CHAPTER –2

PHONOLOGICAL SYSTEM OF THE LANGUAGE

2.1 PHONOLOGICAL PROCESS

This chapter discusses the phonology of Sadu Koireng. This chapter begins with a phonological analysis which includes segmental phonology of the vowels and the consonants. It then moves to the analysis of syllable structures. Here, permissible structures are possible sequence of consonants and vowels are being discussed. A brief discussion of tone contrast is also included.

The phonological data was collected from the Sadu Koireg native speakers who are born and raised in the Sadu village which is in the Senapati district. The data obtained were crossed checked with another native speaker of Sadu koireng. The data is based on a wordlist which is attached in the appendix of this thesis. The words were transcribed as spoken.

In Sadu Koireng language there are three major system of phonological processes. They are vowels, consonants, and tones. The sound
systems consist of six vowels phonemes, four diphthong, nineteen consonant phonemes and two tones.

### 2.2 VOWELS

There are six vowel phonemes they are /i, e, ə, a, u, o/. They are front, central and back in terms of their place of articulation. And according to their manner of articulation, they may be classified into high, mid and low, they are shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rounded</td>
<td>Unrounded</td>
<td>Rounded</td>
<td>Unrounded</td>
</tr>
<tr>
<td>HIGH</td>
<td>i</td>
<td></td>
<td>u</td>
</tr>
<tr>
<td>MID</td>
<td>e</td>
<td>ə</td>
<td>o</td>
</tr>
<tr>
<td>LOW</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table No. 1 vowel phonemes of Sadu koireng

The articulatory description of these six vowel phonemes are given below.

i - High, front unrounded vowel
2.3 PHONEMIC STATUS OF VOWELS

The phonemic status of these vowels can be established on the basis of the minimal pairs shown in the following.

/e/:/i/  
in      ‘house’
en      ‘look’
tiŋ      ‘back’
teiŋ     ‘towards’
ærʰiŋ    ‘swelling’
ærʰeŋ    ‘holly’
sim      ‘evening’
sem      ‘blow’
mi       ‘man’
me       ‘meat’
ærçi     ‘fear’
<table>
<thead>
<tr>
<th>×ce</th>
<th>‘go’</th>
</tr>
</thead>
<tbody>
<tr>
<td>miru</td>
<td>‘thief’</td>
</tr>
<tr>
<td>meru</td>
<td>‘meat bone’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/ɔː/ːa/</th>
<th>əraŋ</th>
<th>‘king’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>əraŋ</td>
<td>‘angry’</td>
</tr>
<tr>
<td>rəm</td>
<td>‘land’</td>
<td></td>
</tr>
<tr>
<td>ram</td>
<td>‘tribe’</td>
<td></td>
</tr>
<tr>
<td>ətək</td>
<td>‘sorrow’</td>
<td></td>
</tr>
<tr>
<td>ətək</td>
<td>‘migrate’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/ɒːːu/</th>
<th>om</th>
<th>‘live’</th>
</tr>
</thead>
<tbody>
<tr>
<td>um</td>
<td>‘gourd’</td>
<td></td>
</tr>
<tr>
<td>pʰoŋ</td>
<td>‘publish’</td>
<td></td>
</tr>
<tr>
<td>pʰuŋ</td>
<td>‘clan’</td>
<td></td>
</tr>
<tr>
<td>əluŋ</td>
<td>‘open’</td>
<td></td>
</tr>
<tr>
<td>əluŋ</td>
<td>‘heart’</td>
<td></td>
</tr>
<tr>
<td>won</td>
<td>‘belly’</td>
<td></td>
</tr>
<tr>
<td>wun</td>
<td>‘skin’</td>
<td></td>
</tr>
<tr>
<td>zo</td>
<td>‘sheep’</td>
<td></td>
</tr>
</tbody>
</table>
zun  ‘urine’
mot  ‘stick’
mul  ‘body hair’

/a:/ai/  ai  ‘turmeric’
ui  ‘dog’
ban  ‘arm’
 Bun  ‘pourdown’
ral  ‘war’
rule  ‘snake’
la  ‘song’
l u  ‘head’
lua  ‘weed’
lua  ‘rock’

/e:/a/  ce  ‘paper’
ca  ‘tea’

/o:/a/  atak  ‘boil’
atak  ‘attend’
wan  ‘sky’
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>won</td>
<td>‘belly’</td>
</tr>
<tr>
<td>lam</td>
<td>‘dance’</td>
</tr>
<tr>
<td>lom</td>
<td>‘clove’</td>
</tr>
<tr>
<td>kʰay</td>
<td>‘pan’</td>
</tr>
<tr>
<td>kʰon</td>
<td>‘drum’</td>
</tr>
<tr>
<td>/iː/</td>
<td>ciŋ</td>
</tr>
<tr>
<td>/o/</td>
<td>con</td>
</tr>
<tr>
<td>/iː/</td>
<td>mit</td>
</tr>
<tr>
<td>/o/</td>
<td>mot</td>
</tr>
<tr>
<td>/ɔsiŋ</td>
<td>əsiŋ</td>
</tr>
<tr>
<td>/ɔsonŋ</td>
<td>əsonŋ</td>
</tr>
<tr>
<td>/eː/</td>
<td>tir</td>
</tr>
<tr>
<td>/o/</td>
<td>tor</td>
</tr>
<tr>
<td>/eː/</td>
<td>wen</td>
</tr>
<tr>
<td>/o/</td>
<td>won</td>
</tr>
<tr>
<td>/ɛm</td>
<td>sem</td>
</tr>
<tr>
<td>/ɔm</td>
<td>som</td>
</tr>
<tr>
<td>/ɛp</td>
<td>rep</td>
</tr>
<tr>
<td>/ɾo/</td>
<td>rope</td>
</tr>
</tbody>
</table>
2.4 OCCURRENCE OF VOWELS

All the six vowels can occur in all the positions of words initial, medial and final positions. However, the phoneme /e/ and /o/ occur rarely in the initial position, but all the vowels occur most frequently in the medial position. Their illustrations are given below.

