

Chapter 3

Overview of Zeme, Liangmai and Rongmei

The phonological overview is mainly helpful to see how each language is innovative or conservative based on comparison of the consonant and vowel inventories between the languages undertaken for the present research. The overview includes a brief description of the phonological structure of three languages in terms of syllable structure, consonant inventory, description and distribution of consonants, vowel inventory, description and distribution of vowels, segment inventory and tone. Therefore, this chapter will provide an overview of each of the languages.

3.1. Zeme

Zeme is one of the sub-groups of Zeliangrong Nagas inhabited in the Northeastern states of India. Zeme is found in Dima Hasao District (formerly known as North Cachar Hills), Assam, Tousem sub-division of Tamenglong District and Senapati District of Manipur and Paren District of Nagaland. Linguistically, Zeme belongs to Tibeto-Burman family of Languages (Grierson, 1903). According to the 2001 Census of India, the total population of Zeme was 34, 110.

3.1.1. Syllable structure

The syllable of Zeme can be generalized as $(C_1)V_1(V_2)(C_2)T$. The parentheses show optional elements. The onset is composed of (C_1) . The nucleus is composed of either an obligatory vowel V_1 as monophthong or a diphthong $V_1 (V_2)$. The coda (C_2) is consonant final and T represents the tone. Examples of possible syllable sharps are provided in the following table.

Zeme	Gloss	Syllable sharps
i	I	v
eu	yes	vv

pə	he	cv
dui	water	cvv
nim	catch	cvc
puak	blast	cvvc

Table 1: Syllable sharps in Zeme

3.1.2 Consonants:

There are thirty seven consonant phonemes in Zeme. The consonantal phoneme of Zeme is summarized in the following table:

		Bilabial	Alveolar	palatal	Velar	glottal
Stops	VI.unaspirated	p	t		k	
	VI. aspirated	p ^h	t ^h		k ^h	
	Voiced	b	d		g	
Prenasalised Stops	VI. unaspirated	^m p	ⁿ t		ⁿ k	
	VI. aspirated	^m p ^h	ⁿ t ^h		ⁿ k ^h	
	Voiced	^m b	ⁿ d		ⁿ g	
Nasals		m	n		ŋ	
Prenasalised nasals		^m m	ⁿ n		ⁿ ŋ	
Affricates				č		
Prenasalised affricates				ⁿ č		
Fricative	Voiceless		s			h
	Voiced		z			
Prenasalised Fricative	Voiceless		ⁿ s			ⁿ h
	Voiced		ⁿ z			
Lateral	Voiceless		l			
Trill			r			
Prenasalised trill			ⁿ r			
Semi-vowels		w		y		

Table 2: Zeme consonant inventory

3.1.3. Description and distribution of consonants:

Stops

The phoneme /p/ is a voiceless unaspirated bilabial stop. It has no perceptible positional variants other than the [p] itself and it occurs in all three positions of words viz., initial, medial and final.

Initial

/pə/	‘he’
/pɛ/	‘look’
/pam/	‘hug’
/puani/	‘dresses’
/pak/	‘run’

Medial

/həpiak/	‘cup’
/sampàu/	‘message’
/həpua/	‘elephant’
/kəpèi/	‘slap’
/nəpòine/	‘child’

Final

/kap/	‘shoot’
/ ⁿ tip/	‘tight’
/sap/	‘stand’
/peičup/	‘hat’
/hap/	‘cry’

The phoneme /^mp/ is a voiceless pre-nasalized bilabial stop. It has no perceptible positional variants other than the [^mp] itself and it occurs only in the word initial position of words.

/ ^m pat/	‘mosses’
/ ^m pakčí/	‘wild apple’
/ ^m pau/	‘talk’
/ ^m pum/	‘round’
/ ^m peumì/	‘men’
/ ^m puimì/	‘women’

The phoneme /p^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [p^h] itself and it occurs only in initial and medial positions of words.

Initial

/p ^h ái/	‘shawl’
/p ^h ai/	‘pull up’
/p ^h èu/	‘search’
/p ^h ui/	‘full’
/p ^h ut/	‘luggage’

Medial

/təp ^h ulua/	‘river bank’
/kəp ^h èu/	‘small spade’
/təp ^h àm/	‘duck’

/kəp ^h ai/	‘husk’
/kip ^h ùŋ/	‘plot of land’

The phoneme /^mp^h/ is a voiceless aspirated pre-nasalised bilabial stop. It has no perceptible positional variants other than the [^mp^h] itself and it occurs only in the initial position of words.

/ ^m p ^h āk/	‘sour and bitter taste’
/ ^m p ^h iak/	‘broom’
/ ^m p ^h um/	‘bury’
/ ^m p ^h uaŋ/	‘jug’
/ ^m p ^h à/	‘blunt’
/ ^m p ^h akčí/	‘apple’

The phoneme /b/ is a voiced unaspirated bilabial stop. It has no perceptible positional variants other than the [b] itself and it occurs only in the initial and medial positions of words:

Initial

/ba/	‘hand’
/bui ^h ú/	‘buffalo’
/bui/	‘enough’
/bua/	‘crawl’
/bi/	‘cut’

Medial

/kəbabé/	‘light’
/čìŋbàŋ/	‘tree’
/kəbun/	‘snow’

/kəbàk/	‘pig’
/kəbaŋ/	‘servant’

The phoneme /^mb/ is a voiced unaspirated pre-nasalised bilabial stop. It has no positional variants and it occurs only in word initial positions of words.

/ ^m bui/	‘ash’
/ ^m bi/	‘ray’
/ ^m bèi/	‘journey’
/ ^m bačí/	‘mango’
/ ^m bèt/	‘leech’
/ ^m bai/	‘side’

The phoneme /t/ is an unaspirated voiceless alveolar stop. It has no perceptible positional variants other than the [t] itself and it occurs in all three positions of words:

Initial

/tá/	‘work’
/tiŋ/	‘rain’
/tət/	‘go’
/teu/	‘eat’
/təsàt/	‘eight’

Medial

/həti/	‘deer’
/pəta/	‘length’
/həteu/	‘necklace’

/kətèi/	‘teach’
/hətèi/	‘dog’

Final

/tət/	‘go’
/kat/	‘one’
/pədit/	‘breadth’
/hit/	‘tear’ V
/rit/	‘heavy’

The phoneme /ⁿt/ is a voiceless unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [n̥t] itself and it occurs only in the initial position of words.

/ ⁿ tau/	‘sit’
/ ⁿ ta/	‘wear (bangle)’
/ ⁿ tak/	‘rest’
/ ⁿ tim/	‘suck’
/ ⁿ tìp/	‘tight’
/ ⁿ tia/	‘ant’

The phoneme /t^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [t^h] itself and it occurs only in initial and medial positions of words. It is interesting to note that the occurrence of phoneme /t^h/ is not very productive in Zeme i.e. the phoneme is not found frequently in the language.

Initial

/t^hiŋ/ ‘block’

/t^huwak/ ‘pluck’

Medial

/kət^haibe/ ‘search’

/kət^hàbe/ ‘wash’

The phoneme /ⁿt^h/ is a voiceless aspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿt^h] itself and it occurs only in the initial position of words.

/ⁿt^hà/ ‘play’

/ⁿt^hui/ ‘spit’

/ⁿt^hùi/ ‘cane basket’

/ⁿt^hukčí/ ‘brinjal’

/ⁿt^hau/ ‘sugarcane’

The phoneme /**d**/ is a voiced unaspirated alveolar stop. It has no perceptible positional variants other than the [**d**] itself and it occurs only in initial and medial positions of words.

Initial

/dak/	‘weave’
/di/	‘big’
/dam/	‘create’
/dúm/	‘pack’
/dùi/	‘water’

Medial

/midùi/	‘kerosene’
/kədei/	‘earth’
/mədai/	‘four’
/pədit/	‘breadth’
/kəndùibe/	‘gathering’

The phoneme /ⁿ**d**/ is a voiced unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿ**d**] itself and it occurs only in the initial position of words.

/ ⁿ dàt/	‘measure’
/ ⁿ diak/	‘green’
/ ⁿ diau/	‘smooth’
/ ⁿ du/	‘reveal’
/ ⁿ díŋ/	‘vertical’

The phoneme /k/ is a voiceless unaspirated velar stop. It has no perceptible positional variants other than [k] itself and it occurs in all three positions of words.

Initial

/ki/	‘house’
/kərči/	‘new’
/kənà/	‘two’
/kədei/	‘earth’
/kənk ^h èu/	‘cough’

Medial

/tiŋkau/	‘grasshopper’
/həkaka/	‘candle’
/təkua/	‘pond’
/pəkám/	‘plain’
/tiŋkùm /	‘year’

Final

/tak/	‘rice’
/pak/	‘run’
/təsàk/	‘hailstone’
/naimik/	‘sun’
/kəzìk/	‘dew’

The phoneme /⁰k/ is a voiceless unaspirated pre-nasalised velar stop. It has no perceptible positional variants other than [ʰk] itself and it occurs only in the initial position of words.

/ ⁰ kiŋ/	‘listen’
/ ⁰ kàk/	‘crack’
/ ⁰ kai/	‘twenty’
/ ⁰ kam/	‘door’
/ ⁰ kùaŋne/	‘prawn’
/ ⁰ kiyak/	‘hawl’
/ ⁰ kui/	‘bee’

The phoneme /k^h/ is a voiceless aspirated velar stop. It has no perceptible positional variants other than [k^h] itself and it occurs only in initial and medial positions of words.

Initial

/k ^h éi/	‘tie’
/k ^h am/	‘stop’
/k ^h à/	‘bitter’
/k ^h uwai k ^h ùwaine/	‘slowly’
/k ^h uibe/	‘cut’

Medial

/kək ^h òì/	‘fish hook’
/kən ^h èu/	‘cough’
/kən ^h uaibe/	‘bend’
/pək ^h éi/	‘branch’

The phoneme /^ɲk^h/ is an aspirated voiceless pre-nasalised velar stop. It has no perceptible positional variants other than [^ɲk^h] itself and it occurs only in the initial position of words.

/ ^ɲ k ^h a/	‘open basket’
/ ^ɲ k ^h iau/	‘ticklish’
/ ^ɲ k ^h èu/	‘tobacco’
/ ^ɲ k ^h iyayí/	‘sour leave’
/ ^ɲ k ^h uwaine/	‘sickle’

The phoneme /g/ is a voiced unaspirated velar stop. It has no perceptible positional variants other than [g] itself and it occurs in initial and medial positions of words.

