

Phonology of Dooars Sadri

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Abstract

Sadri is a regional koine that originated in the Chotanagpur region for communication between the different tribes known as *Adivasis* belonging to diverse ethno-linguistic groups residing in the region. At present, Sadri is used as a *lingua franca* by the different tribal populations in Eastern and Central India. It is also used in the tea estates of Assam and North Bengal. The establishment of tea plantations in Assam and North Bengal in the early 19th century required a large labor force that encouraged 'indentured migration' of diverse ethnic and linguistic groups, such as the Oraon, Kharia, Mundari, Santali, Nageshia, Mal Paharia, Lohara, and others to these tea estates. These tribes used Sadri for intercommunication, and eventually Sadri replaced their own varieties. This paper attempts to analyze the phonology of a variety of Sadri spoken in the tea estates of North Bengal (popularly known as the Dooars region). The Dooars region is also home to various other linguistic communities like Bengali, Rajbangshi, Lepcha, Nepali, Bodo, Rabha, and Toto. So in this paper, we would like to examine whether Dooars Sadri resembles the Sadri variety spoken elsewhere or shows any divergence as a result of contact with other languages existing in this region, especially Bengali, the state's dominant language.

Keywords: Phonology, Phonotactics, Sadri, Dooars, Koine

1. Introduction

This paper presents a discussion on the phonology of a variety of Sadri spoken in the tea estates of North Bengal (popularly known as the Dooars region). Sadri emerged as a contact language for communication among the different tribal (*Adivasi*) populations in the Chotanagpur plateau. At present, it is used as a *lingua franca* by the different tribal (*Adivasi*) populations in Eastern and Central India. There are different theories regarding the origin of Sadri. Sadri has been documented as a variety of Bhojpuri by many Western scholars (Grierson, 1903; Jordan-Horstmann, 1969). Nowrangi (1965) asserts that the term 'Sadan' is derived from Old-Indo Aryan *niṣāda* (ethnic group). Sadri has often been identified with Nagpuri, named after the region where it is spoken. There is a

consensus among scholars that Sadri emerged as a result of contact between various Eastern Indo-Aryan languages (Kiran, 2003; Laskar and Sarfaraj, 2020; Sarfaraj, 2022).

1.1 Sadri in Dooars region

Tea plantations in Assam were introduced by the British in 1837. The success of the tea industry in Assam prompted the British to expand the tea plantation economy to other parts of the country. Between 1839 and 1874, the British Raj initiated tea plantations in three regions of North Bengal, namely Darjeeling, the Terai, and the Dooars region (Sunder, 1895; Banerjee, 1996; Barua, 2008; Sarfaraj, 2022). The tea plantations in the Dooars region are spread across the districts of Jalpaiguri, Malbazar, and Alipurduar. These regions were dense jungles with very sparse populations. The tea plantations demanded a large amount of labor, so masses of tribal people, commonly referred to as ‘advasis,’ were brought in predominantly from the Chotanagpur area (covering provinces of modern Bihar, Jharkhand, Bengal, Odisha, and Chhattisgarh). This tribal population comprised various ethnic and linguistic groups, such as the Oraon, Kharia, Mundari, Santali, Nageshia, Mal Paharia, Lohara, Mahali, and Chik Baraik (Bhowmick, 1981; Laskar and Sarfaraj, 2020; Sarfaraj, 2022). The Dooars region is also home to various other linguistic communities like the Bengali, Rajbangshi, Lepcha, Nepali, Bodo, Rabha, and Toto. Bengali is the dominant language and the official language of the state. The implanted populations in Dooars came with their own distinct languages and cultures. Sadri served as a *lingua franca* among these tribal populations. Over time Sadri replaced the languages of these tribes (Laskar and Sarfaraj, 2020; Sarfaraj, 2022). We refer to the Sadri spoken in the Dooars region as Dooars Sadri (henceforth DS). Since Bengali is one of the official languages and the dominant language of the state of West Bengal, Dooars Sadri speakers in this region use Bengali for any communication outside their own tea community.

1.1.1 Data and Methodology

This study is based on 50 hours of natural data gathered from 60 Sadri speakers aged 5 to 85 in the tea estates of the Jalpaiguri and Alipurduar districts in the Dooars region. The data was gathered utilizing ‘sociolinguistic interviews’ and ‘participant observations’ following the Labovian paradigm (Labov, 1984; Feagin, 2002; Laskar, 2003, 2012). Sociolinguistic interview, introduced by William Labov, is used in speech community studies and is not a conventional interview. This method involves ‘one-on-one tape recorded conversational interview’ (Feagin 2002: 26). Such interviews enable elicitation of natural speech (vernacular) in natural settings by overcoming the “observer’s paradox” (Labov, 1984; Laskar, 2003; 2012; Khushboo and Laskar, 2025).

