4.1 Vowels

There are six vowel phonemes in Nagamese showing contrast in the tongue position - front, central and back; tongue height - high or close, high-mid or half close, and low or open. Back vowels of Nagamese are rounded while others are unrounded. Following are the vowel phonemes in Nagamese:

\[ \text{i} \quad \text{u} \]
\[ \text{e} \quad \text{o} \]
\[ \text{ə} \]
\[ \text{a} : \]
All the vowels occur initially, medially and finally. All the vowels in Nagamese are voiced and in addition to this, the six vowels mentioned above are oral vowels. Nagamese does not allow nasalized vowels. Though the above mentioned six vowels are voiced, voicing is not a relevant feature in the case of Nagamese vowels. Apart from this, vowel length is not phonemic in this language.

The following is the list of vowel phonemes and allophones of Nagamese along with its description.

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Allophone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>[i]</td>
<td>high front unrounded</td>
</tr>
<tr>
<td>/e/</td>
<td>[e]</td>
<td>high-mid front unrounded</td>
</tr>
<tr>
<td>/a:/</td>
<td>[a:]</td>
<td>low central unrounded</td>
</tr>
<tr>
<td>/u/</td>
<td>[u]</td>
<td>high back rounded</td>
</tr>
<tr>
<td>/o/</td>
<td>[o]</td>
<td>high-mid back rounded</td>
</tr>
</tbody>
</table>

4.2 Contrasting Pairs

Above mentioned vowel sounds are established on the basis of minimal pairs.
Examples of vowel phonemes:

- /i/ vs. /u/ /otu/ vs. /itu/ this vs. that
- /i/ vs. /e/ /biya:/ vs. /beya:/ marriage vs. bad
- /u/ vs. /o/ /jui/ vs. /joi/ fire vs. victory
- /a/ vs. /a:/ /kela:/ vs. /ka:la:/ deaf vs. black
- /i/ vs. /u/ /bit/ vs. /but/ a kind of vegetable vs. a kind of pulse
- /e/ vs. /o/ /gher/ vs. /ghor/ enclosure, to encircle vs. house
- /a:/ vs. /o/ /a:th/ vs. /oth/ eight vs. lips
- /a:/ vs. /u/ /a:th/ vs. /uth/ eight vs. get up

4.3 Distribution of Vowels

All the vowels of Nagamese can occur in all the three positions. There is not a single vowel in Nagamese that can not occur in the initial, medial or final position. The following examples show the occurrence of the six vowels in all the three positions.

4.3.1 Initial Position

- /i/
  - /ita:/ brick
  - /itu/ this
/iki/ same, common
/itía:/ now
/ičha:/ will
/el/
/ek/ one
/ekla:/ alone
/eksə/ one hundred
/ekta:/ each
/ekdom/ extreme
/øl/
/ønda:/ egg
/øŋko/ arithmetic
/øča:nək/ suddenly
/øndhera:/ dark
/øndha:/ blind
/a:l/
/a:ko/ again
/a:ka:s/ sky
/a:ji/ today
/a:th/ eight
/a:duwa:/ ginger
/u/

/ukil/ lawyer
/ućaː:/ high
/utʃ/ camel
/ulu/ owl
/ultaː/ reverse

/o/

/okraː:/ simpleton
/osor/ near
/olop/ few
/okoni/ louse
/otu/ that

4.3.2 Medial Position

/i/

/čipaː:/ tongue
/pil/ tablet
/bisaːs/ believe
/tin/ three
/dima:k/ mind, brain

/e/

/deš/ country
/tep/ tap
/këlli/ kettle
/get/ gate
/pëlt/ stomach

/æ/
/kəla:/ deaf
/kəməl/ lotus
/bənduk/ gun
/nəkli/ artificial
/məsla:/ spice

/aː/
/naːs/ dance
/mə:s/ fish
/ɡhaːs/ grass
/khaːli/ empty
/dhaːn/ paddy

/u/
/bhuk/ hunger
/phul/ flower
/dhup/ sun, sunshine
/kum/ less
/dur/ far
/ol/
/post/ pillar
/bosti/ village
/topi/ cap, hat
/dorji/ tailor
/kol/ banana

4.3.3 Final Position

/i/ 
/ka:lɪ/ tomorrow
/deri/ late
/tukri/ basket
/baːki/ credit
/paːni/ water

/e/ 
/aːste/ slow
/biːtɛ/ neutral
/kile/ why
/moike/ to me
/nije/ self

/ə/ 
/eksə/ one hundred
/aːthaːɡə/ eighteen
/pəndrə/ fifteen
/dhrubə/ pole star
/monstə/ big

/aː/
/murgaː/ cock
/nilaː/ blue
/ghenaː/ hate
/khiraː/ cucumber
/dhilaː/ loose

/u/
/itu/ this
/aːlu/ potato
/ulu/ owl
/baːlu/ sand
/taːklu/ bald

/o/
/tero/ thirteen
/kaːso/ tortoise
/maːŋso/ meat
/no/ nine
/sullo/ sixteen
4.4 Vowel Sequence

Sequence of vowels may consist of two, three or more vowels and it forms a single syllable. When the sequence of two vowels form a syllable, it is called diphthong. Nagamese has a number of such diphthongs but no triphthong is found in Nagamese. Seven diphthongs are available in Nagamese. They are:

- /a:o/ as in /pa:o/ leg
- /a:i/ as in /a:in a:/ mirror
- /a:u/ as in /ga:uri/ pig
- /ia:/ as in /čiria:/ bird
- /ua:/ as in /lua:/ accept
- /ui/ as in /jui/ fire
- /oi/ as in /čoi/ touch

Of the seven diphthongs, three involve glide [I]. They are /a:i, ui and oi/; one moves towards [o]-/a:o/; one towards [u]-/a:u/ and the other two are towards [a:]-/ua: ia:/ . All these four diphthongs can be termed as falling diphthongs because the first member is more prominent than the second. All the diphthongs do not occur in all the positions. The data show that the diphthongs can occur in word final position as well as word medial position with the exception of /a:o/ which can never occur.
in medial position in Nagamese. The occurrence of the
diphthongs in word initial position is very restricted. Only two of
them viz., /a:o and a:i/ can occur in the initial position of a word
and above all, /a:o/ occurs only in one word in the whole lexical
inventory of Nagamese. It is to be noticed that /a:i/ and /oi/
occur more frequently in Nagamese than the other diphthongs.
The occurrence of the seven diphthongs in the three positions
are illustrated below:

/a:o/

Initially
/a:o/ the Ao Naga tribe

Medially
It does not occur.

