CHAPTER 3
PHONOLOGY OF THADOU

3.1 Phonology:
The phonemic inventory of Thadou consists of thirty phonemes of which 28 are segmentals and two are supra-segmentals. The phonemes of Thadou are shown below in Fig 8.

3.2 Segmental Phonemes:

3.2.1 Consonants:
The present section of the chapter looks into all types of consonantal sounds in Thadou and puts forwards their description, classification and phonemic analysis.

Consonants can be defined in terms of both phonetics and phonology. Phonetically, consonants are sounds made by closure or narrowing in the vocal tract so that the air flow is either completely blocked or restricted resulting in audible frication. Consonant articulation is relatively easy to feel, as it is described in terms of place and manner of articulation.

Thadou has 21 consonantal phonemes. There are two aspirated stops, namely, /pʰ/ and /tʰ/ which are considered as voiceless aspirated stops. The
aspiration which is considered as a period of voicelessness after the release of the consonant (Ladefoged: 1968) is marked in this study by superscript ‘h’ after the voiceless stops, e.g. /p/ voiceless bilabial, /pʰ/ voiceless aspirated bilabial, and is considered as a single phoneme. Like the consonants of many other languages, the Thadou consonants are formed when the air stream through the vocal track is obstructed in some way. When classified according to their places of articulation, the Thadou consonants can be grouped into six main categories: (1) bilabial, (2) dental, (3) alveolar, (4) palatal, (5) velar and (6) glottal. When classified according to their manners of articulation, these consonants can be grouped into six main categories: (1) stops, (2) nasals, (3) fricative, (4) affricates, (5) trill, and (6) laterals. It should be noted here that Thadou does not have aspirated voiced stops. Out of the 21 consonantal phonemes one consonant that is /r/ is a borrowed phoneme. However it has become nativised and is being widely used by the speakers of the language. Few examples are cited below:

/tʃəmpara/ 'lemon'
/bahara/ 'rent'
/krista/ 'Christ'
/rɔŋ/ 'colour'
Fig 9. The inventory of Thadou consonants.

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<tr>
<th></th>
<th>Bilabial</th>
<th>Labio-dental</th>
<th>Dental</th>
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### 3.2.2 Vowels:

Vowels can be defined in terms of both phonetics and phonology. Phonetically, they are sound articulated without a complete closure in the mouth or a degree of a narrowing which would produce audible friction; the air escapes evenly over the centre of the tongue. If the air escapes solely through the mouth, the vowels are said to be oral. If, on the other hand, some air is simultaneously released through the nose, the vowels are said to be nasal. Thadou does not have nasal vowels, but vowels are nasalised in the vicinity of nasal consonants. Since nasal vowels are not phonemic it is not marked with nasalised symbol. From the phonological point of view, a vowel is that unit which can function as the nucleus of a syllable.
The seven vocalic phonemes given in the inventory occur at the front, central and back positions on different tongue heights, both rounded and unrounded. The classification of vowels at the three levels, viz., high, mid and low is the most common pattern to almost all the languages of the family. There are three-way contrasts: front, central and back at the mid level, while the front-back contrast is found at the high level. The vocalic phonemes in Thadou are /i, ɛ, ø, a, ɔ, o, u/. Two are front vowels, viz., /i/ and /ɛ/; three back, viz., /u/, /ø/ and /ɔ/; and one central, viz., /ø/ and low central vowel /a/. 

In Thadou, there are two high vowels, viz., /i/ and /u/; one higher back mid vowels, /ø/; two lower mid vowels /ɛ/ and /ɔ/; one central vowel /ø/ and low central vowel /a/. The rounded vowels in Thadou are /u/, /ø/ and /ɔ/, the unrounded vowels are /i/, /ɛ/, /ɔ/ and /a/.

All the vowels are voiced in Thadou. Though length is not phonemic in Thadou, a detail analysis of data has proved that, vowels sound little longer regardless of any tone when followed by sonorant sounds. Vowel length is thus, released phonetically.

Consider the following examples.

[dʒ : n] ‘young’

[kɔ : l] ‘embrace’

[pɛ : n] ‘shout’

[sɛ : m] ‘blow’
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<td>Low</td>
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[te: η] 'lizard'
[po:n] 'cloth'
[pʰo:l] 'threshing floor'
[gə: m] 'to fine'
[di: m] 'not distinct'
[ʃu: l] 'to fade colour'

See for more examples in appendix II.

Fig 10. The inventory of Thadou vowels.
3.2.3 Contrastive Pairs:

3.2.3 (i) Consonants:

(1) Stops: voiceless and voiced.

/p/ vs. /b/

/pa/ "father" vs. /ba/ "to put ear ring"

/pê/ 'bite' vs. /bê/ 'relative'

/pet/ 'threat' vs. /bet/ 'debt'

/pûŋ/ 'increase' vs. /burŋ/ 'bend'

/pɔl/ 'to be friendly' vs. /bol/ 'do'

/t/ vs. /d/

/tû/ 'sow' vs. /dû/ 'want of taste'

/tâ/ 'to hit' vs. /dâ/ 'to give back'

/tɔŋ/ 'short' vs. /dɔŋ/ 'young'

/tẽn/ 'calf of the leg' vs. /dẽn/ 'room'

/tẽŋ/ 'lizard' vs. /dẽŋ/ 'palate'

It should be noted that, the dental stops, viz., /t/, /d/ and /tʰ/ in Thadou are pronounced in the denti-alveolar region and are not exactly same as in Hindi or other Indian languages. The sounds of the dental series have not been marked with dental symbol for the sake of convenience in typing.

/k/ vs. /g/

/kɔ/ 'point' vs. /gɔ/ 'roast'

/kò/ 'hole' vs. /gò/ 'rain'

/kum/ 'year' vs. /gûm/ 'tough'

/kîŋ/ 'blacken by smoke' vs. /gîŋ/ 'sounding'

/kâl/ 'week' vs. /gâl/ 'war'
Thadou does not have aspirated /kʰ/, which is retained by other closely, related languages like Paite.

(2) Aspiration:

In Thadou only the voiceless dental stops are aspirated, whereas the rest are unaspirated. The voicing of vowels is delayed by aspiration in Thadou (voice onset time). It should be noted here that Thadou does not have aspirated /kʰ/ which is found in other related languages like Paite etc. This is a historical process whereby Thadou has lost the aspirated /kʰ/.

/ p/ vs. / pʰ/

/pá/ ‘father’ vs. /pʰà/ ‘good’
/pú/ ‘grandfather’ vs. /pʰú/ ‘revenge’
/épá/ ‘male’ vs. /épʰá/ ‘good’
/púm/ ‘whole part’ vs. /pʰúm/ ‘soak’
/páu/ ‘walk across’ vs. /pʰél/ ‘permit’

/t/ vs. / tʰ/

/tù/ ‘now’ vs. /tʰù/ ‘word’
/tɔ/ ‘buttock’ vs. /tʰɔ/ ‘fence’
/téμ/ ‘many’ vs. /tʰéμ/ ‘touch’
/til/ ‘insist’ vs. /tʰil/ ‘thing’
/tùm/ ‘play a musical instrument’ vs. /tʰùm/ ‘three’

/tʰ/ vs. / d/ / tʰù/ ‘word’ vs. /dù/ ‘want of taste’
/tʰá/ ‘strength’ vs. /dá/ ‘unwilling’
/tʰèn/ ‘worm’ vs. /dèn/ ‘room’
/tʰàl/ ‘to fetch’ vs. /dàl/ ‘to cover’
/tʰim/ ‘dark’ vs. /dim/ ‘full’
(3) Fricatives:

/s/ vs. /iz/:

/sa/ 'meat' vs. /zəl/ 'respect'
/si/ 'millet' vs. /zil/ 'spouse'
/sɔn/ 'report' vs. /zɔm/ 'spherical'
/sən/ 'red' vs. /zən/ 'massage'
/sil/ 'to wear cloth' vs. /zil/ 'practice'

/s/ vs. /v/:

/sə/ 'to throw' vs. /və/ 'to see'
/sil/ 'to wear' vs. /vil/ 'to visit'
/sɔt/ 'push' vs. /vɔt/ 'leech'
/sut/ 'to write' vs. /vut/ 'ash'
/sun/ 'to pour' vs. /vun/ 'skin'

It should be noted here that /v/ has limited occurrence in open syllables.

/x/ vs. /h/

/xul/ 'bee' vs. /hul/ 'breath'
/xal/ 'bitter' vs. /hal/ 'teeth'
/xil/ 'bind' vs. /hit/ 'louse'
/xem/ 'drunk' vs. /hem/ 'rigid'
/xum/ 'score' vs. /hum/ 'hard'

The voiced stops, the voiceless aspirated stops, the fricatives and voiceless lateral never occur in word final position in Thadou. See section 3.3.1 on distribution of consonantal phonemes.
(4) Lateral:

| /l/ vs. /l/ | 'song' vs. /l/ 'month' |
| /l/ | 'four' vs. /l/ 'tear' |
| /ɛn/ | 'king' vs. /ɪn/ 'saucer' |
| /kilip/ | 'piling skin' vs. /kilip/ 'fold' |
| /lim/ | 'shape' vs. /lim/ 'sufficient' |

(5) Nasal:

| /n/ vs. /m/ | 'mother' vs. /m/ 'see' |
| /nu/ | 'two' vs. /m/ 'man' |
| /nem/ | 'pressed' vs. /mɛn/ 'bride price' |
| /nɔl/ | 'giddy' vs. /mɔl/ 'stick' |
| /hon/ | 'garden' vs. /hum/ 'hard or solid' |
| /tʃɔn/ | 'peaceful' vs. /tʃɔm/ 'wrinkle' |

| /n/ vs. /ŋ/ | 'leaf' vs. /ŋ/ 'fish' |
| /nə/ | 'persist' vs. /ŋə/ 'decay' |
| /nim/ | 'reproach' vs. /ŋim/ 'clean' |
| /nɔp/ | 'mucus' vs. /ŋap/ 'to lean on' |
| /nɔŋ/ | 'sky' vs. /ŋŋ/ 'rare' |
| /sin/ | 'cover' vs. /sɨŋ/ 'extra short' |
(6) Other contrastive pairs:

