



Languages and Technology in Bhutan



Bhutan and Languages

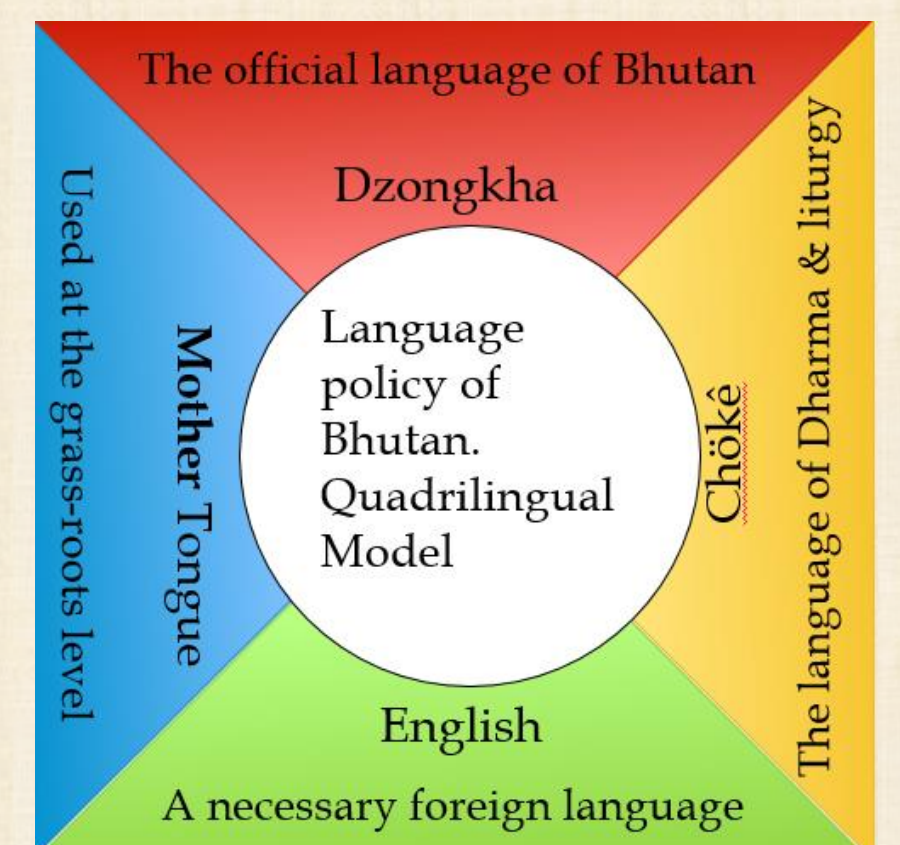
- Land area : 38,394 sq km
- Population : 734,374 (2018)
- Linguistically rich country with 19 different languages spoken
- The Bhutanese languages are classified under Central Bodhish, East Bodhish, Bodic, and Indo-Aryan (van Driem 1998)
- All the languages of Bhutan with the exception of Dzongkha, Tshangla, and Lhotsham, fall under the category of “endangered” languages.
- Three languages, namely Monkha, Lhokpu, and Gongduk are critically endangered.
- One dialect known as Olekha, a variety of Monkha spoken in Rukha under Wangdue Dzongkhag, is a moribund.
- 'Ucän Script is used to write Dzongkha it consists of thirty consonant symbols and four vowel symbols. Other languages can also be written using the same script.

Policy

- Enshrined in Constitution:
 - **Section 8, Article 1:** “Dzongkha is the national language of Bhutan”
 - **Section 1, Article 4:** “language” and “literature” to be preserved, protected and promoted
- **Dzongkha Development Commission** is mandated to formulate language plans and policies, develop and promote Dzongkha, the national language and document, preserve and promote other indigenous languages of Bhutan

Language policy of Bhutan can be summarized in the form of Quadrilingual Model

Mother Tongue in this model is the sum total of all the mother tongues in Bhutan.



Language Technology

- Currently, it is limited to input, storage and display for Dzongkha
- So far, very less has been done in terms of Natural Language Processing (NLP):
 - Dzongkha word segmentation using syllable feature – 95% accurate
 - Dzongkha part of speech tagging -90% accurate
 - Dzongkha automatic speech recognition -66% accurate
- Not being able to develop technology for Dzongkha and other indigenous languages of Bhutan is a threat to our languages and culture.
- Language barrier and digital divide causes inequalities in the society.
- English literates are having easy access to information, knowledge and services compared to Dzongkha literates and illiterates – language technology can solve this problem to certain extent.
- We are acutely challenged with lack of expertise and funds and therefore, would like to seek support from international organizations.



Support us with

- expertise
- capacity development
- funding



Contact us

- www.dzongkha.gov.bt
- tnamgyel@dzongkha.gov.bt
- ddc@dzongkha.gov.bt
- +975-02-322663