>2</sup>pə<sup>1</sup> ra<sup>2</sup>ka<sup>3</sup></i>	skull
	<i>kə<sup>1</sup>rin<sup>2</sup></i>	snore
	<i>ku<sup>1</sup>nəy<sup>2</sup></i>	back of head
	<i>kə</i>	this
	<i>kəlo<sup>2</sup></i>	prepare
	<i>kəma<sup>?</sup></i>	after that
	<i>kam<sup>3</sup>so<sup>1</sup></i>	pour liquid
	<i>ka<sup>2</sup>tu<sup>1</sup></i>	mute
	<i>ka<sup>2</sup>ta<sup>2</sup>ləy<sup>3</sup>kə<sup>2</sup>se<sup>?</sup></i>	sharp shiny stick
	<i>kə<sup>3</sup>mun<sup>2</sup></i>	turmeric
	<i>ka<sup>2</sup>se<sup>3</sup></i>	bold
	<i>kum<sup>1</sup>be<sup>2</sup>li<sup>1</sup>tein<sup>3</sup></i>	wooden base
	<i>ka<sup>1</sup>lai<sup>3</sup></i>	change
	<i>kam<sup>3</sup>bo<sup>1</sup></i>	blister
	<i>kupka<sup>1</sup></i>	grasshopper
	<i>kəra<sup>2</sup>ma<sup>?</sup></i>	because
	<i>kam<sup>1</sup>ne<sup>2</sup>pak</i>	thirst
	<i>kəra<sup>2</sup></i>	that
<i>/ʀ/</i>	<i>ka<sup>2</sup>to<sup>3</sup></i>	chin
	<i>ga<sup>?</sup></i>	village
	<i>ma<sup>?</sup></i>	from/to
	<i>le<sup>?</sup></i>	push
	<i>ko<sup>?</sup></i>	cry
	<i>te<sup>?</sup></i>	hit
	<i>te<sup>?</sup>teit</i>	know
<i>/m/</i>	<i>i<sup>1</sup>mi<sup>1</sup>kə<sup>1</sup></i>	tail
	<i>mi<sup>2</sup></i>	person
	<i>ma<sup>1</sup></i>	stop (command)
	<i>mi<sup>2</sup>wa<sup>1</sup></i>	male
	<i>mi<sup>2</sup>mi<sup>3</sup></i>	cat
	<i>mi<sup>2</sup>ei<sup>3</sup></i>	seven
	<i>mi<sup>3</sup> (sa<sup>?</sup>)</i>	lick
	<i>i<sup>1</sup>mi<sup>3</sup> sət<sup>3</sup></i>	lick
	<i>mit</i>	eye
	<i>a<sup>1</sup>min<sup>3</sup></i>	ripe
	<i>min<sup>3</sup>/i<sup>1</sup>min<sup>3</sup></i>	name
	<i>mən<sup>2</sup>su<sup>2</sup>ka<sup>1</sup></i>	cattle
	<i>məy<sup>1</sup>lay<sup>2</sup></i>	dream
	<i>i<sup>1</sup>məy<sup>2</sup></i>	corpse
	<i>mo<sup>2</sup></i>	2s
	<i>məy<sup>2</sup>tu<sup>?</sup></i>	heart
	<i>man<sup>2</sup>pan<sup>2</sup></i>	story/tell
	<i>mi<sup>2</sup>ja<sup>3</sup></i>	yesterday
	<i>məy<sup>2</sup>ru<sup>1</sup>təe<sup>3</sup></i>	grave
	<i>mi<sup>2</sup>təup</i>	blind
	<i>mo<sup>2</sup>təi<sup>1</sup></i>	bunch
	<i>man<sup>3</sup></i>	blessing
	<i>mi<sup>2</sup>təe<sup>2</sup>tein<sup>2</sup></i>	meeting house

<i>mek</i>	hook
<i>mi?</i>	negative
<i>mis<sup>2</sup>la<sup>3</sup></i>	statue
<i>mə<sup>1</sup>tein<sup>3</sup></i>	specialist
<i>moŋ<sup>2</sup></i>	stable
<i>mi<sup>2</sup>daŋ<sup>2</sup></i>	group of humans
<i>mam<sup>1</sup></i>	leave
<i>ma<sup>2</sup>ra<sup>1</sup>ma<sup>2</sup>na<sup>3</sup></i>	perhaps
<i>mi<sup>1</sup>si<sup>2</sup>pi<sup>3</sup>kam<sup>2</sup></i>	tear
<i>mitβe<sup>3</sup></i>	eye brow
<i>mən<sup>2</sup>eu<sup>2</sup>sa<sup>1</sup></i>	calf
<i>mən<sup>2</sup>teu<sup>1</sup>tap</i>	stable
<i>mapin<sup>2</sup>le<sup>2</sup></i>	scar
<i>mε<sup>2</sup>ke<sup>2</sup></i>	what
<i>ma?</i>	from/to
<i>lum<sup>2</sup></i>	flood
<i>me<sup>1</sup>jaŋ<sup>2</sup></i>	festival
<i>moŋ<sup>2</sup></i>	inside
<i>muŋ<sup>2</sup></i>	country

/n/	<i>ni<sup>1</sup>rum<sup>2</sup></i>	1p (inclusive)
	<i>ni<sup>1</sup>rum<sup>2</sup>ma<sup>2</sup>na<sup>1</sup></i>	1p (exclusive)
	<i>a<sup>2</sup>ni<sup>1</sup></i>	father's sister
	<i>ni<sup>2</sup>, i<sup>1</sup>ni<sup>3</sup></i>	laugh
	<i>a<sup>2</sup>ni<sup>1</sup>a<sup>2</sup>rin<sup>3</sup></i>	father's younger sister
	<i>a<sup>2</sup>ni<sup>1</sup>dzəŋ<sup>2</sup></i>	father's elder sister
	<i>a<sup>2</sup>nin<sup>2</sup>nu<sup>1</sup></i>	daughter-in-law
	<i>nin<sup>2</sup>, i<sup>1</sup>nin<sup>3</sup></i>	drink
	<i>a<sup>1</sup>ne<sup>2</sup>taŋ<sup>2</sup></i>	soft
	<i>a<sup>2</sup>na<sup>1</sup></i>	sister
	<i>a<sup>2</sup>na<sup>1</sup>dzəŋ<sup>2</sup></i>	elder sister
	<i>na<sup>2</sup></i>	field
	<i>ne<sup>2</sup></i>	forbearance
	<i>nu<sup>2</sup></i>	instrument for cleaning rice
	<i>ŋu<sup>3</sup></i>	infection
	<i>nam<sup>3</sup></i>	rotten
	<i>na<sup>3</sup>ki<sup>2</sup></i>	ear
	<i>na<sup>3</sup>sa<sup>3</sup></i>	side of face
	<i>a<sup>2</sup>no<sup>2</sup></i>	younger brother
