

Chapter-3

3.1. Phonology

Toto language has a total of twenty six (26) phonemes in its phonemic inventory which includes six vowels (6), eighteen (18) consonants and two (2) tones.

3.1.1. Vowels

Toto has six vocalic phonemes consisting of five peripheral vowels /i, e, a, o, and u/ and one interior vowel /ə/. The vowels of Toto show three way contrast of high, mid and low in terms of the levels of tongue height and front, central and back in terms of the part of the tongue raise. Like many other Tibeto-burman languages, voicing is not the relevant feature in the case of Toto vowels i.e., Toto doesn't have voiceless vowels. Lip rounding is also not a relevant feature, rather it is a redundant feature with all back vowels, i.e., the back vowels are rounded, the front and the central vowels are unrounded in the language. All the vowels in the language are oral i.e., no nasalized vowels are found so far. The vowel phonemes of Toto are illustrated in the following table:

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

Table 2: **Vowel phonemes in Toto**

3.1.2. Minimal Pairs

The six vowel phonemes are shown on the basis of following minimal pairs.

/i/ vs. */u/*

<i>/iso/</i>	‘one’
<i>/uso/</i>	‘that side’

<i>/ziya/</i>	‘bird’
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<i>/zuya/</i>	‘rat’
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<i>/gari/</i>	‘cart’
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<i>/garu/</i>	‘pot’
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/i/ vs. */e/*

<i>/iŋ/</i>	‘brother in-law’
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<i>/eŋ/</i>	‘ginger’
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<i>/ita/</i>	‘here’
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<i>/eta/</i>	‘goat’
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<i>/ciŋ/</i>	‘tree’
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<i>/ceŋ/</i>	‘child’
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/ə/ vs. */a/*

<i>/nəya/</i>	‘bear’
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<i>/naya/</i>	‘fish’
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/wəti/ 'rain'

/wati/ 'slide'

/sə/ 'home'

/sa/ 'house'

/u/vs./o/

/uti/ 'blood'

/oti/ 'vessel'

/luŋwa/ 'brother's wife'

/loŋwa/ 'fold'

/lu/ 'put on' (shoes)

/lo/ 'wake up'

/e/vs./a/

/eta/ 'goat'

/ata/ 'flour'

/lepa/ 'brain'

/lapa/ 'jungle betel leaf'

/kewa/ 'birth'

/kawa/ 'sound'

/e/vs./ə/

/kera/ 'sting'

/kəra/ 'finger'

	/ceŋwa/	‘child’
	/cəŋwa/	‘cucumber’
/e/vs./o/		
	/ye/	‘grass’
	/yo/	‘breast’
	/ɟeŋwa/	‘antelope’
	/ɟoŋwa/	‘appear’
/a/vs./o/		
	/lai/	‘come’
	/loi/	‘village’
	/lawɑ/	‘bring’
	/lowɑ/	‘raise’
/ə/vs./u/		
	/bəcuŋ/	‘arm’
	/bucuŋ/	‘muscle’
	/təiro/	‘push’
	/tuירו/	‘dig’

3.1.3. Description and Distribution of Vowels.

All the vowel phonemes /i/, /e/, /ə/, /a/, /o/ and /u/ occur in all three positions of word in the language. The vowel phonemes /u/ occur in all three positions of words however the occurrence in the initial position is very less i.e., initially it occurs only in few examples in the language while it occurs frequently in other positions. Hence all the vowel phonemes occur in word medial position in the language.

/i/ High front short unrounded vowel, it occurs initial, medial and final positions.

Initial

/iŋ/ 'brother in-law'

/icodaŋ/ 'alone'

Medial

/biŋa/ 'air'

/ziŋ/ 'sleep'

Final

/ti/ 'water'

/kui/ 'hand'

/e/ Mid front short unrounded vowel, it occurs initial, medial and final positions.

Initial

/eroŋme/ 'husband'

/eŋa/ 'pony'

Medial

/keka/ 'hen'

/keɪtu/ 'egg'

Final

/goɪz/ 'escort'

/kɑɪb/ 'kid'

/ə/ Mid central short unrounded vowel, it occurs initial, medial and final positions.

Initial

/ədɑɪcuwə/ 'short man'

/əraɪnm/ 'wife's sister'

Medial

/cəɪwə/ 'son'

/cəɪk/ 'lizard'

Final

/kɛpə/ 'chest'

/puaɪ/ 'snake'

/ɑ/ Low central short unrounded vowel, it occurs initial, medial and final positions.

Initial

/aɪ/ 'drink'

/ɑfə/ 'father'

Medial

/wati/ 'rain'

/haiwa/ 'ill'

Final

/luka/ 'sheep'

/demsɑ/ 'temple'

/o/ Mid back short rounded vowel, it occurs initial, medial and final positions.