(a) Fricatives vs. high stops and affricates:

\(/t\tilde{\text{}}l/ \text{ vs. } /z\tilde{\text{}}l/ \\
\(/t\tilde{\text{}}\text{al}/ \text{ 'move' } \text{ vs. } /z\tilde{\text{}}\text{al}/ \text{ 'prickling' } \\
\(/t\tilde{\text{}}\text{ul}/ \text{ 'faded color' } \text{ vs. } /z\tilde{\text{}}\text{ul}/ \text{ 'oily' } \\
\(/t\tilde{\text{}}\text{il}/ \text{ 'stamp or saliva' } \text{ vs. } /z\tilde{\text{}}\text{il}/ \text{ 'to learn' } \\
\(/t\tilde{\text{}}\text{il}/ \text{ 'tire' } \text{ vs. } /z\tilde{\text{}}\text{il}/ \text{ 'plead' } \\

\(/k\text{l}/ \text{ vs. } /x\text{l}/ \\
\(/k\text{a} \text{ l}/ \text{ 'to open mouth wide' } \text{ vs. } /x\text{a} \text{ l}/ \text{ 'shut' } \\
\(/k\text{\text{ol}}/ \text{ 'point' } \text{ vs. } /x\text{\text{ol}}/ \text{ 'to pierce' } \\
\(/k\text{om}/ \text{ 'mouth' } \text{ vs. } /x\text{om}/ \text{ 'satiating' } \\
\(/k\text{n}/ \text{ 'curve' } \text{ vs. } /x\text{n}/ \text{ 'mug' } \\

\(/g\text{l}/ \text{ vs. } /x\text{l}/ \\
\(/g\text{u}/ \text{ 'bone' } \text{ vs. } /x\text{u}/ \text{ 'smoke' } \\
\(/g\text{i}/ \text{ 'line' } \text{ vs. } /x\text{i}/ \text{ 'necklace' } \\
\(/g\text{\text{en}}/ \text{ 'skim' } \text{ vs. } /x\text{\text{en}}/ \text{ 'to hammer' } \\
\(/g\text{am}/ \text{ 'to fine' } \text{ vs. } /x\text{am}/ \text{ 'prevent' } \\
\(/g\text{\text{ol}}/ \text{ 'arrange' } \text{ vs. } /x\text{\text{ol}}/ \text{ 'investigate' } \\

It should be noted here that /k/ and /x/ do not occur word finally.

(b) Fricatives vs. affricates:

\(/s\text{l}/ \text{ vs. } /t\text{\text{il}}/ \\
\(/s\text{e}/ \text{ 'throw' } \text{ vs. } /t\text{\text{e}}/ \text{ 'wet' } \\

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| /sәl/ | 'animal' | vs. | /tʃә/ | 'tea' |
| /sіl/ | 'native spices' | vs. | /tʃі/ | 'salt' |
| /sʊʔl/ | 'pound' | vs. | /tʃʊʔ/ | 'lust' |
| /sάʔl/ | 'built' | vs. | /tʃάʔ/ | 'firm' |

**lzJ vs. lʃJ:**

| /lzɪl/ | 'learn' | vs. | /lʃɪl/ | 'saliva' |
| /lzɔl/ | 'win' | vs. | /lʃɔ/ | 'stir' |
| /lzi/ | 'spouse' | vs. | /lʃi/ | 'salt' |
| /lʒɔl/ | 'request' | vs. | /lʃʒɪl/ | 'tire' |

Thadou does not have voiced affricate /dz/ but it occurs in free variation with /lʒ/.

**lʃl vs. lʃʃl:**

| /lʃɔl/ | 'bottom' | vs. | /lʃʃɔl/ | 'stir' |
| /lʃɛl/ | 'beat' | vs. | /lʃɛl/ | 'wet' |
| /lʃɪn/ | 'nail' | vs. | /lʃɪn/ | 'look after' |
| /lʃol/ | 'surface' | vs. | /lʃʃol/ | 'native yeast' |

No contrastive pairs have been given word finally because /lʃ/ does not occur finally because /lʃ/ does not occur finally.

**Word final vowel vs. glottal stop /ʔ/:**

| /tʃʃˈl/ | 'salt' | vs. | /tʃˈlʔ/ | 'intellect' |
| /tʃˈl/ | 'dead' | vs. | /tʃˈlʔ/ | 'iron' |
| /lәl/ | 'song' | vs. | /lәˈl/ | 'siege' |
| /tũl/ | 'sow' | vs. | /tũˈl/ | 'hold' |
| /bũl/ | 'food' | vs. | /bũˈl/ | 'to unload sideward' |
Summary:
The glottal stop /ʔ/ occurs only at syllable or word boundary and does not form minimal pair with any other phonemes. It has been noticed that /ʔ/ is often replaced by /h/ in all texts of Thadou. Thadou does not have fricative /ʃ/ but is found in other closely related languages like Mizo and Hmar. The loan phoneme /ɹ/ occurs in limited words, therefore contrastive pairs with other phonemes have not been given. As has been mentioned earlier, vowel length is not phonemic in Thadou. But when a vowel occurs in the environment of sonorant sounds, it sounds little longer. The nasals, laterals and glottal stop, and tones have effect on the sounds of Thadou. All the stops and nasals and lateral are not released in final position.

3.2.3 (ii) Vowels:

/i/i vs. /a/

/i/ɪə/ ‘to hide’ vs. /a/ɪə/ ‘flame’
/i/ɪi/ ‘what’ vs. /a/ɪi/ ‘female’
/i/ɪɛ/ ‘eye’ vs. /a/ɪɛ/ ‘stuck’
/i/xi/ ‘cold’ vs. /a/xi/ ‘to be stinking’
/i/ti/ ‘death’ vs. /a/ti/ ‘kill’
/i/ti/ ‘salt’ vs. /a/ti/ ‘offspring’

/o/ vs. /u/

/o/on/ ‘bent’ vs. /u/um/ ‘to surround’
/o/ɛt/ ‘envy’ vs. /u/ɛp/ ‘steaming’
/o/ɛn/ ‘garden’ vs. /u/ɛn/ ‘time’
/o/gɔp/ ‘to unite’ vs. /u/ɡɔp/ ‘six’
/o/ɛt/ ‘connect’ vs. /u/ɛt/ ‘to sow’
/o/xɔ/ ‘village’ vs. /u/xɔ/ ‘seal’
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<td>'taste' vs. /tɛp/</td>
<td>'invite'</td>
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/hêt/  'load'  vs.  /hit/  'louse'
/pê/  'bite'  vs.  /pî/  'grand mother'
/lê/  'throw'  vs.  /lî/  'four'
/lã/ vs. /lɔl/
/làm/  'flame'  vs.  /lóm/  'boil'
/làp/  'decay'  vs.  /lòpl/  'to mourn'
/kal/  'period'  vs.  /kól/  'ear'
/hâl/  'burn'  vs.  /hòl/  'rub'
/kâl/  'bitter'  vs.  /kôl/  'rummage'
/pâl/  'father'  vs.  /pôl/  'carry'
/ləl/ vs. /lãl/
/lətʃi/  'seed'  vs.  /lətʃa/  'one’s offspring'
/lənu/  'female'  vs.  /ləpa/  'male'
/kətʃi/  'one'  vs.  /kəʃi/  'to wear'
/ləm/  'touch'  vs.  /ləm/  'sojourn'
/ləm/  'way'  vs.  /ləm/  'dance'

/ləl/ never occurs in word final position. Hence no examples of its occurrence in open syllable have been given.

/ləl/ vs. /ləl/

/ləl/  'dung'  vs.  /ləl/  'caught in trap'
/kəl/  'lighting'  vs.  /kəl/  'point'
/həl/  'complain'  vs.  /həl/  'applause'
/bəl/  'to stick'  vs.  /bəl/  'steep'

39
\( /\varepsilon / \) 'beat' vs. \( /\varepsilon \) 'bottom'
\( /\varepsilon^h/ \) 'flesh' vs. \( /\varepsilon^h\) 'scold'

\( /\varepsilon/ \) vs. \( /e/ \)

\( /\varepsilon/ \) 'crossing' vs. \( /\varepsilon/ \) 'early crop'
\( /\varepsilon^h/ \) 'lunatic' vs. \( /\varepsilon^h/ \) 'lunatic'
\( /\varepsilon/ \) 'thrash' vs. \( /\varepsilon/ \) 'room'
\( /\varepsilon/ \) 'looks' vs. \( /\varepsilon/ \) 'thigh'
\( /\varepsilon/ \) 'to cut into shape' vs. \( /\varepsilon/ \) 'capture'

\( /\varepsilon/ \) vs. \( /\varepsilon/ \)

\( /\delta/ \) 'room' vs. \( /\delta/ \) 'drink'
\( /\delta/ \) 'climb' vs. \( /\delta/ \) 'hug'
\( /\delta/ \) 'thigh' vs. \( /\delta/ \) 'stick'
\( /\delta/ \) 'share' vs. \( /\delta/ \) 'manner'
\( /\delta/ \) 'capture' vs. \( /\delta/ \) 'not aware'

Summary:

All the vowels except \( /\varepsilon/ \) have limited occurrence in initial position. Thadou has one lower mid front vowel \( /\varepsilon/ \) which is pronounced (between higher high mid and low mid front vowel). The vowel is raised from low mid to high mid front vowel \( /\varepsilon/ \) with high tone. This is similar to English \( /\varepsilon/ \) as in \( /\varepsilon n/ \) 'pen'.

