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Volume 6: Marwari, Merwari, and Godwari

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Abstract

This report describes the findings of a sociolinguistic survey conducted among speakers of Marwari (ISO 639-3: rwr), Merwari (ISO 639–3: wry), and Godwari (ISO 639-3: gdx), spoken in the western region of Rajasthan. The fieldwork was done from January to March 2005. Wordlist comparisons, Recorded Text Testing (RTT), Hindi Sentence Repetition Testing (SRT), and questionnaires have been employed as research methods. Results indicate that Marwari, Merwari, and Godwari speakers would benefit from vernacular language development because the people (especially the uneducated) are probably not sufficiently proficient in Hindi, the mother tongue is used in almost all domains of life, and it is likely that these languages will continue to be viable in the future. The findings suggest that language development in the Jodhpur Marwari speech variety would meet the needs for Merwari and Godwari speakers as well.

Contents

Introduction to the Series

According to an old saying, 'The dialect, food, water, and turbans in Rajasthan change every twelve miles.' Indeed, the state of Rajasthan in western India is a region of rich cultural and linguistic diversity. Eight languages from this area are covered in this six-volume series of sociolinguistic surveys. In both the *Linguistic survey of India* (Grierson 1906) and the *Ethnologue* (Lewis 2009), these languages are classified as Indo-European, Indo-Iranian, Indo-Aryan, Central Zone, Rajasthani. At that point, the classification terms diverge, as seen in this table:

Classifications and ISO codes for the eight languages covered in this series

Language	Linguistic survey of India (Grierson 1906)	Ethnologue (Lewis 2009)	ISO 639-3 code
Marwari[a]	Western Rajasthani	Marwari	rwr
Godwari	Western Rajasthani	Marwari	gdx
Mewari	Western Rajasthani	Marwari	mtr
Shekhawati	Western Rajasthani	Marwari	swv
Merwari[b]	Central-eastern Rajasthani	Marwari	wry
Dhundari	Central-eastern Rajasthani	Marwari	dhd
Hadothi	Central-eastern Rajasthani	Unclassified	hoj
Mewati	North-eastern Rajasthani	Unclassified	wtm

[a]Grierson also includes Bikeneri under Western Rajasthani. Bikaner (alternatively spelled Bikener) is a district where Marwari is spoken.
[b]Grierson also includes Ajmeri under Central-eastern Rajasthani, but not Merwari itself. Ajmer is a district where Merwari is spoken.

'Rajasthani' has long served as a cover term for many of the speech varieties of this region. In spite of significant linguistic divergence, use of this term has continued to this day, sometimes by mother tongue speakers as well as by scholars and those who are seeking official recognition of Rajasthani as a Scheduled Language of India. The definition of 'language' versus 'dialect' presents challenges to researchers. These challenges are compounded by the numerous different terms used by census takers, scholars, and mother tongue speakers themselves.

In the introduction to the print version of the *Ethnologue*, Lewis (2009:9) notes,

> Every language is characterized by variation within the speech community that uses it. Those varieties, in turn, are more or less divergent from one another. These divergent varieties are often referred to as dialects. They may be distinct enough to be considered separate languages or sufficiently similar to be considered merely characteristic of a particular geographic region or social grouping within the speech community. Often speakers may be very aware of dialect variation and be able to label a particular dialect with a name. In other cases, the variation may be largely unnoticed or overlooked.

In these surveys, the researchers used a multi-pronged synchronic approach to describe the current sociolinguistic situation of the eight languages under consideration. Lexical similarity within and between languages was assessed using a 210-item wordlist. The phonetic transcriptions of these wordlists are presented in appendices to the reports. In many instances, intelligibility of selected speech varieties was investigated using recorded oral texts. Orally-administered questionnaires provided insights into language use patterns, language attitudes, perceived similarities and differences among speech varieties,

and self-reported bilingual proficiency. Community levels of bilingualism were investigated using sentence repetition testing. The results make a significant contribution to a broader and deeper understanding of the present-day sociolinguistic complexities in Rajasthan.

The researchers travelled many kilometres by train, bus, motorcycle, and on foot. They interviewed regional scholars, local leaders and teachers, and large numbers of mother tongue speakers, meeting them in large cities as well as in rural villages. It is the researchers' sincere hope that the information presented in these volumes will be useful in motivating and supporting continued development efforts in these languages.

Juliana Kelsall, Series Editor

1 Introduction

1.1 Geography

After the separation of Madhya Pradesh into two states — Madhya Pradesh and Chhattisgarh — in 2000, Rajasthan became the largest state of India. Rajasthan is situated in the western part of India, sharing an international border with Pakistan. Being the largest, this state extends over a distance of 869 kilometres from east to west and 826 kilometres north to south. The state occupies 10.41 per cent of India's total area.

The western region of Rajasthan, where this survey was conducted, is basically the desert region of the state, being in the midst of the Thar Desert or the Great Indian Desert. This desert region is the home of people who speak the Marwari, Merwari, and Godwari languages. The land that the Marwari, Merwari and Godwari speakers live on is so large that it makes up half of the entire state.

The Marwari-speaking[1] people are found in the districts of Jodhpur, Barmer, Jaisalmer, and Bikaner. The Merwari live in the districts of Nagaur and Ajmer. The Godwari are found in Jalore, Pali, and Sirohi districts. (See Map 1 in appendix A.)

Maps 1–5 in appendix A were prepared by report authors.

1.2 People

The population of Rajasthan state is 56.5 million with a density of 165 people per square kilometre (Census of India 2001). The combined population of the Marwari, Merwari, and Godwari regions is 16 million. This is 28 per cent of the state population, while the area covered is 50 per cent of the state's whole area. This demonstrates the low population density in this desert region of the state.

The Marwaris are a group of Indo-Aryan people living in Marwar region. Marwari is believed to be derived from the Sanskrit word *Maruwat*, where Maru means 'desert'. The Marwaris are business people belonging to the Vaishya, the trading caste in the Hindu hierarchical caste system. They are found in both India and in Nepal. They are widespread in India, making it difficult to obtain a clear figure of the population. Gusain (2004:1) estimates the Marwari population in India to be 13 million. The 1991 census gives a population of 3,828,472 mother tongue Marwari speakers in Rajasthan. There was an overall 21.34 per cent increase of the Indian population between the censuses of 1991 and 2001 (http://www.indianchild.com/population_of_india.htm). Such an increase would project the 2001 mother tongue Marwari population as approximately 4.6 million. This is close to what we have roughly estimated. According to our estimate, the Marwari people living in the Marwar region alone could be around 5.6 million. This figure was arrived at by combining the populations of the Marwar area (Jodhpur, Barmer, and Jaisalmer districts) from the 2001 census. This totals about 7 million. Assuming that 80 per cent of the people living in the Marwar region speak Marwari as their mother tongue, the population of mother tongue speakers in this area would be around 5.6 million.

As for Marwari, different sources give different population figures for Merwari speakers. *Ethnologue* lists 1,312 (Gordon 2005); it is likely that this figure is so low because Merwari speakers have been subsumed under other language names, most commonly Marwari and Rajasthani. We calculated that the actual population could be 3.9 million (80 per cent of the combined population of Nagaur and Ajmer districts, which was 4.9 million according to the 2001 census). The Merwari language is also called Ajmeri, after one of the districts where it is spoken.

Specific population figures for Godwari are difficult to find, likely for the same reason mentioned for Merwari. According to the 1961 census, Godwari speakers numbered 136 (Mallikarjun 2002). Even with

[1]Marwari is variously spelt as Marvari, Marwadi or Marvadi. Marwari is used throughout this report, being the most common spelling.

an estimated increase from 1961 to 2001, this would give a fairly small number for a Rajasthani-related language group living in two districts. In the same way as we did for Marwari and Merwari, we estimated the Godwari population to be three million.

Shekhawati is another Indo-Aryan language group found in Sikar, Jhunjhunu, and Churu districts of Rajasthan. As they live close to the Marwar region, their relationship to Marwari was also investigated on this survey.

1.3 Languages

Marwari, Merwari, Godwari, and Shekhawati are classified as Indo-European, Indo-Iranian, Indo-Aryan, Central Zone, Rajasthani, Marwari (Lewis 2009).

> According to various scholars, [one] way to classify the present-day dialects of Rajasthani is to divide them along geographic lines into several major circuits.… [The Marwari circuit] is considered to be ancient Rajputana or the traditional Marwad kingdom. Since ancient times, the area's speech variety has been known as Marwari (alternately spelled as Marvari or Marwadi). During this survey, people reported that within this circuit, there are four major dialects, designated according to four of the district names. Jodhpuri is considered to be the pure and standard form of Marwari; most of the Rajasthani-Marwari literature has been produced in this variety. Jaisalmeri, Barmeri and Bikaneri are the other three reported varieties of Marwari. Marwari has a number of poets and writers, as well as quite a number of language and cultural research centres. There are some institutes that are focused on collecting and preserving old manuscripts. The Rajasthan government archives include thousands of Marwari manuscripts from the 9th century onward. Marwari literature has a strong influence on Rajasthani literature (Samuvel, Joshua, Koshy, and Abraham 2012:21–22).
>
> [The Merwari] circuit covers Ajmer and Nagaur districts, and borders the Marwari circuit. People here consider themselves to be Marwari speakers, though the name Ajmeri (referring to one of the districts of this circuit) has also been used for this speech variety. Although Merwari had its own literature in the past, the present-day situation is not favourable to develop any literature in this dialect (Samuvel, Joshua, Koshy, and Abraham 2012:22).
>
> The name for Godwari circuit was apparently derived from an ancient clan; this is not widely known among the local people today. The Godwari circuit consists of three districts (Jhalor, Pali and Sirohi) located on the Aravalli range. Godwari has four main varieties called Balvi, Khuni, Sirohi and Madahaddi. Many local Rajasthani language experts (Sohanlal 1991:180) believe that from this area, the original Rajasthani language formed and separated from Gujarati. At present, Godwari has few poets and writers and very little literature of its own (Samuvel, Joshua, Koshy, and Abraham 2012:23).
>
> Shekhawati circuit consists of two small districts called Jhunjhunu and Sikar, and also part of Churu. The speech variety here differs from Standard Marwari; the people refer to their mother tongue as Shekhawati-Marwari and identify themselves in general as Marwari speakers. Sikar Shekhawati is reportedly the standard form of this circuit's Rajasthani dialect; the other reported form is Jhunjhunu-Churu Shekhawati. Shekhawati has contributed to the body of Rajasthani

> literature and has many poets and writers, even though it has a smaller population compared to the other circuits (Samuvel, Joshua, Koshy, and Abraham 2012:23).

There have been several initiatives to develop the Marwari language using the Jodhpuri variety. It is reported that the language used in Marwari movies, radio broadcasts, and school textbooks is that of Jodhpuri variety. From 2004 onwards, the Rajasthan state government has included a chapter in Marwari within the Hindi subject to be taught to students from first through eighth standard.

Marwari, as a language, does not have official status in educational institutions or in government offices. There have been attempts to have it recognised as one of the Scheduled Languages of India. Author Ram Chandra Bora (1994:53, 57) writes that two of the Rajasthani dialects, Marwari and Shekhawati, dominate the linguistic scene in Rajasthan. He adds that promoters aspire to see Marwari become the official language for the whole state of Rajasthan.

Marwari as a language has distinct characteristics. For example, during the fieldwork for this survey, people told the researchers that there are some phonetic sounds in Marwari that cannot be represented with the Devanagri script. A website (http://www.theory.tifr.res.in/bombay/history/people/language/marwari.html) mentioned, 'Marwari contains many words in common with Gujarati as well as Hindi. The rules of grammar differ from Hindi at various points.' In the table below are two rules listed on that website for transforming Hindi words into Marwari words.

Changes	**Gloss**	**Hindi**	**Marwari**
/s/ to /h/	gold	sona	hona
/ch/ to /s/	spoon	chammach	sammas

1.4 Previous research

Gusain (2004) wrote a grammatical description of Marwari. His book provides a brief sociolinguistic sketch, along with chapters on the phonology, morphology, and syntax of Marwari. He also includes a short Marwari text with interlinear and free translations.

The researchers are aware of two sociolinguistic surveys that have been conducted relating to these languages. Varenkamp (1990) did a short survey on Marwari, Shekhawati, and Dhundari. A few findings from this survey were:

- The Marwari situation is quite complex — it could be a pidgin of Hindi or of Bhili languages.
- There seem to be more differences between Marwari and Hindi in grammar than in vocabulary.
- The people in the villages, especially women, do not adequately understand Hindi.
- Marwari as spoken in Jodhpur is considered the standard form.

In the report on their survey of present-day Rajasthani dialects, Samuvel et. al. (2012:13) noted, 'People who speak other dialects but have an awareness of the prestige of Marwari are recognising that they may need to sacrifice their own dialect variations for the sake of restoring Rajasthani as a language. Consequently, it appears that Marwari will continue to serve as the standard form of what people refer to today as the Rajasthani language.' Samuvel et. al. also included some recommendations for further research (2012:47–48):

- There is a need to conduct intelligibility testing of the Jodhpur Marwari dialect among Merwari speakers. (Though intelligibility testing of the Marwari story was carried out in most of the varieties, they were not able to conduct this testing among Merwari speakers.)
- Comprehension testing needs to be done within the Rajasthani dialects.
- Bilingual proficiency in Hindi needs to be determined among speakers of Rajasthani dialects.

1.5 Purpose and goals

The purpose of this survey was to further clarify the needs for language development in the Marwari, Merwari, and Godwari languages. To achieve this purpose, the following goals were set.

Goal 1: To determine the optimal language (or languages) for a language programme (or programmes) among speakers of Marwari, Merwari, and Godwari?
- Research questions:
  - What is the degree of lexical similarity among varieties of Marwari, Merwari and Godwari?
  - Is the Jodhpur variety of Marwari intelligible and acceptable to: (a) Merwari speakers; (b) Godwari speakers; (c) Marwari speakers in other districts of the language area?
  - Is Shekhawati intelligible and acceptable to Marwari speakers in Jodhpur?
- Research tools:
  - Wordlist comparisons, Recorded Text Testing (RTT), and post-RTT questionnaires.

Goal 2: To assess language use, attitudes, and vitality among Marwari, Merwari, and Godwari speakers.
- Research questions:
  - In what domains is the mother tongue used among the (a) Merwari; (b) Godwari; (c) Marwari speakers in other districts of the language area?
  - What language attitudes are held among the (a) Merwari; (b) Godwari; (c) Marwari speakers in other districts of the language area?
- Research tools:
  - Questionnaires, informal interviews, and observations.

Goal 3: To determine levels of Hindi bilingual proficiency among Marwari, Merwari, and Godwari speakers.
- Research questions:
  - What are tested levels of Hindi proficiency among Marwari, Merwari, and Godwari speakers?
  - What are self-reported Hindi abilities among Marwari, Merwari, and Godwari speakers?
- Research tools:
  - Hindi Sentence Repetition Testing (SRT) and questionnaires.

2 Dialect areas

2.1 Lexical similarity

2.1.1 Introduction

A common method of measuring the relationship among speech varieties is to compare the degree of similarity in their vocabularies. This is referred to as lexical similarity. Speech communities that have more terms in common (thus a higher percentage of lexical similarity) are more likely to understand one another than speech communities that have fewer terms in common, though this is not always the case. Since only elicited words and simple verb constructions are analysed by this method, lexical similarity comparisons alone cannot indicate how well certain speech communities understand one other. It can, however, assist in obtaining a broad perspective of the relationships among speech varieties and give support for results using more sophisticated testing methods, such as comprehension studies.

2.1.2 Procedures

The instrument used in determining lexical similarity in this project was a 210-item wordlist, consisting of items of basic vocabulary, which has been standardised and contextualised for use in surveys of this type in South Asia. These wordlists were transcribed using the International Phonetic Alphabet (IPA). Transcriptions are shown in Appendix B.

Using the lexical similarity counting procedures described in Blair (1990:30–33), two speech varieties showing less than 60 per cent similarity are unlikely to be intelligible and may be considered as two different languages, or at least as very different dialects (Blair 1990:20). For speech varieties that have greater than 60 per cent similarity, intelligibility testing should be done to determine their relationship.

2.1.3 Site selection

Twelve wordlists were compared in this study. Eight were collected during the fieldwork for this survey. The three Shekhawati wordlists, originally collected in 2002, were rechecked. A standard Hindi wordlist was also included. Table 1 summarises information about these wordlists. Map 1 in Appendix A shows the locations[2] of these villages.

Table 1. Speech varieties and locations of wordlists compared in this study

Language area	Village	Tehsil	District
Marwari	Mukheri	Phalodi	Jodhpur
	Gomat	Pokhran	Jaisalmer
	Fatehgarh	Jaisalmer	Jaisalmer
	Husangsar	Bikaner	Bikaner
Merwari	Degana	Degana	Nagaur
Godwari	Kherwa	Pali	Pali
	Bagra	Jalore	Jalore
	Falna	Bali	Pali
Shekhawati	Bhagatpura	Udaipurwati	Sikar
	Badagaon	Jhunjhunu	Jhunjhunu
	Chalkoi	Churu	Churu
Hindi (Standard)			

2.1.4 Results and analysis

According to Blair (1990:24), speech varieties that have less than around 60 per cent lexical similarity (using the counting procedures described in Appendix B) are unlikely to be intelligible and can generally be considered different languages. For speech varieties that have greater than around 60 per cent lexical similarity, there is the possibility that they could be combined under one language development programme; however, intelligibility testing should be done to clarify that possibility.

Table 2 shows the lexical similarity percentages matrix for all speech varieties compared in this study. The wordlists are arranged by language group and then in generally descending order. Village name and district are given for each wordlist except standard Hindi.

[2] A *tehsil* is an administrative unit that consists of a city or town that serves as its headquarters, possibly additional towns, and a number of villages. As an entity of local government, it exercises certain fiscal and administrative power over the villages and municipalities within its jurisdiction. It is the ultimate executive agency for land records and related administrative matters. Its chief official is called the *tehsildar* or *talukdar*.