2.4.1 Initial occurrence

/i/  i  ‘yes’
    in  ‘house’
    inkir  ‘wall lizard’
    incun  ‘roof’
    inkil  ‘fireplace’
    inkhr  ‘door’

/e/  el  ‘thigh’
    en  ‘look’
/əl/ əsin  ‘small’

əsen  ‘red’

əreŋ  ‘poor’

/ləl/ arsi  ‘star’

arpi  ‘hen’

arkʰonŋ  ‘cock’

/u/ uy  ‘dog’

utonŋ  ‘rolling pan’

ut  ‘camel’

uiloknə  ‘zar’

/ɔl/ om  ‘live’

onŋ  ‘sit’

oca  ‘teacher’

2.4.2 Medial occurrence

/i/ əhip  ‘ice’

mit  ‘eye’
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>mico</td>
<td>‘blind’</td>
</tr>
<tr>
<td>mici</td>
<td>‘salt’</td>
</tr>
<tr>
<td>əjiŋə</td>
<td>‘darkness’</td>
</tr>
<tr>
<td>/e/</td>
<td>reŋ</td>
</tr>
<tr>
<td>ət̪eŋ</td>
<td>‘holly’</td>
</tr>
<tr>
<td>ərenŋ</td>
<td>‘poor’</td>
</tr>
<tr>
<td>/ə/</td>
<td>səpi</td>
</tr>
<tr>
<td>rəm</td>
<td>‘land’</td>
</tr>
<tr>
<td>səkhi</td>
<td>‘deer’</td>
</tr>
<tr>
<td>/a/</td>
<td>ban</td>
</tr>
<tr>
<td>laŋ</td>
<td>‘weed’</td>
</tr>
<tr>
<td>canŋ</td>
<td>‘grain’</td>
</tr>
<tr>
<td>ral</td>
<td>‘war’</td>
</tr>
<tr>
<td>/u/</td>
<td>luŋ</td>
</tr>
<tr>
<td>rul</td>
<td>‘snake’</td>
</tr>
<tr>
<td>kut</td>
<td>‘hand’</td>
</tr>
</tbody>
</table>
/o/  pon  ‘cloth’

mot  ‘banana’

artok  ‘duck’

2.4.3 Final occurrence

/ɪ/  mi  ‘man’

ni  ‘sun’

rʰi  ‘blood’

arsi  ‘star’

/e/  le  ‘and’

me  ‘meat’

ke  ‘leg’

be  ‘pulse’

/ə/  uilok-nə  ‘jar’

səŋtáí-nə  ‘treaty’

səcıktnə  ‘fodder cutter’
<table>
<thead>
<tr>
<th>Sound</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/</td>
<td>ha</td>
<td>‘tooth’</td>
</tr>
<tr>
<td></td>
<td>wa</td>
<td>‘birth’</td>
</tr>
<tr>
<td></td>
<td>tʰa</td>
<td>‘moon’</td>
</tr>
<tr>
<td></td>
<td>ṣna</td>
<td>‘ill’</td>
</tr>
<tr>
<td></td>
<td>mersa</td>
<td>‘beg’</td>
</tr>
<tr>
<td>/u/</td>
<td>lu</td>
<td>‘head’</td>
</tr>
<tr>
<td></td>
<td>mu</td>
<td>‘see’</td>
</tr>
<tr>
<td></td>
<td>ṣru</td>
<td>‘seed’</td>
</tr>
<tr>
<td></td>
<td>miru</td>
<td>‘thief’</td>
</tr>
<tr>
<td>/o/</td>
<td>ṣnikʰo</td>
<td>‘day’</td>
</tr>
<tr>
<td></td>
<td>lilo</td>
<td>‘joint’</td>
</tr>
<tr>
<td></td>
<td>raltʰo</td>
<td>‘attack’</td>
</tr>
<tr>
<td></td>
<td>moy</td>
<td>‘buttock’</td>
</tr>
</tbody>
</table>

A phonetic feature of six vowels of this language is given in the following table 2 below.
Table No.2 : Phonetic feature of six vowels of Sadu Koireng

<table>
<thead>
<tr>
<th></th>
<th>i</th>
<th>e</th>
<th>ə</th>
<th>a</th>
<th>u</th>
<th>o</th>
</tr>
</thead>
<tbody>
<tr>
<td>syllabic</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>sonorant</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>consonantal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>round</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>High</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>back</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

2.5 **DIPHTHONG**

The six pure vowels described in the preceding section are articulated without changing the organs of speech from the beginning to the end of the sounds that is, during the uttering of each of pure vowels the organs of the speech remain stationary. A diphthong, however, starts in one vowel position and glides towards another vowel position within one and the same breadth impulse.

In Sadu Koireng there are four diphthongs. They are /əi, ai, oi and uil/. An inventory of diphthongs in Sadu Koireng is given in the following table 4.
Table 4. Diphthong Chart

The starting point of Sadu Koireng diphthong is marked with a dot.
and the direction in which the tongue moves is marked with an arrow.

These diphthongs can be established by the minimal pairs.

Examples

1) /ɔi/: /ai/

  \begin{align*}
  mai & \quad \text{‘fire’} & \quad mai & \quad \text{‘pumpkin’} \\
  \varepsilon ai & \quad \text{‘tongue’} & \quad lai & \quad \text{‘navel’} \\
  \varepsilon r\varepsilon i & \quad \text{‘dry’} & \quad \varepsilon rai & \quad \text{‘pregnant’}
  \end{align*}

2) /ai/: /oi/

The diphthongs /əi/, /ai/, /oi/ and /ui/ can occur initially, mediially and finally. There is a variation in the frequency of their occurrences. All the diphthongs occur rarely in the initial position.

1. /əi/ A diphthong begins with ə and ends with i.

   Examples

   nəipil ‘mud’
   nəitʰoicuŋ ‘earth’
   məi ‘fire’

2. /ail/ A diphthong begins with a and ends with i.

   Examples
3. /oïl/ A diphthong begins with o and ends with i.

Examples

moipa ‘groom’

əpkʰoinə ‘crusher’

luŋhoi ‘happiness’

4. /uïl/

The diphthong /uïl/ begins with /ul/ and ends with /il/.

Examples

ui ‘dog’

tuitein ‘flood’

rui ‘rope’

The distribution of all the diphthongs are given in the following table 5.