The list of formant frequency shows that formant frequency varies between 543 and 564 Hz. See spectrographic measurement of various vowels in Appendix I.
3.3 Distribution of Phonemes:

3.3.1 Consonants:

All consonantal phonemes of Thadou do not occur in all positions. The phonemes /p, t, m, n, η, and l/ can occur in all positions. However, the remaining phonemes /b, d, k, g, v, s, z, x, h, ɬ, (r)/ and the aspirated /pʰ/, /tʰ/, and /l/ can occur word initially and medially. The phoneme /n/ occurs in word final position in simple words. However, in complex words the glottal stop /n/ occurs word medially in words like /aʔpi/ 'hen' and /aʔnou/ 'chicken'. Hence all consonantal phonemes of Thadou can occur word medially. Thus, the voiced stops, aspirated stops, fricatives, affricates, and trill do not occur finally. Thadou does not have aspirated /bʰ/ and /tʰ/.

The following examples show the occurrence of consonants in initial, medial and final positions:

<table>
<thead>
<tr>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/pá/</td>
<td>‘father’</td>
<td>/nupi/ ‘woman’</td>
</tr>
<tr>
<td>/pɛ/</td>
<td>‘bite’</td>
<td>/sɔpi/ ‘relative’</td>
</tr>
<tr>
<td>/pɔ/</td>
<td>‘to comb’</td>
<td>/xopi/ ‘city’</td>
</tr>
<tr>
<td>/pʰ/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/pʰʊ/</td>
<td>‘revenge’</td>
<td>/gɔpʰʊŋ/ ‘bamboo tree’</td>
</tr>
<tr>
<td>/pʰʌ/</td>
<td>‘good’</td>
<td>/tʊpʰâ/ ‘good son-in law’</td>
</tr>
<tr>
<td>/pʰɔ/</td>
<td>‘scold’</td>
<td>/məŋpʰa/ ‘good night’</td>
</tr>
<tr>
<td>Phoneme</td>
<td>Meaning</td>
<td>Translation</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><code>/b/</code></td>
<td>'ceased to cry'</td>
<td>/pʰubá/ 'revenge'</td>
</tr>
<tr>
<td><code>/b/</code></td>
<td>'food'</td>
<td>/xùpbù/ 'knee'</td>
</tr>
<tr>
<td><code>/b/</code></td>
<td>'put on earring'</td>
<td>/búrben/ 'snow'</td>
</tr>
<tr>
<td><code>/t/</code></td>
<td>'to sow seed'</td>
<td>/tuitò/ 'bed of river'</td>
</tr>
<tr>
<td><code>/t/</code></td>
<td>'connect'</td>
<td>/gótôi/ 'bamboo shoot'</td>
</tr>
<tr>
<td><code>/t/</code></td>
<td>'broken'</td>
<td>/lútô/ 'bold head'</td>
</tr>
<tr>
<td><code>/tʰ/</code></td>
<td>'gun'</td>
<td>/tʰiŋtʰal/ 'a kind of tree'</td>
</tr>
<tr>
<td><code>/tʰ/</code></td>
<td>'death'</td>
<td>/mitʰi/ 'dead person'</td>
</tr>
<tr>
<td><code>/sʰ/</code></td>
<td>'fermented meat'</td>
<td>/mutʰi/ 'kite'</td>
</tr>
<tr>
<td><code>/d/</code></td>
<td>'tasty'</td>
<td>/gódál/ 'rice cleaner'</td>
</tr>
<tr>
<td><code>/d/</code></td>
<td>'cold'</td>
<td>/tʰiŋdó/ 'new leaf'</td>
</tr>
<tr>
<td><code>/d/</code></td>
<td>'bell'</td>
<td>/tʰidáʔi/ 'bell used on dead occasion'</td>
</tr>
<tr>
<td><code>/k/</code></td>
<td>'cry'</td>
<td>/kòkai/ 'sweet potato'</td>
</tr>
<tr>
<td><code>/k/</code></td>
<td>'leg'</td>
<td>/tʰiŋka/ 'curve wood'</td>
</tr>
<tr>
<td><code>/k/</code></td>
<td>'pair'</td>
<td>/sùʔdukul/ 'adam's apple'</td>
</tr>
<tr>
<td><code>/g/</code></td>
<td>'land'</td>
<td>/sagi/ 'seven'</td>
</tr>
<tr>
<td><code>/g/</code></td>
<td>'dry'</td>
<td>/gəmgí/ 'boundary'</td>
</tr>
<tr>
<td><code>/g/</code></td>
<td>'bone'</td>
<td>/tʰonɡó/ 'poetic word for rain'</td>
</tr>
<tr>
<td>Sound</td>
<td>Meaning</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>/àʔpi/</td>
<td>'hen'</td>
<td></td>
</tr>
<tr>
<td>/vûʔ/</td>
<td>'pig'</td>
<td></td>
</tr>
<tr>
<td>/àʔtui/</td>
<td>'egg'</td>
<td></td>
</tr>
<tr>
<td>/mâi/</td>
<td>'pumkin'</td>
<td></td>
</tr>
<tr>
<td>/môn/</td>
<td>'rotten'</td>
<td></td>
</tr>
<tr>
<td>/mûn/</td>
<td>'place'</td>
<td></td>
</tr>
<tr>
<td>/nâ/</td>
<td>'leaf'</td>
<td></td>
</tr>
<tr>
<td>/nûi/</td>
<td>'laughter'</td>
<td></td>
</tr>
<tr>
<td>/nê/</td>
<td>'lip'</td>
<td></td>
</tr>
<tr>
<td>/nâi/</td>
<td>'neck'</td>
<td></td>
</tr>
<tr>
<td>/nâl/</td>
<td>'bird'</td>
<td></td>
</tr>
<tr>
<td>/sûm/</td>
<td>'money'</td>
<td></td>
</tr>
<tr>
<td>/sên/</td>
<td>'red'</td>
<td></td>
</tr>
<tr>
<td>/sêm/</td>
<td>'hair'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/vaʔ/</td>
<td>'crow'</td>
</tr>
<tr>
<td>/bûʔ/</td>
<td>'hut'</td>
</tr>
<tr>
<td>/sûʔ/</td>
<td>'grind'</td>
</tr>
<tr>
<td>/fûŋmai/</td>
<td>'cucumber'</td>
</tr>
<tr>
<td>/sum/</td>
<td>'money'</td>
</tr>
<tr>
<td>/dêmôi/</td>
<td>'illness'</td>
</tr>
<tr>
<td>/leina/</td>
<td>'tongue pain'</td>
</tr>
<tr>
<td>/fûn/</td>
<td>'wrap'</td>
</tr>
<tr>
<td>/aina/</td>
<td>'leave of jungle ginger'</td>
</tr>
<tr>
<td>/saŋôni/</td>
<td>'neck of animal'</td>
</tr>
<tr>
<td>/kôn/</td>
<td>'burning'</td>
</tr>
<tr>
<td>/kinaî/</td>
<td>'to lean on'</td>
</tr>
<tr>
<td>/navaʔ/</td>
<td>'at ease'</td>
</tr>
<tr>
<td>/fâvei/</td>
<td>'lack of care'</td>
</tr>
<tr>
<td>/meivaʔ/</td>
<td>'light'</td>
</tr>
<tr>
<td>/sûmsên/</td>
<td>'coin used in olden time'</td>
</tr>
<tr>
<td>/leisên/</td>
<td>'red soil'</td>
</tr>
<tr>
<td>/lusû/</td>
<td>'palm tree'</td>
</tr>
</tbody>
</table>
As already stated above, the aspirated stops occur only initially and medially but never finally. Aspiration is also weaker in medial position. Hence, except for /t/ and /l/, the frequency of occurrence of all consonantal phonemes is highest in initial position.
3.3.2 Vowels:

As stated earlier except /ə/ all vowels in Thadou can occur in all three positions. The central vowels /ə/ does occur word finally. Hence all vowels can occur word medially.

<table>
<thead>
<tr>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ə/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ɛn/</td>
<td>'house'</td>
<td>/kɪn/</td>
</tr>
<tr>
<td>/ɛt/</td>
<td>'value something'</td>
<td>/hɪɛt/</td>
</tr>
<tr>
<td>/ɛm/</td>
<td>'conceal'</td>
<td>/hɪɛm/</td>
</tr>
<tr>
<td>/ɛl/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ɛtɛ/</td>
<td>'dung'</td>
<td>/pɛɛn/</td>
</tr>
<tr>
<td>/ɛlɛi/</td>
<td>'lame'</td>
<td>/sɛɛm/</td>
</tr>
<tr>
<td>/ɛmɛ/</td>
<td>'glowing'</td>
<td>/pɛɛdɛɛ/</td>
</tr>
<tr>
<td>/əɛ/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/əɛn/</td>
<td>'meal'</td>
<td>/tɛɛm/</td>
</tr>
<tr>
<td>/ɛntɛɛn/</td>
<td>'rice'</td>
<td>/dɛɛn/</td>
</tr>
<tr>
<td>/ɛzɛɛn/</td>
<td>'straight'</td>
<td>/nɛɛl/</td>
</tr>
</tbody>
</table>

It should be noted here that the /əɛ/ in /ɛzɛɛn/ 'straight' is a prefix because in Kuki-Chin languages adjectives always take a prefix /əɛ/.

/ɛl/

| /ɛlɛɛn/    | 'hens' | /dɛɛm/ | 'marshy land' | /kɛɛl/ | 'cry' |
| /ɛnɛɛn/    | 'breast' | /tɛɛm/ | 'flavourless' | /nɛɛl/ | 'pain' |
| /ɛmɛɛn/    | 'flame' | /vɛɛn/ | 'sky' | /sɛɛl/ | 'hot' |
3.4 Description of Phonemes and their Positional Variants:

3.4.1 Consonants:

/p/ It is a voiceless unaspirated bilabial stop. All the bilabial stops in Thadou are unreleased in final positions. It has two allophones [p̚] and [p].