Table 2. Lexical similarity percentages matrix

Marwari – MukheriĠ Jodhpur											
87	Marwari – Gomat, Jaisalmer										
80	85	Marwari – Fatehgarh, Jaisalmer									
76	74	72	Marwari – Husangsar, Bikaner								
76	72	69	76	Merwari – Degana, Nagaur							
74	71	70	71	75	Godwari – Kherwa, Pali						
70	66	66	65	66	70	Godwari – Bagra, Jalore					
63	65	65	62	62	70	71	Godwari – Falna, Pali				
69	66	64	77	81	70	62	55	Shekhawati – Bhagatpura, Sikar			
62	62	61	76	71	62	53	52	76	Shekhawati – Badagaon, Jhunjhunu		
63	63	63	76	69	63	56	54	75	78	Shekhawati – Chalkoi, Churu	
54	55	53	64	57	58	54	49	57	68	61	Hindi

Most of the wordlists show lexical similarities between approximately 60 and 80 per cent. This signifies few clear-cut language boundaries. Nevertheless, we can observe some patterns in the data. In general, wordlists from locations that are closer geographically show higher percentages of lexical similarity than wordlists from locations that are more distant from one another. Refer to Map 2 in Appendix A to see the geographic relationships among the wordlist locations.

Within the Marwari varieties, the similarities are 72 to 87 per cent. Excluding Husangsar, the similarities of Marwari varieties are 80 per cent and above. Husangsar probably showed the lowest similarities because this village is located in the far north of the Marwari region. With one exception,[3] Husangsar showed the highest similarities (76 to 77 per cent) with the Shekhawati varieties, likely because of geographic proximity.

The three Godwari varieties are 70 to 71 per cent similar to each other, and are 62 to 74 per cent similar to the Marwari varieties. From among the Godwari varieties, the Kherwa wordlist is the most similar to the Merwari wordlist (75 per cent) and also to the Marwari wordlists (70 to 74 per cent).

The three Shekhawati varieties are 75 to 78 per cent similar to each other.[4] Excluding Husangsar, the Shekhawati wordlists show 61 to 69 per cent similarities with the other three Marwari wordlists. They show 52 to 70 per cent similarities with the Godwari wordlists. The highest lexical similarity (70 per cent) between Shekhawati and Godwari varieties is found in the wordlists from the two closest villages, Bhagatpura and Kherwa; the remainder range from 52 to 63 per cent.

Hindi stands more distinct from all these varieties, with the following lexical similarity percentages: 53 to 64 per cent with Marwari, 57 per cent with Merwari, 49 to 58 per cent with Godwari, and 57 to 68 per cent with Shekhawati. Hindi has long been considered a separate language, and the people's perceptions also support this.

2.2 Dialect intelligibility

2.2.1 Introduction

It is not easy to define the terms 'language' and 'dialect.' These terms are used in different ways. Common usage often applies the term 'language' to the large, prestigious languages that have an established written literature. The term 'dialect' is then used for all other speech varieties. Some linguists

[3]The exception is the 81 per cent similarity between the Degana Merwari wordlist and the Bhagatpura Shekhawati wordlist.

[4]The similarities found on the 2012 Rajasthani survey (Samuvel et. al. 2012:23) were 74 to 77 per cent.

use 'language' to refer to speech varieties that share similar vocabularies, phonological and/or grammatical systems. Many times, the sense in which the two terms are used can vary.

The researchers believe that an important factor in determining the distinction between a language and a dialect is how well language speakers can understand one another. Low intelligibility[5] between two speech varieties, even if one has been classified as a dialect of the other, means that at least one group has difficulty in understanding the other (Grimes 2000:vi). Thus comprehension testing, which allows a look into the approximate understanding of natural speech, was an important component of this research.

2.2.2 Procedures

One of the main research questions of this survey was whether the Jodhpur variety of Marwari was intelligible and acceptable to speakers of other Marwari varieties, as well as to Merwari and Godwari speakers.[6] The intelligibility and acceptability of Shekhawati also needed to be established. To determine the answers to these questions, the comprehension of the Jodhpur Marwari story among Merwari and Godwari speakers was tested; comprehension of a Shekhawati story among Marwari speakers was also tested. This study of dialect intelligibility was pursued using Recorded Text Testing (RTT). Four stories were employed, one from each language group. Three of the stories were from the 2012 Rajasthani survey (Samuvel et. al.) and one story-Merwari-was newly developed during this survey. Table 3 provides information about the villages where these stories were recorded.

Table 3. Name, location, and origin of stories utilised in this project

Language	Name of story	Source village	District
Marwari	Festival story	Manakalav	Jodhpur
Merwari	Ghost story	Degana	Nagaur
Godwari	Travel story	Bagseen	Sirohi
Shekhawati	Snake story	Piprali	Sikar

Recorded Text Testing (RTT)[7] is one tool to help assess the degree to which speakers of related linguistic varieties understand one another. In the standard procedures for this test, a three- to five-minute natural, personal experience narrative is recorded from a mother tongue speaker of the speech variety in question. Comprehension questions are developed and interspersed through the text. The test is then evaluated with a group of mother tongue speakers from the same region by a procedure called Hometown Testing (HTT). This ensures that the story is representative of the speech variety in that area and that the questions are suitable to be used for testing in other sites. Thus, a validated HTT[8] produces an RTT that can be used among speakers of other varieties. In each location, subjects must be screened with a control test, usually an HTT developed in their own speech variety.[9] This helps ensure that any

[5]'Intelligibility' is a term that has often been used to refer to the level of understanding that exist between speech varieties. O'Leary (1994) argues that results of Recorded Text Testing should be discussed as comprehension scores on texts from different dialects, not as intelligibility scores nor as measures of 'inherent intelligibility'. Thus the term 'intelligibility' has been used sparingly in this report, with the term 'comprehension' used more frequently.
[6]During the 2012 Rajasthani survey (Samuvel et. al.), a Jodhpur Marwari text was tested among Godwari speakers in Sirohi district and Shekhawati speakers in Sikar district. The results indicated unlikely intelligibility. Testing was attempted among Merwari speakers but could not be completed. For the sake of clarification and confirmation, we decided to conduct an intelligibility study on this survey that included testing the original Jodhpur Marwari story among Godwari speakers in Pali and Jalore districts as well as among Merwari speakers.
[7]For a full description of standard RTT procedures, refer to Casad (1974) and Blair (1990).
[8]Because the HTT is in the local mother tongue variety of the subjects, the overall average should ideally be 100 per cent, but an average as low as 90 per cent is acceptable.
[9]Ideally, an individual subject should score 100 per cent on the HTT before being allowed to take an RTT, but an individual score as low as 80 per cent is acceptable.

difference between their performance on the control test and an RTT is due to a difference in their comprehension of the speech variety represented on the RTT, rather than due to misunderstanding the testing procedure itself.

Ten people is considered the minimum number to be tested on an RTT to ensure statistical validity. As the questions are asked, the subjects' responses to the story questions are noted down and scored. A person's score is considered a reflection of his comprehension of the text, and the average score of all subjects at a test point is indicative of the community's intelligibility of the speech variety of the story's origin. Included with the test point's average score is a calculation for the variation between individual subjects' scores, or standard deviation, which helps in interpreting how representative those scores are.

In this survey, the researchers used three stories for testing in each site. We began with the preliminary 'cow story' (Blair 1990:78), which is used to help familiarise subjects with the test-taking procedure. This was followed by a control test in the mother tongue of the subjects. The final test was either the Marwari or Shekhawati RTT, The only exception to this story sequence was in the Marwari area. Since we were not able to collect another story for development as an HTT in each location, we extended the four-sentence 'cow story' to eight sentences. This 'extended cow story' was used as the control test for Marwari subjects.

In the RTTs used in this survey, the number of questions ranged from ten to 12. This is because the questions inserted in the stories had to be translated into the local speech variety. Sometimes, we got a wrong translation or inappropriate wordings. In such cases, that particular question was not counted.

After each story, subjects were asked questions such as how different they felt the speech was and how much they could understand. These subjective post-RTT responses give an additional perspective for interpreting the objective test data. If a subject's answers to these questions are comparable with his or her score, it gives more certainty to the results. If, however, the post-RTT responses and test score show some dissimilarity, then this discrepancy may need to be investigated.

2.2.3 Site selection

Table 4 lists the villages where the stories were tested. See Map 3 in Appendix A for the locations of these villages.

Table 4. RTT sites in the Marwari, Merwari, and Godwari regions

Language	Village	Tehsil	District
Marwari	Mukheri	Phalodi	Jodhpur
	Gomat	Pokhran	Jaisalmer
	Ranigaon	Barmer	Barmer
	Husangsar	Bikaner	Bikaner
Merwari	Degana	Degana	Nagaur
	Badlya	Ajmer	Ajmer
Godwari	Bagra	Jalore	Jalore
	Falna	Bali	Pali
	Kherwa	Pali	Pali

2.2.4 Demographic profiles of the RTT sites

Mukheri

Mukheri is located near a state highway. The transport facilities to the village are comparatively good. The village is situated twelve kilometres from Phalodi in Jodhpur district. The climate of the place is completely dry. There is a temple here that has existed for around 500 years. It is said that the people here migrated from Jaisalmer about 350 to 500 years ago, and they claim linguistic similarity with Jaisalmer more than with other districts. According to the 2001 census, the population of the village is about 4,700.

Gomat

This village is around five kilometres from Pokhran, a *tehsil* headquarters that is known as India's nuclear testing site, and also around ten kilometres from the district boundary. Transport facilities to the village are very poor, though the roads are good. Muslims and Hindus live together in this village. The Muslims are the ones who manage most of the businesses.

Ranigaon

This village is located around twenty kilometres south of Barmer town. This is the hilly part of the district. The village is well connected with the main road and frequent bus services are available. According to the 2001 census, the population of the village is 6,000, with 600 houses. The village has two government schools: one is up to tenth standard and the other is primary. The women are less educated (30 per cent) compared to men (90 per cent).

Husangsar

Husangsar is a rural village located three kilometres from National Highway 11 and fifteen kilometres from Bikaner district headquarters. Transport facilities are very poor. Camel cart is the common mode of transport for the local people. Outsiders can get to the village by hiring an auto rickshaw (a three-wheeler taxi) in the district headquarters. According to the 2001 census, the population is 1,655.

Degana

This village is situated five kilometres from Degana *tehsil* headquarters and is near the State Highway. Around five per cent of the total population of this village are outsiders. Among the villagers, some educated men are proficient in English as well. The villagers are suspicious towards visitors. The famous tourist place Pushkar is around fifty kilometres from this village.

Badlya

Badlya is a village situated around thirteen kilometres away from Ajmer district headquarters. The village is divided into two parts: old and new. The old part is in the interior, and transport facilities to this part are very poor; only one bus service is available. Transport facilities to the new part are comparatively good They have one government school and a primary health centre. According to the 2001 census, the population of the village is 4,106.

Bagra

Bagra is a rural village located around twenty kilometres south of Jalore district headquarters. Since the village is located by the State Highway, transport to the village is good. Jeeps, buses, and autos are the common modes of transport. The village has several schools up to 12th standard, and also a primary health centre and other amenities. Most of the men (60 per cent) in the village go out on business. The researchers found it difficult to get uneducated young subjects for administering the RTTs here. According to the 2001 census, the population of the village is 10,000.

Falna

This village is five kilometres from Bali *tehsil* headquarters. Transport facilities to the village are good. The researchers observed that most of the villagers here are bilingual in Hindi. They claim to be Godwari speakers. Most of the people have been outside the village on business.

Kherwa

Kherwa is an interior village situated around 22 kilometres from Pali district headquarters. Though it has a population of more than 5,000, the houses are scattered widely throughout the area. The village has one government hospital and two schools.

2.2.5 Results and analysis

Table 5 shows the RTT results. The columns of the table list each story used for testing, and the rows list the language groups among whom testing was done.

Table 5. RTT results among Marwari, Merwari, and Godwari speakers

Stories tested → / ↓ Test sites			Marwari story	Merwari story	Godwari story	Shekhawati story	Extended cow story
Marwari	**Mukheri**	avg				53	96
		sd				23	6
		n				12	12
	Gomat	avg	90				98
		sd	10				10
		n	14				14
	Ranigaon	avg	83				97
		sd	16				6
		n	15				15
	Husangsar	avg	74				79
		sd	14				14
		n	10				10
Merwari	**Degana**	avg	97	98			
		sd	5	4			
		n	12	12			
	Badlya	avg	82	83			
		sd	9	11			
		n	11	11			
Godwari	**Bagra**	avg	88		95		
		sd	11		6		
		n	13		13		
	Falna	avg	92		95		
		sd	11		6		
		n	12		12		
	Kherwa	avg	88		86		
		sd	9		10		
		n	13		13		

In interpreting RTT results, three pieces of information are necessary. The first is average percentage (shown as 'avg' in table 5), which is the mean or average of all the participants' individual scores on a particular story at a particular test site. Also necessary is a measure of how much individuals' scores vary from the community average, called standard deviation (shown as 'sd' in table 5). The third important piece of information is the size of the sample, that is, the number of people that were tested (shown as 'n' in table 5). In addition, a sample should include people from significant demographic categories, such as both men and women, younger and older, and educated and uneducated.

Since results of field-administered methods such as Recorded Text Testing cannot be completely isolated from potential biases, O'Leary (1994) recommends that results from RTTs not be interpreted in terms of fixed numerical thresholds, but rather be evaluated in light of other indicators of intelligibility such as lexical similarity, dialect opinions, and reported patterns of contact and communication. In general, however, RTT mean scores of around 80 per cent or higher with accompanying low standard deviations (usually ten and below; high standard deviations are about 15 and above) are usually taken to indicate that representatives of the test point dialect display adequate understanding of the variety represented by the recording. Conversely, RTT means below 60 per cent are interpreted to indicate inadequate comprehension.

The relationship between test averages and their standard deviation has been summarised by Blair (1990:25) and can be seen in table 6.

Table 6. Relationship between test averages and standard deviation

		Standard Deviation	
		High	**Low**
Average Score	**High**	Situation 1 Many people understand the story well, but some have difficulty.	Situation 2 Most people understand the story.
	Low	Situation 3 Many people cannot understand the story, but a few are able to answer correctly.	Situation 4 Few people are able to understand the story.

Comprehension of the Jodhpur Marwari story

The average scores on the Jodhpur Marwari RTT in all test points ranged from 74 to 97 per cent, with standard deviations from five to 16. These results indicate that Jodhpur Marwari may be intelligible enough for speakers of Marwari, Merwari, and Godwari to share materials developed in Jodhpur Marwari.

This conclusion must remain tentative for Marwari, Merwari, and Godwari speakers in Husangsar, Badlya, and Kherwa respectively. Those subjects did not score adequately on their control tests to allow for clear interpretation of their results on the Marwari RTT. In standard procedure, the overall average score on a control test should be 90 per cent or higher; individuals should score at least 80 per cent before taking an RTT from another location. This helps to insure that any differences between scores on the control test and scores on RTTs are due to lack of intelligibility rather than not understanding the test procedure. Since there was an election in Husangsar village on the day (4 February 2005) the RTT testing was done, the disturbance from the loudspeakers and people walking around may also have affected the results in that location.

Excluding the results from Husangsar, Badlya, and Kherwa, average scores on the Marwari RTT ranged from 83 to 97 per cent, with standard deviations of five to 16. The highest average on the Marwari RTT was 97 per cent, with a standard deviation of five, among Merwari subjects in Degana. This indicates that most subjects in Degana understood the story. This was also the case for Godwari subjects in Bagra and Falna, and for Marwari subjects in Gomat.

Ranigaon subjects had a somewhat lower average score of 83 per cent with a higher standard deviation (16). This shows that many subjects understood the story but a few had difficulty. In this site, four subjects got low scores on the RTT, although they had 100 per cent on the HTT. Therefore, this was not a situation in which they did not understand the testing procedure. These subjects were also from different categories of education, age, and gender.

Comprehension of the Sikari Shekhawati story

Marwari subjects in Mukheri scored only 53 per cent on the Sikari Shekhawati RTT, with a high standard deviation of 23. This indicates that many people could not understand the story, but a few were able to answer correctly.

Post-RTT responses of Marwari subjects to the Shekhawati story

Is the storyteller's speech a little different or very different from your speech?

Though they did not know the exact identity of the language in the story, most people reported there is a difference between their speech and that of the story. The differences pointed out were mostly in pronunciation, style of speaking, and words. Every subject felt the greatest difference was in the pronunciation.

How much of the story did you understand?

Half of the subjects said they understood the story fully, but their scores contradicted their claims. For instance, one subject who claimed to have understood everything scored only 20 per cent.

Which story is most easy to understand — the Shekhawati story or the extended cow story? (The extended cow story was used as the control test in the Marwar area.)

With this question, we wanted to identify the perceived comprehension of the speech varieties as represented in the recordings. It was not surprising that almost everyone said that the extended cow story recorded in Jodhpur Marwari was easier to understand. The only exception was one participant who answered 'both'.

The subjects were also asked which language would be preferable for literature or cassettes to be produced in. To this question, everyone answered that they would want such materials in the language of the extended cow story (Jodhpur Marwari).

3 Language use, attitudes, and vitality

3.1 Introduction

A study of language use patterns attempts to describe which languages or speech varieties members of a community use in different social situations, referred to as domains. Domains are social contexts in which the use of one language variety is considered more appropriate than another (Fasold 1984:183). A study of language attitudes tries to describe people's feelings and preferences for their own language and other speech varieties around them. Language vitality refers to the health of a language and the likelihood that it will continue to be spoken by mother tongue speakers in the foreseeable future. These three factors are important in determining the viability of a particular language and of a language development programme.

3.2 Questionnaire sample

Using a Language Use, Attitudes, and Vitality (LUAV) questionnaire, consisting of 22 questions, we interviewed a total of 108 subjects in eight villages. The questionnaire was administered to individual subjects using Hindi with those who understood it and interpreters from Hindi to other languages whenever necessary. Attempts were made, while selecting the sites, to conduct the interviews at least on the fringes and centre of each of the language areas. Table 7 lists the LUAV sites. Map 4 (Appendix A) shows the locations of these sites.

