Chapter 3
Phonology

3.1. Phonemic Inventory

The phonemic inventory of Kokborok consists of 26 segmental phonemes, with 20 consonants and 6 vowels.

3.1.1. Consonant

Kokborok has 20 consonants. On the basis of place or point of articulation consonants can be divided into bilabial, alveolar, palatal, velar and glottal. In terms of manner of articulation the consonants can be further divided into stops, fricatives, nasals, lateral, trill and semivowels. Kokborok has eleven stops i.e., /p, b, pʰ, t, d, tʰ, c, j, k, g, kʰ/, two fricatives /s and h/, three nasals /m, n, η/, two liquids /l and r/ and two semi-vowels /w and y/. Aspiration is phonemic in Kokborok, but it lacks voiced aspirated stops. The inventory of consonant phonemes of Kokborok is illustrated in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>Bilabial -voice +voice</th>
<th>Alveolar -voice +voice</th>
<th>Palatal -voice +voice</th>
<th>Velar -voice + voice</th>
<th>Glottal -voice + voice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stops</strong></td>
<td>p</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td>c</td>
</tr>
<tr>
<td>+ aspired</td>
<td>Pʰ</td>
<td>tʰ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fricatives</strong></td>
<td>s</td>
<td>h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nasals</strong></td>
<td>m</td>
<td>n</td>
<td></td>
<td>η</td>
<td></td>
</tr>
<tr>
<td><strong>Lateral</strong></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trill</strong></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Semivowels</strong></td>
<td>w</td>
<td>y</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Consonant phonemes in Kokborok
3.1.2. **Vowels**

Kokborok has an inventory of six vowel phonemes i.e., /i, e, a, o, u and ɨ/. The vowels in Kokborok are oral. Length is not phonemic in the language. The six vowel phonemes in the language is illustrated in Table 4.

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>ɨ</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Open</td>
<td></td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

Table 4 Vowel phonemes in Kokborok

3.2. **Tone**

Kokborok has lexically two-fold tonal contrast. The high tone is marked with an accent mark above the vowel. The low tone is unmarked. The minimal pairs showing tonal contrast is illustrated in table 5.

<table>
<thead>
<tr>
<th>High tone</th>
<th>Gloss</th>
<th>Low tone</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>/hór/</td>
<td>‘fire’</td>
<td>/hor/</td>
<td>‘night’</td>
</tr>
<tr>
<td>/sóm/</td>
<td>‘salt’</td>
<td>/som/</td>
<td>‘be black’</td>
</tr>
<tr>
<td>/tʰán/</td>
<td>‘go’</td>
<td>/tʰan/</td>
<td>‘be alive’</td>
</tr>
<tr>
<td>/tʰúi/</td>
<td>‘blood’</td>
<td>/tʰui/</td>
<td>‘to die’</td>
</tr>
<tr>
<td>/wár/</td>
<td>‘bite’</td>
<td>/war/</td>
<td>‘be wide’</td>
</tr>
<tr>
<td>/súi/</td>
<td>‘dog’</td>
<td>/sui/</td>
<td>‘to write’</td>
</tr>
</tbody>
</table>

Table 5 Minimal pairs showing tone contrast
3.3.Contrasting Pairs

3.3.1. Consonants

/p/ vs. /b/

/pai/ ‘buy’
/bai/ ‘elder sister’
/pok/ ‘forget’
/bok/ ‘distribute rice or eatable things’
/pen/ ‘cook in bamboo tube’
/ben/ ‘drive animal’
/pir/ ‘be bright after dawn’
/bir/ ‘fly’

/p vs. pʰ/

/pai/ ‘buy’
/pʰai/ ‘come’
/per/ ‘burst’
/pʰer/ ‘be flat’
/pir/ ‘be bright after morning’
/pʰir/ ‘split wood’
/puk/ ‘scratch’
/pʰuk/ ‘make hole’