[p̚] The unreleased stops occur finally in closed syllable.

[z̚p̚] ‘swim’
[y̚p̚] ‘jump’
[g̚p̚] ‘six’
[p] The released stops occur initially both in open and closed syllables.

[pʰ] 'grand father'

[pʰɛ] 'watch'

[pʰt] 'cotton'

/pʰ/ It is a voiceless aspirated bilabial stop. It occurs initially and medially but never finally. It has two allophones [pʰ₁] and [pʰ₂].

The [pʰ₁] with stronger aspiration occurs in word-initial position.

[pʰä] 'good-

[pʰɔ] 'scold'

The [pʰ₂] with weaker aspiration occurs in medial position.

[pʰelbi] 'winter'

[gɔpʰel] 'catapult'

[tʰɛŋphu] 'to cut tree'

The frequency of occurrence is highest in initial position.

/b/ It is a voiced unaspirated bilabial stop. It has three allophones [b⁽¹⁾], [b⁽²⁾] and [b].

[b⁽¹⁾] voiced bilabial stop with strong plosion occurs word-initially.

[b⁽¹⁾al] 'yam'

[b⁽²⁾úi] 'a type of rat'

[b⁽²⁾et] 'debt'

[b⁽³⁾] Voiced bilabial stop with relatively weak plosion occurs intervocally.

[øb⁽³⁾ɛŋ] 'broken in pieces'
Voiced bilabial stop occurs elsewhere.

[ɐʔbʊʔ] 'chicken coop'
[tʃáŋbuʔ] 'grainery'

/t/ It is a voiceless unaspirated dental stop. It has two allophones [tʰ] and [t]:

[tʰ] The unreleased dental stop occurs finally in closed syllables.
[lútʰ] 'to enter'
[sútʰ] 'pestle'
[mutʰ] 'blow'

[t] The released dental stop occurs initially in open and closed syllables.
[tu] 'to sow'
[tui] 'water'
[tin] 'to block'

/tʰ/ It is a voiceless aspirated dental stop. It has two allophones [tʰᵢ] and [tʰᵢ].

The [tʰᵢ] with stronger aspiration occurs in word initial position.
[tʰum] 'three'
[tʰal] 'gun'
[tʰin] 'wood'

The [tʰᵢ] with weaker aspiration occurs in medial position.
[kitʰa] 'suicide'
[mutʰi] 'hawk'
[kitʰin] 'quiver'
/d/ It is a voiced unaspirated dental stop. It has three allophones [d*], [d] and [d].

[d*] It is a voiced dental stop (relatively more energetic) and with slight glottal constriction and occurs word-initially.

[d*ɔn] ‘drink’

[d*ɔt] ‘firm’

[d*ɔl] ‘chase’

[d*] It is voiced dental stop (less energetic) and it occurs in the intervocalic position.

[əd*im] ‘full’

[ved*un] ‘river’

[kid*ɔu] ‘enmity’

[d] It is voiced dental stop and it occurs elsewhere.

[su̯dɔp] ‘carry down’

[məndɔʔ] ‘disappear’

/k/ It is a voiceless unaspirated velar stop. It has two allophones [k*] and /k/.

[k*] It is voiceless post velar stop and it occurs before the back vowels.

[k* ʊl] ‘exceptionally old’

[k* əi] ‘to put or keep’

[k* ʊm] ‘year’
[k] It is voiceless velar stop; occurs elsewhere.

[kɛŋcû] 'shoes'

[kɛŋ] 'leg'

[kẽm] 'mouth'

/k/ does not occur finally in Thadou, but in sister languages like Paite etc. /k/ occurs finally.

/g/ It is a voiced velar stop. It has three allophones [g'] [g] and [g*].

[g'] Voiced velar stop (relatively more energetic) and with slight glottal constriction. This allophone occurs word initially.

[g'îl] 'intestine'

[g'úl] 'snake'

[g'âl] 'battle'

[g'] It is a voiced velar stop (less energetic) allophone, and it occurs in the intervocalic position.

[eg'ûl] 'rainbow'

[eg'au] 'soul'

[eg'û] 'bone'

[g] It is a voiced velar stop, and it occurs elsewhere.

/ʔ/ It is a voiced unaspirated glottal stop and does not occur finally.

There are no variants of /ʔ/ except as mentioned earlier that in all the writing system of Thadou, the letter ‘h’ replaces it. Glottal stop does not occur finally in Thaou.
/m/ It is a voiced bilabial nasal. It has two allophones [m̩] and [m].

The unreleased nasal [m̩] occurs in word final position and is relatively longer than its occurrence elsewhere.

[pom̩] 'round object'
[gim̩] ‘tired’
[tʃim̩] ‘fed up’

The released nasal [m] occurs initially and medially.

[mù] ‘see’
[mɔi] ‘stick’
[sumi] ‘forget’

/n/ It is a voiced dental nasal. It has two allophones [n̩] and [n].

The unreleased dental (unreleased) nasal [n̩] occurs medially and finally in closed syllable:

[tin̩] ‘block’
[tin̩] ‘nail’
[tun̩tun] ‘back part of the body’

The released dental [n] occurs initially.

[nəm] ‘tribe’
[nʊ] ‘mother’
[ʃənu] ‘daughter’

/N/ It is a voiced velar nasal. It has two allophones [n̩] and [n].

The unreleased velar nasal [n̩] occurs finally in closed syllable:

[gin̩] ‘sound of a bile, etc.’
[lin̩] ‘thorn’
[hin̩] ‘alive’
The released nasal [n] occurs initially.

[nɛt]    'to face'
[nui]    'calm'
[kinai]    'lean on'

It should be noted here that all unreleased nasals occur in word final position and are relatively longer than their occurrence elsewhere.

/hl/ It is a voiced labio-dental fricative. It has two allophones [y] and [v]. The voiceless counterpart of /hl/, i.e. /hl/ is not found in Thadou.

[y] It is a partially devoiced labio-dental fricative and occurs word-initially:

[yɛn]    'locality'
[yan]    'rare'
[yun]    'skin'

[v] is fully voiced labio-dental fricative. It occurs in the intervocalic position.

[savun]    'skin of animal'
[leivui]    'mud'
[seival]    'extra talks'

/s/ It is a voiceless alveolar fricative. It has two allophones [ʃ] and [s].

[ʃ], the voiceless post alveolar fricative occurs before unrounded high front vowel /i/ and central vowel /o/.

[jil]    'to wear, wash'
[jin]    'to cover'
[jel]    'to reflect'
The voiceless alveolar fricative occurs elsewhere.

/s/ 'write'

/sʌt/ 'write'

/sɔl/ 'send'

[kisʊʔ] 'fight'

/ɻ/ It is a voiced alveolar fricative. It has two allophones [z] and [z].

[z] is a partially devoiced allophone and it occurs in word-initial position.

[zəm] 'to grow like climbing'

[zaːxat] 'one hundred'

[zάm] 'run away'

[z] is a fully voiced allophone and it occurs in intervocalic positions.

[kizot] 'sell'

[kizáp] 'to fan'

[kizen] 'treatment'

/h/ It is a voiceless glottal fricative.

/l/ is a voiced alveolar lateral and occurs everywhere.

[lun] 'worm'

[salam] 'handshake'

[mèt] 'stick'

/ɻ/ It is a devoiced lateral. It occurs initially and medially.

[liːn] 'marrow'

[liːn] 'arrival'

[liːá] 'ghost'
Medial

\[ t^h \alpha i \varepsilon \eta \] 'representative'

\[ s\delta ? \iota \eta \] 'push down'

\[ k\iota \varepsilon \imath \varepsilon \eta \] 'elope'

\[ t\delta \] it is a voiceless affricate. It has two allophones [t\delta] and [ts].

[ts] The alveo-palatal occurs while followed by low vowels /əl/.

\[ t\varepsilon m \] 'knife'

\[ t\varepsilon \varepsilon n \] 'share of portion'

\[ t\varepsilon \] The voiceless palatal affricate occurs elsewhere.

\[ t\varepsilon i \] 'salt'

\[ t\varepsilon \varepsilon l \] 'yeast'

3.4.2 Vowels:

\[ i\varepsilon \] It is a high front unrounded vowel. It has two allophones [i] and [i].

[i], the tense high front unrounded vowel occurs elsewhere.

\[ i\varepsilon \] 'belch'

\[ i\varepsilon m \] 'to conceal the truth'

\[ x\varepsilon p \] 'become dry'

\[ t\varepsilon \varepsilon \] 'death'

\[ n\varepsilon \varepsilon \] 'corner'

\[ l\varepsilon \] the lax lower high front unrounded vowel occurs if it is the first sound in a word or the first syllable of the word.

\[ l\varepsilon n \] 'house'

\[ t\varepsilon n \] 'claw'
[lpi] 'what'

[mlt] 'eye'

[sim] 'learn'

/ʌ/ It is a high back rounded vowel. It has two allophones [u] and [U].

[u], the tense high back rounded vowel occurs word finally.

[nú] 'mother'

[kul] 'fortress'

[mù] 'see'

[nû] 'mother'

[bû] 'rice'

[U], the lax lower high back rounded vowel occurs elsewhere.

[gûp] 'six'

[ûm] 'surround'

[tʰûm] 'three'

[kûm] 'year'

[ûm] 'stay'

/ɛ/ It is a lower mid front unrounded vowel. It has two allophones [ɛ] and [e].

[ɛ], the lower mid front unrounded vowel occurs elsewhere.