2. Phonology of Dooars Sadri

This section presents a discussion of the phonology of Sadri spoken in the Dooars region of West Bengal. The vowels, consonants, and the phonotactics of Dooars Sadri (henceforth

DS) are analyzed. The objectives of this paper are to determine: (1) whether Dooars Sadri shows more affinity with Bhojpuri, from which it emerged; (2) if Dooars Sadri has borrowed phonological features from Bengali with which it is in contact in Dooars region, where our study is conducted; and (3) if DS shows any divergence from other Sadri varieties spoken elsewhere.

2.1 Vowels in Dooars Sadri

Dooars Sadri (DS) has seven vowels /i, e, ə, a u, o, ɔ/ as shown in table 1. All vowels in DS are voiced. Vowels in DS exhibit three-way contrasts: front, central and back. There are two front vowels (i, e), two central vowels (ə, a) and three back vowels (u, o, ɔ) in DS. The vowels can also be divided based on tongue-height- high, mid and low. Vowel length distinction does not prove significant in DS (Sarfaraj, 2022).

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

Table 1. Vowels in Dooars Sadri

2.1.1 Distribution of vowels in Dooars Sadri

A discussion on the distribution of the vowels in Dooars Sadri is provided in this section. It describes the environments where the seven vowels /i, e, ə, a u, o, ɔ/ occur in Dooars Sadri.

/i/ (high front unrounded vowel)

The high front vowel /i/ can occur in the word-initial, medial, and final positions in Dooar Sadri. The vowel /i/ occur in the initial position in DS words, as shown in examples (1) – (2). This vowel /i/ can also occur in the medial position, as in examples (3) – (5) and in the word final position, as in (6) – (8).

- | | |
|---------------------------|--------------------|
| (1) /ibəʈe/ | ‘this way’ |
| (2) /ig ^h re/ | ‘here’ |
| (3) /tin/ | ‘three’ |
| (4) /hãɽiya/ | ‘local wine’ |
| (5) /t ^h ika/ | ‘contract’ |
| (6) /tʃ ^h uɽi/ | ‘girl’ |
| (7) /t ^h ori/ | ‘little, very few’ |
| (8) /ləkɽi/ | ‘wood’ |

/e/ (mid front unrounded vowel)

The mid-front unrounded vowel /e/ appears in all three phonological environments in Dooar Sadri. Examples (9) and (10) demonstrate /e/ in the word-initial position. The vowel also occurs medially, as shown in (11)–(13), and finally, as illustrated in (14)–(15).

- | | | |
|------|-----------------------|---------------|
| (9) | /egəra/ | ‘eleven’ |
| (10) | /ek/ | ‘one’ |
| (11) | /lebar/ | ‘labour’ |
| (12) | /ketʃal/ | ‘quarrel’ |
| (13) | /dek ^h ek/ | ‘to see’ |
| (14) | /ahe/ | ‘be’ |
| (15) | /naik ^{he} / | ‘do not have’ |

/ə/ (mid central vowel)

In Dooars Sadri, the mid central vowel /ə/ prevails in the initial position in words, as in (16) and the word medial position, as shown in (17) - (18). No instances of /ə/ in the word final position were found in our data. Our data suggests that /ə/ is more common word medially.

- | | | |
|------|----------|----------|
| (16) | /əpan/ | ‘self’ |
| (17) | /dʒəntu/ | ‘animal’ |
| (18) | /nədi/ | ‘river’ |

/a/ (low central unrounded vowel)

The low central unrounded vowel /a/ exists in all the three environments in DS words. Examples (19) – (21) exhibit the occurrences of /a/ in the word initial position, whereas (22) – (24) demonstrate the presence of /a/ in the medial position. It occurs in the word final position in (25) – (26).

- | | | |
|------|-----------------------|----------------|
| (19) | /ajo/ | ‘mother’ |
| (20) | /admi/ | ‘man’ |
| (21) | /ahe/ | ‘be’ |
| (22) | /bagən/ | ‘garden’ |
| (23) | /maʃi/ | ‘soil’ |
| (24) | /b ^h at/ | ‘steamed rice’ |
| (25) | /tʃ ^h uja/ | ‘boy’ |
| (26) | /məsla/ | ‘spice’ |

/u/ (high back rounded vowel)

Dooars Sadri have high back round vowel /u/ that appears in the three environments. In (27) – (29), the vowel /u/ is found in the word initial position, whereas in (30) - (31), it

appears in the word medial position. There are also instances where /u/ occurs in the final position in DS words, as in (32) – (33).

(27)	/umən/	‘they’
(28)	/ugo/	‘that’
(29)	/upre/	‘above’
(30)	/g ^h ungi/	‘snail’
(31)	/luga /	‘cloth’
(32)	/dʒəntu/	‘animal’
(33)	/gohu/	‘wheat’

/o/ (mid back rounded vowel)

The occurrence of /o/ is possible in the word initial, medial and final position in DS. However, the prevalence of /o/ in the word initial and final position is not very common in DS.

(34)	/ohe/	‘that one’
(35)	/p ^h oɽuya/	‘spade’
(36)	/moɽa/	‘fat’
(37)	/mor/	‘mine’
(38)	/ego/	‘on’

/ɔ/ (low back rounded vowel)

The low back round vowel /ɔ/ are found only in the initial and medial position in DS as we can see in examples (39) – (42).