<table>
<thead>
<tr>
<th>Diphthongs</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5: Distribution of diphthongs

<table>
<thead>
<tr>
<th>əi</th>
<th>---</th>
<th>-əi-</th>
<th>-əi</th>
</tr>
</thead>
<tbody>
<tr>
<td>ai</td>
<td>ai -</td>
<td>-ai-</td>
<td>-ai</td>
</tr>
<tr>
<td>oi</td>
<td>---</td>
<td>-oi-</td>
<td>-oi</td>
</tr>
<tr>
<td>ui</td>
<td>ui -</td>
<td>-ui-</td>
<td>-ui</td>
</tr>
</tbody>
</table>

2.6 CONSONANTS

Sadu koiireng has nineteen consonant segments. In the table below, consonants are represented on a two dimensional grid. In the grid the points or places of articulations are set out horizontally and types of manner of articulation are arranged vertically. The voiceless stop consonants are aspirated. The distinction of voice vs. voiceless is also important. There is a four-way contrast for stops; namely bilabial, alveolar, palatal and glottal; nasals have three places of articulation, namely bilabial, alveolar and velar. There are ten stops, three nasals, three fricatives, one alveolar flap, two approximants and one lateral consonant.
There are nineteen consonant phonemes in Sadu Koireng, they are /p, t, c, k, pʰ, tʰ, kʰ, b, d, z, s, h, m, n, ŋ, l, r, w, and y/. They are classified as bilabial, alveolar, palatal and glotal with respect to their place of articulation. And this place of articulation is subdivided into voice and voiceless referring to the auditory result of the vibration of the vocal cord. According to the manner of articulation, these phonemes may be again classified into stops, fricatives, nasals, laterals, flap and semi-vowel.

<table>
<thead>
<tr>
<th>Consonant phonemes in Sadu Koireng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilabial</td>
</tr>
<tr>
<td>Vl.</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>Unaspirated</td>
</tr>
<tr>
<td>Aspirated</td>
</tr>
<tr>
<td>Nasals</td>
</tr>
<tr>
<td>Fricatives</td>
</tr>
<tr>
<td>Flap</td>
</tr>
<tr>
<td>Approximants</td>
</tr>
<tr>
<td>Lateral</td>
</tr>
</tbody>
</table>

Table No.4. Consonant phonemes in Sadu Koireng
\( P, t, k, c \) are voiceless unaspirated stops

\( b, d, \) are voiced aspirated stops

\( p^h, t^h, k^h \) are voiceless aspirated stops

\( m, n, \eta \) are bilabial and alveolar nasals stops

\( s \) is alveolar voiceless fricatives

\( z \) is alveolar voiced fricative

\( l \) is only palatal lateral

\( h \) is glottal fricative

\( r \) is alveolar flap

\( w \) and \( y \) are respectively bilabial and palatal semi-vowel

The articulatory descriptions of these nineteen consonant phonemes are given below.

\[
p \quad - \quad \text{Bilabial voiceless unaspirated stop}
\]

\[
t \quad - \quad \text{Alveolar voiceless unaspirated stop}
\]
<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>Palatal voiceless unaspirated stop</td>
</tr>
<tr>
<td>k</td>
<td>Velar voiceless unaspirated stop</td>
</tr>
<tr>
<td>pʰ</td>
<td>Bilabial voiceless aspirated stop</td>
</tr>
<tr>
<td>tʰ</td>
<td>Alveolar voiceless aspirated stop</td>
</tr>
<tr>
<td>kʰ</td>
<td>Velar voiceless aspirated stop</td>
</tr>
<tr>
<td>b</td>
<td>Bilabial voiced unaspirated stop</td>
</tr>
<tr>
<td>d</td>
<td>Alveolar voiced unaspirated stop</td>
</tr>
<tr>
<td>z</td>
<td>Alveolar voiced fricative</td>
</tr>
<tr>
<td>s</td>
<td>Alveolar voiceless fricative</td>
</tr>
<tr>
<td>h</td>
<td>Glottal voiceless fricative</td>
</tr>
<tr>
<td>m</td>
<td>Bilabial voiced nasal</td>
</tr>
<tr>
<td>n</td>
<td>Alveolar voiced nasal</td>
</tr>
<tr>
<td>η</td>
<td>Velar voiced nasal</td>
</tr>
<tr>
<td>l</td>
<td>Alveolar voiced lateral</td>
</tr>
<tr>
<td>r</td>
<td>Alveolar voiced flap</td>
</tr>
<tr>
<td>w</td>
<td>Bilabial voiced semi-vowels</td>
</tr>
<tr>
<td>y</td>
<td>Palatal voiced semi-vowels</td>
</tr>
</tbody>
</table>

2.7 PHONEMIC STATUS OF CONSONANT PHONEMES
The phonemic status of these consonants can be established on the basis of the minimal pairs and overlapping pairs given below.

**Stop : voiceless and voiced**

| /pl/:/bl/ | ˈpəl | ‘fencing’ |
| /cl/:/sl/ | ˈkəŋ | ‘right’ |
| /zl/:/ll/ | ˈzuŋ | ‘liquor’ |
| /l/:/wl/ | ˈzan | ‘night’ |
| /ll/:/rl/ | ˈləy | ‘tongue’ |
| /ll/:/hl/ | ˈlay | ‘navel’ |
| /ml/:/nl/ | ˈma | ‘he’ |
| /ml/:/ŋl/ | ˈməy | ‘fire’ |

