The Santali Cluster in Bangladesh: A Sociolinguistic Survey

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ABSTRACT

This paper reports on sociolinguistic research conducted among speakers of five Austro-Asiatic language varieties in northwest Bangladesh: Koda, Kol, Mahali, Mundari, and Santali. These are collectively referred to as the Santali Cluster because Santali is the most populous and developed language among these five varieties. Linguistic variation within and across these varieties, long-term viability of each variety, and attitudes of speakers towards their own and other language varieties were investigated. The degree of intelligibility in Santali by speakers of the other varieties and the bilingual ability in Bangla of speakers from each variety were also studied. This research was carried out from November 2004 through January 2005 through the use of word lists, questionnaires, a Bangla Sentence Repetition Test, and stories recorded in Santali, Mundari, and Mahali.

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LIST OF ABBREVIATIONS

BNELC = Bangladesh Northern Evangelical Lutheran Church

CIQ = Community Information Questionnaire

HTT = Hometown Test

LWC = Language of Wider Communication

MT = Mother Tongue

RPE = Reported Proficiency Evaluation

RTT = Recorded Text Test

SRT = Sentence Repetition Test

PREFACE

As part of SIL Bangladesh's project to develop the minority languages of Bangladesh, we researched the cluster of Austro-Asiatic languages centered around Santali. This report is the fruit of the field research conducted in November and December 2004, and January 2005.

For the first time, we had the able help and cheerful companionship of two full-time Bangladeshi language surveyors: Sayed Ahmad and Mridul Sangma. They had received linguistics training earlier in the year, and this survey was their first field experience. We commend them for their quick learning and their valuable contribution. The survey would have taken longer without their help, and it would not have been as enjoyable without their fellowship. We look forward to seeing them develop into experienced surveyors/linguists who will contribute much to many other minority language communities through their knowledge, skills, and character.

Many thanks also go out to the people who helped us in numerous ways: the staff at various BNELC (Bangladesh Northern Evangelical Lutheran Church) guest houses who met our physical needs when we needed food and lodging, Sister Gertrude and others at Beniduar Mission who provided a place to stay on short notice, the smiling boys and girls who led us around their villages, and particularly the story tellers who worked many hours for the development of the recorded stories.

Finally, we reserve our deepest appreciation for the people and leaders of all the villages we visited—Abirpara, Amnura Missionpara, Babudaing, Begunbari, Bodobelghoria, Jabri, Karimpur, Krishnupur, Kundang, Matindor, Mundumala, Nijpara, Pachondor, Paharpur, Patichora, Rajarampur, Rashidpur, Rautnagar—who, no matter when we showed up, no matter how long we stayed, extended warm welcomes and gave their cooperation. We want to thank them for making themselves available for this work, and more than that, for accepting us not just as researchers but also as friends. They make all the work worthwhile.

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1. INTRODUCTION

1.1. Purposes and goals

The purpose of this sociolinguistic survey was to gather information that could be used to plan a language development program for the Santali, Mahali, Munda, Kol, and Koda speakers in Bangladesh. The reason for lumping these five language varieties together into one survey was that they are all Austro-Asiatic languages, they are all mostly found in Rajshahi division, and they all have some understanding in Santali due to close geographical proximity, linguistic similarity, or both. Also, Santali is clearly acknowledged as being central to this group of languages due to its size in population and widespread recognition. Hence the term "Santali cluster."

We wanted to know which language variety, if any, each of these communities wants to develop in terms of literature production and literacy programs. We also wanted to know, from an objective linguistic point of view, the pros and cons of choosing any particular language variety for development. To meet these purposes, the following goals were established:

- 1. To investigate linguistic variation in each of the varieties and across the five varieties within the Santali cluster
- 2. To determine attitudes for each variety of the Santali cluster towards their own language variety and towards other varieties
- 3. To measure the degree of intelligibility in Santali by speakers of the other varieties within the Santali cluster
- 4. To assess the long-term viability of each variety within the Santali cluster in Bangladesh
- 5. To gauge the Bangla ability of speakers of each speech variety within the Santali cluster

To accomplish these goals, this sociolinguistic survey of the Santali cluster was carried out in three interrelated parts: 1) a study of the language varieties within the Santali cluster, 2) a language use, attitudes, and vitality study, and 3) a bilingualism study. Figure 1 gives a summary of the sociolinguistic methods used in this survey.

Figure 1: Overview of methods

| Study | Method | Brief description | Focus | Sample size |
|--|--------------------------------------|--|---|--|
| Study of the language varieties | Lexical similarity comparison | 307-item word list | Lexical variation within each member of the cluster Lexical similarity with other members of the cluster | 7 Santali villages 3 Mahali 5 Mundari, incl. 2 from India 2 Koda 1 Kol |
| | Intelligibility study | Comprehension test of recorded stories in Santali, Mahali, and Mundari | Intelligibility across language varieties | • 64 subjects from 4 villages |
| Language use, attitudes, and vitality study | Sociolinguistic questionnaire | A 33-item questionnaire | Language preferencesAttitudes toward various language | • 149 subjects from 14 villages |
| | Post-HTT questionnaire | 3 questions about the storyteller's speech | varieties • Domains of language use | • 30 subjects from 3 village |
| | Post-RTT questionnaire | 4 questions about the storyteller's speech | • Long-term viability of varieties within Santali cluster | • 54 subjects from 4 villages |
| Bilingualism study | Sociolinguistic questionnaire | A 5-item questionnaire | Perceived ability in any second language | • 149 subjects from 14 villages |
| | SRT (Sentence Repetition Test) | A 15-sentence test calibrated to RPE levels 1 to 4+ | Measured ability to speak Bangla | • 361 subjects from 12 villages |

1.1.1. Study of the language varieties

Lexical Similarity Study

The first method, or tool, used was a 307-item word list taken at a total of 16 villages: 7 Santali, 3 Mahali, 3 Mundari, 2 Koda, and 1 Kol; in addition, two Mundari word lists from India were also used. These villages—particularly the Santali ones—were chosen to capture a representative sample of the respective communities in terms of location and religious affiliation. Thus, we went to villages as north as Dinajpur and as south as Rajshahi and also ones in between; to predominantly Christian villages as well as predominantly Hindu ones; and to more remote villages as well as less remote ones. In addition to these 18 word lists, we also included a word list in Bangla (dictionary pronunciation) for comparison. These lists were compared in order to determine the lexical similarity among all these varieties. The results of the comparison were also used to decide which varieties to use for intelligibility testing. See Appendix B.1 for standard procedures for counting lexical similarity.

Intelligibility Study

The second method used to study the Santali cluster was Recorded Text Tests (RTTs). RTTs were used primarily to determine how widely intelligible Santali is among Mahalis and Mundas. In order to meet this purpose, three stories were recorded: one each for Santali, Mahali, and Mundari. Comprehension tests for these were developed and tested at selected villages. In addition, a Mundari story previously recorded in India was used in Bangladesh to test for comprehension. See Appendix C.1 for standard RTT procedures.

1.1.2. Language use, attitudes, and vitality study

A sociolinguistic questionnaire was used to assess patterns of language use among speakers of the Santali cluster, their attitudes towards their own and other languages, and the long-term vitality of each language variety. Post-Hometown Test (HTT) and post-RTT questionnaires were used to shed further light on attitudes towards languages within the Santali cluster. This information gives an indication as to whether the various language communities would accept and use materials translated into their own language variety or into another language variety which is highly intelligible with their own. The sociolinguistic, post-HTT, and post-RTT questionnaires are given in Appendices E.1, E.2, and E.3, respectively.

1.1.3. Bilingualism study

A Bangla SRT was specifically developed to assess the level of bilingualism among minority language speakers in Bangladesh. This test focuses on people's ability to speak in Bangla, although it also gives an indication of people's Bangla comprehension ability. In addition to using the Bangla SRT to measure members of the Santali cluster's Bangla ability, five questions from the above-mentioned sociolinguistic questionnaire were used to assess how they perceive their abilities in Bangla as well as other language varieties.

In addition, the Community Information Questionnaire (CIQ) was used to gather information about language vitality and the depth and breadth of bilingualism. See Appendix G.1 for standard SRT procedures; see Appendix E.5 for the CIQ and Appendix I for the community information itself.

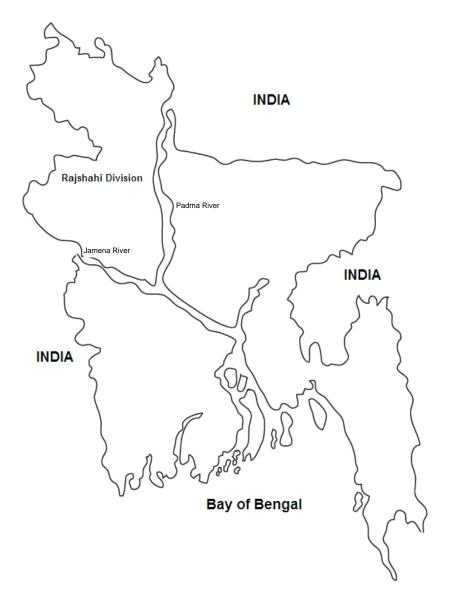
1.2. Geography

The Santali *cluster* is not simply a linguistic description, but also a geographical one, for almost all speakers of the Santali cluster in Bangladesh live within the relatively limited space of the western half of Rajshahi division. Moreover, it is rare to find a Mahali, Munda, Kol, or Koda community that doesn't have a Santali community close by. Thus, it is not simply a cluster, but a *Santali* cluster.

Rajshahi division lies in the northwestern corner of Bangladesh. It is bordered on the north, northeast, west, and southwest by India, and it is divided from the rest of Bangladesh by the Padma River on the south and by the Jamuna River on the east (see Figure 2). At 34,513 square kilometers, it constitutes about one-fourth the area of Bangladesh. It is known for its fertile flatlands that are nevertheless flood-free (relatively speaking), and thus is popularly called the country's storehouse of food grains. Indeed, during our travels, we enjoyed vistas of seemingly endless rice paddies that were only occasionally broken up by potato and

sugarcane fields. And other than the Mahalis who make and sell bamboo products, the vast majority of the other Santali cluster speakers work on, and live off, of this land.

Figure 2: Rajshahi Division, Bangladesh



Almost every village we visited was quite accessible. Because Rajshahi division boasts a good transportation system of regular buses running on good roads, no village was more than a 2-km walk away from the nearest road that allowed for some sort of a vehicle. The most remote (meaning requiring walking) were the Kol village of Babudaing and the Santali village of Rajarampur. The Mahali villages (Mundumala/Pachondor, Matindor, Abirpara) tended to be the most accessible as Mahalis live along roads in or very near market towns in order to sell their bamboo products easily. Thus, we were able to reach almost every village easily (even if bumpily) by a combination of buses and van gari/rickshaw. See Figure 3 for the approximate location of each village. Also, see the community information in Appendix I for details on the district and subdistrict of each village.

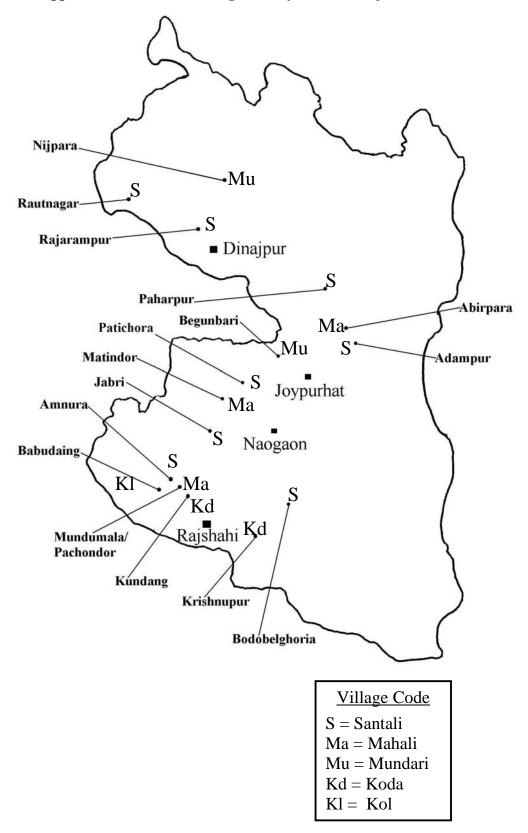


Figure 3: Approximate location of villages surveyed within Rajshahi Division

1.3. History

For the purposes of this report, the histories of the Santali cluster will be limited in scope: it will just briefly touch on recent history, particularly their history in Bangladesh. And due to their larger population (and thus attracting more research), longer written history, and wider availability of secondary source materials, the history of the Santals is necessarily more detailed than those of the other groups. By this imbalance, we do not mean to slight the other groups—especially for the Koda and Kol for whom we could not find information specific to them; this could be because, being small in number, the Koda and Kol people's histories have been subsumed under the rubric of Santali, or more likely, Mundari history. Though far from complete, it is hoped that this basic introduction to these language groups will provide a base from which to gain further knowledge of their rich history, oral and written. Even more, it seems especially important for these minority groups to write and preserve their undoubtedly rich histories, especially when the internet makes it so easy, quick, and inexpensive to disseminate such information.

1.3.1. Santal

The Santals have a saying: "The spoken word is better than the written word." As is the case with all the other groups within the Santali cluster, this outlook is reflected in their rich oral tradition of songs, stories, and histories. Unfortunately for researchers, this means that there is a dearth of written history, particularly about their distant past, their origins.

There are various stories to account for the presence of Santals on the Indian Subcontinent. For example, they may have settled in the Indian state of Bihar starting in the mid-16th century (Hasda, M. 2002:108), or they may have come from Australia some 10,000 years ago by way of Indonesia, Myanmar and Assam (Hossain 2000:4). Whether they came from Australia, or perhaps from China, or from Nepal, no one is sure. What is more established is that between 1870 and 1920, Santals began to settle in present-day Rajshahi division and Assam. The census of 1881 shows that there were Santal settlements in the districts of Pabna, Jessore, Khulna, and even in Chittagong (SDNP Bangladesh). They had been driven out of their well-established areas of India (Bihar, Jharkhand, etc.) by floods, crop failures, famines, and the oppression of landowners who had virtually enslaved them through a scheme of unfair loans that took advantage of the Santals' illiteracy. When they arrived in Rajshahi division, they cleared jungles and started to farm (Hasda, M. 2002:108), and now they are the largest minority language group in northern Bangladesh. (In addition, there are Santals in the Sylhet region who first came as workers on the tea gardens even before those who settled in Rajshahi; but these Santals are not a part of the main Santal community, and we were told that a majority of the Santals living in Sylhet division have forgotten Santali. Thus, only a word list was gathered at the Rashidpur Tea Estate in Habigani district of Sylhet division. The results are discussed in section 3.1.3.)

In their more recent history, the traffic flow is reversed. Since 1947, there has been a steady stream of Santals who have fled to India due to the lack of security and pressure from Bengalis. Many Santals we interviewed could remember that during the Liberation War, they left their homes and took refuge in India. Those who returned to Bangladesh after about 9 months found that they had to start their lives over as almost everything had been destroyed. But this return from the 9-month exile notwithstanding, the movement to India continues to this day as Santals struggle to live with landlessness and insecurity in Bangladesh.

1.3.2. Mahali

The Mahali consider Ranchi, Dumka and Chotonagpur in India as their ancient homes. Again, it is not known how or how long ago they came to reside there originally, but unlike the Santals, their journey to Bangladesh was not so much a migration as an escape. In the 17th-century, Mahalis began arriving in Bangladesh as a result of the famine and oppression they suffered in India (Hasda, A. 2002:96).