Table 7. LUAV questionnaire sites and the number of subjects in each site

Language	Name of Village	Name of Tehsil	District	No. of subjects
Marwari	Ranigaon	Barmer	Barmer	12
	Husangsar	Bikaner	Bikaner	14
	Gomat	Pokhran	Jaisalmer	18
Merwari	Badlya	Ajmer	Ajmer	12
	Degana	Degana	Nagaur	11
Godwari	Bagra	Jalore	Jalore	16
	Kherwa	Pali	Pali	12
	Falna	Bali	Pali	13
	Total			108

3.3 Results and analysis

3.3.1 Language use

Table 8 summarises the languages that subjects reported using in various domains. The columns in the table list the languages and the rows list the questions and the responses.

Table 8. Domains of language use

What language do you use (is used) …	Mother tongue	Hindi	Mother tongue and Hindi	Other
With your family members?	96%	1%	3%	0%
In the village?	96%	1%	2%	1%
By children while playing?	94%	2%	3%	1%
At the market?	81%	9%	8%	2%
With neighbouring villagers?	91%	2%	4%	3%
With government officials who speak your language?	97%	2%	0%	1%
With government officials who speak Hindi?	29%	70%	0%	1%
For private prayers, religious ceremonies?	79%	11%	2%	8%
For marriage songs?	94%	1%	2%	3%
In school?	14%	81%	4%	1%

Based on these responses, the mother tongue is widely used in many key domains of life, except at school and with government officials who do not speak the mother tongue. This confirms our observations during the field research that hardly anyone, young or old, spoke Hindi, or any language other than the mother tongue, when speaking to people within their language group.

3.3.2 Language attitudes

Although mother tongue language use appears strong, speakers of Marwari, Merwari, and Godwari were also reported to have high regard for Hindi as the official language of government and education. Therefore we assessed language attitudes as well.

What language do you want your children to learn first? (106 respondents)

Just over half of the subjects (52 per cent) want their children's first language to be the mother tongue. Of these subjects, most are uneducated. The people who prefer to teach Hindi to their children first make up 37 per cent of the respondents. The educated wanted to teach Hindi to their children more than the uneducated. The English language follows in the list after the mother tongue and Hindi.

Which language is best when a mother is speaking to her young child? (107 respondents)

Almost all the subjects (91 per cent) think that the mother tongue is best to use when a mother is speaking to a young child. The rest said 'Hindi'. Interestingly, one woman who did not speak Hindi said Hindi is best to use between a mother and her child.

Would you like your children to learn to read and write in your language? (107 respondents)

Slightly more than two-thirds expressed a preference for their children to learn to read and write in their mother tongue. Among those who said 'yes', the uneducated made up a slightly higher number than the educated. Among those who said 'no', there were more educated than uneducated. Among the three language groups, the preference of Godwari subjects (one-third) for their children to learn to read and write in the mother tongue is lower than the other groups. There were some reasons mentioned why children should not learn to read and write in their mother tongue — the inability to get a job, the language has not been developed (and there is no script), and the mother tongue is not offered at any university.

Will you be happy if your children would speak only Hindi? (106 respondents)

A little over two-thirds (69 per cent) of those asked said that they would be happy if their children spoke only Hindi. Some of the people said they will not be happy because they felt their children they should learn several languages. One of the villagers said he is inspired to learn many languages by a former Prime Minister of India, Mr. P.V. Narasimha Rao, who had learned several languages. Moreover, some pointed out, 'Hindi is for work, but English is better than Hindi.'

Which language do young people in your village like to use the most? (108 respondents)

Close to two-thirds (62 per cent) said that their mother tongue was the language young people liked to use most. Hindi (30 per cent), as expected, was the next preference. A few people also said that the youths prefer both the mother tongue and Hindi simultaneously. There were some additional comments, such as, 'The uneducated prefer the mother tongue and the educated prefer Hindi.'

Which language do you like the most? (107 respondents)

A little over half (53 per cent) of the respondents said their mother tongue was their favourite language. Twice as many of the uneducated as educated said that their language is the best. Hindi (36 per cent) was preferred next after the mother tongue, with twice as many educated respondents preferring Hindi. Among the Godwari, the preference for Hindi is greater than for the mother tongue. Twenty-nine out of 41 Godwari subjects, or 71 per cent, said Hindi was their favourite language.

3.3.3 Language vitality

Only one question was directly asked to assess what speakers of Marwari, Merwari, and Godwari think of the future of their languages.

Do you think that the coming generations will speak your language?

Two-thirds of the subjects were confident that their language would continue to be used by the coming generations. To confirm their responses, a few people asked the researchers back, 'Will you forget your mother tongue?'

4 Bilingualism

4.1 Introduction

Hindi, the national language of India, has been the language of education as well the official language of Rajasthan. There is ample literature available in Hindi today. If speakers of Marwari, Merwari, and Godwari are not bilingual enough in Hindi to understand the concepts found in written materials, then vernacular literature development would likely prove beneficial.

Bilingualism refers to the knowledge and skills acquired by individuals that enable them to use a language other than their mother tongue. In any community, different individuals or sections of the community are bilingual to different degrees. It is important to avoid characterising an entire community as though such ability were uniformly distributed. It is more accurate to describe how bilingualism is distributed throughout the community (Blair 1990:51–52).

Motivation (the desire to learn the Hindi language, in this case) and opportunity (exposure to Hindi or contact with Hindi speakers) are two of the most important factors that produce bilingualism. Depending on these factors, different individuals or sections of the community are proficient to varying degrees. The motivation may also be economic, religious, altruistic, or for self-preservation. Contact is related to certain demographic factors such as education, age, and gender.

4.2 Tested levels of bilingualism in Hindi

4.2.1 Sentence Repetition Testing (SRT) procedures

The Hindi SRT (developed by Varenkamp in 1991) consists of eighteen carefully selected sentences recorded in Hindi. The first three sentences are for the subjects to get familiar with the testing situation, while the next fifteen sentences are for the actual test — these sentences are scored. The test starts with short, simple sentences in Hindi, and the sentences become progressively longer and more complex in grammar. The test is administered individually with each subject listening through headphones. Each sentence is played once for each subject and the subject is given the opportunity to repeat the sentence exactly the same way. Each sentence is scored according to a four-point scale (0 to 3) for a maximum of 45

points. Each subject is evaluated on his ability to repeat each sentence accurately. Any deviation from the recorded sentences is counted as an error and one point is subtracted for that sentence, down to zero. A subject's ability to accurately repeat the sentences of increasing difficulty is directly correlated with the ability to speak and understand the language: the higher the score, the higher the bilingual proficiency.

The scores of the subjects were compared with the corresponding Reported Proficiency Equivalent (RPE), which rates the speakers from RPE 0+ (very minimal proficiency) to RPE 4+ (approaching the proficiency level of a native speaker). Table 9 shows the relationship between the SRT scores, the RPE levels, and the proficiency descriptions (Varenkamp 1991:9).

Table 9. Hindi SRT score ranges with corresponding RPE levels

Hindi SRT score (out of 45)	RPE level	Proficiency description
44 - 45	4+	Near native speaker
38 - 43	4	Excellent proficiency
32 - 37	3+	Very good, general proficiency
26 - 31	3	Good, general proficiency
20 - 25	2+	Good, basic proficiency
14 - 19	2	Adequate, basic proficiency
08 - 13	1+	Limited, basic proficiency
04 - 07	1	Minimal, limited proficiency
00 - 03	0+	Very minimal proficiency

Hatfield et. al. (2007:3) note that, 'Development of a Sentence Repetition Test (SRT) (Radloff 1991) has resulted in wide employment of this efficient technique for estimating the bilingual proficiency profile of an entire community. The accepted standard is the Oral Proficiency Interview as developed by the U.S. Foreign Service Institute. The Second Language Oral Proficiency Evaluation (SLOPE) was adapted from it by SIL (1987) to be used in preliterate societies.'

Although the RPE uses the same numerical system as the Foreign Service Institute (FSI), the Interagency Language Roundtable (ILR), and SLOPE, it is not identical. Reviews of SRT studies (Hatfield et. al. 2007) have shown that there is not a strict correlation between RPE and these measures of bilingual proficiency. This must be remembered when analysing and interpreting SRT results.

4.2.2 Variables and sampling for SRT

The variables deemed most likely to influence bilingualism in this study were education, age, and gender. Focusing on these characteristics, we investigated the variations between subjects from the following subgroups: educated (5th standard and above) and uneducated (0 to 4th standard), younger (age 18 to 35) and older (age 36 and above), male and female.

4.2.3 Demographic profiles of the SRT sites

The SRT was administered in four locations: two in the Marwari region and one each in the Merwari and Godwari regions. Table 10 shows the test site information. See Map 5 (Appendix A) for the locations of these villages. Refer to section 2.2.4 for additional demographic details on these sites.

Table 10. SRT sites in the Marwari, Merwari, and Godwari regions

Language region	Village	Tehsil	District
Marwari	Mukheri	Phalodi	Jodhpur
	Husangsar	Bikaner	Bikaner
Merwari	Badlya	Ajmer	Ajmer
Godwari	Bagra	Jalore	Jalore

4.2.4 Results and analysis

Tables 11 to 13 present the Hindi SRT results among Marwari, Merwari, and Godwari speakers according to the demographic variables of education, age, and gender. The key for the abbreviations used in these tables is: n = number of subjects, avg =average score, RPE = RPE level, sd = standard deviation.

Table 11. SRT results of Marwari subjects according to education, age, and gender

		Educated	Uneducated	Total
Male	**Younger**	n = 30 avg = 36 sd = 7 RPE = 3+	n = 15 avg = 30 sd = 8 RPE = 3	n = 66 avg = 32 sd = 9 RPE = 3+
	Older	n = 8 avg = 35 sd = 8 RPE = 3+	n = 13 avg = 23 sd = 9 RPE = 2+	
Female	**Younger**	n = 3 avg = 40 sd = 4 RPE = 4	n = 11 avg = 16 sd = 8 RPE = 2	n = 23 avg = 19 sd = 11 RPE = 2
	Older	n = 1 avg = 35 sd = 0 RPE = 3+	n = 8 avg = 12 sd = 4 RPE = 1+	
Total		n = 42 avg = 36 sd = 7 RPE = 3+	n = 47 avg = 22 sd = 10 RPE = 2+	

Table 12. SRT results of Merwari subjects according to education, age, and gender

		Educated	Uneducated	Total
Male	**Younger**	n = 8 avg = 32 sd = 8 RPE = 3+	n = 5 avg = 23 sd = 10 RPE = 2+	n = 23 avg = 28 sd = 9 RPE = 3
	Older	n = 4 avg = 34 sd = 4 RPE = 3+	n = 6 avg = 23 sd = 8 RPE = 2+	
Female	**Younger**	n = 3 avg = 39 sd = 2 RPE = 4	n = 3 avg = 13 sd = 3 RPE = 1+	n = 10 avg = 21 sd = 10 RPE = 2+
	Older	n = 0	n = 4 avg = 19 sd = 9 RPE = 2	
Total		n = 15 avg = 34 sd = 7 RPE =	n = 18 avg = 19 sd = 9 RPE = 2	

Table 13. SRT results of Godwari subjects according to education, age, and gender

		Educated	Uneducated	Total
Male	**Younger**	n = 19 avg = 34 sd = 6 RPE = 3+	n = 0	n = 31 avg = 30 sd = 9 RPE = 3
	Older	n = 4 avg = 33 sd = 10 RPE = 3+	n = 8 avg = 20 sd = 7 RPE = 2+	
Female	**Younger**	n = 6 avg = 38 sd = 6 RPE = 4	n = 4 avg = 18 sd = 9 RPE = 2	n = 12 avg = 27 sd = 10 RPE = 3
	Older	n = 0	n = 2 avg = 13 sd = 5 RPE = 2	
Total		n = 29 avg = 34 sd = 6 RPE = 3+	n = 14 avg = 18 sd = 7 RPE = 2	

The patterns of bilingual proficiency are fairly similar among Marwari, Merwari, and Godwari subjects. The general findings are: educated subgroups, irrespective of age and gender, had average scores that were equivalent to RPE level 3+ or 4; uneducated subgroups had average scores that were equivalent to RPE levels ranging from 1+ to 3, depending on age, gender, and location.

Among the uneducated, the male subgroups had average scores that were one-half to one RPE level higher than the average scores for the corresponding female subgroups. This is probably because women generally have less contact with Hindi speakers since men, more often, conduct business that requires the use of Hindi.

Since the original development of the Hindi SRT, it has generally been assumed that an RPE level of 3+ is the minimum necessary to be able to use complex written materials in Hindi effectively. Based on the Hindi SRT results, it appears likely that a majority of Marwari, Merwari, and Godwari people, especially the uneducated and women, would fall below this minimum proficiency level.

4.3 Self-reported bilingualism in Hindi

To determine self-reported Hindi bilingual ability, bilingualism questions were also included on the Language Use, Attitudes, and Vitality (LUAV) questionnaire. The summarised responses are given below, along with an analysis of these responses.

How many languages do you speak?

Two-thirds of the subjects reported speaking more than one language. The language most commonly reported after the mother tongue was Hindi.

How did you learn Hindi?

Among those who said they knew Hindi, 70 per cent of the respondents reported learning it at school. The remainder gave a variety of responses, such as: from the workplace, from travelling, from speaking with outsiders. Only two subjects from all the language groups said they learned Hindi at home.

What are the occasions on which you use Hindi?

Almost all subjects reported that they use Hindi with outsiders who come to their villages, such as the researchers for this survey, and when they go out of the villages. Very often they mentioned the name of the nearest town where they visit on a regular basis and speak Hindi.

Is there anyone in your village (Marwari, Merwari, or Godwari)) who speaks only Hindi? No Marwari, Merwari, or Godwari at all?

There were no such people reported in the villages where this research was done.

Are you able fully to understand the news in Hindi when you listen to the radio or watch television?

	Yes	Other responses
Merwari	80%	Half, and no
Godwari	67%	Half, little bit, no, and not at all
Marwari	53%	Half, little bit, no, and not at all

Are there any situations in which you could not answer in Hindi?

	No	Yes	Sometimes
Merwari	65%	35%	0%
Godwari	54%	46%	0%
Marwari	54%	43%	3%

Half or more of the subjects from all three language groups reported that they could fully understand Hindi broadcasts and that there were no situations in which they could not respond in Hindi. A higher percentage of Merwari subjects gave these responses.

5 Summary of findings and recommendations

5.1 Summary of findings

5.1.1 Dialect areas

Twelve different wordlists were compared from the Marwari, Merwari, Godwari, Shekhawati, and Hindi languages. The lexical similarity percentages among varieties of Marwari, Merwari, Godwari, and Shekhawati were nearly all above 60 per cent, indicating potential intelligibility. The lexical similarities of these varieties with Hindi were nearly all below this threshold.

Within and among the Marwari, Merwari, and Godwari varieties, lexical similarity percentages tended to be somewhat higher than the percentages between these wordlists and those from Shekhawati varieties. Geographic proximity seemed to have an influence; wordlists from locations that are closer to each other tend to show greater similarity. The wordlists from all four language areas appear to be distinct from Hindi. Dialect intelligibility testing was necessary to further clarify the linguistic relationship among Marwari, Merwari, Godwari, and Shekhawati.

A Jodhpur Marwari story was tested among speakers of other varieties of Marwari, and among Merwari speakers and Godwari speakers, in a total of nine locations. Some modifications to standard testing procedures had to be made. Nevertheless, the results indicate that Jodhpur Marwari, as represented by the recorded text, was generally well understood by speakers of other Marwari varieties, as well as by Merwari and Godwari speakers, in the test sites.

A Shekhawati story from Sikar district that was tested among Marwari speakers in Mukheri (Jodhpur district) resulted in a low average score (53 per cent) with a high standard deviation (23), signifying that only a few subjects could understand the story adequately. In response to the post-RTT questions, most subjects identified differences in pronunciation and only half of the subjects claimed to have understood the story fully. They also said that they would like to see materials such as books and audio recordings developed in their own speech variety rather than in the Shekhawati variety represented in the story.

5.1.2 Language use, attitudes, and vitality

Marwari, Merwari, and Godwari subjects reported wide use of the mother tongue in many domains: in the family, in the village, at the market, by the children when they play, when speaking to neighbouring villagers, for prayers, and in social gatherings such as marriages. Hindi is used more at schools and at government offices where the officials do not speak the mother tongue.

Attitudes towards the mother tongue were generally positive. However, about half of the subjects also expressed some preferences for Hindi. There is a desire to see the coming generation continue to use the

mother tongue, although Hindi is valued for educational purposes, especially among educated subjects. There is also a fairly strong belief that the mother tongue will indeed continue to be spoken by future generations.

5.1.3 Bilingualism

Community-wide proficiency in Hindi was tested among the Marwari, Merwari, and Godwari people using the Hindi SRT. In each group, the educated subjects had average scores equivalent to RPE level 3+ and above, irrespective of gender, age, and location (near to or far from towns). The educated generally scored higher than the uneducated. Among the uneducated, the average scores and corresponding RPE levels of male subjects were generally higher than those of female subjects. Based on the Hindi SRT results, it appears likely that a majority of Marwari, Merwari, and Godwari people, especially the uneducated and women, would be unable to use Hindi materials effectively.

In response to self-reported bilingualism questions, many subjects felt they could handle Hindi to at least some degree, including understanding radio and television programmes. Merwari subjects expressed somewhat greater confidence in their Hindi proficiency than Marwari and Godwari subjects. Almost all subjects reported learning Hindi in school and using it mainly with outsiders.