	<i>no<sup>2</sup>no<sup>2</sup>sa<sup>1</sup></i>	child
	<i>no<sup>2</sup>εe<sup>2</sup>sa<sup>1</sup></i>	baby
	<i>nə<sup>2</sup>ku?</i>	mouth
	<i>na<sup>3</sup>βaŋ<sup>2</sup>ti<sup>2</sup></i>	centipede (non-poison)
	<i>-na<sup>2</sup></i>	'at'
	<i>ne<sup>2</sup></i>	tired
	<i>nin<sup>1</sup>rak</i>	thirsty
	<i>nun<sup>2</sup></i>	mix
	<i>βan<sup>2</sup>teu<sup>1</sup></i>	midnight
	<i>ti<sup>1</sup>βa<sup>2</sup>na<sup>2</sup></i>	ancient times
	<i>sin<sup>3</sup>ka<sup>3</sup>bin<sup>2</sup>ra<sup>1</sup></i>	twilight
	<i>nam<sup>3</sup>sa<sup>1</sup></i>	June
	<i>nam<sup>3</sup>nu<sup>1</sup></i>	July
	<i>nakpo<sup>2</sup></i>	morning
	<i>na<sup>2</sup>di?</i>	ear wax
	<i>na<sup>2</sup>bin<sup>2</sup></i>	ear lobe
	<i>na<sup>2</sup></i>	at

	<i>nay</i> <sup>2</sup>	choke
	<i>na</i> <sup>2</sup> <i>po</i> <sup>1</sup> <i>du</i> <sup>2</sup>	breakfast
	<i>na</i> <sup>2</sup> <i>taŋ</i> <sup>2</sup>	deaf
	<i>nopka</i> <sup>2</sup>	anus
	<i>no</i> <sup>1</sup> <i>εom</i> <sup>2</sup> <i>tein</i> <sup>2</sup>	womb
	<i>na</i> <sup>2</sup> <i>ti</i> <sup>2</sup>	earring
	<i>nitpo</i> <sup>1</sup>	udder
	<i>nam</i> <sup>1</sup> <i>dza</i> <sup>3</sup>	color
	<i>ne</i> <sup>1</sup> <i>taŋ</i> <sup>2</sup> <i>taŋ</i> <sup>2</sup>	soft
	<i>nin</i> <sup>2</sup> <i>kun</i> <sup>3</sup>	have capacity
	<i>nin</i> <sup>2</sup> <i>kun</i> <sup>3</sup>	power
	<i>ne</i> <sup>3</sup>	tobacco
	<i>no</i> <sup>2</sup> <i>ka</i> <sup>1</sup>	open mouth
	<i>nay</i> <sup>2</sup>	pet
	<i>na</i> <sup>2</sup>	locative
	<i>ne</i> <sup>2</sup>	tired
	<i>nin</i> <sup>1</sup> <i>rak</i>	thirsty
	<i>nun</i> <sup>2</sup>	mix
	<i>niŋ</i> <sup>2</sup> <i>kan</i> <sup>2</sup>	cause
	<i>na</i> <sup>3</sup> <i>sa</i> <sup>2</sup>	side of head
	<i>no</i> <sup>2</sup> <i>tei</i> <sup>1</sup> <i>ka</i> <sup>2</sup>	orphan
	<i>ne</i> <sup>2</sup> <i>ri</i> <sup>2</sup> <i>kon</i> <sup>3</sup>	coconut (Loan word)
	<i>nay</i> <sup>2</sup>	pet
	<i>nam</i> <sup>2</sup> <i>san</i> <sup>2</sup>	mortar
	<i>nat</i>	squeeze
<i>/ɲ/</i>	<i>na</i> <sup>2</sup>	bee
	<i>no</i> <sup>2</sup>	fried things
<i>/ŋ/</i>	<i>ŋəm</i> <sup>2</sup> <i>ma</i> <sup>2</sup>	meat: animal
	<i>i</i> <sup>1</sup> <i>ŋam</i> <sup>3</sup>	flesh
	<i>ŋa</i> <sup>1</sup>	1s
	<i>ŋa</i> <sup>2</sup> <i>ka</i> <sup>3</sup>	mithun
	<i>ŋa</i> <sup>3</sup>	buffalo
	<i>ŋa</i> <sup>2</sup>	fish
	<i>ŋa</i> <sup>2</sup> <i>a</i> <sup>2</sup> <i>teum</i> <sup>3</sup>	pond
	<i>ŋam</i> <sup>3</sup>	animal
	<i>βu</i> <sup>1</sup> <i>ŋam</i> <sup>3</sup>	chicken
	<i>niŋ</i> <sup>2</sup> <i>kan</i> <sup>2</sup>	cause
	<i>ŋi</i> <sup>1</sup>	wild
	<i>ŋo</i> <sup>2</sup>	say
	<i>ŋo</i> <sup>2</sup>	break
	<i>ŋut</i>	able
	<i>ŋe</i> <sup>2</sup>	fry
	<i>ŋa</i> <sup>2</sup> <i>ku</i> <sup>1</sup> <i>na</i> <sup>2</sup> <i>ke</i> <sup>2</sup>	forward direction
	<i>ŋo</i> <sup>2</sup> <i>βa</i> <sup>2</sup>	king
	<i>ŋo</i> <sup>2</sup> <i>nu</i> <sup>2</sup>	queen
	<i>ŋo</i> <sup>2</sup> <i>sen</i> <sup>1</sup>	truly
	<i>ŋa</i> <sup>2</sup> <i>ku</i> <sup>1</sup> <i>na</i> <sup>2</sup>	in front of
	<i>ŋo</i> <sup>2</sup>	Great King
	<i>ŋam</i> <sup>2</sup> <i>bo</i> <sup>1</sup> <i>ti</i> <sup>2</sup>	gnat
<i>/β/</i>	<i>a</i> <sup>2</sup> <i>βi</i> <sup>1</sup>	grandmother
	<i>βət</i> <i>ka</i> <sup>2</sup>	leech
	<i>a</i> <sup>2</sup> <i>βəŋ</i> <sup>2</sup>	father's brother
	<i>βəŋ</i> <sup>2</sup> , <i>i</i> <sup>1</sup> <i>βəŋ</i> <sup>3</sup>	come

<b>βan<sup>1</sup></b>	fire
<b>βaŋ<sup>2</sup>dzəŋ<sup>2</sup></b>	father's elder brother
<b>i<sup>1</sup>βaŋ<sup>3</sup></b>	father's younger brother
<b>a<sup>2</sup>βa<sup>1</sup>, i<sup>2</sup>βa<sup>1</sup>, βa<sup>1</sup></b>	father
<b>βa<sup>1</sup>tɛi<sup>1</sup></b>	one
<b>βa<sup>1</sup>ni<sup>3</sup></b>	two
<b>βa<sup>1</sup>rum<sup>2</sup></b>	three
<b>βa<sup>3</sup></b>	tooth
<b>βa?</b>	bamboo
<b>βan<sup>1</sup>kut</b>	smoke