Initial

/oraŋpa/ 'old man'

/oŋtikai/ 'ring'

Medial

/jomle/ 'twin'

/topro/ 'cap'

Final

/lo/ 'get up'

/laro/ 'bring'

/u/ High back short rounded vowel, it occurs initial, medial and final positions.

Initial

/uhuwa/ 'half'

/uwa/ 'horse'

Medial

/yuti/ 'milk'

/luintu/ 'stone'

Final

/ayu/ 'mother'

Table 3 provides the distribution of vowels in three positions initial, medial and final.

Phonemes	Initially	Medially	Finally
i	✓	✓	✓
e	✓	✓	✓
ə	✓	✓	✓
a	✓	✓	✓
o	✓	✓	✓
u	✓	✓	✓

3.1.4. Description of vowels and distribution of their positional variants.

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

The [ɪ] is realized as a lower-high front unrounded vowel and it occurs initially and medially.

/iŋ/ [ɪŋ] 'brother elder/younger'

/ita/ [ɪta] 'here'

/ioti/ [ɪoti] 'cauldron'

/biu/ [bɪu] 'marriage'

/giwa/	[gÍwa]	‘shoot door’
/ciwa/	[cÍwa]	‘tear’
/leiwa/	[lɛÍwa]	‘cook’
/bida/	[bÍda]	‘comb’
/miŋ /	[mÍŋ]	‘name’
/ziŋ/	[zÍŋ]	‘maize’

The [i] is realized as a high front unrounded vowel and it occurs elsewhere.

/gui/	[gUí]	‘crocodile’
/zusi/	[zUsí]	‘cockroach’
/mamsri/	[mamsrí]	‘jackal’
/toi/	[tɔi]	‘trunk’
/boŋoi/	[bɔŋɔí]	‘white ant’
/ji/	[jÍ]	‘leopard’
/əsi/	[ɛsí]	‘gum’
/ti/	[tì]	‘water’
/ziri/	[zIri]	‘net’

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

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

/ero/	[éro]	‘pressure’
/eŋ/	[éŋ]	‘ginger’
/tezu/	[tézu]	‘squirrel’
/cemi/	[c`emi]	‘daughter’
/kewa/	[kéwa]	‘birth’
/bedi/	[bédi]	‘noble’

The [e] is realized as a mid front unrounded vowel and it occurs elsewhere.

/kuize/	[kUize]	‘stay’
/mase/	[məsé]	‘like’
/kəne/	[kəne]	‘two’
/ke/	[ké]	‘horn’
/pè/	[pé]	‘grandmother’
/mè/	[mè]	‘wife’
/ye/	[yè]	‘answer (a call)’

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

/əpa/	[`əpá]	‘family’
/əta/	[ətá]	‘old’
/dabe/	[dəbè]	‘jaw’
/nəbe/	[n`əbé]	‘nose’

/əʒə/	[əʒə́]	‘crew’
/petə/	[petə́]	‘insect’
/də/	[d`ə]	‘nephew’

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

/apa/	[apá]	‘father’
/ajipa/	[ajIpá]	‘believe’
/haŋ/	[hàŋ]	‘happen’
/kaŋ/	[káŋ]	‘look at’
/wati/	[watí]	‘slide’
/naya/	[náyà]	‘fish’
/doza/	[dɔzà]	‘flag’
/sa/	[sà]	‘house’
/bida/	[bIdá]	‘comb’

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

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

/oka/	[ɔ́ka]	‘pipe’
/oŋtikai/	[ɔ́ŋtikaí]	‘ring’
/koto/	[kɔ́to]	‘upper jaw’

/poro/	[p ^ó ro]	‘head’
/soka/	[s ^ó kà]	‘tortoise’
/doŋ/	[d ^ó ŋ]	‘horn’

The [o] is realized as a mid back rounded vowel and it occurs elsewhere.

/baró/	[baró]	‘friend’
/siŋhó/	[siŋhó]	‘lion’
/poro/	[pórò]	‘head’
/yo/	[yò]	‘breast’
/zo/	[zó]	‘command’
/ló/	[ló]	‘wake up’

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

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

/uipusa/	[úipusa]	‘request’
/uti/	[ʊti]	‘pot’
/kuŋa/	[k ^ó ŋa]	‘tiger’
/tuŋ/	[tʊŋ]	‘cheat’
/luka/	[lúka]	‘sheep’
/kusiŋ/	[k ^ò síŋ]	‘nail’

/zusi/ [zúsi] ‘cockroach’

The [u] is realized as a high back rounded vowel and it occurs elsewhere.