Initial

/gì/	‘curry’
/gu/	‘defend’
/ga/	‘no more’
/gumlèi/	‘turmeric’
/gimì/	‘gun’

Medial

/agei/	‘cool’
/həga/	‘crab’
/həgau/	‘frog’
/həgéi/	‘iron’
/həgí/	‘evening’

The phoneme /ⁿg/ is an unaspirated voiced pre-nasalised velar stop. It has no positional variants and it occurs only in the initial position of words.

/ ⁿ ga/	‘warming in fire’
/ ⁿ gèu/	‘stomach full’
/ ⁿ gak/	‘crow’
/ ⁿ gei/	‘unripe/raw’
/ ⁿ gam/	‘unison’
/ ⁿ geukì/	‘river’
/ ⁿ gainé/	‘cucumber’

Affricates:

The phoneme /č/ is a voiceless palatal affricate. It has no perceptible positional variants other than the [č] itself and it occurs only in the initial and medial positions of words.

Initial

/čèi/	‘small’
/čí/	‘know’
/čaŋ/	‘thousand’
/čəkui/	‘nine’
/čim/	‘wet’

Medial

/kərčibé/	‘new’
/kənči/	‘holy’
/kənčà/	‘admire’
/kəčai/	‘death’
/kəčum/	‘three’

The phoneme /ⁿč/ is a voiceless unaspirated pre-nasalised palatal affricate. It has no perceptible positional variants other than the [ⁿč] itself and it occurs only in initial position of words.

/ ⁿ çi/	‘clean’
/ ⁿ čè/	‘like’
/ ⁿ ča/	‘light’
/ ⁿ čat/	‘watch’
/ ⁿ čàk/	‘itch’
/ ⁿ čái/	‘salt’

Nasals:

The phoneme /**m**/ is a bilabial nasal. It has no perceptible positional variants other than [**m**] itself and it occurs in all three positions of words.

Initial

/mamà/	‘root’
/mei/	‘ripe’
/mimaŋ/	‘dream’
/mimui/	‘mouth’
/mou/	‘mistake’

Medial

/gimi/	‘gun’
/həmui/	‘sin’
/kəmuə/	‘cloud’
/naimik/	‘sun’
/mimui/	‘mouth’

Final

/təp ^h àm/	‘duck’
/ ⁿ kim/	‘mole’
/dam/	‘create’
/ ⁿ kam/	‘door’
/kətum/	‘cow’

The phoneme /^mm/ is a pre-nasalised bilabial nasal. It has no perceptible positional variants other than [^mm] itself and it occurs only in the initial position of words.

/ ^m mí/	‘dreamt’
/ ^m mut/	‘blow’
/ ^m mum/	‘holding something in the mouth’
/ ^m miyaune/	‘cat’

The phoneme /n/ is an alveolar nasal. It has no perceptible positional variants other than [n] itself and it occurs in all three positions of words.

Initial

/naŋ/	‘you’
/nam/	‘smells’
/naimik/	‘sun’
/nim/	‘catch’
/na/	‘young’

Medial

/hiŋnàm/	‘blessing’
/hənei/	‘wolf’
/mənèu/	‘leaf’
/həneu/	‘snake’
/minéu/	‘nose’

Final

/həkun/	‘horse’
/kədun/	‘shiver’
/ ⁿ jin/	‘yellow’
/ ⁿ čín/	‘nail’
/tiŋrun/	‘south’

The phoneme /ⁿn/ is a pre-nasalised alveolar nasal. It has no perceptible positional variants other than the [ⁿn] itself and it occurs only in the initial position of words.

/ ⁿ nu/	‘weak’
/ ⁿ néi/	‘insult’
/ ⁿ nei/	‘lime’
/ ⁿ nùm/	‘believe’
/ ⁿ ním/	‘drown’
/ ⁿ nui/	‘laugh’
/ ⁿ niyam/	‘sandy’

The phoneme /ŋ/ is a velar nasal. It has no perceptible positional variants other than [ŋ] itself and it occurs in all three positions of words.

Initial

/ŋau/	‘see’
/ŋàm/	‘win’
/ŋàine/	‘swallow’
/ŋum/	‘back’

Medial

/tiŋùa/	‘porcupine’
/məŋeu/	‘five’
/həŋeu/	‘spear’
/həŋe/	‘wild cat’
/kəŋim/	‘tickling’

Final

/ ⁿ díŋ/	‘vertical’
/haŋ/	‘for’
/pəlùŋ/	‘inside’
/pumtaŋ/	‘naked’
/miguwaŋ/	‘neck’

The phoneme /^ɲŋ/ is pre-nasalised velar nasal. It has no perceptible positional variants other than [^ɲŋ] itself and it occurs only in the initial position of words.

/ ^ɲ ŋam/	‘shy’
/ ^ɲ ŋua/	‘friendship’
/ ^ɲ ŋìn/	‘expectation’
/ ^ɲ ŋena/	‘baby’
/ ^ɲ ŋéu/	‘lean’
/ ^ɲ ŋa/	‘lazy’
/ ^ɲ ŋai/	‘forget’

Fricatives:

The phoneme /s/ is a voiceless alveolar fricative. It has no perceptible positional variants other than [s] itself and it occurs only in initial and medial positions of words.

Initial

/sà/	‘say’
/sia/	‘bad’
/seu/	‘hear’
/sámke/	‘word’
/sui/	‘follow’

Medial

/leisi/	‘paper’
/təsei/	‘sneeze’
/buisàŋ/	‘mithun’
/kəsàk/	‘hailstone’
/təsua/	‘ladder’

The phoneme /ⁿs/ is a pre-nasalised voiceless alveolar fricative. It has no perceptible positional variants other than the [ⁿs] itself and it occurs only in the initial position of words.

/ ⁿ súi/	‘kick’
/ ⁿ sau/	‘jumping’
/ ⁿ siŋ/	‘carrying on head’
/ ⁿ sèu/	‘granary’
/ ⁿ sùm/	‘drum’
/ ⁿ suŋ/	‘box made of cane’

The phoneme /z/ is a voiced alveolar fricative. It has no perceptible positional variants other than [z] itself and it occurs only in initial and medial positions of words.

Initial

/zak/	‘swim’
/zi/	‘name’
/zài/	‘blood’
/zu/	‘face’
/ze/	‘energy’

Medial

/mizài/	‘hell’
/həzai/	‘lake’
/həzéi/	‘bed’
/həzà/	‘rat’
/həzua/	‘monkey’

The phoneme /ⁿz/ is the voiced pre-nasalised alveolar fricative. It has no perceptible positional variants other than the [ⁿz] itself and it occurs only in the initial position of words.

/ ⁿ zi/	‘distribute’
/ ⁿ zin/	‘yellow’
/ ⁿ zai/	‘blue’
/ ⁿ zei/	‘right’
/ ⁿ zak/	‘climb’
/ ⁿ zeiyi/	‘mustard leaf’

The phoneme /h/ is a voiceless glottal fricative. It has no perceptible positional variants other than [h] itself and it occurs only in initial and medial positions of words.

Initial

/hap/	‘cry’
/ha/	‘white’
/hia/	‘sour’
/hiŋ/	‘afraid’
/huŋ/	‘love’

Medial

/rəhèi/	‘generation’
/pəhí/	‘time’
/təhui/	‘bulbul’
/rəhèu/	‘medicine’
/rəhìk/	‘louse’

The phoneme /^hh/ is a pre-nasalised voiceless glottal fricative consonant. It has no perceptible positional variants other than the [^hh] itself and it occurs only in the initial position of words. It is also worth mentioning here that the phoneme pre-nasalised voiceless glottal fricative /^hh/ do not occur frequently in the language as it is evident by having a single lexical item beginning with the same phoneme as can be seen in the following example.

/ ^h hu/	‘heighten’
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Lateral:

The phoneme /l/ is a voiced alveolar lateral. It has no perceptible positional variants other than the [l] itself and it occurs only in the initial and medial positions of words. Interestingly, the absence of /l/ in word final position in Zeme is one of the typical features of Zeliangrong languages.

Initial

/lu/	‘take’
/la/	‘has’
/let/	‘open’
/lim/	‘fly’
/laŋ/	‘cook’

Medial

/həlu/	‘field’
/təlaučí/	‘peach’
/kəlua/	‘village’
/kəlaŋ/	‘thread’
/kəlà/	‘gift’

Trill:

The phoneme /r/ is a voiced alveolar trill. It has no perceptible positional variants other than the [r] itself and it occurs only in initial and medial positions of words. It should also be mentioned here that like the voiced alveolar lateral /l/, the absence of /r/ in word final position in Zeme is also one of the typical features of Zeliangrong languages.

Initial

/raŋkán/	‘money’
/rau/	‘write’
/rit/	‘heavy’
/raŋ/	‘tell’
/rí/	‘late’

Medial

/həram/	‘land’
/hərúi/	‘spirit’
/kəre/	‘garden’
/kəreu/	‘ten’
/tiŋra/	‘garlic’

The phoneme /ⁿr/ is the pre-nasalised voiced alveolar trill. It has no positional variants other than the [ʳ] and it occurs only in the initial position of words.

/ ⁿ raŋčí/	‘banana’
/ ⁿ rui/	‘chicken’
/ ⁿ rau/	‘comb’
/ ⁿ rei/	‘axe’
/ ⁿ rum/	‘narrow’
/ ⁿ rá/	‘sick’

Semi vowels:

The phoneme /w/ is a voiced bilabial semi-vowel. It has no perceptible positional variants other than the [w] itself and it occurs only in initial and medial positions of words. It is also worth mentioning here that the phoneme /w/ do not occur frequently in the word initial position in Zeme language as it is evident by having a single lexical item beginning with the same phoneme as can be seen in the following example.

Initial

/waŋ/	‘come’
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Medial

/teiwaŋ/	‘bring’
/tiŋwaŋ/	‘God’

The phoneme /y/ is a palatal semivowel. It has no perceptible positional variants other than the [y] itself and it occurs only in initial and medial positions of words.

Initial

/yi/ ‘good’

/yá/ ‘no’

Medial

/ⁿjeiyi/ ‘mustard leaf’

/teuyi/ ‘tasty’

/ⁿk^hiyayi/ ‘sour leaf’

3.1.4 Vowels:

Zeme has six phonemic vowels as shown in the following table. The close mid front vowel /e/ is realized as an open-mid front vowel [ɛ] in a closed syllable with either falling or low tone, /e/→[ɛ]/C__C. The closed mid back vowel /o/ is realized as an open-mid back vowel [O] in a closed syllable with either falling or low tone /o/→[O]/C__C. The low central vowel /a/ is slightly different in its realization from [a] to [ɑ].