(39)	/ɔb ^h ab/	‘scarcity’
(40)	/ɔbost ^h a/	‘situation’
(41)	/sɔb/	‘all’
(42)	/kɔsɽo/	‘pain’

2.1.2 Diphthongs in Dooars Sadri

Diphthongs are complex vowel sounds in which the tongue glides from one position to another to produce a vowel that changes from one sound to another sound. Dooars Sadri has five diphthongs, such as, /aɪ/, /ɔɪ/, /uɪ/, /iə/, /ua/. The diphthong /aɪ/ can occur in the word initial and medial position, as in (43) – (45). The diphthong /ɔɪ/ appear in the word medial position, as shown in (46) – (47). In line with /ɔɪ/, the occurrence of /uɪ/ is predominantly observed in the word medial position as seen in (48) – (50). The diphthongs /iə/ and /ua/ occur in the word final position, as illustrated in (51) – (54).

/aɪ/

(43) /aɪl/ 'came'

(44) /dʒaɪt/ 'caste'

(45) /tʃaɪr/ 'four'

/ɔɪ/

(46) /tʃɔɪr/ 'leave'

(47) /mɔɪr/ 'die'

/uɪ/

(48) /duɪ/ 'two'

(49) /suɪ/ 'listen'

(50) /dʰuɪk/ 'enter'

/iə/

(51) /dʰaniə/ 'corriander'

(52) /hãɽiə/ 'wine'

(53) /kariə/ 'black'

/ua/

(54) /katʰua/ 'tortoise'

2.2 Consonants in Dooar Sadri

There are thirty-two consonants in Dooars Sadri, as shown in table 2 (Sarfaraj, 2022). These consonants are classified on the basis of place of articulation, the manner of articulation and voicing. In the following sections, we will discuss the consonants in Dooars Sadri.

	Bilabial	Dental	Alveolar	Retroflex	Palatal	Velar	Glottal
Plosive	p b p ^h b ^h	t d t ^h d ^h		ʈ ɖ ʈ ^h ɖ ^h		k g k ^h g ^h	
Affricate					tʃ dʒ tʃ ^h dʒ ^h		
Nasal	m		n			ŋ	
Flap			r	ɽ ɽ ^h			
Lateral			l				
Fricative			s z				h
Glide	w				j		

Table 2. Consonants in Dooars Sadri

2.2.1 Distribution of Consonants in Dooar Sadri

The consonants in Dooars Sadri occur in the initial, medial and final positions of a word. However, all the consonants do not occur in the three positions. A detailed description of the distribution of consonants in DS is given below.

/p/ (voiceless unaspirated bilabial stop)

In DS, the voiceless unaspirated bilabial stop /p/ occur in all the three positions in words *viz.* initial, medial and final. The prevalence of /p/ in the word initial position is illustrated in (55)–(56). The consonant /p/ rarely surfaces in the medial position, as in (57). It prevails in the word final position, as shown in example (58).

- | | |
|---------------|-----------|
| (55) /pəkəl/ | ‘ripe’ |
| (56) /poɾuwa/ | ‘student’ |
| (57) /sapan/ | ‘dream’ |
| (58) /sāp/ | ‘snake’ |

/p^h/ (voiceless aspirated bilabial stop)

Unlike /p/, the aspirated counterpart /p^h/ occurs only in the initial position as shown in (59) – (61).

- | | |
|----------------------------|----------|
| (59) /p ^h əras/ | ‘forest’ |
| (60) /p ^h ir/ | ‘again’ |
| (61) /p ^h əl/ | ‘fruit’ |

/b/ (voiced unaspirated bilabial stop)

The voiced unaspirated bilabial stop /b/ can occur in the word initial position as in (62) – (63), word medial (64) and word final position as in (65).

- | | |
|---------------|-----------------------|
| (62) /biha/ | ‘marriage’ |
| (63) /bihan/ | ‘morning’ |
| (64) /dabija/ | ‘sickle’ |
| (65) /dʒib/ | ‘living being/animal’ |

/b^h/ (voiced aspirated bilabial stop)

The voiced aspirated bilabial stop /b^h/ is seen in the word initial and medial position in DS. In examples (66) – (67), we can see the occurrences of /b^h/ in the initial position, whereas in (68), it is in the medial position as part of a consonant cluster.

- | | |
|----------------------------|-------------|
| (66) /b ^h adur/ | ‘bat’ |
| (67) /b ^h uɽi/ | ‘intestine’ |
| (68) /lamb ^h a/ | ‘rabbit’ |

/t/ (voiceless unaspirated dental stop)

The voiceless unaspirated alveolar stop /t/ surfaces in all the three positions in DS. The plosive /t/ appears in the word initial position in (69) – (70). It is observed that in the word medial position, /t/ may occur alone, as in example (71) or as part of a consonant cluster, as in (72). It also appears in the word final position in (73) – (74).