/k/ vs. /g/

/kap/ ‘cry’
/gap/ ‘stain’
/kana/ ‘blind’
/gana/ ‘near’
/kati/ ‘avoid’
/gati/ ‘river’

/k/ vs. /kʰ/
/kok/ ‘shoot’
/kʰok/ ‘steal’
/kar/ ‘renounce’
/kʰar/ ‘hide oneself’
/ka/ ‘climb’
/kʰa/ ‘tie’
/kuk/ ‘grasshopper’
/kʰuk/ ‘peel off/remove dress’
/bokonə/ ‘stem’
/bokʰonə/ ‘shell’ (egg, tortoise etc.)
/kai/ ‘to plant’
/kʰai/ ‘reduce’

/t/ vs. /d/
/taŋ/ ‘touch’
/danə/ ‘younger brother/sister’
/tuku/ ‘bathe’
/duku/ ‘hurt’
/tuk/ ‘put in one’s mouth’
/duk/ ‘ creeper’

/t/ vs. /tʰ/ 
/tok/ ‘hit’
/tʰok/ ‘oil’
/tun/ ‘be hot’
/tʰun/ ‘play’
/kutuk/ ‘tuff’
/kutʰuk/ ‘deep’
/kutun/ ‘hot’
/kutʰun/ ‘raw’

/c/ vs. /j/ 
/calai/ ‘mate’
/jalai/ ‘marshy land/wet land’
/cakʰui/ ‘alkali’
/jakui/ ‘triangular net made of bamboo strip’
/cora/ ‘sparrow’
/jora/ ‘time’
/camai/ ‘one’s son or daughter in-laws parents’
/jamai/ ‘niece’s husband’
/m/ vs. /n/

/mai/ ‘rice’
/nai/ ‘watch’
/mihim/ ‘caresses’
/nihin/ ‘call’
/nuk/ ‘see’
/muk/ ‘source’
/nuŋ/ ‘drink’
/nuŋ/ ‘name’
/ran/ ‘be dry’
/ram/ ‘be thin’
/tan/ ‘cut’
/tam/ ‘to play music’

/m/ vs. /ŋ/:

/ram/ ‘be thin’
/rəŋ/ ‘money’
/tam/ ‘beat drum’
/təŋ/ ‘do, touch, construct’
/som/ ‘be black’
/son/ ‘cook’
/təŋ/ ‘collect’
/təŋ/ ‘play’
/ən/ vs. /əŋ/

/tan/ ‘cut’
/tən/ ‘touch/do’
/mun/ ‘be ripe’
/mən/ ‘name’
/ran/ ‘be dry’
/rən/ ‘money’
/pun/ ‘goat’
/pən/ ‘be full’
/kobon/ ‘float in air’
/kəbon/ ‘pillow’

/l/ vs. /ɾ/

/pʰal/ ‘sell’
/pʰar/ ‘sweep’
/kʰal/ ‘to comb’
/kʰar/ ‘hide oneself’
/sol/ ‘to look alike’
/sɔɾ/ ‘iron’
/rai/ 'cane'
/lai/ 'cross'
/sal/ 'day'
/sar/ 'to drain out water of pond'
/p'ul/ 'apply'
/p'ur/ 'be white'
/bel/ 'be flexible'
/ber/ 'to keep in wall, fence'

/s/ vs. /h/

/su/ 'wash'
/hu/ 'wipe/rub'
/sok/ 'be rotten'
/hok/ 'clear jungle by cutting'
/selŋ/ 'feel dirty'
/helŋ/ 'light'
/suŋ/ 'ask'
/huŋ/ 'put on umbrella'
/sor/ 'iron'
/hor/ 'night'

/w/ vs. /y/

/wak/ 'pig'
/yak/ 'hand'
/war/  ‘be wide’
/yar/  ‘very close friend’
/wakʰiɾai/  ‘bite & drop down fruits by animal/birds’
/yakʰiɾai/  ‘bridge’
/uwanɨ/  ‘night bird’
/uyanɨ/  ‘that side’