	Front	Central	Back
	Unrounded	Unrounded	Rounded
High	i		u
Mid	e	ə	o
Low		a	

Table 3: Zeme vowel inventory

3.1.5 Description of vowels and distribution of their positional variants:

The phoneme /i/ is a short, high front unrounded vowel. It has two positional variants viz., [i] and [ɪ].

The [i] is realized as a high front unrounded vowel and it occurs in the open syllables.

/mipí/	[mipí]	‘leg’
/rəčí/	[rəčí]	‘chilly’
/gi/	[gi]	‘curry’
/həli/	[həli]	‘pot’

The [ɪ] is realized as a lower-high front unrounded vowel and it occurs elsewhere:

/i/	[ɪ]	‘I’
/mik/	[mɪk]	‘eye’
/lɪŋ/	[lɪŋ]	‘planting’
/tɪŋ/	[tɪŋ]	‘rain’

The phoneme /e/ is a short, mid front unrounded vowel. It has two positional variants viz., [e] and [ɛ].

The [e] is realized as a mid front unrounded vowel and it occurs in the open syllables.

ⁿ /gaine/	[ⁿ gaine]	‘cucumber’
ⁿ /kine/	[ⁿ kine]	‘sparrow’
/kere/	[kere]	‘garden’

The [ɛ] is realized as a lower-mid front unrounded vowel and it occurs in the closed syllables.

/ ⁿ bèt/	[ⁿ bèt]	‘leech’
/kèt/	[kèt]	‘one’
/tèt/	[tèt]	‘go’
/pèt/	[pèt]	‘comes out’

The phoneme /ə/ is a short, mid central unrounded vowel. It has no perceptible positional variants.

/ənui/	[ənui]	‘we’
/həgì/	[həgì]	‘curry’
/əgù/	[əgù]	‘mine’
/həki/	[həki]	‘house’

The phoneme /a/ is a short, central low unrounded vowel. It has no perceptible positional variants.

/há/	[há]	‘white’
/tak/	[tak]	‘rice’
/hap/	[hap]	‘cry’
/sap/	[sap]	‘stand’
/ ^m bači/	[^m bači]	‘mango’

The phoneme /o/ is a short, mid back rounded vowel. It has two positional variants viz., [o] and [ɔ].

The [o] is realized as a mid back rounded vowel and it occurs only in the open syllables:

/mó/	[mó]	‘cleaning field’
/tiŋčo/	[tiŋčo]	‘morning’
/lo/	[lo]	‘imperative marker’
/həgó/	[həgó]	‘root of a plant use as medicine’

The [ɔ] is realized as a lower-mid back rounded vowel and it occurs only in the closed syllables:

/kok/	[kók]	‘knee’
/ ⁿ t ^h okči/	[ⁿ t ^h okčí]	‘brinjal’
/róm/	[róm]	‘cut’
/gom/	[góm]	‘lid’

The phoneme /u/ is a short, high back rounded vowel. It has two perceptible positional variants viz., [u] and [ʊ].

The [u] is realized as a high back rounded vowel and it occurs only in the open syllables:

/ču/	[ču]	‘rise’
/pu/	[pu]	‘grey’
/ru/	[ru]	‘burn’
/lu/	[lu]	‘take’
/kù/	[kù]	‘call’

The [ɔ] is realized as a lower-high back rounded vowel and it occurs only in the closed syllables:

/kúm/	[kɔm]	‘sweet’
/lúŋ/	[lɔŋ]	‘live’
/lum/	[lɔm]	‘warm’
/púŋ/	[pɔŋ]	‘carry’
/pičup/	[pičɔp]	‘shoe’

3.1.6 Segment distribution:

The distribution of segmental in Zeme can be summarized as follows. All consonants appear as initial consonant (C₁). The monophthong V₁ has no limitation but whenever the diphthong V₁ (V₂) occurs, the second vowel (V₂) is restricted to either close front unrounded vowel /i/ or close rounded back vowel /u/.

The table below shows the diphthongs in Zeme.

Vowels	Front	Back
Close		ui
Close mid	ei eu	oi ou
Open	ai au	

Table 4: Zeme diphthongs

The distributions of diphthong in Zeme language are given in the following table with examples.

Diphthongs	Initial	Medial	Final
/ai/	/aida/ ‘this’	/railaŋbe/ ‘first’	/p ^h ai/ ‘clothe’
/au/	-----	/daule/ ‘all right’	/kaulau/ ‘what’
/ei/	/ei/ ‘okay’	/peilou/ ‘give’	/hətei/ ‘dog’
/ui/	/uilia/ ‘there’	/ruibe/ ‘raining’	/hədui/ ‘water’
/eu/	/eu/ ‘yes’	/seube/ ‘hear’	/əpeu/ ‘father’
/oi/	-----	/loibe/ ‘end’	/soibe/ ‘sory’
/ou/	-----	/čoulou/ ‘who’	/pou/ ‘report’

Table 5: Distributions of diphthongs in Zeme

The final consonants (C₃) are restricted to voiceless stops and nasals as shown in the following examples:

Consonants	Labial	Alveolar	Velar
VL stops	p	t	k
Nasals	m	n	ŋ

Table 6: Zeme final consonants

The second consonant in the initial consonant cluster (C₂) is restricted to liquids /r/ or /l/, and it occurs only after voiceless stops /p/, /t/ and /k/. Consonant clusters in Zeme are found only in reduplicated form of words like /kluŋ kluŋ/ ‘thundering sound’ /prumprum/ ‘clapping sound’ /plik plik / ‘clicking/twinkling’ etc.

3.1.7. Tone:

There are three contrastive tones in Zeme. They are high /^h/, mid (unmark) and low /^l/. The distribution of tone in Zeme is shown in the following table:

	Smooth syllable
Mid	Monophthong, diphthong
High	Monophthong, diphthong
Low	Monophthong, diphthong

Table 7: Zeme tone distribution

E.g.	Mid monophthong	/di/	‘big’
		/či/	‘strong’
	Mid diphthong	/pou/	‘report’
		/p ^h ai/	‘cloth’
	High monophthong	/ki/	‘dry’
		/ri/	‘late’
	High diphthong	/p ^h ái/	‘cloth’
		/kúa/	‘wait’
	Low monophthong	/kì/	‘house’
		/sa/	‘speak’
	Low diphthong	/tèu/	‘eat’
		/pèi/	‘give’

3.2. Liangmai

Liangmai is closely related to Zeme and Rongmei. They are found in Tamenglong and Senapati District of Manipur, and Paren District of Nagaland. Linguistically, they belong to Tibeto-Burman family of Languages. According to the 2001 Census of India, the total population of Liangmai was 34,232.

3.2.1. Syllable structure

The syllable of Liangmai can be generalized as $(C_1)V_1(V_2)(C_2)T$. The parentheses show optional elements. The onset is composed of (C_1) . The nucleus is composed of either an obligatory vowel V_1 as monophthong or a diphthong $V_1(V_2)$. The coda (C_2) is consonant final and T represents the tone. Examples of possible syllable sharps are provided in the table.

Gloss	Liangmai	Syllable sharps
I	I	v
okay	Ei	vv
he	pə	cv
water	dui	cvv
catch	nim	cvc
blast	puak	cvvc

Table 8: Syllabic sharps in Liangmai

3.2.2 Consonants

There are thirty nine consonant phonemes in Liangmai. The phonemic inventory of Liangmai is summarised in the following table:

		Bilabial	Alveolar	palatal	Velar	glottal
Stops	VI.Unaspirated	p	t		k	ʔ
	VI. Aspirated	p ^h	t ^h		k ^h	
	Voiced Unaspirated	b	d		g	
Prenasalised Stops	VI. Unaspirated	^m p	ⁿ t		ⁿ k	
	VI. Aspirated	^m p ^h	ⁿ t ^h		ⁿ k ^h	
	Voiced Unaspirated	^m b	ⁿ d		ⁿ g	
Nasals		m	n		ŋ	
Prenasalised nasals		^m m	ⁿ n		ⁿ ŋ	
Affricates				č		
Prenasalised affricates				ⁿ č		
Fricative	Voiceless		s			h
	Voiced		z			
Prenasalised Fricative	Voiceless		ⁿ s			ⁿ h
	Voiced		ⁿ z			
Lateral	Voiceless		l			
Prenasalised lateral			ⁿ l			
Trill			r			
Prenasalised trill			ⁿ r			
Semi-vowels		w		y		

Table 9: Liangmai consonant inventory

3.2.3. Description and distribution of consonants:

Stops:

The phoneme /p/ is a voiceless unaspirated bilabial stop. It has no perceptible positional variants other than the [p] itself and it occurs in all three positions of words viz., initial, medial and final.

Initial

/puan/	‘carry’
/pəliù/	‘they’
/pak/	‘run’
/pa/	‘he’
/pi/	‘give’

Medial

/kəpùŋ/	‘mud’
/čəràpen/	‘flower’
/čəpían/	‘cup’
/čəpi/	‘head’
/čəpúm/	‘body’

Final

/kep/	‘shoot’
/tap/	‘break’
/čəp/	‘stand’
/kəp/	‘cry’
/nap/	‘paste’

The phoneme /^mp/ is a voiceless pre-nasalized bilabial stop. It has no perceptible positional variants other than the [^mp] itself and it occurs only in the word initial position.

/ ^m pè/	‘moss’
/ ^m pín/	‘needle’
/ ^m pék/	‘separate’
/ ^m pùwak/	‘throw’
/ ^m píŋ/	‘afraid’
/ ^m póu/	‘talk’

The phoneme /p^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [p^h] itself and it occurs only in initial and medial positions of words.

Initial

/p ^h í/	‘earn’
/p ^h úŋ/	‘carries’
/p ^h iet/	‘tear’
/p ^h an/	‘bind’
/p ^h àŋ/	‘cut’

Medial

/təp ^h ú/	‘river bank’
/kəp ^h ùŋ/	‘plot of land’
/čəp ^h ài/	‘shawl’
/kəp ^h ien/	‘discuss’
/čəp ^h ó/	‘bridge’

The phoneme /^mp^h/ is a voiceless aspirated pre-nasalised bilabial stop. It has no perceptible positional variants other than the [^mp^h] itself and it occurs only in the initial position of words.