1.3.3. Munda

One theory holds that Mundas came to the Indian subcontinent some 600 years ago, but since there is no proof, their origin is as cloudy as that of the Santals and the Mahalis. But where they ended up in India is very clear: Chotonagpur of southern Bihar is their home and is still viewed as a haven/heaven of sorts (Topna 2002:94). Of course, the modern-day Mundas who live scattered throughout Rajshahi do not have personal experience of the landowners' oppression that caused their forefathers to abandon Chotonagpur and head east and first settle in Begunbari (near Dhamoirhat) in 1888. Still it is clear that Chotonagpur remains their ancestral home.

Like the Santals, there is also a small group of Mundas living on the tea gardens of Sylhet division. They came earlier (around 150 years ago) as a part of a large group brought to Sylhet for the specific purpose of working the tea gardens. Not only do these Mundas have a separate history from those who ended up in Begunbari, but they have no points of connection in the present either, for there is virtually no contact between those in Rajshahi and those in Sylhet. For this reason, the Mundas of Sylhet were not studied extensively for this survey.

1.4. People

Giving a complete and accurate description of the people who are the subject of this report is a difficult task. It has been stated that "Santals and related aborigines are among the earliest settlers of the subcontinent and are acknowledged as the progenitors and maintainers of the agricultural production system and agro-based culture" (SDNP Bangladesh). Though we have met many members of the Santali cluster during our fieldwork over three months, the description seems no easier, for we now know that there's far more to each of these groups than anything we read (or could have read). As language surveyors, we can only envy the ethnographers who get to spend days, weeks, and months living among people groups to truly understand and appreciate them. Alas, that is neither our privilege nor our job. Thus, while we might avoid an unfair caricature, we probably cannot avoid the simplistic half-picture of the people we met during our research. The best we can hope for is that the description will be accurate in capturing a bit of the spirit of the people behind the facts and figures.

1.4.1. Santal

The majority of the 6 million or so Santals live in the Indian states of Jharkhand, Orissa, Bihar, Assam and West Bengal, along with some living in Morang and Jhapa districts in Nepal. There are various population figures for the Santals in Bangladesh ranging from 100,000 to 500,000+. The figure 225,000 given by a Santal writer (Hasda, M. 2002:108) seems to us to be the most reasonable one to account for the Santals in Bangladesh, the majority of whom live spread out throughout Rajshahi division, with perhaps the highest

concentrations in Tanor, Godagari, Chapai-Nababganj, Naogaon, and Nachole subdistricts. As noted, there are also Santals living on the tea gardens of Sylhet division, though there is virtually no contact between the two divisions.

Racially, the Santals are part of the proto-Australoid stock that came to the Indian subcontinent. Their features—typically very dark-skinned and possessing flat noses (Hasda, M. 2002:108)—still set them apart from their Aryan Bengali neighbors, for, though they have lived in the midst of Bengalis for many generations, there are very, very few cases of marriages outside the Santal community. Santals divide themselves into 12 clans with everyone having one of the following as their family name: Hasda, Murmu, Kisku, Hembrom, Mardi, Soren, Tudu, Baski, Besra, Chaure, Pauria and Bedea, with the first seven clans being predominant in number. It is believed that the various clans were divided originally by occupation: Kiskus were kings, Sorens were warriors, Murmus were priests, etc (Hossain 2000:9).

The Santals use the term "hor" (meaning man) to refer to themselves, and sometimes, even to their language. And their lives, at least on the surface, reflect this simple and humble term. The Santals in Bangladesh still live and work probably much the same as their forefathers—the progenitors of agro-based culture in the subcontinent—did for many generations. The vast majority live in simple mud-walled houses and live off of the land doing farm work. Their agro-centeredness is reflected not only in the type of work they do, but also in the fact that their cultural festivals revolve around the crop cycle. But while it's true that they work the land, for 90% of them it is not their own land (Hasda, M. 2002:109). Thus, with landlessness as an overriding factor in their lives, trying to make a living as day laborers means that their lives are mired in poverty and insecurity. Lacking economic and political power, they have been victims of land grabbing which is often preceded by threats and crimes. It is this kind of living condition that drives many to escape to India.

Santals have traditionally followed a religion called Sonaton, which means 'that which existed from the beginning of time' (*The Sonaton Religion* 2002:1). Today followers of this religion combine worship of nature with some of the more common Hindu worship ceremonies. Thus, Sonaton can be thought of as a mixture of animism and Hinduism, though there seems to be the crucial absence of a complex caste system among those who follow the Sonaton religion. In Bangladesh, however, perhaps 50% of the Santals have now embraced Christianity. Two results seem important to note regarding the impact of Christianity on the Santali community: first, Christianity has brought with it a greater awareness of, desire for, and thus achievement in, education; second, it has been a divisive factor in the Santali community.

Most of the educated Santals we met were educated through some sort of mission school, be it Catholic, Lutheran, or some other Christian denomination. As education has increased, so has urbanization as students have gone off to boarding schools and afterwards have found jobs in cities like Dhaka, Rajshahi, and Dinajpur. (It should be noted, however, that even with several Christian denominations providing education, the education/literacy levels are still rather low. One organization found that for all people in Birganj subdistrict, for example, only 25% of the adults were literate (34% of the males and 16% of the females), and the rate is even lower for Santals. This is considerably lower than the national average of about 40–50% (Histosearch).

Not only can education (and the types of jobs that it makes possible) in itself be a divisive factor, but there seems to be a fissure of sorts between the Christian Santals and the Sonaton Santals. For example, there are Christian villages (e.g. Amnura Missionpara) versus Sonaton villages (e.g. Jabri) where religion seems to be the only difference. Also, there seems to be a difference of opinion and attitudes between the two camps towards matters of culture and identity. A prime example is the issue of script: while Christian Santals want to continue to write Santali using a modified Roman alphabet (which was given by the missionaries and is used for the Holy Bible), some Sonaton followers have no such loyalty to the Roman alphabet, which they see as foreign. Thus, they prefer either the Bengali alphabet or the Ol Chiki alphabet, developed in 1925 in India as a unique system of writing for Santals. These types of divisions may not be foremost on the minds of most Santals when just surviving is hard enough, but it remains to be seen what changes and challenges will need to be confronted when the Santali community has the luxury(?!?) of dealing more pointedly with the issues of modernization, urbanization, cultural preservation and self-identity.

1.4.2. Mahali

The Mahali people living in Bangladesh also belong to the proto-Australoid stock and have many things in common with the Santals. They also used to follow the Sonaton religion, and they also have the same last names as the Santals. In fact, some have called the Mahalis one of the "lost tribes" of the Santals. This close affinity obviously still exists, because they almost always live very close to Santal villages (or sometimes together in the same village). The Mahalis are not so much identifiable by the districts or subdistrict where they live, but their villages are almost always found alongside big roads near markets.

But what makes the Mahalis more interesting as a distinct people is in some of the ways they differ from the Santals. For one, almost all of the 3000–5000 Mahalis are now Christians, in particular Roman Catholic (Hasda, A. 2002:96). Along with the Garos, Khasis, and Mundas, this makes them one of the most Christian of any minority group in Bangladesh. The Catholic church plays an important part in their lives; all three of the Mahali villages we visited were situated very close to a Catholic mission, and the children were able to attend the mission schools at least for some primary education. Thus, the Mahali community does not face some of the divisive issues that most other recently Christianized people groups do.

Anyone even remotely acquainted with the Mahalis would say that they are united most strongly by their work. Just as Khasis are associated with paan cultivation (betelnut leaves), Mahalis have also put their entire economic survival in one basket, literally, for they work almost exclusively in producing bamboo baskets. The old and young, male and female—everyone is involved in some step in the manufacturing process (even 10-year olds seemed like experts at their task). One of our favorite scenes during our research was going to Mahali villages and seeing groups of men and women sitting around in the shade working on bamboo weaving, trying to make enough to sell at the next market day. Even though mass-produced machine-made bamboo products are increasingly encroaching on their livelihood, they still manage to eke out a living.

Though their future is far from secure, there doesn't seem to be a change on the horizon. There are very few educated Mahalis who have salaried jobs and fewer still who seem to be seeking other options. Most young men, even those who have passed the class 10 (SSC) exams, were found doing bamboo work. It remains to be seen whether hand-made baskets

will slowly disappear as with many other traditional Bengali crafts and along with them the Mahali people's livelihood.

1.4.3. Munda

The 2000 or so Mundas living in Rajshahi division are mainly day laborers doing agricultural work. Our survey, which was conducted in November and December, coincided with the rice harvest. Everywhere we went we witnessed the intensive labor required in getting the sheaves from the paddy fields and taking the rice through the husking, drying, and storing or selling process. The Mundas who have a bit of their own land also plant banana trees, potatoes, tomatoes and various other marketable crops. This was not always so, however. The Mundas used to be hunters long ago in India. It was only after the Uraos came to Chotonagpur (to escape from a war) and taught the Mundas about farming that their livelihood became tied to working the land (Topna 2002:94).

While it is difficult to distinguish the Mundas from their Bengali neighbors in their daily activities, there are three important distinctives. 1) Being of proto-Australoid stock, they share a common racial heritage with the Santals and Mahalis. 2) Almost all Mundas are Christian (Roman Catholic). Historically, Mundas used to follow the Sonaton religion until the convergence of two events in 1845. That year, great oppression from landowners coincided with the coming of Christian missionaries to the Chotonagpur area (Topna 2002:94). Thus, at least partly to escape the oppression, Mundas began to turn to Christianity. 3) The Mundas can nearly always be identified simply by where they live because almost all the Mundas in Rajshahi division live in two villages: Begunbari and Nijpara. More than any of the other groups of the Santali cluster, the Mundas can point to a specific place as their center of community life, for Begunbari is where the first Christian Mundari families settled in Bangladesh in 1888. This is where their first church was established; this is where their biggest cultural celebrations are still held.

1.4.4. Koda and Kol

The Koda and Kol are very few in number in Bangladesh—perhaps not even 1000-1500 each. Whereas the Santali, Mahali, and to some extent, the Mundari communities were generally well-known in Rajshahi, very few people had even heard of the Koda or the Kol. As such, they are very much overlooked/ignored by the government, the society, and even by the ubiquitous NGOs. The Christian church, too, seems to have had little contact or effect on them, as many of the Koda and Kol still follow the Sonaton religion, and others are Hindu.

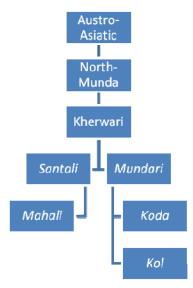
Even though we visited only two Koda villages and one Kol village, we saw clear evidence of such neglect. The Koda and Kol have significantly lower literacy and education levels than the rest of the Santali cluster, and there is little sign of improvement as very few of the children attend school. As children, they begin to work as day laborers, which, just like their parents and grandparents, will likely be the only kind of work they'll know. Thus, while they share linguistic, racial, and geographical origins with Santals, Mahalis and Mundas, the Koda and Kol in Bangladesh are on the periphery of the Santali cluster. Far more than the other three groups, the Koda and Kol seem to be on the extreme fringes of the Bangladeshi society.

1.5. Language

Santali, Mahali, Mundari, Koda, and Kol all belong to the North-Munda branch of the Austro-Asiatic language family (Grimes 2000:393–395). Of these, Santali has the largest number of speakers and is most developed in written form (Fisher 2009). In Bangladesh, it was acknowledged by all the groups that Santali functions as a language of wider communication (LWC). Mahalis, Mundas, Kodas and Kols all said that they could (to varying degrees, of course) understand and speak Santali. Thus, linguistically, too, the group of languages we surveyed can aptly be called the Santali cluster.

Within the North-Munda branch, the five varieties can be more specifically grouped as Kherwari languages: "Santali, Mundari...Koda, Ho [which may be another name for Kol]...are only slightly differing from of one and the same language, which can be called Kherwari, a name borrowed from Santali tradition" (Encylopedia Brittanica Online Encylopedia). In "Munda languages," Mahali is listed as a dialect of Santali, while Koda and Kol are listed as dialects of Mundari (Wikipedia 2004). Thus, while all five certainly share family traits under the labels North-Munda and Kherwari, Santali and Mahali form one subgroup while Mundari, Koda, and Kol form another. The language classification is shown in figure 4.

Figure 4: Language classification of the Santali cluster



Of course, the above classification comes from a study of the languages as found in India. It remained to be seen how much the effects of migration and isolation, plus the influence of Bangla had changed the nature of each language variety as well as the intra-familial relationships among the Santali cluster in Bangladesh (see section 3 for details of the results of the lexical similarity study).

Santali is clearly the most developed language in the Santali cluster. While Mundari has some written literature in Devanagri script—Christian scriptures, song books—as well as some books about the language written in English—there is little if anything written in Mahali, Koda, or Kol; this perhaps reflects their status as dialects of Santali and Mundari. Santali, in contrast, has a far richer literature consisting of newspapers, magazines, dictionaries, grammars, scriptures, song books, collections of folklore, novels, poems and

dramas. As stated in the Wesanthals E Group website, Santali is even recognized enough to be a subject of study at the university level in India. However, as is the case with almost every minority language in Bangladesh, Santali is far less developed here, with very little literary activity present in the Santali community.

In addition to the wealth of written literature, Santali has a wealth of scripts that perhaps few other languages can match. Currently, Santali literature is still being written in no fewer than five scripts: Roman, Bengali, Devnagri, Oriya, and Ol Chiki. A modified Roman script was devised by Christian missionaries for disseminating education as well as translating scriptures, while the Bengali, Devnagri, and Oriya scripts were the results of wanting to adapt to life in India. Perhaps the most interesting *raison d'etre* belongs to the Ol Chiki script which was created in 1925, not only to promote the uniqueness of the Santali language and unite the Santals under one original script, but to represent the Santali phonology more accurately. Proponents of the Ol Chiki script claim that the distinguishing features of Santali phonology—namely, the checked consonants, the short/long nasalized vowels, and glottal stops—are not readily or fully represented by the other scripts (Wesanthals E Group).

Those outside the Santali community seem to be quite unaware of Santali and the extent of its development. For example, Banglapedia states that "all sounds of Santali are found in Bengali" and that "no Santali books are available in Bangladesh," both of which can be easily shown to be untrue. The website of the Sustainable Development Networking Programme for Bangladesh (SDNP is a United Nations sponsored initiative) proclaims that "there is no written Santali literature" and that "Santals have a language but no alphabet." Santali is one of the largest minority language groups in Bangladesh, but it seems clear that more needs to be done to understand and promote it and the languages related to it.

2. SUMMARY OF FINDINGS

2.1. Study of the language varieties

2.1.1. Lexical similarity study

A comparison of word lists shows a high degree of lexical similarity among the Santali language varieties in Rajshahi division. This confirms what we repeatedly heard: that all the Santals "speak the same." This was generally in reference only to the Santals in Rajshahi division. Comparing the word list taken from Rashidpur Tea Estate in Sylhet division with those from Rajshahi division shows a marked drop in lexical similarity.

Two patterns emerge with the other members of the Santali cluster. First, internally, there is a high degree of lexical similarity. That is, among Mahali villages there is a high percentage of lexical similarity, between the two Koda villages there is an even higher degree of lexical similarity, and between the two Munda villages that we visited in Rajshahi division, there was a very high degree of lexical similarity. As was the case with Santali, when the Mundari of Rahshahi is compared with a Mundari word list from a Sylhet tea estate, there was a decrease in lexical similarity.

A second pattern is that when each word list is compared to the Santali word lists from Rajshahi division, the lexical similarity is noticeably lower. While there's enough family resemblance to group these five language varieties together as members of the Santali

cluster, only the Mahali, with lexical similarity percentages above 74%, can possibly be called a dialect of Santali. Section 3.1.3. has a detailed discussion of the lexical similarity findings.

2.1.2. Intelligibility study

Tests done using a Santali story show that Santali is understood well by Mahalis and Mundas. This was not surprising in that Mahalis and Mundas had told us: "We can easily understand Santali." However, what was surprising was there were Mahalis who understood the Santali story better than a Mahali story.

