

Chapter-IV

Names of Ethno-plants in Bodo and its Lexical Structure

4.1 Phonological Structure:

David Crystal defines Phonology as a branch of Linguistics which studies the sound systems of languages.²⁷ Each language has peculiarities regarding the sound system. In Bodo language, there are 6 vowels and 16 consonant phonemes. The vowel phonemes are as follows- /i/, /u/, /e/, /ɔ/ and /a/. The consonant phonemes are /p^h/, /b/, /t^h/, /d/, /k^h/, /g/, /m/, /n/, /ŋ/, /s/, /z/, /h/, /r/, /l/, /w/, and /j/ respectively.

Here, analysis is made on the uses of diphthongs, in Ethnobotanical terms of the Bodo language. Moreover, Phonemic changes occurred in Ethnobotanical terms, borrowed to the Bodo language has been highlighted.

4.1.1 Diphthong:

According to David Crystal, Diphthong is a term used in the phonetic classification of vowel sounds on the basis of their manner of articulation.²⁸ In Bodo language, there are 8 Diphthongs. They are as follows- /iu/, /eu/, /ai/, /au/, /oi/, /ui/, /uii/, /uu/. In some Ethnobotanical terms of the Bodo language, there are uses of Diphthongs.

e.g.

/ai/- /t^haik^ha/ (*Garcinia cowa*), /mai/ (*Oryza sativa*) /mewai/ (*Phyllostachys edulis*),

/au/- /lau/ (*Lagenaria siceraria*), /kausəŋ/ (*Ipomoea*), /sit^hauna/ (*Alstonia scholaris*)

/ui/- /muit^ha/ (*Hibiscus sabdariffa*), /muip^hrai (*basella alba*), /muirat^hik^hi (*Sonchus arvensis*)

²⁷. Crystal, David. *A First Dictionary of Linguistics and Phonetics*. Great Russell Street London WC1: André Deutsch Limited, Second impression 1983, p.268

²⁸. Ibid., p.113

/uu/- /duusrem/ (*Vitis rependa*), /^haizuu/ (*Mangifera indica*)

There is no uses of Diphthong /iu/, /eu/, /oi/ and /ui/ in Ethnobotanical terms of the Bodo language.

4.1.2 Phonemic changes in borrowed terms associated with Ethno-plants:

A term in comparative and historical linguistics to refer to linguistic forms being taken over by one language or dialect from another; such ‘borrowings’ are usually known as ‘loan words’.²⁹ Generally, borrowing is occurred when languages come into contact each other; no matter whether it is dominant or prestigious language. It takes place to fulfill different necessities of a language in various field such as education, technology etc. Through the borrowing, new terms are introduced in the languages. In the Bodo language a large number of terms are borrow from the different sources. Many of them, used with some phonemic modification and some are used as it is. With regards to the borrowed Ethnobotanical terms, the modification of phoneme is taking place and some of them are used without any phonemic modification. It is to be mentioned that most of the borrowed Ethnobotanical terms are keeping the meaning intake. In the following, analysis is made on Phonemic changes occurred in borrowed Ethnobotanical terms of Bodo.

In adapting the borrowed terms, phonemic changes are take place through the certain phonological processes. Here are the phonological processes utilized in adapting the Ethnobotanical terms from various linguistic sources.

1. **Substitution:** Substitution refers to a phonological process where one phoneme or sound is replaced with another more familiar phoneme. In the Bodo language there is no uses of unaspirated voiceless stop/plosive. Therefore, the borrowed

²⁹. Crystal, David. *A First Dictionary of Linguistics and Phonetics*. Great Russell Street London WC1: André Deutsch Limited, Second impression 1983, p.47

terms with unaspirated voiceless stop/plosive changed into aspirated voiceless stop/plosive in Bodo.

e.g.

zomolakuti(Ass.) > zamalak^hunt^hi(Bodo)

agsita(Ass.) > ag^orsit^ha(Bodo)

tolsi:(Skt.) > t^hul^usi(Bodo)

s^otij^ona(Ass.) > sit^hauna(Bodo)

k^ona xim^olu(Ass.) > k^hana simla(Bodo)

kumura(Ass.) > k^humbra(Bodo)

k^ot^hal(Ass.) > k^hant^hal(Bodo)

In the example, the consonant phoneme k, t which is unaspirated voiceless stop/plosive is replaced to native Phoneme k^h and t^h respectively.

