

# **Deori Parallel Text Corpus:**

## **Linguistic Features and Structures**



# DEORI PARALLEL TEXT CORPUS: LINGUISTIC FEATURES AND STRUCTURES



34

*Annotated, quality language data (both-text & speech) and tools in Indian Languages to Individuals, Institutions and Industry for Research & Development - Created in-house, through outsourcing and acquisition.*

## **Authors:**

***Prangshu Manjul***

***Dr. Rejitha K. S***

***Dr. Narayan Choudhary***

***Prof. Shailendra Mohan***

**Linguistic Data Consortium for Indian Languages  
Central Institute of Indian Language  
Mysuru, India-570006**

## भारतीय भाषा संस्थान

उच्चतर शिक्षा विभाग, शिक्षा मंत्रालय, भारत सरकार, मानसगंगोत्री, हुन्सूर रोड, मैसूरु-570006, कर्नाटक

CENTRAL INSTITUTE OF INDIAN LANGUAGES

Department of Higher Education, Ministry of Education, Government of India

Manasagangotri, Hunsur Road, Mysuru-570006, Karnataka

www.ciil.gov.in :: e-✉ ciil.publication@gmail.com :: ☎ +91-821-234-5182

### Deori Parallel Text Corpus: Linguistic Features and Structures

*Authors: Prangshu Manjul, Dr. Rejitha K. S., Dr. Narayan Choudhary, Prof. Shailendra Mohan*

*Contributors: Navajyoti Deori, Lila Kanta Deuri*

*e-ISBN: 978-81-69099-57-8*

*CIIL Publication No.: 1660*

*First published: AD 2026 March :: Phalguna 1947 Śaka*

*© Central Institute of Indian Languages, Mysuru 2026*

*Publisher: Prof. Shailendra Mohan, Director, CIIL*

#### *Printing & Publication Unit*

Aleendra Brahma, Officer-in-Charge, Printing Press & Publication Unit

B Manju Bhargavi, Unit-in-Charge, Printing Press & Publication Unit

M.N. Chandrashekar, Compositor, Printing Press & Publication Unit

*Cover design: Prangshu Manjul*

## TABLE OF CONTENTS

|                                                    |   |
|----------------------------------------------------|---|
| DEORI PARALLEL TEXT CORPUS .....                   | 1 |
| 1.1 LDC-IL PARALLEL TEXT CORPUS .....              | 1 |
| 1.2 CHALLENGES IN CREATING A PARALLEL CORPUS ..... | 2 |
| 1.3 DEORI: A BRIEF INTRODUCTION .....              | 2 |
| 1.4 DEORI PARALLEL CORPUS .....                    | 3 |
| 1.5 SUMMARY OF DEORI PARALLEL CORPUS .....         | 3 |
| 1.6 REFERENCE .....                                | 4 |

## DEORI PARALLEL TEXT CORPUS

*Prangshu Manjul*

### 1.1 LDC-IL PARALLEL TEXT CORPUS

LDC-IL has developed parallel corpus in Indian mother tongues. India has 270 mother tongues as per 2011 census. Most of these mother tongues have no written text readily available and they are mostly oral languages. Most of them do not have any script of their own or use one or more than one dominant script used in that region. Following the requirements of the NEP-2020, LDC-IL initiated to collect sentences from different mother tongues that could give an idea about the basic structure of these 270 mother tongues.

A parallel corpus is a collection of texts in two or more languages that are carefully aligned sentence wise in pairs and placed either side by side or matched with a common sentence/phrase identification number. It is widely used in linguistics, translation studies, and Natural Language Processing. Researchers use it to compare vocabulary, grammar, and meaning across languages, while computational systems rely on it to train statistical and neural machine translation models. Parallel corpora also support language learning by providing real translation examples and enable cross-language information retrieval, allowing users to access information in multiple languages efficiently.

LDC-IL developed a framework to accommodate all the linguistic features of mother tongues. The sentences were collected from Indian scheduled languages especially from descriptive grammar books. The sentences cover the general grammatical and structural types like adjectival phrases, adverbial phrases, compounding, Interrogative sentences, Imperative sentences, different speech types, statements, structural question, coordination, subordination and so on. Moreover, it includes linguistic features such as use of adposition, anaphora, derivational morphology, inflectional morphology and language specific features like emphasis, equative, possession, reciprocation, reflexive expression and so on. For more details on the source collection for this parallel corpus, please refer to the [LDC-IL Corpus Insights \(2025\)](#).