/ ^m p ^h i/	‘slant’
/ ^m p ^h aŋ/	‘got’
/ ^m p ^h úm/	‘drown’
/ ^m p ^h ak/	‘tangy taste’
/ ^m p ^h em/	‘leprosy’
/ ^m p ^h iyak/	‘broom’

The phoneme /b/ is a voiced unaspirated bilabial stop. It has no perceptible positional variants other than the [b] itself and it occurs only in initial and medial positions of words:

<u>Initial</u>	
/bam/	‘have/posses’
/bui/	‘enough’
/ba/	‘break’
/bien/	‘wear’
/bum/	‘egg’
<u>Medial</u>	
/kəbak/	‘pig’
/čəbam/	‘seat’
/kəbáŋ/	‘servant’
/kəbún/	‘snow’
/kəbúi/	‘cow’

The phoneme /^mb/ is a voiced unaspirated pre-nasalised bilabial stop. It has no positional variants and it occurs only in word initial positions of words.

/ ^m búi/	‘ash’
/ ^m bi/	‘fart’
/ ^m bín/	‘journey’
/ ^m bùwan/	‘increase’
/ ^m beŋ/	‘wall’
/ ^m bop/	‘jump’

The phoneme /t/ is an unaspirated voiceless alveolar stop. It has no perceptible positional variants other than the [t] itself and it occurs in all three positions of words:

Initial

/tət ^h i/	‘dog’
/tik/	‘black’
/tek/	‘food’
/tat/	‘walks’
/tiu/	‘eat’

Medial

/kətíam/	‘arrange’
/pumtán/	‘strength’
/kətum/	‘fast’
/p ^h itát/	‘sleeper’
/kətaŋ/	‘kick’

Final

/tat/	‘walk’
/k ^h ət/	‘one’
/gut/	‘comes in’
/pat/	‘comes out’
/p ^h ut/	‘release’

The phoneme /ⁿt/ is a voiceless unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿt] itself and it occurs only in the initial position of words.

/ ⁿ táu/	‘sit’
/ ⁿ tú/	‘stone’
/ ⁿ túu/	‘wearing of necklace’
/ ⁿ tùwan/	‘jump over’
/ ⁿ tìk/	‘chop’
/ ⁿ tím/	‘suck’

The phoneme /t^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [t^h] itself and it occurs only in initial and medial positions of words.

Initial

/t ^h in/	‘hold’
/t ^h éŋ/	‘long’
/t ^h aŋ/	‘bark’
/t ^h ún/	‘squeeze’
/t ^h úan/	‘praise’

Medial

/tə ^h ám/	‘hair’
/tə ^h ùan/	‘prize’
/tə ^h i/	‘dog’
/tə ^h án/	‘deer’
/tə ^h ùn/	‘stick’

The phoneme /ⁿt^h/ is a voiceless aspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿt^h] itself and it occurs only in the initial position of words.

/ ⁿ t ^h i ^h iam/	‘flute’
/ ⁿ t ^h ùwan/	‘to raise something up’
/ ⁿ t ^h à/	‘free’
/ ⁿ t ^h iye?n/	‘play’
/ ⁿ t ^h ak/	‘naming’
/ ⁿ t ^h uk/	‘joint’

The phoneme /d/ is a voiced unaspirated alveolar stop. It has no perceptible positional variants other than the [d] itself and it occurs only in initial and medial positions of words.

Initial

/dak/	‘weave’
/dom/	‘wrap’
/dun/	‘short’
/dám/	‘create’
/dín/	‘tell’

Medial

/kədamnài/	‘Wednesday’
/tədùi/	‘water’
/ədiu/	‘far’
/ədau/	‘meet’
/t ^h oidam/	‘blessing’

The phoneme /ⁿ**d**/ is a voiced unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿ**d**] itself and it occurs only in the initial position of words.

/ ⁿ diu/	‘mud’
/ ⁿ dàŋ/	‘name of an indigenous game’
/ ⁿ dùnna/	‘name of a bee’
/ ⁿ déŋ/	‘struggle’
/ ⁿ dao/	‘taste’
/ ⁿ dàm/	‘blame’

The phoneme /k/ is a voiceless unaspirated velar stop. It has no perceptible positional variants other than [k] itself and it occurs in all three positions of words.

Initial

/kai/ 'hundred'

/kəkabo/ 'white'

/kəbak/ 'pig'

/kəbúi/ 'cow'

/kəbún/ 'snow'

Medial

/tiŋkúm/ 'year'

/čəkúan/ 'plate'

/čəkúi/ 'tiger'

/čəkúan/ 'horse'

/čəki/ 'house'

Final

/sak/ 'drink'

/kəbak/ 'pig'

/təruak/ 'bread'

/əriak/ 'book'

/pak/ 'run'

The phoneme /⁰k/ is a voiceless unaspirated pre-nasalised velar stop. It has no perceptible positional variants other than [ʰk] itself and it occurs only in the initial position of words.

/ ⁰ kʲu/	‘extra’
/ ⁰ kʲè/	‘lazy’
/ ⁰ kʲú/	‘round’
/ ⁰ kʲùn/	‘belch’
/ ⁰ kʲùwan/	‘bended leg’

The phoneme /k^h/ is a voiceless aspirated velar stop. It has no perceptible positional variants other than [k^h] itself and it occurs only in initial and medial positions of words.

Initial

/k ^h ət/	‘one’
/k ^h a/	‘bitter’
/k ^h ʲyaŋ/	‘sour’
/k ^h am/	‘stopping’
/k ^h om/	‘collect’

Medial

/čək ^h úm/	‘pillow’
/čək ^h iu/	‘termite’
/čək ^h ùm/	‘famine’
/čək ^h ʲu?/	‘treasure’
/čək ^h uwaŋ/	‘respect’

The phoneme /^hk/ is an aspirated voiceless pre-nasalised velar stop. It has no perceptible positional variants other than [^hk] itself and it occurs only in the initial position of words.

/ ^h k ^h a/	‘help’
/ ^h k ^h ám/	‘door’
/ ^h k ^h ùm/	‘bending’
/ ^h k ^h ìu/	‘cough’
/ ^h k ^h úwan/	‘rolling down’
/ ^h k ^h úi/	‘bee’

The phoneme /g/ is a voiced unaspirated velar stop. It has no perceptible positional variants other than [g] itself and it occurs in initial and medial positions of words.

Initial

/gui/	‘feed’
/guan/	‘abdomen’
/gum/	‘plantain leaf’
/gunlim/	‘turmeric’
/geŋ/	‘useful’

Medial

/mægenna/	‘orphan’
/nægù/	‘yours’
/pəgom/	‘lid’
/čəguwan/	‘king’
/pəgeŋ/	‘needs’

The phoneme /^hg/ is an unaspirated voiced pre-nasalised velar stop. It has no positional variants and it occurs only in the initial position of words.

/ ^h giu/	‘stomach full’
/ ^h gap/	‘active’
/ ^h gi/	‘unripe/raw’
/ ^h gòu/	‘bamboo basket used for drying paddy’
/ ^h gien/	‘grass’
/ ^h gaŋ/	‘middle’

Affricates:

The phoneme /č/ is a voiceless palatal affricate. It has no perceptible positional variants other than the [č] itself and it occurs only in the initial and medial positions of words.

<u>Initial</u>	
/čərí/	‘war’
/čəlù/	‘field’
/čəli/	‘pot’
/čəkì/	‘house’
/čəlùì/	‘song’

Medial

/kəčaŋ/	‘real’
/əči/	‘my elder brother/sister’
/kəčù/	‘encourage’
/kəčun/	‘saving’
/kəčia/	‘gold’

The phoneme /ⁿc/ is a voiceless unaspirated pre-nasalised palatal affricate. It has no perceptible positional variants other than the [ⁿc] itself and it occurs only in initial position of words.

/ ⁿ čám/	‘same’
/ ⁿ čún/	‘night’
/ ⁿ ča/	‘halting’
/ ⁿ číu/	‘fern’
/ ⁿ cùŋ/	‘pensive mood’

Glottal stop:

The phoneme /ʔ/ is a voiceless glottal stop. It has no perceptible positional variants other than the [ʔ] itself and it occurs only in word medial and final positions.

Medial

/naʔmái/	‘child’
/ ⁿ čúʔn/	‘night’
/ ⁿ suwáʔn/	‘morning’

/əpiyá?η/	‘my cup’
/əkuwá?η/	‘my plate’

Final

/əpiyú?/	‘my father’
/əlí?/	‘tongue’
/əga?/	‘my chest’
/čəká?/	‘friend’
/pəkiná?/	‘husband’

Nasals:

The phoneme /m/ is a bilabial nasal. It has no perceptible positional variants other than [m] itself and it occurs in all three positions of words.

Initial

/meη/	‘mad’
/mətek/	‘maize’
/məηai/	‘forget’
/məgiyaη/	‘wedding’
/məràì/	‘love’

Medial

/təmáη/	‘house fly’
/kəmuwaη/	‘cloud’

/čəmana/	‘pumpkin’
/čəməi/	‘human’
/cəməŋ/	‘dream’

Final

/ŋam/	‘win’
/kəsúm/	‘three’
/mənám/	‘to smell’
/čəŋam/	‘work’
/ ⁿ cám/	‘same’

The phoneme /^mm/ is a pre-nasalised bilabial nasal. It has no perceptible positional variants other than [^mm] itself and it occurs only in the initial position of words.

/ ^m múwan/	‘water bottle’
/ ^m man/	‘dreamed’
/ ^m mumbo/	‘dark blue’
/ ^m muwat/	‘blow’
/ ^m mom/	‘holding inside the mouth’

The phoneme /n/ is an alveolar nasal. It has no perceptible positional variants other than [n] itself and it occurs in all three positions of words.

Initial

/núŋ/	‘melt’
-------	--------

/naŋ/	‘you’
/nuwan/	‘sin’
/naʔmái/	‘child’
/naimík/	‘Sun’

Medial

/təníaŋ/	‘soil’
/piuniu/	‘leaf’
/kəne/	‘two’
/təni/	‘pant’
/ŋuna/	‘banana’

Final

/čəbàŋ/	‘rice’
/tət ^h án/	‘deer’
/dan/	‘cut’
/pəkun/	‘corner’
/kəsán/	‘new’

The phoneme /ⁿn/ is a pre-nasalised alveolar nasal. It has no perceptible positional variants other than the [ⁿn] itself and it occurs only in the initial position of words.

/ ⁿ nàŋ/	‘worry’
/ ⁿ nì/	‘slippery’
/ ⁿ nìm/	‘moist/damp’

/ ⁿ nùwan/	‘humble’
/ ⁿ nèŋ/	‘taut’
/ ⁿ nìŋ/	‘think’

The phoneme /ŋ/ is a velar nasal. It has no perceptible positional variants other than [ŋ] itself and it occurs in all three positions of words.