/ɛn/ 'envy'

[tɛp] 'taste a sample'

[li ɛl] 'tire'

[kɛ] 'split'

[ɛʔ] 'dung'
[e], mid front unrounded vowel occurs with high tone.

/pé/ 'give'

[vě] 'to look'

[hě] 'to know something'

[kén] 'leg'

/o/ It is a higher mid back rounded vowel and has one allophone [o] which occurs in all positions:

[óp] 'mourning (crying by the side of the corpse')

[ót] 'envy'

[kón] 'boat'

[xóp] 'gather'

[pon] 'cloth'

/o/ The mean-mid back rounded vowel has one allophone [ɔ] which occur in all positions.

[ɔ] 'noise'

[ɔm] 'boil'

[kõt] 'door'

[gɔ] 'roast/broil'

[sɔ] 'key'

/ə/ It is a mid central unrounded vowel. It has two allophones [ə] and [ʌ].

[ə] The mid central unrounded vowel occurs elsewhere.

[bən] 'whiteness'

[əŋ] 'male'

[əgei] 'rim of basket'

[əgɔ] 'to wither (plant etc)
[^\], the lower mid back unrounded vowel occurs after [+high-
back] consonants.

[x\mul] 'beard'

[x\ŋp^ei] 'upper part of central house'

[x\p] 'bed bug'

[k\m] 'to set trap'

[\nk\m] 'mustard leaf'

/lą/ It is a low central vowel. It has no major allophone except it is pronounced
back when it occurs with back consonants

[áʔ] 'to put on shirt'

[áʔsi] 'star'

[bán] 'to hang'

[lám] 'dance'

[pá] 'father'

3.4.2.1. Distributional characteristics of the vowels in Thadou:

(i) All the vowels accept the central vowel /ə/, can occur in word-initial,
medial, and final positions of a word. /ə/ does not occur in the word-final
position.

(ii) The frequency of occurrence of /i/ as the second element of a diphthong
seems to be very high.

(iii) The occurrence of /ə/ as the second element of a diphthong is not found
in the language.

(iv) All vowels are long when they occur at the end of a word.
(v) All the vowels with a falling tone are relatively shorter than vowels carrying a level or rising tone.

Summary:
Thirumulai (op cit, 1972:13) stated that Thadou vowel /e/ occurs in combination with /i/ and /u/. The following examples illustrate that they are diphthongs and not vowel combinations as he mentioned because in their pronunciation there is a definite glide from the first to the second vowel. This is further substantiated by examples in 3.5.2 on the phonemic status of diphthongs.

\[
\begin{align*}
/\text{i}/ & \quad \text{bridge} \quad /\text{e}/ & \quad \text{I}' \\
/\text{s}/ & \quad \text{speak} \quad /\text{d}/ & \quad \text{like} \\
/\text{t}/ & \quad \text{fruit} \quad /\text{t}/ & \quad \text{courtyard} \\
/\text{t}/ & \quad \text{annoy} \quad /\text{t}/ & \quad \text{native apple} \\
/\text{t}/ & \quad \text{fig} \quad /\text{h}/ & \quad \text{needle} \\
/\text{h}/ & \quad \text{naked} \\
\end{align*}
\]

Based on the above observations, this study proposes different phonetic charts for consonants and vowels which are given below:
### Fig 11. Phonetic charts:

#### Consonants:

<table>
<thead>
<tr>
<th>Manner of articulation</th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UASP AS</td>
<td>UASP AS</td>
<td>UASP</td>
<td>UASP</td>
<td>UASP</td>
<td>UASP</td>
<td>UASP</td>
<td></td>
</tr>
<tr>
<td>VI Stop</td>
<td>p</td>
<td>t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vd</td>
<td>pʰ</td>
<td>tʰ</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal Vd</td>
<td>m</td>
<td></td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI Fricative Vd</td>
<td>v</td>
<td></td>
<td>s</td>
<td>f</td>
<td>x</td>
<td></td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>VI Affricate Vd</td>
<td>tˢ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trill Vd</td>
<td></td>
<td></td>
<td>(r)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI Lateral Vd</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fig 12. Vowels:

<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></td>
<td>u</td>
</tr>
<tr>
<td>Lower high</td>
<td>l</td>
<td></td>
<td>U</td>
</tr>
<tr>
<td>higher mid</td>
<td>e</td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Mean mid</td>
<td>ø</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower mid</td>
<td>ε</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.5. Diphthongs or Diphthongal Glides:

A diphthong is a sequence of two vowels and are also known as 'vowel glides' in which the tongue glides from one vowel position to the other vowel before the articulation is complete. They can, therefore, be described in terms of the tongue position and the shape of the lips. Though a diphthong has two vowels, it is considered as a single unit and is a syllabic.

Diphthongs are like vowels in that they are produced with a relatively open vocal tract and a well defined formant structure, and they serve as a nucleus of a syllable. Diphthongs are unlike vowels in that they cannot be characterized by a single vocal track shape or a single formant pattern. Diphthongs are dynamic sounds in which the articulatory shape slowly changes during the sound's production.

In a diphthong, one of the vowel segments is more prominent than the other and according to the prominence received by a diphthong; it is classified as 'falling' (also called 'decrescendo') or 'rising' (also called 'crescendo'). A 'falling' diphthong has the first vowel more prominent whereas the second vowel is more prominent in the 'rising' diphthong.

Another classification of diphthong is into 'centering' and 'decentering'. In 'centering' diphthongs, the second vowel is realized as the central vowel. In 'decentering', the diphthong moves toward a less central position. (Strang; 1968).
In the words of AC Gimson, 1994 “The sequences of vocalic elements included under the term ‘diphthong’ are those which form a glide within one syllable. They may be said to have a first element (the starting point) and the second element (the point in the direction of which the glide is made).”

3.5.1 Classification of diphthongs:

Classification of Thadou diphthongs: falling and rising diphthongs:

Thadou has 12 diphthongs namely /ai, ui, ie, ei, eu, au, eu, iu, oi, ui, ou/

The diphthongs in Thadou can be further grouped into open and closed diphthongs. Except /iel/ and /oul/, Thadou diphthongs can occur medially in only complex words.

<table>
<thead>
<tr>
<th>Diphthongs (Open)</th>
<th>Diphthongs (Closed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. /ai/ /hai/</td>
<td>‘bottle’</td>
</tr>
<tr>
<td>2. /ui/ /uitfa/</td>
<td>‘dog’</td>
</tr>
<tr>
<td>3. /ei/ /eimi/</td>
<td>‘our people’</td>
</tr>
<tr>
<td>4. /iel/ /siel/</td>
<td>‘mithun’</td>
</tr>
<tr>
<td>5. /eau/ /sau/</td>
<td>‘boiling’</td>
</tr>
<tr>
<td>6. /au/ /kau/</td>
<td>‘ghost’, vampire’</td>
</tr>
<tr>
<td>7. /eu/ /okeeu/</td>
<td>‘naked’</td>
</tr>
<tr>
<td>8. /iu/ /kiu/</td>
<td>‘one elbow’</td>
</tr>
<tr>
<td>9. /oi/ /opi/</td>
<td>‘stomach’</td>
</tr>
<tr>
<td>10. /oi/ /soi/</td>
<td>‘signature’</td>
</tr>
<tr>
<td>11. /ou/ /mou/</td>
<td>‘bride’</td>
</tr>
<tr>
<td>12. /ou/ /dou/</td>
<td>‘luck’</td>
</tr>
</tbody>
</table>

/iel/ /niei/ ‘abundant’
/giel/ ‘hailstone’
/liejkou/ ‘shoulder’
/ou/ /doup/ ‘round’
/touna/ ‘seat’

basket type for drying paddy

61
All the diphthongs glide towards the high position in the above examples. The above analysis indicates that Thadou diphthongs occurs more with closed syllable than open syllable. This is due to the reason that Thadou prefer open syllable than closed syllable.

3.5.2 Phonemic status of diphthongs:

3.5.2.1 Contrastive pairs: In Thadou, diphthongs are considered as phonemes since they contrast within the same environment. This can be seen from the contrastive pairs given below:

- /ui/ vs. /ei/ /hui/ 'air' /hei/ 'axe'
- /eu/ vs. /au/ /səu/ boiling' /sau/ 'long'
- /ou/ vs. /eu/ /mou/ 'bride' /leu/ 'to receive fine'
- /iu/ vs. /oi/ /kiu/ 'elbow' /koi/ 'embrace'
- /ɔu/ vs. /ɔi/ /dɔu/ 'luck' /dɔi/ 'magic'
- /ai/ vs. /ei/ /gai/ 'pregnant' /gei/ 'late'
- /ai/ vs. /ui/ /mai/ 'face' /bui/ 'marrow'
- /ai/ vs. /oi/ /sai/ 'elephant' /soi/ 'signature'
- /oi/ vs. /ei/ /loi/ 'swing' /lei/ 'bridge'
- /oi/ vs. /ui/ /noi/ 'under' /nui/ 'laugh'
- /ei/ vs. /ui/ /kei/ 'i' /kui/ 'who'
- /ei/ vs. /ie/ méi 'cloud' /sie/ 'torn'
- /eu/ vs. /eu/ /keu/ 'naked' /θe/ 'field'
### Distribution of Diphthongs