5.2 Recommendations

5.2.1 For language development

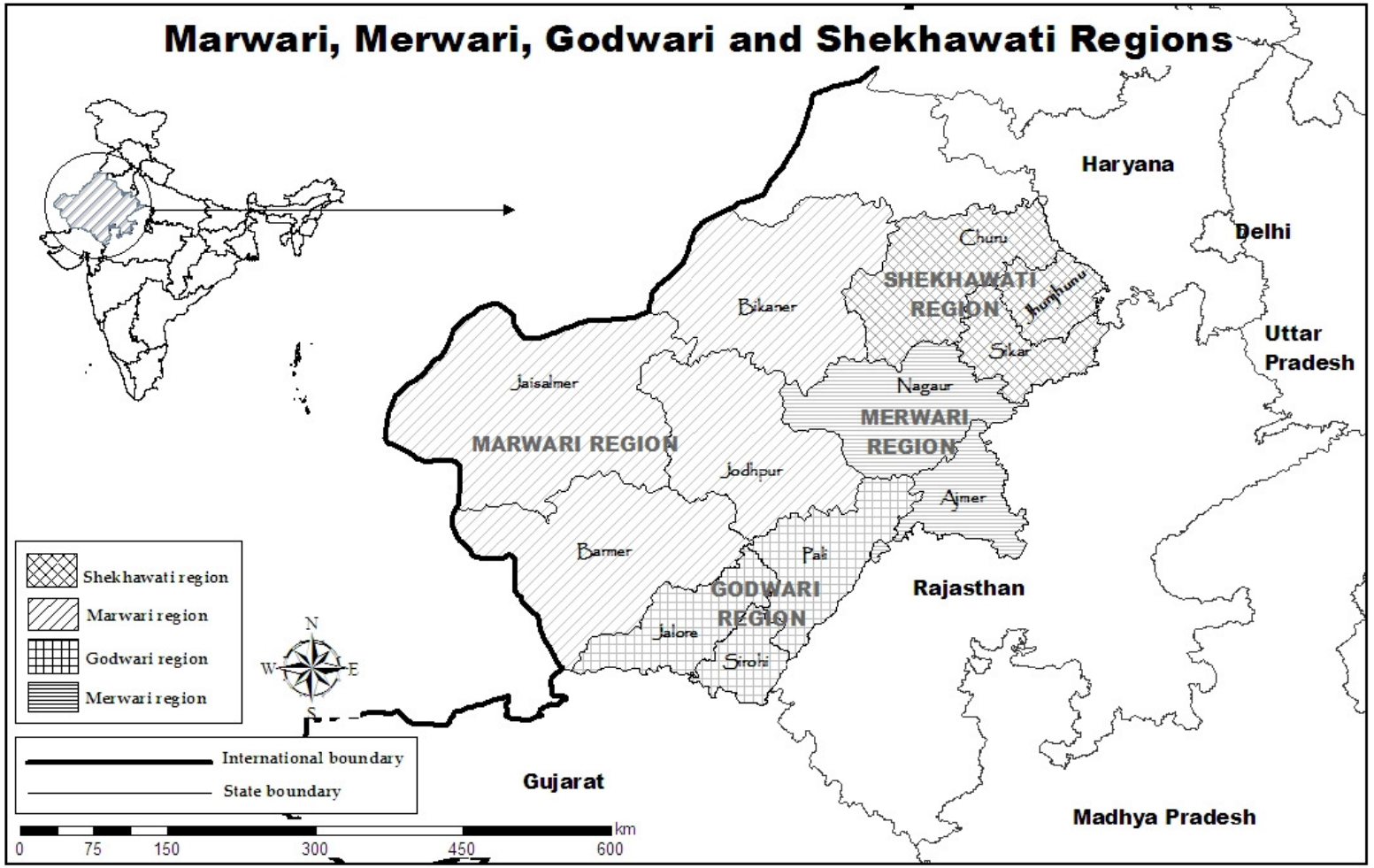
We conclude that the people who speak Marwari, Merwari, and Godwari will be benefited by vernacular language development because the people are probably not sufficiently proficient in Hindi, the mother tongue is used in almost all domains of life, and it is likely that these languages will continue to be viable in the future. Language materials such as books, films, and songs are already being produced in Jodhpur Marwari. It appears that additional materials developed in Jodhpur Marwari should be acceptable and beneficial to Marwari speakers in other regions of Rajasthan, and to Merwari and Godwari speakers as well. Merwari and Godwari speakers do not generally distinguish their languages from Marwari. They like to identify themselves as Marwari speakers.

5.2.2 For literacy

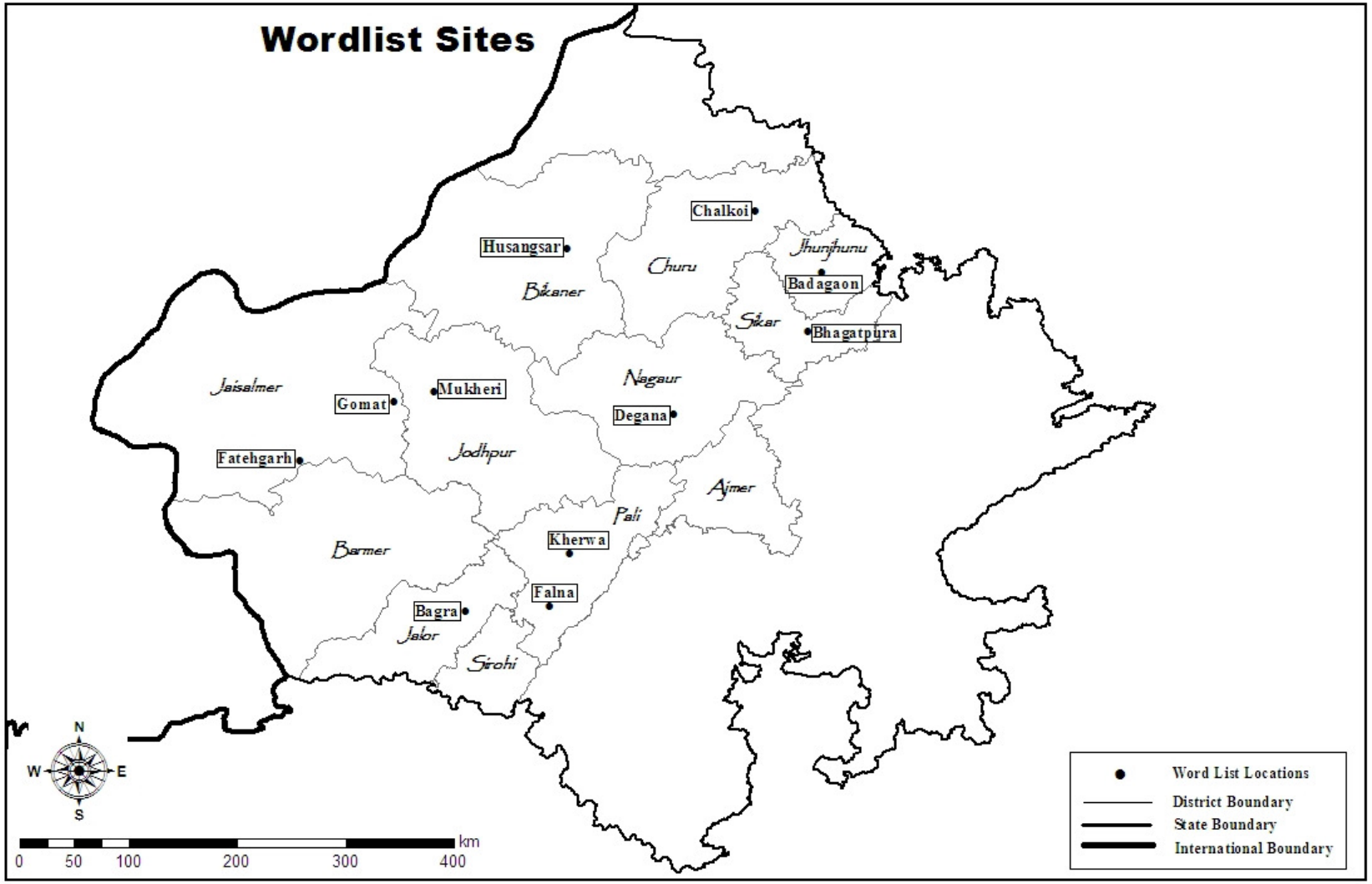
Although Marwari, Merwari, and Godwari people expressed positive attitudes towards Hindi medium education, it is likely that a vernacular literacy programme would be beneficial, especially among the uneducated and those living in more interior villages. Promotion would be an important part of such a programme.

Appendix A. Maps

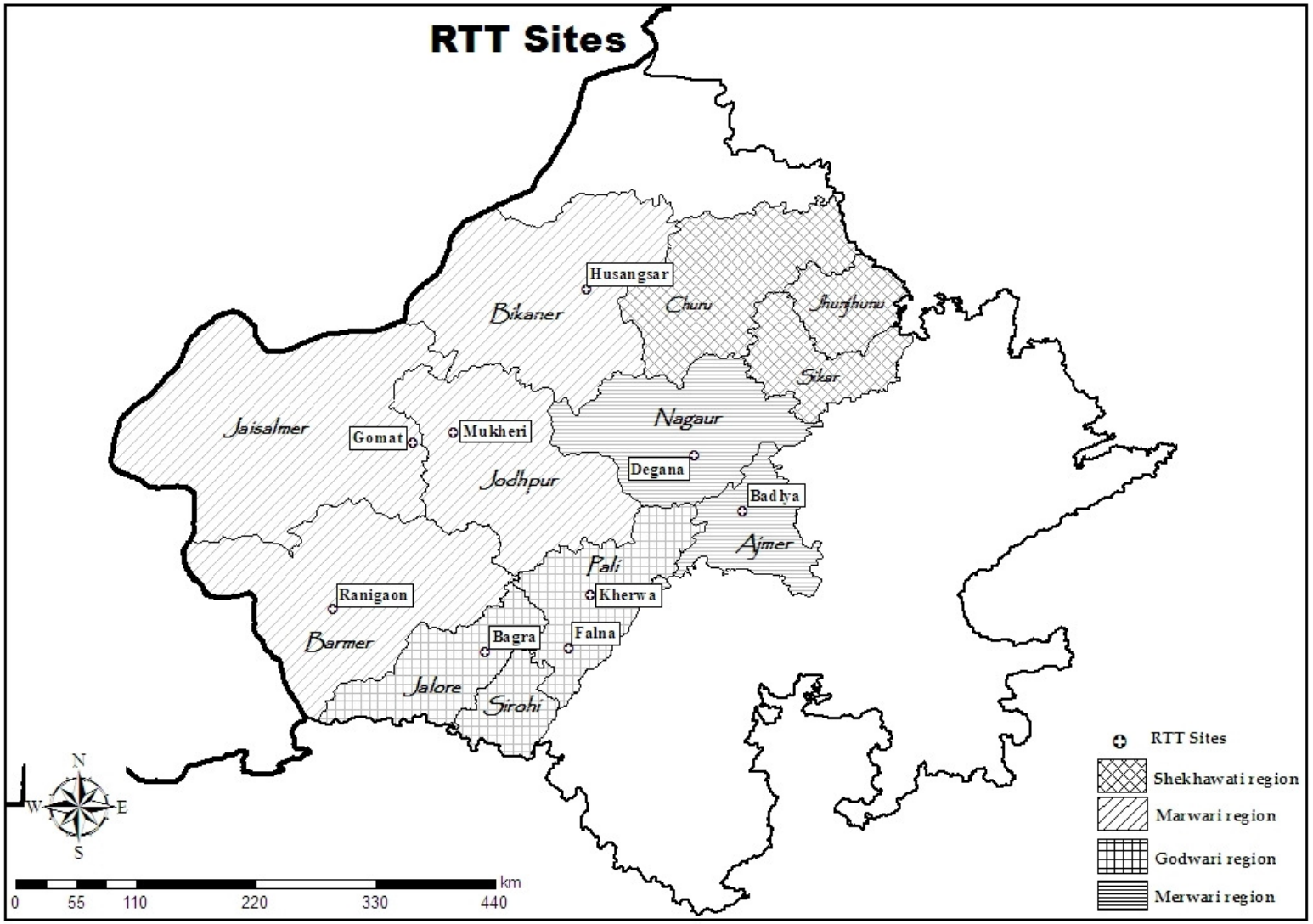
Map 1. Marwari, Merwari, Godwari, and Shekhawati regions



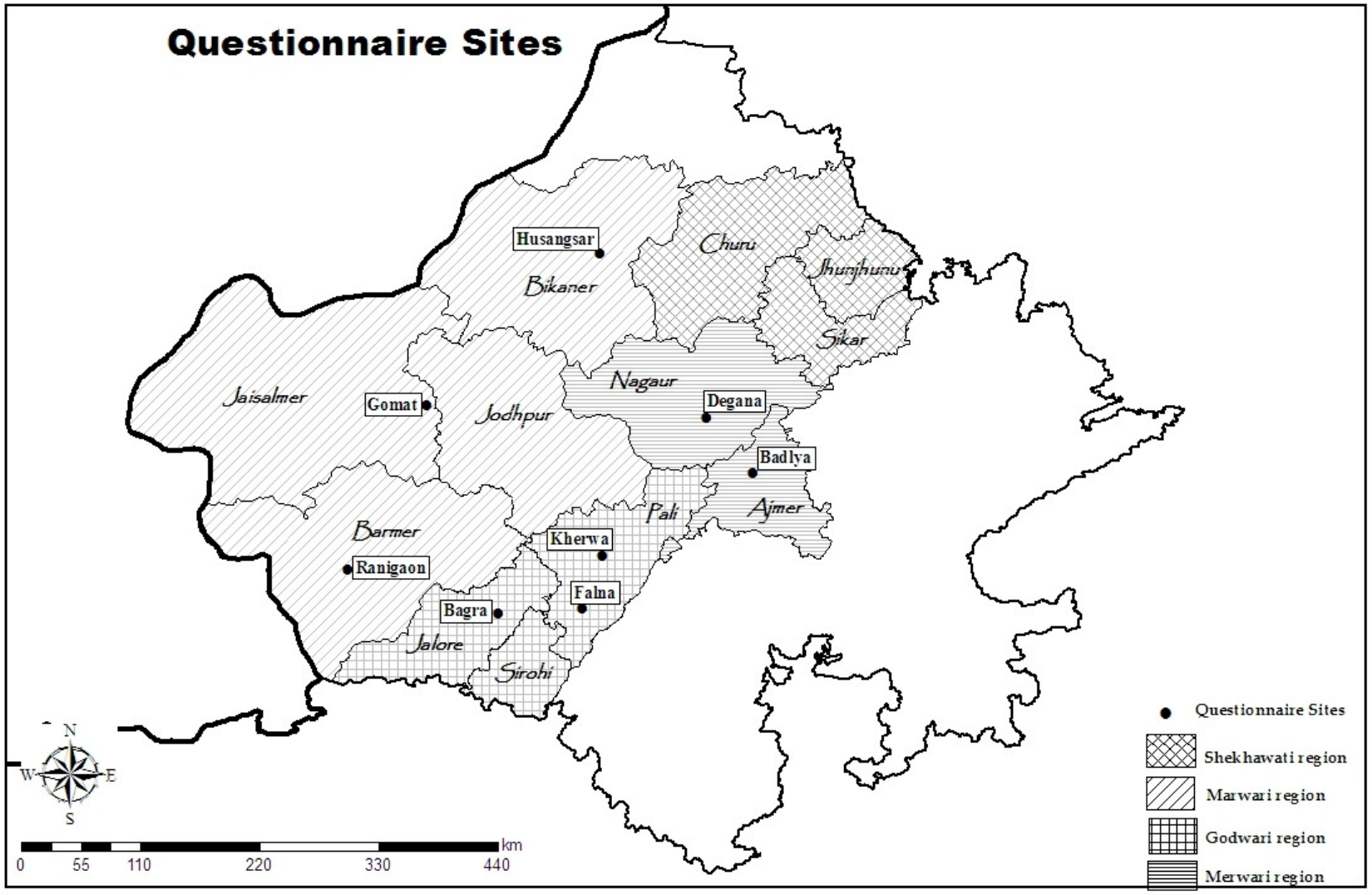
Map 2. Wordlist sites



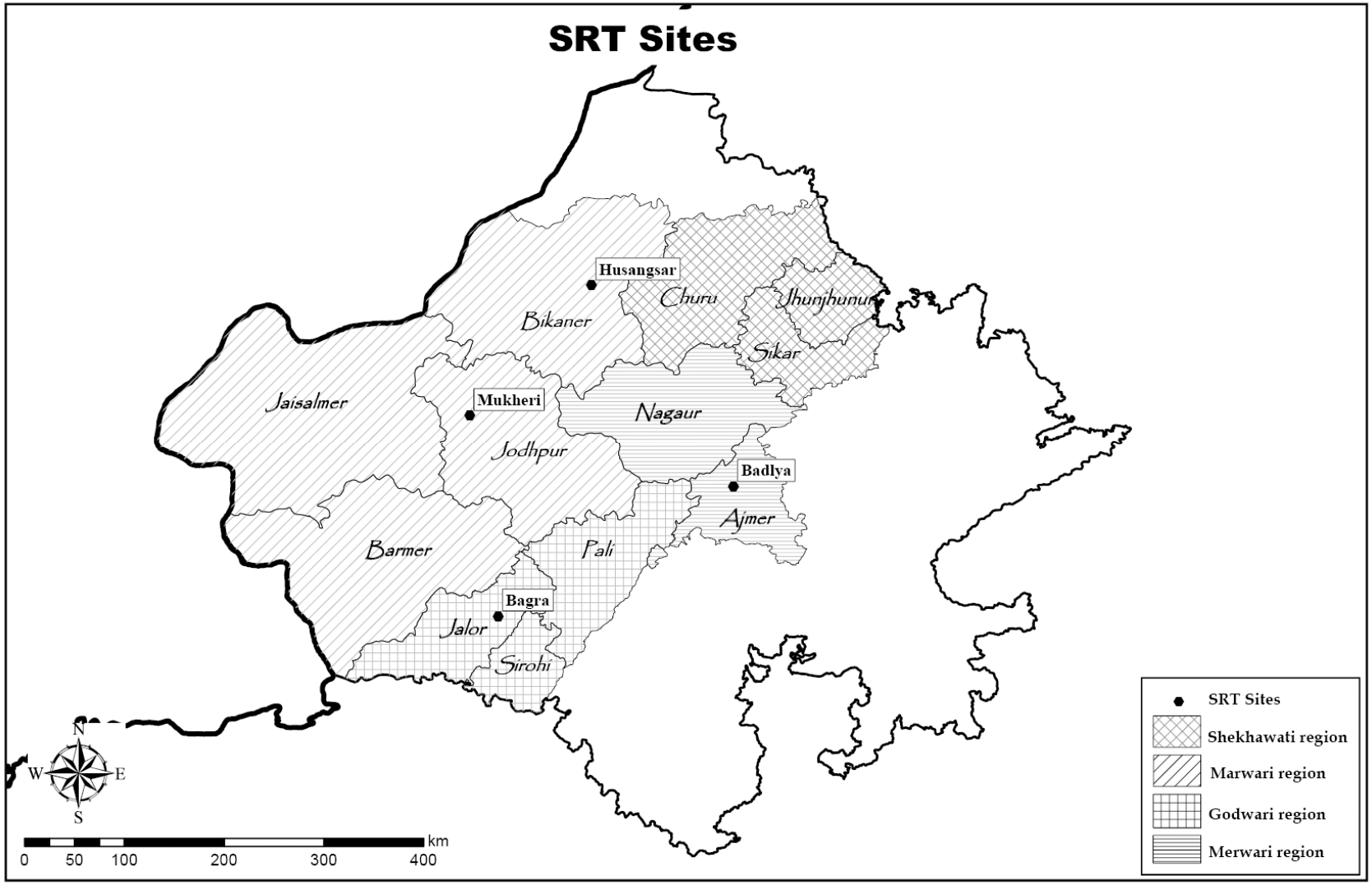
Map 3. RTT sites



Map 4. LUAV questionnaire sites



Map 5. SRT sites



Appendix B. Wordlists

Lexical similarity counting procedures[10]

A standardised list of 210 vocabulary items was collected from speakers at key locations for each of the language varieties studied in this survey. In standard procedure, the 210 words are elicited from a person who has grown up in the target locality. Ideally, the list is then collected a second time from another speaker. Any differences in responses are examined in order to identify (1) inaccurate responses due to misunderstanding of the elicitation cue, (2) loan words offered in response to the language of elicitation when indigenous terms are actually still in use, and (3) terms that are simply at different places along the generic-specific lexical scale. Normally, a single term is recorded for each item of the wordlist. However, more than one term is recorded for a single item when synonymous terms are apparently in general use or when more than one specific term occupies the semantic area of a more generic item on the wordlist. Some speech varieties, for example distinguished between a small and a large stone, or a holy river from an ordinary river. In these cases, both terms were recorded.