<b>βan<sup>2</sup>mu<sup>1</sup>to<sup>3</sup></b>	extinguish
<b>βu<sup>1</sup>ki<sup>2</sup>ka<sup>2</sup></b>	parrot
<b>βu<sup>1</sup>ti<sup>1</sup></b>	egg
<b>βu<sup>1</sup>ŋam<sup>3</sup></b>	chicken
<b>βoŋ<sup>2</sup></b>	rice (cooked)
<b>βok</b>	belly (exterior)
<b>βək</b>	pig
<b>βu<sup>2</sup>pəŋ<sup>2</sup>βa<sup>1</sup></b>	cock
<b>βu<sup>2</sup>ku<sup>3</sup>ku<sup>3</sup></b>	hen
<b>βaŋ<sup>2</sup></b>	cousin
<b>βe<sup>2</sup></b>	move side by side
<b>βan<sup>2</sup>ɛa<sup>1</sup></b>	October
<b>βan<sup>2</sup>nu<sup>1</sup></b>	November
<b>βaŋ<sup>2</sup></b>	come
<b>βa<sup>2</sup>mə<sup>2</sup>ka<sup>1</sup></b>	chew
<b>βak<sup>2</sup>na<sup>2</sup></b>	sow
<b>βuŋ<sup>2</sup>ka<sup>1</sup>tɛo<sup>3</sup></b>	bamboo pool
<b>βu<sup>1</sup>ra<sup>2</sup></b>	kite
<b>βu<sup>1</sup>ri<sup>2</sup></b>	porcupine
<b>βa<sup>2</sup>pah<sup>2</sup></b>	floor
<b>βaŋ<sup>1</sup>ra<sup>3</sup></b>	welcome
<b>βan<sup>2</sup>ne<sup>2</sup>tɛin<sup>3</sup>pan<sup>2</sup></b>	lamp, torch
<b>βan<sup>2</sup>ne<sup>2</sup>ka<sup>2</sup>ja<sup>2</sup></b>	candle
<b>βək ko?</b>	grunt (pig)
<b>βaŋ<sup>3</sup></b>	rich
<b>βaŋ<sup>2</sup>βan<sup>2</sup>tələ<sup>3</sup></b>	continue
<b>pə<sup>1</sup>βe<sup>2</sup>la<sup>2</sup>βe<sup>3</sup></b>	rabbit
<b>βan<sup>2</sup>tɛu<sup>1</sup></b>	midnight
<b>ti<sup>1</sup>βa<sup>2</sup>na<sup>2</sup></b>	ancient times
<b>βa<sup>1</sup>kəm<sup>2</sup></b>	molar tooth
<b>βe<sup>2</sup></b>	splash water
<b>/s/</b>	
<b>a<sup>2</sup>si<sup>1</sup>a<sup>2</sup>rin<sup>3</sup></b>	mother's sister, younger
<b>a<sup>2</sup>si<sup>1</sup>jəŋ<sup>2</sup></b>	mother's sister, elder
<b>si<sup>1</sup>aŋ<sup>3</sup></b>	silver
<b>si<sup>2</sup>səla<sup>3</sup></b>	star
<b>sət, i<sup>1</sup>sət</b>	eat (rice)
<b>se<sup>1</sup></b>	firewood
<b>a<sup>2</sup>sa<sup>1</sup> / sa<sup>1</sup></b>	son
<b>sa<sup>3</sup></b>	poison
<b>sa?</b>	descend
<b>sum<sup>1</sup>ləm<sup>2</sup></b>	mushroom
<b>sə<sup>1</sup>mun<sup>2</sup>ka<sup>1</sup></b>	insect
<b>sə<sup>2</sup>ka<sup>2</sup></b>	shoulder
<b>kum<sup>2</sup>raŋ<sup>3</sup>sa<sup>1</sup></b>	colt
<b>si<sup>1</sup>mɛ<sup>3</sup>ka?</b>	thin stick

	<i>sat</i>	eat (V) (dishes)
	<i>su<sup>1</sup>min<sup>2</sup>ka<sup>2</sup></i>	anthill
	<i>suh<sup>2</sup></i>	comb
	<i>se<sup>2</sup>kap</i>	razor
	<i>si<sup>2</sup>lik</i>	silk (Loan word)
	<i>sa<sup>2</sup>bi<sup>2</sup></i>	key (Loan word)
	<i>sɔŋ<sup>2</sup></i>	new leaf
	<i>sum<sup>2</sup>la<sup>3</sup></i>	image (photo)
	<i>si<sup>1</sup>ri<sup>1</sup></i>	gourd
	<i>sənu<sup>k</sup></i>	order
	<i>sin<sup>3</sup>ka<sup>3</sup>bin<sup>2</sup>ra<sup>1</sup></i>	twilight
	<i>se<sup>1</sup>dzɔŋ<sup>2</sup>ka<sup>3</sup></i>	grub
	<i>sam<sup>2</sup>je<sup>1</sup>na<sup>2</sup></i>	beside
<i>/ɛ/</i>	<i>ɛi<sup>2</sup>ku<sup>2</sup></i>	thumb
	<i>u<sup>2</sup>ɛe<sup>1</sup>ka<sup>2</sup></i>	bird
	<i>ɛə<sup>2</sup>rum<sup>2</sup></i>	2p
	<i>ɛə<sup>2</sup>rum<sup>2</sup></i>	3p
	<i>ɛə<sup>2</sup>k<sup>3</sup>ba<sup>2</sup></i>	bear
	<i>ɛa<sup>?</sup></i>	tiger
	<i>ɛu<sup>1</sup>, i<sup>1</sup>ɛu<sup>?</sup></i>	roast
	<i>ɛum<sup>1</sup></i>	salt
	<i>i<sup>1</sup>ɛum<sup>3</sup></i>	cut dried tree
	<i>ɛu<sup>?</sup></i>	thorn
	<i>a<sup>2</sup>ɛət</i>	eight
	<i>ɛa<sup>3</sup></i>	give birth
	<i>ɛe<sup>2</sup></i>	fish net
	<i>ɛi<sup>1</sup></i>	finger
	<i>ɛokmo<sup>1</sup>rɔŋ<sup>3</sup></i>	deer horn
	<i>ɛu<sup>1</sup>poŋ<sup>2</sup>βa<sup>2</sup></i>	ox
	<i>ɛum<sup>2</sup>kam<sup>2</sup>jo<sup>3</sup></i>	lagoon
	<i>ɛah<sup>2</sup>ɛi<sup>2</sup></i>	hundred
	<i>ɛam<sup>2</sup>na<sup>2</sup></i>	mirror (Loan word)
	<i>ɛeh<sup>3</sup></i>	liquor
	<i>ɛitrum<sup>2</sup></i>	urinate
	<i>ɛam<sup>2</sup></i>	clan name
	<i>ɛa<sup>2</sup>ru<sup>3</sup>ka<sup>2</sup>ri<sup>1</sup></i>	lemon
	<i>ɛa<sup>2</sup>tei<sup>1</sup>ra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup>ra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	hundred eleven