<table>
<thead>
<tr>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ai/ 'crab'</td>
<td>/ai/ 'crab'</td>
<td>/nai/ 'near'</td>
</tr>
<tr>
<td>/ui/ 'dog'</td>
<td>/uitfa/ 'dog'</td>
<td>/sui/ 'cut into shape'</td>
</tr>
<tr>
<td>/ei/ 'own people'</td>
<td>/meiti'ei/ 'probably'</td>
<td>/nei/ 'to possess'</td>
</tr>
<tr>
<td>/ie/</td>
<td>/siel/ 'mithun'</td>
<td></td>
</tr>
<tr>
<td>/əu/</td>
<td>/seulou/ 'unboil'</td>
<td>/seu/ 'boil'</td>
</tr>
<tr>
<td>/au/</td>
<td>/kaupil/ 'to trigger bullet'</td>
<td>/kau/ 'vampire'</td>
</tr>
<tr>
<td>/eu/</td>
<td>/keulou/ 'stain that cannot be washed'</td>
<td>/keu/ 'naked'</td>
</tr>
<tr>
<td>/iu/ 'ours'</td>
<td>/kiutui'/ 'two elbow'</td>
<td>/kiu/ 'elbow'</td>
</tr>
<tr>
<td>/ui/ 'stomach'</td>
<td>/iipioi/ 'she buffalo'</td>
<td>/oi/ 'friend'</td>
</tr>
<tr>
<td>/oi/ 'hard'</td>
<td>/loipi/ 'pillar'</td>
<td>/soi/ 'signature'</td>
</tr>
<tr>
<td>/ou/</td>
<td>/moupa/ 'bridegroom'</td>
<td>/mou/ 'bride'</td>
</tr>
<tr>
<td>/u/</td>
<td>/douhoi/ 'good luck'</td>
<td>/mou/ 'to sing'</td>
</tr>
</tbody>
</table>

Fig 13. Phonetic chart of diphthongs showing direction of glide.
3.6 Consonant Clusters:

The term consonant cluster is used in the analysis of connected speech to refer to any sequence of adjacent consonants occurring in a syllable. Usually a distinction is made between consonant clusters and consonant sequences. Consonant clusters occur within a syllable while consonant sequences occur across syllables. Thadou does not allow consonant clusters within syllabic boundary, but consonant sequences across syllabic boundary with a maximum of two consonants are common. Word-medially, sequences of the two consonants are possible and hence there is no possibility of having word medial sequences of three consonants. Thus, according to the syllable structure of this language, whenever two consonants sequences occur, the syllable break is between the two consonants. Given below are lists of words for illustrating consonant sequences in Thadou

(a) Stop +Stop

/-pp-/  luppi  'to be friendly with'
/-pt-/  tfèptên  'to circumcise'
/-pd-/  ñәpdәʔ  'unfold'
/-ptf-/  ñәptfa  'able to do'
/-px-/  lупxәm  'sleep with'
/-pp^/  ñpp^ә  'cover with body' (flat)
/-pt^/  sɔptʰieŋ  'wash (clean)'
/-pg-/  tuopgin  'sound of cannon'
/-tp-/  kәtpi  'gate'
/-tp-/  kibùtpi  'wrestle with'
/-tt-/ hittui ‘louse (egg)’
/-td-/ gòtdèn ‘to fence around’
/-tk-/ pùtkit ‘to spring out again (liquid)’
/-tpʰ-/ xùtpʰəŋ ‘palm’
/-ttʰ-/ pʰəttʰèi ‘prosperity’
/-tb-/ kōtbil ‘handle of the door’
/-td-/ xùtdò ‘to beg’
/-tg-/ xùtgo ‘empty handed’

(b) Stop+Nasal

/-pm-/ zùpmèt ‘to join’
/-pn-/ īpna ‘temptation’
/-pnŋ-/ kàŋŋui ‘fainted (by injection), proper name’
/-tm-/ hitmè ‘small louse’
/-tn-/ īṭnom ‘to change money’
/-tnŋ-/ xùtnŋè ‘wrist’

(c) Stop +Fricative

/-pz-/ sèpzèp ‘call once’
/-pt-/ àʔtvən ‘cut into hole’
/-ts-/ sùtsàʔ ‘to write’
/-tx-/ kōtxum ‘side pillars of the door’
/-tz-/ xùtzèm ‘ring’
/-pv-/ gùpvèi ‘six times’
/-px-/ hōpxèt ‘one part (portion)’
/ph/- tephəm  'are (you) smoking'

/ps/- sèpsie?  'to call names, curse'

/tv/- vútváí  'dust'

/th/- vúthɔm  'to bore a hole'

(d) Stop +Lateral

/pl/- kàplút  'to inject inside'

/tl/- tʰəlpí  'arrow'

/p †/- gøp † ŋáŋ  'the stick on which meat is suspended on the fire'.

(e) Nasal +Stop

/mp/- húmpí  'lion'

/mt/- púmtôn  'guava'

/mk/- tʃəmká?  'short, a while'

/mtʰ/- kumtʰá?  'new year'

/mkʰ/- hiemkʰâm  'ceasefire'

/mpʰ/- lémpʰéi  'plain road, path'

/mb/- simbúpi  'owl'

/md/- ləmdəŋ  'wonder'

/mg/- gómgí  'boundary'

/mf/- mímfóŋ  'corn'

/np/- pènpi  'to side in favour of someone'

/nt/- mèntəm  'costly'

/nk/- inkôm  'central beam of the roof'

/nb/- zùnbú?  'urinal'

/nd/- hindàn  'mode, manner of life'
/-ng/- vāngin 'thunder'
/-ntʃ/- mēntʃə? 'tools'
/-npʰ/- tēnpʰɛ 'calves'
/-ntʰ/- mintʰən 'famous'
/-np/- lūnpki 'broad minded'
/-ŋt/- kēŋtɔ 'feet, leg'
/-ŋk/- sōŋkül 'cave'
/-nb/- Ɂ ōnbu? 'hut made of wood'
/-nd/- hīndɔ? 'become alive'
/-ŋg/- sēngəm 'relative'
/-ŋtʃ/- lungfən 'memorise'
/-npʰ/- mēnpʰə 'good wish; good night'
/-ŋtʰ/- tɕiŋtʰei 'alert cautious'

(f) Nasal + Fricative
/-mv/- lēmvai 'bewildered'
/-mx/- tʰəmxət 'some'
/-mh/- kūmhei 'celebration of new year'
/-ms/- kāmsən 'fire' (old term)
/-mz/- tɕəmzam 'sword'
/-nv/- lienvai 'too big'
/-nz/- punzem 'embroidered cloth'
/-ns/- insun 'rafter'
/-nx/- donxo 'melon'
/-nh/- gənhiŋ 'creatures'
(g) Nasal + Nasal

/-mm-/  gəmmaŋ  'jungle, woods'
/-mn-/  cəmna  'chest pain'
/-mŋ-/  səmpa  'fifty'
/-nm-/  kənmim  'roasted'
/-nn-/  kiginni  'saturday'
/-mŋŋ-/  hamnəm  'bold in speaking'
/-ŋm-/  xəŋməŋ  'dream'
/-ŋŋ-/  lunəm  'soft hearted person'
/-ŋŋŋ-/  tʰŋŋŋə  'worm eaten tree'

(h) Nasal + Lateral

/-ml-/  umlou  'absent'
/-ŋl-/  lunləm  'wish'
/-ŋll-/  tʃəŋləm  'above'
/-ml-/  ʃimla  'to forsake'

(i) Lateral + Stop

/-ld-/  gəldot  'to observe afar off'
/-lk-/  tilkilat  'castrate'
/-lpʰ-/  kəlpʰə  'lightening'
/-ltʰ-/  kəltʰəi  'guava'
(j) Lateral + fricative:

/-lv-/   golva?  ‘to celebrate’
/-lx-/   zaixun  ‘cot’
/-lh-/   lółhɔm  ‘throat’
/-ls-/   gulsɔʔ ‘cobra’
/-lz-/   xulzin  ‘tour’
/-lh-/   gulha   ‘winged snake’

(k) Lateral + Nasal

/-lm-/   milmo   ‘unforgettable’
/-ln-/   sielnou ‘calf (of mithun)’

(l) Glottal Stop + Plosive

/-ʔp-/   aʔpi    ‘hen’
/-ʔb-/   voʔbuʔ  ‘pig sty’
/-ʔt-/   aʔtui   ‘egg’
/-ʔʃ-/   aʔʃo    ‘beard of cock’
/-ʔk-/   voʔkoŋ  ‘plate for pig’
/-ʔpʰ-/   suʔpʰ:on ‘to bubble’
/-ʔtʰ-/   suʔtʰ:on ‘to call (attention)’
/-ʔb-/   aʔbom   ‘foul case’
3.6.1 Consonants clusters in loan words:

Native words in Thadou do not have consonant clusters within a syllable. However consonant cluster within a syllable are found in loan words from English and Indo-Aryan languages can be seen from the following examples.

/glass/ 'glass'
/skul/ 'school'
/krista/ 'Christ'

3.6.2 Vowel sequences:

Underlying vowel sequences are not permitted in Thadou. Vowel sequences are the result of deletion of glottal stop /ʔ/. Sometimes, a glottal stops gets
3.7 Syllable Structure and Syllabification:

Most phonologists accepted the syllable as a phonological unit. Phonetically, "Syllables are usually described as consisting of a centre which has little or no obstruction to airflow and which sounds comparatively loud or; before and after this centre (that is, at the beginning and end of the syllable), there will be greater obstruction to airflow (P. Roach: 1983:57)". Phonologically, the syllable 'is a unit containing one and only one vowel either alone or surrounded by consonants in certain arrangements (J. D. O' Connor: 1973:200).’ Thus, the syllables are marked by relative prominence of the peak. As such, the number of syllables depends on the peaks of prominence in a word.

The syllable has traditionally been seen as connecting an obligatory nucleus preceded by an optional consonantal onset and followed by an optional consonantal coda. The nucleus plus the coda form a tighter bond than the onset plus nucleus. Consequently, traditional grammar recognizes an additional sub constituent called the rhyme (or rime) that includes the nucleus and the coda. The constituents of traditional syllable are depicted as follows:
Fig 14. The Syllable Structure of Traditional Grammar.