2. **Epenthesis/Insertion:** Epenthesis is a term used in Phonetics and phonology to refer to a type of intrusion, where an extra sound has been inserted medially in a word.³⁰ In borrowed Ethnobotanical terms, there is an insertion of vowel and consonant Phoneme.

e.g.

agsita(Ass.) > ag^orsit^ha > agursit^ha(Bodo)

tolsi:(Skt.) > t^hul^usi(Bodo)

dimru(Ass.) > adumbra(Bodo)

In terms of the word /ag^orsit^ha/ and /t^hul^usi/ the Vowel and Consonant Phonemes are inserted medially in the word. But in the term /adumbra/, the vowel phoneme/a/ is added in beginning of the word. In linguistic, adding a sound or a syllable at the beginning of the word is called Prothesis.³¹ It is to be mentioned that in the term /adumbra/, a consonant phoneme /b/ is inserted in the middle of the word. Here, a

³⁰. Crystal, David. *A First Dictionary of Linguistics and Phonetics*. Great Russell Street London WC1: André Deutsch Limited, Second impression 1983, p.132

³¹ [http://en.m.wikipedia.org/wiki/Prothesis_\(linguistics\)](http://en.m.wikipedia.org/wiki/Prothesis_(linguistics))

partial contiguous progressive assimilation also taking place. Insertion of voiced bilabial plosive /b/ is emerged because of the influence of voiced bilabial nasal sound /m/.

- 3. Elision/Deletion:** It is one of the phonological processes across the languages, where a phoneme or sound is completely removed from the word. This process of deletion is taking place in adapting the Ethnobotanical term into Bodo language.

e.g

ɔgɔra(Ass.)>ɔgra(Bodo)

Here, in the example, the /ɔ/ Phoneme is deleted in Bodo and a consonant cluster i.e. /gr/ is emerge in the same.

- 4. Assimilation:** Assimilation is a general term in Phonetics which refers to the influence exercised by one sound segment upon the ARTICULATION of another, so that the sounds become more alike, or identical.³² In Borrowed Ethnobotanical terms, there is an occurrence of the vowel assimilation and consonant assimilation as well.

e.g.

gɔŋgamala(Ass.)>gɔŋgamala(Bodo)

d̄imru(Ass.)>d̄umru (dialect)

lɔp^ha(Ass.)>lɔp^ha(Bodo)

kɔna ximɔlɔ(Ass.)> k^hana simlɔ(Bodo)

kumura(Ass.)>k^humbra(Bodo)

d̄imru(Ass.)>d̄umbru(dialect)

³² Crystal, David. *A First Dictionary of Linguistics and Phonetics*. Great Russell Street London WC1: André Deutsch Limited, Second impression 1983, p.35

In the above examples, it is observed that, in the terms /*gaŋgamala*/ /*dumru*/ /*lap^ha*/ and /*k^hana simla*/, non-contiguous regressive vowel assimilation is taking place. So, with regards the term, /*gaŋgamala*/, /*lap^ha*/ and /*k^hana simla*/ the middle, back rounded phoneme /ɔ/ is replaced with the lower, central, unrounded Phoneme /a/ in Bodo. Likewise, in terms of the word /*dumru*/, the high, front unrounded phoneme /i/ is replaced with the high, back rounded phoneme /u/ in Bodo. It is worth mentioning that, in the compounding term /*k^hana simla*/ again progressive non-contiguous vowel assimilation is occurred. The high, back rounded phoneme /u/ of the word /*ximɔlu*/ is influenced by the lower, central, unrounded Phoneme /a/ of the first word /*kɔna*/.