This parallel corpus can be used in AI development by enabling the creation of Indic multilingual foundation models, develop cross-lingual knowledge graphs and create low-resource language adapters. By providing high-quality linguistic data, it strengthens natural language understanding and generation. As India rapidly advances in the digital age, it is essential to preserve and promote undocumented mother tongues by bringing them onto digital platforms, ensuring they are sustained and able to thrive for future generations.

Low-resource languages have a significant impact on both AI development and digital world. When AI systems are trained mostly on high-resource languages, they become biased toward those linguistic and cultural contexts. Including low-resource languages helps build stronger multilingual foundational models. Exposure to diverse grammar structures, vocabulary, and linguistic patterns improves cross-lingual learning and generalization. Language carries cultural knowledge. Incorporating low-resource languages enriches AI systems with diverse worldviews, idioms, and traditional knowledge systems. If a language is not supported digitally, its speakers

may be excluded from online education, e-governance, healthcare services, and digital commerce. When digital tools support local languages, more people can participate in the economy. Local languages often contain indigenous knowledge about agriculture, medicine, environment, and culture and therefore bringing them into digital ecosystem safeguards the linguistic treasures that language might contain.

Supporting low-resource languages makes AI more inclusive, intelligent, and representative of linguistic diversity. In India, where hundreds of mother tongues co-exist, investing in low-resource language technologies is essential for equitable digital growth.

## 1.2 CHALLENGES IN CREATING A PARALLEL CORPUS

Creating a Parallel Corpus for mother tongues in India involves several linguistic, technical, and socio-cultural challenges. The major difficulty is the lack of standardized orthography in many regional and tribal mother tongues. Most of the mother tongues use the prominent script used in their region. Some mother tongues may use multiple scripts or even a newly created writing systems, which complicates the corpus development. Another challenge is the scarcity of written and digitized resources. Many mother tongues are used for daily communication only.

Dialectal variation is another serious issue, as a single mother tongue may have numerous regional varieties with differences in vocabulary, pronunciation, and grammar. This makes it difficult to ensure consistency and representativeness in the corpus. Accurate translation is a concerned matter. Proficient bilingual speakers may be limited for low-resource languages. Maintaining semantic equivalence across mother tongues with different cultural contexts can be challenging. Sometimes equivalent words are not available due to the socio-cultural differences. These factors affect large-scale parallel corpus development in Indian mother tongues. The creation of reliable and balanced parallel corpora for Indian mother tongues is a complex and resource-intensive task.

## 1.3 DEORI: A BRIEF INTRODUCTION

Deori (ISO 639-3: der), a language from the Boro-Garo group of the Tibeto-Burman language family, reported to be “Definitely Endangered” by the UNESCO, spoken by approximately 32,376 people (2011 Census), is found in the two NorthEastern states of India, Assam and Arunachal Pradesh. Deori (2009) states that the Deori population in Assam at present are mainly concentrated in the districts of Lakhimpur, Dhemaji, and Sonitpur of the north bank of Brahmaputra and in the districts of Tinsukia, Dibrugarh, Sibsagar, and Jorhat of the south bank of Brahmaputra.

In his monograph, Brown (1895), categorizes Deori, based on the number of speakers, as the smallest of the Bodo-Garo languages. Goswami (1994:3) notes, the Deoris comprises three main divisions (khels): Dibongiya, Tengaponiya and Borgonya, and out of these three khels, at present only the Dibongiya khel people speak the Deori language. He also mentions another division called Patorgonya which is believed to have mixed with the Dibongiya.

In Assam, Deori as a mother tongue is spoken in the home domain and within the community, while Assamese is used for education and public administration. The language Deori is written in the Assamese script.

## 1.4 DEORI PARALLEL CORPUS

Deori has seventeen consonants, seven oral vowels and five nasal vowels. Goswami (1994:10) states that Deori has three tones: the even tone, the rising tone and the falling tone. At present the gradual loss of tone in Deori could be mainly due to the contact with Assamese, neighboring dominant language, which is completely atonal language, which as a result is leading Deori to the path of tonoxodus. In this language, stress is initial. It has two numbers: singular and plural. While the nouns are inflected for number and gender, pronouns are not inflected for gender. In case of counting, Deori language follows counting by tens and by the unit of four.

These features contribute to Deori's uniqueness among the languages of India and highlight its importance in the study of linguistics.