Finally
/pa:o/ leg
/ga:o/ body
/la:o/ gourd

/a:i/

Initially
/a:ina:/ mirror
/a:in/ law
Medially

/\sa:in/   signature
/\sa:ins/  science
/\ka:ida:/  technique
/\pa:ikha:na:/  shit, stool

Finally

/\ta:i/    he/she
/\dhula:i/  washing
/\phra:i/  to fry

/\a:u/

Initially

It is not available in Nagamese

Medially

/\ga:uri/  pig

Finally

/\ma:u/    honey, bee
/\na:u/     boat

/\ia:/

Initially

It does not occur

Medially

/\sia:l/  fox
Finally
/čiria:/  bird
/itia:/  now
/kitia:/  when

/ua:/

Initially
It is not available

Medially
/sua:li/  girl
/pua:li/  infant

Finally
/lua:/  to take

/ui/

Initially
It does not occur.

Medially
/puisa:/  money

Finally
/jui/  fire
/rui/  cotton
/dui/  two
\(/oi/\\)

Initially

It is not available

Medially

\(/\text{soita:n}/\) monster
\(/\text{toiya:r}/\) ready
\(/\text{moira:/}/\) peacock

Finally

\(/\text{čoi}/\) six
\(/\text{čhoi}/\) touch
\(/\text{toi}/\) you
\(/\text{moi}/\) I

4.5 Consonants

There are twenty eight consonantal phonemes in Nagamese. These consonants can be discussed from two angles - manner of articulation and point of articulation. The consonants, according to the manner of articulation can be grouped into two broad sections - the stops and the continuants. The consonants, as a whole, include fourteen stops and fourteen continuants. The stops show voice voiceless and aspirated unaspirated contrast. Among the continuants, there are three nasals, three fricatives, four affricates, one trill, one lateral and
two approximants. The nasals, the trill, the lateral and the approximants are all voiced and all the fricatives are voiceless whereas the affricates show voice-voiceless as well as aspirated-unaspirated contrasts.

All the consonants in Nagamese occur initially, medially and finally with the exception of /l/, /d/, /g/, /u/, /h/, /čh/, /řh/ and /w/. /l/, /d/ and /r/ do not occur initially while /g/, /h/ and /čh/ do not occur finally. /řh/ neither occurs medially nor finally in Nagamese. The consonantal phonemes of Nagamese are -

\[
\begin{array}{cccccc}
\text{stop} & p & b & t & d & ř \\
\text{continuants} & ph & bh & th & dh & kh & gh \\
\end{array}
\]

\[
\begin{array}{cccc}
\text{m} & n & ř \\
\text{s} & š & h \\
\text{č} & ķ \\
\end{array}
\]

The following is the list of consonantal phonemes and its description:
<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>voiceless unaspirated bilabial stop</td>
</tr>
<tr>
<td>/b/</td>
<td>voiced unaspirated bilabial stop</td>
</tr>
<tr>
<td>/t/</td>
<td>voiceless unaspirated dental stop</td>
</tr>
<tr>
<td>/d/</td>
<td>voiced unaspirated dental stop</td>
</tr>
<tr>
<td>/l/</td>
<td>voiceless unaspirated retroflex stop</td>
</tr>
<tr>
<td>/ɾ/</td>
<td>voiced unaspirated retroflex stop</td>
</tr>
<tr>
<td>/k/</td>
<td>voiceless unaspirated velar stop</td>
</tr>
<tr>
<td>/ɡ/</td>
<td>voiced unaspirated velar stop</td>
</tr>
<tr>
<td>/ph/</td>
<td>voiceless aspirated bilabial stop</td>
</tr>
<tr>
<td>/bh/</td>
<td>voiced aspirated bilabial stop</td>
</tr>
<tr>
<td>/th/</td>
<td>voiceless aspirated dental stop</td>
</tr>
<tr>
<td>/dh/</td>
<td>voiced aspirated dental stop</td>
</tr>
<tr>
<td>/kh/</td>
<td>voiceless aspirated velar stop</td>
</tr>
<tr>
<td>/ɡh/</td>
<td>voiced aspirated velar stop</td>
</tr>
<tr>
<td>/m/</td>
<td>bilabial nasal</td>
</tr>
<tr>
<td>/n/</td>
<td>dental nasal</td>
</tr>
<tr>
<td>/ŋ/</td>
<td>velar nasal</td>
</tr>
<tr>
<td>/ʃ/</td>
<td>voiceless alveolar fricative</td>
</tr>
<tr>
<td>/ʃ/</td>
<td>voiceless palatal fricative</td>
</tr>
<tr>
<td>/h/</td>
<td>voiceless glottal fricative</td>
</tr>
<tr>
<td>/ɻ/</td>
<td>voiceless unaspirated palatal affricate</td>
</tr>
</tbody>
</table>
/ʃ/ voiced unaspirated palatal affricate
/ɻh/ voiceless aspirated palatal affricate
/ʃh/ voiced aspirated palatal affricate
/r/ voiced alveolar trill
/l/ voiced alveolar lateral
/w/ voiced bilabial approximant
/y/ voiced palatal approximant

4.6 Contrasting Pairs

These consonantal sounds are established on the basis of minimal pairs and where minimal pairs are not available, we used sub-minimal pairs for the purpose. Following is the list of minimal/sub-minimal pairs –

