

## CHAPTER: II

### IDENTIFICATION AND CLASSIFICATION OF PHONEMES

#### 2.1 Phonemes

Every language has used own sound system. Phonemes are the sounds which contrast with other sounds in a language. In other words, the smallest unit in the sound system of a language is called Phonemes. It can differentiate the meaning of the word in which it occurs. Phonemes are usually represented in writing by the same letter. According to Leonard Bloomfield phoneme is “*A Minimum unit of distinctive sound-feature.*”<sup>1</sup> About Phonemes Radhey L Varshney had defined as “*The smallest contrastive linguistics unit which may bring about a change of meaning.*”<sup>2</sup>

When phonemes are combined with each other they can construct the meaningful words of a language. Generally phonemes are divided into two types:

- a) Segmental phoneme and
- b) Supra-segmental phoneme.

The phoneme which is segmented and distributed into small parts and sequences is called Segmental phonemes. It is also called linear Phonemes. This is of two types’ vowel and consonant. On the other hand the phoneme which is not segmented and distributed into small parts and sequences is called Supra-segmental phoneme. It is also known as prosodeme and Secondary phoneme which can express or imply different shades of meaning. It occurs through the variation in the utterance of a sound or word, such as a different in tone, pitch or stress etc.

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<sup>1</sup> Bloomfield, Leonard: Language (Reprinted), Surjeet Publications, Delhi, India, 2010, p. 79.

<sup>2</sup> Varshney, Radhey L: An Introductory Text Book of Linguistics and Phonetics (Sixteenth Edition), Student Store, Bareilly, 2005-06, p.73.

## 2.2 Bodo Phonemes

Phonemic inventory of Bodo consist of segmental phonemes and supra-segmental phonemes. In segmental phonemes six are vowel and sixteen are consonant and in supra-segmental phonemes juncture, tone, intonations are occurs. Besides of these some diphthongs and other phonemes like Assamese, Bengali is also occurs occasionally in Bodo language.

### 2.2.1 Segmental phonemes of Bodo

There are twenty two (22) Segmental phonemes occurs in Bodo language. This is consisting of six vocalic phonemes and sixteen consonantal phonemes.

#### 2.2.1.1 Vowel phonemes

There are six distinctive vowel phonemes in Bodo language viz. /i, u, ʊ, e, o, a/. All the six vowels are voiced and short vowel. There are two front unrounded vowels and two back rounded vowels. It has one central unrounded vowel and one back unrounded vowel. Vowels in Bodo show contrast in the position of tongue: front, central and back; height of tongue: high or close, high-mid or half close and low or open; position of lips: unrounded and rounded. Front and central vowels are unrounded and back vowels are both unrounded and rounded.

Pramod Chandra Bhattacharya had given the classificatory labels of Bodo vowels in his '*A Descriptive analysis of the Boro language*' as follows:

	Front	Central	Back
<b>High</b>	i		u
		ɔ̃	
<b>Mid</b>	e		o
<b>Low</b>		a	

Figure: 2.1

Phukan Chandra Basumatary had also given the phonemic inventory of Bodo vowels in his 'An Introduction to the Boro language' as given table:

	<i>Front</i>	<i>Central</i>	<i>Back</i>
<b>High</b>	i		w u
<b>Mid</b>	e		o
<b>Low</b>		a	

Figure: 2.2

From the references and further study the Phonemic inventory of Vowels are presented in tabular form as follows:

		<b>Position of tongue</b>					
		Front		Central		Back	
<b>Position of lips →</b>		UR	R	UR	R	UR	R
<b>Height of tongue</b>							
	↓						
	High	i				u	u
	Mid	e					o
	Low			a			

Figure: 2.3

### 2.2.1.1.1 Phonemic description of vowel phonemes

<u>Phoneme</u>	<u>Description</u>
/i/	high front unrounded vowel
/u/	high back unrounded vowel
/u/	high back rounded vowel
/e/	mid front unrounded vowel
/o/	mid back rounded vowel
/a/	low central unrounded vowel

### 2.2.1.1.2 Contrasting pairs of vowel phonemes

On the basis of minimal pairs, vowel phonemes are established. Examples are as follows:

<b>/i/ vs /u/</b>	/bilu/ ‘lake’	/k <sup>h</sup> at <sup>h</sup> i/ ‘nearby’
	/bulu/ ‘physical power’	/k <sup>h</sup> at <sup>h</sup> u/ ‘slightly bitter’
	/zir/ ‘to peel’	/sidub/ ‘moist’
	/zur/ ‘to last’	/suduub/ ‘word’
<b>/i/ vs /u/</b>	/siri/ ‘silence’	/asi/ ‘finger’
	/suri/ ‘worn out’	/asu/ ‘a variety of rice’
	/k <sup>h</sup> int <sup>h</sup> a/ ‘to display’	/gizi/ ‘torn’
	/k <sup>h</sup> unt <sup>h</sup> a/ ‘post’	/guzi/ ‘ninety’
<b>/i/ vs /e/</b>	/bilai/ ‘leaf’	/p <sup>h</sup> isa/ ‘small’
	/belai/ ‘it is’	/p <sup>h</sup> esa/ ‘owl’
	/k <sup>h</sup> at <sup>h</sup> i/ ‘nearby’	/t <sup>h</sup> ima/ ‘louse’
	/k <sup>h</sup> at <sup>h</sup> e/ ‘to bind and block’	/t <sup>h</sup> ema/ ‘box’
<b>/i/ vs /o/</b>	/sim/ ‘to’	/ginay/ ‘to fear’
	/som/ ‘time’	/gonay/ ‘to agree’
	/bat <sup>h</sup> i/ ‘a pole for carrying loads’	/t <sup>h</sup> ir/ ‘arrow’
	/bat <sup>h</sup> o/ ‘parrot’	/t <sup>h</sup> or/ ‘sense’
<b>/i/ vs /a/</b>	/zib/ ‘living being’	/dimuul/ ‘streamless water’
	/zab/ ‘to place one over another’	/damuul/ ‘heap’
	/nari/ ‘umbilical cord of a new born baby’	/p <sup>h</sup> in/ ‘to answer’
	/nara/ ‘stalks of paddy plants left in the field after harvest’	/p <sup>h</sup> an/ ‘to sell’
<b>/u/ vs /u/</b>	/k <sup>h</sup> udum/ ‘a kind of tree’	/guma/ ‘to get lost’
	/k <sup>h</sup> udum/ ‘to kiss’	/guma/ ‘grasshopper’

	/t <sup>h</sup> uun/ ‘to command to work’	/buur/ ‘blessing’
	/t <sup>h</sup> un/ ‘to coil threads into wheel’	/bur/ ‘to dig up earth with hands or claws’
<b>/u/ vs /e/</b>	/duuilu/ ‘lazy’	/ruuga/ ‘to carry’
	/duile/ ‘tasteless’	/rega/ ‘line, mark’
	/lum/ ‘to over flood’	/sur/ ‘who’
	/lem/ ‘to press downwards with stick or feet’	/ser/ ‘to leak’
<b>/u/ vs /o/</b>	/khuub/ ‘to cover’	/dwn/ ‘to keep’
	/khob/ ‘clap’	/don/ ‘a bamboo basket with or without legs for measuring grains and putting things’
	/zuu/ ‘to kick’	/bun/ ‘fishing’
	/zo/ ‘to sit’	/bon/ ‘fire wood’
<b>/u/ vs /a/</b>	/dui/ ‘water’	/luugu/ ‘friend’
	/dai/ ‘offence’	/laguu/ ‘village’
	/mudui/ ‘tears’	/buri/ ‘land above water’
	/madui/ ‘aunty’	/bari/ ‘orchard, garden’
<b>/u/ vs /e/</b>	/budor/ ‘puffed’	/t <sup>h</sup> u/ ‘to go ahead’
	/bedor/ ‘meat’	/t <sup>h</sup> e/ ‘to block water’
	/dup <sup>h</sup> ay/ ‘to smell after suffocation’	/p <sup>h</sup> u/ ‘to uproot the tree’
	/dep <sup>h</sup> ay/ ‘to break by hammering’	/p <sup>h</sup> e/ ‘to be intoxicated’
<b>/u/ vs /o/</b>	/bibu/ ‘intestine’	/muga/ ‘era’
	/bibo/ ‘his/her elder sister’	/moga/ ‘jug’
	/gun/ ‘quality’	/suk <sup>h</sup> o/ ‘to repay a debt’
	/gon/ ‘stick’	/sok <sup>h</sup> o/ ‘to fall off’

/u/ vs /a/	/k <sup>h</sup> usi/ ‘happiness’	/duimu/ ‘spring of stream’
	/k <sup>h</sup> asi/ ‘sickle’	/duima/ ‘river’
	/gundui/ ‘powder’	/zubra/ ‘weak’
	/gandui/ ‘looms beam’	/zabra/ ‘rubbish’
/e/ vs /o/	/roze/ ‘darling’	/hebney/ ‘to twist’
	/rozo/ ‘to germinate’	/hobney/ ‘worm up’
	/p <sup>h</sup> edob/ ‘lame’	/boray/ ‘to welcome’
	/p <sup>h</sup> odob/ ‘to bend’	/beray/ ‘to travel’
/e/ vs /a/	/ne/ ‘to wait’	/k <sup>h</sup> ew/ ‘to open’
	/na/ ‘fish’	/k <sup>h</sup> aw/ ‘steal’
	/ze/ ‘net’	/deha/ ‘body’
	/za/ ‘to eat’	/daha/ ‘sorrow’
/o/ vs /a/	/goŋ/ ‘horn’	/boha/ ‘where’
	/gaŋ/ ‘feather’	/baha/ ‘nest’
	/no/ ‘house’	/k <sup>h</sup> ona/ ‘an angle’
	/na/ ‘fish’	/k <sup>h</sup> ana/ ‘blind’

From the above analysis, it is observed that all the six vowel phonemes have Contrasting pairs to each other in minimal pairs.

### 2.2.1.1.3 Phonemic distribution of vowel phonemes

All the six vowels in Bodo language are occurs in the three positions i.e. initial, medial and final position of the word. Examples are given below:

/i/	Initial Position of the word	Medial Position of the word
	/inay/ ‘injustice’	/bibar/ ‘flower’
	/iŋk <sup>h</sup> ur/ ‘broken grains of rice’	/dimuul/ ‘stream less water’
	/indi/ ‘a castor oil plant’	/miluudu/ ‘melodious’
	/iŋgini/ ‘a kind of tiny rat’	/siman/ ‘dream’
	/iŋgid/ ‘hint, signal’	/zigab/ ‘straw’

**Final Position of the word**

/gi/	‘to fear’
/zi/	‘cloth’
/duli/	‘a large open mouthed bamboo basket for keeping grains’
/nehat <sup>h</sup> ari/	‘secretary’
/hat <sup>h</sup> ork <sup>h</sup> i/	‘star’

<b>/u/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/uŋt <sup>h</sup> i/ ‘meaning’	/k <sup>h</sup> u <sup>h</sup> msi/ ‘dark’
	/wz <sup>h</sup> uŋ/ ‘here, on this place’	/k <sup>h</sup> u <sup>h</sup> la/ ‘south’
	/ur <sup>h</sup> ui <sup>h</sup> uu/ ‘for no reason’	/su <sup>h</sup> lu/ ‘tricks’
	/uŋk <sup>h</sup> ar/ ‘to get ready’	/niz <sup>h</sup> um/ ‘silent’
	/ur <sup>h</sup> ui/ ‘like this’	/bat <sup>h</sup> u <sup>h</sup> n/ ‘pounded with chilly etc.’

**Final Position of the word**

/k <sup>h</sup> u/	‘earth filling’
/zu/	‘to kick’
/p <sup>h</sup> at <sup>h</sup> u/	‘jute’
/bilu/	‘lake’
/bihamzu/	‘daughter-in-law’

<b>/u/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/uk <sup>h</sup> undui/ ‘smoke’	/k <sup>h</sup> uga/ ‘mouth’
	/unsuluŋ/ ‘to imitate’	/k <sup>h</sup> ubui/ ‘to throw out’
	/undui/ ‘younger’	/gubui/ ‘real’
	/uraw/ ‘bed bug’	/gurui/ ‘soft’
	/usunda/ ‘half-burnt firewood’	/zunar/ ‘animal’

**Final Position of the word**

/gaŋgu/	‘the praying mantis’
/daut <sup>h</sup> u/	‘dove’
/duihu/	‘pitcher’
/p <sup>h</sup> amu/	‘farm’
/hant <sup>h</sup> u/	‘knee’

<b>/e/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/enzor/ 'rat'	/k <sup>h</sup> eb/ 'to pinch with fingers'
	/embu/ 'frog'	/gesau/ 'decayed'
	/emp <sup>h</sup> uu/ 'worm'	/zek <sup>h</sup> ai/ 'a bamboo made net used for catching fish'
	/ensuu/ 'last portion of un-husked rice'	/bedor/ 'meat'
	/eba/ 'or'	/sensla/ 'squint-eyed'
	<b>Final Position of the word</b>	
	/k <sup>h</sup> ale/ 'slightly bitter'	
	/gaide/ 'short women'	
	/nap <sup>h</sup> le/ 'to make powder by pressing'	
	/nable/ 'a women with flat nose'	
	/me/ 'to roast by putting into embers'	

<b>/o/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/onzima/ 'numerical, digit'	/k <sup>h</sup> onga/ 'handicapped of hand'
	/ont <sup>h</sup> ai/ 'rock'	/goy/ 'betel nut'
	/ondla/ 'Bodo traditional curry prepared from rice powder'	/zot <sup>h</sup> a/ 'cymbals'
	/oma/ 'pig'	/nosa/ 'a small hut'
	/ordab/ 'fireplace, oven'	/bok <sup>h</sup> ali/ 'a teenager girl who looks after a child'
	<b>Final Position of the word</b>	
	/k <sup>h</sup> oro/ 'head'	
	/bo/ 'to spread down'	
	/rozo/ 'to germinate'	
	/lorgo/ 'loose, slack'	
	/soŋk <sup>h</sup> lo/ 'to jerk'	

<b>/a/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/aŋk <sup>h</sup> al/ 'scarcity'	/k <sup>h</sup> ansri/ 'earthworm'
	/ak <sup>h</sup> ap <sup>h</sup> ak <sup>h</sup> a/ 'expert'	/gabun/ 'tomorrow'



/ak <sup>h</sup> ai/	‘hand’	/zanzi/	‘waist’
/agzu/	‘implements’	/zugami/	‘everlasting’
/agor/	‘a design on cloth’	/zuzai/	‘husk’

#### Final Position of the word

/k <sup>h</sup> uwa/	‘fog’
/guk <sup>h</sup> a/	‘bitter’
/t <sup>h</sup> ot <sup>h</sup> la/	‘stammering’
/p <sup>h</sup> isazla/	‘son’
/buurma/	‘goat’

### 2.2.1.1.4 Diphthongs

Diphthong is the sequence of two vowels, which forms a syllable. There are eight diphthongs in Bodo language. These are /iu, ui, uu, ui, eu, oi, ai, au/. It is assumed that in Bodo language due to glide sometimes in some condition /iu, eu, au/ diphthongs are replace with /w/ semi vowel like /iw, ew, aw/ and /ui, oi, ai/ are also replace with /y/ semi vowels like /uy, oy, ay/ etc. Changing conditions from diphthongs to semi vowels are discussed with proper example in **sub-chapter, 5.1.1.3 Uses of Semi-vowels** of the **CHAPTER: 5**.

Formations of eight diphthongs are shown in the following tabular figure:

Vowel	i	u	u	e	o	a
i	-	-	iu	-	-	-
u	ui	-	uu	-	-	-
u	ui	-	-	-	-	-
e	-	-	eu	-	-	-
o	oi	-	-	-	-	-
a	ai	-	au	-	-	-

Figure: 2.4

From the formation chart of diphthongs, it is clearly observed that sequence of two vowels i.e. /ii, iuu, ie, io, ia/, /uuu, ue, uo, ua/, /uu, uu, ue, uo, ua/, /ei, eu, ee, eo, ea/, /ou, ou, oe, oo, oa/, /au, ae, ao and aa/ are not occurs in Bodo language.

### 2.2.1.1.5 Contrasting pairs of diphthongs

On the basis of minimal pairs, diphthongs are established. Examples are given below:

**/iu/ vs /ui/**

/p<sup>h</sup>iu/ ‘in a hopping way’

/p<sup>h</sup>ui/ ‘to come’

**/iu/ vs /uu/**

/ziu/ ‘soul’

/zuiu/ ‘rice beer’

**/iu/ vs /ui/**

/diu/ ‘excessive fury’

/dui/ ‘to be small’

**/iu/ vs /eu/**

/siu/ ‘suddenly’

/seu/ ‘to rot’

**/iu/ vs /oi/**

Contrasting pairs of **/iu/ vs /oi/**

Diphthongs are not occurs in Bodo.

**/iu/ vs /ai/**

/t<sup>h</sup>iu/ ‘suddenly’

/t<sup>h</sup>ai/ ‘fruits’

**/iu/ vs /au/**

/t<sup>h</sup>iuria/ ‘furious’

/t<sup>h</sup>auria/ ‘not to withstand’

**/ui/ vs /uu/**

/gut<sup>h</sup>ui/ ‘dead’

/gut<sup>h</sup>uu/ ‘deep’

**/ui/ vs /ui/**

/dui/ ‘water’

/dui/ ‘to be small’

**/ui/ vs /eu/**

/buisu/ ‘age’

/beusu/ ‘here only’

**/ui/ vs /oi/**

/k<sup>h</sup>ui/ ‘to sour’

/k<sup>h</sup>oi/ ‘to copulate’

**/ui/ vs /ai/**

/guia/ ‘not to be’

/gaia/ ‘not to cultivate’

**/ui/ vs /au/**

/k<sup>h</sup>ui/ ‘to taste sour’

/k<sup>h</sup>au/ ‘to steal’

**/uu/ vs /ui/**

/duu/ ‘to feed’

/dui/ ‘to be small’

**/uu/ vs /eu/**

/buu/ ‘to cut’

/beu/ ‘here’

**/uu/ vs /oi/**

/t<sup>h</sup>uuula/ ‘not to be deep’

/t<sup>h</sup>oila/ ‘sack’

**/uu/ vs /ai/**

/suu/ ‘to blow with fist’

/sai/ ‘selection of the good  
vegetables from the bad’

**/uu/ vs /au/**

/k<sup>h</sup>uuuse/ ‘unity’

/k<sup>h</sup>ause/ ‘half’

**/ui/ vs /eu/**

/rui/ ‘to be soft’

/reu/ ‘to exhaust with numbness’

**/ui/ vs /ai/**

/ruisin/ ‘very soft than other’

/raisin/ ‘to scold badly’

**/ui/ vs /au/**

/duisin/ ‘younger than other’

/dausin/ ‘birdie’

**/eu/ vs /oi/**

/geu/ ‘to open’

/goi/ ‘betel-nut’

**/eu/ vs /ai/**

/leua/ ‘creeper’

/laia/ ‘not to bring’

**/eu/ vs /au/**

/k<sup>h</sup>eu/ ‘to open’

/k<sup>h</sup>au/ ‘to draw water’

**/oi/ vs /ai/**

/goi/ ‘betel nut’

/gai/ ‘cow’

**/oi/ vs /au/**

/k<sup>h</sup>oi/ ‘to copulate’

/k<sup>h</sup>au/ ‘to steal’

**/ai/ vs /au/**

/t<sup>h</sup>aik<sup>h</sup>ri/ ‘to bear small fruits’

/t<sup>h</sup>auk<sup>h</sup>ri/ ‘homemade spindle’

It is observed that all the diphthongs except /iu/ vs /oi/ have contrasting pairs.