<p>| /bl/ | ˈbel | ‘jar’ |
| /sl/ | ˈsəŋ | ‘blur’ |
| /ll/ | ˈlu | ‘head’ |
| /wl/ | ˈwan | ‘sky’ |
| /rl/ | ˈrəy | ‘axe’ |
| /hl/ | ˈhay | ‘bake’ |
| /nl/ | ˈna | ‘patient’ |
| /ŋl/ | ˈŋəy | ‘sharp’ |</p>
<table>
<thead>
<tr>
<th>Sound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>əmər</td>
<td>‘fat’</td>
</tr>
<tr>
<td>əŋ</td>
<td>‘fish’</td>
</tr>
<tr>
<td>əmər</td>
<td>‘room’</td>
</tr>
<tr>
<td>əŋ</td>
<td>‘bird’</td>
</tr>
<tr>
<td>əmər</td>
<td>‘teeth’</td>
</tr>
<tr>
<td>əŋ</td>
<td>‘bean’</td>
</tr>
<tr>
<td>əmər</td>
<td>‘meat’</td>
</tr>
<tr>
<td>əŋ</td>
<td>‘sun’</td>
</tr>
<tr>
<td>əŋ</td>
<td>‘blood’</td>
</tr>
<tr>
<td>əsəŋ</td>
<td>‘tall’</td>
</tr>
<tr>
<td>əhəŋ</td>
<td>‘fold’</td>
</tr>
<tr>
<td>ətuy</td>
<td>‘water’</td>
</tr>
<tr>
<td>ətuy</td>
<td>‘rope’</td>
</tr>
<tr>
<td>əcil</td>
<td>‘spit’</td>
</tr>
<tr>
<td>əril</td>
<td>‘enquire’</td>
</tr>
<tr>
<td>əpəw</td>
<td>‘shield’</td>
</tr>
<tr>
<td>ətəw</td>
<td>‘calculate’</td>
</tr>
<tr>
<td>əkəy</td>
<td>‘bunch’</td>
</tr>
<tr>
<td>ətəy</td>
<td>‘do not know’</td>
</tr>
</tbody>
</table>
2.8 OCCURRENCE OF CONSONANTS

The consonant phonemes /p, t, k, m, n, ŋ, l, r/ and /yl/ can occur in all positions of a word, but phonemes /c, s, h, pʰ, tʰ, kʰ/ and /w/ cannot occur in the final positions.

2.8.1 /p/

The phoneme /p/ can occur initially, medially and finally in a word.

Initial occurrence

Examples

\[/p/\]

\[pon\] ‘cloth’

\[pelep\] ‘butterfly’

\[pensil\] ‘pencil’

\[pumpi\] ‘cannor’

\[penkul\] ‘trumpet’

\[pulispa\] ‘policeman’
*ponsil*  ‘blanket’

*pat*  ‘lake’

**Medial occurrence**

Examples

/p/

*renpalm*  ‘empire’

*butpekru*  ‘please boil’

*nipero*  ‘you give’

*tuiput*  ‘spring water’

*nipa*  ‘your father’

*əpu*  ‘grand father’

*saipi*  ‘elephant’

*torpo*  ‘old man’

**Final occurrence**

Examples
/p/

*pelep*  ‘butterfly’

*daililip*  ‘shade’

*ørup*  ‘page’

*luhup*  ‘crown’/‘helmet’

*roritʰisip*  ‘cyclone’

*ørhip*  ‘ice’

*ørkop*  ‘waist’

2.8.2. /t/

The phoneme /t/ can occur, initially, medially and finally in a word.

**Initial occurrence**

Examples

/tt/

*tui*  ‘water’

*tin*  ‘back’
tur \hspace{1cm} \text{‘poisons’}

tenk \hspace{1cm} \text{‘tank’}

tolbol \hspace{1cm} \text{‘january’}

tor \hspace{1cm} \text{‘hip’}

tir \hspace{1cm} \text{‘thorn’}

Medial occurrence

Examples

/tl/

ritun \hspace{1cm} \text{‘fever’}

ətək \hspace{1cm} \text{‘body’}

səteŋ \hspace{1cm} \text{‘bull’}

nitakteŋ \hspace{1cm} \text{‘swamp’}

artok \hspace{1cm} \text{‘duck’}

uite \hspace{1cm} \text{‘pupy’}

bete \hspace{1cm} \text{‘juggery’}
silaita  ‘pistol’

səciktənə  ‘fodder cutter’

Final Occurrence

Examples

/tl/

kʰət  ‘one’

kiret  ‘eight’

mitʰət  ‘murder’

werkʰət  ‘quarter’

herkʰət  ‘half’

pat  ‘take’

əjot  ‘shame’

2.8.3.  /cl/

The phoneme /c/ can occur initially and medially and does not occur finally.

Examples

/c/

cem ‘knife’

cuŋ ‘above’

cekcul ‘thunderbolt’

cur ‘catch’

conŋ ‘language’

conŋpan ‘moss’

conŋboi ‘deaf’

canŋ ‘grain’

2.8.4 /c/

The phoneme /c/ can occur medially.

Examples
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cekcul</td>
<td>‘thunderbold’</td>
</tr>
<tr>
<td>mitʰicər</td>
<td>‘weeping’</td>
</tr>
<tr>
<td>cəice</td>
<td>‘thongs’</td>
</tr>
<tr>
<td>əce</td>
<td>‘go’</td>
</tr>
<tr>
<td>səcikcənə</td>
<td>‘grazing ground’</td>
</tr>
<tr>
<td>mici</td>
<td>‘salt’</td>
</tr>
<tr>
<td>əci</td>
<td>‘fear’</td>
</tr>
<tr>
<td>əca</td>
<td>‘his child’</td>
</tr>
<tr>
<td>kico</td>
<td>‘pillar’</td>
</tr>
</tbody>
</table>

### 2.8.5. /k/

The phoneme /k/ can occur initially, medially and finally in a word.

**Initial occurrence**

Examples

/k/  

kel  ‘goat’
Medial occurrence

Examples

/kəl/

səkor ‘horse’

inkil ‘kitchen/fire place’

uiloŋnə ‘jar’

ukil ‘lawyer’

cokmun ‘brook’

kəi ‘I’

kico ‘pillar’

kin-ni ‘two’

kiriki ‘parrot’

kirtuŋ ‘mound’

kedil ‘heel’
Final occurrence

Examples

/kəɪkwyəŋ/ ‘prawn’

/kəɪkwyəŋ/ ‘lightning’

/kl/

əzək ‘shame’

wuok ‘pig’

waək ‘crow’

wacek ‘sparrow’

artok ‘duck’

bək ‘bat’

cek ‘brick’

2.8.6 /pʰ/
The phoneme /pʰ/ can occur initially and medially and does not occur finally.

**Initial occurrence**

Examples

/pʰ/

pʰelɔi  ‘mainland’

pʰaizol  ‘valley’

pʰaio  ‘wind’

pʰurpa  ‘May’

pʰalbi  ‘winter’

pʰi  ‘fee’

pʰaiwaŋ  ‘ant’

**Medial occurrences**
Examples

\[p^h\]

\[\text{o}p^h\text{is} \quad \text{‘office’}\]

\[\text{o}p^h\text{isər} \quad \text{‘officer’}\]

\[\text{s}ump^h\text{ai} \quad \text{‘fog’}\]

\[\text{æp}^h\text{on} \quad \text{‘form’}\]

\[\text{səmp}^h\text{api} \quad \text{‘hairpin’}\]

### 2.8.7 \[t^h\]

The phoneme \[t^h\] can occur initially and medially and does not occur finally.