Wordlists were compared using the 'inspection'' method in determining whether items with similar meaning were similar phonetically. The comparative method, used to identify genuine cognates based on a network of sound correspondences, was not applied, since the purpose of this study was synchronic in nature.

Various methods have been proposed for deciding whether two forms are similar. The following guidelines outlined by Blair (1990:31–32) were used. Two forms are judged to be phonetically similar if at least half of the segments compared are the same (category 1), and of the remaining segments at least half are rather similar (category 2). For example, if two items of eight segments in length are compared, these words are judged to be similar if at least four segments are virtually the same and at least two more are rather similar. The criteria applied are as follows:

Category 1
- Contoid (consonant-like) segments that match exactly
- Vocoid (vowel-like) segments that match exactly or differ by only one articulatory feature
- Phonetically similar segments (of the sort that are frequently found as allophones) that are seen to correspond in at least three pairs of words

Category 2
- All other phonetically similar non-vocalic pairs of segments that are not supported by at least three pairs of words
- Vowels that differ by two or more articulatory features

Category 3
- Pairs of segments that are not phonetically similar
- A segment that is matched by no segment in the corresponding item and position

Blair (1990:32) writes, 'In contextualizing these rules to specific surveys in South Asia, the following differences between two items are ignored: (a) interconsonantal [ə], (b) word initial, word final, or intervocalic [h, ɦ], (c) any deletion which is shown to be the result of a regularly occurring process in a specific environment.'

The following table summarises lower threshold limits for considering words of a specified length (number of segments or phones) as phonetically similar:

[10]This description of lexical similarity counting procedures is partially adapted from that found in Appendix A of O'Leary (1992).

Word length	Category 1	Category 2	Category 3
2	2	0	0
3	2	1	0
4	2	1	1
5	3	1	1
6	3	2	1
7	4	2	1
8	4	2	2
9	5	2	2
10	5	3	2
11	6	3	2
12	6	3	3

After pairs of items on two wordlists had been determined to be phonetically similar or dissimilar according to the criteria stated above, the percentage of items judged similar was calculated. This procedure was repeated for all linguistic varieties under consideration in the survey. The pair by pair counting procedure was greatly facilitated by use of the *WordSurv* computer program. It should noted that the wordlist entries are field transcriptions and have not undergone through phonological and grammatical analysis.

Two glosses (number 23 ‘urine’ and number 24 ‘faeces’) were disqualified and removed from the wordlist transcriptions that follow. These words were considered inappropriate in most elicitation situations. One potentially inappropriate gloss (number 11 ‘breast’) was replaced with the word ‘chest’.

Symbols used for wordlists in the wordlist transcriptions

Symbol	Language	Village	Tehsil	District
w	Marwari	Mukheri	Phalodi	Jodhpur
g	Marwari	Gomat	Pokhran	Jaisalmer
D	Marwari	Fatehgarh	Jaisalmer	Jaisalmer
E	Marwari	Husangsar	Bikaner	Bikaner
d	Merwari	Degana	Degana	Nagaur
k	Godwari	Kherwa	Pali	Pali
N	Godwari	Bagra	Jalore	Jalore
F	Godwari	Falna	Bali	Pali
B	Shekhawati	Bhagatpura	Udaipurwati	Sikar
A	Shekhawati	Badagaon	Jhunjhunu	Jhunjhunu
P	Shekhawati	Chalkoi	Churu	Churu
h	Hindi (Standard)			

Wordlist transcriptions

1. body

ɖil	[ABNPdkw]
ɖiːl	[Dg]
hɐɾiɾ	[g]
ʃɐɾiɾ	[DEg]
ʃəɾiɾ	[hw]
ɐŋg	[FP]

2. head

sɪɾ	[AEh]
mɐʈɔ	[DEg]
maʈʰa	[N]
maʈʰɐ	[B]
maʈʰɔ	[FNgw]
maʈɔ	[dk]
kʰɔpəɖi	[A]
kɔpɖi	[P]

3. hair

bɐɭ	[Dg]
bal	[hk]
baɭ	[AEFPdw]
baɭi	[BN]
dʒiɲʈʌ	[D]
ɾuŋgiʈɐ	[B]
ɾuŋʈa	[w]
kes	[P]
keʃ	[Ed]
pʌʈija	[D]
dʒɐʈa	[B]

4. face

mʊkʰ	[h]
mũ	[A]
mũh	[h]
muːɳɖɐ	[g]
muːɳɖɔ	[Dg]
mʊɳɖɔ	[B]
mʌɳɖɔ	[D]
muɖɔ	[FN]
muɳɖa	[E]
munɖɔ	[dkw]
muːɳɖɔ	[D]
mʊɳɖɔ	[B]
mʌɳɖɔ	[D]
muɳɖa	[E]
munɖɔ	[dkw]
tʃɜhəɾa	[h]
ʈʰɔbɖa	[B]
ʈʰɔbəɖa	[d]
ʈʰobɖi	[P]
ʃikəl	[D]

5. eye

ɐŋkʰ	[Dg]
akʰ	[A]
akʰɪjɔ	[F]
aŋkʰ	[E]
ãkʰ	[Bgh]
ãkʰja	[k]
ãŋkja	[d]
ɔŋkʰ	[w]
ogja	[k]
okʰ	[N]
mʊkʰ	[h]
neɳ	[P]

6. ear

kan	[ABEPgh]
kɔn	[DFNw]
kanəɖa	[d]
kɔnəɖa	[k]

7. nose

nak	[BDEFNPdghkw]
nakʰ	[A]

8. mouth

mu	[P]
mũ	[A]
mũh	[Egh]
mʊɖɔ	[FN]
muɳɖɔ	[BDgk]
munɖɔ	[dw]
ʈʰobɖi	[P]
ɔʈ	[E]

9. tooth

ɖaɲʈ	[DEPw]
ɖãʈ	[ABdgh]
ɖɔʈ	[FN]
ɖõʈ	[k]

10. tongue

dʒib	[AEFNPdkw]
dʒibʱ	[Bgh]
dʒiban	[D]

11. chest

ɕina	[A]
saʈːi	[N]
tʃɐʈi	[d]
tʃaʈi	[EFghw]
tʃʰaʈi	[ABPk]

tʃʰʌt̪i	[D]
hivuɖɐ	[B]

12. belly

pɛʈ	[DEhk]
peʈ	[ABFNPdgw]

13. arm

bãh	[h]
bɔ̃	[D]
haʈ	[BFNw]
haʈʰ	[dgh]
kɐɳɖa	[A]
budʒa	[P]
bukʰja	[E]
bʌʊɖa	[k]
bãvlje	[B]

14. elbow

iɾkɪ	[D]
ɪɾkʰɔɳi	[D]
ɪɾkɔɳi	[g]
iɾkuɳi	[w]
akũɳi	[E]
kʰɔɳi	[F]
kʰuɳi	[F]
kʰũɳi	[k]
kohəni	[h]
koɳi	[AP]
kuɳi	[BNd]

15. palm

ɐʈʰɐl̪i	[F]
ɐʈ̪ɛl̪i	[N]
hɐʈal̪i	[Ew]
hɐʈʰɐl̪i	[Dg]
hɐʈʰel̪i	[ANPdk]
hɐʈʰeli	[Bh]
haʈʰal̪i	[F]
ʈʰap	[Ew]

16. finger

ɐ̃gʊli	[h]
aŋgəl̪i	[A]
aŋgl̪i	[BEw]
aŋgul̪i	[P]
ãŋgl̪i	[d]
ɔŋgəl̪i	[g]
ɔŋgl̪ijɔ	[k]
ɔ̃ŋgl̪i	[FN]
ʌŋgl̪i	[D]

17. fingernail

nɐkʰ	[DEFNdghkw]
nʌk	[F]
nɐkʰun	[h]
nakʰun	[A]
nu	[BP]

18. leg

ʈaŋgəɖɔ	[d]
ʈãg	[h]
ʈɔŋg	[N]
ʈ̪ɔŋgəɖɔ	[w]
pɐg	[ABEFPdgkw]
pɐjɾ	[h]
pəiɾ	[h]
pʌvʌl̪	[D]
aŋgɖɔ	[B]
khʊl̪ɖɔ	[B]

19. skin

kʰal	[A]
kʰalɐɖi	[B]
kʰalə	[P]
kʰaləɖi	[d]
saʊuɖɔ	[N]
sobɖi	[F]
tʃɐməɖɔ	[d]
tʃamɖi	[E]
tʃaməɖi	[DEw]
tʃəməɖa	[h]
tʃɔmbəɖi	[g]
tʃɔməɖi	[k]

20. bone

haːɖ	[E]
haɖi̪	[B]
haɖɖi	[AD]
haɖə	[P]
həɖɖi	[h]
hɐɖəki	[g]
haɖəka	[dk]
haɖki	[DFw]
hʌɖəku	[N]
hʌɖkʌ	[F]

21. heart

ɖɪl	[AEg]
ɖ̪il	[w]
hɾiɖ̪əi	[h]
ʌɾɖ̪ʌi	[N]
kɐl̪edʒa	[P]
kal̪dʒɔ	[Fdk]
kʌl̪dʒɔ	[D]
ɖ̪am	[E]
hiʊɖɔ	[B]

22. blood

lɔi	[DEFNk]
lohi	[P]
loi	[Bdgw]
loji	[B]
lojɪ	[A]
kʰun	[gh]
ɾɐkt̪ɾə	[h]

25. village

gam	[Ad]
gamə	[P]
gɔm	[F]
gɔmə	[D]
gom	[FN]
gaũ	[Eh]
gãʊ	[Bk]
gɔ̃	[Dg]
gɔ̃ʊ	[w]

26. house

gʱɐɾ	[ADEFPghw]
gʱɐɾɛ	[N]
mɐkan	[d]
məkan	[h]
ɐʊeli	[A]
dʒubɽɔ	[k]
helli	[B]

27. roof

saṭ̪ṭ̪ɪ	[N]
tʃaṭ̪	[E]
tʃʰɐṭ̪	[g]
tʃʰaṭ̪	[P]
tʃʰhəṭ̪	[hk]
dʒɔpədi	[d]
dagɐl	[w]
dagli	[A]
dagl̪ɔ	[DEk]
maljɐ	[A]
dʒɔpədi	[d]
medi	[F]
mɐkɔn	[k]
tʃan	[B]
dʒupa	[B]

28. door

barəŋa	[P]
barɳɔ	[B]
d̪ərʊaza	[h]
kɐmad	[FN]
ɐdːɔ	[DE]
ad̪ɔ	[d]
kɪwãd	[Edk]
kiɛ̃d	[g]
kivad	[w]
kʊ̃ad̪ə	[A]
kwiad	[ADw]
bɐɳd̪ɔ	[E]
muŋged̪ɔ	[g]

29. firewood

lɐkd̪i	[Pg]
lakʌd̪ɔ	[N]
ləkəd̪i	[h]
tʃɛld̪ɪjã	[d]
tʃʰɐd̪i	[A]
tʃʰɐld̪i	[B]
kaɳʧi	[A]
bɐl̪iṭɔ	[Dg]
bɐl̪iṭ̪a	[w]
bɐl̪iṭ̪ɐ	[B]
kɐɾpa	[F]
gotʃɔ	[E]
gotsa	[k]
kɔtʃʌrʌ	[D]
kɐʈpad	[B]

30. broom

baɾi	[B]
bʱaɾi	[P]
bʊaɾi	[dk]
buhaɾi	[A]
haʊʌɳɳi	[F]
saʊarəɳi	[N]
dʒaɾɔ	[g]
dʒʱad̪u	[h]
bãŋgri	[E]
bɔŋgri	[w]
boŋgɾi	[Dg]
t̪ʌmakku	[F]

31. mortar

ɔkʰʌl̪	[F]
okʰəli	[h]
ʊŋkʰl̪i	[g]
ukʰɐl̪ə	[F]
ukʰɐl̪i	[Dw]
ukʰɐl̪ɔ	[N]
uŋgli	[E]
ũkʰɐl̪	[Pk]
ũkʰal̪i	[B]
ũkʰl̪i	[AE]
ũŋgəl̪i	[d]
kʰərəl	[h]
uːgi	[F]

32. pestle

musɐl̪	[EPdkw]
musɐl̪ə	[B]
musɐl	[A]
musɐl̪	[EPdkw]

musɐlə [B]
musəi [h]
lõɖⁿa [h]
hɔbɪlɔ [N]
hobeɭa [F]
kʰɔna [w]
kʰɔɾʌɳɔ [D]
mɔhʌːɨ [g]

33. hammer
hɐt̪ʰɔɖɔ [BNdkw]
hɐt̪ʰoɖa [F]
hɐt̪ʰoɖi [ADPg]
həţʰoɖi [h]
hʌt̪ʰɔdki [E]
gⁿən [h]
tɐkʰni [w]

34. knife
sɐkːu [F]
tʃɐkku [ABDENPdgk]
tʃaku [h]
tʃʊɾi [h]
tʃʊrio [Ew]
tʃʊɻjo [w]
tʃuɾi [g]
tʃʰuɭd [E]

35. axe
kʊwaɖijɔ [Fd]
kuwãi [g]
kwɐdijɔ [Nkw]
kʊaɖi [P]
kᵘaɖi [D]
kuwãi [g]
kũaɖ [A]
kũaɖi [B]
kʊlhaɖi [h]
kwãdki [E]

36. rope
ɾa [F]
ɾəssi [h]
ɾəssi [h]
ɾɐhəɖi [g]
ɾahɖi [w]
rɔuɖu [N]
ɻʌn̪ʊɻi [D]
bɐɾi [A]
dʒɐʊɖa [B]
dʒɐʊɖi [APd]
dʒevɖo [E]
bɐn̪d̪əɳɔ [k]

37. thread
ɖⁿaga [h]
ţaggɔ [P]
ţagɔ [A]
ɖɔɾɔ [Dw]
ɖoɾa [FNgh]
ɖoɾi [d]
ɖoɾo [Eg]
dɔɾa [F]
dɔɾɔ [B]
ɖoɾa [D]
ɖuɻɔ [k]
suţ [h]

38. needle
hui [Dg]
hũi [FNk]
soi [w]
sʊi [h]
sʊjɪ [ABP]
sui [d]
sui [E]
ʃɐʊɳi [d]

39. cloth
kɐpɐɖa [Pg]
kɐpəɖa [A]
kəpəɖa [h]
bɐţka [Dw]
gɐbːa [B]
gɐbːɐ [Dgkw]
gaba [d]
gabɐ [F]
gabɔ [EN]
puɾ [E]

40. ring
tʃʰap [A]
bɪnʈi [DEd]
bɪnţi [gw]
ʊiʈi [FNk]
ɛ̃guʈʰi [h]
mõɖəɾi [h]
muɳɖəɖi [B]
muɳɳɐɖi [P]
tʃʰʌlo [E]

41. sun
huɾɐdʒ [Dgkw]
huɾɐdʒi [N]
sʊrdʒi [B]
suɾɐdʒ [EPdg]
suɾədʒ [h]
suɻɐdʒ [A]
ɖʌn [F]

42. moon

tʃɐn̪d̪	[Dg]
tʃan̪d̪	[ABPdkw]
tʃãd̪	[h]
ɕʌndɾʌmʌ	[N]
tʃənd̪ɾəma	[h]
tʃʌnd̪ɾʌmʌ	[EF]