- | | |
|-----------------|--------------|
| (69) /tambku/ | ‘bee’ |
| (70) /tarbudʒa/ | ‘watermelon’ |
| (71) /bilarti/ | ‘tomato’ |
| (72) /binti/ | ‘worship’ |
| (73) /bɔhot/ | ‘many’ |
| (74) /raɪt/ | ‘night’ |

/tʰ/ (voiceless aspirated dental stop)

The voiceless aspirated dental stop /tʰ/ is prevalent in all the three positions in Dooars Sadri words. In example (75), /tʰ/ is in the initial position, whereas in (76) it is in the medial position and in (77), it occurs in the final position.

- | | |
|---------------|--------------|
| (75) /tʰoɽi/ | ‘little/few’ |
| (76) /ha:tʰi/ | ‘elephant’ |
| (77) /sa:tʰ/ | ‘along with’ |

/d/ (voiced unaspirated alveolar stop)

The voiced unaspirated dental stop /d/ also occurs in all environments of a word in DS. The occurrence of /d/ in the initial position is shown in the example (78) and in the medial position as part of clusters in examples (79) – (81). We also find instances where /d/ occurs in the final position as shown in (82) – (83). The stop /d/ may occur as part of a cluster in the word final position as well (see 82).

- | | |
|---------------|--|
| (78) /dusra/ | ‘another’ |
| (79) /bədli/ | ‘replacement’ |
| (80) /badri/ | ‘cloud’ |
| (81) /konda/ | ‘dumb’ |
| (82) /tʃand/ | ‘moon’ |
| (83) /pərsad/ | ‘prasad’ (sweet offered after rituals) |

/d^h/ (voiced aspirated dental stop)

The voiced aspirated dental stop /d^h/ is found in all the three positions in DS words. The occurrence of /d^h/ in the initial position is shown in the examples (84) – (86). It also occurs in the medial position, as in examples (87) – (88) and final position, as illustrated in (89) – (90).

(84) /d ^h an/	‘paddy’
(85) /d ^h obi/	‘washer-man’
(86) /d ^h uti/	‘loincloth’
(87) /mad ^h uras/	‘honey’
(88) /ad ^h a/	‘half’
(89) /bud ^h /	‘Wednesday’
(90) /dʒud ^h /	‘war’

/t/ (voiceless unaspirated retroflex stop)

We have observed the voiceless unaspirated retroflex stop /t/ in our data. It can occur in the three environments in DS. It is in the initial position in examples (91) – (92), in the medial position in (93), and in the final position in examples (94) – (95).

(91) /t̪a̪ka/	‘fresh’
(92) /t̪u̪k̪/	‘broken’
(93) /a̪t̪a/	‘flour’
(94) /a:t̪/	‘eight’
(95) /u̪t̪/	‘camel’

/t^h/ (voiceless aspirated retroflex stop)

The voiceless aspirated retroflex stop /t^h/ can be found in the initial, medial and final position of words in Dooars Sadri. We can see the occurrences of /t^h/ in the word initial position in (96) – (97). It can also occur in the medial position, as in (98) and the word final position as in (99).

(96) /t ^h ik/	‘right/true’
(97) /t ^h ɛŋga/	‘stick’
(98) /mit ^h a/	‘sweet’
(99) /mat ^h /	‘field’

/d/ (voiced unaspirated retroflex stop)

In Dooars Sadri, the voiced unaspirated retroflex stop /d/ occurs in the initial and medial position only. The occurrences of /d/ in the initial position is illustrated in (100) – (101), whereas example (102) – (103) illustrate /d/ in the medial position. There were no instances /d/ in the word final position in our DS data.

- | | | |
|-------|-----------------------------|-----------------------|
| (100) | /dʒt/ | ‘ink’ |
| (101) | /dʒhar/ | ‘road’ |
| (102) | /guɖam/ | ‘storehouse’ |
| (103) | /madʒ ^h erɖabri/ | ‘Majherdabri (place)’ |

/d^h/ (voiced aspirated retroflex stop)

The voiced aspirated retroflex stop /d^h/ occurs in the word initial position only, as exemplified in (104) – (106).

- | | | |
|-------|------------------------|------------|
| (104) | /d ^h akkan/ | ‘lid’ |
| (105) | /d ^h apni/ | ‘lid’ |
| (106) | /d ^h eir/ | ‘abundant’ |

/k/ (voiceless unaspirated velar stop)

The voiceless unaspirated velar stop /k/ appears in all the three environments in words, that is, initial (107) – (108), medial (109) and final (110).

- | | | |
|-------|---------|----------------------|
| (107) | /kail/ | ‘tomorrow/yesterday’ |
| (108) | /kəpar/ | ‘forehead’ |
| (109) | /pəkal/ | ‘ripe’ |
| (110) | /ek/ | ‘one’ |

/k^h/ (voiceless aspirated velar stop)

The aspirated counterpart /k^h/ also shows up in all three positions in a word in Dooars Sadri. /k^h/ is seen in the initial position in (111) – (112). It occurs in the medial position in (113) – (114) and in the word-final position in (115).