**Initial occurrence**

Examples

\[t^h\]

\[t^h\text{iŋ} \quad \text{‘wood’}\]

\[t^h\text{i} \quad \text{‘blood’}\]
Medial occurrence

Examples

/rh/

raltʰo  ‘combat’

caytʰo  ‘examiner’

luŋtʰək  ‘anger’

mitʰok  ‘courage’

mintʰəipə  ‘reporter’

ətʰul  ‘representation’
weitʰumbei  ‘thrice’

2.8.8  /dl/

The phoneme /dl/ can occur initially and medially and does not occur finally.

Initial occurrence

Examples

/dl/

deipa  ‘June’
dəndi  ‘fine’
dikloï  ‘contrast’
diksənari  ‘dictionary’
daililip  ‘shade’
desta  ‘hybrid’

Medial occurrence
Examples

/ldl/

kedil ‘heel’

ɔdai ‘passion’

ɔcidok ‘cowardice’

gundahai ‘dacoity’

tuidun ‘river’

kedilcur’

2.8.9 /kʰ/

The phoneme /kʰ/ can occur initially and medially and does not occur finally.

Initial occurrence
Examples

\[ k^h_t \]

\( k^h_\text{at} \) ‘one’

\( k^h_\text{oi} \) ‘who’

\( k^h_\text{ai} \) ‘grass hopper’

\( k^h_\text{ason} \) ‘garlic’

\( k^h_\text{opu} \) ‘fairy’

\( k^h_\text{aum} \) ‘bitter gourd’

Medial occurrence

Examples

\[ k^h_l \]

\( \text{weik}^h_\text{at} \) ‘again’

\( \text{ci}_\text{hm\text{\`}ipok}^h_\text{oi} \) ‘volcao’

\( puk^h_\text{\`}ri} \) ‘pond’

\( leik^h_\text{\`}on} \) ‘canel’
ŋakʰoi ‘hook’

leikʰon ‘pit’

səkʰi ‘deer’

roikʰət ‘contrary’

əkʰət ‘cover’

2.8.10 /b/

The phoneme /b/ can occur initially and medially and does not occur finally.

Initial occurrence

Examples

/b/

bu ‘rice’

ban ‘arm’

bokok ‘tiffin’
Medial Occurrence

Examples

/bbl/

*bubel* ‘cooking pot’

*janbu* ‘lunch’

*kʰobur* ‘influenza’

*dəbəlloṭi* ‘bread’

*coŋboi* ‘deaf’

2.8.11 /z/

The phoneme /z/ can occur initially and medially and does not occur finally.

Initial occurrence
Examples

/lz/

zu  ‘wine’
zo  ‘sheep’
zoŋ ‘monkey’
ziŋ ‘to-morrow’
zanbu ‘dinner’
zukʰa ‘liquor’

Medial occurrence

Examples

/lz/

mizu  ‘rate’
phaizol  ‘valley’
əzìŋ ‘darkness’
ərzol ‘ring worm’
2.8.12 /h/

The phoneme /h/ can occur initially and medially and does not occur finally.

**Initial occurrence**

Examples

\[ /h/ \]

\[ ha \] ‘teeth’

\[ hiwanu \] ‘this woman’

\[ hiswapa \] ‘this man’

\[ həwahəna \] ‘then’

\[ herk^hət \] ‘half’

**Medial occurrence**

Examples

\[ /hl/ \]

\[ sonuhaiso \] ‘those women’
2.8.13 /s/

The phoneme /s/ can occur initially and medially and does not occur finally.

**Initial occurrence**

Examples

<table>
<thead>
<tr>
<th>/s/</th>
<th>sim</th>
<th>‘evening’</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>som</td>
<td>‘ten’</td>
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<td></td>
<td>sem</td>
<td>‘blow’</td>
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<tr>
<td></td>
<td>sumrisη</td>
<td>‘rainbow’</td>
</tr>
<tr>
<td></td>
<td>suη</td>
<td>‘in’</td>
</tr>
</tbody>
</table>
Medial Occurrence

Examples

\( \text{sumrisəŋ} \) ‘rainbow’

\( \text{arsiek} \) ‘comet’

\( \text{kHzəson} \) ‘garlic’

\( \text{wasu} \) ‘pigeon’

\( \text{roritʰisip} \) ‘cyclone’

\( \text{ərisa} \) ‘echo’

\( \text{səŋsən} \) ‘mosquito’

2.8.14. \(/m/\)

The phoneme \(/m/\) can occur initially, medially and finally.

Initial Occurrence

Examples

\(/ml/\)

\( \text{mico} \) ‘blind’

\( \text{mot} \) ‘banana’
mersa  ‘beg’

mitbicør  ‘weeping’

moy  ‘buttock’

**Medial occurrence**

Examples

humpi  ‘tiger’

pumpi  ‘cannon’

lamnu  ‘female dancer’

umt bum  ‘gourd’

lemlet  ‘liar’

mitɔmta  ‘general’

**Final occurrence**

Examples

əlum  ‘heat’

umt bum  ‘bittergourd’
cikmom  ‘spider’

kʰenŋkʰam  ‘bowl’

lukim  ‘ornament’

2.8.15 /n/

The phoneme /n/ can occur initially, medially and finally.

Initial Occurrence

Examples

/n/

nai  ‘child’

nəitʰoicuŋ  ‘world’

ni  ‘sun’

naikok  ‘placenta’

neitʰoisuŋ  ‘underground’
Medial occurrence

Examples

\[
\begin{align*}
\text{wancuŋ} & \quad \text{‘sky’} \\
\text{ənui} & \quad \text{‘laughter’} \\
\text{reŋnu} & \quad \text{‘queen’} \\
\text{səciktənə} & \quad \text{‘fodder cutter’}
\end{align*}
\]

Final Occurrence

Examples

\[
\begin{align*}
\text{ən} & \quad \text{‘curry’} \\
\text{wun} & \quad \text{‘skin’} \\
\text{won} & \quad \text{‘belly’} \\
\text{tʰin} & \quad \text{‘liver’} \\
\text{cəpon} & \quad \text{‘hay’}
\end{align*}
\]
2.8.16 /ŋ/

The phoneme /ŋ/ can occur initially, medially and finally.