The terms /*k^humbra*/ and /*dumbru*/ are the examples of partial contiguous progressive consonant assimilation. Here, in terms of /*k^humbra*/, voiced bilabial nasal /m/ is influenced the high, back, rounded phoneme /u/ and it becomes voiced bilabial plosive /b/. Likewise, regarding the term /*dumbru*/, an insertion of voiced bilabial plosive /b/ is takes place because of the influenced of voiced bilabial nasal /m/.

4.2 Lexical structure:

Morphology is the study of word formation, including the ways new words are coined in the language of the world, and the way forms of words are varied depending on how they're used in sentences.³³ In Bodo language there are four major linguistic processes in the formation of word. They are Inflection, Derivation, Compounding and Reduplication. Here, analysis will be made on compounding of Ethnobotanical terms of the Bodo language.

4.2.1 Compounding:

Compounding is a process of forming a new word by combining two or more roots, bases, or stems. To identify the compound words several criteria is to be noted. Spelling is one of them. It is found varied in different languages. In English, spelling is

³³. Lieber, Rochelle. *Introducing Morphology*. Cambridge CB2 8BS, United Kingdom: University of printing house, 2016, Second edition, p.2

no help at all; unlike German, where compounds are always written as one word, in English there is no fixed way to spell a compound word. Some, like greenhouse, are written as one word, others like dog bed, as two words, and still others, like producer-director are written with a hyphen between the two bases.³⁴ Like English, the same thing is applied in the Bodo language in regards to the spelling. e.g. *samɔlaot^{hi}*, *burit^hɔk^hɔn* are written as one word, in two words *ɔnt^hai bazab*, *singri muik^{hi}* and some like *sa-sanza*, *k^huirum-duirum* are given hyphen between the two words. Stress is one another criterion of compound. In Bodo, the placement of the stress occupied in both left and right bases. e.g. In the word *dɔŋp^haŋ rak^heb*, *p^hat^hui laori*, the stress is placed in first or left hand base and in the word *daok^ha k^hamp^hlai*, *samɔlaot^{hi}*, the stress is occupied in the right base.

The compound words can be classified in a semantic and structural point of view. A common semantic classification of compounds yields four types, namely Endocentric, Exocentric, Copulative and Appositional.³⁵ In a structural point view, compound words are sub-group in several different classes namely, Noun-Noun, Adjective-Noun, Verb-Noun, Noun-Verb, Verb-Verb, etc.³⁶

The Compounds in Bodo language are also sub-grouped into the same four classes from the semantic points of view; and, at least into eleven subtypes from the structural point of view, namely, Pronoun-Noun Compound, Verb-Verb Compound, Noun-Noun Compound Noun-Noun-Noun Compound, Noun-Verb Compound, Noun Adjective Compound, Verb-Adjective Compound, Verb-Noun Compound, Noun-Onomatopoeia Compound, Noun-Noun-Verb Compound, Noun-Noun-Verb Compound and Noun-Verb-Adverbial Suffix Compound. Of them, the first three structures are very much

³⁴. Lieber, Rochelle. *Introducing Morphology*. Cambridge CB2 8BS, United Kingdom: University of printing house, 2016, Second edition, p. 49

³⁵. [https://en.m.wikipedia.org/wiki/Compound_\(linguistics\)](https://en.m.wikipedia.org/wiki/Compound_(linguistics))

³⁶. Brahma, Aleendra. "Compounding in Bodo." *Language in India: Strength for Today and Bright Hope for Tomorrow* 13:2 (February, 2013):15-23

productive whereas the last two structures are very much rare.³⁷ Madhu Ram Baro, classified the compound of Bodo language in a six categories. They are- Copulative compound, Relative Compound, Determinative Compound, Appositional Compound, Numeral Compound and Indeclinable Compound.³⁸

4.2.2 Compounding of terms associated with Ethno-plants used in Bodo language:

In Bodo language, Compounding is one of the primary morphological processes in constructing the new words. A large number of Ethnobotanical terms of the Bodo language are found combined with two free bases. Here, the Ethnobotanical terms of the Bodo language are discussed below with semantic and structural point of views.