- | | | |
|-------|------------------------|-----------|
| (111) | /k ^h əkɽa/ | ‘crab’ |
| (112) | /k ^h əɽtʃa/ | ‘expense’ |
| (113) | /tənk ^h a/ | ‘wage’ |
| (114) | /buk ^h ar/ | ‘fever’ |
| (115) | /aik ^h / | ‘eye’ |

/g/ (voiced unaspirated velar stop)

The voiced unaspirated velar stop /g/ occurs in all three environments, initial, medial, and final, as shown in (116) – (119).

- | | |
|---------------------------|----------|
| (116) /gac ^h / | ‘tree’ |
| (117) /gajɾa/ | ‘rhino’ |
| (118) /suga/ | ‘parrot’ |
| (119) /sɔrg/ | ‘heaven’ |

/g^h/ (voiced aspirated velar stop)

Like /g/, the aspirated velar stop /g^h/ appears in the word initial position, as in (120) – (121), word medial position (122) and in the word final position (123).

- | | |
|----------------------------|---------|
| (120)/g ^h ungi/ | ‘snail’ |
| (121)/g ^h aɾa/ | ‘horse’ |
| (122)/ig ^h re/ | ‘here’ |
| (123)/bag ^h / | ‘tiger’ |

/tʃ/ (voiceless unaspirated palatal affricate)

In DS, the voiceless unaspirated palatal affricate /tʃ/ can be used in all the three environments in words i.e. initial, medial and final. /tʃ/ is visible in the word initial position in (124) – (125), in the medial position in (126) and in the final position in (127).

- | | |
|---------------|------------|
| (124)/tʃini/ | ‘sugar’ |
| (125)/tʃaur/ | ‘rice’ |
| (126)/bitʃar/ | ‘judgment’ |
| (127)/satʃ/ | ‘truth’ |

/tʃ^h/ (voiceless aspirated palatal affricate)

In line with /tʃ/, the aspirated palatal affricate /tʃ^h/ can also occur in the word initial position, as in (128) – (129), the word medial position as in (130) and in the word final position, as shown in (131).

- | | |
|------------------------------|-------------|
| (128)/tʃ ^h uri/ | ‘knife’ |
| (129)/tʃ ^h awn/ | ‘home-shed’ |
| (130)/katʃ ^h uwa/ | ‘tortoise’ |
| (131)/gatʃ ^h / | ‘tree’ |

/dʒ/ (voiced unaspirated palatal affricate)

In our data, the voiced unaspirated palatal affricate /dʒ/ occur in the initial, medial and final positions in words. This is illustrated in examples (132) - (136).

(132)/dʒəŋgal/	‘forest’
(133)/dʒaɪt/	‘caste’
(134)/mədʒdur/	‘labourer’
(135)/adʒa/	‘grand-father’
(136)/aɪdʒ/	‘today’

/dʒʰ/ (voiced aspirated palatal affricate)

In DS, the voiced aspirated palatal affricate /dʒʰ/ is found in the word-initial position as shown in (137), the word-medial position as in (138), and in the word-final position as illustrated in (139). However, in the medial and final positions, /dʒʰ/ occurs as part of a cluster.

(137)/dʒʰuʈ/	‘false/lie’3
(138)/mədʒʰrati/	‘midnight’
(139)/sāndʒʰ/	‘evening’

/s/ (voiceless unaspirated alveolar fricative)

The voiceless unaspirated alveolar fricative /s/ can occur in all three environments in DS words. It is observed that in (140) – (141), /s/ occurs in the initial position, whereas in example (142), it is found to occur in the word medial position. In (143), /s/ appears in the word-final position.

(140) /sonar/	‘goldsmith’
(141) /səʈal/	‘rotten’
(142) /rasi/	‘rope’
(143) /dʒulus/	‘procession’

/z/ (voiced unaspirated alveolar fricative)

The voiced unaspirated alveolar fricative /z/ does not occur in word initial position in Dooars Sadri. It only occurs in word medial position as shown in (144) and word final position as in (145).

(144) /fazir/	‘early morning’
(145) /tʃiz/	‘thing’

/h/ (voiceless glottal fricative)

The voiceless glottal fricative /h/ can occur in the word initial position as in (146) – (147), medial position as in (148) and in the final position as seen in example (149).

- | | |
|----------------|---------|
| (146) /həpta/ | ‘week’ |
| (147) /hās/ | ‘goose’ |
| (148) /məhina/ | ‘month’ |
| (149) /tʃah/ | ‘tea’ |

/m/ (voiced bilabial nasal)

In Dooars Sadri, the voiced bilabial nasal /m/ appears in all three positions in words, i.e, initial, medial and final as shown in examples (150) – (153).

- | | |
|-------------------------------|------------|
| (150) /maj ^h рати/ | ‘midnight’ |
| (151) /mac ^h ri/ | ‘fish’ |
| (152) /amba/ | ‘mango’ |
| (153) /dʒanam/ | ‘birth’ |

/n/ (voiced alveolar nasal)

Like /m/, the alveolar nasal /n/ also occurs in the word-initial position, as exemplified in (154) – (155), word-medial position, as in (156) – (157), and word-final position, as in (158).