**Initial Occurrence**

Examples

/ŋ/

ŋa ‘fish’

ŋəmlei ‘patient’

ŋakok ‘basket of fish’

ŋaitai ‘name’

ŋakpek ‘forgive’

ŋaitoŋ ‘cat’

**Medial occurrence**

Examples

sikŋir ‘ant’

kʰenŋkʰam ‘bowl’

cəŋpan ‘moss’
kʰaŋpek ‘hotplate’
coŋboi ‘deaf’
coŋtʰək ‘petition’

Final Occurrence

Examples
sətəŋ ‘bull’
luy ‘stone’
arkʰoŋ ‘cock’
con ‘language’
can ‘grain’
aŋon ‘flying’

2.8.17  /l/
The phoneme /l/ can occur initially, medially and finally.

Initial Occurrence

Examples
/la/
la 'song'

liŋ ‘thorn’

lay ‘weed’

lilo ‘joint’

lu ‘head’

luŋ ‘stone’

**Medial occurrence**

Examples

lilo ‘joint’

kolkai ‘sweet potato’

leilai ‘medicine’

kelme ‘mutton’

kedicur ‘anklet’

tuilien ‘flood’
Final Occurrence

Examples

- bubel ‘cooking’
- waipol ‘flour’
- kel ‘goat’
- phaizol ‘valley’
- azol ‘horizon’
- cigmol ‘hillock’

2.8.18 /rl/

The phoneme /rl/ can occur initially, medially and finally.

Initial Occurrence

Examples

- /rl/
- rop ‘chest’
- ruo ‘rain’
- ritun ‘fever’
Medial occurrence

Examples

łuŋcirit ‘pebble’
əril ‘interest’
ɨra ‘breed’
əru ‘seed’
rei ‘axe’

Final Occurrence

Examples

əmr ‘fat’
tor ‘hip’
ner ‘lip’
miti ‘mole’
nar ‘nose’
əkor ‘pill’
wur ‘snow’

2.8.19 /w/

The phoneme /w/ can occur initially and medially and does not occur finally.

Initial Occurrence

Examples

/w/

wur ‘snow’
wa ‘bird’
wasu ‘pigeon’
waək ‘crow’
waipol ‘flour’
wulpi ‘February’
Medial occurrence

Examples

- hiwa ‘this’
- həwanu ‘this women’
- həwahəna ‘then’
- nisowor ‘sunshine’
- pʰaiwo ‘wind’
- səwom ‘wild bear’

2.8.20 /yl/

The phoneme /yl/ can occur initially medially and finally.

Initial occurrence

Examples

- yantinj ‘yesterday’
- yeyni ‘Monday’
- yinṭenj ‘morning’
yan ‘night’

yamya ‘fan’

yəi ‘name of clan’

Medial occurrence

Examples

əriyəŋ ‘root’

saipi ‘elephant’

phaywaŋ ‘ant’

yamya ‘fan’

yeyni ‘Monday’

Final occurrence

Examples

kʰoy ‘who’

lay ‘novel’

coy ‘carry’
\[\text{cəcəy}\] ‘rice’

\[\text{kʰəy}\] ‘grass hopper’

### 2.8.21. Chart Distribution of consonant phonemes

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>(p)</td>
<td>(-p)</td>
<td>(-p)</td>
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<tr>
<td>(t)</td>
<td>(-t)</td>
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<td>(-t)</td>
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<tr>
<td>(c)</td>
<td>(-c)</td>
<td>(-c)</td>
<td>-</td>
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<tr>
<td>(k)</td>
<td>(-k)</td>
<td>(-k)</td>
<td>(-k)</td>
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<tr>
<td>(p^h)</td>
<td>(-p^h)</td>
<td>(-p^h)</td>
<td>-</td>
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<tr>
<td>(t^h)</td>
<td>(-t^h)</td>
<td>(-t^h)</td>
<td>-</td>
</tr>
<tr>
<td>(k^h)</td>
<td>(-k^h)</td>
<td>(-k^h)</td>
<td>-</td>
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<tr>
<td>(d)</td>
<td>(-d)</td>
<td>(-d)</td>
<td>-</td>
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<tr>
<td>(b)</td>
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<td>(z)</td>
<td>(-z)</td>
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<tr>
<td>(s)</td>
<td>(-s)</td>
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<td>-</td>
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<tr>
<td>(h)</td>
<td>(-h)</td>
<td>(-h)</td>
<td></td>
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<tr>
<td>(m)</td>
<td>(-m)</td>
<td>(-m)</td>
<td>(-m)</td>
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<tr>
<td>(n)</td>
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<td>(-n)</td>
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<td>(\eta)</td>
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<tr>
<td>(l)</td>
<td>(-l)</td>
<td>(-l)</td>
<td>(-l)</td>
</tr>
</tbody>
</table>
2.9 CONSONANT CLUSTER

Generally it is understood as combination of two consonants within a syllable or in other word, utterance of two consonant sounds at a time. It differs from consonant sequence which occurs beyond syllable. The type of consonant cluster is stop+liquid. Stop + semi vowel is not found in the Sadu Koireng language. Cluster formed is very limited and found in initial and medial position. Most of the consonant cluster are found only on borrowed lexical items.

Examples

**Initial occurrence**

Stop + liquid

k+r: *kross* ‘cross’

K+l: *klas* ‘class’

Stop + semi vowel

**Medial occurrence**

t+r: *sutra* ‘student’
p+r:  ᵇəpra  ‘lemon’
k+r:  ᵇəkrı  ‘crasher’
k+r:  ᵇοŋkraw  ‘touser’
p+r:  ᶇaprum  ‘eel’

2.10  CONSONANT SEQUENCE

Consonant sequence is the occurrence of two more consonants beyond the syllable. While cluster is within the syllable in Sadu Koieng, there are four kinds of consonant sequences.