### 2.2.1.1.6 Distribution of diphthongs

All the eight diphthongs in Bodo language have occurrences in different positions of a word. Distribution on different position of a word can establish the diphthongs.

Examples are stated below:

#### */iu/*

Initial position : does not occur in this position.

Medial position : /ziuma/ ‘soul’

: /ziusa/ ‘germ’

Final position : /ziu/ ‘life’

: /diu-diu/ ‘excessive fury’

#### */ui/*

Initial position : /ui/ ‘a term of addressing someone’

: /uilam/ ‘auction’

Medial position : /duima/ ‘river’

: /suit<sup>h</sup>ui/ ‘truth’

Final position : /dui/ ‘water’

: /mui/ ‘deer’

#### */uu/*

Initial position : /uu/ ‘a word for assent yes’

: /uuwa/ ‘bamboo’

Medial position : /k<sup>h</sup>uuse/ ‘unity’

: /ruuniya/ ‘soldier’

Final position : /azuu/ ‘forefathers’

: /zibuu/ ‘snake’

#### */ui/*

Initial position : does not occur in this position.

Medial position : /duilaŋ/ ‘to become gradually smaller’

: /duisin/ ‘smaller’

Final position : /rui/ ‘to be soft’

: /dui/ ‘to be small’

**/eu/**

Initial position	: /eu/ ‘to fry’ : /eusrang/ ‘to cut off jungle’
Medial position	: /meuwai/ ‘bamboo shoot’ : /neulai/ ‘mongoose’
Final position	: /k <sup>h</sup> eu/ ‘to open’ : /seu/ ‘to decay’

**/oi/**

Initial position	: does not occur in this position.
Medial position	: /soihaŋgar/ ‘destruction’ : /roina/ ‘a tool used in paddy collection’
Final position	: /goi/ ‘betel nut’ : /zroi/ ‘a word used to denote the falling of leaves’

**/ai/**

Initial position	: /ai/ ‘mother’ : /aisa/ ‘scale of fish’
Medial position	: /laizam/ ‘letter’ : /dain/ ‘eight’
Final position	: /rai/ ‘to scold’ : /bilai/ ‘leaf’

**/au/**

Initial position	: /auluri/ ‘a feminine class ignorant and careless in rearing their issues’ : /auray/ ‘to recite’
Medial position	: /k <sup>h</sup> auri/ ‘conch-shell’ : /sanbulauri/ ‘imagination’
Final position	: /gudau/ ‘to be perplexed’ : /dau/ ‘bird’

From the analysis on distribution of diphthongs, it is observed that /iu, ui, oi/ diphthongs have no initial occurrences.

### 2.2.1.1.7 Vowel Sequence

When two or more vowels are used beyond the syllable and within a word then it is called vowel Sequence in Linguistics terminology. In Bodo, **two vowel sequences**, **three vowel sequences**, **four vowel sequences** as well as **five vowel sequences** are occurs. Following are the examples:

Two vowel sequence	Syllable	Word	Glosses
i- <i>uu</i> : g-i- <i>uu</i>	/gi-yuu/	/giyuu/	‘afraid’
i-a : g-i-a	/gi-ya/	/giya/	‘fearless’
<i>uu-uu</i> : h- <i>uu-uu</i>	/huu-yuu/	/huuyuu/	‘give/gives’
<i>uu-a</i> : h- <i>uu-a</i>	/huu-a/	/huua/	‘does not give/not give’
u- <i>uu</i> : l-u- <i>uu</i>	/lu-yuu/	/luyuu/	‘build/builds’
u-a : l-u-a	/lu-wa/	/luwa/	‘does not build/not build’
e- <i>uu</i> : p <sup>h</sup> -e- <i>uu</i>	/p <sup>h</sup> e-yuu/	/p <sup>h</sup> eyuu/	‘intoxicate’
e-a : p <sup>h</sup> -e-a	/p <sup>h</sup> e-ya/	/p <sup>h</sup> eya/	‘does not intoxicate/ not intoxicate’
o- <i>uu</i> : h-o- <i>uu</i>	/ho-yuu/	/hoyuu/	‘to hackle’
o-a : h-o-a	/ho-wa/	/howa/	‘not hackle’
a- <i>uu</i> : z-a- <i>uu</i>	/za-yuu/	/zayuu/	‘eat’
a-a : z-a-a	/za-ya/	/zaya/	‘do not eat/not eat’

It is observed that two vowels are used beyond the two syllables and within a word. It becomes due to gliding condition and due to gliding /y/ and /w/ semi vowels are occurs between the two vowel sequences.

Three vowel sequence	Syllable	Word	Glosses
i-u-a : z-i-u-a	/ziw-a/	/ziwa/	‘life is’
<i>uu-i-uu</i> : t <sup>h</sup> - <i>uu-i-uu</i>	/t <sup>h</sup> uii-yuu/	/t <sup>h</sup> uiiyuu/	‘die/dies’
<i>uu-i-a</i> : t <sup>h</sup> - <i>uu-i-a</i>	/t <sup>h</sup> uii-ya/	/t <sup>h</sup> uiiya/	‘do not die/not die’
<i>uu-u-uu</i> : b- <i>uu-u-uu</i>	/buuu-wuu/	/buuwuu/	‘do/does cut’
<i>uu-u-a</i> : b- <i>uu-u-a</i>	/buuu-wa/	/buuwa/	‘do not cut/does not cut’
o-i-a : g-o-i-a	/goy-a/	/goya/	‘betel-nut is’
u-i-a : d-u-i-a	/duy-a/	/duya/	‘do not decrease/ does not decrease’

a-u- <i>uu</i>	: s-a-u- <i>uu</i>	/saw- <i>ui</i> /	/saw <i>uu</i> /	‘burn/burns’
a-u-a	: s-a-u-a	/saw-a/	/sawa/	‘do not burn/does not burn’
a-i- <i>uu</i>	: n-a-i- <i>uu</i>	/nay- <i>ui</i> /	/nay <i>uu</i> /	‘see/sees/ behold’
a-i-a	: n-a-i-a	/nay-a/	/naya/	‘do not see/does not see’

It is observed that three vowels are occurs beyond the two syllables and within a word. It becomes due to gliding condition and due to gliding /y/ and /w/ semi vowels are occurs between the vowel sequences and sometimes inserted in the place of a vowel of vowel sequences.

Four vowel sequences	Syllable	Word	Glosses	
<i>u-i-uu-i</i>	: t <sup>h</sup> - <i>u-i-uu-i</i>	/t <sup>h</sup> <i>ui-yui</i> /	/t <sup>h</sup> <i>uiyui</i> /	‘immortal/ not die’
	p <sup>h</sup> - <i>u-i-uu-i</i>	/p <sup>h</sup> <i>ui-yui</i> /	/p <sup>h</sup> <i>uiyui</i> /	‘not present/ not coming/ absence’
	g- <i>u-i-uu-i</i>	/g <i>ui-yui</i> /	/g <i>uiyui</i> /	‘not having/ not possessing/ lack’
	s- <i>u-i-uu-i</i>	/s <i>ui-yui</i> /	/s <i>uiyui</i> /	‘hatred/ dislike’
<i>u-u-uu-i</i>	: b- <i>u-u-uu-i</i>	/buu- <i>yui</i> /	/buu <i>yui</i> /	‘blunt/ having no sharpness’
	d- <i>u-u-uu-i</i>	/duu- <i>yui</i> /	/duu <i>yui</i> /	‘unfed’
	s- <i>u-u-uu-i</i>	/suu- <i>yui</i> /	/suu <i>yui</i> /	‘un-husk’
	z- <i>u-u-uu-i</i>	/zuu- <i>yui</i> /	/zuu <i>yui</i> /	‘not growing/ lack growth’
a-u- <i>uu-i</i>	: s-a-u- <i>uu-i</i>	/saw- <i>ui</i> /	/saw <i>ui</i> /	‘unroasted/ raw’
a-i- <i>uu-i</i>	: n-a-i- <i>uu-i</i>	/nay- <i>ui</i> /	/nay <i>ui</i> /	‘unseen/ unnoticed’
	r-a-i- <i>uu-i</i>	/ray- <i>ui</i> /	/ray <i>ui</i> /	‘un-scolding’

It is observed that four vowels are occurs beyond the two syllables and within a word. It becomes due to gliding condition and due to gliding /y/ and /w/ semi vowels are inserted between the vowel sequences and sometimes inserted in the place of a vowel of vowel sequences.

Five vowel sequences	Syllable	Word	Glosses	
<i>u-i-uu-i-a</i>	: t <sup>h</sup> - <i>u-i-uu-i-a</i>	/t <sup>h</sup> <i>ui-yui-ya</i> /	/t <sup>h</sup> <i>uiyuiya</i> /	‘immortal is/ deathless is’
	p <sup>h</sup> - <i>u-i-uu-i-a</i>	/p <sup>h</sup> <i>ui-yui-ya</i> /	/p <sup>h</sup> <i>uiyuiya</i> /	‘absence is’
	g- <i>u-i-uu-i-a</i>	/g <i>ui-yui-ya</i> /	/g <i>uiyuiya</i> /	‘lack is’
	s- <i>u-i-uu-i-a</i>	/s <i>ui-yui-ya</i> /	/s <i>uiyuiya</i> /	‘hatred is/ discontent is’

<i>u-u-u-i-a</i> : b- <i>u-u-u-i-a</i>	/buu-yui-ya/	/buuyuiya/	‘blunt is’
d- <i>u-u-u-i-a</i>	/duu-yui-ya/	/duuyuiya/	‘unfed is’
s- <i>u-u-u-i-a</i>	/suu-yui-ya/	/suuyuiya/	‘un-husk is’
z- <i>u-u-u-i-a</i>	/zuu-yui-ya/	/zuuyuiya/	‘lack of growth is’
a- <i>u-u-i-a</i> : s-a- <i>u-u-i-a</i>	/saw- <i>ui-ya</i> /	/sawuiya/	‘unroasted is/ raw is’
a- <i>i-u-i-a</i> : n-a- <i>i-u-i-a</i>	/nay- <i>ui-ya</i> /	/nayuiya/	‘unnoticed is/ unseen is’
r-a- <i>i-u-i-a</i>	/ray- <i>ui-ya</i> /	/rayuiya/	‘un-scolding is’

It is observed that five vowels are occurs beyond the three syllables and within a word. It becomes due to gliding condition and due to gliding /y/ and /w/ semi vowels are inserted between the vowel sequences and sometimes inserted in the place of a vowel of vowel sequences.

### 2.2.1.2 Consonant phonemes

There are / p<sup>h</sup>, b, t<sup>h</sup>, d, k<sup>h</sup>, g, m, n, ŋ, s, z, h, r, l, w, y / sixteen consonant phonemes in Bodo language. In ‘*A Descriptive analysis of the Boro language*’, Pramod Chandra Bhattacharya had given the classificatory labels of Bodo consonants as follows:

	Bi-labial	Denti-alveolar	Alveolo-palatal	Velar
Plosives:-				
-aspirated	ph	th		kh
-unaspirated	b	d		g
Nasals	m	n		ŋ
Fricatives:-				
-voiceless			s	
-voiced			z	
Tremulant		r		
Lateral		l		

Figure: 2.5



Phukan Chandra Basumatary had also given the phonemic inventory of Bodo Consonants in ‘*An Introduction to the Boro language*’ as given table:

	Bi-labial	Alveolar	Palatal	Velar	Glottal
Plosive	b p <sup>h</sup>	d t <sup>h</sup>		g k <sup>h</sup>	
Nasal	m	n		ŋ	
Fricative		s z			h
Trill		r			
Lateral		l			
Semi-vowel	ŵ		y		

Figure: 2.6

From the references and further study the Phonemic inventory of Bodo consonants are presented in tabular form as follows:

Manner of Articulation ↓	Place of Articulation									
	↓									
	Bilabial		Alveolar		Palatal		Velar		Glottal	
	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd	Vl	Vd
Aspirated Stop	p <sup>h</sup>		t <sup>h</sup>				k <sup>h</sup>			
Un-aspirated	b		d				g			
Nasal	m		n				ŋ			
Fricative					s z				h	
Trill			r							
Lateral			l							
Semi-vowel	w				y					

Figure: 2.7

### 2.2.1.2.1 Phonemic description of consonant phonemes

<u>Phonemes</u>	<u>Description</u>
/p <sup>h</sup> /	voiceless aspirated bilabial stop
/b/	voiced un-aspirated bilabial stop
/t <sup>h</sup> /	voiceless aspirated alveolar stop
/d/	voiced un-aspirated alveolar stop
/k <sup>h</sup> /	voiceless aspirated velar stop
/g/	voiced un-aspirated velar stop
/m/	voiced bilabial nasal
/n/	voiced alveolar nasal
/ŋ/	voiced velar nasal
/s/	voiceless alveolar un-aspirated fricative
/z/	voiced alveolar un-aspirated fricative
/h/	voiceless glottal fricative
/r/	voiced alveolar trill
/l/	voiced alveolar lateral
/w/	voiced bilabial semi-vowel
/y/	voiced palatal semi-vowel

### 2.2.1.2.2 Contrasting pairs of consonant

On the basis of minimal pairs, sixteen Bodo consonant phonemes are established.

Examples are listed below:

/p <sup>h</sup> / vs /b/	/p <sup>h</sup> uzi/	‘to worship’
	/buzi/	‘to understand’
/p <sup>h</sup> / vs /t <sup>h</sup> /	/p <sup>h</sup> un/	‘to smear’
	/t <sup>h</sup> un/	‘to coil threads into wheel’
/p <sup>h</sup> / vs /d/	/phu <sup>h</sup> ilaw/	‘extensive’
	/du <sup>h</sup> ilaw/	‘waterly’
/p <sup>h</sup> / vs /k <sup>h</sup> /	/p <sup>h</sup> erai/	‘the bamboo frame of a thatch house on which thatch grass are placed’
	/k <sup>h</sup> erai/	‘religious festivals of Bodos’
/p <sup>h</sup> / vs /g/	/p <sup>h</sup> aham/	‘to repair or to cure’
	/gaham/	‘well’

/p <sup>h</sup> / vs /m/	/p <sup>h</sup> uŋ/	‘morning’
	/muŋ/	‘name’
/p <sup>h</sup> / vs /n/	/p <sup>h</sup> ui/	‘to come’
	/nuui/	‘two’
/p <sup>h</sup> / vs /ŋ/	/p <sup>h</sup> ap <sup>h</sup> /	‘sin’
	/p <sup>h</sup> aŋ/	‘to shut’
/p <sup>h</sup> / vs /s/	/p <sup>h</sup> uluŋ/	‘soft mud deposited by river alluvial’
	/suluŋ/	‘source’
/p <sup>h</sup> / vs /z/	/p <sup>h</sup> ui/	‘to sow’
	/zuu/	‘to kick’
/p <sup>h</sup> / vs /h/	/p <sup>h</sup> aŋ/	‘to shut’
	/haŋ/	‘breathing’
/p <sup>h</sup> / vs /r/	/p <sup>h</sup> aga/	‘rope’
	/raga/	‘anger’
/p <sup>h</sup> / vs /l/	/p <sup>h</sup> odob/	‘to bend’
	/lodob/	‘lumpy’
/p <sup>h</sup> / vs /w/	/rup <sup>h</sup> a/	‘silver’
	/ruwa/	‘an axe’
/p <sup>h</sup> / vs /y/	/p <sup>h</sup> ap <sup>h</sup> li/	‘shoulders’
	/p <sup>h</sup> ayli/	‘flowery petal’
/b/ vs /t <sup>h</sup> /	/babay/	‘being lazy’
	/t <sup>h</sup> abay/	‘to walk’
/b/ vs /d/	/banso/	‘to bear responsibility of others’
	/danso/	‘to cut’
/b/ vs /k <sup>h</sup> /	/bar/	‘wind’
	/k <sup>h</sup> ar/	‘to run’
/b/ vs /g/	/bat <sup>h</sup> uun/	‘roasted fish with chilly and salt etc.’
	/gat <sup>h</sup> uun/	‘landing place on river or lake’
/b/ vs /m/	/bada/	‘temporary sheds erected in the jungle by hunters and wood cutters’
	/mada/	‘core inner part of fruits, vegetables etc’
	/bay/	‘to be broken up’
/b/ vs /n/	/nay/	‘to see’

/b/ vs /ŋ/	/meseb/	‘to close eyes’
	/mesen/	‘dry season’
/b/ vs /s/	/bulu/	‘strength’
	/sulu/	‘tricks’
/b/ vs /z/	/bigab/	‘solid portion in a liquid substance’
	/zigab/	‘straw’
/b/ vs /h/	/bisan/	‘number’
	/hisan/	‘weaving loom’
/b/ vs /r/	/bandi/	‘sterile’
	/randi/	‘widow’
/b/ vs /l/	/bir/	‘to fly’
	/lir/	‘to write’
/b/ vs /w/	/p <sup>h</sup> usab/	‘to make clean or reform’
	/p <sup>h</sup> usaw/	‘to publish’
/b/ vs /y/	/radab/	‘news’
	/raday/	‘agreement’
/t <sup>h</sup> / vs /d/	/t <sup>h</sup> am/	‘three’
	/dam/	‘to play musical instrument’
/t <sup>h</sup> / vs /k <sup>h</sup> /	/t <sup>h</sup> ar/	‘true’
	/k <sup>h</sup> ar/	‘to run’
/t <sup>h</sup> / vs /g/	/t <sup>h</sup> andui/	‘messenger’
	/gandui/	‘one of the two beams of a handloom’
/t <sup>h</sup> / vs /m/	/t <sup>h</sup> ui/	‘blood’
	/mui/	‘deer’
/t <sup>h</sup> / vs /n/	/t <sup>h</sup> e/	‘to block water’
	/ne/	‘to wait’
/t <sup>h</sup> / vs /ŋ/	/dit <sup>h</sup> a/	‘care’
	/diŋa/	‘boat’
/t <sup>h</sup> / vs /s/	/t <sup>h</sup> on/	‘to fold’
	/son/	‘to scrape with hoe’
/t <sup>h</sup> / vs /z/	/t <sup>h</sup> amp <sup>h</sup> ui/	‘mosquito, common flies’
	/zamp <sup>h</sup> ui/	‘canal’