/ku/ [kú] ‘nine’

/cu/ [cú] ‘plough’

/iu/ [iù] ‘wine’

/nəgu/ [nəgù] ‘bed’

/gusu/ [gòsù] ‘field’

3.1.5. Diphthongs

Toto has nine diphthongs viz., /iu/ /ei/, /eu/, /əi/, /ai/, /au/, /oi/, /ou/. and /ui/. Phonetically they are realized as [iʊ] [ɛɪ],[ɛʊ], [əɪ], [oɪ], [aɪ], [aʊ], [oʊ]. and [ʊɪ]. Like many other Tibeto-Burman languages of North Eastern India, diphthongs in the language occur only in the open syllable rather than closed one. Diphthong /ui/ occurs in all positions, /iu/ and /eu/ occur initial and medial positions, /ai/, /oi/, /əi/, and /ei/ occur medial and final positions while /ou/ and /au/ occur only in the medial positions of word. Consider the following examples.

/iu/ it occurs initially and medially

Initial

/iu/ ‘wine’

/iutə/ ‘north’

/iumbi/ ‘musical instrument’

Medial

/giua/ ‘cover’

/ei/ it occurs medially and finally.

Medial

/teɪju/ 'squirrel'

/keɪwə/ 'loan'

/keɪpawə/ 'joint'

Final

/ʒɪteɪ/ 'aunt'

/keɪ/ 'ring'

/tameɪ/ 'grave'

/əɪ/ it occurs medially and finally.

Medial

/cəɪntrə/ 'orange'

/ʒəɪŋwə/ 'antelope'

/səɪnʒə/ 'maize'

Final

/pɪsəɪ/ 'aunt'

/ləʊdəɪ/ 'banana flower'

/ləɪ/ 'come'

/ai/ it occurs initially and medially.

Initial

/ainpu/ 'day before yesterday'

Medial

/maibe/ 'flower'

/kaiwa/ 'cry'

/kaina/ 'roar'

Final

/hatai/ 'spoon'

/haprai/ 'jungle betel leaf'

/cepreŋsai/ 'been'

/au/ it occurs only in the medial position.

Medial

/tauki/ 'snail'

/jaula/ 'beg'

/eu/ it occurs initial and medial position.

Initial

/euwa/ 'keep'

/euniwa/ 'blue'

Medial

/beula/ 'bridegroom'

/beuli/ 'bride'

/oi/ it occurs medial and final positions.

Medial

/zoipina/ 'save'

/toise/ 'mango'

/ŋoisaj/ 'worm'

Final

/loi/ 'village'

/kokoi/ 'leg'

/poroi/ 'pigeon'

/ou/ it occurs only in the medial positions.

Medial

/mourija/ 'infant'

/mousi/ 'step mother'

/touri/ 'mustard'

/ui/ it occurs all three positions.

Initial

/uipusa/ 'request'

/uiwa/ 'to ask'

Medial

/guipu/	‘pillar’
/puisa/	‘father younger sister husband’
/puija/	‘cobra’(snack)

Final

/kui/	‘hand’
/lutui/	‘bat’
/ketui/	‘egg’

3.1.6. Vowel Sequence

There are two vowel sequences realized in the Toto language such as /oa/ and /ua/. These vowel sequences in the language occur both medial and final positions of word. The first member in the sequences are high and mid back vowels whereas the second members of the sequences are always central low unrounded /a/ vowel. It should be mentioned here that the sequence /oa/ is most common one i.e. occurs frequently in the language. The single dot /./ indicates the syllabic boundary in the present analysis. The following examples illustrate the vowel sequences in Toto language.

The sequence /o.a/ occurs in the middle position

/yo.ai/	‘cheeck’
/mo.aŋ/	‘paddy’
/yo.ai/	‘face’
/no.ai/	‘boat’

The sequence /o.a/ occurs in the final position.

/no.a/ ‘predict’

The sequence /u.a/ occurs in the final position.

/du.a/ ‘elder brother’

/nu.a/ ‘sister in-law’

3.2. Tones

One of the significant features of Tibeto-Burman languages is that most of the languages are tonal; Toto is no exception in this regard. Being a language of the Tibeto Burman family Toto shows two way tone contrast.

(i) High tone: the high tone is realized as the pitch which is suddenly rises from the pitch level of the normal speech which is found in most of the non-tonal languages. It is marked by an acute mark over the vowel.

(ii) Low tone: in contrast to high tone, the low tone is realized as the sudden fall of pitch from the pitch level of the normal speech which is found most of the non-tonal languages. It is marked with a grave mark over the vowel.

Tones are supra-segmental phonemes and it plays a significant role in this language, i.e. by changing the pitch of tone, the same word indicates a different meaning. Tone is phonemic in the language. The contrast of two tones could be seen in the following set of illustrations.