/p/ vs /b/ /pil/ tablet /bil/ small lake
/t/ vs /d/ /ta:n/ hard /da:n/ donation
/tʃ/ vs /ɖ/ /soṭi/ cold /joḍi/ if
/k/ vs /ɡ/ /kola:/ lap /gola:/ neck
/p/ vs /ɲi/ /paːl/ a surname /phaːl/ to tear
/b/ vs /bh/ /buk/ mud /bhuk/ hunger
/t/ vs /ʈh/ /teŋaː/sour /theŋ/ leg
/d/ vs /dh/ /daːn/donation /dhaːn/ paddy
/k/ vs /kɦ/ /kaːli/ yesterday /khaːli/ empty
/g/ vs /ɡɦ/ /gor/ fort /ghor/ house
4.7 Distribution of Consonants

It is found out that most of the consonants can occur in all the three positions of a word. The three consonants which can not occur in a word initial position in Nagamese are /tʃ/, /dʒ/ and /ŋ/. Another three consonants that do not occur in the final position are /gh, h, ćh/. There is one consonantal phoneme in Nagamese /j/ which neither occurs medially nor finally in this
language. The following examples are given to show the occurrence of the twenty eight consonantal phonemes in the three positions.

/p/
Initial
/paːni/ water
/puk/ ant
/paːtlaː/ thin
Medial
/həptaː/ week
/opaːr/ above
/kaːpur/ cloth
Final
/saːp/ snake
/paːp/ sin
/tep/ tap

/b/
Initial
/begun/ brinjal
/buk/ mud
/billii/ cat
Medial

/kubudur/ pigeon
/kiba:/ something
/nobboi/ ninety

Final

/jib/ tongue
/sa:b/ the master, officer
/nib/ nib of a pen

/t/

Initial

/ta:ra:/ star/s
/ta:n/ hard
/ta:r/ wire

Medial

/ma:ti/ soil
/kita:b/ book
/guti/ pox, pimples

Final

/da:t/ tooth
/get/ gate
/bhut/ ghost
/d/

Initial
/din/ day
/daːm/ cost
/daːl/ pulses

Medial
/baːndor/ monkey
/baŋduk/ gun
/bodli/ exchange, change

Final
/bohid/ buffalo
/aːsirbaːd/ blessing
/čed/ hole

/ʈ/

Initial
It does not occur

Medial
/sotɬ/ cold
/peʈɬaː/ diarrhoea
/čaːti/ chest
Final

/peɾ/ stomach
/ut/ camel
/bet/ cane

/q/

Initial

It does not occur

Medial

/čamda:/ skin
/uqda:/ to fly
/daqi/ beard

Final

/pa:ha:q/ hill

/k/

Initial

/ka:n/ ear
/kintu/ but
/kiba:/ something

Medial

/čuku/ eye
/iki/ same
/a:ka:s/ sky
Final

/næk/    nose
/ek/      one
/bənduk/  gun

/g/

Initial

/gola:/   neck
/gorib/   poor
/guru/    cow

Medial

/ba:ɡən/  garden
/a:ɡode/  before
/ojogor/  python

Final

/saɡ/     leafy vegetables
/məɡ/     mug
/jəɡ/      jug

/ph/

Initial

/phuːɡər/  morning
/phuːl/    flower
/phaːli/   towards
<table>
<thead>
<tr>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/sa:pha:/</td>
<td>/ruph/</td>
</tr>
<tr>
<td>/photo:phot/</td>
<td>/loph/</td>
</tr>
<tr>
<td>/kophur/</td>
<td>/ma:ph/</td>
</tr>
<tr>
<td>/bh/</td>
<td></td>
</tr>
<tr>
<td>Initial</td>
<td>Medial</td>
</tr>
<tr>
<td>/bha:k/</td>
<td>/pa:bho/</td>
</tr>
<tr>
<td>/bha:luk/</td>
<td>/ga:bhini/</td>
</tr>
<tr>
<td>/bha:y/</td>
<td>/bha:bha:/</td>
</tr>
<tr>
<td></td>
<td>Final</td>
</tr>
<tr>
<td>/stobh/</td>
<td>/la:bh/</td>
</tr>
</tbody>
</table>
/th/