<b>/t<sup>h</sup>/ vs /h/</b>	/t <sup>h</sup> ab/	‘soon’
	/hab/	‘to enter’
<b>/t<sup>h</sup>/ vs /r/</b>	/t <sup>h</sup> aŋ/	‘to live’
	/raŋ/	‘money’
<b>/t<sup>h</sup>/ vs /l/</b>	/t <sup>h</sup> eb/	‘to trust into, to insert’
	/leb/	‘to peel off with knife’
<b>/t<sup>h</sup>/ vs /w/</b>	/sut <sup>h</sup> a/	‘loopholes’
	/suwa/	‘adulterated’
<b>/t<sup>h</sup>/ vs /y/</b>	/hat <sup>h</sup> a/	‘wooden utensil of Bodos’
	/haya/	‘unable, incapable’
<b>/d/ vs /k<sup>h</sup>/</b>	/dui/	‘water’
	/k <sup>h</sup> ui/	‘to taste sour’
<b>/d/ vs /g/</b>	/daŋsuu/	‘a fly of bigger species’
	/gaŋsuu/	‘grass’
<b>/d/ vs /m/</b>	/duguui/	‘to take bathe’
	/muguui/	‘to hate’
<b>/d/ vs /n/</b>	/daw/	‘to swim forward’
	/naw/	‘boat’
<b>/d/ vs /ŋ/</b>	/ap <sup>h</sup> ad/	‘association’
	/ap <sup>h</sup> aŋ/	‘the end of the bed to which legs are stretched’
<b>/d/ vs /s/</b>	/dik <sup>h</sup> ar/	‘grief’
	/sik <sup>h</sup> ar/	‘get up’
<b>/d/ vs /z/</b>	/dahar/	‘flow, current’
	/zahar/	‘jungle’
<b>/d/ vs /h/</b>	/dayna/	‘witch’
	/hayna/	‘beauty, attraction’
<b>/d/ vs /r/</b>	/daha/	‘repentance’
	/raha/	‘ways, means’
<b>/d/ vs /l/</b>	/daguu/	‘spot, stain’
	/laguu/	‘village’
<b>/d/ vs /w/</b>	/ada/	‘elder brother’
	/awa/	‘thread without gruel, raw’

<b>/d/ vs /y/</b>	/k <sup>h</sup> ada/ /k <sup>h</sup> aya/	‘an open bamboo basket’ ‘rickets’
<b>/k<sup>h</sup>/ vs /g/</b>	/k <sup>h</sup> ant <sup>h</sup> i/ /gant <sup>h</sup> i/	‘rule, custom’ ‘knot’
<b>/k<sup>h</sup>/ vs /m/</b>	/k <sup>h</sup> uga/ /muga/	‘mouth’ ‘era’
<b>/k<sup>h</sup>/ vs /n/</b>	/k <sup>h</sup> ar/ /nar/	‘to run’ ‘to push’
<b>/k<sup>h</sup>/ vs /ŋ/</b>	/lak <sup>h</sup> / /laŋ/	‘lack’ ‘to take away’
<b>/k<sup>h</sup>/ vs /s/</b>	/k <sup>h</sup> u <sup>h</sup> la/ /su <sup>h</sup> la/	‘the south’ ‘to lick’
<b>/k<sup>h</sup>/ vs /z/</b>	/k <sup>h</sup> a/ /za/	‘to tie’ ‘to eat’
<b>/k<sup>h</sup>/ vs /h/</b>	/k <sup>h</sup> aŋk <sup>h</sup> rai/ /haŋk <sup>h</sup> rai/	‘a crab’ ‘to call upon’
<b>/k<sup>h</sup>/ vs /r/</b>	/k <sup>h</sup> aŋ/ /raŋ/	‘to rear’ ‘money’
<b>/k<sup>h</sup>/ vs /l/</b>	/keb/ /leb/	‘to pinch with fingers’ ‘to peel off with knife’
<b>/k<sup>h</sup>/ vs /w/</b>	/lek <sup>h</sup> a/ /lewa/	‘paper’ ‘creeper’
<b>/k<sup>h</sup>/ vs /y/</b>	/sak <sup>h</sup> a/ /saya/	‘wheel’ ‘shade’
<b>/g/ vs /m/</b>	/guzu/ /muzu/	‘to cough’ ‘to spit’
<b>/g/ vs /n/</b>	/gar/ /nar/	‘to give up’ ‘to push’
<b>/g/ vs /ŋ/</b>	/buisag/ /buisaŋ/	‘1 <sup>st</sup> Indian month corresponding to mid April to mid May’ ‘a raised bamboo platform to put or support things and plants’

<b>/g/ vs /s/</b>	/gubuŋ/ /subuŋ/	‘thick’ ‘mankind’
<b>/g/ vs /z/</b>	/guzi/ /zuzi/	‘ninety’ ‘to fight’
<b>/g/ vs /h/</b>	/gab/ /hab/	‘to cry’ ‘to enter’
<b>/g/ vs /r/</b>	/guk <sup>h</sup> a/ /ruk <sup>h</sup> a/	‘bitter’ ‘clear’
<b>/g/ vs /l/</b>	/gugu/	‘pure’
	/lugu/	‘friend’
<b>/g/ vs /w/</b>	/muga/ /muwa/	‘era, age’ ‘thing, element’
<b>/g/ vs /y/</b>	/agda/ /ayda/	‘right side’ ‘subject’
<b>/m/ vs /n/</b>	/mu/	‘deer’
	/nu/	‘two’
<b>/m/ vs /ŋ/</b>	/zaram/ /zaraŋ/	‘to eat slightly’ ‘reddish’
<b>/m/ vs /s/</b>	/zi/	‘soul’
	/zi/	‘germ’
<b>/m/ vs /z/</b>	/muli/ /zuli/	‘medicine’ ‘marriage’
<b>/m/ vs /h/</b>	/mara/ /hara/	‘to sort out seed from stalks’ ‘bone’
<b>/m/ vs /r/</b>	/mu/	‘body’
	/ru/	‘to begin to grow or put forth’
<b>/m/ vs /l/</b>	/mu/	‘a unit of measurement from arm-pit to the top of the middle finger’
	/lu/	‘to pour’
<b>/m/ vs /w/</b>	/p <sup>h</sup> uzam/ /p <sup>h</sup> uzaw/	‘to make old, to reduce’ ‘to make float’
<b>/m/ vs /y/</b>	/p <sup>h</sup> aham/ /p <sup>h</sup> ahay/	‘to repair’ ‘to make lower’

<b>/n/ vs /ŋ/</b>	/siman/	‘confession, agreeing’
	/simaŋ/	‘dream’
<b>/n/ vs /s/</b>	/na/	‘fish’
	/sa/	‘north’
<b>/n/ vs /z/</b>	/ne/	‘to wait’
	/ze/	‘net’
<b>/n/ vs /h/</b>	/hat <sup>h</sup> ay/	‘teeth’
	/nat <sup>h</sup> ay/	‘but’
<b>/n/ vs /r/</b>	/naw/	‘boat’
	/raw/	‘language’
<b>/n/ vs /l/</b>	/nari/	‘naval’
	/lari/	‘a line or row’
<b>/n/ vs /w/</b>	/bip <sup>h</sup> an/	‘department’
	/bip <sup>h</sup> aw/	‘role’
<b>/n/ vs /y/</b>	/p <sup>h</sup> urman/	‘proof’
	/p <sup>h</sup> urmay/	‘to inform’
<b>/s/ vs /ŋ/</b>	/bisi/	‘wife’
	/biŋi/	‘one-stringed musical instrument’
<b>/s/ vs /z/</b>	/sudub/	‘word’
	/zudub/	‘to dampen’
<b>/s/ vs /h/</b>	/sanza/	‘east’
	/hanza/	‘group’
<b>/s/ vs /r/</b>	/suzu/	‘to edit’
	/ruzu/	‘to compare’
<b>/s/ vs /l/</b>	/suit <sup>h</sup> u/	‘true’
	/luit <sup>h</sup> u/	‘sea’
<b>/s/ vs /w/</b>	/gasa/	‘earthen pot for illumination’
	/gawa/	‘undivided’
<b>/s/ vs /y/</b>	/p <sup>h</sup> esa/	‘owl’
	/p <sup>h</sup> eya/	‘undrunk’
<b>/z/ vs /ŋ/</b>	/razi/	‘agreeing’
	/raŋi/	‘the fourth string of the serja, a Bodo musical instrument’



/z/ vs /h/	/zʊk <sup>h</sup> ar/	‘to kick off’
	/huuk <sup>h</sup> ar/	‘to drive off, to expel’
/z/ vs /r/	/zuuŋ/	‘we’
	/ruuŋ/	‘to know’
/z/ vs /l/	/zant <sup>h</sup> a/	‘a utensil made of bamboo or cane having meshed bottom for filtering’
	/lant <sup>h</sup> a/	‘bald headed’
/z/ vs /w/	/k <sup>h</sup> uza/	‘humpbacked’
	/k <sup>h</sup> uwa/	‘fog’
/z/ vs /y/	/somaz/	‘society’
	/soday/	‘to be beautiful to look at, to suit’
/h/ vs /ŋ/	/daha/	‘grief, sorrow’
	/daŋa/	‘a kind of vegetable’
/h/ vs /r/	/hadab/	‘a plot of land’
	/radab/	‘news’
/h/ vs /l/	/hat <sup>h</sup> a/	‘a wooden utensil used to distributed boiled rice’
	/lat <sup>h</sup> a/	‘round’
/h/ vs /w/	/saha/	‘towards the north’
	/sawa/	‘not to be burn’
/h/ vs /y/	/bihaw/	‘father-in-law’
	/biyaw/	‘here’
/r/ vs /ŋ/	/biban/	‘quantity’
	/biba/	‘flower’
/r/ vs /l/	/dahar/	‘current, flow’
	/dahal/	‘shield’
/r/ vs /w/	/ser/	‘to leak’
	/sew/	‘to rot’
/r/ vs /y/	/p <sup>h</sup> ut <sup>h</sup> ar/	‘to purity’
	/p <sup>h</sup> ut <sup>h</sup> ay/	‘to believe’
/l/ vs /ŋ/	/mel/	‘meeting, discussion’
	/mej/	‘to be tired’

/l/ vs /w/	/t <sup>h</sup> al/	‘sense’
	/t <sup>h</sup> aw/	‘oil’
/l/ vs /y/	/at <sup>h</sup> al/	‘batch, group’
	/at <sup>h</sup> ay/	‘to make’
/w/ vs /ŋ/	/bew/	‘here’
	/beŋ/	‘to obstruct, to protect’
/y/ vs /ŋ/	/bibay/	‘to beg hither and thither’
	/biban/	‘quantity’
/w/ vs /y/	/gaw/	‘to shoot’
	/gay/	‘to plant’

From the above analysis, it is observed that all the sixteen Consonant phonemes have Contrasting pairs to each other in minimal pairs.

### 2.2.1.2.3 Phonemic distribution of consonant phonemes

All the sixteen Consonant phonemes have occurrences in Bodo language. Examples are given below:

/p <sup>h</sup> /	Initial Position of the word	Medial Position of the word
	/p <sup>h</sup> oŋbai/ ‘younger brother’	/ap <sup>h</sup> ad/ ‘association’
	/p <sup>h</sup> oraysali/ ‘school’	/ap <sup>h</sup> adgiri/ ‘president of a committee, society or institution’
	/p <sup>h</sup> olont <sup>h</sup> o/ ‘bog’	/emp <sup>h</sup> uu/ ‘insect’
	/p <sup>h</sup> oŋt <sup>h</sup> an/ ‘institution’	/soŋp <sup>h</sup> ur/ ‘day after tomorrow’
	/p <sup>h</sup> insaza/ ‘revenge’	/rip <sup>h</sup> ik <sup>h</sup> an/ ‘reflection’

#### Final Position of the word

Does not occur in this position

/b/	Initial Position of the word	Medial Position of the word
	/bon/ ‘firewood’	/obot <sup>h</sup> ira/ ‘untimely’
	/borosa/ ‘son of Bodo’	/abad/ ‘cultivation’
	/boray/ ‘to welcome’	/eba/ ‘or’
	/bak <sup>h</sup> ri/ ‘granary’	/gabun/ ‘tomorrow’
	/beher/ ‘mire’	/subk <sup>h</sup> o/ ‘to absorb any liquid’

**Final Position of the word**

/gab/	‘to cry’
/gurub/	‘to adjust’
/zab/	‘to place one over another’
/t <sup>h</sup> ab/	‘soon’
/hork <sup>h</sup> ab/	‘suddenly’

<b>/t<sup>h</sup>/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/t <sup>h</sup> ok <sup>h</sup> on/ ‘stick’	/ont <sup>h</sup> ai/ ‘stone’
	/t <sup>h</sup> agibi/ ‘indigenous’	/k <sup>h</sup> it <sup>h</sup> er/ ‘revenge’
	/t <sup>h</sup> ursi/ ‘dish’	/gant <sup>h</sup> i/ ‘knot’
	/t <sup>h</sup> iyari/ ‘ready’	/but <sup>h</sup> ur/ ‘weather’
	/t <sup>h</sup> unlai/ ‘literature’	/lat <sup>h</sup> ik <sup>h</sup> o/ ‘zero’

**Final Position of the word**

Does not occur in this position

<b>/d/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/dok <sup>h</sup> ona/ ‘Bodo women’s garment’	/ada/ ‘elder brother’
	/dolor/ ‘stable’	/udaŋsri/ ‘freedom’
	/daurai/ ‘peacock’	/gudan/ ‘new’
	/dum/ ‘to keep’	/t <sup>h</sup> andui/ ‘messenger’
	/dubli/ ‘cultivating field’	/raday/ ‘agreement’

**Final Position of the word**

/k <sup>h</sup> uip <sup>h</sup> ud/	‘ominous event’
/k <sup>h</sup> uulubud/	‘talking without any base’
/zigrud/	‘talkative’
/zilid/	‘arrow’
/p <sup>h</sup> ered/	‘to press out juice’

<b>/k<sup>h</sup>/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/k <sup>h</sup> ont <sup>h</sup> ai/ ‘poem’	/olok <sup>h</sup> od/ ‘awkward’
	/k <sup>h</sup> aduu/ ‘a bamboo stick used in cooking’	/ak <sup>h</sup> ai/ ‘hand’
	/k <sup>h</sup> ansri/ ‘earthworm’	/zəŋk <sup>h</sup> ri/ ‘to shake violently’
	/k <sup>h</sup> uga/ ‘mouth’	/t <sup>h</sup> ik <sup>h</sup> ini/ ‘peak, pigtail’
	/k <sup>h</sup> uurəŋ/ ‘news’	/hak <sup>h</sup> or/ ‘a hole in the earth’

**Final Position of the word**

Does not occur in this position

<b>/g/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/gont <sup>h</sup> oŋ/ ‘nose’	/agsi/ ‘left, left hand side’
	/gondra/ ‘shed for pigs’	/aguuma/ ‘one’s own, near and dear’
	/gondrai/ ‘a big cudgel’	/eŋgar/ ‘to give up’
	/gab/ ‘to cry’	/zəŋgila/ ‘strong and stout’
	/gami/ ‘village’	/naŋguul/ ‘plough’

**Final Position of the word**

/mulug/	‘world’
/zug/	‘span of year, era’
/p <sup>h</sup> arag/	‘separate, distinct’
/bahag/	‘portion, share’
/nuuruug/	‘hell’

<b>/m/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/mohor/ ‘size, appearance’	/k <sup>h</sup> amplai/ ‘a low wooden seat with or without legs’
	/mai/ ‘paddy’	
	/madui/ ‘mother’s younger sister, wife of father’s younger brother as they are addressed’	/gomt <sup>h</sup> a/ ‘grave’
		/geremsa/ ‘bushy, heavy with leaves and branches’
	/manui/ ‘why’	/zuumui/ ‘cloud’
	/muŋdaŋk <sup>h</sup> a/ ‘famous’	/p <sup>h</sup> uimal/ ‘failure’

**Final Position of the word**

/ast <sup>h</sup> am/	‘a finger ring’
/uŋkham/	‘cooked rice’
/em/	‘bed’
/p <sup>h</sup> elem/	‘to make slanting’
/sambram/	‘onion’

/n/	Initial Position of the word	Medial Position of the word
	/no/ ‘house’	/anduu/ ‘hidden’
	/nosa/ ‘a small hut’	/k <sup>h</sup> anai/ ‘hair’
	/nagir/ ‘to seek, to search for’	/goront <sup>h</sup> o/ ‘decision’
	/naza/ ‘to try’	/zanzi/ ‘waist’
	/nik <sup>h</sup> auri/ ‘poor’	/p <sup>h</sup> insaza/ ‘revenge’

**Final Position of the word**

/oron/	‘forest’
/agan/	‘step, a footprint’
/k <sup>h</sup> oran/	‘dry weather’
/t <sup>h</sup> an/	‘place of worship’
/dan/	‘to cut’

/ŋ/	Initial Position of the word	Medial Position of the word
	Does not occur in this position	/oŋk <sup>h</sup> a/ ‘midge, sand-fly’
		/aduŋgari/ ‘aged unmarried girl’
		/k <sup>h</sup> oŋga/ ‘handicapped of hand’
		/zaŋk <sup>h</sup> la/ ‘ladder’
		/thaŋk <sup>h</sup> i/ ‘aim’

**Final Position of the word**

/aŋ/	‘I, first person’
/azloŋ/	‘to stand on the toe’
/udaŋ/	‘bare, care-free’
/k <sup>h</sup> usuŋ/	‘a kind of tortoise living in forest’
/gidiŋ/	‘to move around’

<b>/s/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/soŋgali/ ‘spy’	/asi/ ‘finger’
	/soŋp <sup>h</sup> ur/ ‘day after to-morrow’	/isiŋ/ ‘kitchen room in the main house of the Bodos’
	/so <sup>h</sup> baŋsa/ ‘promise’	/k <sup>h</sup> ansri/ ‘earthworm’
	/somayna/ ‘beautiful’	/guusum/ ‘black’
	/sik <sup>h</sup> la/ ‘young girl’	/t <sup>h</sup> asari/ ‘situation’

**Final Position of the word**

Does not occur in this position

<b>/z/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/zayk <sup>h</sup> loŋ/ ‘rainbow’	/ozod/ ‘objection’
	/zarimin/ ‘history’	/anzad/ ‘examination’
	/zuuguunar/ ‘sweet gourd’	/enzor/ ‘rat’
	/zubb <sup>h</sup> esali/ ‘prison’	/guza/ ‘red’
	/ziu/ ‘life’	/duibazrum/ ‘waterfalls’

**Final Position of the word**

/aroz/ ‘prayer’

<b>/h/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/ha/ ‘soil’	/k <sup>h</sup> ohab/ ‘to have taste in eating something’
	/haŋk <sup>h</sup> ray/ ‘to call upon’	/k <sup>h</sup> amihara/ ‘ribs’
	/hazu/ ‘hill, mountain’	/gaham/ ‘good, well’
	/hat <sup>h</sup> asuni/ ‘traditional marriage system of the Bodos’	/zahun/ ‘reason’
	/halmazi/ ‘a village messenger’	/dahal/ ‘shield’