Among the Mundas, tests were also done using a Mundari story from India. Results show that the Mundas of Bangladesh can understand the Mundari spoken in India fairly well. The scores did suggest, however, that the language varieties are different enough to cause some problems in intelligibility, and a high standard deviation in scores suggests that only with increased contact and exposure will the Mundas of Bangladesh understand the Mundas of India well—just as their constant interaction with their Santali neighbors has allowed them to understand Santali well. Refer to Section 3.2.3. for intelligibility study details.

2.2. Language use, attitudes, and vitality study

2.2.1. Santal

The Santals are a relatively populous group whose language is used as an LWC among speakers of related languages. Though they use Bangla in settings such as the marketplace, they seem to use Santali in most domains where this is feasible. In addition to using their language widely, it is clear that most Santals hold a positive attitude towards their own language. At the same time they acknowledge the need for Bangla and want their children to be bilingual.

Of the five language varieties studied, Santali is the most vital. It is a written language and is spoken by a relatively large minority population within Bangladesh. Although it does not seem to be in danger of dying out, it is very likely that more and more Bangla words will become mixed with oral Santali if the current trend continues.

2.2.2. Mahali

Mahalis appear to use their mother tongue most of the time when they are speaking with other Mahalis. They also seem to have an idea of which languages should be used in which domains. Several factors indicate that the Mahalis have a positive attitude towards their language and would like to be able to use it more. They express interest in having their children learn Mahali better, but they also want their children to know Bangla.

The vitality of Mahali is threatened not only by Bangla but also by Santali. Many Mahalis interact with Bengalis on a regular basis, and they also live close to Santals. They follow Christianity as do many Santals, and the two language varieties are closely related. Thus, while their language is being influenced by Bangla, it seems more likely that Mahali will be lost to Santali in time. That is, the distinction between Mahali and Santali may diminish with time.

2.2.3. Munda

Although Mundari is written in Devnagri script, which is used in India, within Bangladesh its use is primarily oral. Also, because Mundas live very near to Bengalis and have intermarried to a small extent with people of other language groups, they use a mix of languages even within the village setting. Still, Mundari is the language they generally use with other Mundari speakers.

There are signs that the Munda have pride in their language; however, compared to the other languages studied, more Mundas express a desire for Bangla to take a prominent role in their children's lives. At this point in time, most children do not speak Bangla better than their own language, but because the Mundari population within Bangladesh is small and as people become more educated, it is likely the group as a whole will use Bangla more and more.

2.2.4. Koda

The Koda still use their mother tongue in most village domains, but they appear to have a less-positive attitude towards their mother tongue than the other four groups studied. Relatively few Kodas think mothers should speak Koda with their children, and few are interested in mother tongue literacy classes. For them Bangla is their most useful language, and they want their children to speak Bangla well.

Though they want Bangla to have a greater presence in their lives, the Koda are relatively uneducated and are therefore not learning standard Bangla, nor are they literate in Bangla. Thus, it is likely that within Koda communities the two languages will continue to exist side-by-side for some time, with colloquial Bangla slowly becoming the more dominant language.

2.2.5. Kol

The Kols' attitude towards their mother tongue may not be any more positive than that of the Koda. Most Kol said they find Bangla to be more useful than their mother tongue, and many want their children to speak Bangla well. Although the Kol use their mother tongue more than the Koda do, it may be that the Kol would prefer to use Bangla more and to be better Bangla speakers. They are not able to do so, however, because their relative isolation from Bengali speakers and their lack of education afford them few opportunities to improve their Bangla.

A lack of education also plays a role in the vitality of the Kol language. The Kol are fairly eager for their children to learn Bangla and show a seeming indifference to their own language, both of which indicate that Kol is not a very vital language. Their lack of education and their relative isolation, however, suggest that the process of losing their mother tongue will be slow.

Section 4 gives a full description of the language use, attitudes, and vitality study on each of these five groups.

2.3. Bilingualism study

All of the sociolinguistic questionnaire subjects in each of the five groups studied reported that they are bilingual to at least some extent in Bangla. Among the Mahali and the Mundari, most people actually seem to be multilingual in that they can reportedly speak not only their mother tongue but also Bangla and Santali and possibly other languages. Furthermore, most of the respondents are confident in their ability to communicate in their second-best language, though – possibly with the exception of the Koda – they still speak their mother tongue with the greatest ability.

When they were given a standard Bangla production test, a significant portion of the sample from each of the five groups scored at an "adequate, basic proficiency" level or lower. This means that these people would generally have difficulty communicating in Bangla in domains they are not familiar with. On the other end of the spectrum, a number of Santali subjects and a few Mahali and Mundari subjects scored at an "excellent proficiency" level or higher. These subjects' Bangla ability is likely as good as that of most mother tongue Bangla speakers.

Not surprisingly, those minority language speakers who have been educated in Bangla medium schools are more fluent in standard Bangla. When the factor of education is controlled, Santals and Mahalis have similar production abilities in standard Bangla as do Bengalis from Rajshahi division. It is possible that uneducated people in any of these groups could use literature produced in standard Bangla equally well – or equally poorly. It also appears that the uneducated Mundas' Bangla ability is lower than that of their Bengali counterparts and that the Munda would therefore have a more difficult time with materials in Bangla. Finally, both the Kol and the Koda scored significantly lower than did the uneducated Bengalis, which indicates that they would have quite a difficult time with trying to use Bangla materials.

Proficiency data must be seen as indications of general trends. As people in these minority groups become more educated and as they interact more with Bengalis, it is likely that these communities on the whole will become more fluent in Bangla, but there is no evidence that this will happen any time soon. See Section 5 for a detailed description of the bilingualism study and its results.

3. STUDY OF THE LANGUAGE VARIETIES

3.1. Lexical similarity study

3.1.1. Procedures

Comparing the vocabulary of language varieties is one way to measure the lexical similarity among them. During the survey of the Santali cluster, lexical similarities within and among Santali, Mahali, Mundari, Koda, and Kol were calculated as a percentage of words from a 307-item list which resemble each other in sound (Blair 1990:28–29). In each village, a word list was gathered from one person, but always there were others around the primary word list giver who could confirm or correct the word given. Thus, a separate word list from a second person was not needed. The researchers transcribed the word lists using the International Phonetic Alphabet given in Appendix A. They then compared the word lists by following the established procedures outlined in Appendix B.1. The *WordSurv* computer

program designed by SIL (Wimbish 1989) was used to do the final lexical similarity calculations.

3.1.2. Discussion of sample

Word lists were taken at the following 16 villages from speakers who had lived there for a number of years. The Santal villages were Rajarampur, Rautnagar, Paharpur, Patichora, Jabri, Bodobelghoria, and Rashidpur (a tea estate in Sylhet division). The Mahali villages were Abirpara, Matindor, and Pachondor. The Mundari villages were Nijpara, Begunbari and Karimpur (a tea estate in Sylhet division). The Koda villages were Kundang and Krishnupur. The Kol village was Babudaing. In addition, word lists taken from two Mundari villages in India were obtained from colleagues and added to the 16 from Bangladesh.

When possible, these villages were first of all selected to give a geographically diverse sampling; thus, the Santali villages are spread out throughout Rajshahi division to represent the various population centers of the Santali community. This is similarly true of the Mundari and Mahali villages, though fewer villages were chosen since their populations are comparatively small and less spread out. Also, as much as possible, they were chosen to represent various degrees of remoteness, some being close to towns and cities (Rautnagar, Patichora, Abirpara, Matindor, Pachondor, Krishnupur), and others more remote (Rajarampur, Paharpur, Jabri, Bodobelghoria, Rashidpur). Since the Santals follow Christianity and Sonaton, villages were chosen to also represent both; for example, Jabri and Patichora were predominantly Sonaton villages, whereas Rautnagar and Paharpur were predominantly Christian. However, for the less populous Koda and Kol, word lists were taken at the only villages about which we had enough information to find.

Generally, only one full word list was taken from each site. However, as hinted at above, there was always more than one source of information. In cases where two different but valid words were given by two people, both were accepted.

3.1.3. Results

Figure 5 shows the results from analyzing the word lists from the 18 villages mentioned. The letter in parentheses is that village's code letter for the word lists given in Appendix B.3.

- The first set of villages is Santal: the first six are villages in Rajshahi, while Rashidpur is a Santali village on Rashidpur Tea Estate in Habiganj district, Sylhet.
- The second set of villages (Abirpara to Pachondor) is Mahali.
- The third set of villages is Mundari. Nijpara and Begunbari are in Rajshahi division; Karimpur Tea Estate is in Moulvibazar district, Sylhet. Chalagi and Jharmunda are in Bihar and Orissa states of India, respectively.
- The fourth set of villages (Kundang and Krishnupur) is Koda.
- The lone village in the fifth set (Babudaing) is Kol.
- Finally, the Bangla word list represents standard dictionary pronunciation.

Figure 5: Lexical similarity chart

```
Rajarampur (a)
    Rautnagar (b)
96
    96
        Paharpur (d)
                             Santali
97
    96
             Patichora (h)
         96
96
    95
         96
              96
                  Jabri (i)
98
    97
         97
              98
                       Bodobelghoria (o)
                  96
    73
         73
              74
                  74
                            Rashidpur (q)
                       74
75
    75
         77
              77
                  78
                       77
                            70
                                Abirpara (e)
                                                        Mahali
    75
         75
                                88
74
              75
                  76
                       76
                            68
                                     Matindor (g)
83
    84
         85
              86
                                          Pachondor (k)
                  85
                       87
                            68
                                88
                                     83
60
    59
         61
              59
                  62
                            55
                                     58
                                          62
                                               Nijpara (c)
                       61
                                61
58
    57
         60
              59
                  59
                       58
                            55
                                 62
                                     59
                                          60
                                               94
                                                   Begunbari (j)
                                                                          Mundari
49
    48
         51
              50
                  51
                       50
                            55
                                 56
                                     50
                                          51
                                               80
                                                   78
                                                        Karimpur (p)
53
    51
         53
              53
                  55
                       52
                            46
                                51
                                     48
                                          51
                                               67
                                                   62
                                                        61
                                                             Chalagi (E)
52
    51
         54
              54
                  54
                       52
                            52
                                52
                                     51
                                          53
                                               73
                                                   71
                                                        68
                                                             66
                                                                 Jharmunda (M)
    49
                            53
                                59
                                                                  50
50
         52
              52
                  52
                       51
                                     58
                                          55
                                               61
                                                   63
                                                        56
                                                             48
                                                                      Kundang (1)
                                                                                            Koda
53
    53
         54
              55
                  55
                       54
                            55
                                 62
                                     60
                                          57
                                                        59
                                                             50
                                                                  51
                                               64
                                                   67
                                                                           Krishnupur (n)
                                                                                Babudaing (m)
                                                                                                 Kol
    63
         63
              64
                  64
                       64
                            62
                                71
                                     68
                                          67
                                               58
                                                   58
                                                        51
                                                             47
                                                                  50
                                                                      57
10
    10
         10
              10
                  10
                       11
                            16
                                15
                                     16
                                          11
                                              13
                                                   14
                                                        14
                                                                      19
                                                                           19
                                                                                18 Bangla (0)
```

Santali

The 95–98% similarity among the first six Santali villages indicates that there is very little variation in the Santali spoken throughout Rajshahi division and no clear central dialect. Thus, a village in the northeast of Rajshahi (Rajarampur) has 98% similarity with a village in the south (Bodobelghoria); distance does not seem to have effected change. One reason could be that there are so many Santali villages between the two that there is, in effect, a continuous chain of contact and communication—bolstered by marriages between villages—that has prevented the language from varying much from place to place. Indeed, as is usually the case, the sheer number of speakers acts as an important conservational factor that negates the usual effect of distance on language variation.

The fact that the Santali in Rashidpur has a significantly lower 73–74% similarity with that found in Rajshahi emphasizes the fact that there are very few links between the Santals of Rajshahi and Sylhet. It's possible that originally those who settled on the tea gardens came from a different part of India than those who settled in Rajshahi. However, a more likely explanation is that, over time, the Santals in Rashidpur have forgotten some of their original mother tongue and replaced the forgotten items with words from other languages, like Bangla and Bagani. (Bagani is used to describe the language of the tea gardens—"bagan" means garden in Bangla—which seems to be a pidgin made up of Bangla, Sylhetti, and several minority languages found on tea gardens such as Santali, Oriya, Urao.)

Two pieces of data seem to back this up: first, Rashidpur has a 16% similarity with the Bangla compared to 10–11% for the Santali village in Rajshahi, which says that in Rashidpur more Bangla has entered common usage than in the other Santal villages; second, Rashidpur has a 55% similarity with Karimpur, another tea garden, compared to the 48–51% similarity shown by the other Santal villages, which suggests that Bagani accounts for some

of the increased points of similarity (pure Sylhetti might account for some as well). Indeed, on word list items #81, #145 and #288, Rashidpur and Karimpur share the same word not found on any other word list; on other items like #160 and #266, their words are very close only to one another. Even more commonly, even when the two don't share a word, there are many cases when the word taken in Rashidpur is different from any other word list: e.g. #94, #111, #122, #204, #209, #214, #218, #249, #272, #281, #290, #293, #295, #297, #298. My assumption is that these Rashidpur words may be Bagani/Sylhetti words. Thus, they didn't match the Karimpur word list because Mundari words were given for these items by the Karimpur speaker. All this suggests that there has been a replacement of Santali by languages in Rashidpur which accounts for the lower lexical similarity.

Questions 7a-c in the sociolinguistic questionnaire (see section 4 and Appendices E and F) also sought to shed light on language differences for each of the five language communities. When Santals in these villages were asked whether or not they knew of Santals who spoke differently, 14% said "yes", 76% said "no", and 11% said "don't know." Half of those who said they knew of such people said they were referring to Santals living in India. In a follow-up question, 20% of those who knew of such people said that intelligibility was "little" or "half" while 50% said that intelligibility was "most" to "all." The other 30% said "don't know." This further confirms the widespread similarity in the Santali spoken in Bangladesh, at least in Rajshahi.

Mahali

Among the Mahali word lists, the lexical similarity is lower: 83–88%. In particular, the 83% similarity between Matindor and Pachondor (located close to Mundumala) was quite a bit lower than any other intra-language comparison within Rajshahi division. Indeed, the Pachondor word list showed higher similarity with most of the other Rajshahi Santali villages (83–87%) than with Matindor.

What might account for this? In this case, the simple answer might be the right answer: the Mahalis of Pachondor have much more contact with Santals and over time have come to borrow heavily from Santali—to the point where they aren't sure sometimes what is Mahali and what is Santali. In fact, it was discovered during the intelligibility testing that these Mahalis understand Santali better than Mahali (see Intelligibility Study in section 3.2 for more details). But even for Abirpara and Matindor, the similarity with Rajshahi Santali (74–78%) shows that Mahali can possibly be considered a dialect of Santali.

Another point of interest is the relatively high similarity with Bangla (11, 15, and 16%). Compared to the Santals who show only a 10–11% similarity with Bangla, Mahalis seem to incorporate more Bangla into their everyday vocabulary; the 11% at Pachondor might have been higher, but perhaps there Santali words were given instead of the Bangla. Thus, it could be that more and more, the Mahali community will in time be held together linguistically by the joint forces of Santali and Bangla, as much as by Mahali itself.

The results for the sociolinguistic questionnaire questions 7a—c showed that Mahalis are much more aware of dialect differences—or at least more willing to admit such an awareness. Seventy-two percent of the questionnaire subjects said that there were Mahalis who spoke differently than themselves, and, unlike the Santals, they referred to places within Rajshahi division. In spite of that, the level of reported intelligibility among the Mahalis seems to be quite similar to that reported by the Santals: 65% said that they could understand everything in those other Mahali places, while 22% said that they could

understand little or none. Also, one person (4%) each said "half," "most," and "don't know." Thus, even though the Mahali spoken in Bangladesh is not perceived to be uniform, the differences in dialect are not great enough to influence intelligibility too much.