Initial

/thalı/ plate
/thandı/ cool, cold
/thu/ spit

Medial

/metha:/ head
/a:tha:/ gum, glue
/prithipi/ earth

Final

/moth/ temple
/a:th/ eight
/uth/ get up

/dh/

Initial

/dhup/ sunshine
/dhuni/ wealthy
/dha:ı/ shield

Medial

/a:dha:/ half
/budhu/ fool
/ra:ndha:/ to cook
Final
/gondh/ smell
/kh/

Initial
/khun/ blood
/khisa:/ story
/kha:si/ cough

Medial
/na:khun/ nails
/pikha:/ to pain
/sukha:n/ dry

Final
/dukh/ sorrow
/mukh/ face
/lekh/ write

/gh/

Initial
/ghora:/ horse
/ghura:/ to churn
/ghena:/ hate
Medial

/igha:ro/  eleven
/dâ:ghor/  post office
/ka:ŋghi/  comb

Final

It does not occur

/m/

Initial

/metha:/  head
/ma:nu/  man
/ma:/  mother

Medial

/kamra:/  room
/a:mi/  l
/ghuma:/  to sleep

Final

/sa:m/  evening
/a:m/  mango
/tâ:im/  time

/n/

Initial

/nimok/  salt
/naːpi/ navel
/naːk/ nose

Medially
/əčaːnək/ suddenly
/əndaː/ egg
/aːnaː/ to bring

Final
/mon/ mind
/paːn/ betel leaf
/begun/ brinjal

/iʃi/

Initial
/ʃikaːr/ hunting
/ʃihaːi/ ink
/ʃim/ beans

Medial
/khuši/ happiness
/biši/ much
/dušmon/ enemy

Final
/deš/ country
/aːnaːroš/ pineapple
/h/

Initial

/haːrdi/ bone
/hosa:/ real, truth
/haːra:/ green

Medial

/čuha:/ mouse
/pa:haːq/ hill
/ba:ha:r/ outside

Final

It does not occur

/ŋ/

Initial

It does not occur

Medial

/a:ŋuli/ finger
/a:ŋuthi/ ring
/a:ŋur/ grape

Final

/then/ leg
/pa:taŋ/ kite
/ben/ frog
<table>
<thead>
<tr>
<th>Phone</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/</td>
<td></td>
</tr>
<tr>
<td>Initial</td>
<td></td>
</tr>
<tr>
<td>/sa:thi/</td>
<td>friend</td>
</tr>
<tr>
<td>/sa:m/</td>
<td>evening</td>
</tr>
<tr>
<td>/sa:pha:/</td>
<td>to clean</td>
</tr>
<tr>
<td>Medial</td>
<td></td>
</tr>
<tr>
<td>/ma:ŋso/</td>
<td>meat</td>
</tr>
<tr>
<td>/isor/</td>
<td>god</td>
</tr>
<tr>
<td>/eksə/</td>
<td>one hundred</td>
</tr>
<tr>
<td>Final</td>
<td></td>
</tr>
<tr>
<td>/haːs/</td>
<td>duck</td>
</tr>
<tr>
<td>/a:kaːs/</td>
<td>sky</td>
</tr>
<tr>
<td>/pulis/</td>
<td>police</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phone</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/č/</td>
<td></td>
</tr>
<tr>
<td>Initial</td>
<td></td>
</tr>
<tr>
<td>/čaː/</td>
<td>tea</td>
</tr>
<tr>
<td>/čipaː/</td>
<td>tongue</td>
</tr>
<tr>
<td>/čuli/</td>
<td>hair</td>
</tr>
<tr>
<td>Medial</td>
<td></td>
</tr>
<tr>
<td>/ba:čaː/</td>
<td>child</td>
</tr>
<tr>
<td>/iila:či/</td>
<td>cardamom</td>
</tr>
<tr>
<td>/a:lči/</td>
<td>lazy</td>
</tr>
</tbody>
</table>
Final

/pa:č/ five
/khič/ squeeze

/j/

Initial

/jui/ fire
/juta:/ shoe
/ja:ha:s/ ship

Medial

/bijli/ lightning
/ijjot/ honour
/a:jি/ today

Final

/piya:j/ onion
/a:wa:j/ voice
/ka:miʝ/ shirt

/čh/

Initial

/čhokɾaː/ son
/čhokɾi/ daughter
/čhoi/ touch
Medial

/močhor/ mosquito
/ičha:/ will
/punčha:/ to reach

Final

It does not occur.

/jh/

Initial

/jhokra:/ fight
/jhola:/ bag
/jha:ru/ broom

Medial

It does not occur.

Final

It does not occur.

/tr/

Initial

/ra:sta:/ road
/ra:ti/ night
/ra:ja:/ king
Medial

/hurin/ deer
/lora:i/ war
/a:ru/ and

Final

/umar/ age
/kukur/ dog
/pa:thor/ stone

/l/

Initial

/la:los/ greed
/la:t/ kick
/loha:/ iron

Medial

/sa:guli/ goat
/la:lsi/ greedy
/ča:la:k/ smart, clever

Final

/la:l/ red
/fjongol/ forest
/phul/ flower
/w/

Initial
/wu:/

Wool

Medial
/ha:wa:/

Wind

/a:duwa:/

Ginger

/bowa:/

To weave

Final
/da:w/

A type of dagger

/y/

Initial
/ya:te/

Here

Medial
/biya:/

Bad

/koyla:/

Coal

/ba:ya:/

Left

Final
/kha:y/

Eat

/ja:y/

Go

/joy/

Victory
4.8 Syllabic Pattern

Respiration is considered to be the basis of a syllable. Each syllable corresponds to an increase in air pressure, air from the lungs being released as a series of chest pulses. Phonological views of the syllable focus on the ways sounds combine in individual languages in order to produce sequences. Hence, usually two classes of sounds are established.

a) sounds which can occur on their own, and

b) sounds which can not occur on their own.

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

I. The first part or the opening segment of the syllable is the onset

II. The central segment of the syllable is the nucleus or peak, and

III. The closing segment of the syllable is the coda.

A collective term margin can be used to refer to the opening and closing segments of a syllable. Syllables do not necessarily have all the three parts mentioned above. As far as Nagamese is concerned, there is only a single syllable consisting
of just the nucleus. The nucleus which is always a vowel is preceded and or followed by one or more consonants in most of the cases. Thus, a Nagamese syllable consists of a nucleus either with an onset or with a coda. Hence, the structure of the syllable in Nagamese may be defined as:

\[ \pm \text{consonant} + \text{vowel} + \text{consonant} \]

This structure gives two main types of syllables - open and closed. Open syllable ends in a vowel while closed syllable ends in a consonant, i.e., "closed" by another consonant.

4.8.1 Monosyllabic Words

The majority of the monosyllabic words in Nagamese have the CV structure, i.e., they are open syllables. VC pattern monosyllabic words are of very low frequency in the language. The canonical form of the syllabic types in Nagamese is:

\[ (C) (C) V (C) (C) \]

The following words will explain the syllabic structure of the monosyllabic words of Nagamese.

Open monosyllabic words:

\[ v : /i/ \quad \text{this} \]

\[ "vy : /a:o/ \quad \text{Ao Naga tribe} \]

\[ *v \quad \text{stands for non-syllabic vowel} \]
Closed monosyllabic words:

vc:/a:m/ mango,
/ek/ one
/cvc:/na:k/ nose,
/ka:n/ ear
/ccvc:/gla:s/ window pane
/tris/ thirty
/cvcc:/siŋg/ horn,
/post/ pillars
/cvvc : /sia:l/ fox

Hence the total syllabic patterns of monosyllabic words possible in Nagamese are nine.