**Final Position of the word**

Does not occur in this position

<b>/r/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/raŋ/ 'money'	/oray/ 'ever'
	/ray/ 'scold'	/k <sup>h</sup> uuray/ 'news'
	/raw/ 'a language'	/garaŋ/ 'voice'
	/ruzab/ 'to sing'	/suray/ 'light, lustre'
	/ruzun/ 'to carry load on the head'	/hat <sup>h</sup> ork <sup>h</sup> i/ 'star'

**Final Position of the word**

/or/	'fire'
/inzur/	'walls of house'
/k <sup>h</sup> ar/	'to run'
/gar/	'to give up'
/lauk <sup>h</sup> ar/	'cowboy'

<b>/l/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	/laŋ/ 'to take away'	/k <sup>h</sup> awlai/ 'check'
	/lazigusu/ 'extremely shy'	/gulumdui/ 'sweat'
	/lanzai/ 'tail'	/gele/ 'to play'
	/lama/ 'road, path'	/t <sup>h</sup> ulunga/ 'to encourage'
	/lurban/ 'weak'	/bilai/ 'leaf'

**Final Position of the word**

/k <sup>h</sup> ant <sup>h</sup> al/	'jackfruit'
/k <sup>h</sup> ap <sup>h</sup> al/	'luck, forehead'
/zuŋk <sup>h</sup> ul/	'bright'
/zuŋgal/	'yoke, a piece of wood or bamboo placed on the necks of oxen'
/p <sup>h</sup> uimal/	'failure'

<b>/w/</b>	<b>Initial Position of the word</b>	<b>Medial Position of the word</b>
	Does not occur in this position	/aduwa/ 'fool, stupid'
		/uwal/ 'wooden husking implement'
		/but <sup>h</sup> uwa/ 'blunt'

/mawt<sup>h</sup>i/ ‘of active character’

/sawgari/ ‘drawing’

#### **Final Position of the word**

/edaw/ ‘to make fun of’

/k<sup>h</sup>amsaw/ ‘dirty’

/k<sup>h</sup>aw/ ‘steal’

/sik<sup>h</sup>aw/ ‘thief’

/hinzaw/ ‘female’

#### **/y/ Initial Position of the word**

Does not occur in this position

#### **Medial Position of the word**

/olsiya/ ‘lazy, indolent’

/iyun/ ‘future’

/k<sup>h</sup>ayda/ ‘tricks, tactics’

/nayzab/ ‘drama, play’

/banaysw/ ‘sons of sisters and those of wife’s brothers as they are addressed’

#### **Final Position of the word**

/aŋgay/ ‘to feel disgust for a thing after much use’

/anday/ ‘to lose one’s direction, to be perplexed’

/udray/ ‘to purify a sin or misdeed’

/ziray/ ‘to take seat, to sit’

/thunzlay/ ‘to abet’

From the Phonemic distribution of consonant phonemes, it is observed that the phonemes / p<sup>h</sup>, b, d, g, m, n, s, r, l / are occurs in the three positions i.e. initial, middle and final position of the word. The phonemes /ŋ, w, y/ have no initial occurrences and /p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>, s, h/ have no final occurrences.

#### **2.2.1.2.4 Consonant Cluster**

When more than one consonant are used within a single syllable in a collective manner with no intervening vowel then it is called consonant cluster. Consonant clusters are



occurs only in initial and middle positions of the word in Bodo language. It is also assumed that in Bodo consonant clusters are always occurs only between in two consonants.

**Example of Initial Consonant clusters:**

Cluster	Word	Glosses
p <sup>h</sup> -r	/p <sup>h</sup> rad/	‘firm, decent’
	/p <sup>h</sup> ram-p <sup>h</sup> ram/	‘dryly’
p <sup>h</sup> -l	/p <sup>h</sup> liŋ-phlaŋ/	‘moving here and there’
	/p <sup>h</sup> le/	‘part of small pieces’
b-r	/bre/	‘piercingly’
	/bra-bra/	‘persistently’
	/brui/	‘four’
b-l	/bla/	‘if’
	/blod/	‘went quickly’
	/blow/	‘shining widely’
t <sup>h</sup> -r	/t <sup>h</sup> ruub/	‘put into completely’
	/bra-bra/	‘persistently’
	/brui/	‘four’
d-r	/dru-dru/	‘slowly and togetherly’
	/druud/	‘pulling out silently’
d-l	/dlab/	‘big portion’
	/dlam/	‘much, plentiful’
k <sup>h</sup> -r	/k <sup>h</sup> ri-k <sup>h</sup> ri/	‘thick’
	/k <sup>h</sup> reb-k <sup>h</sup> reb/	‘intermittent’
	/k <sup>h</sup> rub/	‘burst’
	/k <sup>h</sup> raŋ/	‘rough’
k <sup>h</sup> -l	/k <sup>h</sup> laŋ-k <sup>h</sup> laŋ/	‘very much gluttonous’
	/k <sup>h</sup> lab-k <sup>h</sup> lab/	‘very much fearing’
	/k <sup>h</sup> leŋ/	‘aside’
g-r	/groŋ-groŋ/	‘deep’
	/grun-grun/	‘in large number of pieces’
	/grohosa/	‘satellite’

g-l	/glab-glab/	‘denoting sound of water boiling’
	/glub/	‘covering’
	/glum/	‘covering fully’
s-n	/sni/	‘seven’
	/snizi/	‘seventy’
s-r	/sro/	‘selected’
	/sra/	‘having no disturbance’
	/sreŋ/	‘simultaneously’
	/srub/	‘to extinguish suddenly’
	/srud/	‘secretly’
	/sraŋ/	‘light’
s-l	/slim/	‘smooth, polished’
	/slod/	‘falling speedily’
	/slai/	‘instead of’
z-r	/zruu-zruu/	‘very sharp’
	/zri-zri/	‘to flow gurgling’
	/zriŋ/	‘completely dried’
	/zrab/	‘swiftly and strongly’
	/zroy/	‘a word used to denote the falling of leaves’
	/zrum/	‘tasteful with requisite quantity of salt, turmeric and chilly’
z-l	/zlaw/	‘fatty’

#### Example of Medial Consonant clusters:

Cluster	Word	Glosses
p <sup>h</sup> -r	/op <sup>h</sup> ri/	‘rice malt’
	/k <sup>h</sup> op <sup>h</sup> ri/	‘bamboo made hat used as umbrella’
	/t <sup>h</sup> ap <sup>h</sup> ray/	‘to drive an animal’
	/sump <sup>h</sup> ram/	‘guava’
p <sup>h</sup> -l	/ewp <sup>h</sup> loŋ/	‘to plough throughout’
	/zop <sup>h</sup> le/	‘to tear into pieces’
	/t <sup>h</sup> ap <sup>h</sup> li/	‘bump’
	/mup <sup>h</sup> lamnay/	‘lightning’

b-r	/abrut <sup>h</sup> i/	‘prestige’
	/zubra/	‘sickly, weak’
	/lambro/	‘headless, topless’
	/habru/	‘mud’
b-l	/goblog/	‘hole’
	/t <sup>h</sup> oblo/	‘to dip in water’
	/dubli/	‘cultivating field’
	/bubli/	‘moment’
t <sup>h</sup> -r	/gunt <sup>h</sup> ut <sup>h</sup> ri/	‘beak of a bird, lip of a pig’
	/bat <sup>h</sup> ra/	‘word’
	/lant <sup>h</sup> ri/	‘at a stretch, continuously’
	/hasumut <sup>h</sup> ra/	‘bedwetter’
t <sup>h</sup> -l	/k <sup>h</sup> unt <sup>h</sup> lai/	‘flying cotton fibre’
	/sit <sup>h</sup> la/	‘courtyard’
	/t <sup>h</sup> ot <sup>h</sup> la/	‘stammering’
	/k <sup>h</sup> at <sup>h</sup> la/	‘a kind of fish’
d-r	/udray/	‘to purify a sin or misdeed’
	/gondra/	‘shed for pigs’
	/sandri/	‘sieve’
	/hadri/	‘dust’
d-l	/ondla/	‘curry prepared from rice powder’
	/gadlin/	‘to slip in stepping’
	/zodla/	‘to sit haphazardly’
	/t <sup>h</sup> ip <sup>h</sup> udla/	‘proud’
k <sup>h</sup> -r	/ok <sup>h</sup> raŋ/	‘sky’
	/dak <sup>h</sup> ray/	‘to disgruntle’
	/bak <sup>h</sup> ri/	‘granary, storehouse’
	/muuk <sup>h</sup> ra/	‘monkey’
k <sup>h</sup> -l	/ak <sup>h</sup> lay/	‘to wash utensils without rubbing’
	/zuuk <sup>h</sup> li/	‘a hen that has not laid first egg’
	/bik <sup>h</sup> lu/	‘gall’
	/sik <sup>h</sup> la/	‘young girl’

k <sup>h</sup> -n	/p <sup>h</sup> erk <sup>h</sup> na/	‘forked out, having branches’
	/muuk <sup>h</sup> na/	‘one kind of leaf’
g-r	/k <sup>h</sup> usengra/	‘cricket’
	/p <sup>h</sup> egrob/	‘lamely’
	/bagraŋ/	‘to jump up’
	/sagrid/	‘getting ready’
g-l	/aglay/	‘to remain surplus’
	/k <sup>h</sup> uglub/	‘to fall flatly down facing earth’
	/gaglub/	‘to attack’
	/hadidogla/	‘adjutant stork’
s-n	/zisni/	‘seventeen’
	/nuizisni/	‘twenty seven’
	/t <sup>h</sup> amzisni/	‘thirty seven’
	/k <sup>h</sup> asni/	‘thread of amulet’
s-r	/ulwisru/	‘exhaustively’
	/k <sup>h</sup> ansri/	‘earthworm’
	/zisri/	‘ageing cloth’
	/musrum/	‘ant’
s-l	/gosla/	‘common dress, shirt’
	/t <sup>h</sup> aslib/	‘to subside the matter’
	/p <sup>h</sup> osla/	‘tender peels of banana tree’
	/p <sup>h</sup> esla/	‘humorous’
z-r	/k <sup>h</sup> uzrab/	‘to jerk and drop’
	/gazri/	‘bad’
	/bazrum/	‘to jump down’
	/sazraŋ/	‘outward, not deep’
z-l	/p <sup>h</sup> isazla/	‘son’
	/bazlo/	‘to leap’
	/maizli/	‘seeds preserved for seedling’
	/muzlid/	‘dim’

From the structural analysis of consonant cluster, it is observed that in Bodo consonant clusters occurs in certain conditions only. Conditions are presented in tabular forms as follows:

<b>Initial</b>	
p <sup>h</sup> -r : aspirated stop+trill	p <sup>h</sup> -l : aspirated stop+lateral
b-r : unaspirated stop+ trill	b-l : unaspirated stop+ lateral
t <sup>h</sup> -r : aspirated stop+trill	t <sup>h</sup> -l : Does not occur in this condition
d-r : unaspirated stop+ trill	d-l : unaspirated stop+ lateral
k <sup>h</sup> -r : aspirated stop+trill	k <sup>h</sup> -l : aspirated stop+lateral
	k <sup>h</sup> -n : Does not occur in this condition
g-r : unaspirated stop+ trill	g-l : unaspirated stop+ lateral
s-r : fricative+ trill	s-l : fricative+ lateral
	s-n : fricative+ nasal
z-r : fricative+trill	z-l : fricative+ lateral

Figure: 2.8

<b>Medial</b>	
p <sup>h</sup> -r : aspirated stop+trill	p <sup>h</sup> -l : aspirated stop+lateral
b-r : unaspirated stop+ trill	b-l : unaspirated stop+ lateral
t <sup>h</sup> -r : aspirated stop+trill	t <sup>h</sup> -l : aspirated stop+lateral
d-r : unaspirated stop+ trill	d-l : unaspirated stop+ lateral
k <sup>h</sup> -r : aspirated stop+trill	k <sup>h</sup> -l : aspirated stop+lateral
	k <sup>h</sup> -n : aspirated stop+nasal
g-r : unaspirated stop+ trill	g-l : unaspirated stop+ lateral
s-r : fricative+ trill	s-l : fricative+ lateral
	s-n : fricative+ nasal
z-r : fricative+trill	z-l : fricative+ lateral

Figure: 2.9

From the tabular analysis on conditions of the consonant clusters, it is clearly observed that t<sup>h</sup>-l and k<sup>h</sup>-n have no occurrences in initial position. It is also observed that r, l and n consonant phonemes are always occurs as second member and p<sup>h</sup>, b, t<sup>h</sup>, d, k<sup>h</sup>, g, s and

z consonant phonemes are always occurs as first member in both the initial and medial consonant clusters.

### 2.2.1.2.5 Consonant Sequence

In Linguistics terminology, when two or more consonants are used beyond the syllable and within a word, it is called Consonant Sequence. It is of two types

- i. Gemination sequence
- ii. Non-gemination sequence

#### 2.2.1.2.5.1 Gemination sequence

Gemination sequence means combination of same two or three consonant phonemes beyond the syllable and within a word. In Bodo, this type of sequence can be occurs in two consonant sequences only which is merely used in middle position of a word. In Gemination sequence, the place of articulation and manner of articulation both are occurs in a similar feature serially.

**Following are the examples:**

<b>Gemination sequence</b>	<b>Word</b>	<b>Glosses</b>
b-b	/lubba/	‘concern, connection’
	/lebbu/	‘pliable, bending easily’
	/zobbo/	‘with splash’
d-d	/gaddla/	‘to place foot unknowingly on mud or stool etc.’
	/leddu/	‘slightly heavy’
k <sup>h</sup> -k <sup>h</sup>	/bok <sup>h</sup> k <sup>h</sup> a/	‘stupid, foolish’
g-g	/gugga/	‘proud’
m-m	/zut <sup>h</sup> umma/	‘conference’
n-n	/onnay/	‘to love’
	/p <sup>h</sup> innay/	‘to answer’
	/bannay/	‘carrying’
l-l	/zilla/	‘district’
	/p <sup>h</sup> alla/	‘slate’

In standard language of Bodo, Gemination consonant sequences are occurs only in the sequences of b-b (unaspirated stop + unaspirated stop), d-d (unaspirated stop + unaspirated stop), k<sup>h</sup>-k<sup>h</sup> (aspirated stop + aspirated stop), g-g (unaspirated stop + unaspirated stop), m-m (nasal + nasal), n-n (nasal + nasal) and l-l (lateral + lateral).

### 2.2.1.2.5.2 Non-gemination sequence

Non-gemination sequence means combination of different two or three consonant phonemes beyond the syllable and within the word. In Bodo, this type of sequence can be occurs in **two consonant sequences** as well as **three consonant sequences**. These consonant sequences are occurs only in middle position of a word.

Examples of **two consonant sequences**

Two consonant sequences	word	Glosses
P <sup>h</sup> -t <sup>h</sup>	/ap <sup>h</sup> t <sup>h</sup> oŋ/	‘slipper, chappal’
P <sup>h</sup> -s	/t <sup>h</sup> op <sup>h</sup> si/	‘a mortar of wood or iron in which things are pounded with pestle’
b-p <sup>h</sup>	/dubp <sup>h</sup> uŋ/ /k <sup>h</sup> ebp <sup>h</sup> loŋ/	‘suddenly, instantly’ ‘to make hole by pinching’
b-t <sup>h</sup>	/zубt <sup>h</sup> esali/ /sудубt <sup>h</sup> i/	‘jail’ ‘meaning’
b-d	/dabdoŋ/ /sabdari/	‘bowed in size’ ‘beard grown on the chin’
b-k <sup>h</sup>	/gabk <sup>h</sup> o/ /dabk <sup>h</sup> a/	‘to urge’ ‘a big earthen pot’
b-g	/dubgaj/ /ruwabgiri/	‘swelling in middle portion’ ‘singer’
b-m	/buwt <sup>h</sup> abma/ /sудубma/	‘gravitation’ ‘parts of speech’
b-n	/buwabnay/ /zabnay/	‘to be angry’ ‘the act of stocking’
b-s	/sibsa/ /sabsin/	‘worship, devotion’ ‘better’

b-z	/k <sup>h</sup> obzob/	‘to fold hands’
	/hebzab/	‘to twist together’
b-l	/t <sup>h</sup> ilebleb/	‘portable’
t <sup>h</sup> -l	/bilat <sup>h</sup> lat <sup>h</sup> a/	‘the earth’
d-b	/t <sup>h</sup> odbid/	‘supervision’
d-k <sup>h</sup>	/udk <sup>h</sup> ari/	‘tyrant, despot’
d-g	/badga/	‘arrogant, disloyal’
	/udgado/	‘camel’
d-n	/bodnam/	‘bad reputation’
	/p <sup>h</sup> udnay/	‘to introduce’
d-l	/buudla/	‘to turn over, to uncover’
	/bedlaw/	‘water-leech’
g-d	/k <sup>h</sup> agdaw/	‘to bind upward’
	/zuggdaw/	‘to kick up’
	/bugdaw/	‘to hit upward’
m-p <sup>h</sup>	/emp <sup>h</sup> uu/	‘worm, insect’
	/k <sup>h</sup> amp <sup>h</sup> a/	‘pillar, monument’
	/zamp <sup>h</sup> ui/	‘canal’
	/t <sup>h</sup> amp <sup>h</sup> ui/	‘mosquito’
m-b	/ombi/	‘not talkative, reserved’
	/embu/	‘frog’
	/zamba/	‘fool’
m-t <sup>h</sup>	/amt <sup>h</sup> a/	‘thick, dense’
	/k <sup>h</sup> umt <sup>h</sup> a/	‘strong and stout’
	/gomt <sup>h</sup> a/	‘grave’
m-d	/uk <sup>h</sup> umdi/	‘water dropped from the eaves of a house’
	/gulumduui/	‘sweat’
m-k <sup>h</sup>	/dumk <sup>h</sup> on/	‘to put fencing on all sides’
	/bamk <sup>h</sup> aŋ/	‘to take up into arms’
	/somk <sup>h</sup> i/	‘to get frightened’
m-g	/damgiri/	‘player of musical instrument’
	/melemgunay/	‘brainy, intelligent’



m-n	/dumnay/	‘fencing’
	/bamnay/	‘carrying on the lap’
	/lamnay/	‘drying in the sun’
m-s	/k <sup>h</sup> amsi/	‘to burn and make pieces’
	/k <sup>h</sup> amsaw/	‘dirty and dry on face’
	/k <sup>h</sup> uumsi/	‘dark’
	/munamsu/	‘to smell’
m-z	/t <sup>h</sup> amzuu/	‘three hundred’
	/t <sup>h</sup> amzi/	‘thirty’
m-h	/k <sup>h</sup> amhe/	‘having a smell of burnt thing’
	/t <sup>h</sup> amhinba/	‘that means’
m-l	/samlay/	‘to control’
	/hamlait <sup>h</sup> i/	‘message’
	/hamlai/	‘praise’
n-p <sup>h</sup>	/du <sup>h</sup> np <sup>h</sup> a/	‘to keep with’
	/p <sup>h</sup> anp <sup>h</sup> ewali/	‘the swallow’
n-b	/dinbaw/	‘a long time’
	/p <sup>h</sup> anbay/	‘to hawk’
	/manbay/	‘to crawl’
n-t <sup>h</sup>	/ont <sup>h</sup> ai/	‘rock’
	/k <sup>h</sup> ont <sup>h</sup> ai/	‘a poem, poetry’
	/k <sup>h</sup> ant <sup>h</sup> al/	‘jackfruit’
n-d	/anday/	‘to lose one’s direction’
	/andu/	‘placed behind a screen, hidden’
	/undu/	‘to sleep’
n-k <sup>h</sup>	/onk <sup>h</sup> o/	‘very kind, much loving’
	/zank <sup>h</sup> ar/	‘to go far away’
	/sank <sup>h</sup> ant <sup>h</sup> i/	‘mathematics’
n-g	/onga/	‘except, besides’
	/dungra/	‘keeper’
	/sangudi/	‘unit of counting’