1. Gemination
2. Homorganic
3. Contiguous
4. Heterogenic

2.10.1 Gemination

The analysis of the sequence of identical segments as showing the repetition of the segments, rather than as an example of length, because of the occurrences of a syllable boundary

tt  ᵇəmítica  ‘from eye’
mm  ᶇmməhən  ‘before’
2.10.2 Homorganic consonants

Designating adjacent consonants in the same place of articulation, e.g. /ŋg/ in ‘finger’ in English.

Homorganic: In phonetics for two or more speech sounds have the same place of articulation, for example, the bilabial consonants /m, p/, which are formed by using both lips

Examples

<table>
<thead>
<tr>
<th>Consonant(s)</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts</td>
<td>kiretsoka</td>
<td>‘one eight’</td>
</tr>
<tr>
<td>tn</td>
<td>nətnə</td>
<td>‘illness’</td>
</tr>
<tr>
<td>t-tʰ</td>
<td>mutʰətnə</td>
<td>‘easer’</td>
</tr>
<tr>
<td>lr</td>
<td>səkolrui</td>
<td>‘tethering bag’</td>
</tr>
<tr>
<td>nr</td>
<td>sərnituipʰəm</td>
<td>‘buttermilk’</td>
</tr>
<tr>
<td>ŋkʰ</td>
<td>rɨŋkʰo</td>
<td>‘life’</td>
</tr>
<tr>
<td>ŋk</td>
<td>kʰeŋkam</td>
<td>‘bowl’</td>
</tr>
<tr>
<td>ŋk</td>
<td>siknir</td>
<td>‘ant’</td>
</tr>
</tbody>
</table>
mr  somriŋa  ‘fifty
mr  somret  ‘eighty’
ms  kinthumsunə  ‘3rd’
rc  kercun  ‘collision’
rs  kersen  ‘divorce’
yt  uyte  ‘puppy’
ŋs  lisĩsom  ‘ten thousand’

2.10.3 Contiguous consonants

Designating adjacent consonants made in different places of articulations.

Examples

tk  kutki  ‘elbow’
km  cikmom  ‘spider’
kb  blekbord  ‘black board’
kn  uyloknə  ‘jar’
kp  conthəkpə  ‘petitioner’
kl  dikləi  ‘contrast’
kth   salarié  ‘defense’
nb  janbu  ‘lunch’
ŋh  

luŋhəwai  ‘soya bean’

mn  

somni  ‘twenty’

ŋs  

meŋsel  ‘mirror’

mr  

somriŋa  ‘fifty’

mr  

somret  ‘eighty’

ms  

kinthumsunə  ‘3rd’

rc  

kercun  ‘collision’

rs  

kersen  ‘divorce’

yt  

uyte  ‘puppy’

ŋs  

lisɪŋsom  ‘ten thousand’

2.10.4 Heterogenic consonants

Designating adjacent consonants made in different places of articulation.

Examples

 tk  

kutki  ‘elbow’

km  

cikmom  ‘spider’

kb  

blekbord  ‘black board’

kn  

uyloknə  ‘jar’

kp  

coŋthəkpə  ‘petitioner’
kl  *diklə*  ‘contrast’

kth  *ŋakthoknə*  ‘defense’

**Phonetic features of Sadu koireng consonants**

<table>
<thead>
<tr>
<th>Phonetic segments</th>
<th>Stops</th>
<th>Voiced</th>
<th>Nasals</th>
<th>Liquid</th>
<th>Lateral</th>
<th>Flaps</th>
<th>Labial</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
<th>Fricatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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Table No. 5: Phonetic features specification of Sadu koireng consonants
2.11 SYLLABLE

A group of phonemes, consist of a vowel or a continuant, alone or in combination with a consonant or consonants, which represents a complete articulation or complex of articulations constituting a unit of word formation. (Tim, 2003)

In Sadu Koireng language a syllable segment can be divided into three parts; onset, peak and code. Onset is the initial sound, the central part or the nucleus is the peak and the final sound which comes after peak can be called as code.

For example, the word som which means ‘ten’ and ral means ‘war’ the vowel o and a are the respective peaks of the given words. s and r which come before peaks are the onsets in m and l which comes after the peak in the above examples are the coda.

2.11.1 Structure of Syllable

A syllable (O) consist of an onset (o) (The consonant that precedes the nucleus) and a Rhyme (R) which embodies a peak (P, the vowel nucleus) and a coda (Co, the consonant which follows the vowel nucleus)
This section presents the syllable structures attested in Sadu Koireng. Sadu Koireng has both open and closed types of syllables. Open syllable are made up of an optional simple or complex onset and obligatory simple vowel nucleus, for example, ke ‘leg’. In Sadu Koireng, neither the onset nor the code are obligatory elements for a syllable to be well-formed.

There are some instances of just a vowel nucleus being a well-formed monosyllabic word and, therefore, by necessity a well-formed syllable.
The onset in Sadu Koireng is generally a single consonant. There are well-formed monosyllabic words without the coda rise to limited consonant.

Examples

\[ \begin{align*}
#v# & \quad i & \text{‘yes’} \\
o & \text{‘yes’} \\
u & \text{‘elder’}
\end{align*} \]

2. diagram of $\phi + \text{peak} + \phi$ of \(i\) ‘yes’

Examples

\[ \begin{align*}
cv# & \quad ke & \text{‘leg’}
\end{align*} \]
ηα 'fish'
lα 'song'
ca 'tea'
me 'meat'
wα 'bird'
ka 'room'

3. diagram of onset + peak + φ of ke 'leg'
There is no consonant cluster at the onset of a syllable in Sadu Koireng. However, a few examples of initial consonant cluster with English loan words have also been attested as exemplified in the following.

Examples

\[ k + l \] ‘class’

\[ k + r \] ‘cross’

Closed syllable are made up of an optimal simple or complex consonant onset, an obligatory simple vowel nucleus, a consonant coda, thus giving rise to two types of closed syllables: \( vc # \) and \( cvc # \).

\( vc # \)

Examples \( in \) ‘house’

\( on \) ‘curry’

\( ut \) ‘camel’

\( el \) ‘thigh’

\( ar \) ‘hen’
4. diagram of closed syllable of $\dot{\phi}$ + peak + coda of $\phi$ in ‘house’

cvc #

Examples

- *con* ‘language’
- *lan* ‘weed’
- *cak* ‘eat’
- *mit* ‘eye’
- *kel* ‘goat’
Sadu Koireng allows v, cv, vc and cvc syllable patterns only.