	<i>ɛa<sup>2</sup>tei<sup>1</sup>ra<sup>2</sup> rɔ<sup>2</sup>ba<sup>2</sup>ŋa<sup>1</sup></i>	hundred fifty
	<i>ɛitpiteɛ<sup>1</sup>pe<sup>?</sup></i>	dawn
	<i>ɛi<sup>1</sup>jaŋ<sup>2</sup></i>	silver
	<i>ɛitrum<sup>2</sup></i>	urinate
	<i>ɛu<sup>1</sup>poŋ<sup>2</sup>βa<sup>2</sup></i>	ox
	<i>ɛum<sup>2</sup>kam<sup>2</sup>jo<sup>3</sup></i>	lagoon
	<i>ɛam<sup>2</sup>na<sup>2</sup></i>	mirror (Loan word)
	<i>ɛeh<sup>3</sup></i>	beer/ wine
	<i>ɛah<sup>2</sup>ɛi<sup>2</sup></i>	hundred
	<i>ɛam<sup>2</sup></i>	clan name
	<i>ɛa<sup>2</sup>tei<sup>1</sup>ra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup>ra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	hundred eleven
	<i>ɛa<sup>2</sup>tei<sup>1</sup>ra<sup>2</sup> rɔ<sup>2</sup>ba<sup>2</sup>ŋa<sup>1</sup></i>	hundred fifty
	<i>ɛi<sup>2</sup>ke<sup>3</sup>βa<sup>1</sup></i>	God
	<i>ɛa<sup>1</sup>ri<sup>3</sup>ri<sup>3</sup></i>	light
	<i>ɛa<sup>2</sup>ru<sup>3</sup>ka<sup>2</sup>ri<sup>1</sup></i>	lemon
	<i>ɛap</i>	standing
<i>/z/</i>	<i>zə<sup>2</sup>pu<sup>3</sup>ka<sup>1</sup>/ze<sup>2</sup>pu<sup>3</sup>ka<sup>1</sup></i>	rat

	<i>za<sup>2</sup>pi<sup>3</sup></i>	moon
	<i>zo<sup>2</sup>ko<sup>2</sup></i>	river / valley
<b>/h/</b>	<i>hin<sup>2</sup>pe<sup>3</sup></i>	grass
	<i>he<sup>1</sup></i>	crab
	<i>hi<sup>2</sup></i>	hanging bridge
	<i>ro<sup>2</sup>ha<sup>2</sup>tei<sup>1</sup></i>	ten
	<i>hap</i>	chest
	<i>a<sup>1</sup>ho<sup>1</sup>/</i>	low
	<i>keh<sup>2</sup>ka<sup>1</sup></i>	ship
	<i>keh<sup>2</sup>ka<sup>1</sup>sa<sup>1</sup></i>	lamb
	<i>ho<sup>1</sup>pa<sup>2</sup>ka<sup>2</sup></i>	shrimp
	<i>ham<sup>1</sup>rɔ<sup>2</sup>ka<sup>3</sup></i>	centipede poison
	<i>ha<sup>2</sup></i>	stay
	<i>hab<sup>2</sup></i>	beautiful
	<i>hit</i>	fear
	<i>hu<sup>1</sup></i>	think
	<i>hi<sup>2</sup>tei<sup>3</sup>teit</i>	sneeze
	<i>ho<sup>1</sup>lo<sup>2</sup></i>	naked
	<i>ha<sup>1</sup>mo<sup>3</sup>ka<sup>2</sup>ka<sup>2</sup></i>	gape
	<i>hi<sup>2</sup>po<sup>1</sup></i>	barley
	<i>hin<sup>2</sup>tei<sup>3</sup></i>	thousand
	<i>hay<sup>2</sup></i>	strong
	<i>ho<sup>1</sup></i>	burn (vanquish)
	<i>hab<sup>2</sup></i>	beautiful
	<i>he<sup>3</sup></i>	joy
	<i>he<sup>2</sup>tein<sup>2</sup></i>	nest
	<i>hu<sup>1</sup></i>	think
	<i>ho<sup>2</sup></i>	dry
	<i>hu<sup>2</sup></i>	to close a hole
	<i>hum<sup>2</sup>la<sup>1</sup></i>	comfort
	<i>ha<sup>1</sup>gu<sup>2</sup>nu<sup>3</sup>na<sup>2</sup></i>	outside
<b>/l/</b>	<i>li<sup>2</sup>kə<sup>2</sup></i>	tongue
	<i>li<sup>2</sup>ta<sup>3</sup></i>	frog
	<i>la<sup>3</sup></i>	eagle
	<i>lam<sup>2</sup>ko<sup>2</sup></i>	road
	<i>lam<sup>2</sup>pa<sup>1</sup></i>	paddy rice
	<i>lan<sup>2</sup>to<sup>2</sup></i>	kill
	<i>a<sup>1</sup>lay<sup>2</sup>kam<sup>3</sup></i>	hard
	<i>lay<sup>3</sup>ɣa<sup>2</sup></i>	banana
	<i>i<sup>1</sup>sum<sup>3</sup></i>	loss
	<i>a<sup>1</sup>lu<sup>1</sup></i>	high
	<i>lak</i>	forgot
	<i>lum<sup>2</sup>dze<sup>2</sup></i>	boil
	<i>lɔŋ<sup>2</sup>ku<sup>2</sup>tu<sup>2</sup></i>	stone
	<i>lay<sup>1</sup></i>	climb
	<i>lan<sup>2</sup></i>	kill
	<i>lam<sup>2</sup></i>	bring
	<i>lei</i>	vocative marker
	<i>likdap</i>	book
	<i>lua<sup>1</sup></i>	love
	<i>lum<sup>1</sup></i>	flood
	<i>lum<sup>2</sup></i>	cook (V)
	<i>lum<sup>2</sup>dze<sup>3</sup></i>	boil
	<i>loŋ<sup>2</sup>ɛan<sup>2</sup></i>	cave

	<i>lit</i>	paper
	<i>litpa<sup>1</sup></i>	bracelet
	<i>lən<sup>3</sup></i>	disobey
	<i>lan<sup>3</sup></i>	bitting
	<i>lin<sup>3</sup>sam<sup>2</sup></i>	yam
	<i>laŋ<sup>2</sup>sa<sup>2</sup></i>	thatch
	<i>li<sup>2</sup>su<sup>2</sup>ri<sup>3</sup></i>	lychee (Loan word)
	<i>laʔei<sup>1</sup>ka<sup>2</sup></i>	arrow
	<i>le<sup>3</sup></i>	open
	<i>le<sup>2</sup></i>	the whole tree
	<i>lum<sup>2</sup>dzap</i>	fan
	<i>la<sup>1</sup></i>	look
	<i>litha<sup>2</sup>koʔ</i>	croak (frog)
	<i>li<sup>2</sup></i>	boat