n-s	/onsay/	‘to recollect’
	/ensuu/	‘last portion of unhusked rice’
	/t <sup>h</sup> ansali/	‘temple’
	/ronsay/	‘to compose’
n-z	/onzima/	‘numerical, digit’
	/anzad/	‘examination, experiment’
	/inzur/	‘walls of house’
	/enzor/	‘rat’
	/bonzar/	‘fire inflamed on the bundle of wood’
n-h	/k <sup>h</sup> anzonŋ/	‘comb’
	/danhui/	‘to go and cut’
	/bonhap <sup>h</sup> a/	‘a jungle cat’
n-r	/sanray/	‘number’
n-l	/t <sup>h</sup> unlai/	‘literature’
	/banlu/	‘chilly’
ŋ-p <sup>h</sup>	/manlunay/	‘itching disease’
	/k <sup>h</sup> enp <sup>h</sup> uur/	‘to untie properly’
	/zonp <sup>h</sup> ar/	‘pointed’
	/zak <sup>h</sup> anp <sup>h</sup> unay/	‘developing’
ŋ-b	/donp <sup>h</sup> anŋ/	‘wood’
	/olonbar/	‘the morning star or the evening star, the Venus’
	/dunbur/	‘warm’
ŋ-t <sup>h</sup>	/p <sup>h</sup> onbai/	‘younger brother’
	/k <sup>h</sup> unŋ <sup>h</sup> ai/	‘government’
	/gunanŋ <sup>h</sup> i/	‘importance’
ŋ-d	/t <sup>h</sup> iranŋ <sup>h</sup> a/	‘decision’
	/zuŋdaw/	‘to burn intensely’
ŋ-k <sup>h</sup>	/munđanŋk <sup>h</sup> a/	‘famous’
	/anŋk <sup>h</sup> al/	‘scarcity’
	/k <sup>h</sup> anŋk <sup>h</sup> uwa/	‘gluttonous, excessive eater’
	/siliŋk <sup>h</sup> ar/	‘being scattered after destruction’

ŋ-g	/aŋgay/	‘to feel disgust for a thing after much use’
	/aduŋgari/	‘aged unmarried girl, spinster’
	/k <sup>h</sup> oŋga/	‘handicapped of hand’
ŋ-m	/ok <sup>h</sup> raŋma/	‘space’
	/haŋma/	‘unfulfilled desires, hopeless’
	/uraŋmari/	‘to fly, to fly away’
ŋ-n	/naŋnay/	‘need, necessity’
	/suŋnay/	‘question, asking’
ŋ-s	/gaŋsu/	‘grass’
	/haŋsu/	‘duck’
	/nuŋsur/	‘you (plural)’
	/nuŋsazu/	‘your daughter’
	/nuŋsazla/	‘your son’
ŋ-z	/aŋzaŋ/	‘unsteady’
	/gaŋzema/	‘a water insect’
	/t <sup>h</sup> uŋzui/	‘directly’
ŋ-h	/guzaŋhab/	‘to feel intense’
	/duŋhaw/	‘very hot’
	/meŋhab/	‘to get much tired’
ŋ-r	/zareŋreŋ/	‘reddish’
	/soŋraza/	‘a God of the Bodos’
ŋ-l	/gaŋlab/	‘at full length, in full stretch’
	/naŋlay/	‘to quarrel’
z-p <sup>h</sup>	/razp <sup>h</sup> uler/	‘a royal dynasty’
z-t <sup>h</sup>	/razi <sup>h</sup> andui/	‘an ambassador’
	/razi <sup>h</sup> awni/	‘capital’
z-k <sup>h</sup>	/razk <sup>h</sup> ant <sup>hi</sup> /	‘politics’
	/razk <sup>h</sup> uŋgur/	‘prince’
	/razk <sup>h</sup> uŋgri/	‘princess’
z-g	/razguhuu/	‘royal power’
z-m	/razmuk <sup>h</sup> ut <sup>h</sup> /	‘royal crown’
z-n	/aznai/	‘a sty on the eyelid’

r-p <sup>h</sup>	/orp <sup>h</sup> ob/	‘to bite all around’
	/t <sup>h</sup> urp <sup>h</sup> uu/	‘layer’
	/p <sup>h</sup> irp <sup>h</sup> ila/	‘flag’
r-b	/orbaw/	‘to bite again’
	/garbuu/	‘to come leaving behind’
	/gurbuu/	‘core’
	/zerba/	‘chest’
r-t <sup>h</sup>	/ort <sup>h</sup> ar/	‘to kill by biting’
	/t <sup>h</sup> ort <sup>h</sup> in/	‘to drop, to cause to drop’
r-d	/ordab/	‘fireplace, hearth’
	/garder/	‘to throw at’
r-k <sup>h</sup>	/ork <sup>h</sup> i/	‘embers’
	/k <sup>h</sup> erk <sup>h</sup> ani/	‘elbow’
	/gork <sup>h</sup> ai/	‘moat, ditch’
r-g	/orga/	‘wide-faced’
	/derga/	‘to feel pride’
	/bizirgiri/	‘critic, analyst’
r-m	/k <sup>h</sup> urma/	‘relatives’
	/burma/	‘goat’
	/p <sup>h</sup> urman/	‘proof’
	/p <sup>h</sup> urmayt <sup>h</sup> i/	‘to express before other’
r-n	/zurnay/	‘lasting, stability’
	/nernay/	‘growl, roar’
	/birna/	‘a kind of grass with long and sharp edged blades’
r-s	/erson/	‘to speak against somebody secretly’
	/gursaw/	‘to emit liquid matter in belching’
	/bizirsali/	‘court’
r-z	/arzi/	‘to earn’
	/narzi/	‘the preserved dried leaves of jute’
r-h	/k <sup>h</sup> arhaj/	‘to be about to run’
	/derha/	‘to conquer’

	/barhujk <sup>h</sup> a/	‘storm’
r-l	/k <sup>h</sup> orleb/	‘having sunken cheeks’
	/k <sup>h</sup> arlan/	‘to run away’
	/k <sup>h</sup> arluŋ/	‘rolling man, unsettled fellow’
l-p <sup>h</sup>	/galp <sup>h</sup> a/	‘inner part of the cheek’
l-b	/galbubu/	‘having fairly swollen cheek’
	/solbari/	‘part of plough’
l-t <sup>h</sup>	/g <sup>h</sup> olt <sup>h</sup> ut <sup>h</sup> i/	‘the adam’s apple’
	/g <sup>h</sup> alt <sup>h</sup> aw/	‘parotid salivary gland area’
	/solt <sup>h</sup> a/	‘lamp-wick’
l-d	/zoldob/	‘a sound produced by a fallen thing to the ground’
	/duldaŋ/	‘protruding’
	/haldui/	‘turmeric’
l-k <sup>h</sup>	/p <sup>h</sup> ulk <sup>h</sup> uri/	‘name of Bodo traditional earring’
l-g	/zolgob/	‘incompetent’
	/dulgunan/	‘delicious, nutritious’
l-m	/k <sup>h</sup> almasi/	‘coming year’
	/salmay/	‘pimple’
	/halmazi/	‘a village messenger’
l-s	/olsiya/	‘lazy’
l-z	/naŋgulzaŋk <sup>h</sup> ra/	‘the concluding ceremony of paddy plantation of a family’
w-p <sup>h</sup>	/bek <sup>h</sup> ewp <sup>h</sup> a/	‘termination’
	/mawp <sup>h</sup> ari/	‘agenda’
	/mawp <sup>h</sup> uŋ ap <sup>h</sup> ad/	‘working committee’
w-b	/t <sup>h</sup> ewbu/	‘even then’
	/dawbay/	‘to travel’
w-t <sup>h</sup>	/awt <sup>h</sup> a/	‘jurisdiction’
	/awt <sup>h</sup> i/	‘to melt in fire’
	/k <sup>h</sup> awt <sup>h</sup> oŋ/	‘in a position of squatting’
	/p <sup>h</sup> awt <sup>h</sup> ai/	‘drama’

w-d	/gawdaŋ/ /nawdra/	‘blossomy, fully open’ ‘a vessel in the shape of boat to reserve water’
w-k <sup>h</sup>	/p <sup>h</sup> awdur/ /k <sup>h</sup> awk <sup>h</sup> aŋ/ /daw <sup>h</sup> uu/ /mawk <sup>h</sup> uli/ /rawk <sup>h</sup> ant <sup>hi</sup> /	‘having a red and bulky cheek’ ‘to draw up water’ ‘to progress, to move upward’ ‘office’ ‘grammar’
w-g	/awgay/ /dawga/ /sawgari/	‘to go ahead’ ‘to proceed, to move forward’ ‘picture’
w-m	/awma/	‘aphis, a flying insect having offensive smell’
w-n	/awnay/ /k <sup>h</sup> isawnay/ /bawnasa/	‘to speak confusedly’ ‘diarrhea’ ‘dwarf’
w-s	/k <sup>h</sup> awse/ /bawsiya/	‘half’ ‘absent-minded’
w-z	/awzar/ /zawzub/ /zawza/	‘a kind of tree and its flower’ ‘to winnow all’ ‘twin’
w-h	/dawha/ /bewhay/	‘fight, battle’ ‘here, at this place’
w-r	/awray/ /k <sup>h</sup> awri/ /zawrik <sup>h</sup> aŋ/ /mawriya/	‘to read’ ‘a conch’ ‘to rise up’ ‘orphan’
w-l	/awluri/ /k <sup>h</sup> awlai/ /zawliya/ /dawlaŋ/	‘ignorant of rearing her issues, careless’ ‘cheek’ ‘mad’ ‘to move away’

y-p <sup>h</sup>	/k <sup>h</sup> ayp <sup>h</sup> a/	‘someone’
	/zayp <sup>h</sup> ur/	‘those who’
	/nayp <sup>h</sup> a/	‘to see with other’
y-b	/oraybuu/	‘always, at all times’
	/nat <sup>h</sup> ayba/	‘otherwise, or’
	/boybuu/	‘everyone’
y-t <sup>h</sup>	/orayt <sup>h</sup> a/	‘everlasting, permanence’
	/rayt <sup>h</sup> i/	‘to introduce’
y-d	/ayda/	‘chapter, subject’
	/k <sup>h</sup> ayda/	‘tricks’
	/baydibla/	‘according to, if so’
y-k <sup>h</sup>	/zayk <sup>h</sup> izaya/	‘anyone, whatever it may be’
	/zayp <sup>h</sup> ur/	‘those who’
	/nayk <sup>h</sup> angiri/	‘astrologer’
	/bisayk <sup>h</sup> ot <sup>h</sup> i/	‘election’
y-g	/zayga/	‘place, spot’
	/naygon/	‘to look downwards’
	/naygir/	‘to search’
	/baygor/	‘obstinate’
y-n	/ayna/	‘mirror’
	/dayna/	‘witch’
	/daynigiri/	‘responsible’
y-s	/aysa/	‘fin’
	/k <sup>h</sup> ayse/	‘somebody’
	/bayset <sup>h</sup> ra/	‘abundant, plentiful’
y-z	/gayzab/	‘to plant together’
	/nayzab/	‘drama, play’
	/nayzuur/	‘to observe keenly’
	/bayzuu/	‘outside’
y-h	/zayha/	‘who have’
y-l	/k <sup>h</sup> ayla/	‘a kind of creeper and its edible bitter fruit’
	/zayla/	‘with thick hair’

From the structural analysis, it is observed that in standard Bodo language Non-gemination two consonant sequences are occurs in certain conditions only. These condisions are given as follows:

**/p<sup>h</sup>/** consonant has occurrences in p<sup>h</sup>-t<sup>h</sup> and p<sup>h</sup>-s sequences only. It has no occurrences in p<sup>h</sup>-b, p<sup>h</sup>-d, p<sup>h</sup>-k<sup>h</sup>, p<sup>h</sup>-g, p<sup>h</sup>-m, p<sup>h</sup>-n, p<sup>h</sup>-ŋ, p<sup>h</sup>-z, p<sup>h</sup>-h, p<sup>h</sup>-r, p<sup>h</sup>-l, p<sup>h</sup>-w, p<sup>h</sup>-y sequences.

**/b/** consonant has occurrences in the sequences of b-p<sup>h</sup>, b-t<sup>h</sup>, b-d, b-k<sup>h</sup>, b-g, b-m, b-n, b-s, b-z, b-l, only. It has no occurrences in b-ŋ, b-h, b-r, p<sup>h</sup>-l, p<sup>h</sup>-w and p<sup>h</sup>-y sequences.

**/t<sup>h</sup>/** consonant has occurrences in only one sequences i.e. t<sup>h</sup>-l. It has no occurrences in the sequences of t<sup>h</sup>-p<sup>h</sup>, t<sup>h</sup>-b, t<sup>h</sup>-d, t<sup>h</sup>-k<sup>h</sup>, t<sup>h</sup>-g, t<sup>h</sup>-m, t<sup>h</sup>-n, t<sup>h</sup>-ŋ, t<sup>h</sup>-s, t<sup>h</sup>-z, t<sup>h</sup>-h, t<sup>h</sup>-r, t<sup>h</sup>-w, t<sup>h</sup>-y.

**/d/** consonant has occurrences in the sequences of d-b, d-k<sup>h</sup>, d-g, d-n and in d-l only. It has no occurrences in d-p<sup>h</sup>, d-t<sup>h</sup>, d-m, d-ŋ, d-s, d-z, d-h, d-r, d-w and d-y sequences.

**/g/** consonant has occurrences in only one sequences i.e. g-d. It has no occurrences in the sequences of g-p<sup>h</sup>, g-b, g-t<sup>h</sup>, g-k<sup>h</sup>, g-m, g-n, g-ŋ, g-s, g-z, g-h, g-r, g-l, g-w, g-y.

**/m/** consonant has occurrences in the sequences of m-p<sup>h</sup>, m-b, m-t<sup>h</sup>, m-d, m-k<sup>h</sup>, m-g, m-n, m-s, m-z, m-h and m-l. It has no occurrences in m-ŋ, m-r, m-w and m-y sequences.

**/n/** consonant has occurrences in the sequences of n-p<sup>h</sup>, n-b, n-t<sup>h</sup>, n-d, n-k<sup>h</sup>, n-g, n-s, n-z, n-h, n-r, and n-l. It has no occurrences in n-m, n-ŋ, n-w and n-y sequences.

**/ŋ/** consonant has occurrences in the sequences of ŋ-p<sup>h</sup>, ŋ-b, ŋ-t<sup>h</sup>, ŋ-d, ŋ-k<sup>h</sup>, ŋ-g, ŋ-m, ŋ-n, ŋ-s, ŋ-z, ŋ-h, ŋ-r, and ŋ-l. It has no occurrences ŋ-w and ŋ-y sequences only.

**/z/** consonant has occurrences in the sequences of z-p<sup>h</sup>, z-t<sup>h</sup>, z-k<sup>h</sup>, z-g, z-m and z-n only. It has no occurrences in the sequences of z-b, z-d, z-ŋ, z-s, z-h, z-r, z-l, z-w and z-y.

**/r/** consonant has occurrences in the sequences of r-p<sup>h</sup>, r-b, r-t<sup>h</sup>, r-d, r-k<sup>h</sup>, r-g, r-m, r-n, r-s, r-z, r-h and r-l. It has no occurrences in the sequences of r-ŋ, r-w and r-y only.



/l/ consonant has occurrences in the sequences of l-p<sup>h</sup>, l-b, l-t<sup>h</sup>, l-d, l-k<sup>h</sup>, l-g, l-m, l-s and l-z. It has no occurrences in the sequences of l-n, l-ŋ, l-h, l-r, l-w and l-y.

/w/ consonant has occurrences in the sequences of w-p<sup>h</sup>, w-b, w-t<sup>h</sup>, w-d, w-k<sup>h</sup>, w-g, w-m, w-n, w-s, w-z, w-h, w-r and r-l. It has no occurrences in the sequences of r-ŋ, r-w and r-y only.

/y/ consonant has occurrences in the sequences of y-p<sup>h</sup>, y-b, y-t<sup>h</sup>, y-d, y-k<sup>h</sup>, y-g, y-m, y-n, y-s, y-z, y-h and y-l. It has no occurrences in the sequences of y-ŋ, y-r and y-w only.

Except consonants /k<sup>h</sup>- /, /s-/ and /h- / other consonants have the occurrences in Non-gemination two consonant sequences. In Bodo this three consonants have no occurrences in Non-gemination two consonant sequences. It is also observed that /-ŋ/, /-w/ and /-y/ have no occurrences in Non-gemination two consonant sequences.