Initial

/ŋuna/	‘banana’
/ŋau/	‘see’
/ŋam/	‘win’
/ŋiyauna/	‘cat’

Medial

/čəŋíu/	‘spear’
/məŋíu/	‘five’
/pəŋan/	‘limit’
/əŋíyu/	‘fifty’
/čəŋì/	‘festival’

Final

/láŋ/	‘cook’
/lúŋ/	‘live’
/saŋ/	‘dry’
/čəmáŋ/	‘dream’
/piŋ/	‘scare’

The phoneme /^hŋ/ is pre-nasalised velar nasal. It has no perceptible positional variants other than [^hŋ] itself and it occurs only in the initial position of words.

/ ^h ŋám/	‘shy’
/ ^h ŋán/	‘discard’
/ ^h ŋùmna/	‘name of a bird’
/ ^h ŋiyen/	‘noon’
/ ^h ŋáj/	‘to look up’
/ ^h ŋa/	‘opening mouth’
/ ^h ŋéna/	‘baby’

Fricatives:

The phoneme /s/ is a voiceless alveolar fricative. It has no perceptible positional variants other than [s] itself and it occurs only in initial and medial positions of words.

Initial

/saŋ/	‘dry’
/sa/	‘bad’
/suwaŋ/	‘boil’
/samriyu/	‘thirty’
/siyam/	‘small’

Medial

/kəsum/	‘three’
/təsiŋbaŋ/	‘tree’
/kəsán/	‘new’
/təsiyu/	‘paddy’
/təsiŋ/	‘wood’

The phoneme /ⁿs/ is a pre-nasalised voiceless alveolar fricative. It has no perceptible positional variants other than [s] itself and it occurs only in the initial position of words.

/ ⁿ súwaʔn/	‘morning’
/ ⁿ sàn/	‘clean’
/ ⁿ sak/	‘itch’
/ ⁿ sien/	‘light’
/ ⁿ si/	‘bearing fruit’
/ ⁿ se/	‘like’

The phoneme /z/ is a voiced alveolar fricative. It has no perceptible positional variants other than [z] itself and it occurs only in initial and medial positions of words.

Initial

/zù/	‘face’
/zi/	‘sleep’
/zau/	‘wine’

/zuwan/	‘sell’
/zeŋtún/	‘date’

Medial

/təzán/	‘name’
/təzài/	‘blood’
/təzi/	‘bed’
/təzúwan/	‘monkey’
/təzo/	‘rat’

The phoneme /ⁿz/ is the voiced pre-nasalised alveolar fricative. It has no perceptible positional variants other than the [ⁿz] itself and it occurs only in the initial position of words.

/ ⁿ zeʔŋ/	‘mustard’
/ ⁿ ze/	‘name of insects’
/ ⁿ zèk/	‘climb’
/ ⁿ zán/	‘distribute’
/ ⁿ zeŋ/	‘slow’
/ ⁿ zúwan/	‘swallow’
/ ⁿ zuʔan/	‘alike’

The phoneme /h/ is a voiceless glottal fricative. It has no perceptible positional variants other than [h] itself and it occurs only in initial and medial positions of words.

Initial

/ha/ 'absent'

/hú/ 'brave'

/húm/ 'sweet'

/hún/ 'blow'

/hiyam/ 'tempt'

Medial

/pəhan/ 'bundle'

/čəhiu/ 'moon'

/kəhùm/ 'pray'

/pəham/ 'plain'

/pəhàŋ/ 'under'

The phoneme /^hh/ is a pre-nasalised glottal fricative. It has no perceptible positional variants other than [^hh] itself and it occurs only in the initial position of words.

/^hhúwaŋ/ 'cheap'

/^hhuwan/ 'coward'

/^hhiyen/ 'peeping'

/^hheŋ/ 'red thread'

/^hháŋ/ 'down side'

Lateral:

The phoneme /l/ is a voiced alveolar lateral. It has no perceptible positional variants other than the [l] itself and it occurs only in the initial and medial positions of words.

Initial

/lu/	‘take’
/lúŋ/	‘live’
/líyaŋ/	‘pour’
/líŋ/	‘planting’
/láŋ/	‘cook’

Medial

/pəlùŋ/	‘inside’
/mili/	‘sheep’
/əliam/	‘boat’
/məlùm/	‘believe’
/čəli/	‘pot’

The phoneme /ⁿl/ is the pre-nasalised voiced alveolar lateral. It has no positional variants other than the [ⁿl] itself and it occurs only in the initial position of words. It is also worth mentioning here that the pre-nasalised voiced alveolar lateral /ⁿl/ do not occur frequently in the language as it is evident by having few lexical items beginning with the same phoneme as can be seen in the following example.

/ ⁿ lien/	‘show’
/ ⁿ liyam/	‘overflow’

Trill:

The phoneme /r/ is a voiced alveolar trill. It has no perceptible positional variants other than the [r] itself and it occurs only in initial and medial positions of words.

Initial

/ráŋ/ 'organize'

/ru/ 'burn'

/raŋkán/ 'money'

/rou/ 'write'

/ríŋ/ 'live'

Medial

/čərí/ 'war'

/čəra/ 'god'

/čəriyaŋ/ 'rope'

/pirún/ 'cap'

/čəriyu/ 'tired'

The phoneme /ⁿr/ is the pre-nasalised voiced alveolar trill. It has no positional variants other than the [ⁿr] and it occurs only in the initial position of words.

/ⁿrà/ 'touch'

/ⁿre/ 'a kind of insect'

/ⁿríu?/ 'hungry'

/ⁿraŋ/ 'high tone'

/ⁿrembaŋ/ 'banyan tree'

Semi vowels:

The phoneme /w/ is a voiced bilabial semi-vowel. It has no perceptible positional variants other than the [w] itself and it occurs only in initial and medial positions of words.

Initial

/wi/	‘good’
/waŋ/	‘come’
/wančák/	‘watch’
/wazai/	‘proud’
/waŋk ^h ám/	‘yoke’

Medial

/tiŋwaŋ/	‘God’
/čəwáj/	‘king’
/pəwan/	‘time’
/čəwan/	‘evening’
/čunwi/	‘happy’

The phoneme /y/ is a palatal semivowel. It has no perceptible positional variants other than the [y] itself and it occurs only in initial and medial positions of words.

Initial

/yo/	‘yes’
/yáj/	‘isn’t it’
/ye/	‘aspect’

Medial

/čəriyaŋ/ ‘rope’

/k^hiyáŋ/ ‘sour’

/píyaŋ/ ‘cup’

3.2.4 Vowels:

Liangmai has six phonemic vowels as shown in the table below. The close mid front vowel /e/ is realized as an open-mid front vowel [ɛ] in a closed syllable with either falling or low tone, /e/→[ɛ]/C__C. The closed mid back vowel /o/ is realized as an open-mid back vowel [O] in a closed syllable with either falling or low tone /o/→[O]/C__C. The open front vowel /a/ is slightly different in its realization from [a] to [ɑ].

	Front	Central	Back
	Unrounded	Unrounded	Rounded
High	ɪ		u
Mid	e	ə	o
Low		a	

Table 10: Liangmai vowel inventory

3.2.5 Description of vowels and distribution of their positional variants:

The phoneme /i/ is a short, high front unrounded vowel. It has two positional variants viz., [i] and [ɪ].

The [i] is realized as a high front unrounded vowel and it occurs in the open syllables.

/əči/ [əči] ‘elder brother/sister’

/puiki/ [puiki] ‘road’

/ri/	[ri]	‘late’
/təni/	[təni]	‘pant’

The [ɪ] is realized as a lower-high front unrounded vowel and it occurs elsewhere:

/i/	[ɪ]	‘I’
/tik/	[tik]	‘black’
/líŋ/	[líŋ]	‘planting’
/tiŋ/	[tiŋ]	‘rain’
/čím/	[čím]	‘wet’

The phoneme /e/ is a short, mid front unrounded vowel. It has two positional variants viz., [e] and [ɛ].

The [e] is realized as a mid front unrounded vowel and it occurs in the open syllables.

/məkè/	[məkè]	‘lazy’
/kəne/	[kəne]	‘two’
/ke/	[ke]	‘horn’
/pè/	[pè]	‘grandmother’

The [ɛ] is realized as a lower-mid front unrounded vowel and it occurs in the closed syllables.

/t ^h éŋ/	[t ^h ɛŋ]	‘long’
/lek/	[lɛk]	‘beat’
/dék/	[dɛŋ]	‘block’

/séṃ/	[séṃ]	‘polish’
/réṃ/	[réṃ]	‘operate’
/ᵐbéŋ/	[ᵐbéŋ]	‘wall’

The phoneme /ə/ is a short, mid central unrounded vowel. It has no perceptible positional variants.

/əliu/	[əliu]	‘we’
/čəgàṅ/	[čəgàṅ]	‘curry’
/əgù/	[əgù]	‘mine’
/čəbàṅ/	[čəbàṅ]	‘rice’
/məki/	[məki]	‘bite’
/əmik/	[əmik]	‘my eye’
/čəmi/	[čəmi]	‘fire’
/čəki/	[čəki]	‘house’

The phoneme /a/ is a short, central low unrounded vowel. It has no perceptible positional variants.

/ak ^h əŋmai/	[ak ^h əŋmai]	‘gentleman’
/čəlán/	[čəlán]	‘earring’
/təza/	[təza]	‘rat’
/ka/	[ka]	‘white’
/láŋ/	[láŋ]	‘cook’
/pa/	[pa]	‘he’
/bam/	[bam]	‘have/posses’

The phoneme /o/ is a short, mid back rounded vowel. It has two positional variants viz., [o] and [ɔ].

The [o] is realized as a mid back rounded vowel and it occurs only in the open syllables:

/mó/	[mó]	‘cleaning field’
/čəp ^h ó/	[čəp ^h ó]	‘bridge’
/no/	[no]	‘now’
/yo/	[yo]	‘yes’
/lo/	[lo]	‘imperative marker’
/čəgó/	[čəgó]	‘root of a plant use as medicine’
/k ^h o/	[k ^h o]	‘collect’

The [ɔ] is realized as a lower-mid back rounded vowel and it occurs only in the closed syllables:

/sóm/	[sóm]	‘erect’
/luŋpom/	[luŋpɔm]	‘anger’
/róm/	[róm]	‘cut’
/məzón/	[məzón]	‘fine’
/dom/	[dɔm]	‘wrap’
/k ^h om/	[khɔm]	‘collect’

The phoneme /u/ is a short, high back rounded vowel. It has two perceptible positional variants viz., [u] and [ʊ].