/w/ vs. /m/
/wai/  ‘younger sister’s husband’
/mai/  ‘rice’
/wari/  ‘to lock’
/mari/  ‘mark’ (N)

/w/ vs. /b/
/war/  ‘be wide’
/bar/  ‘bloom’
/wai/  ‘younger sister’s husband’
/bai/  ‘elder sister’
/wana/  ‘worry’
/bana/  ‘flag’

3.3.2. Vowels
/i/ vs. /u/
/si/  ‘be wet’
/su/  ‘wash’
/k^i/  ‘stool’
/k^u/  ‘tie’
/p^il/  ‘to reverse’
/p^ul/  ‘apply’
/bisi/  ‘year’
/busu/  ‘thorn’
/kitηi/  ‘round’
/kutnη/  ‘hot’
/kisip/  ‘fan’ (hand)
/kusup/  ‘suck’
/misip/  ‘buffalo’
/musup/  ‘whistle’

/u/ vs. /o/
/snη/  ‘to put on net’
/sonη/  ‘cook’
/tuη/  ‘be hot’
/tonη/  ‘stay/have’
/k^u1l/  ‘cotton’
/k^a1l/  ‘to comb’
/ruk/  ‘to boil’
/rok/  ‘scrape’
/ul/  ‘back’
/o1l/  ‘tax’
/bu/ ‘beat’
/bo/ ‘spread mat’

/al vs. /ol/
/mal/ ‘crawl’
/mol/ ‘season’
/kₜₐl/ ‘comb’
/kₜ₂l/ ‘pluck flower, leaf etc’
/taŋ/ ‘touch’
/toŋ/ ‘stay/have’
/pₜ₁an/ ‘strength’
/pₜ₂on/ ‘dust particle’
/bal/ ‘carry on shoulder’
/bol/ ‘fire wood’
/tak/ ‘make earthen thing’
/tok/ ‘hit’

/e/ vs. /o/
/seŋ/ ‘be sparse’
/son/ ‘cook’
/sek/ ‘snatch’
/sok/ ‘be rotten’
/bekereŋ/ ‘bone’
/bokoroŋ/ ‘horn’
/kʰek/  ‘be slant’
/kʰok/  ‘steal’
/heleŋ/  ‘light’
/holoŋ/  ‘stone’

/e/ vs. /i/

/kesep/  ‘narrow’
/kisip/  ‘hand fan’
/se/  ‘change’
/si/  ‘be wet’
/sip/  ‘to fan’
/sep/  ‘press’
/pʰer/  ‘be flat’
/pʰir/  ‘split firewood’

/a/ vs. /u/

/ranŋ/  ‘money’
/ruŋ/  ‘boat’
/tanŋ/  ‘touch’
/tuŋ/  ‘be hot’
/rak/  ‘be hard’
/ruk/  ‘to boil’
/ba/  ‘to perch’
/bu/  ‘beat’
3.4. Distribution of phonemes

3.4.1. Consonants

All the consonantal phonemes do not occur in all three positions of the word. However, six consonants /p, k, m, n, l, r/ can occur in all three positions. While /pʰ, b, k, kʰ, g, t, d, tʰ, c, s, h, w, y/ can occur in word initial and medial position only. The velar nasal /ŋ/ occurs in word medial and final position. The absent of voiced stops /b, d, g, j/ in syllable or word final position is one of the typological features of Tibeto-Burman languages shared by Kokborok. The non-
occurrence of /t/ in final position is noticed in Kokborok, Boro and Dimasa. But it can occur in syllable or word finally as in Rabha, Tiwa, Garo and Atong. It is also interesting to note that the lost of occurrence /ŋ/ in initial position except Tiwa is one of the areal features shared by Bodo-Garo languages such as Atong, Boro, Dimasa, Deori, Rabha and Kokborok. Table 6 provides the distribution of consonant in three positions: initial, medial and final.