4.8.2 Disyllabic words

vcv: "/i-ta:/ brick

cvcv: /me-tha:/ head

ccvcv: /gya:-ni/ wise

* x-x, the dash stands for syllable division
Close first syllable, open second syllable

\[
\begin{align*}
\text{vccv} & :  \quad /\text{en-da}/ \quad \text{egg} \\
\text{cvccv} & :  \quad /\text{cem-da}/ \quad \text{skin} \\
\text{cvccc}\text{v} & :  \quad /\text{pan-dr}\text{e}/ \quad \text{fifteen}
\end{align*}
\]

First syllable open, closed second syllable

\[
\begin{align*}
\text{vcvc} & :  \quad /\text{a-ca}r/ \quad \text{pickles} \\
\text{cvcvc} & :  \quad /\text{k}\text{em-mor}/ \quad \text{back, waist} \\
\text{ccvcc} & :  \quad /\text{kla}\text{rk}/ \quad \text{clerk}
\end{align*}
\]

Closed first and second syllables

\[
\begin{align*}
\text{cvccvc} & :  \quad /\text{b}\text{e}\text{r-khun}/ \quad \text{rain} \\
\text{ccvccvc} & :  \quad /\text{brin-jel}/ \quad \text{purple colour}
\end{align*}
\]

4.8.3 Trisyllabic Words

Third syllable is open

\[
\begin{align*}
\text{vcvcv} & :  \quad /\text{a-}\text{n}\text{u-li}/ \quad \text{finger}, \quad /\text{a-pu-ni}/ \quad \text{you (Hon)} \\
\text{cvccvcv} & :  \quad /\text{sa-gu-li}/ \quad \text{goat,} \quad /\text{k}\text{e-to-ra}/ \quad \text{bowl} \\
\text{vcvccc}\text{v} & :  \quad /\text{e-sem-bli}/ \quad \text{assembli} \\
\text{ccvccv}\text{c} & :  \quad /\text{da-wa-r}\text{e-ka}/ \quad \text{name of a sacred place} \\
\text{cvccvccv} & :  \quad /\text{ba-n-pa-ni}/ \quad \text{flood,} \quad /\text{na-s-po-ti}/ \quad \text{pear} \\
\text{vcvcc}\text{c} & :  \quad /\text{o-wos-tha}/ \quad \text{condition} \\
\text{vccv}\text{cv} & :  \quad /\text{un-no-ti}/ \quad \text{progress}
\end{align*}
\]
Third syllable is closed:

- cvcvvcv : /ku-bu-dur/ pigeon, /ta-ma:-tər/ tomato
- cvcvvcv : /ə-ca:-nək/ suddenly, /ə:-na:-roʃ/ pineapple
- cvccvvcvcv : /hus-bi-sər/ adultery, /pha:r-ni-sər/ furniture
- cvcvvcvcc : /na:-ga:-lənd/ Nagaland
- ccvcvvcvc : /kri-mi-nəl/ criminal

### 4.8.4 Tetrasyllabic Words

Fourth syllable is open:

- cvcvvcvcv : /kha:-li-ja:ga:/ yard
- cvccvvcvcv : /bən-dha:-ko-bi/ cabbage
- cvcvvcvcv : /bu-ri-a:-ma:/ grand mother

Fourth syllable is closed:

- cvcvvcvcvc : /mu-dhi-ri-yəm/ guava

Nagamese has very few words having the tetra syllables and most of the words which have tetra syllables are in reality compound words. Because compound words refer to a linguistic unit which is composed of elements that function independently in other circumstances, i.e., compound words consist of two or more free morphemes and it gives a total new meaning. For example,
/kha:lija:ga:/ yard. It is made up of two words -

(i) /kha:li/ empty

(ii) /ja:ga:/ place

and both the units can function independently in other circumstances as in

(i) /kha:li pet/ empty stomach

(ii) /a:pna:r ka:rne ja:ga: na:y/ there is no place for you.

4.8.5 Pentasyllabic Words

In the real sense of the term, there is not a single pentasyllabic words available in Nagamese if we do not take into account the clear compound words. The following examples will clarify the above statement.

cvcvcvcvcvvc : /pa:ni gira: ta:im/ monsoon

i. /pa:ni/ water

ii. /gira:/ fall

iii. /ta:im/ season, time

The above three are free morphemes in Nagamese and they can occur on their own in other contexts as well.
4.8.6 Hexasyllabic Words

Only the compound words fall under the category of hexasyllabic words in Nagamese just like the pentasyllabic words.

\[
\text{cvcvcvcvccv} : /\text{cukula:ga:culi/ eyelash} \\
/\text{cuku/ eye} \\
/\text{la:ga:/ belonging to} \\
/\text{culi/ hair} \\
\text{cvcvcvcvccvc} : /\text{sisa:la:ga:gilas/ glass} \\
/\text{sisa/: glass} \\
/\text{la:ga:/ belonging to} \\
/\text{gilas/ glass, container}
\]

4.9 Consonant Clusters and Sequences

The term cluster is used in the analysis of connected speech to refer to any sequence of adjacent consonants occurring in a syllable. Usually a distinction is made within the consonant combinations into consonant clusters and consonant sequences. Consonant clusters occur within a syllable while consonant sequences occur between syllables. In this language, consonant clusters occur only in initial and final positions whereas a lot of consonant sequences occur in the medial
position. Words initially and finally, a maximum number of two consonants are allowed as the following examples show.

4.9.1 Initial Clusters

As mentioned above, Nagamese clusters do not allow more than two consonants initially in a word. The second member of the cluster is always a liquid or an approximant (/r/, /l/, /w/ and /y/). For this very reason these consonants can not themselves be the first member of the consonant cluster. In fact, the first member of the consonant clusters is always the stops. There is only one exception to the above mentioned statement - the occurrence of a single fricative /s/ in the initial position of the cluster and the words where /s/ occurs in the initial position, are all borrowed lexical items from English. The following table will explicate the situation.