Mundari

Between Nijpara and Begunbari, there was a 94% lexical similarity. This was hardly surprising since they are recognized as the two main centers of Munda population in Bangladesh. Moreover, there is much regular contact between the two villages. Marriages are common between the two villages, so many people have family in both villages. Perhaps because they are a more tight-knit group than the Mahalis, and because they live in more remote areas and have less interaction with Bengalis, the Mundas seem to have been affected slightly less by Bangla (13–14% similarity).

When comparing Karimpur to the two Rajshahi Mundari villages, the similarity drops to 78–80%. The reasons are very much similar to those given in the Santali discussion regarding Rashidpur. Thus, the following items on the word list were unique to Karimpur: #12, #14, #23, #26, #41, #131, #140, # 144, #148, #172, #191, #206, #214, #243, #252, #271, #275. To confirm the origin of such unique words, it would have been interesting to gather a Bagani word list in both Rashidpur and Karimpur; in hindsight, it was an oversight.

Nijpara and Begunbari show 57–62% similarity with the Rajshahi Santal villages. Clearly, there's some linguistic resemblance with Santali, but not enough to call them dialects of Santali. Because of the dominance of Santali as an LWC among speakers in the Santali cluster, it is possible that the similarity is actually somewhat inflated. That is, in India, where both Santali and Mundari are said to be more pure and perhaps more independent, the lexical similarity percentage might be less. This would be another interesting question to pursue given time and resources.

In addition to these Mundari word lists, we obtained two word lists taken in Mundari villages in India (Chalagi in Bihar state and Jharmunda in Orissa state); these came from a sociolinguistic survey conducted in India in 1997. There were only 210 words on these word lists, and the 170 or so comparable words were compared to the 307-item word lists taken in Nijpara, Begunbari, and Karimpur. The results show that there is 61–67% similarity between Chalagi and the three Mundari villages of Bangladesh, while the number rises to 68-73% for Jharmunda. It is not surprising that all these numbers are lower than any intra-Bangladesh comparison, since 1) fewer Bangla words show up in the Chalagi and Jharmunda word lists (only 6–7% lexical similarity), and 2) there are bound to be some changes to pronunciation and the lexicon when two groups of people are separated by distance and both come under the pressure of two different national languages. Not insignificantly, it is also likely that some differences could have been caused by the different transcription styles of the surveyors. As much as possible, we tried to minimize such differences by being liberal in accepting similar phonetic segments: for example, the surveyor who took the Chalagi and Jharmunda word lists consistently heard dentals (t d), whereas we did not (t, d); in these and other cases where we felt that the differences would probably not have existed had the same surveyor taken all the word lists, we counted the segments as being the same. Clearly, this is not the ideal method for word list comparisons, but we still felt that the comparison was worth doing. In the end, we can say with a certain amount of confidence that there is a dialect relationship between the Bangladeshi Munda and the Indian Munda. While it may not be a strong relationship, the 66% similarity between Chalagi and Jharmunda suggests that the Bangladeshi Mundas are within the cluster of dialects that make up the Mundari language.

Thirty-two percent of Mundari sociolinguistic questionnaire subjects said that there are varieties of Mundari that are different than their own. However, 71% of those who were aware of differences mentioned India as the source of those differences, and 86% of those who were aware of different varieties of Mundari said that they could understand most to all of those speech forms in spite of the differences. This level of perceived uniformity is proven to match the actual uniformity shown by the word lists and the intelligibility shown by the intelligibility study (see section 3.2).

Koda

Between Kundang and Krishnupur, there was 94% lexical similarity. Both communities were aware of one another, and during our fieldwork, we witnessed visits between family members of these two villages. Even though the Koda are quite small in number, it seems that this type of contact is helping to keep the lexical similarity high. However, as with the Mahali, the high percentage of Bangla words found in the Koda word lists (19%) suggests that Bangla is another important factor that accounts for the high lexical similarity. With so many Bangla words already in their vocabulary, it could be that the Koda have started to adopt Bangla as their main language. Of course, attitudes also play an important part in a language's vitality; for information on that, go to the Language Use, Attitudes and Vitality Study in section 4.

Even though linguists have categorized Koda as a dialect of Mundari, the two Koda villages in our study share only a 61–67% similarity with the Mundari villages of Rajshahi. This could be due to the influence of other languages like Bangla and perhaps even Santali (though to a lesser degree). Thus, it's possible that the influence of Bangla and Santali have over time decreased the lexical similarity of Koda with Mundari.

Among the Koda, none of the 10 sociolinguistic questionnaire subjects said they knew of any Koda who spoke differently. This suggests that the Koda perceive themselves to have a uniform speech. This is borne out by the results of the lexical similarity study.

Kol

A word list was taken from only one Kol village (Babudaing), so there is no other Kol word list with which to compare. However, in comparison to the other members of the Santali cluster, we note that it had the highest lexical similarity with the three Mahali villages (67–71%), followed next by the Santali villages in Rajshahi division (62–64%), and then by the Mundari and Koda villages in Rajshahi division (57–60%); this is surprising since Kol is supposed to be closer linguistically to Mundari and Koda than to Mahali and Santali. This suggests that contact over a long period with the highly populous Santals has left its mark on the Kol. Furthermore, the 18% similarity with Bangla suggests that Bengalis have also left a strong mark on the Kol language.

In response to questions 7a—c in the sociolinguisic questionnaire, only one of 11 of the Kol subjects said there were Kol who spoke differently; and interestingly enough, this person said that such different speakers lived right in the same village. This suggests that either the person wasn't fully aware of what was meant by mother tongue or that he was referring to

individual idiosyncracies of speech that are unique to any person. As with the Koda, then, the Kol at least perceive themselves to have a uniform speech.

3.2. Intelligibility study

3.2.1. Procedures

RTTs were used to assess how well speakers of one language variety are able to comprehend another. (For a detailed description of standard RTT procedures, please refer to Appendix C.1.) Naturally, in surveying the Santali cluster, our primary desire was to know how well non-Santali speakers understood Santali. We developed an RTT to test the Mahali and the Mundari communities' ability to understand Santali. Even though some Koda and Kol also said that they could understand Santali, we did not include them in this study due to time limitations. As the following paragraphs show, it is no simple task to test even one language.

First, a Santali hometown test (HTT) was developed in Rajarampur village since this village shared the highest lexical similarity percentages with most of the other Santali villages. In Rajarampur a text was recorded and transcribed. Questions were then inserted into the text as a means of testing subjects' comprehension of the Santali language. This text is given in Appendix C.3.1. After the story was developed, it was validated by testing 10 residents of Rajarampur, to ensure that the story and questions made sense and produced the predicted answers. The scores from the validation test are given in Appendix D.2.1.

Later, an HTT was developed at one village per language variety: for Mahali it was developed at Abirpara; for Mundari, it was Begunbari. The Mahali story is given in Appendix C.3.2. and the scores from the validation test are given in Appendix D.2.2; the Mundari story is given in Appendix C.3.3 and the scores from the validation test are given in Appendix D.2.3.

Once the reference HTT (in this case, Santali) and the target HTTs (in this case, Mahali and Mundari) were developed and validated, it was possible to test the target speakers' ability to understand Santali. First, in Abirpara, Mahali subjects were tested using the Abirpara HTT. This served as a control test by familiarizing subjects with the testing procedure and by alerting the researchers to subjects who may not have sufficiently understood the procedures or who for some other reason were unable to adequately complete the testing. Those who scored at least 65% on the Abirpara HTT were then tested using the Santali RTT (see Appendix C.1. for RTT procedures and Appendix D.2.5. for these specific scores). Originally, we had planned to test only one Mahali village. However, because the lexical similarity study showed that Pachondor—a Mahali village—had a higher similarity with Santali than with Mahali, we decided to test the Santali RTT there as well using the same procedures. We wanted to see if Pachondor speakers would understand the Santali story even better than the Mahali story (see Appendices D.2.5 and D.2.7 respectively). Later, to test the Mundari speakers, this procedure was repeated in Begunbari using the Begunbari HTT and then the Santali RTT (see Appendix D.2.6 for these scores). (Note: the Santali RTT is the same story as the Santali HTT, except that it contains only the 10 best and validated questions; when tested among non-MT speakers, the HTT is called an RTT.)

Finally, and unexpectedly, we were able to conduct a Mundari RTT using a story taken from a village very close to Ranchi, India, in order to see how well the Mundas in Bangladesh

understand the Mundari spoken in India. Though not strictly needed for the study of the Santali cluster in Bangladesh, we decided to take advantage of an available Indian Mundari HTT. If the level of intelligibility was high, then the Bangladeshi Mundas could possibly have another source of mother tongue materials. Thus, the Mundari subjects were first tested with the Begunbari HTT (see Appendix D.2.4 for these scores), and those who scored at least 70% were then tested using the Ranchi RTT (see Appendix D.2.8 for these scores).

After each HTT and each RTT was administered, the subject was asked a set of post-test questions. Data from these questions were used to gather further information about intelligibility and about people's opinions on the quality of the storytellers' speech. Post-HTT and post-RTT questionnaires are in Appendices E.2 and E.3, respectively, and responses to these questions are in Appendix D.3. The biodata for all of these HTT and RTT subjects is presented in Appendix H.3.

3.2.2. Discussion of sample

For validating a hometown test, it is not necessary to sample the subjects based on factors such as age, sex, or education. The test is in their own mother tongue, so they should all understand it equally well. Still, in finding subjects we did attempt to get some variety in these categories. Thus, of the 10 people who validated the Santali HTT from Rajarampur, four were male and six were female; seven were younger than age 40 and three were older. Of the 10 people who validated the Mahali HTT from Abirpara, five were male and five were female; seven were younger than age 40 and three were older. Of the 10 people who validated the Mundari HTT from Begunbari, four were male and six were female; five were younger than age 40 and five were older.

Because lexical similarity results showed Mahali to be closely related to Santali, a small sample of 10–12 people in each of two villages was tested with the RTT. Thus, a total of 23 Mahalis took the Santali RTT in Abirpara and Pachondor/Mundumala. These subjects were all mother tongue Mahali speakers and can be categorized in the following manner: 12 male, 11 female; 6 educated (defined as SSC pass) and 17 uneducated; 8 older (defined as 40 years old or older) and 15 younger. However, because Mundari and Santali had lower lexical similarity and thus were judged to be non-dialects, more people were used in Begunbari; in effect, we used the RTT to test for bilingualism, which requires a larger sample size. A total of 22 Mundas in Begunbari took the Santali RTT: 12 men, 10 women; 3 educated, 19 uneducated; and 9 older and 13 younger.

For the Ranchi Mundari RTT, we felt that there was enough of a dialect relationship to use the smaller sample size appropriate for dialect intelligibility testing. For this test we decided to use subjects from Nijpara because the Mundas in Begunbari had already given us so much of their time during the Santali RTT process. Nine subjects were tested: 5 men, 4 women; 4 eduated, 5 uneducated; 4 younger, 5 older. It would, of course, have been better to test at least ten, but time constraints and availability of subjects prevented this.

3.2.3. Results

RTT results

An RTT is typically used to test intelligibility among dialects of a given language, as is the case with Mahali and Santali and also with the Indian Mundari and Bangladeshi Mundari. However, as determined by the lexical similarity study discussed in Section 3.1, Mundari is

not a dialect of Santali but rather a separate language variety that shares some similarity with Santali. RTT results in this type of situation are generally marked by a high standard deviation (greater than 12). Figure 6 shows the meaning of the four possible combinations of results for the average score and standard deviation (Blair 1990:25).

Figure 6: Relationship between standard deviation and average score on RTT

| Average | Standard Deviation | | | |
|-------------|--|---|--|--|
| Score | High (>12) | Low (<10) | | |
| High (>80%) | Situation 1 Many people understand the story well, but some have difficulty. Suggests high acquired intelligibility | Situation 2 Most people understand the story of the test tape. Suggests high inherent intelligibility | | |
| Low (<60%) | Situation 3 Many people cannot understand the story, but a few are able to answer correctly. Suggests low acquired intelligibility | Situation 4 Few people are able to understand the story. Suggests low inherent intelligibility. | | |

Between close dialects, we would expect RTT results to fit situation 2. Conversely, for non-dialects, we would expect RTT results to fit situation 1, 3, or 4. Figure 7 shows the actual test results of the RTT.

Figure 7: Summary of intelligibility testing results

x = average score (%)

s = standard deviation

n = number of subjects

NA = not applicable

| | Mahali subjects (Total) | Mahali subjects (Abirpara) | Mahali subjects (Pachondor) | Mundari subjects (Begunbari) | Mundari subjects (Nijpara) |
|----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|-------------------------------------|
| Santali (Rajarampur story) | x = 84 $s = 14.7$ $n = 23$ | x = 78 s = 17.8 n = 12 | x = 91 s = 5.4 n = 11 | x = 88 s = 11.7 n = 22 | NA |
| Mahali (Abirpara story) | (HTT) x = 81 s = 13.6 n = 23 | (HTT) x = 85 s = 11.7 n = 12 | (HTT) x = 77 s = 14.9 n = 11 | NA | NA |
| Mundari (Begunbari story) | NA | NA | NA | (HTT) x = 91 s = 9.6 n = 22 | (HTT) x = 93 s = 6.1 n = 9 |
| Mundari (Ranchi story) | NA | NA | NA | NA | x = 69 $s = 20.9$ $n = 9$ |

The RTT results show that both Mahalis and Mundas understand Santali quite well with an average score of about 86%. This fits with what we heard in almost every interview, where Mahalis and Mundas all claimed to understand Santali very easily, and even speak it well. The standard deviation figures are surprising in that they are higher overall for the Mahali subjects than for the Mundari subjects. Since Mahali is more closely related to Santali, one would have expected Mahalis to exhibit a stronger inherent intelligibility characteristic.

What is more interesting is that in Pachondor, the Mahalis scored better on the Santali story than on the Mahali story. While they scored an average of 91% on the Santali story with a standard deviation of only 5.4, they scored an average of only 77% on the Mahali story and had a standard deviation of 14.9. Not only could this be due to the high degree of lexical similarity that Pachondor showed with Santali (83–87%), but it indicates the degree to which their language has been affected by regular contact with their Santali neighbors. It seems that the Mahalis living in Pachondor have a fairly uniform and good understanding of Santali but that they have more disparate and somewhat lesser understanding of Mahali, or at least of Mahali as it is spoken in Abirpara. This presented a challenge at the time of testing, for the Pachondor Mahali subjects' score of only 77% on the Mahali story from Abirpara is too low to truly be considered as an HTT. Because understanding how intelligible Santali is to the Mahalis was a more primary objective of this research than understanding intelligibility issues among the Mahalis, we decided to proceed with testing the Santali story. This decision was based on the fairly high lexical similarity between Mahali and Santali and on the fact that many Mahalis had self-reported good comprehension of Santali. Testing the Pachondor subjects on the Santali RTT even though they had not scored satisfactorily on an HTT is unconventional. Still, we believe the Pachondor subjects' uniformly high scores on the Santali test validate the Santali RTT if not the Mahali story from Abirpara. Thus, we feel confident in saying that the Mahalis living in Pachondor have a good understanding of Santali at least in narrative form.

The situation among the Mahalis in Abirpara appears to be somewhat different. The Mahali HTT was developed in Abirpara, so the Abirpara subjects should have scored uniformly well on it. Generally the acceptable cut-off for HTT validation is an average of 90%, and there would be a standard deviation of 10 or less. The 10 Abirpara validation subjects, however, averaged only 88% and had a standard deviation of 10.3. (See Appendix D.3.3. for the 10 HTT subjects' answers and scores.) Unfortunately, we did not realize the score was this low until we had left the village and moved on to another area. This happened because the score for subject A7 had been miscalculated when we were in the village. It wasn't until later when we re-evaluated the data that we realized the average was lower than the cut-off point. In the end we decided to retain the score for subject A7 because he had actually scored higher on the Santali test, which demonstrated to us that he did understand the testing process. There are at least two possible reasons for his poorer score on his hometown test. For one, the Mahali story admittedly was not a very interesting one, and a couple of the questions were contrived. Perhaps this man simply had a difficult time giving it his full attention. Another possibility is that this subject truly does have a better understanding of Santali than of Mahali. (Note that, if subject A7 were excluded from the testing, the average score for the remaining nine Mahali HTT validation subjects would be 91%, and the standard deviation would be 6.8.)