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Initially</th>
<th>Medially</th>
<th>Finally</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>t</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>c</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>k</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>pⁿ</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>tʰ</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>kʰ</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>b</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>d</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>j</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>g</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>m</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>n</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>η</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>r</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>l</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>s</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>h</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>w</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>y</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 6 Distribution of consonants
The distribution of consonantal phonemes in Kokborok are shown below.

\(/p/\)  initially
\(/\text{pun}/\) ‘goat’
\(/\text{pai}/\) ‘buy’
\(/\text{pok}/\) ‘forget’

medially
\(/\text{sipn}/\) ‘sesame’
\(/\text{th'ajpun}/\) ‘jackfriut’
\(/\text{th'ampui}/\) ‘mosquito’

finally
\(/\text{noksip}/\) ‘broom’
\(/\text{bot'op}/\) ‘nest’
\(/\text{misip}/\) ‘buffalo’

\(/p^h/\)  initially
\(/\text{p’antok}/\) ‘brinjal’
\(/\text{p’an}/\) ‘strength’
\(/\text{p’era}/\) ‘measles’

medially
\(/\text{kup’ut}/\) ‘white’
\(/\text{mup’uk}/\) ‘monitor lizard’
\(/\text{kuphun}/\) ‘fat’
/b/ initially
/bɔl/ ‘wood’
/bukca/ ‘empty’
/boloŋ/ ‘jungle/forest’

medially
/haibom/ ‘tonsil’
/cibuk/ ‘snake’
/tokbak/ ‘bat’

/k/ initially
/kumun/ ‘ripe’
/korai/ ‘horse’
/kobor/ ‘mad’

medially
/kokoi/ ‘curve/bent’
/suikur/ ‘wild dog’
/misika/ ‘leucoderma’

finally
/naitʰok/ ‘beautiful’
/milik/ ‘smooth’
/hilik/ ‘heavy’

/kʰ/ initially
/kʰukcui/ ‘lip’
/kʰapui/ ‘dandruff’
/kʰukcui/ ‘lip’

medially
/takʰum/ ‘duck’
/manŋkʰonŋ/ ‘skeleton’
/nokʰa/ ‘sky’

/g/ initially
/gunda/ ‘mosquito net’
/gundak/ ‘husk’
/gola/ ‘pitcher’

medially
/dagar/ ‘push’
/geguma/ ‘wolf’
/mogodam/ ‘maize’

/t/ initially
/tok/ ‘bird’
/tal/ ‘moon/month’
/tini/ ‘today’

medially
/muktui/ ‘tear’
/kũŋtui/ ‘snot’
/kolomtui/ ‘sweat’
/tʰ/ initially
/tʰailik/ ‘banana’
/tʰaicuk/ ‘mango’
/tʰa/ ‘yam’

medially
/matʰam/ ‘otter’
/omtʰai/ ‘navel’
/kutʰun/ ‘raw’

initially
/d/ /dok/ ‘white breast hen’
/doga/ ‘door’
/dosi/ ‘wick’

medially
/badukʰun/ bow’
/bedek/ ‘branch’
/buduk/ ‘rope’

/m/ initially
/mui/ ‘curry’
/mol/ ‘season’
/mokol/ ‘eye’

medially
/tʰamai/ ‘housefly’
/kuruma/ ‘cockroach’
/cumui/ ‘cloud’

finally
/bosbon/ ‘foam’
/bupʰam/ ‘fats’
/takʰun/ ‘duck’

/n/ initially
/nok/ ‘house’
/nokbar/ ‘air’
/nakar/ ‘forgive’

medially
/monok/ ‘swallow’
/lenju/ ‘dragonfly’
/pʰantok/ ‘brinjal’

finally
/pʰan/ ‘strength’
/pun/ ‘goat’
/kan/ ‘wear’