	<i>la<sup>1</sup>din<sup>3</sup>din<sup>3</sup>/ a<sup>2</sup>la<sup>2</sup></i>	straight
<i>/r/</i>	<i>ri<sup>3</sup>, i<sup>1</sup>rit</i>	die
	<i>rin<sup>1</sup></i>	liver
	<i>i<sup>1</sup>rin<sup>3</sup></i>	tie
	<i>i<sup>1</sup>re<sup>2</sup>ko<sup>3</sup></i>	thin
	<i>rə<sup>1</sup>ko<sup>2</sup>heʔ</i>	breath
	<i>i<sup>1</sup>rəŋ<sup>2</sup>ko<sup>2</sup></i>	wing
	<i>rəŋ<sup>2</sup>lum<sup>2</sup>ti<sup>2</sup></i>	sweat
	<i>i<sup>1</sup>ra<sup>1</sup>ka<sup>2</sup></i>	bone
	<i>a<sup>3</sup>ram<sup>2</sup>ka<sup>1</sup></i>	otter
	<i>a<sup>1</sup>raŋ<sup>1</sup></i>	alive
	<i>raŋ<sup>2</sup></i>	sky
	<i>rak<sup>3</sup></i>	disease
	<i>raŋ<sup>2</sup>peʔ</i>	thunder
	<i>raŋ<sup>2</sup>weʔ</i>	rain
	<i>raŋ<sup>2</sup>mit</i>	sun
	<i>raŋ<sup>2</sup>mok</i>	lightning
	<i>raŋ<sup>2</sup>niʔ</i>	day
	<i>ro<sup>2</sup></i>	bush
	<i>ro<sup>2</sup>ha<sup>2</sup>tei<sup>1</sup></i>	ten
	<i>a<sup>2</sup>rok</i>	six
	<i>i<sup>1</sup>rə<sup>3</sup></i>	fat
	<i>i<sup>1</sup>rəŋ<sup>2</sup></i>	horn
	<i>ri<sup>1</sup>ra<sup>2</sup></i>	vain
	<i>raŋ<sup>2</sup>suŋ<sup>2</sup> da<sup>2</sup>βe<sup>1</sup>ka<sup>3</sup></i>	winter
	<i>raŋ<sup>2</sup>lum<sup>3</sup>dza<sup>2</sup></i>	summer
	<i>rək<sup>3</sup></i>	push in the ground
	<i>raŋ<sup>2</sup>βa<sup>2</sup></i>	year
	<i>raŋ<sup>2</sup>ni<sup>1</sup></i>	day
	<i>raŋ<sup>2</sup>dza<sup>2</sup></i>	evening
	<i>raŋ<sup>2</sup>βan<sup>2</sup>ma<sup>2</sup></i>	early morning
	<i>raŋ<sup>2</sup>ni<sup>1</sup> i<sup>1</sup>dzam<sup>2</sup></i>	mid-day
	<i>raŋ<sup>2</sup>dza<sup>2</sup>teu<sup>3</sup></i>	noon
	<i>raŋ<sup>2</sup>βan<sup>2</sup></i>	night
	<i>rap</i>	cross
	<i>rin<sup>2</sup></i>	small
	<i>si<sup>1</sup>ri<sup>1</sup></i>	gourd
	<i>raŋ<sup>2</sup>ni<sup>1</sup>du<sup>1</sup></i>	lunch
	<i>raŋ<sup>2</sup>dza<sup>2</sup>du<sup>1</sup></i>	dinner
	<i>ri<sup>1</sup>tea<sup>3</sup>tee<sup>2</sup>lo<sup>2</sup>pun<sup>3</sup></i>	cotton basket
	<i>ri<sup>1</sup>teu<sup>1</sup>tein<sup>3</sup>paŋ<sup>2</sup>po<sup>3</sup></i>	wheel sticks

	<i>ri<sup>1</sup>da<sup>1</sup>tein<sup>3</sup>ke<sup>2</sup>rum<sup>2</sup></i>	weaving frame
	<i>rom<sup>2</sup></i>	waist
	<i>ra<sup>2</sup>εε<sup>2</sup></i>	courtyard
	<i>rɔ<sup>1</sup></i>	add
	<i>re<sup>2</sup></i>	enemy
	<i>raj<sup>2</sup>nu<sup>1</sup>ta<sup>3</sup></i>	up
	<i>rə<sup>3</sup>bitla<sup>1</sup></i>	sudden
	<i>raj<sup>2</sup>teakta<sup>1</sup></i>	above
	<i>rəm<sup>2</sup>ku<sup>3</sup></i>	famine
	<i>ram<sup>2</sup>tak</i>	hunger
	<i>rɔ<sup>2</sup>ni<sup>3</sup></i>	twenty
	<i>rɔ<sup>2</sup>ni<sup>3</sup> ra<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	twenty-one
	<i>rɔ<sup>2</sup>rum<sup>3</sup></i>	thirty
	<i>rɔ<sup>2</sup>bi<sup>3</sup>li<sup>3</sup></i>	forty
	<i>rɔ<sup>2</sup>ba<sup>2</sup>ηa<sup>1</sup></i>	fifty
	<i>rɔ<sup>2</sup>ba<sup>2</sup>ηa<sup>1</sup>ra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	fifty-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>rok</i>	sixty
	<i>rɔ<sup>2</sup>a<sup>1</sup>rokra<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	sixty-one
	<i>rɔ<sup>2</sup>mi<sup>2</sup>tei<sup>3</sup></i>	seventy
	<i>rɔ<sup>2</sup>mi<sup>2</sup>tei<sup>3</sup> βa<sup>1</sup>tei<sup>2</sup></i>	seventy-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>εat<sup>2</sup></i>	eighty
	<i>rɔ<sup>2</sup>a<sup>1</sup>εat<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	eighty-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>ku<sup>2</sup></i>	ninety
	<i>rɔ<sup>2</sup>a<sup>1</sup>ku<sup>2</sup> βa<sup>1</sup>tei<sup>2</sup></i>	ninety-one
	<i>rəkakla<sup>3</sup></i>	perfect
	<i>raj<sup>2</sup>nak</i>	dim
	<i>raj<sup>2</sup>gin<sup>2</sup>rak</i>	gas
	<i>ra<sup>3</sup>kakla<sup>1</sup></i>	accurate
	<i>rom<sup>2</sup></i>	waist
	<i>ra<sup>2</sup>εε<sup>2</sup></i>	courtyard
	<i>ra<sup>3</sup></i>	need
	<i>ri<sup>1</sup></i>	thread
	<i>re<sup>2</sup></i>	thin
	<i>ra<sup>1</sup>lo<sup>3</sup></i>	need