These results from both Abirpara and Pachondor suggest that Mahali, with a small population that has limited contact with one another, has changed enough from village to village to the point where intelligibility will continue to decrease. Indeed, if Pachondor is a

sign of things to come, then one might conjecture that Mahalis may one day know Santali better than Mahali, to the point where, linguistically, the Santali/Mahali distinction is lost. The post-HTT and post-RTT question results in the following section shed more light on the situation in Pachondor.

The results of the Mundari (Ranchi) RTT conducted in Nijpara show that there are enough differences in the Mundari spoken in India that intelligibility is decreased. Whereas the Nijpara subjects scored 93% on the Begunbari story with a standard deviation of 6.1, they scored only 69% on the Ranchi RTT with a standard deviation of 20.9. This means that, as expected, they exhibited high, inherent intelligibility with the Begunbari story, but an average, acquired intelligibility on the Ranchi story. It seems that some effort and exposure would be needed before the Munda in Bangladesh can fluently handle the Mundari spoken in India.

Finally, a few words on the testing done on the tea estates of Sylhet. While we didn't test enough people to draw strong conclusions, we still found the results interesting. When we played the Santali story to three young people in Rashidpur, they all understood the story quite well and scored high. Similarly, the four Mundas we tested in Karimpur seemed to understand both the Begunbari story and the Ranchi story well. In both places, there was immediate recognition of their mother tongue, and all seemed to enjoy hearing stories in their mother tongue. While this was not a "scientific" study as such, it suggests that at least some of the Santals and Mundas on the Sylhet tea estates can still understand their mother tongue well. At the same time, it was reported that there are Santals and Mundas in other tea estates who no longer speak their mother tongue. Thus, it seems that any considerations regarding language development in the tea estates would need to be done on a case-by-case basis.

Post-HTT and Post-RTT questionnaire results

The post-HTT and post-RTT responses listed in Appendix D.3. are mostly fairly predictable, uniform, and not too noteworthy. For example, almost everyone taking the Santali RTT said that they understood most or all of the story; also, almost everyone correctly identified the language they heard. What *is* noteworthy is that while almost all respondents said that the stories were pure—meaning unmixed with any other language—to our ears, there were clear instances of Bangla in every HTT developed in Bangladesh. This tells us that Bangla has become such an influential second language that many Bangla words have lost the sense of otherness. Santali cluster speakers often use Bangla words without being aware of using a non-mother tongue word; in effect, those words have entered the mother tongue lexicon.

Also, in informal conversations following the post-HTT/RTT questions, the Mahalis of Pachondor confirmed the results of the RTT by telling us that, indeed, the Santali story was easier to understand than the Mahali story. They said that the Mahalis who live in northern Rajshahi division speak a bit differently. This could account for the results—or it could also simply be that the Mahalis of Pachondor have started to lose some ability to understand a more pure Mahali because of the strong influence of Santali.

The fact that all of the Nijpara subjects identified the source of the Mundari story to be Ranchi suggests either that they can at least recognize some of the characteristics of the Mundari spoken in India, or that they only know of one other place where a different sounding Mundari can be spoken: Bihar state, India, of which Ranchi is a principle city. Either way, it was clear to them that the storyteller was not a Munda from Bangladesh.

Finally, in both Rashidpur and Karimpur, the post-HTT/RTT responses show that the residents recognized the Santali and Mundari stories as being from outside Sylhet. Most of the Rashidpur subjects said the Santali story was from Rajshahi. In Karimpur, where subjects listened to the two Mundari stories, three of the four subjects could not say where the stories were from while one said both the Begunbari and Ranchi stories were from Ranchi. Clearly, while they all seemed to understand the stories pretty well, they also recognized differences from their own speech. It was especially interesting that no one in Karimpur could recognize the Begunbari story as being told by a Mundari speaker from Rajshahi. This suggests that the Mundas in Sylhet have little contact with the Mundas in Rajshahi.

4. LANGUAGE USE, ATTITUDES, AND VITALITY STUDY

4.1. Procedures

A language use study is a method used to examine language choice. This is done by asking subjects which language(s) they use in various domains. Domains are everyday situations in which one language variety is considered more appropriate than another (Fasold 1984:183).

A study of language attitudes is generally carried out in an effort to ascertain people's perceptions of the different speech varieties with which they have contact. By studying how various languages are perceived, it is possible to determine how positive or negative people are towards their own language and towards other language varieties.

A study of language vitality is designed to assess the probability of whether a language will be used by mother tongue speakers in the future. Such an assessment is an important part of the recommendations of a sociolinguistic report because any recommendations regarding language and literature development are dependent upon the projected long-term vitality of the language.

A sociolinguistic questionnaire was administered as a way of gathering language use, attitudes, and vitality information. There were also questions concerning bilingualism and language variation, the results of which are discussed in their corresponding sections. The questions were generally asked in Bangla. If a given subject was not fluent in Bangla, the questions were asked in his mother tongue. The questionnaire is found in Appendix E.1. while subject responses are given in Appendix F.

4.2. Discussion of sample

The sociolinguistic questionnaire was administered to a total of 149 people from the Santali cluster. The subjects were chosen based on age, sex, and education levels so as to get a wide variety of subjects. Among the Santals there were 74 questionnaire subjects from seven villages. Of these 38 were male and 36 were female. Similarly, 38 were younger (defined as less than 40 years old), and 36 were 40 years old or older. Furthermore, 19 subjects were educated (defined as having passed their SSC exams) and 55 subjects had not passed their SSCs and therefore were categorized at "uneducated." A majority of the Santali subjects (46 subjects) said they are Christian while most of the remaining (22 subjects) said they follow the Sonaton religion. Three others said they are Hindu, and three said their religion is

"traditional." The mother tongue of each of the 74 subjects was Santali, and the mother tongue of each of the subjects' fathers and mothers was also Santali.

The seven Santali test locations were chosen to represent the areas within Rajshahi division where Santals live. These locations were chosen based on factors such as remoteness of the village and location of the village in relation to other Santal villages as well as to missions. Two villages were visited in each of Dinajpur and Naogaon districts as these areas are major centers of Santals within Bangladesh. One village was also visited in each of Thakurgaon, Nababganj, and Natore districts so as to get a wide geographical spread. These villages are all displayed on the map in Figure 3.

Three Mahali villages were also visited to administer the sociolinguistic questionnaire, and among these three villages there were 32 questionnaire subjects. Half of these (16 subjects) were male and half were female. Seventeen of the subjects were under 40 years of age and therefore categorized as "younger," and the remaining 15 were 40 years old or older. Furthermore, nine subjects were educated (defined as having passed their SSC exams) and 23 subjects had not passed their SSCs and therefore were categorized at "uneducated." All of the Mahali subjects said they are Christian, and all said their mother tongue and the mother tongue of each of their mothers and fathers was Mahali.

The three Mahali test locations were chosen to represent the areas within Bangladesh where Mahali speakers live. All three lie within Rajshahi division, one in each of Dinajpur, Naogaon, and Rajshahi districts. All three of the villages are very near Catholic missions, but Matindor (in Naogaon district) can be considered more remote.

The Mundas in Rajshahi division live in two main areas, and the sociolinguistic questionnaire was administered in one village in each area. Among the 22 questionnaire subjects 12 were male and 10 were female. Eleven were considered "younger" as they were under 40 years of age, and 11 were classified as "older." Furthermore, nine subjects had passed their SSC exams and were therefore called "educated" with the other 13 subjects being categorized as "uneducated." All of the Munda subjects said they are Christian, and all said their mother tongue is Mundari. While all 22 subjects also said their father's mother tongue is Mundari, only 20 said their mother's mother tongue is Mundari. The other two said their mother's mother tongue is Urao.

Among the Koda there were 10 subjects, all of whom were from the village of Krishnupur. Five of the subjects were younger (defined as less than 40 years old), and five were 40 years old or older. Similarly, five were male and five were female. Two said they follow Sonaton religion while eight said they are Hindu. None of the subjects was educated up to SSC, so for purposes of analysis, they were all classified as "uneducated." Finally, the mother tongue of each of the 10 subjects was Koda, and the mother tongue of each of the subjects' fathers and mothers was also Koda.

As with the Koda, the sociolinguistic questionnaire was administered in only one Kol village. In the village of Babudaing, 11 people took the questionnaire. Of these six were men and five were women. Six of the subjects were classified as younger, and five were classified as older, and seven said they are followers of Sonaton while four follow Hindu. Again, no Kol people who had been educated up to SSC were found, so all 11 were classified as "uneducated." All 11 reported that their mother tongue as well as the mother tongue of each of their mothers and fathers was Kol.

Biographical data for each sociolinguistic questionnaire subject is given in Appendix H.4.

4.3. Results

For all questions in the questionnaire, data will be presented for all subjects combined for each of the five language groups studied. In addition, when responses are notably different according to a particular demographic factor, that will be mentioned.

4.3.1. Language use - in spoken domains

Questionnaire subjects were asked a series of questions about which languages they use in various situations. All subjects from each of the five groups studied said they speak their mother tongue – and only their mother tongue – at home. Also, a vast majority from all five groups said they speak their mother tongue with neighbors and with village leaders. Among the Mundari subjects, however, 86% said they speak Mundari with their neighbors, but another 64% said they speak Bangla and 18% said they speak Santali with neighbors. The percentages are greater than 100 because most people said they speak more than one language with neighbors. This is likely due to the Mundas' having Bengali and Santal neighbors within and nearby their villages.

While most subjects said they use their mother tongue in most villages settings, it is not surprising that, with the exception of two Santali subjects who do not go to the market, all other subjects from all five groups said they speak Bangla with shopkeepers. Often this is out of necessity as most shopkeepers do not speak Santali.

Of the five groups surveyed, only among the Santals does a majority report that they use their mother tongue at their place of worship. Answers for this question are in Figure 8.

Figure 8: Summary of responses about language use at place of worship MT = mother tongue

NA = not applicable

| Group | Response | | | | |
|--------|----------|--------|---------|-------|----|
| | MT | Bangla | Santali | Other | NA |
| Santal | 88% | 9% | NA | 3% | 3% |
| Mahali | 22% | 37% | 75% | - | - |
| Munda | 36% | 36% | 95% | - | _ |
| Koda | 10% | 90% | - | - | _ |
| Kol | 18% | 82% | _ | - | - |

As Figure 8 shows, Mahalis and Mundas, who are primarily Christian, reportedly use Santali most of the time at worship. A number of subjects from both groups added that this has to be because there are Santals at the church services they attend, and the Santals do not know Mahali or Mundari. Thus, the Mahali and Munda must use Santali. Several also added that a number of the Catholic fathers are Bengali who speak only Bangla; therefore, they conduct services in Bangla when they are there. Most of the Koda and Kol, who are Hindu and Sonaton, report that they use Bangla at worship. Again, this is because those who conduct the ceremonies speak Bangla rather than Kol or Koda. It is worth noting that, among the Santals, all but one of the subjects who said they use a language other than Santali at their place of worship were not Christian.

One other spoken language use question revealed a variety of answers among the various groups. This question asked subjects what language they use most in a typical week. Their responses are given in Figure 9.

Figure 9: Summary of responses about language used most in a typical week MT = mother tongue

ND = no data

| Cwoun | | Response | | | | |
|--------|-----|----------|----|--|--|--|
| Group | MT | Bangla | ND | | | |
| Santal | 84% | 22% | 1% | | | |
| Mahali | 78% | 31% | - | | | |
| Munda | 59% | 41% | - | | | |
| Koda | 60% | 40% | - | | | |
| Kol | 91% | 9% | - | | | |

Santals and Kols seem to use their mother tongue more in a typical week, and the Munda and Koda use their mother languages relatively less. The one Kol village we visited is rather isolated, so this probably leads to their not using Bangla as much as the other groups.

Looking more closely at the responses for the groups shows an interesting trend for some. This is shown in Figure 10.

Figure 10: Language used most in a typical week, according to education MT = mother tongue

| mother tongue | | | | |
|---------------|----------|--------|--|--|
| Group | Response | | | |
| | MT | Bangla | | |
| Mahali (all) | 78% | 31% | | |
| Educated | 67% | 44% | | |
| Uneducated | 83% | 26% | | |
| Munda (all) | 59% | 41% | | |
| Educated | 44% | 56% | | |
| Uneducated | 69% | 31% | | |

Figure 10 shows that, for the Mahali and the Munda, there was a notable difference between educated subjects and uneducated subjects for the language they use most. In both groups those who are educated – presumably in Bangla medium – were more likely to say they use Bangla most in a typical week. As people in these two groups become more educated, it is likely the group as a whole will use Bangla more.

Thus, all five groups live in a bilingual or multilingual situation. This is the least true for the Santals, who are a relatively large group and whose language is used as an LWC among speakers of related languages. Still, even the Santals speak Bangla in domains such as the marketplace.

4.3.2. Language use – in written domains

Subjects were asked about their literacy abilities in both their mother tongue and in Bangla. Among the Santals, Mahalis, and Mundas, just over half of the subjects from each group

said they can read and write letters and notices written in Bangla. None of the Koda subjects and only two of the Kol subjects said they are able to do so.

Reported literacy rate in people's mother tongues varied more widely. Responses are given in Figure 11.

Figure 11: Summary of responses to the question, "Can you read and write letters and

notices in your mother tongue?"

| Cwayn | Response | | | | | |
|--------|----------|------|-----------------------|--------|--|--|
| Group | Yes | No | Can read; can't write | Little | | |
| Santal | 43% | 47% | 3% | 7% | | |
| Mahali | 37% | 53% | 9% | - | | |
| Munda | 23% | 68% | 5% | 5% | | |
| Koda | - | 100% | - | - | | |
| Kol | - | 100% | - | - | | |

Figure 11 shows that, among the five groups, the Santals are most literate in their own language, but even among them only about half reported literacy to some extent. It was lower for the Mahalis and Mundas, and none of the Koda or Kol said they are literate in their own language. These results are not surprising since there is reportedly no literature in Mahali, Koda, or Kol, at least in Bangladesh. Furthermore, Mundari is written only in Devnagri script, which very few Mundas in Bangladesh are able to read.

Those subjects who said they are at least somewhat literate in their mother tongue were then asked what script they use to read and write their language. The Santals almost exclusively said they use Roman script whereas exactly 50% of the Mahalis said they use Roman script, and the other 50% said they use Bangla script. Santali is a fairly developed language with most literature written in a modified Roman script. Thus, it is not surprising that virtually all Santals who said they can read and write Santali said they do so using Roman script. Although Mahali does not have published materials, it is similar enough to Santali that those Mahalis who are literate in Santali may also be able to write their own language using the same script. On the other hand, those Mahalis who are more literate in Bangla apparently find it easier to use Bangla script for Mahali.

The literate Mundas are more likely to use Bangla script, although one subject said she uses Devnagri script and one other said he uses both Roman and Devnagri script. Although there are published materials in Mundari using Devnagri script, people in Bangladesh do not seem to have had much exposure to this literature, which explains why only a couple Mundas said they read and write their mother tongue using Devnagri.

Since none of the Koda or Kol subjects said they can read and write in their mother tongue, they were not asked which script they use to do so.

4.3.3. Language attitudes - regarding language use

As explained above, the sociolinguistic questionnaire asked a number of questions about what language people use in various situations. The questionnaire also asked people's opinions about what language they think *should* be used in various situations. For example, they were asked what script should be used to write their language. A summary of their answers is given in Figure 12.