/η/ medially
/kunηui/ ‘snot’
/yonηigoda/ ‘red cotton bug’
/yonηima/ ‘jewel beetle’
<table>
<thead>
<tr>
<th>Sound</th>
<th>Initial</th>
<th>Median</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/c/</td>
<td>initially</td>
<td>/camari/</td>
<td>‘son in-law’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/cibuk/</td>
<td>‘snake’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/cuwak/</td>
<td>‘wine’</td>
</tr>
<tr>
<td>/s/</td>
<td>initially</td>
<td>/sal/</td>
<td>‘sun’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/siluk/</td>
<td>‘leech’</td>
</tr>
</tbody>
</table>
/senkari/ ‘moustache’

medially
/kisip/ ‘fan’
/yasi/ ‘finger’
/bisi/ ‘year’

/h/ initially
/ha/ ‘mud’
/hulok/ ‘gibbon’
/haibom/ ‘tonsil’

medially
/kaham/ ‘good’
/bohok/ ‘stomach’
/bahar/ ‘jump’

/l/ initially
/lama/ ‘path/road’
/lenju/ ‘dragonfly’
/lamthai/ ‘mat’

medially
/lalima/ ‘butterfly’
/siluk/ ‘leech’
/khali/ ‘next year’
finally
/kʰul/ ‘cotton’
/sal/ ‘day/sun’
/pʰal/ ‘sell’

/ɾ/ initially
/ɾəŋ/ ‘money’
/ruwa/ ‘land leech’
/ɾuŋ/ ‘boat’

medially
/seŋkari/ ‘moustache’
/kʰerambuk/ ‘cricket’
/bara/ ‘short’

finally
/tosor/ ‘silkworm’
/bukur/ ‘skin’
/wakcur/ ‘aardvark’

/w/ initially
/wá/ ‘bamboo’
/wár/ ‘bite’
/watui/ ‘rain’

medially
/nawoi/ ‘kite’
/kuwar/ ‘wide’
3.4.2. Vowels

All the vowels except central high /i/ can occur in all three positions. The central vowel /i/ occurs medially rather than in word initial and final position as shown below.

/i/ initially

/i/ ‘dream’

/i/ ‘knowledge’

/i/ ‘a kind of tree’

medially

/i/ ‘sesame’

/i/ ‘buffalo’

/i/ ‘fan’

finally

/i/ ‘next year’
/\textit{tini}/ \quad \text{‘today’}
/\textit{t\text{\textsuperscript{b}}amci}/ \quad \text{‘anger’}

/\textit{e}/ \quad \text{initially}
/\textit{endul}/ \quad \text{‘bamboo weevil worm’}
/\textit{en}/ \quad \text{‘node’}
/\textit{er}/ \quad \text{‘increase’}

\text{medially}
/\textit{se}/ \quad \text{‘sword’}
/\textit{ben}/ \quad \text{‘spider’}
/\textit{k\text{\textsuperscript{\textit{b}}}ben}/ \quad \text{‘breadth’}

\text{finally}
/\textit{se}/ \quad \text{‘change’}
/\textit{sele}/ \quad \text{‘lazy’}
/\textit{muisele}/ \quad \text{‘python’}

/\textit{a}/ \quad \text{initially}
/\textit{an}/ \quad \text{‘I’}
/\textit{atuka}/ \quad \text{‘parrot’}
/\textit{amin}/ \quad \text{‘cat’}

\text{medially}
/\textit{yak}/ \quad \text{‘hand’}
/\textit{wak}/ \quad \text{‘pig’}
/\textit{sal}/ \quad \text{‘day’}
finally
/\banta/  ‘basil’
/\lalima/  ‘butterfly’
/\ha/  ‘mud’

/o/  initially
/\omt'\a'i/  ‘navel’
/\ol/  ‘tax’
/\okpuli/  ‘liver’

medially
/\nok/  ‘house’
/\gon\eta/  ‘bear’
/\mokol/  ‘eye’

finally
/\bo/  ‘spread mat’
/p'\olo/  ‘sponge gourd’
/moso/  ‘chilli’

/u/  initially
/\usundui/  ‘a kind of vegetable’
/\ulo/  ‘later’
/\uri/  ‘termite’

medially
/\musup/  ‘whistle’
/\musuk/  ‘cow’
3.5. Diphthongs

There are three diphthongs in Kokborok i.e., /ai, oi, ui/. All the diphthongs cannot occur in all three positions. Among them, /ai/ occurs in all three positions, while /ui/ and /oi/ occur only in word medial and final positions. It is noticed that the above diphthong /ai/ is very common in most of the Boro-Garo languages like Boro, Dimasa, Tiwa, and Rabha etc.