	<i>rəpat<sup>3</sup></i>	one above another
/j/	<i>jo<sup>2</sup>pin<sup>2</sup></i>	flood
	<i>jəkβi<sup>3</sup></i>	monkey
	<i>dzi<sup>1</sup>jam<sup>2</sup></i>	how long
	<i>jo<sup>2</sup></i>	direction
	<i>jun<sup>2</sup></i>	chase
	<i>jo<sup>1</sup>ku<sup>2</sup>ro<sup>2</sup>gah<sup>2</sup></i>	headland, point
	<i>i<sup>1</sup>joh<sup>2</sup></i>	swallow
	<i>ja<sup>2</sup>kop</i>	shoe
	<i>je<sup>2</sup></i>	fall
	<i>jun<sup>2</sup></i>	chase
	<i>jag<sup>2</sup>lo<sup>2</sup></i>	soon
	<i>je<sup>3</sup></i>	yes
	<i>ju<sup>3</sup>ko<sup>2</sup></i>	buttocks
/i/	<i>i<sup>2</sup>pi<sup>2</sup></i>	3s
	<i>i<sup>1</sup>ma<sup>3</sup></i>	wound
	<i>i<sup>1</sup>rak</i>	pain
	<i>i<sup>1</sup>pin<sup>2</sup></i>	swelling
	<i>i<sup>1</sup>neh<sup>3</sup></i>	tired
	<i>i<sup>2</sup>tεe<sup>2</sup></i>	wake up

<i>i'ka</i> <sup>3</sup>	then
<i>i'na</i> <sup>2</sup>	that
<i>i'ne</i> <sup>2</sup>	tired
<i>i'ra</i> <sup>2</sup> / <i>a<sup>2</sup>ra</i> <sup>2</sup>	this
<i>di'go</i> <sup>2</sup>	defecate
<i>i'βa<sup>2</sup>jan</i> <sup>2</sup>	beget (of father)
<i>i'ma</i> <sup>2</sup>	wound
<i>i'meh</i> <sup>3</sup>	scar
<i>i'han</i> <sup>3</sup>	heal
<i>i'teu</i> <sup>3</sup> <i>pa</i> <sup>?</sup>	suck
<i>i'nan</i> <sup>3</sup>	choke (N)
<i>tei'ku<sup>2</sup>ti<sup>2</sup> a<sup>2</sup>jɔŋ</i> <sup>2</sup>	doctor
<i>i'ke<sup>2</sup>le<sup>2</sup>go</i> <sup>2</sup>	peel
<i>i'ge</i> <sup>?</sup>	scrape hard
<i>i'gut</i>	scrape smooth
<i>i'lum</i> <sup>3</sup>	cook (N)
<i>i'son</i> <sup>2</sup> <i>raŋ</i> <sup>2</sup>	fin (dorsal)
<i>i'ŋe</i> <sup>3</sup>	fry (N)
<i>i'teu</i> <sup>?</sup>	drown
<i>i'dam</i> <sup>3</sup>	flatten dough
<i>i'ta<sup>1</sup>bun</i> <sup>2</sup>	mix stir
<i>i'tea<sup>?</sup>kɔ</i> <sup>3</sup>	cremate
<i>i'pin</i> <sup>3</sup>	sew
<i>i'βin<sup>2</sup>geh</i> <sup>2</sup>	tattoo
<i>i'εap</i>	winnow
<i>i'jon<sup>3</sup>si</i> <sup>2</sup>	spleen
<i>i'lit</i>	bile
<i>i'moh</i> <sup>2</sup>	paint
<i>i'bam</i> <sup>3</sup>	wait
<i>i'kun</i> <sup>3</sup>	hide
<i>i'βi</i> <sup>3</sup>	count
<i>i'teē</i> <sup>2</sup>	measure
<i>i'ta<sup>2</sup>paŋ</i> <sup>2</sup>	first
<i>i'ta<sup>2</sup>tom</i> <sup>2</sup>	last
<i>i'tum</i> <sup>3</sup>	finish
<i>i'he</i> <sup>2</sup>	pull
<i>i'si<sup>2</sup>ko</i> <sup>2</sup>	near
<i>i'ti<sup>2</sup> i'βa</i> <sup>2</sup>	ancestors
<i>i'taŋ</i> <sup>3</sup>	descendants
<i>i'βaŋ</i> <sup>2</sup>	stepfather
<i>i'ei</i> <sup>2</sup>	stepmother
<i>i<sup>2</sup>pi</i> <sup>3</sup>	lift up
<i>i<sup>2</sup>rɔ</i> <sup>3</sup>	sound
<i>i'nam</i> <sup>2</sup>	loan
<i>i'ma<sup>2</sup>mo</i> <sup>3</sup>	give away
<i>i<sup>3</sup>sa<sup>2</sup>lai</i> <sup>3</sup>	interpret
<i>i'ka<sup>2</sup>ja</i> <sup>3</sup>	surprise
<i>i'ka<sup>2</sup>rum</i> <sup>3</sup>	support
<i>i<sup>2</sup>na</i> <sup>2</sup>	and
<i>i'dam<sup>2</sup>na</i> <sup>2</sup>	between
<i>i'moŋ<sup>2</sup>na</i> <sup>2</sup>	under
<i>i<sup>2</sup>ra<sup>2</sup>pan</i> <sup>3</sup>	subtract
<i>i'ta<sup>2</sup>fa</i> <sup>?</sup>	increase
<i>i'ta<sup>2</sup>rin</i> <sup>3</sup>	decrease
<i>i<sup>2</sup>paŋ<sup>2</sup>na</i> <sup>3</sup>	first
<i>i<sup>2</sup>po</i> <sup>1</sup>	float

<i>iʼʃin</i> <sup>1</sup>	sink
<i>i<sup>2</sup>bun<sup>2</sup>pak</i>	ruin
<i>i<sup>1</sup>to<sup>2</sup>ho<sup>2</sup></i>	dry out
<i>i<sup>2</sup>dzo<sup>1</sup>dzo<sup>3</sup></i>	throw away
<i>i<sup>1</sup>put</i>	blow
<i>i<sup>1</sup>rɛ<sup>2</sup></i>	find
<i>i<sup>2</sup>tum<sup>2</sup></i>	end
<i>i<sup>2</sup>paŋ<sup>2</sup></i>	begin
<i>i<sup>2</sup>mɛ<sup>2</sup></i>	shake
<i>i<sup>2</sup>ʃum<sup>3</sup></i>	do
<i>i<sup>1</sup>pin<sup>2</sup></i>	swelling
<i>i<sup>1</sup>ma<sup>3</sup></i>	wound
<i>i<sup>1</sup>rak</i>	pain
<i>i<sup>1</sup>ma<sup>2</sup></i>	wound
<i>i<sup>1</sup>meh<sup>3</sup></i>	scar
<i>i<sup>1</sup>han<sup>3</sup></i>	heal
<i>i<sup>1</sup>ta<sup>2</sup>paŋ<sup>2</sup></i>	first