<table>
<thead>
<tr>
<th>First members</th>
<th>Second members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>p</td>
<td>✓</td>
</tr>
<tr>
<td>b</td>
<td>✓</td>
</tr>
<tr>
<td>t</td>
<td>✓</td>
</tr>
<tr>
<td>d</td>
<td>✓</td>
</tr>
<tr>
<td>k</td>
<td>✓</td>
</tr>
<tr>
<td>g</td>
<td>✓</td>
</tr>
<tr>
<td>ph</td>
<td>✓</td>
</tr>
<tr>
<td>dh</td>
<td>✓</td>
</tr>
<tr>
<td>kh</td>
<td>✓</td>
</tr>
</tbody>
</table>
Stop + liquid/approximant :

<table>
<thead>
<tr>
<th>Sound</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pr/</td>
<td>/prothom/</td>
<td>first</td>
</tr>
<tr>
<td>/pl/</td>
<td>/plet/</td>
<td>saucer</td>
</tr>
<tr>
<td>/py/</td>
<td>/pya:s/</td>
<td>thirst</td>
</tr>
<tr>
<td>/br/</td>
<td>/brinjæl/</td>
<td>purple colour</td>
</tr>
<tr>
<td>/bl/</td>
<td>/bled/</td>
<td>blade</td>
</tr>
<tr>
<td>/tr/</td>
<td>/tris/</td>
<td>thirty</td>
</tr>
<tr>
<td>/dr/</td>
<td>/dra:m/</td>
<td>drum</td>
</tr>
<tr>
<td>/dw/</td>
<td>/dwa:reka:/</td>
<td>name of a place</td>
</tr>
<tr>
<td>/kr/</td>
<td>/kripin/</td>
<td>miser</td>
</tr>
<tr>
<td>/kl/</td>
<td>/kla:s/</td>
<td>class</td>
</tr>
<tr>
<td>/gr/</td>
<td>/gra:hok/</td>
<td>customer</td>
</tr>
<tr>
<td>/gl/</td>
<td>/gla:s/</td>
<td>window pane</td>
</tr>
<tr>
<td>/gy/</td>
<td>/gya:ni/</td>
<td>wise</td>
</tr>
<tr>
<td>/phr/</td>
<td>/phra:i/</td>
<td>to fry</td>
</tr>
<tr>
<td>/dhr/</td>
<td>/dhruba:/</td>
<td>pole star</td>
</tr>
<tr>
<td>/dhy/</td>
<td>/dhya:n/</td>
<td>meditation</td>
</tr>
<tr>
<td>/khr/</td>
<td>/khrista:n/</td>
<td>Christian</td>
</tr>
</tbody>
</table>

Fricative + stop/liquid/approximant :

<table>
<thead>
<tr>
<th>Sound</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/st/</td>
<td>/student/</td>
<td>student</td>
</tr>
<tr>
<td>/sk/</td>
<td>/skul/</td>
<td>school</td>
</tr>
</tbody>
</table>
Unlike the initial consonant clusters, there is a wide variety of medial consonant sequences in Nagamese. Though a maximum number of three consonants are permitted as far as the medial sequence is concerned yet very few words have three consonants as sequences in Nagamese. Most of the words which have medial sequences consist of two consonants only. The following table will explain the various combinatory possibilities of medial consonant sequences of two in Nagamese.

### Medial two consonant sequences

<table>
<thead>
<tr>
<th>First members</th>
<th>Second Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>p</td>
</tr>
<tr>
<td>t</td>
<td>+</td>
</tr>
<tr>
<td>d</td>
<td>+</td>
</tr>
<tr>
<td>k</td>
<td>+</td>
</tr>
<tr>
<td>g</td>
<td>+</td>
</tr>
<tr>
<td>ph</td>
<td>+</td>
</tr>
<tr>
<td>m</td>
<td>+</td>
</tr>
<tr>
<td>n</td>
<td>+</td>
</tr>
<tr>
<td>η</td>
<td>+</td>
</tr>
<tr>
<td>s</td>
<td>+</td>
</tr>
<tr>
<td>j</td>
<td>+</td>
</tr>
<tr>
<td>r</td>
<td>+</td>
</tr>
<tr>
<td>l</td>
<td>+</td>
</tr>
<tr>
<td>w</td>
<td>+</td>
</tr>
</tbody>
</table>

**Example:** slate /slet/ (writing)
Stop + stop:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Pronunciation</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pt/</td>
<td>/haːpta:/</td>
<td>week</td>
</tr>
<tr>
<td>/bd/</td>
<td>/səbdo/</td>
<td>sound</td>
</tr>
<tr>
<td>/gɔk/</td>
<td>/khiɡki/</td>
<td>window</td>
</tr>
<tr>
<td>/kt/</td>
<td>/ekta:/</td>
<td>one</td>
</tr>
<tr>
<td>/gʤ/</td>
<td>/paɡʤi/</td>
<td>turban</td>
</tr>
</tbody>
</table>

Stop + nasal:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Pronunciation</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pn/</td>
<td>/čepnaː/</td>
<td>thong</td>
</tr>
<tr>
<td>/tm/</td>
<td>/aːtmaː/</td>
<td>soul</td>
</tr>
<tr>
<td>/tn/</td>
<td>/čaːtni/</td>
<td>pickles</td>
</tr>
<tr>
<td>/dm/</td>
<td>/bɛdmaːs/</td>
<td>naughty</td>
</tr>
<tr>
<td>/dn/</td>
<td>/bɛdnaːm/</td>
<td>bad name</td>
</tr>
<tr>
<td>/kn/</td>
<td>/čeknaː/</td>
<td>strainer</td>
</tr>
<tr>
<td>/gn/</td>
<td>/signel/</td>
<td>signal</td>
</tr>
</tbody>
</table>