High	Low
/	\

Table 4: Tone

3.2.1. Tone contrast

/náya/ ‘bear’

/nàya/ ‘fish’

/káwa/ ‘bitter’

/kàwa/ ‘sound’

/noí/ ‘second’

/noì/ ‘boat’

/gíwa/ ‘garland’

/gìwa/ ‘follow’

/tári/ ‘moon’

/tàri/ ‘month’

/cùŋca/ ‘forest’

/cùŋca/ ‘cats’

/céŋwa/ ‘count’

/cèŋwa/ ‘child’

3.3. Consonants

There are eighteen (18) consonantal phonemes /**p, b, t, d, c, j, k, g, m, n, ŋ, s, z, h, r, l, w** and **y**/ in Toto. They can be categorized in terms of the following places of articulations namely bilabial, alveolar, palatal, velar and

glottal, and in terms of their manner of articulations the same phonemes further categorized into stops, nasals, fricatives, lateral, trill and semi-vowels. Toto has a good number of stop consonants in different series: unaspirated voiceless stops /**p, t, k**/, unaspirated voiced stops /**b, d, g**/, no aspirated voiced/voiceless stops have been noticed. As far as nasal consonants are concerned, Toto relatively confirms with all other Tibeto-Burman languages i.e., it has three basic nasals /**m, n, ŋ**/. It is general assumption that these three basic nasals are the proto forms of nasals in Tibeto-Burman languages. In the case of fricative sounds, Toto contrasts three distinctive phonemes /**s, z, h**, /. There are also lateral /**l**/ and trill /**r**/ without having their voiceless counterparts. Other than the above phonemes, there are two semi-vowels /**w, y**/ in the language. The consonantal phonemes of Toto are presented below.

	Bilabial	Alveolar	Palatal	Velar	Glottal
Stops	P b	t d	c ɟ	k g	
Nasals		m	n		ŋ
Trill			r		
Fricatives		s z			h
Lateral			l		
Semivowels		w		y	

Table 5: Consonantal phonemes in Toto

3.3.1. Minimal Pairs

The consonantal phonemes of Toto have been established on the basis of following minimal pairs.

/p/vs/b/

/poroi/ 'pigeon'
/boroi/ 'adams apple'

/pari/ 'turban for women'
/bari/ 'field'

/paiwa/ 'cut'
/baiwa/ 'get up'

/t/vs/d/

/tuwa/ 'run'
/dua/ 'elder brother'

/tace/ 'ten rupees'
/dace/ 'jackfruit'

/toa/ 'to get something'
/doa/ 'to through something by hand'

/c/vs/ɟ/

/ca/ 'to eat'
/ɟa/ 'stand up'

/cuwa/ 'grandson'
/ɟuwa/ 'father in law'

/cəŋwa/ 'son'
/ɟəŋwa/ 'high'

/k/vs/g/

/ka/ 'I'

/ga/ 'sit'

/kaŋ/ 'to see'

/gaŋ/ 'cottage'

/kawa/ 'bitter'

/gawa/ 'happy'

/m/vs/n/

/me/ 'fire'

/ne/ 'wait'

/ma/ 'negative morpheme'

/na/ 'pst marker'

/namu/ 'mouth'

/nanu/ 'ear'

/n/vs/ŋ/

/dina/ 'cutting jungle'

/diŋa/ 'human'

/nakai/ 'five hundred'

/ŋakai/ 'one hundred'

/ana/ 'father's brother's daughter'

/aŋa/ 'fly'

/s/vs/z/

/sa/ 'house'
/za/ 'standup'

/so/ 'and'
/zo/ 'command'

/suta/ 'musk'
/zuta/ 'shoe'

/s/vs/h/

/sa/ 'house'
/ha/ 'go'

/sini/ 'suger'
/hini/ 'today'

/saŋ/ 'cotton'
/haŋ/ 'to cook'

/r/vs/l/

/murra/ 'ant'
/mulla/ 'radish'

/duri/ 'sixth'
/duli/ 'portico'

/jora/ 'river'
/jola/ 'pocket'

/w/vs/y/	
/waŋwa/	‘come’
/yaŋwa/	‘crowd’
/sewa/	‘to come fruit in a tree’
/seya/	‘louse’

3.3.2. Description and Distribution of Consonants

Out of 18 Consonants /ŋ/ and /l/ occur in all positions of word. The phonemes /m/, /n/ and /r/ occur only initial and medial positions of word, and /p/, /b/, /t/, /d/, /k/, /g/, /c/, /j/, /s/, /z/, /h/, /w/ and /y/ phonemes occur initial and medial positions.

/p/ voiceless bilabial unaspirated stop consonant occurs in the initial and medial positions.