43. sky

ɐkɐʃ	[B]
akaɕ	[B]
akaʃ	[APhk]
ʌŋkəʃ	[D]
aːbʱa	[g]
ɐbːɔ	[DFw]
ɐbɔ	[E]
abu	[Ng]
bɐɖɐɭ	[g]
baɖ̪la	[d]
vaɖəlɔ	[k]
baɖ̪la	[d]
baɖ̪ɾɔ	[k]
vaɖəlɔ	[k]

44. star

t̪aɾa	[EFPdhkw]
t̪aɾɐ	[B]
t̪aɻɐ	[Ag]
t̪aɻɔ	[DFNg]

45. rain

me	[BDEFNdkw]
mẽ	[gk]
mɛj	[w]
bɛɾkʰɐ	[B]
bɪɾkʰɐ	[BDP]
bɐɾʃat̪	[Ad]
bərəʂ	[h]
wərʂa	[h]

46. water

pɐɳi	[g]
paɳi	[ABEPd]
pani	[h]
pɔɳi	[DFNkw]
puːɳi	[g]
dʒəl	[h]

47. river

nɐd̪i	[ABDENdgkw]
nəd̪i	[h]
n̪ɐd̪i	[P]
bɐɭɔ	[w]
vaɭɔ	[N]
n̪ivor	[F]

48. cloud

bɐd̪ɐl	[g]
bɐd̪ɐɭ	[DE]
baɖ̪ɐɭ	[A]
baɖ̪ɐlɐ	[B]
baɖ̪əl	[hw]
baɖ̪əla	[d]
baɖ̪li	[P]
vaɖəlɔ	[k]
vaɖ̪lɔ	[N]
vaɖ̪lʌ	[F]
ʊnːnɐɳɨ	[B]

49. lightning

bɪdʒəli	[gh]
bidʒɐɭi	[E]
bidʒəli	[w]
bidʒl̪i	[ABP]
bidʒl̪ijã	[d]
bindʒɐɭi	[D]
vidʒəɭi	[k]
vidʒl̪i	[F]
bidʒl̪i	[ABP]
vidʒɨ	[N]
vidʒəɭi	[k]
vidʒl̪i	[F]
gʌʈ[tʌ	[E]

50. rainbow

ɖ̪ʱɐnʊʃ	[k]
ɪnd̪ɾaɖ̪ʱənuʂ	[h]
ɪn̪d̪ɾɐɖ̪ʱɐnʊʃ	[APdw]
indɾɨɖɐnʊɕ	[B]
ɖɔŋgɖa	[g]
ɖɔŋgɖɔ	[Dw]
ɖʌŋgɖa	[E]
t̪ʌmbu t̪ɔɳi̯jɔ	[N]
ɖ̪ʱʌnɖ̪ʱaɾijɔ	[F]

51. wind

baiɾo	[w]
bajɐɾi	[B]
bajɾa	[g]
bajɾɔ	[Ddgw]
vaiɾo	[Nk]
vʌiɾɔ	[F]
paɳ	[E]
puɳə	[AEP]
həva	[h]
lu	[E]
pɐvɐn	[B]
paɳ	[E]

52. stone

bɐʈʰa	[P]
bɐʈʰɐ	[A]

bɐʈʰo [E]
bɐʈʰɔ [D]
baʈʰa [B]
baʈʰɔ [E]
baʈɔ [d]
bⁿaʈɔ [kw]
bⁿɐʈʰa [g]
bⁿɐʈʰɔ [g]
bⁿaʈʰʌ [F]
bⁿaʈʌ [N]
pəʇ̈ʰər [h]
ɖ̈ʌgʌɖ [DE]

53. path
gɔa [A]
marɐg [Fgw]
mʌrg [DE]
mʌrʌg [Ed]
geɭo [E]
gellɔ [B]
gelɔ [Pd]
ɾɐ [A]
ɾasʇ̈a [h]
ɾasʇ̈ɔ [k]
rɐsʇ̈ɔ [d]
herijɔ [N]

54. sand
ɾɛʇ̈i [h]
ɾeʇ̈i [Fk]
baɭu [BPg]
balu [h]
beɭu [D]
bɐdʒɾi [BPk]
bɛdʒɾi [A]
ɖuːɖ [w]
dⁿuɭ [Dg]
ɖ̈ⁿuːɖ̈ɨ [N]
ɖ̈ⁿuɭ [d]
ɖ̈uːɖ [E]
moʈi [B]

55. fire
ag [hk]
baɖ̈i [w]
vaːɖ̈ɨ [N]
bahəɖ̈i [g]
bⁿahadi [g]
basʇ̈ɛ [B]
bʌːsʇ̈i [D]
bʌsʇ̈i [E]
baɪɖ̈jɔ [d]
basʇ̈e [Pw]
basʇ̈ɛ [A]
bʌːsʇ̈i [D]
bʌsʇ̈i [E]

la [F]
loj [B]
baɖ̈i [w]
vaːɖe [N]
vaːɖ̈ɨ [N]
bʌːsʇ̈i [D]
bʌsli [D]
bʌsʇ̈i [E]

56. smoke
ɖ̈ⁿuã [Dghw]
ɖ̈ⁿuõ [DP]
ɖ̈ⁿuʌ [N]
ɖ̈ⁿuɔ [F]
ɖ̈ʊɔ [k]
ɖ̈ũa [E]
ɖ̈ũɔ [g]
ɖ̈ⁿuɳi [AB]
ɖ̈ⁿʊvaɖɔ [d]

57. ash
ɾakʰ [hw]
ɾʌkʰʌɖ [E]
ɾ̈akʰ [AP]
bɐnːni [B]
banːi [Ed]
bani [A]
boni [Dg]
boɲ̈i [w]
bʌni [E]
ʊɔɳi [Fk]
vaɳi [N]
hɛɭi [N]

58. mud
gaɖ̈ɔ [N]
kɐɖ̈ːɐ [g]
kɐɖ̈ɖ̈ɔ [APw]
kɐɖ̈ɔ [D]
kaɖ̈ːɔ [EFdk]
kaɖ̈ɖ̈ɔ [B]
kaɖ̈ɔ [N]
kitʃəɖ [h]
gaɖ̈ɔ [N]
kɐɖ̈ɔ [D]
kaɖ̈ɔ [N]
gʌn̈ɖ̈ʌki [E]

59. dust
ɖ̈ⁿʊɖɔ [Fk]
ɖ̈ⁿul [h]
ɖ̈ⁿuɭ [Pdgw]
ɖ̈ⁿuɭə [D]
ɖ̈ⁿuːɖ [N]
ɖ̈ⁿuɖ̈ɨ [F]
mɐʇ̈ʇ̈ə [A]

maʈi [B]
kʰʌnk [E]
ɾeʈ̪ [BN]

60. gold
hɔɳɔ [DFN]
hɔnnɔ [Fk]
hɔn̪õ [w]
huɳːo [g]
sɔɳɔ [D]
sɔnɔ [w]
sɔn̪a [P]
sɔn̪ɔ [B]
sonːɔ [d]
sona [AEh]
ghena [g]

61. tree
ɾũkʰ [w]
ɾukɖɔ [k]
ɾuŋgkʰ [D]
ɾuŋkɖɔ [d]
ɾuŋkʰɖɔ [g]
ɾũŋkɖɐ [B]
ɾ̪ũŋkʰəɖɔ [w]
ɖɐɾkʰɐʈ̪ [AEP]
dʒaɖ [F]
dʒaɖəkɔ [N]
bãʈkɔ [N]
pɛɖ [h]
ʈʰʌːŋʃa [D]
ʈʰʌhsʌ [D]

62. leaf
pɐʈ̪̈a [DPw]
pɐʈ̪̈i [A]
pɐʈ̪̈o [E]
pɐʈ̪̈ɔ [k]
pəʈ̪̈i [h]
pʌʈʰɔ [D]
pɔna [F]
pʊɳ [g]
pʌːɳ [D]
panɐɖɔ [B]
panəɖa [d]
ponʌɖʌ [N]

63. root
dʒɐɖ [DFPghw]
dʒɐɖɐ [BE]
dʒɐɖə [Adk]
dʒoɖ [N]
dʒʌɾ [F]

64. thorn
kaɳʈɔ [E]
kãnʈa [d]
kãʈa [h]
kãʈɔ [ABw]
kʰɔŋʈɔ [Dg]
kɔɳʈɔ [D]
kɔnɖɔ [w]
kɔ̃ʈɔ [k]
koʈɔ [N]
kõʈɔ [F]
ʃuɭə [P]
suːɭ [D]

65. flower
ɸul [h]
ful [APw]
pʰal [B]
pʰul [BDEFdgkw]
pʰuɭɖɔ [N]

66. fruit
fɐl [AP]
pʰɐl [EFdgh]
pʰɐɭ [Dw]
pʰɐl̪i [B]
pʰɐlə [DNk]
ɾʌsʌɭ [E]

67. mango
am [ABENPh]
ambɔ [EFdk]
ɔbɔ [FN]
ɔmbɔ [Dgw]
ʌmbɔ [D]

68. banana
keɭɔ [ABDEFNdgkw]
kela [h]
keɭ̪ɐ [P]

69. wheat
gãu [k]
gɛhũ [h]
gɛu [d]
gɛũ [ABDw]
gɛ̃ʊ [Dw]
geũ [g]
gɔ̃u [F]
gou [N]
kɐɳɐk [AEP]
kɐnɐk [Dg]

70. millet

badʒɾɐ	[h]
badʒɾi	[NPdk]
badʒɾɔ	[ABE]
dʒɐʊ	[FNk]
dʒɐʊɐɾ	[Dg]
dʒɐʊaɾa	[h]
dʒəwʌɽ	[D]
dʒʊʊaɾ	[w]
ɾəʈʌɖija	[D]
rʌʈʰɖi	[D]
kaɳɗijɔ	[E]

71. rice

tʃɐvɐɭ	[B]
tʃaʊɐɭ	[EPgkw]
tʃaʊɐlə	[ANd]
tʃaʊəl	[Fh]
tʃaveɭɨ	[B]
tʃʌvəɭ	[D]
tʃʌvʌɭ	[D]

72. potato

ɐllu	[B]
ɐlu	[B]
aɭu	[DFN]
allu	[A]
alu	[EPdghkw]

73. eggplant

bɐʈɐu	[A]
bɐʈau	[P]
bɪnʈag	[B]
bɪɳʈak	[Ddw]
vɛnʈagɨ	[N]
beŋgɐnɨ	[B]
bẽgʌn	[E]
bẽigən	[h]
ɾignʌ	[F]
ɾiŋgəɳa	[Fdw]
ɾiŋgənʌ	[D]
ɾiŋgɳa	[D]
ɾiŋgna	[g]
ɾiŋɳɔ	[k]

74. groundnut

mufɐɭi	[A]
mufəɭi	[P]
muŋgɨpʰʌli	[N]
mupʰɭijã	[d]
mupʰʌɭi	[E]
mũfɐɭi	[Fw]
mũgɸeli	[hk]
mũŋpʰɐɭi	[D]
mũpʰɐɭi	[g]
mũpʰɭi	[B]

75. chili

mɐɾtʃɔ	[k]
mɪɾtʃ	[P]
mɪɾtʃa	[d]
mɪɾtʃɐ	[E]
mɪɾtʃi	[ABN]
mɪɾtʃɔ	[Dw]
mɪɾtʃɔ̃	[Dg]
mɪɾtsi	[h]
mɪɾʌdʒ	[F]
mɪɾtʃ	[P]

76. turmeric

hɐɭɨɖi	[B]
hɐlɐɖ	[D]
hɐlɐɖ	[g]
hɐləɖ	[D]
hɐləɖə	[w]
hɐləɖi	[AP]
hɐlɖə	[N]
hɐlɖi	[EFhk]
hɐɭɨɖi	[B]
hɐlɖi	[d]
hɐləɖi	[AP]
hɐlɖi	[EFhk]
ʌlɖi	[E]

77. garlic

lɐhəsʊn	[h]
lɐsɐɳ	[E]
lɐsɐɳɨ	[B]
lɐsɐɳə	[ANPdk]
lɐsʊn	[h]
lɛsɐɳɨ	[F]
lɐhɐɳə	[g]
lɐhaŋa	[w]
ʈʰɔmb	[D]
ʈʰuːmb	[D]

78. onion

pjadʒ	[h]
duŋglijɔ	[D]
kɐɳɖa	[P]
kaɳɖɔ	[BEdw]
kɔɖa	[F]
kɔɖɔ	[N]
kɔɳɖɐ	[g]
kɔɳɖɔ	[g]
kɔɳɖɔ	[k]
kʌɳɖʌ	[D]
kʌndɔ	[D]
gʱaʈija	[A]

79. cauliflower

ɸulgobʱi	[Dh]
fulgobi	[Ad]

gɔbi	[w]
gopi	[E]
pʰulgɔbi	[B]
pʰulgobʱi	[ghkw]
pʰulgobi	[FNP]

80. tomato

ʈɐmɐʈɐɾ	[DE]
ʈɐmaʈɐɾ	[APdgkw]
tɐmaʈɐɾ	[Bh]
tʌmaʈɔ	[FN]

81. cabbage

bɐn̪d̪gobi	[P]
gobʱi	[h]
pɐt̪ːa gobi	[dk]
pɐt̪̪tɐ gobi	[B]
pɐt̪̪tɐgobi	[ADEFNgw]
pɔn gɔbi	[F]

82. oil

tʰeɭ	[D]
t̪ɛl	[Fh]
t̪el	[ABDENPdghkw]

83. salt

luɳ	[DEFw]
luɳə	[ABDPdgk]
miʈɔ	[N]
nɐmək	[h]

84. meat

mas	[EP]
mãs	[Bw]
mɔs	[FNk]
gfios	[w]
gɔs	[d]
gosʈʰ	[D]
gost̪	[Dh]
gõs	[A]
moh	[Dg]
ʃʌɾ	[E]

85. fat

tʃɐɾbi	[ABENPdgk]
tʃəɾbi	[h]
ʊɐsa	[A]
hɐːr	[Dw]
kʰal	[F]

86. fish

mɐtʃʰəli	[APw]
mɐtʃʰi	[g]
mɐtʃʰl̩i	[B]
mɐtʃʰli	[hk]
mɐtʃi	[DEdw]
matʃʰli	[F]
mʌsʌli	[N]

87. chicken

kʰũkʰidi	[D]
kukɖi	[EFNdg]
kukɖʌ	[N]
kukəɖ	[P]
kukri	[Dg]
kũkɖɪ	[w]
mʊrgi	[APhk]
murgi	[B]

88. egg

ɐɳɖa	[APhk]
ɐɳɖɐ	[B]
ɐɳɖɔ	[d]
eɳɖɔ	[E]
iɳɖa	[E]
iɳɖɐ	[g]
iɳɖo	[Ekw]
iɳɖɔ	[Ddg]
iːɖɔ	[N]
iɖɔ	[F]

89. cow

ga	[Fgw]
gɐu	[A]
gɐʊ	[Pk]
gʌ	[D]
gɔ	[F]
gai	[h]
gaj	[ABNd]
ɖʌŋgɾo	[E]
gaudi	[E]

90. buffalo

bfie	[DFg]
bfiẽ	[D]
bfies	[A]
bfiẽs	[Bdhk]
kʰol	[P]
kʰolʰ	[E]
ɾoɖɔ	[w]
ɾoɖɔ	[w]
ɾod̪i	[E]
ɖɔbɔ	[N]
dʒɔɾɖi	[B]
mantʃi	[E]

91. milk

d̪ud̪	[DFPw]
d̪ud̪ʱ	[ABENdghk]

92. horns

hiŋg	[gk]
hiŋg	[DF]
siŋ	[Ph]
siŋg	[AD]
hiŋgɖɔ	[N]
hiŋgədɐ	[w]
siŋgdɐ	[B]
singɖa	[Ed]

93. tail

puɲtʃ	[P]
pus	[F]
putʃʰ	[F]
pũtʃ	[Ak]
pũtʃʰ	[DEgh]
puɲtʃʰədɐ	[B]
putʃəɖi	[w]
putʃʌɖɔ	[N]
pũtʃɖi	[d]

94. goat

ɭɐɭɔ	[k]
ɭaɭ	[ABE]
ɭɐɭɔ	[k]
ɭeɭkɔ	[k]
saɭi	[g]
tʃaɭi	[w]
tʃʰaɭi	[Bd]
tʃʌɭi	[DE]
bɐkɐɾi	[F]
bakɾi	[N]
bəkeɾi	[h]
bʌkʌɾ	[E]
gⁿ̃on	[P]
gⁿ̃oni	[w]
gⁿ̃ɔn	[d]
gⁿ̃ɔnːɐ	[B]
gⁿ̃ɔŋi	[Dg]
gɔɳ	[E]
saɭi	[g]
lɔl	[E]

95. dog

kʰuɻɔ	[D]
kuʈɔ	[k]
kuɻːɔ	[Dg]
kuɻɾɔ	[F]
kuʈta	[h]
kuʈɔ	[w]
kuɻʌɾʌ	[N]
gɐɳɖɐk	[A]
gɐɳʃɐk	[BP]
gɛɳɖɐk	[d]
gʌnɻʌk	[DE]

96. snake

ɕjap	[Bd]
hãp	[Fk]
ʃiɐp	[B]
sap	[P]
sãp	[Nh]
sapɭɐ	[A]
naːg	[DEg]
nʌg	[D]
luɳdi	[w]
lundi	[g]

97. monkey

bɐn̪ɖəɾɔ	[B]
ban̪ɖɐɾ	[P]
ban̪ɖɾɔ	[AEd]
bənɖəɾ	[h]
bɔn̪ɖɾɐ	[g]
bon̪ɖɾɔ	[Fw]
bʌn̪ɖəɾɔ	[D]
ʊanɖəɾɔ	[N]
lɐŋgʊɾjɔ	[dk]
lɐŋguɾ	[FN]

98. mosquito

mɐtʃʰɐɾ	[ADEP]
masɐɾ	[F]
matʃɐɾ	[Ngkw]
matʃʰɐɾ	[d]
mən̪ʈʃʰəɾ	[h]
daŋgi	[E]
ɖãs	[B]