Stop + fricative/affricate:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Pronunciation</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/bs/</td>
<td>/sobse/</td>
<td>above all</td>
</tr>
<tr>
<td>/ks/</td>
<td>/eksəː/</td>
<td>hundred</td>
</tr>
<tr>
<td>/ts/</td>
<td>/aːtsaː/</td>
<td>assent</td>
</tr>
<tr>
<td>/bj/</td>
<td>/sobji/</td>
<td>vegetable</td>
</tr>
<tr>
<td>/kel/</td>
<td>/dekči/</td>
<td>pot</td>
</tr>
</tbody>
</table>
Stop + trill:

/pr/ /ka:pra:/ clothes
/br/ /jebra:/ zebra
/tr/ /sætro/ seventeen
/dr/ /a:druk/ ginger
/kp/ /kekra:/ crab
/khr/ /bukhri/ pond
/gr/ /jhægra:/ quarrel

Stop + lateral:

/pl/ /khopla:/ hollow
/bl/ /dubla:/ lean
/tl/ /ketli/ kettle
/kl/ /ekla:/ alone
/phl/ /ma:phla:/ muffler
/gl/ /pa:glæ:/ mad

Nasal + stop/fricative/affricate

Bilabial, dental and velar nasals occur with all kinds of consonants medially in CC structure in Nagamese. These are the most common types found in Nagamese.

/mp/ /la:mpa:/ ladder
(mb/ /lomba:/ long
/mt/ /čimti/ ant
| /md/    | /čəmdaː/ | skin     |
| /mk/    | /domkol/ | tube-well |
| /mč/    | /gaːmčaː/ | towel    |
| /mȢ/    | /kəmȢur/ | weak     |
| /mr/    | /kəmrəː/ | room     |
| /ml/    | /kəmlaː/ | orange   |
| /np/    | /baːnpaːni/ | flood |
| /nb/    | /kunbaː/ | someone  |
| /nt/    | /kıntu/ | but      |
| /nk/    | /kunke/ | whom     |
| /nd/    | /jəndu/ | animal   |
| /ndh/   | /raːndhaː/ | to cook |
| /ns/    | /kensı/ | scissors |
| /nč/    | /pončaːs/ | fifty    |
| /nį/    | /brınjəl/ | purple colour |
| /ŋp/    | /laːŋpi/ | name of a place |
| /ŋt/    | /leŋtaː/ | naked    |
| /ŋk/    | /aːŋkol/ | uncle    |
| /ŋg/    | /joŋgol/ | forest   |
| /ŋkh/   | /paːŋkhaː/ | wing, fan |
| /ŋs/    | /maːŋso/ | meat     |
| /ŋh/    | /siŋho/ | lion     |
/ŋt/ /ləŋra:/ lame
/ŋl/ /fjoŋli/ wild

Fricative + stop/nasal/trill/liquid:
/sp/ /na:spoti/ pear
/sb/ /husbisa:r/ adultery
/st/ /ra:sta:/ road
/sk/ /biskut/ biscuit
/spʰ/ /pispha:l/ backside
/stʰ/ /owostha:/ situation
/sm/ /dusmon/ enemy
/sn/ /bisna:/ bed
/sr/ /dusra:/ next

Affricate + trill/lateral
/jr/ /ha:jra:/ wages
/jl/ /bijli/ lightning

Trill + stop/nasal/fricative/affricate/approximant:
/rb/ /durbol/ weak
/rt/ /pa:rti/ party
/rd/ /ha:rdi/ bone
/rk/ /ča:rkol/ coal
/rɡ/ /murgi/ hen
/rth/ /pa:ṛthəna:/ prayer
/rkh/  /bérkhn/  rain
/rm/  /dhærmo/  religion
/rn/  /pha:rnisa:r/  furniture
/rs/  /kursi/  chair
/rč/  /mirča:/  chilli
/rj/  /dorja:/  door
/rw/  /dorwa:ja:/  door

Lateral + stop/nasal/fricative :
/lp/  /jolpa:n/  snacks
/lt/  /ba:ltiŋ/  bucket
/lɗ/  /joldi/  fast
/lk/  /ha:lka:/  light
/lm/  /a:lma:ri/  cupboard
/lš/  /a:lši/  lazy

Approximant + stop/nasal/fricative/lateral :
/yk/  /mayki/  female
/yn/  /ma:ynaː/  month
/ys/  /pa:yse/  got, met
/yl/  /koylaː/  coal

4.9.3 Geminates

It is a cluster of two identical adjacent segments of a sound in a single morpheme. In Nagamese, only the unaspirated stops,
the affricate, the nasals, and the laterals form geminates. Geminates occur only in the medial position in Nagamese.

<table>
<thead>
<tr>
<th>Consonant Cluster</th>
<th>Example</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/bb/</td>
<td>/nobboi/</td>
<td>ninety</td>
</tr>
<tr>
<td>/tt/</td>
<td>/pa:tta:/</td>
<td>leaf</td>
</tr>
<tr>
<td>/kk/</td>
<td>/əkka:/</td>
<td>the ace of cards</td>
</tr>
<tr>
<td>/jj/</td>
<td>/uʃjol/</td>
<td>bright</td>
</tr>
<tr>
<td>/mm/</td>
<td>/a:mma:/</td>
<td>mother</td>
</tr>
<tr>
<td>/nn/</td>
<td>/unnoti/</td>
<td>progress</td>
</tr>
<tr>
<td>/ll/</td>
<td>/billli/</td>
<td>cat</td>
</tr>
</tbody>
</table>

4.9.4 Final clusters

A small number of two consonants occur in the final position of a word in Nagamese. Most of the consonants which occur in the final cluster do not occur in the word initial position. The only exception, we found, is the cluster /st/ which occur in the initial position as in /student/ “student” as well as in the final position. Interestingly, most of the words, where the final cluster occurs are the loan words from English. The following are the examples of words having final consonant cluster.
4.9.5 Three Consonant Sequences

A very small number of three consonant sequences occur only in the medial position. The first member is either a voiceless stop or a nasal. The only exception one could find is /s/ as in /histri/ "History". The second member in a -ccc- structure is usually a stop again having an exception /s/ in a word like /inspektor/ "Inspector". The third member is always a trill except in the above cited example.