Initial

/paka/	‘pig’
/pika/	‘cow’
/peta/	‘silk worm’

Medial

/jupa/	‘body’
/lapa/	‘leaf’
/moipa/	‘jungle pig’

/b/ voiced bilabial unaspirated stop occurs in initial and medial positions.

Initial

/bana/	‘flute’
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/barcu/ 'sand'
/bekoŋ/ 'skin'(animals)

Medial

/nabe/ 'nose'
/lebe/ 'tongue'
/gibe/ 'deer'

/t/ voiceless alveolar unaspirated stop occurs in initial and medial positions.

Initial

/tari/ 'star'
/tanaŋta/ 'far away'
/tuiwa/ 'run'

Medial

/ata/ 'grand father'
/ita/ 'here'
/lita/ 'down'

/d/ voiced alveolar unaspirated stop occurs initial and medial positions.

Initial

/dua/ 'elder brother'
/da/ 'nephew'
/dankreŋ/ 'right hand'

Medial

/bida/ ‘comp’

/nadiŋwa/ ‘dark’

/jodiŋna/ ‘plug’

/c/ voiceless palatal unaspirated stop occurs initial and medial positions.

Initial

/coka/ ‘tortoise’

/cəintra/ ‘orange’

/cenepa/ ‘dry’

Medial

/bucuŋ/ ‘shoulder’

/yacuwa/ ‘discuss’

/eco/ ‘one’

/j/ voiced palatal unaspirated stop occurs initial and medial positions.

Initial

/jiya/ ‘bird’

/ji/ ‘leopard’

/jora/ ‘river’

Medial

/teju/ 'squirrel'

/taŋja/ 'hawk'

/guja/ 'dove'

/k/ voiceless velar unaspirated stop occur initial and medial positions.

Initial

/kuinero/ 'keep time'

/keka/ 'hen'

/kura/ 'wind no wind fan'

Medial

/dika/ 'buffalo'

/sika/ 'jungle hen'

/paka/ 'pig'

/g/ voiced velar unaspirated stop occurs initial and medial positions.

Initial

/ga/ 'sit'

/gewa/ 'intellect'

/gapani/ 'cover'

Medial

/yiga/	‘book’
/yagoi/	‘mountain’
/pagruse/	‘sweet pumpkin’

/m/ voiced bilabial nasal occurs in all positions of word.

Initial

/mocuro/	‘dare’
/meŋki/	‘cat’
/migro/	‘eye brow’

Medial

/lambera/	‘tomato’
/namu/	‘mouth’
/pema/	‘belly’

Final

/kam/	‘work’
/laŋam/	‘front’
/nomram/	‘expect’

/n/ voiced alveolar nasal occurs in all positions of word.

Initial

/ni/	‘salt’
/nico/	‘two’

/nanuŋ/ 'ear'

Medial

/ana/ 'elder sister'

/hurana/ 'circle'

/gana/ 'stay'

Final

/suan/ 'change'

/ŋ/ voiced velar nasal occurs in all positions of word.

Initial

/ŋoka/ 'monkey'

/ŋoisəŋ/ 'earth worm'

/ŋakai/ 'one hundred'

Medial

/yʊŋba/ 'dry ginger'

/boŋoi/ 'white ant'

/tuŋciŋ/ 'breath'

Final

/diyaŋ/ 'swan'

/doŋ/ 'horn'

/ʒukuŋ/ 'tomorrow'

/s/ voiceless alveolar fricative occurs initial and medial positions.

Initial

/soka/ 'rabbit'

/sipuna/ 'death'

/sika/ 'jungle hen'

Medial

/misiwa/ 'alive'

/asi/ 'gum'

/haŋsa/ 'duck'

/z/ voiced alveolar fricative occurs initial and medial positions of word.

Initial

/zibə/ 'bow'

/zina/ 'window'

/zuse/ 'hailstorm'

Medial

/əzua/ 'pocket'

/səinza/ 'maize'

/əinzi/ 'yesterday'

/h/ voiceless glottal fricative occurs initial and medial positions.

Initial

/haiwa/ 'diseases'

/hawa/ 'accompany'

/huiya/ 'crab'

Medial

/mihɪŋwa/ 'deaf'

/sanahawa/ 'diarrhea'

/yutihuina/ 'bleed'

/l/ voiced alveolar lateral occurs in all positions.

Initial

/luicuwa/ 'fight'

/lu/ 'put on'

/luintu/ 'stone'

Medial

/molə/ 'musk'

/dalaiwa/ 'long'

/bakula/ 'crane'

Final

/jampəl/ 'axe'

/dal/ 'pulse'

/r/ voiced alveolar trill occurs only in the initial and medial positions.