The [u] is realized as a high back rounded vowel and it occurs only in the open syllables:

/su/	[su]	‘rise’
/hú/	[hú]	‘brave’
/rù/	[rù]	‘burn’
/nəgù/	[nəgù]	‘yours’
/çəlù/	[lù]	‘field’

The [ʊ] is realized as a lower-high back rounded vowel and it occurs only in the closed syllables:

/t ^h ún/	[t ^h ʊn]	‘squeeze’
/dun/	[dʊn]	‘short’
/húm/	[hʊm]	‘sweet’
/lún/	[lʊŋ]	‘live’
/çəmùn/	[mʊn]	‘mouth’
/núŋ/	[nʊŋ]	‘melt’

3.2.6 Segment distribution

The distribution of segmental in Liangmai can be summarized as follows. All consonants appear as initial consonant (C₁). The monophthong V₁ has no limitation but whenever the diphthong V₁ (V₂) occur the second vowel (V₂) is restricted to both closed unrounded front vowels /i/ or close

rounded back vowel /u/. The following table shows the diphthongs in Liangmai.

	Front	Back
Close	iu	ui
Close mid	ei	oi ou
open	əi ai au	

Table 11: Liangmai diphthongs

The distributions of diphthongs in Liangmai are shown in the following table with examples.

Diphthongs	Initial	Medial	Final
/ai/	-----	/nəimik/ ‘sun’	/ətai/ ‘forty’
/au/	-----	/taudui/ ‘sugar’	/tau/ ‘burn’
/ei/	/ei/ ‘okay’	-----	/cənei/ ‘lime’
/ui/	/uise/ ‘that one’	/puiki/ ‘road’	/kəbui/ ‘cow’
/əi/	-----	/nəipat/ ‘east’	-----
/oi/	-----	/kəlòibo/ ‘the end’	-----
/ou/	-----	/roubo/ ‘writing’	/nou/ ‘wife’
/iu/	-----	/niuki/ ‘nostril’	/cəhiu/ ‘moon’

Table 12: Distribution of diphthongs in Liangmai

The final consonants (C_3) are restricted to voiceless stops and nasals as shown in the table below.

Consonants	Labial	Alveolar	Velar
VL stops	p	t	k
Nasals	m	n	ŋ

Table 13: Liangmai final consonants

The second consonant in the medial consonant cluster (C_2) is restricted to liquids /r/ and /l/, and it occurs only after voiceless stops /p/, /t/

and /k/. Like Zeme, consonant clusters in Liangmai are found only in reduplicated form of words like /tra ra/ ‘sprinkle’ /*kluŋ kluŋ*/ ‘thundering sound’ /*prum prum*/ ‘clapping sound’ /*plik plik*/ ‘clicking/twinkling’ etc.

3.2.7. Tone

There are three contrastive tones in Liangmai. They are high /^h/, mid (unmark) and low /^l/ . The distribution of tone in Liangmai is shown in the table below.

	Smooth syllable
Mid	Monophthong, diphthong
High	Monophthong, diphthong
Low	Monophthong, diphthong

Table 14: Liangmai tone distribution

E.g.,	Mid monophthong	/zi/ ‘sleep’
	Mid diphthong	/ciu/ ‘heard’
	High monophthong	/mí/ ‘married’
	High diphthong	/ətái/ ‘forty’
	Low monophthong	/kì/ ‘house’
	Low diphthong	/tìu/ ‘eat’

3.3. Rongmei

The term Rongmei was derived from the word *Ruang* ‘south’ and *Mei* ‘people’ which literally means ‘the people from the south’ and later on, it became Rongmei from Ruangmei. Rongmei is mainly concentrated in the three states of North Eastern India viz., Assam, Manipur, and Nagaland. Rongmei Naga is also known as Kabui. According to 2001, Census of India, the total population of Rongmei is given in the name of Kabui was about 94,758.

3.3.1. Syllable structure

The basic syllable of Rongmei can be generalized as $(C_1)V_1(V_2)(C_2)T$. The parentheses show optional elements. The onset is composed of (C_1) . The nucleus is composed of either an obligatory vowel V_1 as monophthong or a diphthong $V_1(V_2)$. The coda (C_2) is consonant final and T represents the tone. Examples of possible syllable sharps are shown in the following table.

Gloss	Rongmei	Syllable sharps
I	I	v
yes	ou	vv
bad	si	cv
water	dui	cvv
catch	nim	cvc
blast	puak	cvvc

Table 15: Syllabic sharps in Rongmei

3.3.2. Consonants:

Thirty five consonant phonemes are found in Rongmei. The phonemic inventory of Rongmei is shown in the following table:

		Bilabial	Alveolar	palatal	Velar	glottal
Stops	VI.unaspirated	p	t		k	ʔ
	VI. aspirated	p ^h	t ^h		k ^h	
	Voiced	b	d		g	
Prenasalised Stops	VI. unaspirated	^m p	ⁿ t		ⁿ k	
	VI. aspirated	^m p ^h	ⁿ t ^h		ⁿ k ^h	
	Voiced	^m b	ⁿ d		ⁿ g	
Nasals		m	n		ŋ	
Prenasalised nasals		^m m	ⁿ n		ⁿ ŋ	
Affricates				č		
Prenasalised affricates				ⁿ č		
Fricative	Voiceless		s			h
	Voiced		z			
Prenasalised Fricative	Voiceless		ⁿ s			
	Voiced		ⁿ z			
Lateral	Voiceless		l			
Prenasalised lateral			ⁿ l			
Trill			r			
Prenasalised trill			ⁿ r			

Table 16: Rongmei consonant inventory

3.3.3. Description and distributions of consonants:

Stops:

The phoneme /p/ is a voiceless unaspirated bilabial stop. It has no perceptible positional variants other than the [p] itself and it occurs in all three positions of words viz., initial, medial and final.

Initial

/piŋ/	‘afraid’
/puat/	‘luggage’
/pak/	‘run’
/pan/	‘mushroom’
/pi/	‘head’

Medial

/kəpek/	‘flat’
/kəpa/	‘choose’
/guipuaŋ/	‘elephant’
/banpa/	‘palm’
/luŋpuam/	‘anger’

Final

/kep/	‘shoot’
/ ⁿ tip/	‘tight’
/pəlup/	‘play’
/kəp/	‘cry’
/nap/	‘rice’

The phoneme /^mp/ is a voiceless pre-nasalized bilabial stop. It has no perceptible positional variants other than the [^mp] itself and it occurs only in the word initial position of words.

/ ^m pum/	‘classifier for round objects’
/ ^m puan/	‘wind’
/ ^m pu/	‘thin’
/ ^m pìn/	‘needle’
/ ^m piŋ/	‘afraid’
/ ^m piukui/	‘toad’

The phoneme /p^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [p^h] itself and it occurs only in initial and medial positions of words.

Initial

/p ^h ai/	‘leg’
/p ^h úŋ/	‘carries’
/p ^h a/	‘feeding’
/p ^h an/	‘behalf’
/p ^h ai/	‘husk’

Medial

/lanp ^h iak/	‘broom’
/kəp ^h i/	‘slap’
/kəp ^h ien/	‘discuss’

/kəp ^h áp/	‘climb’
/kaip ^h ùn/	‘plot of land’

The phoneme /^mp^h/ is a voiceless aspirated pre-nasalised bilabial stop. It has no perceptible positional variants other than the [^mp^h] itself and it occurs only in the initial position of words.

/ ^m p ^h um/	‘bury’
/ ^m p ^h ùan/	‘white’
/ ^m p ^h ùai/	‘grass’
/ ^m p ^h ak/	‘tangy taste’
/ ^m p ^h út/	‘rebuke’

The phoneme /b/ is a voiced unaspirated bilabial stop. It has no perceptible positional variants other than the [b] itself and it occurs only in initial and medial positions of words:

Initial

/bam/	‘present’
/bù/	‘moon’
/bak/	‘break’
/baʔn/	‘hand’
/bəlèi/	‘tongue’

Medial

/piban/	‘pillow’
/kəbing/	‘weighty’
/kəbiu/	‘injure’
/kəbung/	‘classifier for container’
/kəba/	‘meaning’

The phoneme /^mb/ is a voiced unaspirated pre-nasalised bilabial stop. It has no positional variants and it occurs only in word initial positions of words.

/ ^m bút/	‘ash’
/ ^m bang/	‘close’
/ ^m bát/	‘leech’
/ ^m báp/	‘test’
/ ^m baʔt ^h ai/	‘mango’
/ ^m bian/	‘slant’

The phoneme /t/ is an unaspirated voiceless alveolar stop. It has no perceptible positional variants other than the [t] itself and it occurs in all three positions of words:

Initial

/tà/	‘bangle’
/tam/	‘pickle’
/tan/	‘work’

/təčát/ 'eight'

/tat/ 'walk'

/tu/ 'eat'

Medial

/təmtou/ 'sugarcane'

/kətiam/ 'arrange'

/kətúp/ 'frequent'

/kətum/ 'quick'

/pumtan/ 'strength'

Final

/k^hət/ 'one'

/kazít/ 'swing'

/tət/ 'walk'

/kat/ 'offer'

/pat/ 'comes out'

The phoneme /ⁿt/ is a voiceless unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿt] itself and it occurs only in the initial position of words.

/ⁿteu/ 'stone'

/ⁿtù/ 'necklace'

/ⁿtuk/ 'sharp'

/ⁿtak/ 'bed bug'

/ⁿtìm/ 'suck'

The phoneme /t^h/ is a voiceless aspirated bilabial stop. It has no perceptible positional variants other than the [t^h] itself and it occurs only in initial and medial positions of words.

Initial

/t^hàn/ 'python'

/t^hiŋ/ 'wood'

/t^há/ 'fat'

/t^hut/ 'wipe'

/t^húan/ 'praise'

Medial

/kət^hi/ 'push'

/tiŋt^hai/ 'fruits'

/kət^hu/ 'seeds'

/kət^hiu/ 'steam'

/kət^hum/ 'three'

The phoneme /ⁿt^h/ is a voiceless aspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿt^h] itself and it occurs only in the initial position of words.

/ⁿt^han/ 'clean'

/ⁿt^hàn/ 'maggot'

/ⁿt^húan/ 'tomorrow'

/ⁿt^hiam/ 'small'

/ⁿt^hák/ 'itching'

The phoneme /**d**/ is a voiced unaspirated alveolar stop. It has no perceptible positional variants other than the [**d**] itself and it occurs only in initial and medial positions of words.