3.5.1. Distribution of diphthongs

/ai/  medially

/kikʰa/  ‘bitter’
/kicak/  ‘red’
/kicəŋ/  ‘cold’

/oi/  medially

/koili/  ‘nose ring’

/oi/  finally

/loil/  ‘habit’
/soil/  ‘to agree’
/kokoi/  ‘bent’
/ui/ medially
/tuima/ ‘river’
/muilok/ ‘gourd’
/muikbon/ ‘plaintain flower’

finally
/mui/ ‘curry’
/tui/ ‘water’
/sui/ ‘write’

/ai/ initially
/ai/ ‘be dawn’
/aicuk/ ‘dawn’

medially
/t¹aicuk/ ‘mango’
/t¹ailik/ ‘banana’

finally
/rai/ ‘cane’
/mai/ ‘rice’
/sai/ ‘select’

3.6. Consonant Cluster

According to Benedict (1972: 37), Tibeto-Burman consonant clusters, found in
root-initial position are of two types: (a) stop or nasal + liquid (l ~ r), (b)
consonant (cluster of foregoing type) + semi-vowel (w ~ y). Kokborok has
initial consonant clusters which occur syllable initially but no final cluster is
found in the language. Other than Benedict’s first types of cluster i.e., stop or
nasal + liquid (l ~ r), two other types of clusters are found in Kokborok i.e.,
fricative + stop and fricative + liquid. Consider the following examples.

- pl- /keplen/ ‘straight’
- kl- /buklap/ ‘lid’
- sl- /aslanj/ ‘spring’
- st- /ste/ ‘small’

3.7. Consonant sequence

Kokborok has more number of consonant sequences than consonant clusters. It is worth mentioning that consonant sequences occur across syllabic boundry. The first members are stop, nasal, liquid and fricative and the second members are stop, fricative, nasal and liquid.

**Stop + Stop**

- kb- /tokbak/ ‘bat’
- kp- /okpuli/ ‘liver
- kc- /wakcur/ ‘aardvark’
- kt- /k^htuktui/ ‘spit’
- kt^h- /tokt^hu/ ‘dove’

**Stop + Fricative**

- ks- /toksunta/ ‘woodpecker’

**Stop + Nasal**

- km- /tokma/ ‘hen’

**Nasal + Stop**

- nd- /gundak/ ‘husk’
- nt- /t^hani/ ‘handloom’
-mp- /tʰampui/ ‘mosquito’
-mt- /kolomtui/ ‘sweat’
-mb- /jambuk/ ‘blackberry’
-mtʰ- /lamtʰai/ ‘mat’
-mpʰ- /mompʰo/ ‘watermelon’
-ŋt- /kuŋtui/ ‘snot’
-ŋkʰ- /kuŋkʰi/ ‘mucus’ (lit. nose stool)
-ŋk- /sŋkari/ ‘moustache’
-ŋtʰ- /tonŋʰok/ ‘happy’
-ŋpʰ- /yonŋʰak/ ‘hairy caterpillar’
-ŋg- /kʰaŋgar/ ‘cheek’
-ŋj- /kʰunju/ ‘ear’
-ŋc- /kʰenco/ ‘dysentery’
-ŋj- /hamjuk/ ‘daughter-in-law’
-ŋc- /kʰumcak/ ‘cockscomb’
-ŋc- /raŋcak/ ‘gold’

Nasal + Nasal

-ŋm- /tʊŋmaru/ ‘temperature’

Liquid + Nasal

-rm- /kormu/ ‘yellow’