99. ant

kiɖi	[ABDEFNPdgkw]
tʃĩ̪ti	[h]
mɐkɔɖa	[B]

100. spider

mɐkɐɖi	[AEPdghw]
mɐkɖi	[B]
mɐkəɖi	[DFk]
toɳʈijo	[w]
kʌɾʌi	[F]
mɔkɔ	[N]

101. name

nam	[AEdhw]
naʊə	[N]
navə	[B]
nɔm	[F]
nɔmɨ	[N]
nom	[k]
n̪am	[P]

nɔ	[Dg]
nu	[D]

102. man

mɛnɐk	[FNk]
maɳɐs	[A]
mɪnːɐk	[BD]
mɪnɐk	[Bdg]
mɪnək	[P]
minɐk	[Aw]
minakʰ	[E]
mʌnɻʌs	[D]
maɳɐs	[A]
mənusjə	[h]
mʌnɻʌs	[D]
aḏmi	[h]
puɾʊʂ	[h]
lɔkʰ	[D]
moʧjaɾ	[d]

103. woman

lʊgɐj	[g]
lʊgɐji	[B]
lʊgɐjɪ	[dk]
lugɐi	[D]
lugɐji	[ADPw]
lugʌi	[EN]
sṯɾi	[h]
auɾəṯ	[h]
bɐɾ	[FN]
bɐɾ	[FN]

104. child

soɾʌ	[F]
tʃʰoɾa	[A]
tʃɔɾɔ	[g]
bətʃtʃa	[h]
bəḷak	[A]
ʈiŋgɐɾ	[B]
ʈabɐɾ	[Edkw]
ʈabəɾ	[g]
tɐbɐr	[B]
ṯɐbɾə	[P]
ṯʌːbʌɾ	[DN]
ringʌɾija	[E]

105. father

piṯa	[h]
bɐpːu	[A]
bɐpu	[B]
bap	[ABEFPghkw]
bapa	[N]
bãp	[d]
bʌp	[D]
dʒi	[D]
bfiaisa	[d]
bapa	[N]
ʊabʌ	[N]
aḏːa	[g]

106. mother

ma	[ADENPhw]
mã	[Bdgk]
maṭa	[h]
bai	[DFNdk]

107. older brother

bija	[g]
bəḍabʱai	[h]
bʱai	[dgw]
bʱai sa	[d]
ḍɐḏːɔ bʱaj	[EP]
ḍɐḏːɔ bʱaji	[A]
ḍaḏa bʱai	[d]
ḍaḏɔ bʱaji	[B]
mɔʧɔbʱʌhu	[D]
moʧobʱai	[DFNkw]

108. younger brother

bɛjɔ	[B]
bʱaji	[A]
bʱajja	[P]
bʱai	[B]
bʱaji	[B]
tʃʰoʈabʱai	[h]
tʃoʈibʱai	[N]
tʃoʈɔbʱai	[Ekw]
nankɔbʱʌjɔ	[F]
nanobʱai	[k]
nɛnabʱʌi	[N]
ninijɔbʱʌi	[D]
biɾɔ	[d]
bɐhuḍa bʱai	[g]

109. older sister

ḍiḏi	[Ph]
dʒidʒi	[ABEPd]
bəḍibəhɪn	[h]
moʈibɛhɐn	[k]
moʈibɛhan	[F]
moʈibɛn	[DN]
bɐi	[w]
bai	[d]
bai	[E]
baji	[g]

110. younger sister

(by name)	[d]
bɐhɐn	[A]
tʃoʈibəhin	[h]
tʃoʈiben	[DN]

bɐhɐn	[A]
nɛnːi bɛhɐn	[k]
nenki bʱʌgʌn	[F]
bai	[Pw]
baji	[g]
tʃoʈibəhin	[h]
tʃoʈiben	[DN]
tʃoʈiɖiɖi	[P]
tʃoʈibʱai	[E]
baɳɨ	[B]

111. son

beʈa	[Ah]
beʈɔ	[E]
sorʌ	[F]
tʃʰɔrɔ	[B]
tʃʰorɔ	[d]
tʃorɑ	[P]
tʃorɵ	[kw]
tʃorɔ	[g]
ɖikəɾo	[N]
ɖikʰʈɔ	[D]
ɖikɾʌ	[D]
ɳaɲt͡ʃɔ	[B]

112. daughter

beʈi	[AEh]
puʈɾi	[h]
sorɨ	[F]
tʃʰɔɾi	[B]
tʃʰorɨ	[d]
tʃorɨ	[EPgkw]
ɖikɾi	[N]
ɖikəʈɔ	[D]
ɖikʌɾi	[D]
bɐji	[B]
ɳaɲtʃoi	[B]

113. husband

biɳɖ	[E]
biɳɖɨ	[B]
biɳɖə	[d]
vɪɳɖə	[Fk]
mɔʧjaɾ	[A]
moʧijaɾ	[E]
moʧjaɾ	[BP]
ɖʱɐɳi	[DNdgw]
pəʈi	[h]
gɐrala	[w]
kɐsɐm	[B]

114. wife

lʊgɐj	[g]
lʊgaji	[B]
lugaj	[DEPw]
lugaji	[ADd]
pəʈni	[h]
bʱu	[P]
bu	[F]
ʊiɳɖəɳi	[k]
ʊiɳɖiɳi	[N]
ber	[FN]

115. boy

sɔkɾʌ	[N]
sɔɾʌ	[N]
ʧʰɔɾɔ	[D]
ʧʰorɐ	[B]
ʧʰorɔ	[d]
tʃɔɾa	[A]
tʃɔɾo	[Ew]
tʃɔɾʌ	[F]
tʃorɔ	[gk]
beʈa	[P]
ləɖka	[h]
sɔkɾʌ	[N]

116. girl

sɔkɾi	[N]
sorɨ	[N]
ʧʰorɨ	[ABDdk]
tʃɔkɾi	[D]
tʃɔɾi	[E]
tʃorɨ	[Fgw]
beʈi	[P]
ləɖki	[h]

117. day

ɖɐn	[Fk]
ɖɪn	[ABDEPdghw]
ɖivas	[h]
ɖaɖɔ	[N]
ɖaɖɔ	[N]

118. night

ɾaʈ	[BDEPdghk]
ɾaʈʈi	[N]
ɾaʈ	[Aw]
ɾaʈɾʌ	[F]

119. morning

hɐvɛr	[F]
səberɑ	[h]
sʊar	[P]
havɐrʈi	[k]
hʌvʌrɖʌ	[N]
səberɑ	[h]
sʊbɐh	[Ad]
subəh	[h]
ɖɪnʊgːɐji	[B]
ɖingɔ	[E]

ḍinugijo [g]
ḍiṉɲɐgjo [w]
hakʰl̪i [g]
hʌkəl̪e [D]
hʌkʰl̪e [D]
bʌkʰɔʈɔ [D]
perbaʈ [N]
ʈɐḍɨkaʊkɐ [B]

120. noon

bɛpaɾ [F]
ḍɛpaɾɔ [w]
ḍepara [k]
ḍɔpaɾ [d]
ḍɔpãɾi [B]
ḍɔpʰeɾa [g]
ḍopaɾ [P]
ḍopəhəɾ [h]
ḍupaɾi [A]
ḍupʰeɾɔ [E]
ɐṉḍeɾɔ [g]
mʌʈʰeḍɪn [D]
bepal̪ʌ [N]

121. evening/afternoon

ʃam [h]
ʃɐɲdʒa [A]
səḍɦija [h]
ɐʈʰəɳɔ [g]
aʈɐn [w]
aʈənjɐ [B]
aʈʰɐɳə [Pw]
ʌʈʰʌɳə [DE]
hɔdʒ [F]
hɔdʒɾʌ [N]
hɔṉḍɾa [k]
ḍɪnaʈja [Bd]

122. yesterday

kɐl [Pgh]
kɐllɛ [D]
kal [ABEd]
kale [FNk]
hɐrek [w]
haʊʌɾe [N]
hʊʊaɾe [d]
suvaɾe [E]
hale [g]
kɐllɛ [D]
kale [FNk]

123. today

adʒ [ABDENPdghkw]
hɐɳɔ [g]
ʌmme [F]

124. tomorrow

kɐl [A]
kal [Edh]
kale [gk]
kʌlɛ [N]
pɐɾmɛ [F]
haʊeɾe [k]
haʊʌɾe [N]
hʊʊaɾe [d]
sʌvʌɾe [D]
harek [w]
ʈɐḍɨkɛ [B]
ʈɐḍəkɛ [AP]

125. week

hɐpʰʈ̪a [h]
hɐpʈ̪ɐ [B]
hɐpʈ̪ɔ [Ddgkw]
hɐpʈ̪ʌ [FN]
hafʈ̪a [A]
hapʈ̪ɔ [E]
sɐfʈ̪ɔ [d]
sɐpʈ̪a [P]
sɐpʈ̪ɐ [B]
sɐpʈ̪ɔ [d]
sapʈ̪a [A]
səpʈ̪ah [h]

126. month

mah [A]
mɐhɪɳɔ [D]
mɐhɪna [P]
mɐjəɳɔ [g]
mɐjɪɳɔ [Dg]
mɐnːɔ [A]
maʲno [E]
məhina [h]
menːɐ [B]
mɪnːɐ [B]
mɪnːɔ [dw]
minɔ [FNkw]

127. year

sal [Ah]
bɐɾɐɕ [B]
bɐɾɐʃ [BD]
bɐɾʃ [E]
ʊɐɾə [g]
ʊɐɾʃ [P]
ʊəɾʂ [h]
ʊɐɾ [Fk]
ʊɐɾə [g]
ʊɐɾʃ [P]
ʊaɾ [N]
ʊəɾʂ [h]
bʱar [w]

ʊɐɾ	[Fk]
ʊɐɾə	[g]
ʊaɾ	[N]
baɾɐ minːa	[d]
baɾɐ minɔ	[w]

128. old

pʊɾaɳɐ	[B]
pʊɾaɳə	[P]
pʊɾana	[h]
pʊɻaɳɐ	[AD]
pʊɻaɳɔ	[E]
dʒʊnːɐ	[F]
dʒʊnːɔ	[Dw]
dʒʊnnɐ	[B]
dʒʊnnɔ	[B]
dʒʊnɔ	[Nk]
dʒʊnːa	[g]
dʒʊna	[w]
bʱɔɖːa	[Eg]
bʊɖːɔ	[d]

129. new

nɐja	[A]
nɐjɔ	[B]
nɐʊɔ	[FNk]
nəja	[h]
nəʊə	[h]
nʊo	[B]
nʊɔ	[d]
nʊʊɔ	[w]
nuo	[E]
nuvɔ	[Dgw]
n̪ɐja	[P]
nuː	[D]
nũ	[w]

130. good

bɐɖɪjɐ	[A]
bɐɖija	[B]
bəʈʱija	[h]
sokɔ	[F]
tʃʰokkɔ	[B]
tʃʰokɔ	[k]
tʃɔkːu	[A]
tʃokʰɔ	[EP]
tʃokkɔ	[d]
ɐtʃʰɔ	[E]
ɐtʃtʃʰa	[h]
pʰuɭɾo	[B]
pʰuɭɾɔ	[Ndw]
hɐkʰɾɐ	[g]
hɐkʰɾɔ	[Dg]
hakʰrɔ	[w]
hɔɻɾɔ	[N]
hɔɻɾɔ	[N]

131. bad

bʊɾa	[B]
bʊɾo	[B]
buɻa	[A]
bekaɾ	[AP]
bʱuɳɖɔ	[D]
buɳɖɔ	[dkw]
gaɳɖɔ	[E]
kʰəɾab	[h]
kʰɔɭɔ	[E]
kʰodʒo	[N]
hugɭɔ	[g]
ʃugla	[B]
puɕijaɖɔ	[N]
kujɔ	[F]

132. wet

ɐlːɔ	[B]
ɐl̪ːɐ	[P]
ɐl̪ːɔ	[A]
alːɔ	[d]
bʱinɔ	[FN]
bʱiɳɳɔ	[k]
bʱindʒijɔdɔ	[D]
bidʒjɛɖɔ	[B]
bidʒɔɖɔ	[Eg]
illɔ	[E]
lilɔ	[Nw]
gila	[h]

133. dry

hʊkʰɖɔ	[g]
hugɔ	[F]
hukːɖɔ	[D]
hukʰɔ	[k]
hukɔ	[DNw]
sukedɔ	[A]
sukʰa	[h]
sukʰɔ	[EPd]
sʊkjeɖɔ	[B]
sukedɔ	[A]
sukhʰeɖɔ	[d]

134. long

lɐmbɐ	[P]
lɐmbɔ	[ADEdgkw]
lambɔ	[B]
ləma	[h]
lɔbɔ	[FN]
ɖigɔ	[d]
bɐɖɖɔ	[B]

135. short

tʃʰoɬa	[h]
tʃʰoɬɔ	[Ew]
tʃɔɬɔ	[A]

ʈʰikɳɔ	[d]
ʈʰiŋgəɳɔ	[A]
ʈɪgɳɔ	[B]
otʃʰɔ	[ADEP]
neɳːɔ	[k]
nenkɔ	[FN]
kʰaʈʰarа	[g]
ɾoɖːɔ	[d]
ʈenjɔ	[B]

136. hot

ʈaʈɔ	[AB]
ʈaʈʈa	[P]
ʈaʈʈɔ	[Ed]
gɐɾəm	[h]
unːa	[k]
unːɔ	[DNdgw]
unɔ	[F]
baɭʈʰɔ	[g]
ʈʌpʈɔ	[D]

137. cold

ɕiɭɔ	[A]
ʈɐɳɖa	[P]
ʈɐɳɖɔ	[A]
ʈaɖɔ	[Fgw]
ʈʰɐːɖɔ	[D]
ʈʰɐɳɖɔ	[BEdgk]
ʈʰaɖɔ	[N]
ʈʰəɳɖa	[h]
ʈʰɐɾe	[d]
basːi	[E]

138. right

ɖaːɖɔ	[g]
ɖʌvɔ	[E]
ɖɐjɔ	[AB]
ɖaja	[h]
ɖajɔ	[E]
ɖɐhɪna	[h]
ɖɐhinɔ	[g]
dʒevaɳa	[w]
dʒimɳɔ	[FNk]
dʒɪvəɳa	[P]
dʒɪvəɳɔ	[d]
dʒɪvɐɳɔ	[D]
dʒɪvɳɐ	[B]
ɖavljɔ	[B]

139. left

bɐjɔ	[A]
baja	[P]
bãja	[h]
bɐjɔ	[A]
ɖʌjo	[F]
ɖaʊa	[k]
ɖaʊɖo	[w]
ɖʌjo	[F]
ɖʌvɖɔ	[D]
dʒiʊɳu	[g]
dʒiʊʊɳɔ	[E]
ɖʌjo	[F]
dʌɾɔ	[N]
bãvljɔ	[B]
ɖaʊljɔ	[d]

140. near

pas	[h]
nɐdʒɖik	[h]
kɐnːɛ	[dk]
kɐnːə	[B]
kɐɳe	[F]
kɐɳːi	[A]
neɖo	[EFNw]
neɖɔ	[Ddg]
neɽɛ	[P]
aːro	[w]
pakɖi	[k]

141. far

ɖuɾ	[Ah]
aʈɾɛ	[B]
aʈɾɔ	[d]
pɐɾɳɛ	[P]
ɐlgɔ	[DFN]
ʌlgi	[E]
ɐgːə	[B]
agɐ	[g]
agɔ	[gkw]
ʌgɔ	[D]

142. big

bɐɖːɔ	[d]
bɐɖɔ	[AE]
ɳɛɖɔ	[B]
bɐɖːɔ	[d]
bɐɖɐ	[P]
bɐɖɔ	[AE]
bəɖa	[h]
moʈɐ	[B]
moʈɔ	[DEFNdgkw]
moʈɔɖɔ	[k]

143. small

tʃʰoʈa	[h]
tʃʰoʈɔ	[AD]
tʃoʈa	[Pg]
tʃoʈɔ	[DEdw]
ʈʰɔdɔ	[B]
nankɔ	[F]
nenkɔ	[N]
nankɔ	[F]

nenəkjɔ	[k]
nenkɔ	[N]
kʰʌʈɾo	[E]

144. heavy

bʱaɾi	[FNdgh]
bʱaɾjɔ	[P]
bʱaɻjɔ	[A]
bʱʌɾɪ	[D]
bʱaːr	[w]
bʱar	[Ew]
bodʒ	[B]
bʱaɾi	[FNdh]
bʱʌɾɪ	[D]
bɐdʒɐn	[d]
ʊɐdʒɐn	[k]
vʌdʒini	[N]

145. light

hɐlɨki	[B]
hɐləka	[P]
hɐləkɔ	[ABNdk]
hɐlkɔ	[DEgw]
hɐlka	[h]
bʱɐɾɔ	[k]
pʰɔɾɔ	[FN]
ɔlɔ	[g]

146. above

upɐr	[F]
upɐre	[Nk]
upər	[h]
uːɳtʃɔ	[D]
uɲtʃɔ	[Ek]
ũtʃːo	[A]
ũtʃa	[P]
ũtʃʰɔ	[B]
ũtʃɔ	[Adgw]
maʈʈɛ	[N]

147. below

nitʃa	[P]
nitʃe	[h]
nitʃʰɔ	[Bw]
nitʃɔ	[ADENdgk]
ɛʈɛ	[FN]

148. white

ɖʱɐvlɔ	[FN]
ɖʱolo	[w]
ɖʱolɔ	[D]
ɖʱɔlɔ	[g]
ɖolə	[P]
ɖolɔ	[ABEdkw]
səɸeɖ	[h]

ʌːtʃɔ	[D]
udʒlɔ	[N]

149. black

kɐlɐ	[B]
kalə	[P]
kalɐ	[g]
kaljɔ	[B]
kalɔ	[ABEFNdgkw]
kala	[h]
kʌːlɔ	[D]
kadʒʌlio	[E]