Examples

1. v - pattern
   
   \( i \) \hspace{1cm} \text{‘yes’}

   \( o \) \hspace{1cm} \text{‘yes’}

   \( u \) \hspace{1cm} \text{‘elder brother or sister’}

2. cv – pattern
   
   \( zu \) \hspace{1cm} \text{‘wine’}
3. $vc$ – pattern

- $in$ ‘house’
- $\omega n$ ‘curry’
- $el$ ‘thigh’
- $ar$ ‘hen’
- $uy$ ‘dog’
- $in$ ‘drink’
- $um$ ‘gourd’

4. $cvc$ – pattern

- $kut$ ‘hand’
- $ral$ ‘war’
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>pon</td>
<td>‘cloth’</td>
</tr>
<tr>
<td>tur</td>
<td>‘poison’</td>
</tr>
<tr>
<td>som</td>
<td>‘ten’</td>
</tr>
<tr>
<td>kʰət</td>
<td>‘one’</td>
</tr>
<tr>
<td>lam</td>
<td>‘dance’</td>
</tr>
<tr>
<td>caŋ</td>
<td>‘rice’</td>
</tr>
<tr>
<td>mot</td>
<td>‘banana’</td>
</tr>
<tr>
<td>reŋ</td>
<td>‘king’</td>
</tr>
</tbody>
</table>

Some examples of mono-syllabic, disyllabic and polysyllabic words are given below.

1. Mono-syllabic
   - in ‘house’
   - øn ‘curry’
   - ar ‘hen’
   - um ‘gourd’
   - ut ‘camel’
   - el ‘thigh’
   - zu ‘wine’
   - la ‘song’
bu  ‘rice’
me  ‘meat’
zu  ‘wine’
ni  ‘sun’

Disyllabic
arsi  ‘star’
incuj  ‘inside the house’
kin-ni  ‘two’
mit-mun  ‘eyebrow’
ay-par  ‘eatable flower’
enbu  ‘rice and curry’
bubel  ‘cooking pot’
ray-par  ‘flower’
ponkʰoŋ  ‘weaver’
bukʰeŋ  ‘plate’

Polysyllabic
səntuypʰəm  ‘curd’
samudrutuy  ‘sea water’
ᵗʰə petjəy  ‘had killed’
ləysuŋro  ‘do cook’
2.12 **TONE**

In tone language meaning distinction between words can be made by tone. “A tonal language is a language having lexically significant, contrastive but relative pitch on each syllable (Pike, 1943:3)”. Hence, tone is a feature of the syllable, though it is marked on the vowel of a syllable, which is its nucleus. The register and contours of a syllable are defined on the basis of its starting as well as ending pitch intensity. If syllables have rising falling pitch in comparison to the pitch level of the normal speech they are known to be a rising (or high) or falling (or low) tone respectively. The syllables whose pitch level remain constant are said to be having level tones, like *ha* ‘teeth’, *luŋ* ‘heart’, *caŋ* ‘paddy’ etc, in the following examples. However, in some other Tibeto-Burman languages, combination of pitch levels such as rising–falling is also possible.

Sadu Koireng belongs to register tone where tone marking in the lexical items is steady throughout as opposed to contours where the essential feature is changing pitch. Therefore this language belongs to register tone.
This language has level and falling tones. In this study, level tones are left unmarked and falling are marked as [\]. These two tones constitute the two different tonemes occurring in contrasting positions. The following examples illustrate this point.

<table>
<thead>
<tr>
<th>level</th>
<th>falling</th>
</tr>
</thead>
<tbody>
<tr>
<td>ha</td>
<td>‘teeth’</td>
</tr>
<tr>
<td>luŋ</td>
<td>‘heart’</td>
</tr>
<tr>
<td>caŋ</td>
<td>‘paddy’</td>
</tr>
<tr>
<td>tʰi</td>
<td>‘blood’</td>
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</tbody>
</table>

<p>| | |</p>
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<tr>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>ha</td>
<td>‘that’</td>
</tr>
<tr>
<td>luŋ</td>
<td>‘stone’</td>
</tr>
<tr>
<td>caŋ</td>
<td>‘net’</td>
</tr>
<tr>
<td>tʰi</td>
<td>‘dead’</td>
</tr>
</tbody>
</table>

From the preceding examples of falling tone such as, caŋ ‘net’, ha ‘that’, luŋ ‘stone’ etc, here, the pitch level at the end of the syllable is lower than the pitch level at the beginning. The pitch level at the onset is either normal or higher than normal. The pitch modulation is continuous and downwards. The pitch registers at either the onset or coda are not significant but only the downward modulation. Whereas, in the above example of level tone, like ha ‘teeth’, luŋ ‘heart’, caŋ ‘paddy’ etc., the pitch remain constant through the syllable.
CONCLUSION

In this chapter, we have discussed the phonology of Sadu Koireng. There are thirty-one phonemes altogether. This chapter started with a phonological analysis which includes segmental phonology of the vowels and the consonants. This is followed by analysis of syllables and tones. There are six vowel phonemes, namely, /i, e, u, ə and o/. The occurrences of these vowel phonemes have also been discussed. All the six vowels can occur in all the positions of the word – initial, medial and final positions. However, the phonemes /el/ and /ol/ occur rarely in the initial position. There are four diphthongs. They are /əɪ, ai, oi and ui/. We then discussed the consonant phonemes. The consonant phonemes are /p, t, c, k, ph, th, kh, b, z, s, h, m, n, η, l, r, w and y/. There are nineteen consonants, out of these nineteen consonant phonemes, nine phonemes /p, t, k, m, n, η, l, r and y/ can occur in all positions of a word. But phonemes /b, d, z, c, s, h, ph, th, kh and w/ cannot occur in the final position. In Sadu Koireng language consonant cluster is very limited and found in initial and medial positions. The type of cluster is stop + liquid. eg. /kross/ ‘cross’, /klass/ ‘class’ and /cəkri/ ‘crusher’. All the consonant clusters are found only on borrowed lexical items. In the study of syllables we found all the syllable segments (onset,
peak and coda). They are both open and close syllable. And the syllable patterns found in Sadu Koireng languages are v, vc, vcv, cv, cvc etc. Two register tones are available, namely, falling and level tones, eg. /ha/ ‘teeth’ and hà ‘that’.