Figure 12: Summary of responses about which script should be used to write people's mother tongue

DK = does not know

| Cwoun | Response | | | | | |
|--------|----------|-------|-------|-----|--|--|
| Group | Bangla | Roman | Other | DK | | |
| Santal | 11% | 55% | 3% | 32% | | |
| Mahali | 44% | 37% | - | 19% | | |
| Munda | 50% | 27% | 9% | 14% | | |
| Koda | 30% | 1 | - | 70% | | |
| Kol | 27% | 9% | - | 64% | | |

As Figure 12 shows, a number of people in each group did not give an opinion about which script should be used to write their mother tongue. Most of these people said they did not know how to read and write and therefore could not say which script was best for their language.

Most of the Santals who gave an opinion on this said Roman script should be used to write Santali. Among the Mahalis, however, more people said Bangla script should be used to write their language, and fewer said Roman script should be used. Looking at Mahalis' responses according to their level of education, however, shows that a large majority (78%) of the educated subjects said Roman script should be used while only 22% of the uneducated subjects said Roman script should be used, and another 52% of the uneducated subjects said Bangla script should be used. (The remaining 26% of uneducated subjects said they didn't know which script should be used.) This indicates that, as Mahalis become more educated and aware, they may have a greater preference for their mother tongue to be written in Roman script. Those considering starting a literacy program among the Mahalis should be aware of this difference of opinions based on level of education and be prepared the give the reasons for choosing whichever script is chosen.

A full 50% of the Mundas said Bangla script should be used to write Mundari while about one-quarter of the subjects said Roman script should be used and two Mundas (9%) said Devnagri should be used. Younger Mundari subjects clearly favor the use of Bangla script, and older subjects are more divided between Bangla and Roman script. Among the few Koda and Kol who gave an opinion on this matter, all but one preferred that their language be written in Bangla script.

People were also asked which language a mother should speak with her children. Among all five groups a majority of the respondents said mothers should speak their mother tongue with their children. Answers ranged from 55% among the Kol to 100% among the Mahali. Older Koda subjects were more in favor of mothers' using Koda with their children (80% gave this response), but younger subjects tended to say mothers should speak Bangla with their children (60% gave this response). This indicates that in time Bangla will become more dominant in the lives of the Koda in Bangladesh.

There was also fairly uniform feeling that Bangla should be used as the medium of instruction in primary school. The answers ranged from 100% among the Koda to 64% among Santals. It is worth mentioning that 45% of the Santali subjects did say Santali should be the medium of education in primary school. The percentages are greater than 100 because several people said both Santali and Bangla should be used.

In a previously discussed question respondents were asked what language they *do* use at their place of worship. In a later question they were asked what language *should* be used at their place of worship. A summary of their answers is given in Figure 13.

Figure 13: Summary of responses about what language *should* be used in worship MT = mother tongue

| 1711 – Mother tongue | | | | | | | |
|----------------------|----------|--------|---------|-------|-------|--|--|
| Crown | Response | | | | | | |
| Group | MT | Bangla | Santali | Hindi | Other | | |
| Santal | 92% | 9% | NA | - | 1% | | |
| Mahali | 44% | 22% | 34% | _ | 3% | | |
| Munda | 41% | 32% | 32% | - | - | | |
| Koda | - | 100% | - | _ | - | | |
| Kol | 18% | 82% | - | 9% | - | | |

As is shown by Figure 13, Santals feel strongly that their mother tongue should be used at their places of worship. A plurality of the Mahali and Mundari respondents also said their mother tongue should be used at worship, but another one-third of the subjects said Santali should be used. Several volunteered reasons for their answer. For example, a number of respondents said most people at the services are Santal, so their language should be used. Others said Santali is widely known, so it should be used. Still others said the Bible and songs are written in Santali, so that is what should be used. Finally, both the Koda and the Kol feel strongly that Bangla should be used at their places of worship. Again, a total of some of the percentages is greater than 100 because some people said more than one language should be used.

Interestingly, comparing the answers given to this question with the answers to the question about what language people *do* use at their place of worship (see Figure 8) shows some discrepancy in the responses of the Mahalis and Munda. Subjects from both of these groups tended to say that they *do* use Santali in their places of worship. Seventy-five percent of the Mahalis said this, and 95% of the Mundas said this. Again, only about one-third of the people from each group said Santali *should* be used. This indicates that both the Mahali and the Munda have pride in their language and would prefer a change in the language they use for worship, though some admit this does not seem possible.

4.3.4. Language attitudes - towards other languages

In addition to being asked attitudes questions about their own language, questionnaire subjects were asked a couple of questions to try to assess their attitudes towards other languages. For one, they were asked if it is okay if their children speak another language better than their mother tongue. A majority of respondents from each group said this would be okay, with answers ranging from 100% among the Koda to 55% among the Santali. As was the case with the question about what medium of instruction should be used in primary school, the Koda seem eager to have their children be fluent in Bangla, and the Santals have mixed opinions about what language should play the primary role in their children's lives. After answering this question some respondents went on to explain that it is okay if their children speak Bangla better because, they said, Bangla is more useful or is needed for education or for getting a good job.

When asked what language was most useful for them personally, the majority of subjects (57% of all subjects) said Bangla is most useful. Answers given by subjects from each group are displayed in Figure 14.

Figure 14: Summary of responses about people's most useful language MT = mother tongue

| | | Response | | |
|--------|-----|----------|---------|--|
| Group | MT | Bangla | English | |
| Santal | 59% | 49% | 1% | |
| Mahali | 47% | 56% | 3% | |
| Munda | 36% | 64% | - | |
| Koda | 20% | 100% | - | |
| Kol | 36% | 64% | - | |

The numbers in Figure 14 show that, among the five groups, the Santals were most likely to say that their mother tongue is the most useful language for them. Still, nearly half of the Santal subjects said Bangla is most useful. (Again, some people named more than one language, saying that both their mother tongue and Bangla are equally useful.) The responses of people from all the other groups show that needing Bangla is a fact of life for many of them. Many need Bangla for their work, for their education, or for domestic activities such as marketing.

Looking at the same question according to age shows an interesting pattern for both the Santals and the Mahalis. These numbers are given in Figure 15.

Figure 15: Most useful language, according to age MT = mother tongue

| | iter tongue | | | | |
|---------------|-------------|--------|---------|--|--|
| Crown | Response | | | | |
| Group | MT | Bangla | English | | |
| Santali (all) | 59% | 49% | 1% | | |
| Older | 69% | 33% | 3% | | |
| Younger | 50% | 63% | - | | |
| Mahali (all) | 47% | 56% | 3% | | |
| Older | 60% | 47% | _ | | |
| Younger | 35% | 65% | 6% | | |

Figure 15 shows that for both the Santals and the Mahalis older people tend to say their mother tongue is the most useful language for them, but younger people tend to say Bangla is their most useful language. For a person to say that a language other than his mother tongue is most useful generally indicates a positive attitude toward that other language. Thus, it seems that most younger Santali and Mahali speakers have a positive attitude towards Bangla, which could influence their language use patterns as well as the long-term vitality of their mother tongues.

4.3.5. Language attitudes – towards language classes

Subjects were asked if they would send their children to a local class in which the children are taught to read and write their mother tongue. The responses to this question were almost

uniformly positive with the exception of the Koda, among whom only 50% of the subjects said they would send their children to such classes.

When asked if they would help and cooperate with such classes, again nearly all who said they would send their children to such classes also said they would help and cooperate with the classes.

As a follow-up question, subjects were asked why they would or why they would not send their children to such classes. The most common reason the Santals gave for sending their children was so that they could learn the Santali alphabet. This answer was given by 39% of those who said they would send their children. Other common answers were "to learn Santali" (28%), "to get education" (19%), and "to preserve the language and/or culture" (11%). One person said she would not send her children to a Santali class because "They need to learn Bangla."

Among the Mahalis who said they would send their children to a Mahali class, most (81%) said they would do so in order for their children to "learn Mahali better." Twenty-three percent of the subjects also said they would send their children as a way of maintaining Mahali language and culture. One Mahali subject said he would not send his children to such a class because "They will learn on their own."

All of the Mundari subjects said they would send their children to a Mundari class. Their most common reason for doing so was so that the children would learn their mother tongue. Fifty percent of the respondents gave this reason. Other reasons were "to preserve Mundari" (18%) and "to learn to read and write Mundari"(18%).

Only five of the 10 Koda subjects said they would send their children to a Koda literacy class. They said they would send their children so they could learn or improve their situation. Those who said they would not send their children to a Koda class said it's not important for their children to learn Koda but rather that they should learn Bangla.

The Kol gave more positive responses towards mother tongue language classes, with most (56%) saying they would send their children to such a class to learn their mother tongue. Two people said they wanted their children to learn to read and write at such a class. The one person who said she would not send her children to a Kol class said her children need to learn Bangla.

After they were asked about sending their children to a mother tongue class, subjects from the four non-Santali groups were also asked if they would send their children to a Santali literacy class if a class in the person's mother tongue was not possible. A summary of their answers is shown in Figure 16.

Figure 16: Summary of responses about sending children to a Santali literacy class DK = does not know

| Croun | Response | | | | |
|--------|----------|-----|-----|--|--|
| Group | Yes | No | DK | | |
| Mahali | 97% | 3% | - | | |
| Munda | 95% | 5% | - | | |
| Koda | 50% | 50% | - | | |
| Kol | 55% | 27% | 18% | | |

As Figure 16 shows, the Mahali and Munda were very positive about a Santali literacy class, though several people did say that it would be better if the class were in the children's mother tongue. The Koda and Kol were less positive about such a class.

When asked why they would send their children to a Santali literacy class, the most common answer given by the Mahali was simply "to learn Santali." Of those who said they would send their children, 25% gave this answer. Others gave answers such as "to learn another language" (22%), "to be able to pray in Santali and/or understand the Bible or church service in Santali" (22%), and "to learn Mahali more easily through Santali, which is similar" (22%). The one Mahali who said he would not send his children said Santali is not their mother tongue, implying that they should therefore not put effort into learning it.

The Mundas gave similar responses, and their most common reason, too, was simply "to learn Santali." Of those who said they would send their children, 43% gave this answer. Another 19% said they would send their children because church, prayers, and the Bible are in Santali, and 14% said it is important for their children to know Santali since they associate with Santals. The one Munda who said he would not send his children said they don't need such a class.

Both the Koda and Kol were less positive about sending their children to a Santali literacy class. Most who said they would send their children to such a class simply said they wanted their children to learn Santali. One Kol subject did say learning to read and write Santali would help his children to then be able to write Kol. Most of the Koda subjects who said they would not send their children to a Santali class said their children need to learn Bangla. One Kol woman said her children don't know Santali, so she would not send them to a Santali literacy class.

4.3.6. Language attitudes – conclusions

Looking at all of this language attitudes data (regarding language use, towards other languages, and towards language classes) together enables us to draw some conclusions for each group. For Santals, it is clear that most hold a positive attitude towards their own language. Almost all believe it should be used in the home, for worship, and for personal prayer, and they responded very positively to the questions about Santali literacy classes. At the same time they acknowledge the need for Bangla, which the majority of respondents think should be the medium of education in primary school. Also, it does seem they want their children to be bilingual, for they are proud of their own language yet think it is OK if their children speak another language better.

Mahalis have a positive attitude towards other languages and seem to have an idea of which languages should be used in various domains. They want their children to know Bangla, but they have also expressed an interest in developing their own language and seem interested in having their children learn Mahali better. That all Mahalis think mothers should speak Mahali with their children and that many Mahalis think Mahali should be used for worship even though that is not taking place currently indicate that the Mahalis have a positive attitude towards their language and would like to be able to use it more.

The Mundas' language attitudes appear to be similar to those of the Mahali. If anything, they feel even stronger that Bangla is very important for them. This is shown by the fact that more Mundas said mothers should speak Bangla with their children – though a majority still

want them to speak Mundari – and by the fact that nearly everyone said Bangla should be the primary school medium of education. Still, some express a desire for their church services to be held in Mundari, and all said they would send their children to Mundari literacy classes.

Among the five groups studied here, the Koda probably have the least positive attitude towards their mother tongue. Compared to the other groups, few Kodas think mothers should speak Koda with their children, and few are interested in mother tongue literacy classes. For them Bangla is their most useful language, and they want their children to speak Bangla well.

Most Kol also find Bangla to be more useful than their mother tongue, and many want their children to speak Bangla well. Based on the questions about most useful language and about mother tongue literacy classes, it does appear that their attitude towards their own language might be more positive than that of the Koda. One must keep in mind, however, that the Kol village where the questionnaire was administered is relatively isolated, so some of the subjects may not have reason to speak much Bangla. Also, there is no primary school in or near the Kol village, so it is very possible that respondents said they would send their children to a mother tongue class simply because there is no educational alternative for them at present. Taking these insights into account, it is possible that the Kol's attitude towards their own language is no more positive than that of the Koda.

4.3.7. Language vitality

Along with being asked questions about language use and language attitudes, the sociolinguistic questionnaire subjects were asked several questions regarding the vitality of their mother tongue. Because the vitality of a language is often best gauged by the language situation among children, these questions dealt primarily with the languages that children from these groups speak and their ability in these languages.

First of all, the reported language use patterns of children from each of these groups tell us these languages are spoken widely throughout their respective communities. For example, when subjects were asked if children speak their mother tongue well, nearly all subjects said that they do, with answers ranging from 90% of the Koda subjects' saying they do to 100% of both the Kol and the Mahali saying they do. Similarly, nearly every subject said children in these groups speak their mother tongue first before speaking any other language.

Other answers about the languages children use, however, show that Bangla exists alongside the children's mother languages. For example, many subjects said children in their village speak another language before starting school. The range of affirmative answers was from 50–56% for all groups except the Munda, of whom 86% said children in their village speak another language before starting school. Nearly all said this language is Bangla, although 2 Mahalis (6%) and 7 Mundas (32%) said the children speak Santali before starting school.

Another set of responses regarding children's bilingual abilities answered the question, "What language do children in your village speak with each other?" A summary of the responses to this question are in Figure 17.

Figure 17: Summary of responses regarding the languages children speak with each other

MT = mother tongue

| Crown | | Response | | | | |
|--------|------|----------|---------|--|--|--|
| Group | MT | Bangla | Santali | | | |
| Santal | 96% | 24% | NA | | | |
| Mahali | 100% | 25% | 3% | | | |
| Munda | 95% | 27% | 9% | | | |
| Koda | 100% | 60% | - | | | |
| Kol | 91% | 36% | - | | | |

Responses in Figure 17 show that, while children speak their mother tongue with other children in their village, they also use Bangla and at times Santali. This is a strong indication that each of these languages is undergoing language shift to some extent. Some people in these groups agree: when they were asked what language the next generation of children will speak, between 9% (Kol respondents) and 24% (Santali respondents) of the subjects said the children in their group will speak Bangla.

One other question gives evidence that some of these languages are in danger of undergoing change or loss. Figure 18 displays a summary of responses to the question, "Do children in your village speak another language better than your language?"

Figure 18: Summary of responses about whether children speak another language better

DK = does not know

| G | | Response | | | |
|----------|-----|----------|----|--|--|
| Group | Yes | No | DK | | |
| Santal | 8% | 91% | 1% | | |
| Mahali | 28% | 72% | - | | |
| Munda | 18% | 77% | 5% | | |
| Koda | 20% | 80% | - | | |
| Kol | 27% | 73% | _ | | |

For children to be fluent in their mother tongue and also to know another language is one situation. A different situation is when children speak another language *better* than their mother tongue. The latter situation is a strong indication that over time the mother tongue may be lost, that it may be used only in select domains, or that it may become very mixed with the other language. According to the responses in Figure 18, Santali seems to be at the least risk of having this happen as only eight percent of the subjects said Santali children speak another language better than Santali. Among the other languages, however, between 18% (for the Munda) and 28% (for the Mahali) of the subjects said children from their group speak another language better than their mother tongue. Though these percentages are small compared to the number of people who said this is not the case, it is still a powerful suggestion that the mother tongues are being replaced by other languages. It should be kept in mind, however, that this data is subjective as it comes from responses to a questionnaire. Some subjects' responses could be affected by their opinion that Bangla is the most useful language for them (see Figure 14).