A. Syllable

```
   Syllable
     / \   
   Onset  rime (rhyme)
         /   \   \   
     Nucleus  coda
          /   
         p i n
```

Fig 15. The Syllable Structure of (Pike, 1947).

```
   Syllable
     /   \   
   onset  core
       /     \   
     peak  coda
```

There is a reason to believe that the nucleus has a special status as the only obligatory constituent. For example \{cv, vc, v, cvc\} represents one of the most primitive syllable inventories. A significant number of the world's languages draw their syllable from this limited stock. The nuclear vowel v is only constant factor among these four primitive syllables.

The evidence thus, suggests that the nucleus is the syllable's essential core. This idea is formally reflected in the theory of syllabic representation developed by Levin (1985) in which the syllable is the projection of a single primitive category "nucleus," represented by N. We can then define the coda as the "complement" (right sister) of the nucleus; dominated by the first
projection $N'$. The onset may be defined as the "specifier" of the syllable (left sister of $N'$), dominated by the second-level projection $N''$. On this view, the syllable constituent "rime" is then nothing but the first projection $N'$. (Just as noun may constitute an NP in the absence of a complement or specifier, so a nuclear vowel may function as a syllable in the absence of an onset or coda). The first syllable of atom has an $N'$ and $N''$ projection just like the second. However, for notational convenience these may be suppressed.

In Thadou, vowels are more prominent than consonants and hence all non-vocalic sounds following or preceding them lack prominence. This lack of prominence is taken as a boundary marker between different syllables. In most cases, segmentation of Thadou syllables poses no difficulty. Syllable division comes mostly after the vowels. In cases of 'word-medial sequences of consonants' in a word with /CC-/ as an interlude, the division comes after the first consonant. Thadou has open syllables, closed syllables, syllable without onset and coda. In final position a Thadou syllable may have no coda as in /nupi/ 'women', or may be checked by one consonant only (as in /valup/ 'owl') ruling out the possibilities of word-final clusters. Some syllable lacks onsets: syllable that begins with vowels. In Thadou syllables onset comprises only one consonant. As such, the Thadou syllable structure can be generalized as $/C^0 \cdot 1-V-C^0 \cdot 1/$ (where $V=$ any vowel, and $C=$ any consonant).

Thadou, as like other Tibeto-Burman languages a syllable is a vocalic unit preceded or followed by one or more consonantal margins. In the latter type
the vocalic unit constitutes as 'peak' or nucleus of the syllable. A syllable consists of three phonetics parts: (i) onset (2) peak or nucleus, and (3) coda.

Peak is the nucleus of a syllable and it is carried by the vowel not by the consonant. The vowel i in mi 'man' e in mēn 'dream' c in hēm 'empty' u in mū 'see' etc are the peak (nucleus) of the very syllable.

Coda is the very sound which comes after the peak e.g. in mēt 'bedbug' ŋ in nuŋ 'back' m in sēm 'hair' are coda. In Thadou, only peak can be syllable or word. In every syllable there must be a peak. But there may not be onset or a coda in Thadou syllabic system.

Again syllable can be divided into open and close syllable. Open syllable are those which have no consonant sound after the peak, for instance, ha 'teeth' na 'ear' la 'song' pa 'father' etc. whereas in close syllable, a consonant at least follows the peak, as in example like ņēn 'neck' sat 'cut' dēm 'well' etc.

A word level analysis of Thadou attests the following patterns of syllabic units (here 'v' represents a syllable peak and 'c' a syllable margin (consonants) including an aspirated phonemic unit. In this language there can be one to four phonemic units in a syllable which can occur in their permissible order. There are four monosyllabic patterns and all the four monosyllabic patterns given below can also constitute a syllabic unit of a disyllabic or a polysyllabic word in it.
As in other Tibeto-Burman languages, in Thadou too, the syllabic division depends primarily, on the preceding and the following environments of the syllable pick.

The word level analysis of the language attests the following types:

Table 2. (Thadou Syllables Types)

<table>
<thead>
<tr>
<th>Syllable</th>
<th>EXAMPLES</th>
<th>Spelling</th>
<th>Transcription</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>u</td>
<td>/ú/</td>
<td>'elder brother, sister'</td>
<td></td>
</tr>
<tr>
<td>VC</td>
<td>an</td>
<td>/en/</td>
<td>'food'</td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>pu</td>
<td>/pu/</td>
<td>'grand father'</td>
<td></td>
</tr>
<tr>
<td>CVC</td>
<td>gul</td>
<td>/gul/</td>
<td>'snake'</td>
<td></td>
</tr>
</tbody>
</table>

Syllable patterns of Monosyllabic Words:

The syllable patterns of monosyllabic words in Thadou may be illustrated as follows:

(i)V Structure:

Consider the following examples of V structure in Thadou:

/ai/ 'crab'
/ú/ 'elder brother, sister'
/iu/ 'dog'

An analysis of Thadou lexis shows that the words of this structure are extremely rare.

(ii) VC Structure:

Examples of VC structure are listed below:

/im/ 'to hush up, to hide oneself'
/in/ 'house'
The lexical frequency of words with VC structure is very low in Thadou. All pure vowels (monophthongs) can occur initially forming words of VC structure.

(iii) CV Structure:
A large number of words in Thadou have the CV structure. Some of the examples of this structure are listed below:

/xa/ ‘bitter’
/za/ ‘respect’
/ha/ ‘teeth’
/tʃi/ ‘salt’
/zu/ ‘alcohol’
/ŋa/ ‘fish’

(iv) CVC Structure:
A fairly large number of words in Thadou have CVC structure. Some of the examples are listed below:

/mit/ ‘eyes’
/den/ ‘room’
/xet/ ‘ones’
/tʃil/ ‘saliva’, spittle’
3.7.1.1 Permissible syllabic sequences in a disyllabic word:

A large number of words in Thadou are disyllabic. In the disyllabic and polysyllabic words, mostly the above mentioned monosyllabic patterns are repeated in various combinations. The following are some of the permissible syllabic sequences in disyllabic words:

(i) V$CV /ɛnou/ 'offspring'
(ii) V$CVC /i⁢pʊŋ/ 'our watch'
(iii) VC$CVC /əntfəŋ/ 'rice'
(iv) VC$CV /a⁢pi/ 'hen'
(v) CV$VC /vəa⁢i/ 'crow'
(vi) CV$CV /pu⁢⁢ja/ 'small basket'
(vii) CV$CVC /pusə⁢i/ 'boy'
(viii) CVC$CVC /ʧɛ⁢mpəŋ/ 'knife'
(ix) CVC$CV /gulpi/ 'python'
(x) V$CVC /ikin/ 'our duty'
(xi) VC$CVC /inkəm/ 'roof'
(xii) VC$CV /inpi/ 'assembly'
3.7.1.2 Syllabic sequences in a trisyllabic word.

A large number of phonological words containing three syllables seem to be quite large in Thadou. Some of the permissible syllabic sequences in trisyllabic words may be represented as follows.

(i) \( V$CV$CSV \) /enina/ 'second'
(ii) \( V$CVC$CSV \) /ebontfan/ 'whole, all'
(iii) \( VC$CV$CSV \) /â?sipl/ 'planet'
(iv) \( VC$CVC$CSV \) /enkmum/ 'mustard seed'
(v) \( VC$CVC$CSV \) /edinna/ 'position of standing'
(vi) \( CV$CVC$CSV \) /t$ap$npu/ 'the boy'
(vii) \( CV$CVC$CSV \) /gotol$n/ 'bottom of bamboo'
(viii) \( CV$CVC$CSV \) /kumza$ni/ 'two hundred years'
(ix) \( CV$CVC$CSV \) /bon$fnmi/ 'cowherd'
(x) \( CV$CVC$CSV \) /lun$tinh$n/ 'memorise'
(xi) \( CV$CVC$CSV \) /kinta$n/ 'quickly'

3.7.1.3 Syllable sequences in quadrisyllabic words:

There are very few words with four or more syllables in Thadou. Most of these are compound words. The following are some of the examples of possible structures available in the language.

(i) \( CV$CVC$CSV$CV \) /kit$m$n$nu$n$u/ 'defend to be on the right side'
(ii) \( CV$CVC$CSV$CV \) /ponm$n$apna/ 'laces'
(iii) \( CV$CVC$CSV$CV \) /kilun$onsa$?/ 'short tempered'
(iv) \( CV$CVC$CSV$CV \) /goltfalup/en/ 'beloved friend'
3.7.1.4 Structure of derived words:
Derived words in Thadou may contain as many as five or six syllables depending on the number of syllables there are in the base and in the derivational elements. The structure of the base and the inflectional elements. The structure of each inflected word is the combined structure of the base and the inflectional element (during the process of affixation, reduplication, etc.

It must be noted here that the loan words in Thadou has syllable structure for the following types:

(1) CC$V$CCV
/Kr/: /krista/ ‘Christ’

(2) CC$V$C
/klas/ ‘class’
/glas/ ‘glass’

3.8 Supra-Segmentals:

3.8.1 Tones:
Pike was the first linguist to discuss tone. Pike defines as tonal any language “having significant, contrastive, but relative pitch on each syllable.” Pike (1948:3). Many of the Tibeto-Burman languages especially spoken in North East states of India are tonal languages.

Consider the following examples from Meitei/Manipuri.

Mid : [i] ‘blood’

Low : [i] ‘thatch’

Meitei has a phonemic contrast between mid tone, and low tone on any given syllable. Unlike stress, different tones can lexically contrast in a given phonological environment.
Tones are the supra-segmental phonemes in Thadou. Like many other Tibeto-Burman languages, tone plays a significant role in this language i.e., by changing the pitch of tone, the same word which indicates a difference in meaning. Tone is phonemic in this language.

There are three tones in Thadou. They are rising /´/, falling /`/ and level.

The tones, contrastive in three ways, viz., high mid and low: Mid tone remains unmarked.