Initial

/dak/	‘weave’
/dom/	‘wrap’
/dú/	‘far’
/dám/	‘create’
/dui/	‘water’

Medial

/kədùì/	‘egg’
/kədùn/	‘shiver’
/kəndì/	‘earth’
/kədə́/	‘select’
/təndiák/	‘hammer’

The phoneme /ⁿ**d**/ is a voiced unaspirated pre-nasalised alveolar stop. It has no perceptible positional variants other than the [ⁿ**d**] itself and it occurs only in the initial position of words.

/ ⁿ dé?p/	‘hungry’
/ ⁿ dát/	‘measure’
/ ⁿ dàu/	‘bulbul’
/ ⁿ dui/	‘short’
/ ⁿ dau/	‘reveal’
/ ⁿ dəi/	‘sweet’
/ ⁿ díak/	‘green’

The phoneme /k/ is a voiceless unaspirated velar stop. It has no perceptible positional variants other than [k] itself and it occurs in all three positions of words.

Initial

/kai/ 'house'

/keu/ 'call'

/kənei/ 'two'

/kəndi/ 'earth'

/kədui/ 'egg'

Medial

/təkùan/ 'horse'

/tamkuak/ 'bowl'

/latkèŋ/ 'word'

/kəkìak/ 'piece'

/tiŋkum/ 'year'

Final

/guak/ 'pig'

/jik/ 'dew'

/duibek/ 'river'

/pak/ 'run'

/kəčə?k/ 'gold'

The phoneme /⁰k/ is a voiceless unaspirated pre-nasalised velar stop. It has no perceptible positional variants other than [ʰk] itself and it occurs only in the initial position of words.

/ ⁰ kà/	‘cane basket’
/ ⁰ kak/	‘crack’
/ ⁰ kàm/	‘hide’
/ ⁰ kat/	‘block’
/ ⁰ kap/	‘locust’

The phoneme /k^h/ is a voiceless aspirated velar stop. It has no perceptible positional variants other than [k^h] itself and it occurs only in initial and medial positions of words.

Initial

/k ^h em/	‘stop’
/k ^h a/	‘fish’
/k ^h iaŋ/	‘sour’
/k ^h ak/	‘peel’
/k ^h ai/	‘chew’

Medial

/kə ^h an/	‘think’
/kaik ^h àm/	‘door’
/duik ^h ún/	‘pond’
/məik ^h au/	‘smoke’
/məik ^h iet/	‘matches’

The phoneme /^hk/ is an aspirated voiceless pre-nasalised velar stop. It has no perceptible positional variants other than [^hk] itself and it occurs only in the initial position of words.

/ ^h k ^h a/	‘help’
/ ^h k ^h em/	‘mole’
/ ^h k ^h am/	‘last’
/ ^h k ^h ou/	‘cough’
/ ^h k ^h ít/	‘curl’
/ ^h k ^h uai/	‘bee’
/ ^h k ^h ú/	‘bitter’

The phoneme /g/ is a voiced unaspirated velar stop. It has no perceptible positional variants other than [g] itself and it occurs in initial and medial positions of words.

Initial

/guaŋ/	‘come’
/ga/	‘crab’
/gan/	‘bright’
/gai/	‘good’
/gái/	‘plenty’
/gau/	‘frog’

Medial

/kəgát/	‘wave’
/kəgè/	‘needs’
/kəgan/	‘time’
/kəgít/	‘beat’
/təguak/	‘disturb’

The phoneme /^ŋg/ is an unaspirated voiced pre-nasalised velar stop. It has no positional variants and it occurs only in the initial position of words.

/ ^ŋ gàn/	‘male’
/ ^ŋ gám/	‘unison’
/ ^ŋ gìn/	‘travel’
/ ^ŋ gít/	‘tinkling and numb sensation’
/ ^ŋ gu/	‘full or satisfied’

Affricates:

The phoneme /č/ is a voiceless palatal affricate. It has no perceptible positional variants other than the [č] itself and it occurs only in the initial and medial positions of words.

Initial

/čəbuan/	‘youth’
/čəkiu/	‘nine’
/čəŋ/	‘road’
/čəgàm/	‘bear’
/ča/	‘tea’

Medial

/kəčài/	‘horn’
/kəčák/	‘jump’
/kəče?k/	‘gold’
/təčát/	‘eight’
/guaičaŋ/	‘mithun’

The phoneme /ⁿc/ is a voiceless unaspirated pre-nasalised palatal affricate. It has no perceptible positional variants other than the [ⁿc] itself and it occurs only in initial position of words.

/ ⁿ čám/	‘same’
/ ⁿ čúm/	‘pointed’
/ ⁿ čou/	‘knock’
/ ⁿ ču/	‘cold’
/ ⁿ čùi/	‘twenty’
/ ⁿ čuŋ/	‘middle’

Glottal stop:

The phoneme /ʔ/ is a voiceless glottal stop. It has no perceptible positional variants other than the [ʔ] itself and it occurs only in word medial and final positions.

Medial

/kuʔŋmei/	‘difficult’
/laŋʔpan/	‘cotton’
/ ⁿ čáŋʔmei/	‘modest’
/ ⁿ čiaŋʔmei/	‘lean,tilt’
/ ⁿ čaŋʔmei/	‘have time’

Final

/ ⁿ čum?/	‘correct’
/kəpéŋ?/	‘outside’
/kəlúŋ?/	‘inside’
/laŋ?/	‘thread’
/kət ^h án?/	‘new’

Nasals:

The phoneme /**m**/ is a bilabial nasal. It has no perceptible positional variants other than [m] itself and it occurs in all three positions of words.

Initial

/mən/	‘root’
/mənsai/	‘human’
/muəŋ/	‘mouth’
/mai/	‘fire’
/mín/	‘ripe’

Medial

/mən ^m à/	‘envy’
/kə ^m ài/	‘he’
/puŋ ^m a/	‘pumpkin’
/bu ^m eŋ/	‘spirit’
/kə ^m aŋ/	‘tiger’

Final

/ŋam/	‘win’
/kət ^h ùm/	‘three’
/gačəŋrim/	‘turmeric’
/sám/	‘fly’
/gum/	‘lid’

The phoneme /^mm/ is a pre-nasalised bilabial nasal. It has no perceptible positional variants other than [^mm] itself and it occurs only in the initial position of words.

/ ^m man/	‘dreamed’
/ ^m mum/	‘dark blue’
/ ^m muan/	‘blow’
/ ^m mon/	‘sorry’

The phoneme /n/ is an alveolar nasal. It has no perceptible positional variants other than [n] itself and it occurs in all three positions of words.

Initial

/num/	‘jungle’
/naŋ/	‘you’
/náp/	‘rice’
/nam/	‘village’
/neimik/	‘Sun’

Medial

/ənai/	‘we’
/kənai/	‘two’
/čənai/	‘seven’
/gənnam/	‘garlick’
/təniəŋ/	‘snail’

Final

/kəčan/	‘bright’
/təlàn/	‘sweat’
/dan/	‘cut’
/kəkùn/	‘corner’
/kət ^h án/	‘new’

The phoneme /ⁿn/ is a pre-nasalised alveolar nasal. It has no perceptible positional variants other than the [ⁿn] itself and it occurs only in the initial position of words.

/ ⁿ nà/	‘near’
/ ⁿ nau/	‘sick’
/ ⁿ nit/	‘water leech’
/ ⁿ naŋ/	‘strain’
/ ⁿ nu/	‘a weaving part’

The phoneme /ŋ/ is a velar nasal. It has no perceptible positional variants other than [ŋ] itself and it occurs in all three positions of words.

Initial

/ŋai/	‘festival’
/ŋana/	‘baby’
/ŋam/	‘win’
/ŋàm/	‘authority’
/ŋeŋ/	‘chest’

Medial

/təŋui/	‘close eye’
/kəŋeŋ/	‘steep’
/pəŋu/	‘five’
/kəŋan/	‘limit’
/kəŋim/	‘deep sound’

Final

/suwáŋ/	‘cook’
/lúŋ/	‘live’
/čiŋ/	‘thousand’
/naŋ/	‘you’
/piŋ/	‘scare’

The phoneme /^ɲŋ/ is pre-nasalised velar nasal. It has no perceptible positional variants other than [^ɲŋ] itself and it occurs only in the initial position of words.

/ ^ɲ ŋeŋ/	‘red yam’
/ ^ɲ ŋái/	‘kind of hard wood’
/ ^ɲ ŋou/	‘forest’
/ ^ɲ ŋien/	‘bite’
/ ^ɲ ŋiu/	‘wistle’
/ ^ɲ ŋék/	‘banana stem’

Fricatives:

The phoneme /s/ is a voiceless alveolar fricative. It has no perceptible positional variants other than [s] itself and it occurs only in initial and medial positions of words.

Initial

/sa/	‘speak’
/si/	‘bad’
/séŋ/	‘long’
/sàm/	‘hair’
/sú/	‘pain’

Medial

/kəsìŋ/	‘number’
/asan/	‘deer’
/kəsai/	‘limping’
/saʔsi/	‘fox’
/kəsiam/	‘make’

The phoneme /ⁿs/ is a pre-nasalised voiceless alveolar fricative. It has no perceptible positional variants other than the [ⁿs] itself and it occurs only in the initial position of words.

/ ⁿ sa/	‘free’
/ ⁿ sek/	‘left over’
/ ⁿ sát/	‘sting’
/ ⁿ sài/	‘splash’
/ ⁿ su/	‘thick’
/ ⁿ súk/	‘joint’

The phoneme /z/ is a voiced alveolar fricative. It has no perceptible positional variants other than [z] itself and it occurs only in initial and medial positions of words.

Initial

/zàu/	‘wine’
/záu/	‘monkey’
/zek/	‘swim’
/zeŋ/	‘energy’
/zai/	‘blood’
/zàn/	‘meat’
/zuan/	‘sell’

Medial

/təzái/	‘saline spring’
/tiŋzin/	‘evening’
/kəzáp/	‘grab’
/kəzau/	‘involve’
/kəzi/	‘match’

The phoneme /ⁿz/ is the voiced pre-nasalised alveolar fricative. It has no perceptible positional variants other than the [ⁿz] itself and it occurs only in the initial position of words.

/ ⁿ za/	‘precious’
/ ⁿ zi/	‘raw’
/ ⁿ zék/	‘climb’
/ ⁿ zan/	‘distribute’
/ ⁿ zeŋ/	‘slow’
/ ⁿ zu/	‘show’

The phoneme /h/ is a voiceless glottal fricative. It has no perceptible positional variants other than [h] itself and it occurs only in initial and medial positions of words.