Those subjects who said children from their village *do* speak another language better were then asked which language they speak better. Nearly all subjects said that Bangla is the language children speak better, but two Mundari subjects did say their children speak Santali better than Mundari.

Answers to these questions suggest that Santali is the most vital language among the five studied. This is not surprising since it is the language with the greatest body of literature and also with the largest population within Bangladesh. Also, that Santali is used as an LWC among a few indigenous groups in the region shows that it is still quite vital, though it is very likely that more and more Bangla words will become mixed with oral Santali unless a concerted effort is made to prevent this.

The other four groups studied may not be as vital: they all have relatively small populations within Bangladesh, and they see a need for Bangla aptitude in their daily lives. The Mahalis live close to Santals, they follow Christianity as do many Santals, and their language is also closely related to Santali. Thus, their language seems to be at an especially high risk of being lost to Santali. The RTT results discussed in Section 3.2.3. show some evidence of this at least for the Mahalis in Pachondor. People who answered the sociolinguistic questionnaire may not have been aware of this shift since they may not always differentiate between the two language varieties. If they did make a more conscious differentiation between the two language varieties, it is likely that Mahali would appear even less vital than the responses indicate.

The linguistic connection between Santali and Mundari is not as close, and it seems that Mundas are more easily able to distinguish between when they are using Mundari and when they are using Santali. Still, the Mundari language in Bangladesh is at risk of having many Santali words mixed in with it because Mundas use Santali at worship services as well as with some neighbors. A greater linguistic threat to Mundari, however, is Bangla, as a large majority of people report that children speak Bangla even before starting school. However, most do not speak it better than their own language, and most still speak their language well. Thus, while it is possible that both Mundari and Bangla could be used side-by-side with varying degrees of ability, the pattern observed in Bangladesh as a whole indicates it is more likely that Mundari is at risk of being lost to Bangla over a fairly long period of time unless something is actively done to change this inclination.

Needing to speak Bangla is a fact of life for most Kodas. Though all of the groups studied here need Bangla to some extent, the Koda expressed a greater need for it: they use it for worship and in the marketplace, and many say they use it more than their mother tongue. They are also eager for their children to speak Bangla. The form of Koda that exists in Bangladesh seems to be fairly undeveloped in that it is not written and borrows a significant number of words from Bangla. Given that the Koda are relatively uneducated and are therefore not learning standard Bangla, it is likely that the two languages will continue to exist side-by-side in Koda communities, with colloquial Bangla becoming more and more dominant over time.

The Kol continue to speak Kol most of the time, although they, too, seem fairly eager for their children to learn Bangla. Their small population and seeming indifference to their language indicate that their language could be lost to Bangla, but their lack of education and their relative isolation indicate that this process will be slow. Unless the Kol become more educated and have a significantly greater amount of interaction with Bengalis, it seems they

will continue to speak their language for generations to come, though the language will undoubtedly undergo change during this time.

5. BILINGUALISM STUDY

Bilingualism refers to the ability of an individual or an entire speech community to handle communication in a language other than the mother tongue. Among the five groups studied, two types of bilingualism data were collected: perceived bilingualism and measured Bangla bilingualism.

5.1. Perceived bilingualism

5.1.1. Procedures

First, data about subjects' *perceived* ability in various languages was collected. This was done through a series of five questions, which were administered orally as part of the sociolinguistic questionnaire. As was mentioned in Section 4.1, the questions were generally asked in Bangla. If a given subject was not fluent in Bangla, the questions were asked in his mother tongue. The questionnaire is found in Appendix E.1. and subject responses are given in Appendix F.4.

5.1.2. Discussion of sample

The five questions that asked subjects about their perceived ability in various languages were part of the sociolinguistic questionnaire discussed in Section 4. Thus, the demographic profile for these 149 subjects is the same as is given in Section 4.2. regarding the questionnaire sample.

5.1.3. Results

For all five questions regarding perceived bilingualism, data will be presented for all subjects combined for each of the five language groups studied. In addition, when responses are notably different according to a particular demographic factor, that will be mentioned. Individual responses and biographical data for each subject are given in Appendices F and H.4, respectively.

The most basic question about perceived bilingual ability simply asked subjects what languages they speak. This question was followed up with a question that asked subjects at what age they began to learn each language. A summary of responses to the former question is in Figure 19.

Figure 19: Summary of responses about the languages people speak

| Group | | Response | | | | | | |
|--------|--------|----------|--------|---------|-------|------------|-------|--|
| Group | Bangla | Santali | Mahali | English | Hindi | Urao/Sadri | Other | |
| Santal | 100% | NA | - | 18% | 8% | 1% | 4% | |
| Mahali | 100% | 91% | NA | 12% | 3% | 12% | 6% | |
| Munda | 100% | 100% | 14% | 9% | - | 23% | - | |
| Koda | 100% | 50% | - | - | _ | - | - | |
| Kol | 100% | 18% | - | - | 1 | _ | - | |

Figure 19 shows that each of the 149 subjects said he is able to speak Bangla. This suggests that there is widespread Bangla bilingualism in these communities as even those who would presumably have the least Bangla ability report that they can speak Bangla.

The average age at which they started to learn Bangla was reportedly eight years old, which is within two years of when most who attended any school would have started Bangla-medium education. The Koda, however, said they started to learn Bangla at the average age of five, an indication that many Koda begin to learn Bangla even before they are of school age.

Figure 19 also shows that most Santals and most Kols do not know any language other than Bangla and their mother tongue, though 18% of the Santal subjects said they know English, and 8% said they know Hindi. They tended to start learning these languages when they were teenagers, presumably when they started secondary school or when they started understanding Hindi television. Also, 18% of the Kols said they can speak Santali, which they started to learn at the average age of seven.

Among the Mahali, Munda, and Koda, a large percentage of subjects said they speak Santali in addition to speaking Bangla and their mother tongue, and they reported having started to learn this at an average age of six years old. These responses show the dominance of Santali among these groups—another indication that Santali is a very vital language.

Finally, it is worth noting that one of the Santal subjects (1%), four of the Mahali subjects (12%), and five of the Mundari subjects (23%) said they can speak Urao/Sadri, which is an LWC in parts of Rajshahi division and is linguistically related to Bangla. Especially among the Mundas it is not surprising that some speak Urao/Sadri as several mother tongue Mundari speakers have married mother tongue speakers of Urao.

After they were asked what languages they speak, subjects were asked which language they are able to speak with the most ability. A summary of their responses is given in Figure 20.

Figure 20: Summary of responses about people's best language MT = mother tongue

| WII = mother tongue | | | | | | |
|---------------------|------|----------|---------|--|--|--|
| Croup | | Response | | | | |
| Group | MT | Bangla | Santali | | | |
| Santal | 92% | 16% | NA | | | |
| Mahali | 91% | 15% | 3% | | | |
| Munda | 100% | 5% | 5% | | | |
| Koda | 40% | 60% | - | | | |
| Kol | 82% | 27% | 9% | | | |

As Figure 20 shows, most subjects said they speak their mother tongue with the greatest ability, though a few subjects said Bangla or Santali is their best language, and several subjects named two or three languages as their best, explaining that they speak all equally well and therefore could not name a single most proficient language even though they were asked to try to do so. This is an indication that some speakers of these languages truly are comfortably bilingual.

Again Koda subjects are the exception as they were more likely to say that Bangla is the language in which they have the most ability. This gives more support to the idea that Koda is becoming less and less vital in Bangladesh.

It is also interesting that one Mahali subject (3%), one Mundari subject (5%), and one Kol subject (9%) said they speak Santali as their best language, though the Mundari subject said he speaks Mundari, Santali, and Bangla all equally well. Other than this one subject, all other Mundari subjects said Mundari – and only Mundari – is the language they speak with the most ability. This points to strong vitality for Mundari. It is also possible that when the Kol subject said he speaks Santali as his best language, he was actually referring to his mother tongue, for which the Kol seemingly do not have a name other than "our language." These responses again demonstrate the influence of Santali among these groups.

Finally, subjects were asked what language they speak with the second-greatest ability and if they can always say what they want to say in that language. Among the Santali subjects, the 8% (6 subjects; see Figure 20) who said that Santali is *not* their best language did all say that it is the language in which they have second-greatest ability, and they all said they can always say what they want to say in Santali. This demonstrates widespread mother tongue fluency among the Santals.

Thirteen of the Santal subjects did say they cannot always say what they want to say in Bangla. All but one of these had no formal education, which is generally an important factor in one's bilingualism ability, especially when the person's second language is the medium of education, which Bangla generally is in Bangladesh.

As was the case with the Santals, the three Mahali subjects (9%; see Figure 20) who said Mahali is *not* their best language did all say Mahali is the language in which they have second-greatest ability. Two of these subjects said they can always say what they want to say in Mahali, but one other subject – a young, educated woman who has spent most of her life in Rajshahi city – said she cannot always say what she wants to say in Mahali.

Most of the Mahali subjects (69%) said they speak Bangla as their second-best language, and among these only one – a young, educated man – said he cannot always say what he wants to say in Bangla. Another 22% said they speak Santali as their second-best language, and all of these people said they can always say what they want to say in Santali.

An even greater percentage (41%) of the Mundas said they speak Santali as their second-best language, and only one of these – an older, uneducated woman – said she cannot always say what she wants to say in Santali. Another 68% of the Mundas said they have second-greatest ability in Bangla . Again, only one of these – an older, educated man – said he cannot always say what he wants to say in Bangla. These responses indicate that the Mundas in Bangladesh live in a multilingual society.

Among the Koda subjects, all who said they speak Bangla as their best language said they speak Koda as their second-best language, and all said they can always say what they want to say in Koda. Similarly, those who said Koda is their best language all said Bangla is their second-best language, and they can always say what they want in Bangla. The sample size for the Koda is small, but these answers do indicate that the Koda feel slightly more comfortable using Bangla than their mother tongue.

The two Kol subjects (18%; see Figure 20) who said that Kol is *not* their best language *did* say that Kol is the language in which they have second-greatest ability and that they can always say what they want to say in it. Only one Kol subject – a younger, uneducated

woman – said she cannot always say what she wants to say in Bangla. Thus, the Kol, too, seem comfortable with using Bangla, at least in the domains they find themselves needing to use it for.

Responses from this perceived bilingualism study suggest that nearly all people in each of the five groups are bilingual to at least some extent, and most are confident in their ability to communicate in their second-best language, whether that be Bangla, Santali, or their mother tongue. Also, among the Mahali and the Munda, most people seem to be multilingual in that they can reportedly speak not only their mother tongue and Bangla but also Santali and possibly a less-common language for these groups such as Urao or English. Finally, it appears that nearly everybody in these groups is able to speak some Bangla, though – possibly with the exception of the Koda – their best language is still their mother tongue.

Perceived ability in a second language is always subjective to people's opinions. Some people modestly underestimate their abilities in a second language while others overestimate their abilities. To better assess the ability of speakers from these groups in their most common second language, Bangla, a measured bilingualism test was administered to a number of people.

5.2. Measured Bangla bilingualism

5.2.1. Procedures

The second type of bilingualism data that was collected was subjects' *measured* ability in Bangla. This was done through the use of a Bangla SRT. The idea behind the SRT is basic: participants listen to each of 15 carefully selected sentences one at a time and are asked to repeat exactly what they have heard. Each repeated sentence is then scored according to a four-point scale (0-3), based on the participant's ability to mimic a given sentence. The results are then expressed as a point total out of 45 possible points. They are also expressed as an equivalent bilingualism proficiency level, or reported proficiency evaluation (RPE) level. Figure 21 displays SRT score ranges with the equivalent RPE level for the Bangla SRT (Kim 12). Appendix G.1 gives a detailed description of SRT testing, and Appendix G.2 contains the final form of the Bangla SRT.

| | SRT Raw Score Range | Equivalent RPE level | Summary description of proficiency level |
|---|------------------------|-------------------------|--|
| Ī | 0 - 2 | 1 | Minimal, limited proficiency |
| | 3 - 8 | 1+ | Limited, basic proficiency |
| | 9 – 14 | 2 | Adequate, basic proficiency |
| | 15 - 21 | 2+ | Good, basic proficiency |
| | 22 - 27 | 3 | Good, general proficiency |
| | 28 - 33 | 3+ | Very good, general proficiency |
| | | | |

Figure 21: Score ranges on the Bangla SRT corresponding to RPE levels

5.2.2. Discussion of sample

4+

34 - 39

40 - 45

SRT methodology was developed as a means of testing a target community's level of bilingualism in a national language or in another LWC. During this survey the target

Excellent proficiency

Nearly native speaker proficiency

communities were Santali, Mahali, Mundari, Koda, and Kol speakers living in Bangladesh, and the national language tested was Bangla. The Bangla SRT was developed using "the variety of Bangla spoken and published in Dhaka" (Kim 4). The form of Bangla spoken in the northwest of Bangladesh, however, is different from the variety spoken in Dhaka. Thus, during this survey the SRT was also tested among mother tongue Bengali speakers living in Rajshahi as a way of comparison.

In all, a total of 361 people took the Bangla SRT. The subjects were chosen based on age, sex, and education levels so as to get a wide variety of subjects. There were 120 subjects whose mother tongue was Santali, and these subjects were from four villages. Among the 120 subjects, 61 were male and 59 were female. Seventy-one subjects were under 40 years old and therefore were categorized as "younger" and 49 were "older." Furthermore, 31 subjects were educated (defined as having passed their SSC exams) and 89 subjects had not passed their SSCs and therefore were categorized at "uneducated." A majority of the Santali subjects (93 subjects) said they are Christian while most of the remaining (23 subjects) said they follow the Sonaton religion. Four others said they are Hindu. The mother tongue of each of the 120 subjects was Santali, and the mother tongue of each of the subjects' fathers and mothers was also Santali.

The four Santali test locations were chosen to represent the areas within Rajshahi division where Santals live. These locations were chosen based on factors such as remoteness of the village, religion of the majority of people in the village, and location of the village in relation to Bengali villages as well as to missions.

Two Mahali villages were also visited to administer the Bangla SRT. One of the villages is in Naogaon district and is relatively remote, and the other is in Dinajpur district and is situated near a main road and a Catholic mission with a mission school. In these two Mahali villages a total of 60 people took the Bangla SRT. Thirty-four of these people were male and 26 were female. Similarly, 32 were younger and 28 were older. People who had passed their SSC exams were difficult to find, so only seven were tested. The other 53 subjects were classified as "uneducated." All of the 60 subjects said they are Christian, some specifying that they are Catholic. Finally, the mother tongue of each of the subjects as well as of the subjects' mothers and fathers was Mahali.

Two other villages were visited to test mother tongue Mundari speakers on the Bangla SRT. As was the case with the Mahali villages, one of these villages is in Dinajpur district and the other is in Naogaon district. They are similar in remoteness and both have the presence of a Catholic mission. They are different in that people in the village in Dinajpur have more opportunity for secondary schooling.

A total of 57 mother tongue Mundari speakers were tested on the Bangla SRT. Thirty-one of these were male and 26 were female. There were 33 younger subjects and 24 older ones. Also, nine of the subjects said they had passed their SSC exams, so they were categorized as "educated" while the other 48 subjects were considered "uneducated" for purposes of this analysis. All of the subjects said they were Christian, and, as was the case with the Mahali subjects, some specified that they were Catholic. Each of the subject's mother tongue and each of the subject's father's mother tongue was Mundari, but three of the subjects' mothers spoke Urao as their mother tongue. The other 54 subjects said their mother's mother tongue was Mundari.

