

Santali Parallel Text Corpus: Linguistic Features and Structures



SANTALI 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:

***Sonali Sutradhar,
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

Santali Parallel Text Corpus: Linguistic Features and Structures

Authors: Sonali Sutradhar, Dr. Rejitha K. S., Dr. Narayan Choudhary, Prof. Shailendra Mohan

Contributors: Thakur Prasad Murmu, Tarapada Soren, Jayanta Tudu

e-ISBN: 978-81-69175-93-7

CIIL Publication No.:1734

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: Sonali Sutradhar

Table of Contents

Santali Parallel Text Corpus	1
1.1 LDC-IL Parallel Text Corpus.....	1
1.2 Challenges in Creating A Parallel Corpus.....	2
1.3 Santali: A Brief Introduction.....	2
1.4 Santali parallel Corpus	3
1.5 Summary of Santali parallel Corpus	3
1.6 Reference.....	4

SANTALI PARALLEL TEXT CORPUS

Sonali Sutradhar

1.1 LDC-IL PARALLEL TEXT CORPUS

LDC-IL have 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 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 SANTALI: A BRIEF INTRODUCTION

Santali is one of India's most fascinating and linguistically unique languages. Unlike the surrounding Indo-Aryan languages (like Hindi, Bengali, or Magahi), Santali belongs to the Munda subfamily of the Austroasiatic language family. It is spoken by millions of people across eastern India, particularly in Jharkhand, West Bengal, Odisha, Bihar, and Assam. Traditionally, Santali was mainly transmitted through oral traditions such as folklore, songs, and storytelling, which played an important role in preserving the cultural heritage of the Santali community. While Santali was historically written in Devanagari, Bengali, or Odia scripts, it now has its own unique alphabet called Ol Chiki. Created by Pandit Raghunath Murmu in 1925, it was designed specifically to represent Santali phonemes that other Indian scripts could not accurately capture. Santali holds a prestigious position as the first tribal language in India to be included in the Eighth Schedule through the 92nd Constitutional Amendment Act in 2003. This gives it official status as a major scheduled language of the country. As per 2011 census 69,73,345 people has acknowledged Santali as their mother tongue.

The literature of the Santali language is a remarkable bridge between an ancient, vibrant oral tradition and a rapidly growing modern literary movement. For centuries, the history and philosophy of the Santhal people were preserved in songs and folklore, but the 20th century saw a dramatic shift toward written expression. Before the adoption of scripts, Santali literature existed entirely in the collective memory of the community. Pandit Raghunath Murmu, who is revered as the "Guru Gomke" wrote plays, such as *Bidu Chandan* and *Kherwar Bir*, moved away from religious themes to focus on Santhal identity, history, and social reform. Modern Santali writing often deals with the tension between traditional tribal life and industrialization, displacement, and the struggle for land rights.

1.4 SANTALI PARALLEL CORPUS

Santali is an agglutinative language. This means it builds complex meanings by tacking various suffixes and prefixes onto a root word. A single word in Santali can often communicate what would require an entire sentence in English. Like most Indian languages, it follows a Subject-Object-Verb order. The phonology of Santali is quite distinct from Indo-Aryan languages like Hindi or Bengali. It is characterized by its checked consonants (glottalized stops) and a balanced set of vowels that distinguish between living and non-living things (animate/inanimate) rather than masculine/feminine. Vowels can be nasalized using the diacritic. The consonants in Santali are organized uniquely.

Santali 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 SANTALI PARALLEL CORPUS

The Santali 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, Deori, 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, Sambalpuri, Sangtam, Sanskrit, 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 Santali which are systematically structured based on 159 grammatical categories. Santali has 32902 word count and 188001 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] Rejitha K. S. and Narayan Kumar Choudhary. (ed.). (2025). LDC-IL Corpus Insights. CIIL, Mysore. 978-93- 48633-33-0.