/ktr/ iektres/ actress
/ndr/ pondra/ fifteen
/ntr/ untris/ twenty nine

From the above discussion on various consonant clusters and sequences, it becomes clear that Nagamese is very rich as
far as the medial two consonant sequences are concerned. In fact, medial sequences that could occur in this language are highest in number, followed by initial and final consonant clusters.

4.10 Supra-Segmental Features

4.10.1 Stress

The primary stress, written / ' / usually falls either in the first syllable or in the second in the Nagamese words. In fact, the primary stress falls in the first syllable of monosyllabic words and also in disyllabic words if they are open ended.

/ba:lti/ bucket
/ba:ro/ twelve
/gûnda:/ rascal
/â:m/ mango

In closed syllable, the primary stress falls in the last syllable if the words are not monosyllabic and the weak stress, unmarked in writing, falls in the first syllable.

/na:khûn/ nail
/kæmûr/ back
/bærkhûn/ rain
/kubudûr/ pigeon
When there is a diphthong in the word, the diphthong takes the primary stress as in the following words:

/spaːider/ spider
/gaːuri/ pig
/maːina:/ month

4.10.2 Junctures

The open juncture /+/ always coincides with morpheme boundaries in Nagamese.

/aːmikhaːn/ /aːmi + khaːn/ we
/čokraː khaːnke saːbi/ /čokra + khaːn + ke + saːbi/ look at the boys

The occurrence of open juncture depends on the speed of delivery of the speech. Frequent occurrences of open juncture is found in slow reading than in normal speech and in fast conversation its frequency is very low.

4.10.3 Intonation

A two way distinction is found in Nagamese as far as intonation pattern of utterances is concerned. They are high and low. High is marked as /ität/ while low is shown as /łat/. High intonation is used in Nagamese for questioning and here the vowel in the final syllable is pronounced very long.
/dukh la:gi a:se↑/ Are you tired?
/tai morkha:n lokot a:hi a:se ↑/ Is he coming with us?

Low intonation /↓/ in Nagamese is used for making a statement and the quality of the vowel does not change at all.
/dukh la:gi a:se ↓/ You are tired.
/tai morkha:n lokot a:hi a:se↓/ He is coming with us.

4.11 Morphophonemics

It refers to the analysis and classification of the phonological factors which affect the appearance of morphemes, or, correspondingly, the grammatical factors which affect the appearance of phonemes. In other words, the accounting for of the phonological variations in the allomorphs of a morpheme constitutes the morphophonemics or *Sandhi* of the language. The term *Sandhi* has come from Sanskrit meaning 'joining'. *Sandhi* forms are forms which have undergone specific modifications in specific circumstances.

In languages where *Sandhi* forms are complex, a distinction is made between External Sandhi and Internal Sandhi. In internal *Sandhi*, the rules operate within the words and hence, variations are confined to the arrangement of morphemes within
a word. On the other hand, the variations are extended to arrangements of words within phrases, clauses or sentences in the case of external Sandhi and the rules operate across word boundaries.

4.11.1 Phonologically Conditioned Changes

(i) Although /k/ and /g/ are separate phonemes, yet both sometimes function like the allophone of the other. They are phonemic free variants in syllable initial position.

/ka:ɾni/ ~ /ga:ɾni/ for
/kola:/ ~ /gola:/ ring well

(ii) Two vowels of the same quality can not occur in two consecutive syllables, in which case, one of them, generally the second one is dropped or a consonant is inserted between the two vowels.

/na:/ + /a:ɦibo/ → /na:ɦibo/
neg. come Fu not come Fu will not come

/ča:/ + /a:ɦibo/ → /ča:h a:ɦibo/
tea bring Fu tea bring Fu will bring tea

4.11.2 Morphologically conditioned changes

(i) /te/ and /de/ are allomorphs of the same morpheme for the indication of location as well as the locative case marker. /te/
occurs with the bases ending in a voiceless consonant, and /de/
occurs with the bases ending in a voiced segment.

/a:ka:s-te/ in the sky
/ba:ja:r-de/ in the market

(ii) /k/ changes to /g/, if it is immediately followed by /g/ or /gh/

/da:k/ + /ghor/ → /da:gghor/
mail house post office

mail cart mail coach

(iii) /dh/ is optionally replaced by /d/ when followed by /d/ or /u/

/budhba:r/ → /budba:r/
Wednesday

/dhuniya:/ → /duniya:/
beautiful

4.11.3 External Sandhi

(i) The first syllable of a final disyllabic phrase is dropped in a sentence.

/a:pi/ + /la:ga/ → /a:pi:la/
you belong your

/na:/ + /pa:wa:/ → /na:pa:
not getting

(ii) The final /ər/ of a noun/noun phrase is dropped when followed by a post position in a sentence.

/rum/ + /ər/ + /bhitore/ → /rumbhitorde/
room of inside in the room
/tebul/ + /ər/ + /əpərde/ → /tebuləpərde/

table of on on the table

4.11.4 Internal Sandhi

(i) An /i/ is added before borrowed (English) words beginning with a consonant cluster having /s/ as the first member of the cluster.

/skul/ → /iskul/ school
/steson/ → /isteson/ station

(ii) The last consonant of the final consonant cluster is dropped from the borrowed Hindi/English words.

/dost/ → /dos/ friend
/post/ → /pos/ pillar
/lem/ → /lem/ lamp

(iii) The medial consonant sequence of /str/ is broken by inserting an /i/ between /st/ and /r/.

/mistri/ → /mistiri/ carpenter
/histri/ → /histiri/ history
/istri/ → /istiri/ iron