#### Examples of **three consonant sequences**

<b>Three consonant sequences</b>	<b>word</b>	<b>meaning</b>
b-b-r	/gabbru/	‘easily given to weeping’
b-k <sup>h</sup> -l	/k <sup>h</sup> ebk <sup>h</sup> lab/	‘to pinch out’
b-z-l	/gurubzlay/	‘have mutual understanding’
b-k <sup>h</sup> -r	/zabk <sup>h</sup> riŋ/	‘tambourine’
b-s-r	/t <sup>h</sup> ubsra/	‘equally divided into two parts’
b-d-r	/sabdray/	‘more beautiful’
m-z-l	/k <sup>h</sup> omzlaynay/	‘wrestling, physical fighting’
m-p <sup>h</sup> -l	/k <sup>h</sup> amp <sup>h</sup> lai/	‘a low wooden seat with or without legs’
	/damp <sup>h</sup> la/	‘flatsized’
m-p <sup>h</sup> -r	/sump <sup>h</sup> ram/	‘guava’
m-b-r	/k <sup>h</sup> umbra/	‘pumpkin’
	/bombray/	‘to entice’
	/lambre/	‘short haired woman’
	/sambram/	‘onion’
	/sumbrum/	‘slightly black’

	/simbre/	‘to wrench, to twist forcibly’
m-b-l	/gambla/	‘tube’
	/zodambla/	‘lethargic, sitting at a place continuously for a long time’
	/bombløj/	‘one string harp, monochord’
	/bamblema/	‘the bumble bee’
	/samblay/	‘to control’
	/suudamble/	‘to make flat something by thumping’
m-g-l	/demglay/	‘to bow’
	/zuumgli/	‘to put on frequently’
m-k <sup>h</sup> -r	/hamk <sup>h</sup> rej/	‘thin’
n-s-r	/k <sup>h</sup> ansri/	‘earthworm’
	/sonsra/	‘empty, hollow’
	/sorasonsra/	‘general, common’
	/sansri/	‘to swim’
	/sinsri/	‘backbone’
n-s-l	/sensla/	‘squint-eyed’
n-d-r	/gondra/	‘shed for pigs’
	/gundra/	‘particles, broken pieces’
	/maisundri/	‘a kind of herbal plant’
	/sak <sup>h</sup> ondra/	‘child-lifter, abductor’
	/sandri/	‘sieve’
n-d-l	/rimuundla/	‘slippery’
n-z-r	/zinzri/	‘chain’
	/ranzriŋ/	‘to become utterly dry’
n-z-l	/t <sup>h</sup> unzlay/	‘to abet’
	/sanzlay/	‘to think out mutually’
n-b-r	/p <sup>h</sup> anbre/	‘to coil up inextricably’
	/sanbre/	‘to think much in improper way’
n-t <sup>h</sup> -r	/lant <sup>h</sup> ri/	‘continuously’
	/sant <sup>h</sup> ri/	‘soldier’
n-t <sup>h</sup> -l	/k <sup>h</sup> unt <sup>h</sup> lai/	‘flying cotton fibre’

n-p <sup>h</sup> -l	/sanp <sup>h</sup> le/	‘to count again and again’
	/soŋp <sup>h</sup> lo/	‘lungs’
ŋ-k <sup>h</sup> -r	/uŋk <sup>h</sup> ri/	‘curry’
	/k <sup>h</sup> aŋk <sup>h</sup> rai/	‘crab’
	/k <sup>h</sup> eŋk <sup>h</sup> ra/	‘bent, zig-zag’
	/zaŋk <sup>h</sup> ri/	‘to shake violently’
	/soŋk <sup>h</sup> ri/	‘salt’
	/haŋk <sup>h</sup> ray/	‘to call upon’
ŋ-k <sup>h</sup> -l	/zaŋk <sup>h</sup> la/	‘ladder’
	/t <sup>h</sup> iŋk <sup>h</sup> lab/	‘heavily or wholly wet’
	/muŋk <sup>h</sup> loŋ/	‘martyr’
	/laŋk <sup>h</sup> lo/	‘to take away one from amongst many’
	/soŋk <sup>h</sup> lo/	‘to jerk’
ŋ-s-r	/udaŋsri/	‘freedom’
ŋ-s-l	/muŋslay/	‘pronoun’
	/k <sup>h</sup> eŋsla/	‘slant’
ŋ-g-r	/guŋgrai/	‘snot, snivel’
	/zeŋgren/	‘tightly built, slender’
	/t <sup>h</sup> iŋgrin/	‘fully wet’
	/daŋgrum/	‘to grope’
	/diŋgray/	‘to turn’
	/baŋgri/	‘earthquake’
	/soŋgrai/	‘winnowing pan’
	/saŋgran/	‘alert, conscious’
	/saŋgrema/	‘glow-worm’
	/siŋgri/	‘a kind of creeper with sour taste’
	/seŋgra/	‘the youth’
ŋ-g-l	/badiŋglay/	‘to be hanging’
ŋ-z-r	/zoŋzrid/	‘slightly long’
ŋ-b-r	/meŋbran/	‘besmeared with colours’
	/duŋbrud/	‘slightly hot’
ŋ-b-l	/zuŋblau/	‘to burn intensely’
	/t <sup>h</sup> oŋbled/	‘suddenly comes out’

r-k <sup>h</sup> -n	/p <sup>h</sup> erk <sup>h</sup> na/	‘forked out, having branches’
r-g-l	/barglay/	‘to bloom freely’
r-s-r	/barsraŋ/	‘to bloom fully’
	/sarsri/	‘to sprinkle’
r-s-l	/barsliŋ/	‘to limp’
w-b-l	/k <sup>h</sup> awbla/	‘suddenly appearance’
	/t <sup>h</sup> ewblabu/	‘even then, inspite of that’
w-d-r	/nawdra/	‘a vessel in the shape of boat to reserve water’
w-d-l	/sawdlun/	‘a man not in conformity with words’
w-g-l	/mawgluŋ/	‘shaken’
w-p <sup>h</sup> -l	/sawp <sup>h</sup> le/	‘to deliver the things from mouth’
y-k <sup>h</sup> -r	/rayk <sup>h</sup> reb/	‘to accuse vehemently’
y-k <sup>h</sup> -l	/zayk <sup>h</sup> loŋ/	‘rainbow’
	/zayk <sup>h</sup> lum/	‘leafy’
	/sayk <sup>h</sup> lum/	‘shade’
y-g-l	/t <sup>h</sup> abayglay/	‘to roam’
y-g-r	/baygrob/	‘drooping, hanging broken’

From the structural analysis of Non-gemination three consonant sequences, it is observed that in Bodo language Non-gemination three consonant sequences occur only in certain conditions. Conditions are presented in tabular form as follows:

m-p <sup>h</sup> -r : nasal+aspirated stop+trill	m-p <sup>h</sup> -l: nasal+aspirated stop+lateral n-p <sup>h</sup> -l : nasal+aspirated stop+lateral w-p <sup>h</sup> -l : semi-vowel+aspirated stop+lateral
b-b-r:unaspirated stop+ unaspirated stop+trill m-b-r : nasal+unaspirated stop+trill n-b-r : nasal+unaspirated stop+trill ŋ-b-r : nasal+unaspirated stop+trill	m-b-l : nasal+unaspirated stop+lateral ŋ-b-l : nasal+unaspirated stop+lateral w-b-l : semi-vowel+unaspirated stop+lateral
n-t <sup>h</sup> -r : nasal+aspirated stop+trill	n-t <sup>h</sup> -l : nasal+aspirated stop+lateral
b-d-r:unaspirated stop+ unaspirated stop+trill	n-d-l : nasal+unaspirated stop+lateral

n-d-r : nasal+unaspirated stop+trill w-d-r : semi-vowel+unaspirated stop+trill	w-d-l : semi-vowel+unaspirated stop+lateral
b-k <sup>h</sup> -r : unaspirated stop+aspirated stop+trill m-k <sup>h</sup> -r: nasal+aspirated stop+trill ŋ-k <sup>h</sup> -r : nasal+aspirated stop+trill y-k <sup>h</sup> -r : semi-vowel+aspirated stop+trill	b-k <sup>h</sup> -l: unaspirated stop+aspirated stop+lateral ŋ-k <sup>h</sup> -l : nasal+aspirated stop+lateral y-k <sup>h</sup> -l : semi-vowel+aspirated stop+lateral ŋ-k <sup>h</sup> -n: nasal+aspirated stop+nasal
ŋ-g-r : nasal+unaspirated stop+trill y-g-r : semi-vowel+unaspirated stop+trill	m-g-l : nasal+unaspirated stop+lateral ŋ-g-l : nasal+unaspirated stop+lateral r-g-l : trill+unaspirated stop+lateral w-g-l : semi-vowel+unaspirated stop+lateral y-g-l : semi-vowel+unaspirated stop+lateral
b-s-r : unaspirated stop+fricative+trill ŋ-s-r : nasal+fricative+trill r-s-r : trill+fricative+trill	n-s-l : nasal+fricative+lateral ŋ-s-l : nasal+fricative+lateral r-s-l : trill+fricative+lateral
n-z-r : nasal+fricative+trill ŋ-z-r : nasal+fricative+trill	b-z-l : unaspirated stop+fricative+lateral m-z-l : nasal+fricative+lateral n-z-l : nasal+fricative+lateral

Figure: 2.10

### 2.2.1.3 Syllable

Syllable is a unit of articulation. It is typically larger than a single sound and smaller than a word of a language. At a time, a word may be pronounced as a syllable. In ‘*Longman dictionary of Language teaching and applied linguistics, 2010*’ syllable is defined as “*the way in which vowels and consonants combine to form various sequences*”.<sup>3</sup> Phonological views of the syllable focus on the ways sounds combine in

<sup>3</sup> Richards, Jack C & Schmidt Richard: *Longman dictionary of Language teaching and applied linguistics* (Fourth edition), Pearson Education Limited, 2010, p. 576.

individual languages in order to produced sequences. Hence, usually two classes of sounds are established.

- a) Sounds which can occur on their own, and
- b) Sounds which cannot occur on their own.

Generally former is called vowel and later is referred to as consonant. Thus, a syllable is a sequence of phonemes with one peak of sonority. The sequence can be divided into three parts.

- i) Onset, it is the first part or opening segment of the syllable and the consonant which begins with syllable.
- ii) Centre or nucleus or peak, it is the central segment of the syllable and the vowel which is used in the middle of syllable. The vowel is obviously in the obligatory in a syllable and it is called its nucleus or peak.
- iii) Coda or final, it is the closing or end segment of the syllable and the consonant which occurs at the end of syllable. When a coda is absent in a syllable is called open syllable and when a coda is present in a syllable is called close syllable.

For example, in the Bodo word /nuŋ/ meaning ‘you’, /n/ is the onset, /u/ is the nucleus and /ŋ/ is the coda of a syllable.

In Bodo language syllables consist of a nucleus which always occurs with an onset or a coda. It is also observed that the syllabic classification of Bodo language is mainly of three types i.e. mono-syllabic, di-syllabic or bi-syllabic and poly-syllabic and from the structure of syllable it is of two types open syllable and closed syllable.

#### **2.2.1.3.1 Mono-syllabic**

A word which is contained in a single syllable is called **mono-syllabic**. Using mono-syllabic words is one of the typological features in Tibeto-Burman language family. In Bodo also this features is commonly used.

CV or consonant-vowel sequence is a pattern which seems to be found in all languages. If a syllable is not closed by a consonant or end in a vowel, this type of syllable is called an **open syllabic**.

VC or vowel-consonant sequence is also a pattern which is found in all languages. If a syllable is closed by a consonant or end in a consonant, this type of syllable is called a **closed syllabic**.

From the structural form of **mono-syllabic**, it is of two types **open mono-syllabic** and **closed mono-syllabic**

### 2.2.1.3.1.1 Open mono-syllabic

When a word is formed in a single syllable and end in a vowel then it is called Open mono-syllabic word.

**Example of Open mono-syllabic words:**

Structure	Examples	Glosses
V	/e/	‘an expressing of known something’
VV	/ui/	‘a term of addressing someone’
VV	/uu/	‘a word for assent yes’
VV	/eu/	‘to fry’
VV	/ai/	‘mother’
VV	/au/	‘babbling word’

**p<sup>h</sup>:**

CV	/p <sup>h</sup> i/	‘to adopt’
CV	/p <sup>h</sup> u/	‘to sow’
CV	/p <sup>h</sup> u/	‘to uproot tree’
CV	/p <sup>h</sup> e/	‘to get drunk’
CV	/p <sup>h</sup> o/	‘to cut off’
CV	/p <sup>h</sup> a/	‘father’

**b:**

CV	/bi/	‘ask for’
CV	/bu/	‘to pull’
CV	/bu/	‘to swell’

CV	/be/	‘this’
CV	/bo/	‘to spread down’
CV	/ba/	‘five’
t <sup>h</sup> :		
CV	/t <sup>h</sup> i/	‘to preserve for’
CV	/t <sup>h</sup> u/	‘to be sufficient’
CV	/t <sup>h</sup> u/	‘to poke’
CV	/t <sup>h</sup> e/	‘to block water’
CV	/t <sup>h</sup> o/	‘let go’
CV	/t <sup>h</sup> a/	‘to stay’
d:		
CV	/du/	‘untensil’
CV	/du/	‘to grow grass thickly’
CV	/de/	‘to dash’
CV	/do/	‘six’
CV	/da/	‘at present’
k <sup>h</sup> :		
CV	/k <sup>h</sup> i/	‘stool’
CV	/k <sup>h</sup> u/	‘earth filling’
CV	/k <sup>h</sup> u/	‘to pound rice’
CV	/k <sup>h</sup> o/	‘netlike tool made of bamboo for preserving seeds or grains’
CV	/k <sup>h</sup> a/	‘to tie’
g:		
CV	/gi/	‘to fear’
CV	/gu/	‘to be clean’
CV	/gu/	‘nine’
CV	/go/	‘to hatch’
CV	/ga/	‘to touch with feet’
m:		
CV	/mu/	‘a unit of the measurement from arm- pit to the top of the middle finger’
CV	/me/	‘to roast by putting into embers’



	CV	/ma/	‘what’
n:			
	CV	/ni/	‘the sign of genitive’
	CV	/nu/	‘the thread of a weaving loom’
	CV	/nu/	‘to see’
	CV	/ne/	‘to wait’
	CV	/no/	‘house’
	CV	/na/	‘fish’
s:			
	CV	/si/	‘cloth’
	CV	/su/	‘to thrust into’
	CV	/su/	‘to wash’
	CV	/se/	‘one’
	CV	/so/	‘in full’
	CV	/sa/	‘north’
z:			
	CV	/zi/	‘to tear off’
	CV	/zu/	‘to kick’
	CV	/zu/	‘to pack’
	CV	/ze/	‘net’
	CV	/zo/	‘collectively’
	CV	/za/	‘to eat’
h:			
	CV	/hu/	‘to give’
	CV	/hu/	‘to rub with bow’
	CV	/ho/	‘to shave’
	CV	/ha/	‘soil’
r:			
	CV	/ru/	‘to boil’
	CV	/ro/	‘to wait’
	CV	/ra/	‘to be hard’
l:			
	CV	/lu/	‘to pour’

CV	/lo/	‘only’
CV	/la/	‘to take’
p <sup>h</sup> :		
CVV	/p <sup>h</sup> iu/	‘in a hopping way’
CVV	/phui/	‘to come’
b:		
CVV	/bau/	‘to offer things to god’
CVV	/bui/	‘that’
CVV	/buu/	‘to cut’
t <sup>h</sup> :		
CVV	/t <sup>h</sup> au/	‘oil’
CVV	/t <sup>h</sup> ui/	‘blood’
CVV	/t <sup>h</sup> uu/	‘to be deep’
d:		
CVV	/dau/	‘bird’
CVV	/dui/	‘to be small’
CVV	/dui/	‘water’
CVV	/duu/	‘to feed with hand’
k <sup>h</sup> :		
CVV	/k <sup>h</sup> oi/	‘to copulate’
CVV	/k <sup>h</sup> au/	‘steal’
CVV	/k <sup>h</sup> ui/	‘to taste sour’
g:		
CVV	/goi/	‘betelnut’
CVV	/gai/	‘cow’
m:		
CVV	/mai/	‘paddy’
CVV	/mau/	‘to do’
CVV	/mui/	‘deer’
n:		
CVV	/nai/	‘to see’
CVV	/nau/	‘boat’
CVV	/nui/	‘two’

s:			
	CVV	/sai/	‘to decay’
	CVV	/sau/	‘to set fire’
	CVV	/sui/	‘to hang’
	CVV	/suu/	‘to blow with fist’
z:			
	CVV	/ziu/	‘life’
	CVV	/zuu/	‘wine’
h:			
	CVV	/hai/	‘to be short’
	CVV	/hui/	‘to go and give’
r:			
	CVV	/rai/	‘scold’
l:			
	CVV	/lai/	‘leaf’
	CVV	/lau/	‘long gourd’
b:			
	CCV	/bre/	‘piercingly’
		/bro/	‘going inside unknowingly’
s:			
	CCV	/sro/	‘selected’
	CCV	/sra/	‘having no disturbance, completely finished’
	CCV	/sni/	‘seven’

### 2.2.1.3.1.2 Closed mono-syllabic

When a word is formed in a single syllable and end in a consonant then it is called closed mono-syllabic word

#### Example of closed mono-syllabic words:

Structure	Examples	Glosses
-----------	----------	---------

*u:*

VC	/uɳ/	‘yes’
----	------	-------

*u:*

VC	/un/	‘to sharpen’
----	------	--------------

	VC	/ul/	‘mating of reptiles etc’
e:			
	VC	/em/	‘bed’
	VC	/er/	‘to increase’
o:			
	VC	/on/	‘to love’
	VC	/or/	‘fire’
a:			
	VC	/aŋ/	‘I’
	VC	/aw/	‘a nursery word denoting to love’
p <sup>h</sup> :			
	CVC	/p <sup>h</sup> an/	‘to entwine’
	CVC	/p <sup>h</sup> in/	‘to answer’
b:			
	CVC	/ban/	‘to carry on the shoulders’
	CVC	/bar/	‘to bloom’
t <sup>h</sup> :			
	CVC	/t <sup>h</sup> ab/	‘soon’
	CVC	/t <sup>h</sup> er/	‘to bifurcate the sound’
d:			
	CVC	/dan/	‘to cut’
	CVC	/duun/	‘to keep’
k <sup>h</sup> :			
	CVC	/k <sup>h</sup> ar/	‘to run’
	CVC	/k <sup>h</sup> aw/	‘steal’
g:			
	CVC	/gab/	‘to cry’
	CVC	/gur/	‘to catch fish with fishing basket’
m:			
	CVC	/man/	‘respect’
	CVC	/meŋ/	‘to be tired’

n:			
	CVC	/nar/	‘to push’
	CVC	/ner/	‘to roar’
s:			
	CVC	/sur/	‘who’
	CVC	/sen/	‘a kind of fish trap’
z:			
	CVC	/zab/	‘to fold, to arrange’
	CVC	/zur/	‘to last’
h:			
	CVC	/hab/	‘to enter’
	CVC	/ham/	‘to be good’
r:			
	CVC	/ran/	‘to dry’
	CVC	/reb/	‘to fade’
l:			
	CVC	/lam/	‘to open to dry’
	CVC	/lir/	‘to write’
p <sup>h</sup> :			
	CCVC	/p <sup>h</sup> rat <sup>h</sup> /	‘firm, neat, decent’
b:			
	CCVC	/blod/	‘went soon’
	CCVC	/blaw/	‘shining widely’
t <sup>h</sup> :			
	CCVC	/t <sup>h</sup> rub/	‘put into completely’
d:			
	CCVC	/dlam/	‘much, abundant, plentiful’
g:			
	CCVC	/glub/	‘extending, covering’
	CCVC	/glum/	‘fully, totally’
s:			
	CCVC	/srud/	‘secretly’
	CCVC	/slim/	‘smooth, polished’

z:

CCVC	/zrab/	‘swiftly and strongly’
CCVC	/zroy/	‘a word used to denote the falling of leaves’

### 2.2.1.3.2 di-syllabic or bi-syllabic

When a word is contains in two syllables then it is called **di-syllabic or bi-syllabic**. From the structural form **di-syllabic** is of two types **open di-syllabic** and **closed di-syllabic**

#### 2.2.1.3.2.1 Open di-syllabic

When a word is formed in two syllables and end in a vowel then it is called Open di-syllabic word.