Nasal + Liquid

-ŋl- /cęŋli/ ‘jaw’
-ml- /amlai/ ‘emblic myrobalan’
-mr- /cakumra/ ‘pumpkin’
Nasal + Fricative
- ms- /acomsa/ ‘suddenly’
- ns- /wansuk/ ‘think’

Liquid + Stop
- rp- /harpek/ ‘mud’
- lk- /talka/ ‘forehead’
- ld- /koldt/i ‘stilt’
- rk\textsuperscript{h} /birk\textsuperscript{h}i ‘aeroplane’
- lp\textsuperscript{h} /bolp\textsuperscript{h}antok/ ‘a kind of tree’

Fricative + Stop
- sk- /yasku/ ‘nail’
- sb- /bosbom/ ‘foam’
- sp- /daspa/ ‘a name of Tripuri clan’

Stop + Liquid
- kl- /tokla/ ‘cock’

3.8. Syllabic Structure
A syllable is a sequence of one phoneme with one peak of sonority. The vowel is essential to the structure of syllable i.e., a syllable is not possible without a vowel. There can be one or more than one syllable in a word. The preceding consonant of a syllable is called onset and which follows the syllable is called coda. If a syllable ends with a vowel it is called open syllable and if it ends with a consonant it is called closed syllable.

In Kokborok the nucleus of the syllable may be a vowel or a diphthong. A word in Kokborok can be up to pentasyllabic. The different syllable types found in Kokborok are given below.
3.8.1 Monosyllabic words

Monosyllabic words are common in Kokborok i.e., even a vowel can be a syllable or morpheme or word in the language. Majority of the monosyllabic words in Kokborok have the CV pattern. However, VC pattern is rare in the language. Here C represents consonants and V represents vowel.

**Open Syllable**

- Vá ‘fish’
- i ‘proximal demonstrative’
- u ‘distal demonstrative’

- CV bó ‘he/she’
- ha ‘mud’
- lu ‘pour’
- bu ‘beat’
- tʰu ‘sleep’

**Closed Syllable**

- VC aŋ ‘I’
- cŋ ‘node’

- CVC nok ‘house’
- sok ‘burn’
- hul ‘sharpen’
- kʰok ‘steal’

3.8.2. Disyllabic words

**Open Syllable**

- VCV uri ‘termite’
- CVVC yasi ‘finger’
3.8.3. Trisyllabic words

**Open Syllable**

VCVCV  atuka  ‘parrot’
CVCVCV  lalima  ‘butterfly’
VCVCCV  acomsa  ‘suddenly’
CVCVCCV  kunkila  ‘cuckoo’

**Closed Syllable**

CVCVCVC  bumut$hup  ‘cork’
CVCVCCVC  k$erambuk  ‘cricket’
CVCCVCVC  gantinok  ‘kitchen room’
CVCCVCCV  muktoksa  ‘eyeball’

3.8.4. Tetrasyllabic Word

**Open Syllable**

CVCVCVCV  hulumutu  ‘orang-utang’

3.8.5. Pentasyllabic Word

**Open Syllable**

CVCVCVCVCCV  sotorobongo  ‘marigold’
3.9. Morphophonemic processes

The following morphophonemic processes are found in Kokborok.

3.9.1. Vowel harmony

Kokborok exhibits progressive vowel harmony, whereby the vowels of prefixes harmonize with the vowel of the root in terms of tongue height or lip rounding.

3.9.1.1. Vowel harmony in pronominal prefix

Second person núŋ ‘you’ has three forms of pronominal prefix na-, nu-, no- and ni-. The pronominal prefix harmonizes with the nucleus of the following syllable.

- na-hamjuk ‘your daughter in-law’
- nu-cu ‘your grandfather’
- nu-cui ‘your grandmother’
- nu-yimŋ ‘your maternal or paternal aunt or uncle’
- ni-hik ‘your wife’
- no-toi ‘your small maternal aunty’

Third person bó ‘he’ has three forms of pronominal prefix ba-, bu-, bo- and bi-.