Initial

/hau/	‘see’
/héŋ/	‘red’
/hu/	‘teeth’
/heu/	‘banana’
/hi/	‘boat’

Medial

/kəhup/	‘humid’
/kəhai/	‘wipes’
/kəhàu/	‘like’
/kəhík/	‘sobs’
/kəhù/	‘front’

Lateral:

The phoneme /l/ is a voiced alveolar lateral. It has no perceptible positional variants other than the [l] itself and it occurs only in the initial and medial positions of words.

Initial

/la/	‘take’
/leu/	‘field’
/lún/	‘live’
/lían/	‘pour’
/líŋ/	‘plant’ V

Medial

/kəlún/	‘inside’
/təlàn/	‘sweat’
/təlem/	‘butterfly’
/tələ/	‘stylish’
/təlout ^h ái/	‘gooseberry’

The phoneme /ⁿl/ is the pre-nasalised voiced alveolar lateral. It has no positional variants other than the [l̥] itself and it occurs only in the initial position of words.

/ ⁿ l̥im/	‘flute’
/ ⁿ l̥iyak/	‘lick’
/ ⁿ l̥u/	‘twist’
/ ⁿ l̥iu/	‘loose’
/ ⁿ l̥úak/	‘swallow’
/ ⁿ l̥uai/	‘creep’

Trill:

The phoneme /r/ is a voiced alveolar trill. It has no perceptible positional variants other than the [r] itself and it occurs only in initial and medial positions of words.

Initial

/riyaŋ/	‘rope’
/reu/	‘burn’
/rek/	‘cage’
/rem/	‘decay’
/r̥oi/	‘intestine’

Medial

/tamrú/	‘thirty’
/kəràn/	‘old’
/pərat/	‘smart’
/pirùn/	‘cap’
/kərəŋ/	‘empty’

The phoneme /ⁿr/ is the pre-nasalised voiced alveolar trill. It has no positional variants other than the [ʳ] and it occurs only in the initial position of words.

/ ⁿ rá/	‘violin’
/ ⁿ rùi/	‘snake’
/ ⁿ ríyaʔŋ/	‘bamboo’
/ ⁿ riyet/	‘comb’
/ ⁿ rembán/	‘banyan tree’
/ ⁿ ri/	‘axe’

3.3.4 Vowels

Rongmei has six phonemic vowels as shown in the table below. The close mid front vowel /e/ is realized as an open-mid front vowel [ɛ] in a closed syllable with either falling or low tone, /e/→[ɛ]/C__C. The closed mid back vowel /o/ is realized as an open-mid back vowel [ɔ] in a closed syllable with either falling or low tone /o/→[ɔ]/C__C. The open front vowel /a/ is slightly different in its realization from [a] to [ɑ].

	Front	Central	Back
	Unrounded	Unrounded	Rounded
High	i		u
Mid	e	ə	o
Low		a	

Table 17: Rongmei vowel inventory

3.3.5 Description of vowels and distribution of their positional variants:

The phoneme /i/ is a short, high front unrounded vowel. It has two positional variants viz., [i] and [ɪ].

The [i] is realized as a high front unrounded vowel and it occurs in the open syllables.

/ri/	[ri]	‘war’
/çi/	[çi]	‘lips’
/bi/	[bi]	‘mud’
/ti/	[ti]	‘give’
/zauki/	[zauki]	‘wild cat’

The [ɪ] is realized as a lower-high front unrounded vowel and it occurs elsewhere:

/tin/	[tɪn]	‘nail’
/diŋ/	[dɪŋ]	‘stand’
/zip/	[zɪp]	‘sleep’
/tiŋ/	[tɪŋ]	‘rain’
/sɪm/	[sɪm]	‘house fly’

The phoneme /e/ is a short, mid front unrounded vowel. It has two positional variants viz., [e] and [ɛ].

The [e] is realized as a mid front unrounded vowel and it occurs in the open syllables.

/ule/	[ule]	‘crocodile’
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/bamre/	[bamre]	‘chair’
/če/	[če]	‘paper’
/le/	[le]	‘and’
/t ^h e/	[t ^h e]	‘aspect’

The [ɛ] is realized as a lower-mid front unrounded vowel and it occurs in the closed syllables.

/séŋ/	[séŋ]	‘long’
/bèŋ/	[bèŋ]	‘knife’
/lèŋ/	[lèŋ]	‘bed’
/təlèm/	[təlèm]	‘butterfly’
/ ⁿ zéŋ/	[ⁿ zéŋ]	‘plain’
/heŋ/	[heŋ]	‘red’

The phoneme /ə/ is a short, mid central unrounded vowel. It has no perceptible positional variants.

/əniu/	[əniu]	‘we’
/əlau/	[əlaU]	‘child’
/təmai/	[təmaI]	‘gun’
/čəgàm/	[čəgàm]	‘bear’
/kəmaŋ/	[kəmaŋ]	‘tiger’

The phoneme /a/ is a short, central low unrounded vowel. It has no perceptible positional variants.

/rá/	[rá]	‘tell’
/sat/	[sat]	‘sting’

/sam/	[sam]	‘hair’
/nap/	[nap]	‘rice’
/tat/	[tat]	‘go’

The phoneme /o/ is a short, mid back rounded vowel. It has two positional variants viz., [o] and [ɔ].

The [o] is realized as a mid back rounded vowel and it occurs only in the open syllables:

/go/	[go]	‘crab’
/ro/	[ro]	‘imperative marker’
/ ⁿ k ^h o/	[ⁿ k ^h o]	‘help’
/čəno/	[čəno]	‘brothers’
/kədo/	[kədo]	‘choose’

The [ɔ] is realized as a lower-mid back rounded vowel and it occurs only in the closed syllables:

/sóm/	[sóm]	‘erect’
/luŋpom/	[luŋpɔm]	‘anger’
/róm/	[róm]	‘cut’
/dom/	[dɔm]	‘wrap’
/gom/	[gɔm]	‘cover’

The phoneme /u/ is a short, high back rounded vowel. It has two perceptible positional variants viz., [u] and [ʊ].

The [u] is realized as a high back rounded vowel and it occurs only in the open syllables:

/gù/	[gù]	‘ginger’
/nù/	[nù]	‘mucus’
/hù/	[hù]	‘teeth’
/bù/	[bù]	‘moon’
/dù/	[dù]	‘far’

The [ʊ] is realized as a lower-high back rounded vowel and it occurs only in the closed syllables:

/gun/	[gʊn]	‘snow’
/lúm/	[lʊm]	‘warm’
/tiŋpuk/	[tiŋpʊk]	‘sky’
/lúŋ/	[lʊŋ]	‘live’
/əp ^h ùm/	[əp ^h ʊm]	‘duck’
/zun/	[zʊn]	‘urine’

3.3.6. Segment distribution

The distribution of segmental in Rongmei can be summarized as follows. All consonants appear as initial consonant (C₁).

The monophthong V₁ has no limitation but whenever the diphthong V₁ (V₂) occurs in a word, the second vowel (V₂) is restricted to both either closed unrounded front vowel /i/ or close rounded back vowel /u/. The table below shows the diphthongs in Rongmei.

	Front	Back
Close	iu	ui
Close mid	ei	oi ou
open	ai au	

Table 18: Diphthongs in Rongmei

3.3.6.1. Distribution of Diphthongs:

The distribution of diphthongs in Rongmei is illustrated in the following table with examples.

Diphthongs	Initial	Medial	Final
/ai/	/ai/ ‘I’	/máipu/ ‘man’	/mai/ ‘fire’
/au/	/au/ ‘yes’	/làut ^h úan/ ‘morning’	/rau/ ‘burn’
/ei/	/ei/ ‘okay’	/geimei/ ‘abundant’	/gəimei/ ‘abundant’
/ui/	-----	/duidai/ ‘flood’	/ ⁿ rui/ ‘snake’
/iu/	-----	/kəriúmai/ ‘together’	/bíu/ ‘enough’
/oi/	-----	/boinoi/ ‘soft’	/p ^h eisoi/ ‘women clothe’
/ou/	-----	/əlouna/ ‘child’	/pou/ ‘grandfather’

Table 19: Distribution of diphthongs in Rongmei

The final consonants (C₃) are restricted to voiceless stops and nasals as shown in the table below.

	Labial	Alveolar	Velar
VL stops	p	t	k
Nasals	m	n	ŋ

Table 20: Rongmei final consonants

The second consonant in the medial consonant cluster (C₂) is restricted to liquids /r/ and /l/, and it occurs only after voiceless stops /p/, /t/ and /k/. Like Zeme and Liangmai, consonant clusters in Rongmei are found only in reduplicated form of words like /kluŋ kluŋ / ‘thundering sound’ /prum prum/ ‘clapping sound’ /plik plik/ ‘clicking/twinkling’ etc.

3.3.7. Tone

There are three contrastive tones in Rongmei. They are high /^h/, mid (unmark) and low /^l/ . The distribution of tone in Rongmei is shown in the table below.

	Smooth syllable
Mid	Monophthong, diphthong and low
High	Monophthong, diphthong and low
Low	Monophthong

Table 21: Rongmei tone distribution

E.g.,	Mid monophthong	/ti/ ‘give’
	Mid diphthong	/ai/ ‘I’
	High monophthong	/dú/ ‘far’
	High diphthong	/t ^h ái/ ‘die’
	Low monophthong	/sì/ ‘dog’
	Low diphthong	/ ⁿ tèu/ ‘stone’

3.3.8. Brief summary

Regarding initial consonants, all languages share the voiceless aspirated and unaspirated stop series. Glottal stop [ʔ] is found in Liangmai and Rongmei but it is not found in Zeme so far. Semi vowels are found in both Zeme and Liangmai but it is totally absent in Rongmei. All the languages have glottal fricative [h]. All the languages have voiceless stop and nasal series in finals. They do not have liquid finals. It is interesting to note that these languages does have pre-nasalised counterpart of all the consonantal phonemes except semi vowels.

Six cardinal vowels are common in all languages. The close mid front vowel /e/ is realized as an open mid front vowel [ɛ] in a closed syllable. Similarly, the closed mid back vowel /o/ is realized as an open mid back vowel [ɔ] in a closed syllable. The open front vowel /a/ is slightly different in its realization from [a] to [ɑ] in all the languages.

A system of three tones is probably the norm for all these three languages. The tones are high, mid and low.