150. red

lal	[ABEh]
ɻal	[P]
ɾʌʈɔ	[D]
ɾaʈɔ	[EFNdgkw]

151. one

ɛk	[h]
ek	[ABDEFNPdgkw]

152. two

ɖo	[h]
ɖɔ	[ABEPdgkw]
be	[Ng]
bi	[DF]

153. three

ʈin	[ABDEFNPdghkw]

154. four

tʃaɾ	[ABDEFNPdghkw]

155. five

paãtʃ	[A]
paɲtʃ	[BEPdgw]
pãntʃ	[kw]
pãtʃ	[h]
põːtʃʰ	[D]
pʌ̃tʃ	[D]
pɔs	[FN]

156. six

se	[F]
tʃʰɛ	[ABDENPdghkw]
tʃʰə	[h]

157. seven

haʈ	[F]
hʌːʈ	[D]
saʈ	[ABENPdghkw]

158. eight

aʈ	[ABDEFNPdgkw]
aʈʰ	[h]

159. nine

nɐu	[Edghw]
nɐʊ	[DF]
nɔ	[ABPk]
nʌʊɨ	[N]

160. ten

ɖɐs	[ABEFNPdgkw]
ɖəs	[h]
ɖʌh	[D]

161. eleven

gjaɾ	[F]
gjaɾɐ	[BEhk]
gjaɻɐ	[AP]
igjaɾɐ	[dgw]
igjʌɾe	[D]
igjʌɾɛ	[N]

162. twelve

bɐɾe	[DNg]
baɾɐ	[BEPh]
baɻɐ	[Ak]
baɻɛ	[Fw]
bara	[d]

163. twenty

bi	[g]
bih	[D]
ʋi	[F]
bis	[ABEPdhw]
ʋis	[Nk]

164. one hundred

hɐo	[g]
hɔ	[DFNkw]
so	[dh]
sɔ	[ABEP]
sɛjkɐɖa	[B]

165. who?

kʰuɳ	[D]
kɔn	[h]
kɔŋə	[AD]
kʊŋɨ	[B]
kʊŋə	[Pg]
kuɳ	[Ekw]
kuŋə	[EFNdw]

166. what?

ke	[AP]
kɪ	[g]
kɐji	[B]
kɐjɪ	[w]
kaj	[d]
kɐ̃j	[E]
kɔi	[k]
koi	[F]
kɐji	[B]
kɐjɪ	[w]
kaj	[d]
kɐ̃j	[E]
kja	[h]
ki	[D]
kɪ	[D]
khɐ̃v	[N]

167. where?

kɐʈːe	[d]
kɐʈe	[Fkw]
kʰɐʈɛ	[B]
kʱɐʈʰɛ	[AE]
kʰɛʈʰe	[P]
kʰetʰ	[D]
kʌʈɛ	[N]
kəhɐ̃	[h]
keʈ	[g]
ʃiɖːe	[d]

168. when?

kɐɖɛ	[N]
kɐɖə	[AP]
kɐɖi	[k]
kɐɳɐ	[B]
kɐɳe	[Eg]
kɐɳɔ	[g]
kɐne	[w]
kʌɳɨ	[F]
kʌɾɛ	[FN]
kəb	[h]
kɐdːə	[d]
kʌːɖ	[D]
kɐɾɐ̃ŋk	[d]

169. how many?

kɐʈɾa	[k]
kɐʈɾɔ	[FNk]
kɐʈʈɔ	[B]
kɪʈːɔk	[d]
kɪʈʈɔ	[DPw]
kitʰɔ	[Dg]
kiʈʰa	[g]
kiʈok	[E]
gʌnɔhʌɾo	[E]

kɪt̪ane	[h]
kɪt̪anɔ	[A]

170. what kind?

kʰɔkʰɐɾ	[D]
kʰokʰɐɾ	[g]
kikɐɾ	[k]
kikʌɳɨ	[N]
ke kaɾɐɳ	[P]
kikʌɳɨ	[N]
kɐja	[A]
kəisa	[h]
keɖɔ	[Dgw]
kɪɕjaɳɨkɔ	[B]
kɪjɐnəkɔ	[B]
kɪjanəkɔ	[d]
kʌt̪ri dʒat̪ɾɛ	[F]
kisok	[E]

171. this

ɐ	[B]
e	[D]
jəh	[h]
jɜ	[h]
jɔ	[AB]
o	[BFdk]
ɔ	[ENPgw]
aʈʈe	[E]

172. that

bo	[B]
bɔ	[AEPd]
o	[Dgw]
ʊɔ	[FN]
wo	[h]
wəh	[h]
baʈʈe	[E]
ʊɐʈe	[k]

173. these

a	[Nk]
o	[dg]
ɔ	[w]
e	[BDEF]
je	[ANPh]
ʌʈɛ	[EF]

174. those

βe	[h]
be	[BE]
bɛ	[P]
ʊe	[AFNh]
bɔ	[d]
o	[Dw]
ɔ	[g]
ʊo	[k]

175. same

ekʃaɾ	[A]
ɪksaɾ	[B]
ekdʒɐɖɐ	[g]
ekdʒaɖa	[w]
ekdʒeɖə	[D]
ekdʒɪʃe	[P]
ekdʒisa	[E]
ekdʒʌɖʌ	[DFN]
ekdʒɐnəka	[d]
ekdʒaɖa	[w]
ekdʒeɖə	[D]
ekdʒʌɖʌ	[DFN]
səman	[h]
ekɐɾsaji	[B]
ek hiɾkɔ	[k]

176. different

naɾe	[E]
naɻɔ	[w]
n̪ɐkːe	[P]
n̪ɐkːə	[A]
naɾ naɾa	[g]
naɾe	[E]
naɻɔ	[w]
njɐɾɔ	[B]
njaɾɐ	[B]
njaɾɔ	[dk]
pʰeːɾ	[D]
pʰʌɾʌkʰ	[F]
ələgələg	[h]
t̪as t̪as	[g]
bidʒʌ bidʒʌ	[N]

177. whole

habut̪	[F]
sɐpt̪ɔ	[d]
sabɐt̪	[A]
sabt̪o	[E]
sapt̪i	[B]
puɾa	[h]
puɾɳə	[Ph]
akɔ	[k]
hagɖɔ	[w]
sɐgɭɔ	[B]
hɛ̃ŋg	[D]
baɖɔ	[N]
madʒbut̪	[g]

178. broken

ʈuʈa	[h]
ʈuʈeɖɔ	[Aw]
ʈuʈjɔɖɔ	[Bd]
ʈuʈɔɖɔ	[N]

ʈuʈuɖɔ [E]
ʈuʈeɖɔ [g]
ʈuʈeɖɔ [D]
pʰuʈeɖɔ [P]
ʈuʈɔɖɔ [N]
ʈuʈuɖɔ [E]
pʰuʈeɖɔ [P]
bɐgɔɖɔ [Dg]
bᶯagɔ [D]
bᶯagɔɖɔ [Nk]
pʰagɔ [F]

179. few

ʈʰɔɖɔ [g]
ʈʰɔkkɔ [F]
ʈʰoɖɔ [d]
tʰoɖɔ [kw]
ʈʰɔɖkɔ [N]
ʈʰɔɖɔ [ADw]
ʈʰɔɖɔk [E]
ʈʰoɖa [Ph]
tʃɪnjɔ [B]
tʃinjɔsɔ [B]
lɐgaɾek [k]
koi [F]

180. many

ɳɛɾɔ [B]
gɐɳɔ [EFk]
gɐɳɔjɪ [A]
gᶯɐɳɔ [DNdg]
gᶯəɳɔ [D]
gɔɳɔ [w]
bəhuʈ [h]
boɭɔ [ABP]

181. all

hɐɾai [N]
saɾɐ [B]
ʂɐgɭaji [d]
sɐgɐɭɐ [ABP]
sʌgːɭa [E]
səb [h]
heŋ [D]
heŋg [DFNw]
heŋgə [k]
hẽŋg [g]

182. eat!, he ate

gᶯaljɔ [B]
kʰa [h]
kʰɐle [g]
kʰale [d]
kʰalɛ [A]
kʰalo [E]
kʰapɔ [N]
kʰɔ [F]
dʒimljɔ [B]
dʒimɳɐ [g]
dʒimɔ [DNPkw]
giʈljɔ [B]

183. bite!, he bit

kʰagjɔ [AEPw]
kʰajgjɔ [Bd]
kaʈa [h]
kʰɐdːɔ [k]
kʰaɖɔ [N]
ʈʰɔdijɔ [D]
ʈʰoɖa [g]
kʰʌɭɖijɔ [N]
ʋaɖijɔ [F]
bɐɾljɔ [B]

184. he is, he was hungry

bᶯuk lagi [Ekw]
bᶯukʰ [Ah]
bᶯuklɐgjaji [P]
bᶯuk lɐgi [DN]
bᶯuk lagi [B]
bᶯuk lagi hɛ [F]
bᶯuka mɐɾa [d]
bᶯukʰ lɐgi [g]

185. drink!, he drank

pi [h]
pi ʋã [d]
pɪje pʌɾjɔ [D]
pɪɾja hɛ [B]
pie pʌɖijɔ [D]
pije [g]
pije he [w]
pijeɾijɔ hɛ [F]
piɾijɔ hɛ [N]
piɻjɔ [A]
piũ [E]
piʋe [P]
piʋe hɛ [B]
piʋɛ ɾjɔ hɛ [k]

186. he is, he was thirsty

ʈaɾlagi [k]
ʈe lagi hɛ [g]
ʈʰʌɾ lʌgɛ [F]
ʈɪɾ lagi [gw]
ʈɪs lage [d]
ʈɪs lagi [B]
ʈɪsajilagəɻihe [A]
ʈislɐgi [E]
ʈislagi [P]
ʈɾeʃ lʌgi [D]

ʈʌɾlagi hɛ [N]
pjasahe, pjasaʈʰa [h]

187. sleep!, he slept
so [h]
soɾa hɛ [d]
huʈɔ [g]
huʈɔ hɛ [DNkw]
suʧjɔhɛ [AP]
suʈɔ [D]
suʈɔ hɛ [B]
sugjɔ [E]
hujɛɾijɔ [F]
huŋːaɳɔ hɛ [N]

188. lie down!, he lay down
pɐɖahʊa [P]
hɔːgjɔ [w]
huigjo [w]
hʊʊnɨ gajɔ [k]
leʈ [h]
ɐɖːɔgjɔ [AE]
aɖɖɔ ɔgjɔ [B]
ʌdɔ pʌsɔ [D]
ʌdɔpʌɖijɔ [F]
ʃuʈa [d]
pɔɖijɔ [N]
pɐʈgjo [g]

189. sit down!, he sat down
beʈo [Nw]
bɐiʈʰɔ [E]
bɐjʈʰ [h]
bejʈʰɔ [Fw]
hɛɪʈʰɔ [k]
beɖədʒa [A]
beʈ dʒɐ [B]
beʈdʒa [EPd]
behɔ [Dg]
biɾadʒɔ [B]

190. give!, he gave
ɖe [h]
ɖe ɖjɔ [B]
ɖɛɖɛ [AE]
ɖɛpɔ [N]
ɖeɖɛ [d]
ɖeɖja [d]
ɖeɖrɔ [w]
ɖero [g]
ɖevɔ [D]
ɖɪɖɔ [F]
la [P]
lele [k]
dʒalaɖɔ [E]

191. it burns, it burned
dʒɐləgjɔ [A]
dʒəl [h]
dʒʌlɾjo [E]
bɐle [P]
bɐlgjo [Eg]
bɐlɾɪjɔ [w]
bɐlɾjahɛ [B]
bɐlɾjɔ hɛ [k]
bɐlə ɾɐhɛ [d]
bʌle pʌɖjɔ [D]
aːg lagɛ hɛ [F]
ʃɪligɨ ɾɐhahɛ [B]
ʊʌlɛɾijɔ hɛ [N]

192. don't die!, he died
mɐɾgjɔ [AEPgk]
mɐɾgɔ [Bd]
mɐɾijɔ [F]
mɐɾiɾɔ [w]
məɾ [h]
muɔpɔ [N]
tʃɐlgɐjɐ [w]
kuʈgjɔ [Ew]
kuʈepɔ [D]
gudʒjɔ [N]
sɐmaigɔ [B]

193. don't kill!, he killed
maɾ [h]
maɾ ɖijɔ [B]
maɾɖijɔ [Ek]
maɾijɔ [N]
maɾjɔ [A]
maɾgjiɔ [w]
ʈʰokjɔ [Ddg]
kʰuʧjɔ [D]
kʊʧa [P]
kuʧjɔ [Fk]
kʰuʧjɔ [D]
kuʧjɔ [Fk]

194. fly!, it flew
ʊɖːɛ [P]
ʊɖɖɛ hɛ [B]
ʊɖɛ hɛ [w]
ʊɖəgjɔ [Aw]
ʊɖgɔ [d]
uɖ [h]
uɖːe [gk]
uɖːe pʌɖijo [D]
uɖɛɾijɔ hɛ [N]
uɖɛrijɔ [F]
uɖgjɔ [E]
uɖijo [g]

uɖɾɐ hɛ	[B]
udʒɛɾijɔ	[F]

195. walk!, he walked

tʃal	[A]
tʃalːɔ	[d]
tʃallɔ	[P]
tʃalɔ	[B]
tʃəl	[h]
alo	[E]
alɔ	[Nw]
hɐlːɔ	[g]
hɐlɔ	[k]
hɐlɔ	[DF]
hallɔ	[B]
tʃalːɔ	[d]
tʃallɔ	[P]
tʃalɔ	[B]
gⁿum	[h]
dʒa	[P]
hɛɖɔ	[N]

196. run!, he ran

bⁿagdʒa	[P]
bⁿagɔ	[ABEd]
bⁿagjɐ	[B]
dⁿɔdɔ	[N]
ɖɐodˌ	[h]
ɖɔdə	[k]
ɖɔudɔ	[F]
ɖodgjo	[E]
ʊdi kʰɐdɔ	[g]
udi	[w]
khuːdɔ	[D]

197. go!, he went

dʒa	[ADgh]
dʒao	[w]
dʒapɔ	[N]
dʒapɾɔ	[Edk]
dʒarɔ	[D]
dʒaɻoɾɛ	[B]
dʒaʊɔ	[N]
dʒɔ	[F]
tʃɐl	[P]

198. come!, he came

ɐdʒjao	[B]
adʒa	[AP]
adʒja	[d]
adʒo	[E]
aːvoʃa	[E]
agjo	[Ew]
ao	[w]
aɾɔ	[g]
au	[h]
aʊ	[N]
aʊɾɔ	[k]
ʌːɾɔ	[D]
ʌ	[D]
aːbɔ	[F]
pʌɻaɾɔ	[N]

199. speak!, he spoke

bɔl	[D]
bol	[APdhk]
bolɔ	[EF]
bolɔ	[EF]
bulːɔ	[w]
bule	[w]
bulijɔ	[Ng]
keɖjɔ	[B]
keo	[E]
kʰe	[D]

200. listen!, he heard

hʊɳjɔ	[Dk]
hʊɳijo	[gw]
hunɔ	[F]
sʊɳa	[AP]
sʊŋjɔ	[d]
sunɨlɪjɔ	[B]
sunejo	[E]
sunilio	[w]
sʊɳa	[AP]
sun	[h]
hobl̥ijɔ	[N]

201. look!, he saw

ɖekʰ	[h]
ɖekʰijo	[Eg]
ɖekʰijɔ	[DN]
ɖekʰjɔ	[APdkw]
ɖekʰlijɔ	[B]
bal̥ijɔ	[N]
bⁿal̥ɔ	[F]
ɖiːtʰɔ	[D]

202. I (1st singular)

me	[A]
mɛ	[BP]
meidʒʊ̃	[k]
mẽ	[Ed]
mẽj	[h]
mɔ̃	[N]
mũ	[FN]
mane	[E]
hũ	[Dgw]

203. you (2nd singular, informal)

ʈ̪ʰe	[Fk]
ʈ̪ʰẽ	[E]
ʈ̪ʰũ	[g]
ʈ̪u	[Ndh]
ʈ̪um	[h]
ʈ̪ũ	[ABDPw]

204. you (2nd singular, formal)

ap	[hk]
ʌpɛ	[F]
ʈ̪ʰe	[ABDNPdgw]
hũ	[E]

205. he (3rd singular, masculine)

bːɔ	[d]
bo	[E]
bɔ	[P]
o	[Dgw]
ʊɔ	[AF]
wo	[h]
be	[B]
ʊe	[k]
wə	[h]
ʊʌɳɛ	[N]

206. she (3rd singular, feminine)

bːa	[d]
ba	[BEP]
ʊa	[Nk]
ʊɐ	[F]
ʊe	[A]
wə	[h]
be log	[E]
o	[Dgw]

207. we (1st plural, inclusive)

apa	[E]
apã	[d]
ãp	[B]
ãpa	[P]
me	[ADFw]
mẽ	[g]
hũ	[w]
həm	[h]
hɛŋ	[k]
hɔpɛ	[N]
ʈ̪ʰe	[g]

208. we (1st plural, exclusive)

ɐpɐ ɖ̪ɔnjɔ	[B]
apːaɖ̪ɔno	[E]
apã ɖ̪onjɔ	[d]
ape ɖ̪ɔi	[k]
me	[w]
me bi	[D]
mebedʒʌɳʌ	[F]
meh	[P]
mehɛ	[A]
mẽ	[g]
hɐm	[h]
hũ	[w]
hɔpɛ bɛi	[N]

209. you (2nd plural)

ʈ̪ʰe	[ABDEPw]
ʈ̪ʰe log	[Ndk]
ʈ̪ʰũ	[g]
ʈ̪umlog	[h]
ʈ̪ũ	[Dw]
aːp	[F]
me	[B]

210. they (3rd plural)

be	[BEPd]
be log	[E]
ʊe	[Nk]
we	[h]
o	[D]
õ	[g]
ʊɔ	[A]
ʊɛjis	[F]
se	[P]
u	[w]

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