- ba-hamjuk ‘his daughter in-law’
- bu-cu ‘his grandfather’
- bu-cui ‘his grandmother’
- bu-yimŋ ‘his maternal or paternal aunt or uncle’
- bi-hik ‘your wife’
- bo-toi ‘your small maternal aunty’

3.9.1.2. Vowel harmony in causative prefix

The causative prefix pʰV-, mV- and sV- harmonizes with the nucleus of the following syllable.
3.9.1.3. Vowel harmony in possessive construction

The possessive or genitive marker triggers vowel harmony of the first person plural or second and third person singular personal pronoun as shown in examples given below.

(1)   ci-ni  nok  nait\(^h\)ok
      3PLPM-GEN  house  beautiful
      ‘Our house is beautiful’

(2)   ni-ni  nok  nait\(^h\)ok-ya
      2PM-GEN  house  beautiful-NEG
      ‘Your house is not beautiful’

(3)   bi-ni  yak  bai-k\(^h\)a
      3PM-GEN  hand  break-PST
      ‘His hand broker’
However, unlike other pronominal prefix, vowel harmony does not apply to the first person pronominal prefix as shown in (4-6).

(4)  a-ni  nok  nait\(^h\)ok
     1PM-GEN  house  beautiful
     ‘My house is beautiful’

(5)  a-ni  musuk  p\(^h\)al-k\(^h\)a
     1PM-GEN  cow  sell-PST
     ‘I sold my cow’

(6)  a-ni  saikel  kuma-k\(^h\)a
     1PM-GEN  cycle  lost-PST
     ‘I lost my cycle’

3.9.1.4. Vowel harmony in compounds

The word mokol ‘eye’ is harmonized when combined with the noun tui ‘water’ to form compound word muktui ‘tears’. It is also noticed that the segment -ol from mokol is being dropped as shown in (7).

(7)  muk-tui
     [muk < (mokol) ‘eye’ + tui ‘water’]
     ‘Tears’ (lit. eye water’

3.9.2. Glide insertion

When a morpheme -o or -a is added to any word ending with vowel, then a is glide is inserted in between these two morphemes.

\[
\begin{align*}
  \text{kami} & + o & \Rightarrow & \text{kami-w-o} & \text{‘in the village’} \\
  \text{kiri} & + o & \Rightarrow & \text{kiri-w-o} & \text{‘fears’} \\
  \text{su} & + o & \Rightarrow & \text{su-w-o} & \text{‘wash’}
\end{align*}
\]
\[ t^h u + anu \implies t^h u-w-anu \quad \text{‘will sleep’} \]

### 3.9.3. Apocope

Apocope is loss of word final segments (that is, both vowel and consonants). Few instances of morpheme-final -r deletion is attested in the language.

(8) \( rop^h e \)

\[ \text{[rom ‘hold’ + p}^h e < (p}^h \text{er) ‘be flat’} \]

‘Flattened rice’

### 3.9.5. Regressive assimilation

This process involves the assimilation of a nasal to the place of articulation of the following stop at a morpheme boundary, instead of assimilating the nasal feature to the following stop.

(9) \( tam-p^h ai \)

\[ \text{[tam < (tan) ‘cut’ + p}^h ai ‘uproot’} \]

‘Cut down (a tree)’ (lit. uproot a tree by cutting)

(10) \( tam-p^h uk \)

\[ \text{[tam < (tan) ‘cut’ + p}^h uk ‘make hole’} \]

‘Make hole by cutting’

(11) \( can-duk \)

\[ \text{[can < (can) ‘waist’ + duk ‘rope’} \]

‘Waist-thread’ (lit. waist rope’

### 3.9.6. Voicing

The voiceless stop becomes voiced when a morpheme with a voiced vowel is suffixed to it.
nok + o => nogo ‘at home’
sup + o => subo ‘stitching’
\( k^{h} \text{aklap} \) + o => \( k^{h} \text{aklabo} \) ‘at chest’