- | | |
|---------------|-----------------|
| (154) /nala/ | ‘drainage’ |
| (155) /nənad/ | ‘sister-in-law’ |
| (156) /tʃuna/ | ‘lime’ |
| (157) /purna/ | ‘old’ |
| (158) /bhin/ | ‘sister’ |

/ŋ/ (voiced velar nasal)

The voiced velar nasal /ŋ/ occur medially as part of consonant clusters as seen in (159) – (161) and word finally, as in (162).

- | | |
|--|----------|
| (159) /g ^h uŋ ^h i/ | ‘snail’ |
| (160) /aŋri/ | ‘finger’ |
| (161) /lɔŋka/ | ‘chilli’ |
| (162) /siŋ/ | ‘horn’ |

/r/ (voiced alveolar flap)

The voiced alveolar flap /r/ can occur in all the three positions i.e. initially, medially and finally as shown in (163) – (166).

- | | |
|---------------|------------|
| (163) /rait/ | ‘night’ |
| (164) /roʈi/ | ‘bread’ |
| (165) /pərab/ | ‘festival’ |
| (166) /malar/ | ‘boatman’ |

/ɽ/ (voiced unaspirated retroflex flap)

Dooars Sadri speakers also use the voiced unaspirated retroflex flap /ɽ/ in the word medial position as shown in (167) – (168) and the word final position as in (169).

- | | |
|-----------------------------|----------|
| (167) /b ^h ɽa/ | ‘sheep’ |
| (168) /k ^h iɽki/ | ‘window’ |
| (169) /baɽ/ | ‘flood’ |

/ɽ^h/ (voiced aspirated retroflex flap)

The aspirated retroflex flap /ɽ^h/ is also used in Dooars Sadri. However, /ɽ^h/ occurs only word medially as in (170) – (171).

- | | |
|-----------------------------|--------------|
| (170) /pəɽ ^h ai/ | ‘study’ |
| (171) /buɽ ^h a/ | ‘old person’ |

/l/ (voiced alveolar lateral)

The voiced alveolar lateral /l/ can occur in all three environments i.e. initially, medially and finally. For instance, it is found in the word initial position as in example (172), word medial position in (173) – (174) and in word final position in (175).

- | | |
|-----------------|------------|
| (172) /lolo/ | ‘ear-ring’ |
| (173) /mala/ | ‘garland’ |
| (174) /piluwa/ | ‘insect’ |
| (175) /tʃinhal/ | ‘familiar’ |

/w/ (voiced bilabial semi-vowel)

The voiced bilabial semi-vowel /w/ in Dooars Sadri can occur in the word medial position either alone or as part of a consonant cluster as exemplified in (176) – (178). We do not

find the occurrence of /w/ in the word's initial and final positions in our DS data.

- | | | |
|-------|------------------------|----------|
| (176) | /kuwari/ | ‘virgin’ |
| (177) | /mætwar/ | ‘drunk’ |
| (178) | /b ^h agwan/ | ‘God’ |

/j/ (voiced palatal semi-vowel)

Similarly, the voiced palatal semi-vowel /j/ is found to occur only in the word medial position as shown in the following examples.

- | | | |
|-------|-----------------------|--------|
| (179) | /tʃ ^h uja/ | ‘boy’ |
| (180) | /hɪja/ | ‘here’ |
| (181) | /nijam/ | ‘rule’ |
| (182) | /nəja/ | ‘new’ |
| (183) | /sujor/ | ‘pig’ |

2.3 Consonant Cluster in Dooars Sadri

Consonant clusters occur in DS primarily in the medial position as shown in examples in (184) - (194). A few instances of consonant clusters in the word final position are observed that are shown in examples (195) - (196).

	Consonant Cluster	Word	Gloss
(184)	-pt-	hapta	‘week’
(185)	-pn-	d ^h apni	‘lid’
(186)	-tʃk-	taʃka	‘fresh’
(187)	-tʃ ^h r-	matʃ ^h ri	‘fish’
(188)	-mb-	amba	‘mango’
(189)	-nt-	binti	‘plead’
(190)	-kr-	kəkro	‘chicken’
(191)	-kʃ-	sikʃi	‘necklace’
(192)	-rk-	tʃarka	‘white’
(193)	-rk ^h -	purk ^h a	‘ancestor’
(194)	-st-	gustʃi	‘clan’
(195)	-nd	bənd	‘closed’
(196)	-rg	sərg	‘heaven’

2.3.1 Geminates in Dooars Sadri

Geminates are a sequence of identical adjacent segments of sound in a single morpheme (David Crystal, 2008). We find a number of geminates prevailing in Dooars Sadri as exemplified in (197)-(203). All the geminates occur in the medial position in the word in Dooars Sadri.

