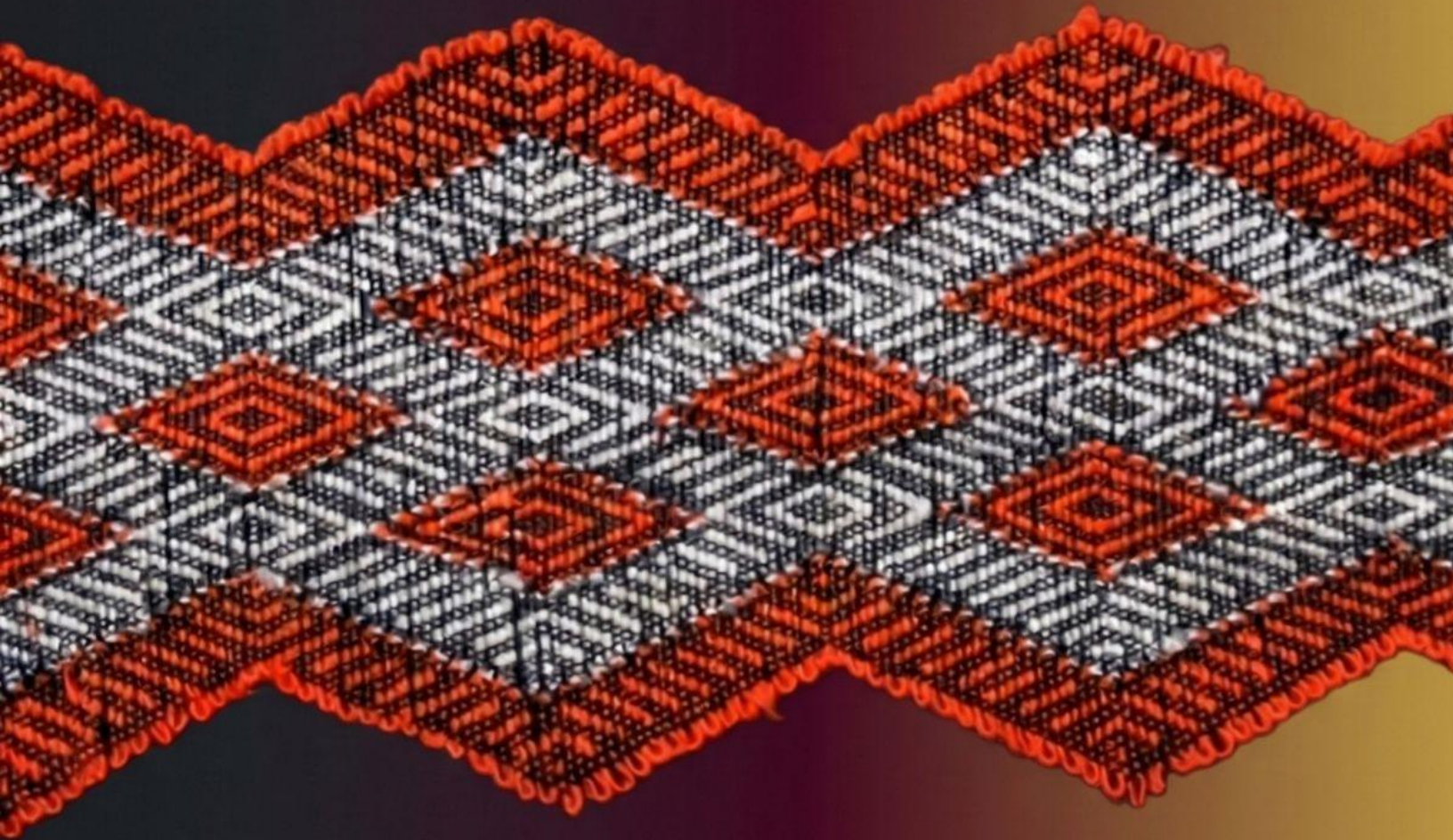


Mishmi

Parallel Text Corpus:

Linguistic Features and Structures



MISHMI 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.

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Table of Contents

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

MISHMI PARALLEL TEXT CORPUS

Hemlata Daimary

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 system, 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 MISHMI: A BRIEF INTRODUCTION

The Mishmi Language belongs to the Tibeto-Burman branch of the Sino-Tibetan language family. It is an indigenous language spoken by the Mishmi people of Northeast India, primarily in the state of Arunachal Pradesh. Rooted in the cultural landscapes of the eastern Himalayas, the language reflects the history, worldview, and lived experiences of communities that have long inhabited the valleys and hills of this region. The Mishmi people, comprising groups such as the Idu Mishmi (Kera-Ah), Digaru Mishmi (Tawrã/Taraon), and Miju Mishmi (Kaman), have preserved a rich heritage of oral traditions, ritual practices, and ecological knowledge, all of which are intricately expressed through their language.

Geographically, Mishmi-speaking communities are concentrated in the Dibang Valley (Anini), Lower Dibang Valley (Roing), Lohit, Anjaw and East Siang districts, and Upper Siang District of Arunachal Pradesh. As per the 2011 Census of India, there are 44,100 speakers who identified Mishmi as their mother tongue in the country. The language has developed in close interaction with the region's diverse ethnic groups, river systems, and mountainous terrain, contributing to its distinctive character.

The language has traditionally been transmitted through oral practice rather than a long-established written script. As a result, oral narratives, ritual chants, myths of origin, and customary laws play a central role in sustaining linguistic continuity. The Mishmi language encodes ecological knowledge, social values, and spiritual beliefs that have developed over centuries in close interaction with the mountainous landscapes and river valleys of Arunachal Pradesh.

Like many indigenous languages worldwide, Mishmi faces pressures from dominant regional and national languages, migration, and socio-economic change. The preservation of such languages is essential not only for safeguarding cultural diversity but also for maintaining unique systems of knowledge and identity.

1.4 MISHMI PARALLEL CORPUS

Mishmi is a typologically rich language that exhibits complex morphological and syntactic structures. It is generally agglutinative, with extensive use of suffixation, case markers, and verbal inflections that encode tense, aspect, mood, and evidentiality.

The language displays relatively flexible word order, though they predominantly follow a Subject-Object-Verb (SOV) pattern. They also demonstrate intricate phonological systems, including tone distinctions in some varieties, which play a crucial role in meaning differentiation. Traditionally preserved through oral transmission, Mishmi has only recently been represented in written form, often through the Roman script for educational and documentation purposes. This evolving orthographic practice offers valuable opportunities for systematic linguistic recording and digital resources.

The morphological richness, tonal features, and oral tradition-based transmission of Mishmi make it linguistically significant for documentation and comparative studies. Developing a parallel corpus involving Mishmi and other Indian languages can provide valuable insights into syntactic alignment, morphological typology, language contact phenomena, code-mixing, and script adaptation processes. Such a corpus would be especially important for preserving endangered linguistic varieties and supporting computational linguistic research in under-resourced language contexts.

These features underscore the importance of Mishmi in the broader landscape of Indian linguistics and highlight its value in multilingual corpus development and language preservation efforts.

1.5 SUMMARY OF MISHMI PARALLEL CORPUS

The Mishmi 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, 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, 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 Mishmi which are systematically structured based on 159 grammatical categories. Mishmi has 37,200 word count and 191,465 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.