4.2.2.1 Semantic Connotation:

In regards to the names of ethno-plants used in Bodo language, only endocentric and exocentric compounds are found. In endocentric compound the head do exist inside the compound. It is a grammatical construction where one of the constituents i.e. head defines the referent of the compound. On the other hand, exocentric compound is opponent to the endocentric compound. In exocentric compound, none of the constituents co-relates to the meaning of the compound.

Endocentric Compound:

Some example may be given below:

dɔŋp^haŋ(tree)+rak^heb(stiff)=dɔŋp^haŋ rak^heb (Scoparia dulcis)

gɔj(betel nut)+dɔdere(lovely)=gɔj dɔdere(A kind of Betel nut)

p^hat^hui(betel leaf)+laori(long in size)=p^hat^hui laori (A kind of Betel Leaf)

muit^ha(roselle)+guza(red)=muit^ha guza(Hibiscus acetosella)

t^hasɔ(taro)+gusum(black)=t^haso gusum(Colocasia esculenta)

k^hip^hi(fart)+bendwŋ(creeper)=k^hip^hi bendwŋ(Paederia foetida)

³⁷. Brahma, Aleendra. "Compounding in Bodo." *Language in India: Strengh for Today and Bright Hope for Tomorrow* 13:2 (February, 2013):15-23

³⁸. Baro, Madhu Ram. *Gwjwo Raokhanthi*. Hajo, Kamrup: Priyadini Brahma, 1996, p.110

In the above examples, *dəŋp^haŋ rak^heb*, *gɔi dɔdere*, *p^hathui laori*, *muit^a guza*, *t^hasɔ gusum* are the right branching where the non-head i.e. *rak^heb*, *laori*, *guza*, *gusum* plays the role of modifier of the head. On the other hand, the word *k^hip^hi benduŋ* is a left branching i.e. made of two different terms ‘*k^hip^hi*’ and ‘*benduŋ*’. Traditionally it is used as modifier to the head.

Exocentric Compound:

In this regard some of the examples may be mentioned below:

daɔ(bird)+p^henda(thigh)=daɔ p^henda

daɔ(bird)+mewai=daɔmewai

muk^hra(monkey)+asi(finger)=muk^hra asi(Mimosa pudica)

zɔlɔŋga(bag)+bant^hu(top part)=zɔlɔŋga bant^hu (Spaeranthus indicus)

maozi(cat)+k^huma(ear)=maozi k^huma

musuu(cow)+k^humun(fur)=musuu k^humun

nasrai(a kind of fish)+k^hɔrɔ(head)=nasrai k^hɔrɔ(Euphorbia tithymaloides)

na(fish)+bik^ha>bik^hi(heart)=nabik^hi

daosri(a kind of bird)+at^hiŋ(leg)=daosri at^hiŋ(Hedyotis diffusa)

daok^ha(crow)+k^hamp^haj(a kind of traditional stool)=daok^ha k^hamplaj(Trichosanthes pilosa)

guma(grasshopper)+atha(glue)=guma atha(Euphorbia hirta)

mat^hi(soil)+galdab(large in size)=mat^hi galdab(Prema herbacea)

haŋsu(duck)+ap^ha(foot palm)=haŋsu ap^ha(Portulaca oleracea)

burma(goat)+dari(beard)=burma dari(Lippia alba)

t^hiŋk^hli(earthen pot)+k^halai(pickings)=t^hiŋk^hli k^halai

buri(old lady)+t^hɔk^hɔn(stick)=burit^hɔk^hɔn (Cheilocostus speciosus)

san(sun)+miziŋ(hope)=san miziŋ(Drimeri)

dao(bird)+gaŋ(wing)+zuula(masculine)=daogaŋzuula(Eclipta prostrate)

4.2.2.2 Structural classification:

Compounding of Nouns relating to the names of ethno-plants:

Some example may be mentioned in this point.