Initial

/roma/ 'then'

Medial

/suru/ 'lung'

/heŋpra/ 'rib'

/zora/ 'become'

/w/ voiced bilabial semi-vowel occurs initial and medial positions.

Initial

/wa/ 'husband'

/waiwa/ 'pull out'

/wati/ 'rain'

Medial

/duwa/ 'step brother'

/jowa/ 'do'

/cawa/ 'rest'

/y/ voiced palatal semi-vowel occurs initial and medial positions.

Initial

/yowa/ 'push into'

/yepiwa/ ‘attack’

/yuti/ ‘milk’

Medial

/kuiye/ ‘stay’

/ziya/ ‘bird’

3.3.3. Consonant cluster

The term consonant cluster refers to the combination of two or more consonants C_1C_2 occurring together within a syllable, for example both /*pl-*/ and /*-nt*/ are initial and final clusters in the word *plant* in English. Toto permits upto two consonant clusters in an initial and medial syllable, while no consonant clusters occur in word finally. It is also observed that the consonant clusters in the language are very few in number. Like many other Tibeto-Burman languages, the first member of the initial clusters in Toto can be unaspirated voiceless stops /p/,/b/ and /k/, while the liquid sounds /l/ and /r/ occupy their positions as the second member of the clusters are exemplified below with the help of table.

First member	Second member	
	r	l
P	*	*
b	*	*
k	*	*

Table 6: Initial two consonant clusters

3.3.3.1. The initial occurrences of C₁ C₂ clusters.

<u>Consonant clusters</u>	<u>Examples</u>	<u>Gloss</u>
Stop + Liquid.		
/pr/	/prai/	'betel leaf'
	/pral/	'paddy plant'
/br/	/braŋ/	'plate'
	/bruŋbruŋ/	'sugarcane'
/kr/	/kriŋ/	'knee'
	/kraŋti/	'kerosene'
/kl/	/klai/	'play'

3.3.3.2. Medial consonant clusters.

In case of medial consonant clusters the first member may be p,b,t,d, ʃ, k,g and s where as the liquid and the trill phonemes occupy as a second member which are exemplified through the table followed by the examples.

First members	Second members	
	r	l
p	*	-
b	*	-
t	*	-
d	*	-
ʃ	*	-
k	*	-
g	*	-
s	*	-

Table 7 Medial consonant clusters

Stop+Liquid.

/pr/	/epraŋ/	‘no problem’
	/haprai/	‘jungle betel leaf’
	/heŋpra/	‘backbone’
/br/	/iyuŋbri/	‘younger sister’
	/dibruŋ/	‘big stick’
	/brunbruŋ/	‘bottle gourd’
/tr/	/petreŋpuna/	‘fall down’
	/tatraiwa/	‘bright’

	/botra/	‘bottle’
/kr/	/kekrej/	‘left hand’
	/peŋkru/	‘a kind of bird (Bulbuli)’
	/kaŋkrase/	‘staranize’ or ‘star fruit’
/dr/	/pendrasin/	‘a kind of smelling tree’
	/sedraŋwa/	‘anger’
/gr/	/pagruse/	‘pumpkin’
	/beŋgri/	‘brinjal’
	/begrej/	‘feather’

Fricative+Liquid.

/sr/	/tosrai/	‘a cooking tool for curry’
	/dosro/	‘meet’

3.3.4. Consonant sequence

The term consonant sequence in the present analysis refers to the combination of more than one consonants occurring across the syllable boundary. Unlike consonant clusters, the consonant sequences in Toto are very rich; however, they occur only in the medial position of words. So the first members of the sequences are always stops nasals and trill while stops, fricatives, affricates, nasals, lateral, trill and semi-vowels occupy the second members of the same. Hence the second members are more in the CC sequences in Toto than the first one in terms of its numerical strength. The occurrences of consonant C₁ C₂ sequence in Toto are given below.

<u>Consonant sequence</u>	<u>Examples</u>	<u>Gloss</u>
Stop + stop		
/- pp-/	/lap.pa/	‘leaf’
/-pk-/	/hep.koŋ/	‘morning’
/-pt-/	/banaip.tena/	‘foundation’
/-bb-/	/yab.bri/	‘vegetable’
/-tk-/	/put.kui/	‘a kind of wine’
/-kd-/	/mik.do/	‘eye brow’
Nasal+Nasal		
/-nn-/	/puin.na/	‘burn’
/- ŋm-/	/paŋ.mi/	‘hungry’
	/eroŋ.me/	‘husband’s sister’
	/oraŋ.me/	‘old woman’
/-ŋn-/	/maŋ.na/	‘don’t take’
	/jaŋ.na/	‘allow’
	/loŋ.niŋ/	‘point’
Trill+Stops		
/-rp-/	/ɟur.paito/	‘house lizard’
/-rd-/	/bor.doŋ/	‘wood pecker’
/-rk-/	/pir.ki/	‘a slice of bamboo used as ladle for cooking’