#### Example of Open di-syllabic words:

Structure	Examples	Glosses
u:		
V-CV	/uzi/	‘to be born’
V-CV	/usi/	‘to overflow’
e:		
V-CV	/ese/	‘a little’
V-CV	/eba/	‘or’
o:		
V-CV	/ok <sup>h</sup> a/	‘rain’
V-CV	/oma/	‘pig’
a:		
V-CV	/ap <sup>h</sup> a/	‘my father’
V-CV	/aru/	‘and’
i:		
VC-CV	/indi/	‘a castor oil plant’
VC-CV	/int <sup>h</sup> i/	‘a ring worn by women in the ear or nose’
u:		
VC-CV	/uŋt <sup>h</sup> i/	‘meaning’

u:			
	VC-CV	/undu/	‘to sleep’
	VC-CV	/urk <sup>h</sup> u/	‘to push up with the upper lip folded’
e:			
	VC-CV	/embu/	‘a frog’
	VC-CV	/erk <sup>h</sup> a/	‘by poking haphazardly’
o:			
	VC-CV	/onga/	‘except’
	VC-CV	/ombi/	‘not talkative’
a:			
	VC-CV	/agzu/	‘instruments’
	VC-CV	/agda/	‘right side’
u:			
	VC-VCV	/unsul/	‘area’
p <sup>h</sup> :			
	CV-CV	/p <sup>h</sup> isa/	‘child’
	CV-CV	/p <sup>h</sup> esa/	‘owl’
b:			
	CV-CV	/basa/	‘a birds nest’
	CV-CV	/buuri/	‘land above water’
t <sup>h</sup> :			
	CV-CV	/t <sup>h</sup> ak <sup>h</sup> u/	‘class’
	CV-CV	/t <sup>h</sup> alu/	‘palate’
d:			
	CV-CV	/dit <sup>h</sup> a/	‘care’
	CV-CV	/duga/	‘proudy’
k <sup>h</sup> :			
	CV-CV	/k <sup>h</sup> uma/	‘ear’
	CV-CV	/k <sup>h</sup> uga/	‘mouth’
g:			
	CV-CV	/gagi/	‘elderly’
	CV-CV	/gami/	‘village’

m:		
CV-CV	/mada/	‘core inner part of fruits’
CV-CV	/mahi/	‘soft’
n:		
CV-CV	/naza/	‘to try’
CV-CV	/nari/	‘umbilical cord of a new born baby’
s:		
CV-CV	/sak <sup>h</sup> i/	‘witness’
CV-CV	/suba/	‘to slap on the cheek’
z:		
CV-CV	/zuula/	‘male’
CV-CV	/zuzi/	‘to try’
h:		
CV-CV	/hazu/	‘mountain’
CV-CV	/haba/	‘marriage’
r:		
CV-CV	/raga/	‘anger’
CV-CV	/ruk <sup>h</sup> a/	‘clear’
l:		
CV-CV	/lama/	‘road’
CV-CV	/lugu/	‘friend’
p <sup>h</sup> :		
CVC-CV	/p <sup>h</sup> urbu/	‘festival’
CVC-CV	/p <sup>h</sup> enda/	‘thigh’
b:		
CVC-CV	/bant <sup>h</sup> a/	‘prize’
CVC-CV	/bandu/	‘dam’
t <sup>h</sup> :		
CVC-CV	/t <sup>h</sup> urp <sup>h</sup> u/	‘layer’
CVC-CV	/t <sup>h</sup> ursi/	‘dish’
d:		
CVC-CV	/dabk <sup>h</sup> a/	‘a big earthen pot’
CVC-CV	/derha/	‘to conquer’



k <sup>h</sup> :		
CVC-CV	/k <sup>h</sup> amp <sup>h</sup> a/	‘monument’
CVC-CV	/k <sup>h</sup> umt <sup>h</sup> a/	‘strong and stout’
g:		
CVC-CV	/ganda/	‘rhino’
CVC-CV	/gust <sup>h</sup> i/	‘lips’
m:		
CVC-CV	/muuk <sup>h</sup> ra/	‘monkey’
CVC-CV	/mawzi/	‘cat’
n:		
CVC-CV	/narzi/	‘the preserved dried leaves of jute’
CVC-CV	/nuump <sup>h</sup> a/	‘your father’
s:		
CVC-CV	/sibsa/	‘worship, devotion’
CVC-CV	/serza/	‘musical instrument of Bodos’
z:		
CVC-CV	/zanzi/	‘waist’
CVC-CV	/zerba/	‘chest’
h:		
CVC-CV	/hanza/	‘group’
CVC-CV	/hamp <sup>h</sup> e/	‘thin’
r:		
CVC-CV	/royna/	‘a kind of implement for collecting seeds’
CVC-CV	/rant <sup>h</sup> e/	‘to get blocked by drying’
l:		
CVC-CV	/lant <sup>h</sup> a/	‘bald headed’
CVC-CV	/lurgi/	‘a long bamboo pole for pushing boat forward’

### 2.2.1.3.2.2 Closed di-syllabic

When a word is formed in two syllables and end in a consonant then it is called closed di-syllabic word.

#### Example of Closed di-syllabic words:

Structure	Examples	Glosses
<b>i:</b>		
V-CVC	/iyun/	‘future’
V-CVC	/isiŋ/	‘kitchen room in the main house of the Bodos’
<b>u:</b>		
V-CVC	/uzuŋ/	‘this side’
<b>u:</b>		
V-CVC	/uk <sup>h</sup> um/	‘roof of a house’
V-CVC	/uraw/	‘bed bug’
<b>e:</b>		
V-CVC	/edaw/	‘to make fun of’
V-CVC	/emaw/	‘soaked rice-cake used for fermenting beer’
<b>o:</b>		
V-CVC	/oray/	‘ever’
V-CVC	/oheb/	‘part of the human body between the ribs and the back side of stomach’
<b>a:</b>		
V-CVC	/agan/	‘footprint’
V-CVC	/ap <sup>h</sup> ad/	‘association’
<b>i:</b>		
VC-CVC	/iŋgid/	‘signal’
VC-CVC	/inzur/	‘walls of house’
<b>u:</b>		
VC-CVC	/uŋk <sup>h</sup> am/	‘cooked rice’
VC-CVC	/unsul/	‘area’
<b>u:</b>		
VC-CVC	/udk <sup>h</sup> ar/	‘oppression’
VC-CVC	/unt <sup>h</sup> iŋ/	‘towards back’

e:			
	VC-CVC	/ɛŋk <sup>h</sup> ur/	‘broken grains of rice’
	VC-CVC	/ɛnzor/	‘rat’
o:			
	VC-CVC	/onsay/	‘to remember’
	VC-CVC	/ordab/	‘fireplace’
a:			
	VC-CVC	/anzad/	‘examination’
	VC-CVC	/awgay/	‘to go ahead’
u:			
	VC-VC	/uŋt <sup>h</sup> i/	‘meaning’
p <sup>h</sup> :			
	CV-CVC	/p <sup>h</sup> uuler/	‘descendent’
	CV-CVC	/p <sup>h</sup> ered/	‘to press out juice, oil seed etc’
b:			
	CV-CVC	/bat <sup>h</sup> uun/	‘roasted fish’
	CV-CVC	/bip <sup>h</sup> an/	‘department’
t <sup>h</sup> :			
	CV-CVC	/t <sup>h</sup> azim/	‘fresh’
	CV-CVC	/t <sup>h</sup> ubil/	‘collected money’
d:			
	CV-CVC	/dak <sup>h</sup> uux/	‘dirt’
	CV-CVC	/dilin/	‘to slip’
k <sup>h</sup> :			
	CV-CVC	/k <sup>h</sup> alar/	‘date’
	CV-CVC	/k <sup>h</sup> it <sup>h</sup> er/	‘revenge’
g:			
	CV-CVC	/gat <sup>h</sup> uun/	‘landing place on river’
	CV-CVC	/guzuur/	‘lasting’
m:			
	CV-CVC	/muudum/	‘body’
	CV-CVC	/melem/	‘brain’

n:			
	CV-CVC	/nizuum/	‘silent’
	CV-CVC	/nihir/	‘dew’
s:			
	CV-CVC	/suduub/	‘word’
	CV-CVC	/sut <sup>h</sup> ur/	‘enemy’
z:			
	CV-CVC	/zahuun/	‘reason’
	CV-CVC	/zigab/	‘straw’
h:			
	CV-CVC	/hasar/	‘fertilizer’
	CV-CVC	/hu <sup>k</sup> ar/	‘to turn out, to expel’
r:			
	CV-CVC	/radab/	‘news’
	CV-CVC	/ru <sup>z</sup> ab/	‘to sing’
l:			
	CV-CVC	/lu <sup>b</sup> ur/	‘being on the edge’
	CV-CVC	/lehem/	‘slow, sluggish’

### 2.2.1.3.3 Poly-syllabic

When a word contains more than two syllables, it is called **Poly-syllabic word**. From the structural form it is of two types **open poly-syllabic** and **closed poly-syllabic**

#### 2.2.1.3.3.1 Open poly-syllabic

When a word is formed more than two syllables and ends in a vowel then it is called Open poly-syllabic word.

#### Example of Open poly-syllabic words:

Structure	Examples	Glosses	
i:			
	VC-CV-CV	/ingini/	‘mouse’
	VC-CV-CV	/islari/	‘a title of Bodo people’

u:			
	VC-CV-CV	/udk <sup>h</sup> ari/	‘tyrant’
	VC-CV-CV	/undaha/	‘repentance’
o:			
	VC-CV-CV	/onzima/	‘dijit, numerical’
	VC-CV-CV	/olsiya/	‘lazy, indolent’
u:			
	V-CV-CV	/ulaba/	‘not to be roof’
u:			
	V-CV-CV	/udaya/	‘not to be fit for work’
	V-CV-CV	/up <sup>h</sup> adi/	‘title’
e:			
	V-CV-CV	/edawa/	‘not to be made fun of’
	V-CV-CV	/eraya/	‘not to be escape’
o:			
	V-CV-CV	/ogali/	‘disgust’
	V-CV-CV	/osila/	‘chance’
a:			
	V-CV-CV	/aguma/	‘one’s own’
	V-CV-CV	/aduwa/	‘fool’
p <sup>h</sup> :			
	CV-CV-CV	/p <sup>h</sup> it <sup>h</sup> ik <sup>h</sup> a/	‘distilled liquor’
	CV-CV-CV	/p <sup>h</sup> isazu/	‘daughter’
b:			
	CV-CV-CV	/bahagi/	‘blood relative’
	CV-CV-CV	/bihari/	‘co-wife’
t <sup>h</sup> :			
	CV-CV-CV	/t <sup>h</sup> at <sup>h</sup> ik <sup>h</sup> i/	‘quick in understanding and talking’
	CV-CV-CV	/t <sup>h</sup> iyari/	‘ready’
d:			
	CV-CV-CV	/dahuuna/	‘paid domestic labour’

k <sup>h</sup> :		
CV-CV-CV	/k <sup>h</sup> ʉlaha/	‘south-wards’
CV-CV-CV	/k <sup>h</sup> ilama/	‘anus’
g:		
CV-CV-CV	/guduuna/	‘neck’
CV-CV-CV	/gedema/	‘sir’
m:		
CV-CV-CV	/mahari/	‘clan’
CV-CV-CV	/musuk <sup>h</sup> a/	‘statue’
n:		
CV-CV-CV	/nasina/	‘a kind of dance’
CV-CV-CV	/nimaha/	‘excuse’
s:		
CV-CV-CV	/siduma/	‘moist, humid’
CV-CV-CV	/sewari/	‘a flat stick used in weaving cloths’
z:		
CV-CV-CV	/zasula/	‘gluttonous’
CV-CV-CV	/zugami/	‘everlasting’
h:		
CV-CV-CV	/habila/	‘desire’
CV-CV-CV	/harimu/	‘culture’
r:		
CV-CV-CV	/rawari/	‘a speaking member of a language’
CV-CV-CV	/ruwat <sup>h</sup> i/	‘seasonal women labour’
l:		
CV-CV-CV	/lahari/	‘a title of Bodo people’
CV-CV-CV	/luɡut <sup>h</sup> i/	‘friendship’
d:		
CVC-V-CV	/dinari/	‘boatman’
p <sup>h</sup> :		
CV-CVV-CV-CV-CV	/p <sup>h</sup> oraisalima/	‘college’
CV-CVV-CV-CV-CV	/p <sup>h</sup> oraigasinu/	‘reading’

g:			
	CV-CV-CV-CVV-CV-CV	/gudip <sup>h</sup> oraisali/	‘L.P. school’
	CV-CVC-CV-CVV-CV-CV	/gezerp <sup>h</sup> oraisali/	‘M.P. school’
	CV-CVV-CV-CVV-CV-CV	/guzuu <sup>h</sup> oraisali/	‘high school’
m:			
	CV-CVC-CV-CVC-CV-CV	/mulugsulu <sup>h</sup> ur/	‘university’
	CV-CV-CVC-CV-CVC-V	/musak <sup>h</sup> awrip <sup>h</sup> ura/	‘dancing groups are’
s:			
	CVC-CVC-CV-CV-CVC-V	/sawraygirip <sup>h</sup> ura/	‘critic are’
r:			
	CVC-CV-CV-CVC-CV-CV-CVC-V	/rawbigiyangirip <sup>h</sup> ura/	‘linguist are’

### 2.2.1.3.3.2 Closed poly-syllabic

When a word is formed more than two syllables and end in a consonant then it is called closed poly-syllabic word.

#### Example of Closed poly-syllabic words:

Structure	Examples	Glosses	
p <sup>h</sup> :			
	CVC-CVV-CV-CV-CVC	/p <sup>h</sup> awt <sup>h</sup> aigirip <sup>h</sup> ur/	‘dramatists’
b:			
	CV-CCVV-V-CV-CVC	/bigraiarip <sup>h</sup> ur/	‘revolutionarists’
	CVC-CVC-CV-CVC	/burlujbut <sup>h</sup> ur/	‘Brahmaputra river’
m:			
	CV-CV-CVC-CV-CVC	/mego <sup>h</sup> nawgunan/	‘charming’
	CV-CV-CVC-CV-CVC	/musak <sup>h</sup> awrip <sup>h</sup> ur/	‘dancing groups’
s:			
	CVC-CCVC-CV-CVC	/sambramgup <sup>h</sup> ur/	‘garlic’
	CVC-CVC-CV-CV-CVC	/sawraygirip <sup>h</sup> ur/	‘critics’
r:			
	CVC-CV-CV-CVC-CV-CV-CVC	/rawbigiyangirip <sup>h</sup> ur/	‘linguists’

## 2.2.2 Supra-segmental phonemes of Bodo

In Bodo language three types of Supra-segmental phonemes are occurs. These are Juncture, Tone and Intonation.

### 2.2.2.1 Juncture

Juncture is the boundary between two phonemes which is accounting for the flow and pauses between sounds in speech. It is the way in which the sounds of a language are joined together. It has close relation with the tone of a language. For example: in the syllabic word /bizab/ ‘book’ and /uŋk<sup>h</sup>am/ ‘rice’, here /b-i-z-a-b/ and /u-ŋ-k<sup>h</sup>-a-m/ segmental phonemes are used by joining together and such syllables are spoken in transition with intervening space or pause. So, R.L. Varshney had defined Juncture as “*the transition from one segmental phoneme to another.*”<sup>4</sup> There are two types of juncture commonly used in Bodo language.

- a) Close juncture and
- b) Open juncture

#### 2.2.2.1.1 Close juncture

Close juncture appeared in a phonemic syllable or a phonemic word by no space or pause and used as a single sound. It is generally characterized by a rapid transition between phonemes and occurs in word level. Sometimes it is also known as **Internal juncture**. In Bodo language it is occurs in a mono syllabic, di-syllabic as well as poly syllabic words.

##### **Mono syllabic**

/za/, ‘to eat’ is a mono syllabic Close juncture word, here, in this word ‘z’ and ‘a’ two phonemes are transition internally from one to another rapidly without any space and used as a single sound.

Some more examples of mono syllabic Close juncture word are presented below:

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<sup>4</sup> Varshney, Radhey L: An Introductory Text Book of Linguistics and Phonetics (Sixteenth Edition), Student Store, Bareilly, 2005-06, p.104.



/ha/ 'land' = h + a (*transition internally from phonemes 'h' to 'a'*)

/na/ 'fish' = n + a (*transition internally from phonemes 'n' to 'a'*)

/gab/ 'to cry' = g + a + b (*transition internally from phonemes 'g' to 'b'*)

/raŋ/ 'money' = r + a + ŋ (*transition internally from phonemes 'r' to 'ŋ'*) etc.

### Di-syllabic

/k<sup>h</sup>a-lam/, 'to act' is a di-syllabic Close juncture word, it can be analysed as follows:

k<sup>h</sup> + a + l + a + m = k<sup>h</sup>a-lam, here, in this word five phonemes are transition internally from the initial phoneme 'k<sup>h</sup>' to the final phoneme 'm' through the other medial phonemes, i.e. a + l + a .

Some more examples of di-syllabic Close juncture word are given below:

/nuuŋ-t<sup>h</sup>aŋ/ 'you' = n + uu + ŋ + t<sup>h</sup> + a + ŋ

(*Transition internally from phonemes 'n' to 'ŋ'*)

/suu-duub/ 'word' = s + uu + d + uu + b

(*Transition internally from phonemes 's' to 'b'*)

/ba-tra/ 'sentence' = b + a + t + r + a

(*Transition internally from phonemes 'b' to 'a'*)

/su-zab/ 'to sew up' = s + u + z + a + b

(*Transition internally from phonemes 's' to 'b'*) etc.

### Poly syllabic

/mu-lug-suu-luuŋ-sali/, 'university' is a poly syllabic Close juncture word, it can also be analysed as follows:

m + u + l + u + g + s + uu + l + uu + ŋ + s + a + l + i = mulugsuuluuŋsali, here, in this word fourteen phonemes are transition internally from the initial phoneme 'm' to the final phoneme 'i' through the other medial phonemes.

Some more examples of poly syllabic Close juncture word are given below:

/muu-p<sup>h</sup>lam-nay/ ‘lightning’ = m + uu + p<sup>h</sup> + l + a + m + n + a + y  
 (Transition internally from phonemes ‘m’ to ‘y’)

/bi-som-bi/ ‘souvenir’ = b + i + s + o + m + b + i  
 (Transition internally from phonemes ‘b’ to ‘i’)

/za-su-la-p<sup>h</sup>a-ri-ya/ ‘clown of the drama’ = z + a + s + u + l + a + p<sup>h</sup> + a + r + I + y + a  
 (Transition internally from phonemes ‘z’ to ‘a’)

/ze-k<sup>h</sup>uu-k<sup>h</sup>i-za-ya-ma-nuu/ ‘it may be anyone’ = z + e + k<sup>h</sup> + uu + u + k<sup>h</sup> + i + z + a + y  
 + a + m + a + n + uu  
 (Transition internally from phonemes ‘z’ to ‘uu’) etc. .