	Geminate	Word	Gloss
(197)	-kk-	q ^h akkan	‘lid’
(198)	-mm-	tʃəmmatʃ	‘spoon’
(199)	-tt-	patti	‘leaf’
(200)	-tʃtʃ ^h -	itʃtʃ ^h a	‘wish’
(201)	-pp-	tʃappal	‘sandal’
(202)	-nn-/-ss-	unnisso	‘nineteen-hundred’
(203)	-bb-	tʃobbis	‘twenty-four’

2.4. Syllabic Structure in Dooars Sadri

A syllable is defined as a string of segments grouped around one obligatory vowel or vowel-like (*syllabic*) element. This segment is called the syllable’s *nucleus*, while any preceding group of consonants within the syllable is the *onset*, and any following consonants form the *coda* (Steriade, 2003). The possible syllabic structures in Dooars Sadri are shown below:

Syllabic Pattern	Word	Gloss
CV	ka	‘what’
VC	ab	‘now’
CVC	sāṭ	‘bull’
CVCV	suga	‘parrot’
VCVC	anadʒ	‘grain’
CVCCV	makṛa	‘spider’
CVCVC	saṛal	‘rotten’
CVCVCV	papita	‘papaya’

2.5 Phonological Processes in Dooars Sadri

Dooars Sadri emerged as a contact language and is in secondary contact with other linguistic communities in Dooars region. These languages have exerted some influence on Dooars Sadri. In this section, we discuss the primary phonological processes that operate in Dooars Sadri.

I. Epenthesis

Epenthesis operates in DS. Epenthesis is a process of sound change in which a sound is inserted into a word (Campbell 2013: 30). Prothesis, a type of epenthesis in which a sound is inserted at the beginning of a word, occurs in DS as illustrated in examples (204) - (206). The process of anaptyxis, whereby an extra vowel is inserted between two consonants, also occurs in Dooars Sadri, as shown in examples (206) – (211).

Hindi/English		Sadri	Gloss
(204) sku:l	→	isku:l	‘school’
(205) skeɪl	→	ɪskɛl	‘scale’
(206) stri	→	istiri	‘wife’
(207) d ^h arm	→	d ^h aram	‘religion’
(208) sirp ^h	→	sirp ^h	‘only’
(209) pre:m	→	pere:m	‘love’
(210) drəm	→	ɖerəm	‘drum/barrel’
(211) glas	→	gi:las	‘glass’

II. Diphthongization

Instances of diphthongization are also observed in Dooars Sadri. Campbell (2013:36) defines diphthongization as a change of an original single vowel into a sequence of two vowel segments that together occupy the nucleus of a single syllable. In Dooars Sadri, vowel /ɑ:/ changes to /ɑɪ/, as shown in (211) – (213).

(211) ɑ:dʒ	→	ɑɪdʒ	‘today’
(212) rɑ:t	→	rɑɪt	‘night’
(213) sɑ:s	→	sɑɪs	‘mother-in-law’

III. /f/ → /s/

In Dooars Sadri, the palato-alveolar fricative /f/ is realized as alveolar fricative /s/, as shown in examples (214) – (215).

(214) ɑ:fɑ:	→	ɑ:sɑ:	‘hope’
(215) fanti	→	santi	‘peace’

IV. /l/ ~ /r/

The alveolar lateral /l/ is often replaced by alveolar flap /ɾ/ in Dooars Sadri, as shown in (216) – (217).

(216) matʃ ^h li	→	matʃ ^h ri	‘fish’
(217) kela	→	kera	‘banana’

3. Discussion

In this paper, we have discussed the vowels and consonants in Dooars Sadri spoken in the Northern part of West Bengal. Dooars Sadri has seven vowels /i, e, ə, a, u, o, ɔ/. These

vowels are seen to occur in word-initial, medial, or final positions. But, the vowels /ə/ and /ɔ/ do not occur in word final position in Dooars Sadri. The vowel /ɔ/ is not present in Jharkhand Sadri (See Kiran and Peterson, 2011). In addition, the central vowel /ə/ is realized as [ʌ] in Sadri spoken in Jharkhand (Kiran and Peterson, 2011). The vowels in Dooars Sadri seem to be closer to Bhojpuri vowels. However, the vowel /ɔ/, which is absent in both Bhojpuri and Jharkhand Sadri, occurs in Dooars Sadri. This development may be as a result of contact with Bengali in this region (Sarfaraj, 2022). In Bengali, the vowel /ɔ/ is used very frequently. We find the occurrences of /ɔ/ in Dooars Sadri especially in words shared with Bengali like *pɔroborti* ‘next’, *sɔb* ‘all’, *ɔbost^ha* ‘condition’, *ɔb^hab* ‘scarcity’. There are five diphthongs in Sadri /aɪ, ɔɪ, uɪ, iə, ua/.