/-rc-/ /bar.cu/ ‘sand’

 /tor.cuwa/ ‘greet’

 /ber.ce/ ‘palm’

Trill+Fricative

/-rs-/ /tonpor.se/ ‘guava’

 /pagur.se/ ‘pumpkin’

Nasal+ Stops

/-mb-/ /mem.buna/ ‘dream’

/-nt-/ /nopun.tena/ ‘decide’

 /guin.tuwa/ ‘fogy’

 /luin.tu/ ‘stone’

/-ŋp-/ /petreŋ.puna/ ‘falling down’

 /haŋ.pa/ ‘why’

 /waŋ.pana/ ‘flat’

/-ŋb-/ /leŋ.ba/ ‘police’

 /taŋ.ba/ ‘foot’

 /diŋ.ba/ ‘sky’

/-ŋt-/ /haŋ.ta/ ‘where’

 /meŋ.tapa/ ‘neglect’

/eŋ.tawa/ 'peddle'

/-ŋk-/ /miŋ.ki/ 'cat'

/-ŋg-/ /oyeŋ.ga/ 'settle'

/-ŋj-/ /haŋ.jopuna/ 'regret'

Nasal+Trill

/-mr-/ /nom.raŋ/ 'expect'

/-ŋr-/ /aŋ.ro/ 'drink'

/jɪŋ.ro/ 'sleep'

Nasal + Fricative

/-ms-/ /katam.sai/ 'bitter guard'

/jem.se/ 'lemon'

/-ŋs-/ /ceŋ.suwa/ 'shout'

/taŋ.samu/ 'all'

/haŋ.sa/ 'duck'

Nasal+Lateral

/-ml-/ /jom.le/ 'twin'

Nasal+ Semi-vowel

/-ŋw-/ /loŋ.wa/ 'pack'

Fricative+Stop

/-sp-/ /nas.pu/ 'cut'

/los.pu/	‘swell’
/tes.puna/	‘to kill oneself by rope’

Fricative+Nasal

/-sm-/	/kas.ma/	‘dagger’
/-sn-/	/lois.na/	‘warm’

Fricative+ Trill

/-sr-/	/dos.ro/	‘meet’
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Lateral+ stops

/-lt-/	/bal.tij/	‘bucket’
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3.4. Syllable

A syllable may be defined as a unit of pronunciation uttered without any interruption. In other words, a sequence of phonemes with one peak of sonority is also considered a syllable. It is made up of one or more than one phoneme. Generally the vowel element is essential to the structure of a syllable therefore the vowel obviously is the obligatory element in a syllable and is called its nucleus or peak. A syllable ending in a vowel is called open syllable and a syllable ending in a consonant is called closed syllable.

Like many other Tibeto-Burman languages, only vowels make the nucleus of a syllable in Toto i.e., there is no syllabic consonants in the language. Toto syllables basically consist of a nucleus with or without an onset and a nucleus with or without a coda. However it should be mentioned here that

only a vowel or a diphthong may become a syllable or morpheme or word in Toto. It is also interesting to note that a word in Toto may consist of one or more syllables. So the maximum number of syllables in a word is four but their occurrence is very limited in the language. Given below are the different types of syllables that we have in Toto.

3.4.1. Mono-syllabic words

The CV is the most common pattern in the case of the mono-syllabic words in Toto whereas VC pattern is found in the mono-syllabic words of the language but it not very frequent like CV. The basic syllable structure in the language is V, VV, VC, CV, CVV, CCVC, and CVC. Here the symbols V, VV and C represent the vowel, diphthong and the consonant respectively. The following is the structure of mono-syllabic words in Toto.

Mono-syllabic Words

Open	V	/e/	‘brother’
	<u>VV</u>	/oi/	‘yes’
	CV	/ga/	‘sit’
	<u>CVV</u>	/lei/	‘come’
Closed.	VC	/aŋ/	‘I’
		/eŋ/	‘ginger’
	CVC	/kuŋ/	‘my’
		/nuŋ/	‘to thank someone’
	CCVC	/braŋ/	‘plate’

3.4.2 Disyllabic Words

Second syllable is open

CV.V	/du.a/	‘elder brother’
CV.CV	/pi.ka/	‘cow’
CVC.CV	/miŋ.ki/	‘cat’
CCV <u>V</u> .CV	/klai.ro/	‘play’

Second syllable is closed

CV.CVC	/la.puŋ/	‘door’
CVC.CVC	/hep.koŋ/	‘morning’
CCVC. CCVC	/bruŋ.bruŋ/	‘sugar cane’

3.4.3. Trisyllabic Words

This kind of syllable occurs only in open position of a word.