(i) High tone: High tone is pronounced with high pitch that fall slightly.

(ii) Mid Tone: The Mid tone is pronounced with pitch that is slightly lower than high pitch and slightly higher than the low pitch.

(iii) Low tone: Low tone is pronounced with low pitch that fall slightly.

As far as their distribution is concerned Thadou have all three tones in all syllable types. It should be noted here that the tone of a syllable keeps changing in Thadou, depending on its occurrence in a word with other syllables. The tones described below are relevant when words are pronounced in isolation.

Fig 16. Thadou Tone System.

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>\</td>
</tr>
</tbody>
</table>
Consider the following minimal pairs for tones:

lěi ‘tongue’
lei ‘bridge’
lèi ‘earth’
túi ‘tasty’
tui ‘egg’
tùi ‘water’
ŋá ‘five’
ŋa ‘fish’
ŋá ‘wait’

3.8.1.1 Contrastive pair

Consider the following contrastive pair in Thadou:

<table>
<thead>
<tr>
<th>Rising tone</th>
<th>Level tone</th>
<th>Falling tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ŋá/ ‘five’</td>
<td>/ŋa/ ‘fish’</td>
<td>/ŋà/ ‘wait’</td>
</tr>
<tr>
<td>/léi/ ‘tongue’</td>
<td>/lei/ ‘bridge’</td>
<td>/lěi/ ‘earth’</td>
</tr>
<tr>
<td>/túi/ ‘tasty’</td>
<td>/tui/ ‘egg’</td>
<td>/tùi/ ‘water’</td>
</tr>
<tr>
<td>/sá/ ‘hot’</td>
<td>/sa/ ‘meat’</td>
<td>/sà/ ‘thick’</td>
</tr>
<tr>
<td>/méi/ ‘cloud’</td>
<td>/mei/ ‘fire’</td>
<td>/mèi/ ‘tail’</td>
</tr>
<tr>
<td>/tːi/ ‘buffalo’</td>
<td>/tːi/ ‘friend’</td>
<td>/tːi/ ‘swing’</td>
</tr>
<tr>
<td>/tʃi/ ‘seed’</td>
<td>/tʃi/ ‘to walk’</td>
<td>/tʃi/ ‘salt’</td>
</tr>
<tr>
<td>/mú/ ‘eagle’</td>
<td>/mu/ ‘seed’</td>
<td>/mú/ ‘see’</td>
</tr>
<tr>
<td>/hái/ ‘mango’</td>
<td>/hai/ ‘glass’</td>
<td>/hái/ ‘breath’</td>
</tr>
<tr>
<td>/lːi/ ‘buffalo’</td>
<td>/lːi/ ‘friend’</td>
<td>/lːi/ ‘to paint’</td>
</tr>
<tr>
<td>/lə/ ‘lung’</td>
<td>/la/ ‘song’</td>
<td>/lə/ ‘to take’</td>
</tr>
</tbody>
</table>
Rising and Falling:

/kɔl/ 'Burmese'  /kɔl/ 'hindi'  /kɔl/ 'cliff of mountain'

/ʋài/ 'husk'  /ʋai/ 'morning'  /ʋài/ 'to be poor'

/xa/ 'bitter'  /xa/ 'chin'  /xa/ 'shut'

/ti/ 'body'  /ti/ 'to light fire'

/sà/ 'hot'  /sà/ 'thick'

/leì/ 'tongue'  /leì/ 'mud'

/ŋàl/ 'fish'  /ŋàl/ 'wait'

/lìì/ 'buffalo'  /lìì/ 'to paint'

/làl/ 'song'  /làl/ 'lung'

/méì/ 'cloud'  /méì/ 'tail'

/mòl/ 'dull'  /mòl/ 'false'

/bèì/ 'exhausted'  /bèì/ 'easy'

/nòi/ 'under'  /nòi/ 'breast'

/mòl/ 'mountain'  /mòl/ 'blur'

/hɔ̀ɛ̃/ 'sweep'  /hɔ̀ɛ̃/ 'support'

/lùm/ 'warm'  /lùm/ 'lay down'

/tùl/ 'now'  /tùl/ 'sow'

/mùl/ 'kite'  /mùl/ 'to see'

/gù/ 'venom'  /gù/ 'bone'

/ hàl/ 'mango'  / hàl/ 'breath'

/hàl/ 'teeth'  / hàl/ 'to be awake'

/tʰì/ 'blood'  /tʰì/ 'death'
3.8.1.2 Tonal contrast in various types of syllables.

There are very few well-attested minimal pairs for tone in the language.

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Mid</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ó/</td>
<td>'voice'</td>
<td>-</td>
<td>/ó/</td>
</tr>
<tr>
<td>/ú/</td>
<td>'elder brother' or sister</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VC</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/in/</td>
<td>'house'</td>
<td>/en/</td>
<td>'meal'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CV</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/sá/</td>
<td>'hot'</td>
<td>/sa/</td>
<td>'meat'</td>
</tr>
<tr>
<td>/tú/</td>
<td>'tasty'</td>
<td>/tui/</td>
<td>'egg'</td>
</tr>
<tr>
<td>/léi/</td>
<td>'tongue'</td>
<td>/lei/</td>
<td>'bridge'</td>
</tr>
<tr>
<td>/méi/</td>
<td>'cloud'</td>
<td>/mei/</td>
<td>'fire'</td>
</tr>
<tr>
<td>/ŋá/</td>
<td>'fish'</td>
<td>/ŋa/</td>
<td>'five'</td>
</tr>
<tr>
<td>/ŋi/</td>
<td>'buffalo'</td>
<td>/noi/</td>
<td>'friend'</td>
</tr>
<tr>
<td>/tʰi/</td>
<td>'blood'</td>
<td>/pa/</td>
<td>'thin'</td>
</tr>
<tr>
<td>/mú/</td>
<td>'eagle'</td>
<td>/vái/</td>
<td>'morning'</td>
</tr>
<tr>
<td>/bú/</td>
<td>'chapter'</td>
<td>/bu/</td>
<td>'food'</td>
</tr>
<tr>
<td>/nú/</td>
<td>'head'</td>
<td>/kɔi/</td>
<td>'hindi'</td>
</tr>
<tr>
<td>/lá/</td>
<td>'lung'</td>
<td>/la/</td>
<td>'song'</td>
</tr>
<tr>
<td>/mɔ/</td>
<td>'dull'</td>
<td>/xa/</td>
<td>'chin'</td>
</tr>
<tr>
<td>/bèi/</td>
<td>'exhausted'</td>
<td>/ŋoi/</td>
<td>'calm'</td>
</tr>
</tbody>
</table>
3.8.1.3 Tone Sandhi:

Like other Tibeto-Burman languages, Thadou also exhibits tone Sandhi.

When two morphemes are compounded together to form a new word, tone sandhi takes place. This can be illustrated in the following examples.

<table>
<thead>
<tr>
<th>UR</th>
<th>SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>/méi/</td>
<td>/bśli/ 'bundle'</td>
</tr>
<tr>
<td>/léi/</td>
<td>/mën/ 'edge'</td>
</tr>
<tr>
<td>/túi/</td>
<td>/tien/ 'tasty'</td>
</tr>
<tr>
<td>/näl/</td>
<td>/nål/ 'five'</td>
</tr>
<tr>
<td>/mōu/</td>
<td>/nù/ 'bride'</td>
</tr>
</tbody>
</table>
The above examples show that if the first morpheme which is always a free morpheme carries a rising tone, the rising tone becomes level tone if it is compounded with the second morpheme which may be bound or free carrying a level tone. It is the level tone that influences the rising tone and the result of the new word is a level tone.

3.8.1.4 General characteristics of Thadou tone:
1. As stated earlier there are three tones, namely, rising, level and falling in Thadou.
2. Phonetically it is possible to establish an allotone fall-rise [v] due to tonal assimilation.
3. The rising tone is phonetically the most prominent. It shows a rapid rise accompanied by comparatively more tenseness and loudness.
4. The most frequent contrast is between rising and falling tone.
5. The rising tone has the highest frequency of occurrence.
6. All tones can be found in all syllable types.

Generalizations:
A good tone language should have all tone in all syllable types. So restriction in syllable shows that the language does not have pure tone. In this case tone is phonemic. Low tone developed from high tone and as a result the syllable is lost. A vowel might change the place of articulation.
According to the theory of tonal genesis, tone developed from the loss of segment, either a consonant or a vowel, that causes the change in tone. Typically the loss of a voicing contrast in initial consonants results in phonemic high-low tone distinction with either voiced initial syllable developing low tone and voiceless initial syllable developing high tone.

Thadou has two types of morphologies, one derivational and the other inflexional. Depending on whether the process is derivational or inflectional, there may be a change in the phonology either in the segment or tone or both. For example, /mél/ 'cloud'+bol 'cluster' → meibol 'a cluster of cloud'

3.8.2 Emphatic Stress:

In Thadou, emphatic stress can be placed on any utterance. The position of emphatic stress is placed in a sentence shifts according to the subject of emphasis. The meaning of a word /tempi/ 'many, much can be intensified by giving prominence to the syllable. In doing so, the word denotes a particular large quantity or number.
Table 3. Distribution of consonants at the syllable level

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>pʰ</td>
<td>+</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>b</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>t</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ṭʰ</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>d</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>k</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>g</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>?</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>m</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>n</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>η</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>v</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>s</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>z</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>x</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>h</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>ʧ</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>ʃ</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>(r)</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 4. Distribution of vowels at the syllable level

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ɛ</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>a</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ə</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>ɔ</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>o</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>u</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
Table 5. Distribution of diphthongs.

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>initial</th>
<th>medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>ai</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ui</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ei</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ie</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>θu</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>au</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>eu</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>iu</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ci</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>oi</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>io</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>oc</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>