<i>i<sup>1</sup>tum<sup>3</sup></i>	finish
<i>i<sup>1</sup>si<sup>2</sup>ko<sup>2</sup></i>	near
<i>i<sup>1</sup>βi<sup>3</sup></i>	count
<i>i<sup>1</sup>tɛh<sup>2</sup></i>	measure
<i>i<sup>1</sup>moh<sup>2</sup></i>	paint
<i>i<sup>1</sup>bam<sup>3</sup></i>	wait
<i>i<sup>1</sup>kun<sup>3</sup></i>	hide
<i>i<sup>1</sup>tɛaŋ<sup>3</sup>maŋ<sup>2</sup></i>	skinny
<i>i<sup>2</sup>tɛe<sup>2</sup></i>	wake up
<i>i<sup>1</sup>ke<sup>2</sup>le<sup>2</sup>go<sup>2</sup></i>	peel
<i>i<sup>1</sup>ge<sup>2</sup></i>	scraping hard
<i>i<sup>1</sup>gut</i>	scraping smooth
<i>i<sup>1</sup>tɛu<sup>3</sup>pa<sup>2</sup></i>	suck
<i>i<sup>1</sup>naŋ<sup>3</sup></i>	choke (N)
<i>i<sup>1</sup>ŋe<sup>3</sup></i>	fry (N)
<i>i<sup>1</sup>ta<sup>1</sup>bun<sup>2</sup></i>	mix
<i>i<sup>1</sup>lum<sup>3</sup></i>	cook (N)
<i>i<sup>1</sup>dam<sup>3</sup></i>	flatten dough
<i>i<sup>1</sup>tɛu<sup>2</sup></i>	drown
<i>i<sup>1</sup>tɛa<sup>2</sup>kɔ<sup>3</sup></i>	cremate
<i>i<sup>1</sup>joh<sup>2</sup></i>	swallow
<i>i<sup>1</sup>ɛap</i>	winnow
<i>i<sup>1</sup>joŋ<sup>3</sup>si<sup>2</sup></i>	spleen
<i>i<sup>1</sup>lit</i>	bile
<i>i<sup>1</sup>soŋ<sup>2</sup>raŋ<sup>2</sup></i>	fin (dorsal)
<i>i<sup>1</sup>βin<sup>2</sup>geh<sup>2</sup></i>	tattoo
<i>i<sup>1</sup>pin<sup>3</sup></i>	sew
<i>i<sup>1</sup>he<sup>2</sup></i>	pull
<i>i<sup>1</sup>tum<sup>2</sup>luŋ<sup>3</sup></i>	round
<b>/e/</b>	
<i>he<sup>1</sup></i>	crab
<i>he<sup>2</sup>tɛin<sup>2</sup></i>	nest
<i>be<sup>2</sup>jaŋ<sup>2</sup></i>	all
<i>se<sup>1</sup>dzɔŋ<sup>2</sup>ka<sup>3</sup></i>	grub
<i>mitβe<sup>3</sup></i>	eye brow
<i>me<sup>1</sup>jaŋ<sup>2</sup></i>	festival
<i>mapin<sup>2</sup>le<sup>2</sup></i>	scar
<i>e<sup>2</sup>li<sup>2</sup></i>	seed

/ɛ/	<i>mɛ²ke²</i>	what
	<i>ɛ²kɔm²ba¹</i>	few
	<i>pɛ¹rut</i>	garden
	<i>bo²le²dza³</i>	elephant trunk
	<i>bo²le²βa²</i>	elephant tusk
	<i>ɛitpitɛɛ¹pɛ²</i>	dawn
	<i>pu²pɛ²</i>	alligator
/ə/	<i>kə</i>	this
	<i>kəlo²</i>	prepare
	<i>kəma²</i>	after that
	<i>mən¹rutse²</i>	grave
	<i>kəra²</i>	that
	<i>sənuk</i>	order
	<i>kəna¹</i>	there
/a/	<i>a²teɛ²</i>	strong
	<i>a²de²nu¹</i>	niece
	<i>a¹ra²</i>	here
	<i>a¹ja²</i>	here
	<i>a²du²</i>	downside
	<i>a²ni¹</i>	long ago
	<i>a²ɛak maŋ²</i>	many
	<i>a²ɛɛ²kɔm²</i>	red
	<i>a²han²</i>	good
	<i>a²ki²</i>	angry
	<i>a²lu²</i>	out
	<i>a²mətɛu¹</i>	now
	<i>a¹dɛ²βa¹</i>	brother's son
	<i>a¹dɛ²nu²</i>	brother's daughter
	<i>a¹gu²pa¹βa¹</i>	wife's father
	<i>a¹ni²pa¹nu¹</i>	wife's mother
	<i>a¹nin²βa¹</i>	wife's brother
	<i>a¹hi¹ba²</i>	daughter's husband
	<i>na³sa²</i>	side of head
	<i>maŋ²</i>	dream (v)
	<i>a²ni¹ma²</i>	ancient
	<i>a¹kin²</i>	time
	<i>a²ma²tɛu² raŋ²ni³</i>	today
	<i>a²nappo¹</i>	tomorrow
	<i>a¹raŋ²</i>	alive
	<i>a¹hin²</i>	raw
	<i>a¹kətga²</i>	mainland
	<i>a¹lu²</i>	high
	<i>a²kin²</i>	chance
	<i>a¹tog²</i>	top
	<i>a²lu²jah³</i>	far
	<i>a²dza² / dza²</i>	wrong
	<i>a²fɛ¹</i>	strong
<i>a²sam²</i>	sweet	
<i>a²sam²kam³</i>	sour	
<i>a²kopkam³</i>	bitter	
<i>a²ri²fa¹</i>	few	
<i>a²rɔ²a¹na²</i>	with	
<i>a²nokmaŋ²</i>	sharp	
<i>a²li¹go²</i>	heavy	

	<i>a<sup>1</sup>ra<sup>2</sup></i>	here
	<i>a<sup>1</sup>ja<sup>2</sup></i>	here
	<i>a<sup>2</sup>du<sup>?</sup></i>	downside
	<i>a<sup>2</sup>ni<sup>1</sup></i>	long ago
	<i>a<sup>2</sup>εak maŋ<sup>2</sup></i>	many
	<i>a<sup>2</sup>εε<sup>2</sup>kɔm<sup>2</sup></i>	red
	<i>a<sup>2</sup>han<sup>2</sup></i>	good
	<i>a<sup>2</sup>ki<sup>2</sup></i>	angry
	<i>a<sup>2</sup>lu<sup>2</sup></i>	out
	<i>a<sup>2</sup>mətɛu<sup>1</sup></i>	now
	<i>a<sup>1</sup>go<sup>2</sup></i>	no
	<i>a<sup>2</sup>rapkam<sup>2</sup></i>	glue
	<i>a<sup>2</sup>mo<sup>1</sup>ka<sup>1</sup>ka<sup>2</sup></i>	yawn
	<i>a<sup>2</sup>lu<sup>3</sup>maŋ<sup>2</sup></i>	deep
	<i>a<sup>2</sup>fakkam<sup>2</sup></i>	narrow
	<i>a<sup>2</sup>litkam<sup>2</sup></i>	bright
	<i>a<sup>2</sup>to<sup>?</sup></i>	short
	<i>a<sup>2</sup>ʃe<sup>3</sup>maŋ<sup>2</sup></i>	clean (be clean)