There are thirty-two consonants in Dooars Sadri. Among them, there are four voiceless plosives /p, t, t̪, k/ which form a pair with their voiced [b, d, d̪, g] counterparts. All the plosives in Dooars Sadri can be aspirated [p^h, b^h, t^h, d^h, d̪^h, t̪^h, k^h, g^h]. However, there are some constraints with regard to the occurrences of voiced aspirate stops in all the three environments in words in Dooars Sadri. Like the plosives, the affricates [tʃ, dʒ] are also aspirated by the Dooars Sadri speakers. Aspiration is quite common in Dooars Sadri. We find the use of aspirated retroflex flaps /ɭ^h/ in Dooars Sadri which is in sync with Bhojpuri phonology. However, unlike Bhojpuri, the nasals and laterals are not aspirated in Dooars Sadri. We have observed that a few phonological processes operate in Dooars Sadri. Consonant clusters are not very favored in word-initial and final positions. Hence to break the consonant clusters, a vowel is often inserted (epenthesis) in Dooars Sadri. It is also seen that the vowel /a:/ is realized as /aɪ/ in some monosyllabic words like /ra:t/ → /rait/ ‘night’, /a:dʒ/ → /aidʒ/ ‘today’. This process has been documented in many Eastern Bengali varieties (Grierson, 1903; Laskar, 2003). On the other hand, Dooars Sadri does not possess the alveo-palatal /ʃ/ like Bhojpuri. The alveo-palatal /ʃ/ changes to alveolar /s/ in Dooars Sadri, which is in line with Bhojpuri. Dooars Sadri Phonology shows proximity with Bhojpuri varieties. However, owing to contact with Bengali, Dooar Sadri has developed a few sounds. We have also seen that Dooars Sadri is not very different from the phonology of Jharkhand Sadri.

References

- Banerjee, Gangadhar. 1996. Tea Plantation Industry Between 1850 and 1992: Structural Changes. Guwahati: Lawyers Book Stall.
- Barua, Pradip. 2008. Tea Industry of Assam, Origin and Development. Guwahati: Eastern Book House Publishers.
- Bhowmik, Sharit K. 1981. Class Formation in the Plantation System. New Delhi: People's Publishing House.
- Campbell, Lyle. 2013. Historical Linguistics: An Introduction. 3rd edition.

Cambridge, MA: MIT Press.

Crystal, David. 2008. A dictionary of linguistics and phonetics. 6th ed. Malden: Blackwell.

Feagin, Crawford. 2002. Entering the Community Fieldwork. In J. K. Chambers, Peter Trudgill and Natalie Schilling-Estes (eds.), *The Handbook of Language variation and Change*. Oxford: Blackwell Publishers.

Grierson, G. Abraham. 1903. Linguistic Survey of India. Specimens of the Bihari and Oriya languages. Vol. V:Part 2. New Delhi: Motilal Banarsidass.

Jordan-Hortsmann, Monika. 1969. Sadani: A Bhojpuri Dialect Spoken in Chotanagpur (Indologia Berolinensis. Bd). XVI. Wiesbaden: Otto Harrassowitz.

Khushboo, Zeeshan and Laskar, Nazrin B. 2025. The Structure of Ganderbal Kohistani: From a Multilingual Perspective. *Languages of the world* 69. München: Lincom Europa.

Kiran, Savita. 2003. Contact between Munda and Indic: Development of Sadri as a Lingua Franca. M.Phil. Dissertation. Delhi: University of Delhi.

Kiran, Savita and Peterson, John. 2011. Sadani/ Sadri. In Count. L. L. Kulikov, T. I. Orange and A.Y. Rusakov (eds.), *New Indo-Aryan Languages. Languages of the World Series*. Vol 16. Russian Academy of Sciences, Institute of Linguistics. Moscow: Academia.

Labov, William. 1984. Field method of the project on linguistic change and variation. In J. Baugh and J. Sherzer (eds.), *Language in Use: Readings in Sociolinguistics*. Englewood Cliffs: Prentice Hall.

Laskar, Nazrin B. 2003. Contact between Tibeto-Burman and Indic: The case of Bishnupriya. MPhil. Dissertation. Delhi: University of Delhi.

Laskar, Nazrin B. 2012. Study of Variation and Change in a Bilingual Context: The case of Bishnupriya. PhD. Dissertation. Delhi: University of Delhi.

Laskar, Nazrin B. 2020-21. Phonology of Bishnupriya Manipuri, a Contact Language. In *Aligarh Journal of Linguistics*. Vol 10 (1).

Laskar, Nazrin B. and Sarfaraj, Md. 2020. Nominal Categories in Dooars Sadri. In *Aligarh Journal of Linguistics*. Vol 9 (1-2).

Nowrangi, Peter. Shanti. S.J. 1956. A Simple Sadani Grammar. Ranchi: D.S.S. Book Depot.

Nowrangi, Peter. Shanti. 1965. Nagpuriya Sadani Boli Ka Byakaran. Ranchi: D.S.S. Book Depot.

Sarfaraj, Md. 2022. Language Contact and creolization. The case of tea plantation creole in North Bengal. PhD. Dissertation. Aligarh: Aligarh Muslim University.

Steriade, Donca. 2003. The syllable. In William Bright (ed.) *Oxford International Encyclopedia of Linguistics*. 2nd Edition. London: Oxford University Press.

Sunder, D.H.E. 1895. Survey and Settlement of the Western Duars, in the district of Jalpaiguri 1889-1895. Calcutta: Bengal Secretariat Press. Reprinted by N. L. Publisher, 2013.