Third syllable is open.

CV.CV.CV	/ha.ko.ga/	‘honor’
CV.CVC.CV	/ta.naŋ.ta/	‘far away’
CV <u>V</u> .CV.CV	/tui.ca.ro/	‘get up’
CVC.CVC.CV <u>V</u>	/cep.reŋ.sai/	‘been’

3.4.4. Tetrasyllabic Words

This kind of syllable occurs only in open position of a word.

Fourth syllable is open.

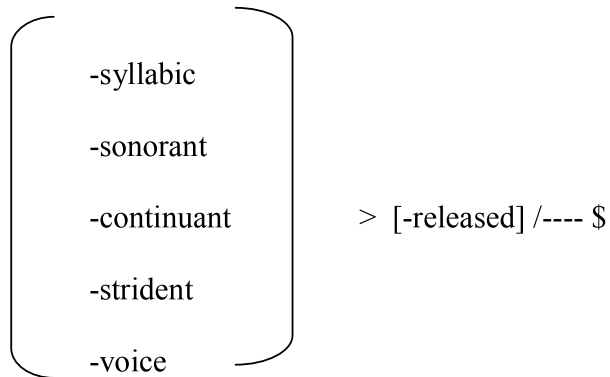
V.CVC.CV.CV /ə.daŋ.cu.wa/ ‘dwarf’

CV.CV.CV.CV /ca.wa.cu.ti/ ‘mustard oil’

3.5. Morphophonemics

3.5.1. Unreleased voiceless stops

The voiceless stops become unreleased when they occur in syllable or wordfinal position. Absence of release in this position is phonetic in Toto



[p]	[topro]	‘cap’
	[yopmi]	‘to take out’
[t]	[hətrəŋ]	‘when’
	[jittən]	‘sieve’
[k]	[mlk]	‘eye’
	[bəksi]	‘box’
[c]	[lɔcmi]	‘to wear’
	[tɔcmi]	‘pain’

3.5.2. Monophthongization

This is one of the tendencies in Toto language that most of the vowel sequences become monophthong in the casual or spontaneous speech. Here the sequence of high back and /u/ + the central low unrounded vowel /a/ becomes the mid back rounded vowel /o/.

u.a > o

/su.aŋ/	>	/soŋa/	‘change’
/wu.ati/	>	/woti/	‘rain’
/ɟu.aŋ/	>	/ɟoŋ/	‘answer a question’

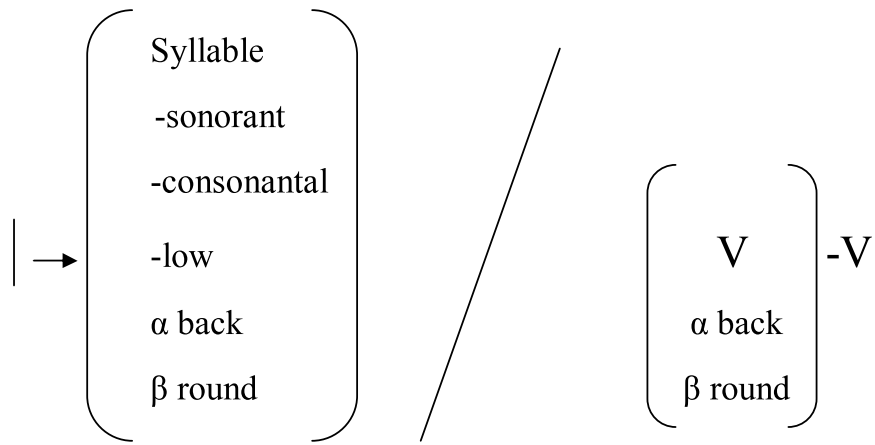
Like vowel sequences, most of the diphthongs become monophthongs in the casual or spontaneous speech in Toto. The following examples are cited for the diphthong /iu/ becomes /u/.

iu > u

/ayiu/	>	/ayu/	‘dress up’
/liutui/	>	lutui	‘ass’
/liuka/	>	/luka/	‘sheep’
/biucuŋ/	>	/bucuŋ/	‘shoulder’

3.5.3. Epenthesis

Like many other Tibeto-Burman languages of Northeastern India, Toto has a tendency for the insertion of semi-vowels /y/ or /w/ in between two vowels to break a cluster of two vowels as exemplified below.



E.g., /bia/ - /biya/ ‘meat’
 /bei/ - /byei/ ‘clan’
 /kei/ - /kyei/ ‘sour’
 /cea/ - /cewa/ ‘cut’