Deori is a valuable resource for developing parallel text corpora with other Indian mother tongues. This parallel text corpus can serve as a valuable research resource for studying syntactic divergence, morphological richness, code-mixing phenomena, and script variation, which are particularly relevant in multilingual contexts such as India.

## 1.5 SUMMARY OF DEORI PARALLEL CORPUS

The Deori parallel text corpus connected with English and 146 mother tongues of India. Those mother tongues are Anal, Angami, Apatani, Are, Assamese, Awadhi, Bagheli/Baghel Khandi, Bagri Rajasthani, Bagri, Balti, Bengali, Bhadrawahi, Bharmauri/Gaddi, Bhojpuri, Bilaspuri Kahluri, Bodo, Brajbhasha, Bundeli/Bundel khandi, Chakru/Chokri, Chambeali/Chamrali, Chang, Chhattisgarhi, Chirri, Chungli, Churahi, Coorgi/Kodagu, Dhundhari, Dimasa, Dogri, Gangte, Garhwali, Garo, Gojri/Gujjari/Gujar, Gujarati, Gujar, Halabi, Handuri, Hara/Harauti, Haryanvi, Hindi Multani, Hindi, Irula/Irular Mozhi, Kabui, Kachchhi, Kangri, Kannada, Karbi/Mikir, Kashmiri, Khandeshi, Khari Boli, Khasi, Khezha, Khiemnungan, Khortha/Khotta, Kisan, Kodava, Kokbarak, Kolami, Koli, Kom, Konda, Konkani, Konyak, Koya, Kudubi/Kudumbi, Kuki, Kurmali Thar, Ladakhi, Lepcha, Liangmei, Limbu, Lotha, Lyngngam, Magadhi/Magahi, Maithili, Malayalam, Malvi, Manipuri, Mao, Mara, Maram, Marathi, Maring, Mech/Mechhia, Mewari, Mewati, Miri/Mising, Mishmi, Mizo, Mongsen, Monpa, Mundari, Muwasi, Nawait, Nepali, Nimadi, Nissi, Nocte, Odia, Pahari, Paite, Palmuha, Pania, Pawari/Powari, Phom, Pnar/Synteng, Pochury, Poula, Punjabi, Purkhi, Rai, Rajasthani, Reang, Rengma, Rongmei, Sadan/Sadri, Sambalpur, Sangtam, Sanskrit, Santali, Saurashtra/Saurashtri, Sema, Shina, Sindhi, Sirmauri, Sugali, Surjapuri, Talgalo, Tamil, Tangkhul, Telugu, Thado, Tibetan, Tikhir, Tripuri, Tulu, Urdu, Vaiphei, Wagdi, Wancho, Yerava, Yerukala/Yerukula, Yimchungre, Zeliang, Zemi, Zou.

There are 5,332 sentences/phrases in Deori which are systematically structured based on 159 grammatical categories. Deori has 24,529 word count and 158,069 character count. The corpus is

aligned with 146 mother tongues and English, comprising 4,404,845 words (over 4.4 million tokens) and 23,374,289 characters (approximately 23.3 million).

## 1.6 REFERENCE

- [1] Acharyya, Prarthana and Shakuntala Mahanta. (2019). Language vitality assessment of Deori: An endangered language. *Language Documentation and Conservation*, 13, 514-544.
- [2] Acharyya, Prarthana and Shakuntala Mahanta. (2019). *Phonology of Deori: an 'endangered' language*. Guwahati: IIT (Doctoral dissertation).
- [3] Brown, William Barclay. (1895). *An Outline Grammar of the Deori-Chutiya Language*. Assam: Assam Secretariat Printing Office.
- [4] Deori, Sujata. (2009). *Migration and cultural transformation of Deoris in Assam: A geographical transformation*. Shillong: North Eastern Hill University (Doctoral dissertation).
- [5] Goswami, Upendranath. (1994). *An Introduction to the Deuri Language*. Guwahati: Anundoram Borooh Institute of Language, Art, and Culture, Guwahati.
- [6] Mahanta, Shakuntala & Dutta, Indranil & Acharyya, Prarthana. (2017). Lexical tone in Deori: loss, contrast and word based alignment. *Papers in Historical Phonology*. 2. 51-87.
- [7] Rejitha K. S. and Narayan Kumar Choudhary. (ed.). (2025). LDC-IL Corpus Insights. CIIL, Mysore. 978-93- 48633-33-0.