	<i>a<sup>2</sup>ro<sup>2</sup> a<sup>1</sup>na<sup>3</sup></i>	gather
	<i>a<sup>2</sup>tɛe<sup>2</sup></i>	strong
	<i>a<sup>2</sup>deʔnu<sup>1</sup></i>	niece
	<i>a<sup>2</sup>lu<sup>2</sup>jah<sup>3</sup></i>	far
	<i>a<sup>1</sup>lu<sup>2</sup></i>	high
	<i>a<sup>2</sup>ma<sup>2</sup>tɛu<sup>2</sup> raŋ<sup>2</sup>ni<sup>3</sup></i>	today
	<i>a<sup>2</sup>nappo<sup>1</sup></i>	tomorrow
	<i>a<sup>2</sup>rɔpkom<sup>2</sup></i>	knead dough
	<i>a<sup>1</sup>raŋ<sup>2</sup></i>	alive
	<i>a<sup>1</sup>hin<sup>2</sup></i>	raw
	<i>a<sup>2</sup>ni<sup>1</sup>ma<sup>2</sup></i>	ancient
	<i>a<sup>1</sup>kin<sup>2</sup></i>	time
	<i>a<sup>1</sup>dʒɔ<sup>2</sup></i>	lazy
	<i>a<sup>1</sup>kətɡah<sup>2</sup></i>	mainland
	<i>a<sup>1</sup>tog<sup>2</sup></i>	top
	<i>a<sup>2</sup>kin<sup>2</sup></i>	chance
	<i>loŋ<sup>2</sup>εan<sup>2</sup></i>	cave
	<i>ram<sup>2</sup>tak</i>	hunger
<i>/u/</i>	<i>tum<sup>1</sup>kaŋ<sup>2</sup>lay<sup>2</sup></i>	gnat large
	<i>tɛum<sup>3</sup></i>	pus
	<i>kupka<sup>1</sup></i>	grasshopper
	<i>mɔn<sup>2</sup>tɛu<sup>1</sup>tap</i>	stable
	<i>tɛu<sup>2</sup>pɔŋ<sup>3</sup>βa<sup>1</sup></i>	bull
	<i>mɔn<sup>2</sup>tɛu<sup>2</sup>sa<sup>1</sup></i>	calf
	<i>dʒum<sup>2</sup></i>	house
	<i>gu<sup>1</sup>taŋ<sup>2</sup></i>	who
	<i>muŋ<sup>2</sup></i>	country
	<i>u<sup>2</sup>tɛe<sup>1</sup>kɔ<sup>3</sup>βa<sup>1</sup></i>	beak
	<i>u<sup>2</sup>tɛu<sup>2</sup>nam<sup>2</sup>dzak</i>	vegetable leafy
	<i>u<sup>2</sup>tɛu<sup>2</sup>ka<sup>2</sup>ra<sup>2</sup></i>	vegetable non-leafy
	<i>ut</i>	camel (Loan word)
<i>/o/</i>	<i>no<sup>2</sup>tei<sup>1</sup>ka<sup>2</sup></i>	orphan
	<i>moŋ<sup>2</sup></i>	inside
	<i>ŋam<sup>2</sup>bo<sup>1</sup>ti<sup>2</sup></i>	gnat small
	<i>go<sup>1</sup></i>	have
	<i>a<sup>2</sup>mo<sup>1</sup>ka<sup>1</sup>ka<sup>2</sup></i>	yawn

/ɔ/	<i>pin<sup>2</sup>tɛɔŋ<sup>2</sup></i>	tree
	<i>kɔ<sup>1</sup>rin<sup>2</sup></i>	snore
	<i>tɔm<sup>1</sup>ri<sup>2</sup>po<sup>2</sup></i>	spine
	<i>ku<sup>1</sup>nɔŋ<sup>2</sup></i>	back of head
	<i>ku<sup>2</sup>pɔ<sup>1</sup>ra<sup>2</sup>ka<sup>3</sup></i>	skull
	<i>pu<sup>1</sup>pɔ<sup>2</sup></i>	bury
	<i>pɔ<sup>2</sup>βe<sup>2</sup>la<sup>2</sup>βe<sup>3</sup></i>	rabbit
	<i>dzɔŋ<sup>2</sup>ka<sup>3</sup></i>	maggot
	<i>dza<sup>1</sup>pɔŋ<sup>2</sup></i>	leg calf
	<i>βa<sup>1</sup>kɔm<sup>2</sup></i>	molar tooth
	<i>din<sup>2</sup>ka<sup>2</sup>ra<sup>3</sup>kɔ<sup>2</sup></i>	neck nape
	<i>tɛo<sup>1</sup>ka<sup>2</sup>ra<sup>3</sup>kɔ<sup>3</sup></i>	shoulder blade
	<i>diŋ<sup>2</sup>ka<sup>2</sup>ra<sup>3</sup>kɔ<sup>3</sup></i>	collar bone
	<i>rɔ<sup>2</sup>ni<sup>3</sup></i>	twenty
	<i>rɔ<sup>2</sup>ni<sup>3</sup>ra<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	twenty one
	<i>rɔ<sup>2</sup>rum<sup>3</sup></i>	thirty
	<i>rɔ<sup>2</sup>bi<sup>2</sup>li<sup>3</sup></i>	forty
	<i>rɔ<sup>2</sup>ba<sup>2</sup>ŋa<sup>1</sup></i>	fifty
	<i>rɔ<sup>2</sup>ba<sup>2</sup>ŋa<sup>1</sup>ra<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	fifty-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>rok</i>	sixty
	<i>rɔ<sup>2</sup>a<sup>1</sup>rokra<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	sixty-one
	<i>rɔ<sup>2</sup>mi<sup>2</sup>tei<sup>3</sup></i>	seventy
	<i>rɔ<sup>2</sup>mi<sup>2</sup>tei<sup>3</sup>βa<sup>1</sup>tei<sup>2</sup></i>	seventy-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>eat<sup>2</sup></i>	eighty
	<i>rɔ<sup>2</sup>a<sup>1</sup>eat<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	eighty-one
	<i>rɔ<sup>2</sup>a<sup>1</sup>ku<sup>2</sup></i>	ninety
	<i>rɔ<sup>2</sup>a<sup>1</sup>ku<sup>2</sup>βa<sup>1</sup>tei<sup>2</sup></i>	ninety-one
	<i>rɔm<sup>2</sup>ku<sup>3</sup></i>	famine
	<i>bɔŋ<sup>2</sup>βe<sup>2</sup>dam<sup>3</sup></i>	bread
	<i>a<sup>2</sup>rɔpkom<sup>2</sup></i>	knead dough
	<i>a<sup>1</sup>dzɔ<sup>2</sup></i>	lazy

## Appendix B: British map showing origin of Rera in Myanmar