daɔ(bird)+*p^henda*(thigh)=*daɔ p^henda*

daɔ(bird)+*mewai*=*daɔ mewai*

samɔ(snail)+*laot^hi*(stick)=*samɔ laot^hi*(*Pouzolzia hirta*)

k^huma(ear)+*bibar*(flower)=*k^huma bibar*(*Laportea crenulata*)

muit^ha(roselle)+*sik^hla*(a young girl)=*muit^ha sik^hla*(*Persicaria perfoliata*)

muider(elephant)+*sundai*(trunk)=*muider sundai*(*Heliotropium indicum*)

muk^hra(monkey)+*asi*(finger)=*muk^hra asi*(*Mimosa pudica*)

zɔlɔŋga(bag)+*bant^hu*(top part)=*zɔlɔŋga bant^hu*(*Spaeranthus indicus*)

maozi(cat)+*khuma*(ear)=*maozi khuma*

musuu(cow)+*k^humun*(fur)=*musuu k^humun*

goraj(horse)+*salaj*(tongue)=*goraj salaj*(*Rumex crispus*)

nasraj(a kind of fish)+*k^hɔrɔ*(head)=*nasraj k^hɔrɔ*(*Euphorbia tithymaloides*)

daosri+*at^hiŋ*(leg)=*daosri at^hiŋ*(*Hedyotis diffusa*)

daok^ha(crow)+*k^hamp^hai*(a kind of traditional stool)=*daok^ha k^hamp^hlai*(*Trichosanthes pilosa*)

t^halir(banana)=*daok^ha=t^halir daok^ha*(A kind of banana tree)

ɔr(fire)+*zumudui*(saliva)=*ɔr zumudui*(*kalanchoe pinnata*)

Compounding of Noun and Adjective as related to the names of ethno-plants:

A few examples are given below.

muit^ha(roselle)+*guza*(red)=*muit^ha guza*(*Cranberry hibiscus*)

t^hasɔ(taro)+*gusum*(black)=*t^haso gusum*(A kind of Taro)

k^hat^hri+*gusum*(black)=*k^hat^hri gusum* (*Cucuma caesia*)

samt^hai(a kind of grass)+*ult^ha*(reverse)=*samt^hai ult^ha*(*Achyranthes aspera*)

gɔj(betel nut)+*dɔdere*(lovely)=*gɔj dɔdere* (A kind of betel nut)

p^hat^hui(betel leaf)+*laori*(long in size)=*p^hat^hui laori*(A kind of betel leaf)

p^hat^hui(betel leaf)+*aoni*(lunatic)=*p^hat^hui aoni* (A kind of betel leaf)

dɔŋp^haŋ(tree)+rak^heb(stiff)=dɔŋp^haŋ rak^heb (Scoparia dulcis)

besɔr(mustard plant)+daba(alternative)=besɔr daba

t^halir(banana)+hait^ha(short in size)=t^halir hait^ha(A kind of banana tree)

Compounding of Adjective and Noun associated to the names of ethno-plants:

A few examples are given below.

zaolija(lunatic)+bendunŋ(creeper)=zaolija bendunŋ

p^hadub(mildly bitter)+bip^haŋ(tree)=p^hadum bip^haŋ

Compounding of Noun and Verb associated to the names of ethno-plants:

Some examples are given below.

ɔnt^hai(stone)+bazab(stick)=ɔnt^hai bazab(Lippia alba)

daok^hi(poop of bird)+siliŋ(split)=daok^hi siliŋ(Acmella Radicans)

daosa(chick)+muk^hreb(blink)=daosa muk^hreb (Mimosa pudica)

ɔr(fire)+k^ham(burn)=ɔrk^ham(kalanchoe pinnata)

Compounding of Verb and Noun associated to the names of ethno-plants:

e.g.

k^hip^hi(fart)+bendunŋ(creeper)=k^hip^hi bendunŋ(Paederia foetida)

Compounding of Pronoun and Noun associated to the names of ethno-plants:

e.g.

duini(of water)+besɔr(mustard)=duini besɔr (Nasturtium officinale)

Compounding of Noun-Noun-Noun associated to the names of ethno-plants:

e.g.

dao(bird)+gaŋ(wing)+zwla(masculine)=daogaŋzwla(Eclipta prostrate)

Compounding of Bound Noun+Bound Noun associated to the names of ethno-plants:

e.g.