### 2.2.2.1.2 Open juncture

Open juncture appeared in two phonemic words by space or pause and used as two sounds. It is generally characterized by a slight pause between sounds. It is generally characterized by a rapid transition between words of a sentence. Sometimes it is also known as External juncture. As for example: /ha bay/ ‘buy land’, here, in this sentence two phonemic words ‘ha’ and ‘bay’ are used by space or pause and used as two different sounds. It can also be analysed through the following diagram evidently:

/aŋ p<sup>h</sup>oraisaliyaw t<sup>h</sup>aŋuu/ ‘I go to school’,

aŋ + p<sup>h</sup>oraisaliyaw + t<sup>h</sup>aŋuu

Here, in this sentence the final phoneme of the Initial word ‘aŋ’ i.e. ‘ŋ’ is externally transition with the initial phoneme of the next or medial word ‘p<sup>h</sup>oraisaliyaw’ i.e. ‘p<sup>h</sup>’ and the final phoneme of the same word ‘p<sup>h</sup>oraisaliyaw’ i.e. ‘w’ is occurrence juncture with the initial phoneme of the next or final word of the sentence ‘t<sup>h</sup>aŋuu’ i.e. ‘t<sup>h</sup>’.

Some more examples are presented below:

/nuuŋ t<sup>h</sup>aŋ/ ‘you go’

nuuŋ + t<sup>h</sup>aŋ

/sana sanzaha un̄kharu/ ‘the sun rises in the east’

sana + sanzaha + un̄kharu

/duk<sup>h</sup>uni luguasu t<sup>h</sup>ar lugu/ ‘a friend in need is a friend indeed’

duk<sup>h</sup>uni + luguasu + t<sup>h</sup>ar + lugu

/got<sup>h</sup>oni t<sup>h</sup>ak<sup>h</sup>ai nok<sup>h</sup>oranu zaduŋ gibi p<sup>h</sup>oraisali/ ‘home is the first school for children’

got<sup>h</sup>oni + t<sup>h</sup>ak<sup>h</sup>ai + nok<sup>h</sup>oranu + zaduŋ + gibi + p<sup>h</sup>oraisali

### 2.2.2.2 Tone

One of the significant characteristics of Tibeto-Burman languages is that most of the languages are tonal. Tone is nothing but the use of pitch in a language to distinguish differences in meaning of words. In Tibeto-Burman languages the meaning of a word can represent distinctive meaning by the changing of tones. Bodo language is a tonal language. It has two clearly distinguishable tones, i.e. register tone. That is high and low. To represent these tones following tone mark are used:

HIGH	LOW
/	\

Figure: 2.11

To establish the tone in Bodo language following words are illustrate below:

#### High tone

/un̄k<sup>h</sup>ar/ ‘to get down’

/un/ ‘to sharpen’

/er/ ‘to put design on cloth’

/on/ ‘to love’

/or/ ‘fire’

#### Low tone

/un̄k<sup>h</sup>ar/ ‘to come, to get ready’

/un\ ‘backward’

/er\ ‘to increase’

/on\ ‘rice powder’

/or\ ‘to be wide’

/ap <sup>h</sup> a/	‘my father’	/ap <sup>h</sup> a\	‘sole of foot’
/p <sup>h</sup> an/	‘to entwine, to roll’	/p <sup>h</sup> an\	‘to sell’
/p <sup>h</sup> un/	‘holiness’	/p <sup>h</sup> un\	‘to decay’
/p <sup>h</sup> in/	‘to cover with cloth’	/p <sup>h</sup> in\	‘to answer’
/p <sup>h</sup> uŋ/	‘morning’	/p <sup>h</sup> uŋ\	‘to be fat’
/p <sup>h</sup> uŋkha/	‘water spring’	/p <sup>h</sup> uŋkha\	‘source’
/p <sup>h</sup> ui/	‘to beat’	/p <sup>h</sup> ui\	‘to come’
/ba/	‘to carry on back’	/ba\	‘five’
/bar/	‘to jump’	/bar\	‘wind’
/bu/	‘to pull’	/bu\	‘also’
/bu/	‘to beat’	/bu\	‘to swell’
/buŋ/	‘to speak’	/buŋ\	‘to be full’
/beŋ/	‘to protect’	/beŋ\	‘to be pleased’
/t <sup>h</sup> a/	‘tuber’	/t <sup>h</sup> a\	‘to stay’
/t <sup>h</sup> aŋ/	‘to go’	/t <sup>h</sup> aŋ\	‘to survive’
/t <sup>h</sup> ab/	‘soon’	/t <sup>h</sup> ab\	‘to patch up’
/t <sup>h</sup> u/	‘to poke’	/t <sup>h</sup> u\	‘to go ahead’
/t <sup>h</sup> ui/	‘blood’	/t <sup>h</sup> ui\	‘to die’
/da/	‘to weave’	/da\	‘now, at present’
/dan/	‘month’	/dan\	‘to cut’
/dui/	‘water’	/dui\	‘to take in hand’
/k <sup>h</sup> o/n/	‘to wrap’	/k <sup>h</sup> o/n/	‘to collect, to glean’
/k <sup>h</sup> o/na/	‘an angle’	/k <sup>h</sup> o/na/	‘fine’
/k <sup>h</sup> a/	‘to pluck’	/k <sup>h</sup> a\	‘to tie, to bind’
/k <sup>h</sup> a/m/	‘to burn’	/k <sup>h</sup> a/m/	‘the traditional drum’
/k <sup>h</sup> a/r/	‘to run’	/k <sup>h</sup> a/r/	‘to smell abominably’
/k <sup>h</sup> a/w/	‘to draw water’	/k <sup>h</sup> a/w/	‘to divide with knife’
/ga/	‘to place foot on’	/ga\	‘to be cured’
/gaŋ/	‘to feel thirsty’	/gaŋ\	‘feather’
/gahai/	‘main, prime’	/gahai\	‘low, below’
/gat <sup>h</sup> a/	‘cowbell’	/gat <sup>h</sup> a\	‘communittee work’
/gab/	‘to cry’	/gab\	‘colour’
/gaw/	‘to burst’	/gaw\	‘to shoot’

/gʷut <sup>h</sup> aŋ/	‘alive’	/gʷut <sup>h</sup> aŋ\	‘unripe’
/man/	‘to scratch’	/man\	‘respect’
/muuduwi/	‘tears’	/muuduwi\	‘porcupine’
/mun/	‘to get’	/mun\	‘to get ripe’
/muusa/	‘tiger’	/muusa\	‘to dance’
/met <sup>h</sup> ai/	‘song’	/met <sup>h</sup> ai\	‘sweet meat’
/na/	‘to knead’	/na\	‘fish’
/nu/	‘to’	/nu\	‘thread of weaving loom’
/nui/	‘two’	/nui\	‘this, here’
/sa/	‘to ache’	/sa/	‘north’
/sak <sup>h</sup> i/	‘witness’	/sak <sup>h</sup> i/	‘to taste’
/san/	‘to count’	/san/	‘to think’
/saw/	‘curse’	/saw/	‘to burn’
/su/	‘thorn’	/su/	‘to measure’
/za/	‘to eat’	/za\	‘to be’
/zaw/	‘to dig’	/zaw\	‘to row’
/zu/	‘to kick’	/zu\	‘female’
/zʷb/	‘to end’	/zʷb\	‘to shut up’
/zʷr/	‘to last’	/zʷr\	‘pointed stump’
/zi/	‘cloth’	/zi\	‘ten’
/zʷu/	‘rice beer’	/zʷu\	‘to be high’
/ho <sup>r</sup> /	‘to give’	/ho <sup>r</sup> /	‘to hung’
/ha/	‘to cut’	/ha/	‘soil’
/haŋ/	‘breath’	/haŋ\	‘to make hot’
/hu/	‘to give’	/hu\	‘to drive’
/ran/	‘to dry’	/ran\	‘to distribute’
/reb/	‘to languish’	/reb/	‘to write’
/laha/	‘black spot in a body’	/laha/	‘sealing wax, lac’
/lir/	‘to be heavy’	/lir/	‘to write’
/lu/	‘to pour’	/lu/	‘to build house’

### 2.2.2.3 Intonation

As quoted in *Encyclopaedic Dictionary of Linguistics* intonation is “*The modulation of the voice; pitch; tone; quality; the musical flow of speech.*”<sup>5</sup> According to David Crystal, “*Intonation works along with other prosodic and paralinguistics features to provide the basis of all kinds of vocal emotional expression.*”<sup>6</sup> It is the sound pattern of phrases and sentences produced by raise and lower pitch variation in the voice. Intonation is nothing but a change in speech rhythm which is used to carry information over and above that and is expressed by the words in the sentence. Intonation does not happen at random but has definite patterns which make speech meaningful. It can change meaning of sentences and have grammatical functions.

Intonation patterns may differ between languages and may differ as well between varieties of the same language. Intonation patterns in Bodo language is of three types, these are:

- a) High falling
- b) Low rising
- c) Level

#### 2.2.2.3.1 High falling intonation

High falling is the type of intonation where the pitch rises on the first syllable of complete sentence followed by a gradual fall over the remaining syllables of the sentence. In Bodo language it appears in simple sentence.

Example is presented as follows:

<b>High falling</b>	<b>Glosses</b>
/biyu bizab p <sup>h</sup> orayuu./	‘he read book.’
/biyu un <sup>h</sup> k <sup>h</sup> am zayuu./	‘he eat rice.’

<sup>5</sup> Tim R: *Encyclopaedic Dictionary of Linguistics* (Volume-1, 2), 1<sup>st</sup> Edition, IVY Publishing House, Delhi-110095, 2003, p. 255.

<sup>6</sup> Crystal, David: *The Cambridge Encyclopedia of Language* (3<sup>rd</sup> edition), 2010, p.179.

Example of **High falling** intonation can be presented in tabular diagram and the movement of intonation can be shown by the direction of the arrow lines as follows:

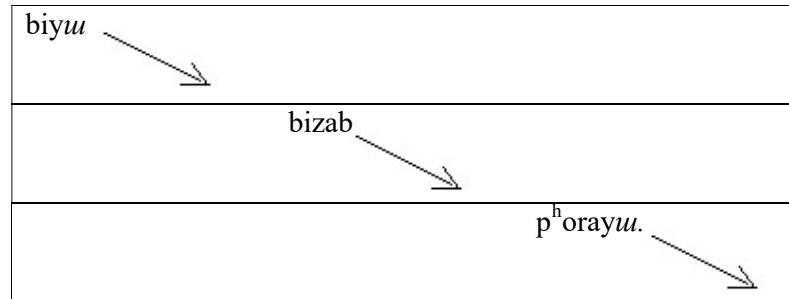


Figure: 2.12

### 2.2.2.3.2 Low rising intonation

In Low rising intonation there is a long gradual rise in Pitch from the beginning to the end of the sentence. It is found in interrogative sentence in this language, where answer is expected in 'yes' or 'no'.

Example is presented as follows:

<b>Low rising</b>	<b>Glosses</b>
/biyu bizab p <sup>h</sup> orayu?/	'does he read book?'
/biyu unj <sup>h</sup> am zayu?/	'does he eat rice?'

Above example of **Low rising** intonation can be presented in tabular diagram and the movement of intonation can be shown by the direction of the arrow lines as follows:

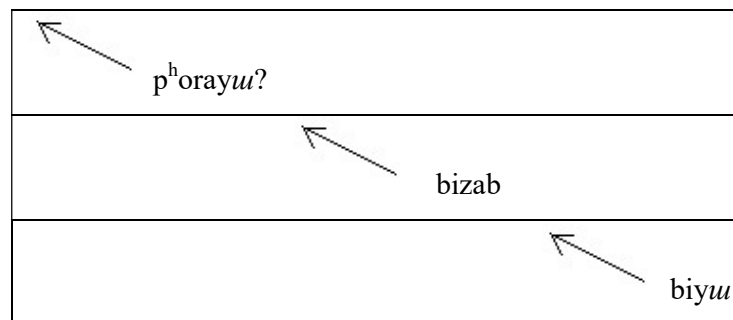


Figure: 2.13

### 2.2.2.3.3 Level intonation

In Bodo language Level intonation is associated with exclamatory sentence. Here, pitch remains in same level from the beginning to the end of the sentence.

Example is presented as follows:

Level	Glosses
/biyu bizab p <sup>h</sup> orayu!/ /biyu unj <sup>h</sup> am zayu!/ 	‘he read book!’ ‘he eat rice!’

Example of **Level** intonation can be presented in tabular diagram and the movement of intonation can be shown by the direction of the arrow lines as follows:

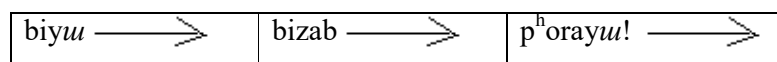


Figure: 2.14

## 2.3 Morphophonemics

It is the branch of morphology which deals with the phonemic aspect of constitution of the morphemes of a language. According to Radhey L. Varshney “*The analysis and classification of the different phonological shapes in which morphemes appears, or by which they are represented, both in an individual language and in languages in general, is often called morphophonemics or morphophonology.*”<sup>7</sup>

### 2.3.1 Phonologically conditioned changes

**Epenthesis:** The interpolation in a word or sound-group of a sound or letter which has no etymological justification for appearing there. The interpolated element is called an anaptyctic or excrescent sound or letter. For example: a semi vowel /y/ or /w/ is inserted between /i/ or /o/ or /u/ or /e/ and another vowel to break the cluster of these vowels. e.g.:

/ual/: /uwal/ ‘a wooden husking implements’

/iun/: /iyun/ ‘future’

/k<sup>h</sup>ua/: /k<sup>h</sup>uwa/ ‘fog’

<sup>7</sup> Varshney, Radhey L: An Introductory Text Book of Linguistics and Phonetics (Sixteenth Edition), Student Store, Bareilly, 2005-06, p. 139.



/sian/: /siyan/ ‘intelligent’

/haen/: /hayen/ ‘plains’

/sua/: /suwa/ ‘unholy’

/muia/: /muiya/ ‘yesterday’

The first syllable of the second word is dropped in the following compound words. e.g.:

/dui/ + /ap<sup>h</sup>anŋ/ = /duip<sup>h</sup>anŋ/ (water + lower portion = lower portion of a river)

/dui/ + /bima/ = /dui<sup>h</sup>ima/ (water + mother = river)

/dui/ + /p<sup>h</sup>isa/ = /dui<sup>h</sup>isa/ (water + small = stream)

/raza/ + /k<sup>h</sup>ant<sup>h</sup>i/ = /razk<sup>h</sup>ant<sup>h</sup>i/ (king + rule = politics)

/dau/ + /p<sup>h</sup>isa/ = /dau<sup>h</sup>isa/ (bird + child = chicken)

/ha/ + /gudan/ = /hadan/ (soil + new = deforested land)

/san/ + /guduŋ/ = /sanduŋ/ (sun + hot = the heat of the sun)

/dao/ + /bidui/ = /daodui/ (bird + egg = egg)

/luit<sup>h</sup>u/ + /bima/ = /luit<sup>h</sup>uma/ (sea + mother = ocean)

/luit<sup>h</sup>u/ + /p<sup>h</sup>isa/ = /luit<sup>h</sup>usa/ (sea + small = bay)

### 2.3.2 Morphologically conditioned changes

/d<sup>h</sup>/ is optionally replaced when followed by /b/ or /u/. It is because of voiced feature of the following sound. e.g.:

/bud<sup>h</sup>bar/: /budbar/ ‘Wednesday’

/d<sup>h</sup>um/: /dum/ ‘busy’

**2.3.3 Prothesis:** Prothesis means the prefixing of a prothetic vowel or syllable to a word and prothetic vowel means a sound prefixed to a word for easier pronunciation or other phonetical or linguistics reasons. For example: /i/ is added before borrowed (English) words beginning with a consonant cluster having /s/ as the first member of the cluster in order to break the cluster. e.g.:

/skul/: /iskul/ ‘school’

/stop/: /istop/ ‘stop’

/steson/: /isteson/ ‘station’

/skel/: /iskel/ ‘scale’

/skru/: /iskru/ ‘screw’

**2.3.4 Apocope:** The loss or deliberate omission of the last letter, syllable or part of a word is called Apocope. For example: the last consonant of the final consonant cluster is dropped from the borrowed English words. e.g.:

/post/ =/pos/ ‘pillar’

/lemp/ =/lem/ ‘lamp’

/belt/ =/bel/ ‘belt’

/siment/ = /simen/ ‘cement’

/karent/ = /karen/ ‘current’

The medial consonant sequence of /tr/ is broken by inserting /i/ between /st/ and /r/.

e.g.:

/istri/ = /istiri/ ‘iron’

/mistri/ = /mistiri/ ‘carpenter’

## 2.4 Summing up

From the structural analysis it is observed that the Bodo language has **22 segmental** and **3 supra-segmental phonemes**. Phonemic inventory of Bodo can be summarized with the following findings:

- i. In segmental features six are vowel phonemes and sixteen are consonant phonemes. In supra-segmental feature juncture, tone, intonations are occurs.
- ii. All the six vowels / i, u, e, o, a / are voiced and short vowel. All the vowels have initial, medial and final occurrences.
- iii. All the six vowel phonemes have Contrasting pairs to each other in minimal pairs.
- iv. There are eight diphthongs in Bodo language i.e. / iu, ui, eu, oi, ai and au/.
- v. All the diphthongs except /iu/ vs /oi/ have contrasting pairs.
- vi. The diphthongs /iu, ui, oi/ have no initial occurrences.
- vii. In Bodo, four types of vowel sequences are occurs i.e. two vowel sequences, three vowel sequences, four vowel sequences and five vowel sequences.
- viii. In Bodo, there are sixteen consonant phonemes i.e. / p<sup>h</sup>, b, t<sup>h</sup>, d, k<sup>h</sup>, g, m, n, ŋ, s, z, h, r, l, w, y /.
- ix. All the sixteen Consonant phonemes have Contrasting pairs to each other in minimal pairs.
- x. The Consonant phonemes / b, d, g, m, n, z, r, l / have occurrences in the three positions i.e. initial, middle and final position. On the other hand, /ŋ, w, y/ phonemes are occurs only in the two positions of the word i.e. middle and final; they do not occurs in the initial position. Apart from occurrences in the final position of word the phonemes / p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>, s, h/ are occurs in the initial and middle position of the word.
- xi. Consonant cluster in Bodo are occurs only in initial and middle positions of a word. It is also assumed that clusters are always occurs only between in two consonants.

- xii. In Bodo, Gemination sequence are occurs in two consonant sequences only which is merely used in middle position of a word and non-gemination sequence are occurs in two consonant sequences as well as three consonant sequences. These are occurs only in middle position of the word.
- xiii. The syllabic classification of Bodo language is of three types i.e. mono-syllabic, di-syllabic or bi-syllabic and poly-syllabic and from the structural form of syllable it is of two types open syllable and closed syllable.
- xiv. Two types of juncture i.e. Close juncture and Open juncture are commonly occurs in Bodo language.
- xv. In Bodo, two tones are occurs high tone and low tone.
- xvi. In intonation patterns, three types of intonations are occurs i.e. High falling, Low rising and Level.
- xvii. Morphophonemics occurs in this language due to some phonologically and morphologically conditioned changes.