$t^h ai + lir = t^h ailir > t^h alir$ (*Musa*)

$t^h ai + zuu = t^h aizuu$ (*Magifera indica*)

$t^h ai + be\eta = t^h aibe\eta$ (*Cucumis sativus*) (*standard language*)

$t^h ai + sum = t^h aisum$ (*Cucumis sativas*) (*dialect*)

$t^h ai + k^h a = t^h aik^h a$ (*Garcinia cowa*)

$t^h ai + suri = t^h aisuri$ (*Spondias pinnata*)

$t^h ai + gir = t^h aigir$ (*Dillenis indica*)

In regards to the names of ethno-plants of the Bodos a combination of two bound bases are found. Here, each of the compounding bases doesn't have independent meaning of its own. In Bodo, 't^hai' is a bound base, which represent any kind of fruit and it combines with another bound base to represent a particular fruit. Moreover, 't^hai' is used as a form of root, which means 'to fruit'. e.g. p^hi (prefix)+t^hai (to fruit)= p^hit^hai (Fruit)

In the above discussion, it is observed that most of the names of ethno-plants are known by the native words which are common in the Bodo language. The compound words are combined with two native terms of the Bodo. Worth mentioning that, some of the names of ethno-plants of the Bodo language are found hybridized. Regarding the term 'Hybrid' David Crystal remarks that, 'In historical linguistics, a word composed of elements from different languages. An example of a hybrid term ('a hybrid') is television, which comprises elements from both Latin and Greek.'³⁹ Hybridized compound is a combination of two meaningful words from different languages. It is seen that, in regards to the ethnic terms of ethno-plants as used in the Bodo language, Assamese words are combined with the Bodo language.

³⁹. Crystal, David. *A Dictionary of Linguistics and Phonetics*. 350 Main Malden, MA 02148-5020, USA: Blackwell Publishing Ltd., 2008, sixth edition, p.232

e.g

mat^{hi}(soil)+galdab(flat)=mat^{hi} galdab(Premna herbacea Roxb.)

haṅsu(duck)+ap^ha(foot palm)=haṅsu ap^ha(Portulaca oleracea)

burma(goat)+dari(beard)=burma dari(Lippia alba)

t^hiŋk^hli(earthen pot)+k^halai(pickings)=t^hiŋk^hli k^halai

k^huma(ear)+bibar(flower)=k^huma bibar(Laportea crenulata)

guma(grasshopper)+at^ha(glue)=guma at^ha(Euphorbia hirta)

sila(eagle)+asigur(nail)=sila asigur(Smilax perfoliata)

gɔraj(horse)+salai(tongue)=gɔraj salaj(Rumex crispus)

The word ‘*mat^{hi}*’ is derived from the Sauraseni Prakrit word ‘*maṭṭī*’ and the Sanskrit word ‘*mṛttikā*’ via Assamese language.⁴⁰ In the Assamese, the word ‘*mati*’ defines the soil. Similarly, the word ‘*haṅsu*’ is inherited from the Sanskrit word ‘*hans*’ which means ‘swan’. It is also borrowed via Assamese language. But, in Assamese and Bodo language the actual meaning of the species is changed. The Assamese word ‘*hāh*’ and Bodo word ‘*haṅsu*’ defines the meaning of duck. It is to be noted that the two species are from the same biological family.

The origin of the word ‘*dari*’ is Urdu. It is borrowed via the Hindi and the Assamese languages.

The word ‘*t^hiŋk^hli*’ is derived from the Assamese word ‘*tekeli*’ which means earthen pot. The word ‘*k^huma*’ also derived from the Assamese word ‘*kan*’. The words ‘*at^ha*’ and ‘*sila*’ are borrowed into the Bodo from the Assamese language without any morphological changes.

Moreover, the word ‘*gɔraj*’ is borrowed from the Assamese word ‘*ghūra*’. Etymologically the word ‘*ghūra*’ is derived from Proto-Dravirian word ‘*ghoṭaka*’⁴¹.

⁴⁰. <http://en.m.wiktionary.org/wiki/माटी>

⁴¹. <http://en.m.wiktionary.org/wiki/घोड़ा>