To do SRT testing among the Koda, only one village was visited. This village is a fairly remote one in Rajshahi district. A total of 28 subjects were tested there, and among them 13 were male and 15 were female. Exactly half (14 subjects) were younger, and the other half were older. There is reportedly one person in the village who has passed his SSC exams, but he was not interested in taking the SRT, so all 28 subjects were "uneducated." When asked their religion, 25 of the subjects said they follow the Sonaton religion, and the other three said they are Hindu. Finally, the mother tongue of each of the 28 subjects was Koda, and the mother tongue of each of the subjects' fathers and mothers was also Koda.

One Kol village was also visited for SRT testing purposes. This village is also located in Rajshahi district and is quite remote with no primary schools in the area. Thirty people were tested in this village, and among them 16 were male and 14 were female. Similarly, 16 were younger and 14 were older. Only one educated person was tested; the other 29 subjects were categorized as "uneducated." Also, 12 of the subjects said they follow the Sonaton religion, 17 said they are Hindu, and one subject said she follows the Kormakar religion. The mother tongue of each of the subjects as well as of each of the subjects' parents was reported to be Kol.

Finally, mother tongue Bengali speakers were tested in two areas, both of which are very near to where Santals were tested. One of these areas is in the north near Dinajpur city and is a large yet fairly remote village where Bengalis and Santals live side-by-side. The other is farther south in Nababganj district. It is a more-urban and more-educated area very near to a Santali mission. These sites were chosen not only because of their difference in remoteness and in educational opportunities but also because they are very near to where Santals live and therefore can be used for comparing mother tongue Santal speakers' SRT scores with mother tongue Bengali speakers' SRT scores.

A total of 66 mother tongue Bengali speakers were tested in these two areas. Of these 34 were male and 32 were female, and 41 were younger and 25 were older. A total of 18 said they had passed their SSC exams and are therefore considered educated while the other 48 are considered uneducated. Forty-nine of the subjects said they are Muslim, 15 said they follow the Sonaton religion, and two said they are Hindu. Finally, the mother tongue of each of the subjects as well as of each of the subjects' parents was reported to be Bangla.

5.2.3. Results

As is the case with perceived bilingual ability, measured bilingual ability frequently correlates with demographic factors such as sex, age, level of education, and amount of travel. This section presents the findings for each language variety, first as an aggregate for all subjects within the group and then according to the most significant demographic factors for each group. As an example, this will be explained in more detail for Santals. Briefer explanations are given for each of the other four groups in this study.

Following a presentation of findings for each language variety, results for each variety are presented as a comparison to the results of the mother tongue Bengali subjects mentioned above. Finally, the range of scores for each group is given according to RPE level. Each subject's SRT test score is given in Appendix G.3, and subject biodata is in Appendix H.5.

Santal

Of the 120 Santals who took the 45-point Bangla SRT, the average score was 23, which corresponds to an RPE level 3 and has been described as "good, general proficiency" (Radloff 1991:53). A person who is proficient at this level can generally make himself understood and can understand normal speech in the language, though mother tongue speakers of the language would easily recognize that the person is not a native speaker of their language. This is the average ability of the Santali subjects.

Among the 120 subjects, however, there was a fairly high standard deviation of 9.6. This indicates that Santals are not uniformly bilingual in Bangla. Instead, it is likely that people of certain demographic categories tend to be more proficient in Bangla, and people in other demographic categories tend to be less proficient. Looking at the four demographic categories of age, education, sex, and religion and dividing each into two subsets gives the information displayed in Figure 22.

Figure 22: Bangla SRT scores for Santals, according to demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| A | ge | Education | | Sex | | Religion | |
|---------------|----------|-----------|------------|----------|----------|-----------|-------------------|
| Younger Older | | Educated | Uneducated | Male | Female | Christian | Non- Christian |
| n = 71 | n = 49 | n = 31 | n = 89 | | | | |
| SRT = 26 | SRT = 18 | SRT = 30 | SRT = 20 | SRT = 24 | SRT = 22 | SRT = 25 | SRT = 16 |
| RPE = 3 | RPE = 2+ | RPE = 3+ | RPE = 2+ | RPE = 3 | RPE = 3 | RPE = 3 | RPE = 2+ |
| s = 8.6 | s = 8.7 | s = 6.8 | s = 9.2 | s = 8.1 | s = 10.9 | s = 8.8 | s = 9.4 |

Looking at subjects' scores according to the demographic factors in Figure 22 shows that younger Santals are generally more fluent in Bangla than are older Santals. Similarly, educated ones tend to be more fluent in Bangla than uneducated ones. Furthermore, males scored slightly higher on the Bangla SRT than did females, and Christians scored higher than non-Christians.

Within three of the demographic factors studied, there is a difference in the SRT scores and their corresponding RPE level. Looking at the demographic factor of age as an example shows that younger subjects scored an average of 26 on the 45-point SRT while the older subjects scored an average of 18. These scores correspond to RPE levels of "3" and "2+," respectively, and the difference between the average SRT scores is 8 points. Furthermore, running a two-sample t-test on this data results in $p = 7.4^{E-7}$. This shows that, using a significance level of p<0.05, age is a statistically significant factor in determining a Santali speaker's ability to speak Bangla. Thus, with time Santali speakers in general are becoming more bilingual in Bangla. They are moving from having only basic proficiency to having a general proficiency in Bangla.

The most significant demographic factor studied was education. The numbers in Figure 22 show that Santals who have at least passed their SSC exams averaged an SRT score of 30.

This score corresponds to an RPE level 3+, which is briefly described as "very good, general proficiency" (Radloff 1991:153). The uneducated Santals, however, scored an average of only 20 points on the SRT, which corresponds to an RPE level 2+, described as "good, basic proficiency" (Radloff p. 153). In fact, among the 120 individual SRT subjects, the 40 lowest scores were of uneducated subjects, and uneducated speakers' average score was 10 points lower than the average educated speaker's score. A two-sample t-test of the scores between educated and uneducated subjects results in $p = 8.6^{E-8}$. Thus, education is a very significant factor in a Santal's ability to speak Bangla. This is not surprising since the medium of education for most Santals in Bangladesh has been Bangla.

The sex of a Santali subject was not such an important factor in how well he or she performed on the Bangla SRT. The 61 male Santal subjects averaged an SRT score of 24 while the 59 female subjects averaged an SRT score of 22 for a difference of 2 points between the two averages. Running a two-sample t-test on these scores results in p = 0.29, showing that the sex of a Santal is not a statistically significant factor in determining how well he will do on the Bangla SRT.

As is the case with age and level of education, the religion of a subject also appears to be a useful factor in predicting a Santal's ability in Bangla. The 93 Christian SRT subjects averaged 25 points on the SRT, and the non-Christian subjects averaged 16 points. This latter category includes followers of Hinduism and Sonaton. Their corresponding RPE levels are different at 3 and 2+, respectively, with a difference in the average SRT scores of 9 points. Furthermore, a two-sample t-test results in p = 0.0002, showing that religion is also a significant factor in determining a Santal speaker's ability in Bangla.

According to these two measures, of probability levels and of difference in average SRT scores, sex is the least important of the four factors studied in determining a mother tongue Santali speaker's ability in Bangla. The other three factors of age, education, and religion are all statistically significant at p<0.05. Looking at all the possible combinations of these three factors reveals some interesting indications, which are displayed in Figure 23.

Figure 23: Bangla SRT results for Santals, according to combinations of demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| | Edu | cated | Uneducated | |
|---------------|----------|----------|------------|----------|
| | Younger | Older | Younger | Older |
| | n = 24 | n = 6 | n = 32 | n = 31 |
| | SRT = 31 | SRT = 26 | SRT = 26 | SRT = 19 |
| Christian | RPE = 3+ | RPE = 3 | RPE = 3 | RPE = 2+ |
| | s = 6.4 | s = 8.0 | s = 7.5 | s = 8.2 |
| | n = 1 | n = 0 | n = 14 | n = 12 |
| | SRT = 32 | | SRT = 19 | SRT = 12 |
| Non-Christian | RPE = 3+ | | RPE = 2+ | RPE = 2 |
| | s = NA | | s = 10.0 | s = 6.0 |

The numbers given in Figure 23 show that younger, educated Santals tend to be the most proficient in Bangla. Conversely, older, uneducated Santals tend to be the least proficient. This indicates that as Santals become more educated and as the current younger generation replaces the older generation, the group as a whole will become more and more fluent in Bangla.

For statistically reliable analysis, a sample of at least five people should be tested for any factor or combination of factors being researched. Because educated non-Christians were very difficult to find, only one was tested among the four test sites. Thus, a sound comparison cannot be made here between educated Christians and educated non-Christians. Among the uneducated subjects, however, religion does show itself to be an important factor. Looking at younger, uneducated subjects, for example, shows that those who said they are Christian scored an average of 26 points on the SRT while those who said they are either Hindu or Sonaton scored an average of only 19 points. A similar pattern arises with older, uneducated subjects, among whom the Christians scored an average of 7 SRT points more than the non-Christians (19 points vs. 12 points).

One possible explanation for this is that, even among the "uneducated" subjects, Christians tend to have had more education. There were 63 Christian subjects who had not passed the SSC exam and were therefore classified as "uneducated." Though "uneducated," these 63 people had reportedly gone to school for an average of 4.6 years. On the other hand, the 26 uneducated non-Christians had reportedly gone to school for an average of only 2.0 years. Again, because education is generally in Bangla medium, even 2.6 years of additional schooling could improve one's Bangla ability considerably. This is another indication that education is the most important factor in determining a Santali speaker's Bangla ability.

As mentioned above, age is also a factor to consider. Among educated, Christian subjects, for example, the younger ones scored higher than the older ones. This is also the case among the uneducated Christians as well as among the uneducated non-Christians. It is possible

that younger Santals interact with Bengalis for schooling and for work more than do older Santals. It is also possible that younger Santals have been more exposed to Bangla media such as television and music videos. Whatever the reasons, it seems apparent that Santals are becoming more bilingual in Bangla. Over time this could impact their ability in Santali.

Thus, while all Santals say they speak Bangla (see Figure 19), it is clear that not all speak it equally well. Their Bangla ability is likely to improve in time, but currently there are large numbers of people who do not speak it well enough to be able to use either written or oral Bangla literature adequately. This will probably be the case for years to come.

Mahali

The average SRT score for the 60 Mahali subjects was 22 points, which is only slightly lower than the Santals' average score of 23. Thus, the Mahalis, too, can be described as having good, general proficiency in Bangla as a population. Again, it is important to try to identify segments of the population that are considerably more or less bilingual than this average. Unlike with the Santals, religion cannot be one of these factors as all Mahali subjects said they are Christian. Instead, location was considered in seeking to determine the most important factors in a Mahali's Bangla proficiency. For the Mahalis, then, the four demographic categories of age, education, sex, and location were examined, again with two subsets in each category. The results are given in Figure 24.

Figure 24: Bangla SRT results for Mahalis, according to demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| | S – Standard deviation | | | | | | | | |
|---------------|------------------------|-----------|------------|----------|----------|----------------|-------------|--|--|
| Age | | Education | | Sex | | Location | | | |
| Younger Older | | Educated | Uneducated | Male | Female | Less remote | More remote | | |
| n = 32 | n = 28 | n = 7 | n = 53 | n = 34 | n = 26 | n = 30 | n = 30 | | |
| SRT = 24 | SRT = 20 | SRT =24 | SRT = 22 | SRT = 23 | SRT = 21 | SRT = 23 | SRT = 21 | | |
| RPE = 3 | RPE = 2+ | RPE = 3 | RPE = 3 | RPE = 3 | RPE = 2+ | RPE = 3 | RPE = 2+ | | |
| s = 6.9 | s = 7.7 | s = 5.6 | s = 7.7 | s = 5.9 | s = 9.2 | s = 7.0 | s = 7.9 | | |

Unlike with the Santals, education does not appear to play a significant factor in Mahalis' Bangla ability as p=0.48. This is possibly because, among Santals, school is an important context in which Bangla is learned. For Mahalis, however, Bangla tends to be learned more informally through day-to-day interaction with Bengalis as part of their bamboo-weaving business.

Not only is education not a significant factor in determining a Mahali speaker's Bangla ability, of the four factors shown in Figure 24, only age is statistically significant at p<0.05. In this case, the significance between older and younger subjects is p = 0.035. This indicates that Mahalis are becoming more and more fluent in Bangla, and as the older generation is replaced by the younger generation, it is likely that the population as a whole will become more bilingual. This is possibly due to greater access to Bangla-medium television programs and movies in recent years. Also, though the younger generation is still quite uneducated,

they have had more education than those of the older generation, which has likely improved their Bangla skills.

Looking at combinations of factors for the Mahalis as was done for Santals in Figure 23 reveals no further insight into the factors that affect their bilingual ability with one exception: younger, uneducated women scored considerably higher than did older, uneducated women. One reason for this could be that women in the younger generation have been more exposed to Bangla through media as well as through face-to-face interaction with Bengalis.

While education, sex, and village location do not seem to be important factors in a Mahali speaker's Bangla ability, it is very possible that one or more unaccounted-for factors do come into play here. For example, while nearly all Mahalis are bamboo weavers, it is likely that certain people in each household or village interact more with Bengalis as part of their bamboo-weaving business. Because of their more frequent exposure to Bangla, they would have scored higher on the Bangla SRT than those who do not have such frequent contact with Bengalis. This and other factors probably influence a Mahali speaker's Bangla ability. Overall, then, it appears that Mahalis as a whole are not able to use literature in Bangla adequately. This is especially true for the older generation.

Munda

The 57 mother tongue Mundari speakers who took the Bangla SRT scored an average of 20 points, which corresponds to an RPE level 2+. This has been described as "good, basic proficiency" (Radloff 1991:153). Thus, based on this production test, Mundas do not seem to be quite as proficient in Bangla as Santals or Mahalis.

As was the case with the Mahalis, all of the Munda subjects said they are Christian, so religion could not be studied as a factor that influences Bangla bilingualism. Statistics for the other factors studied are displayed in Figure 25.

Figure 25: Bangla SRT results for Mundas, according to demographic categories n = sample size

SRT = average SRT score

SKI = average SKI score

RPE = corresponding **RPE** level

s = standard deviation

| Age | | Education | | Sex | | Location | |
|----------|----------|-----------|------------|----------|----------|----------|----------|
| Younger | Older | Educated | Uneducated | Male | Female | Northern | Central |
| n = 33 | n = 24 | n = 9 | n = 48 | n = 31 | n = 26 | n = 29 | n = 28 |
| SRT = 22 | SRT = 17 | SRT =28 | SRT = 18 | SRT = 19 | SRT = 21 | SRT = 19 | SRT = 20 |
| RPE = 3 | RPE = 2+ | RPE = 3+ | RPE = 2+ | RPE = 2+ | RPE = 2+ | RPE = 2+ | RPE = 2+ |
| s = 8.2 | s = 9.1 | s = 6.6 | s = 8.3 | s = 8.8 | s = 8.9 | s = 9.1 | s = 8.6 |

Among the factors shown in Figure 25, only education is statistically significant at p<0.05 as p = 0.0015. The factor of age comes close to meeting this threshold with p = 0.065.

The sex of a speaker is not a significant factor in determining a Munda's Bangla ability, and running a two-sample t-test run on northern location and central location resulted in p = 0.58. Thus, location also appears to be an insignificant factor. This is not surprising as the two villages are quite similar in remoteness and primary education opportunities.

Education is therefore seemingly the most important factor in a Mundari speaker's ability in Bangla. While at first it appears that age is also an important aspect of a Munda's bilingualism in Bangla, when education is controlled the importance of age is diminished. This is shown by the numbers in Figure 26.

Figure 26: Bangla SRT results for Mundas, according to combinations of demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| | Edu | cated | Uneducated | |
|--------|----------|----------|------------|----------|
| | Younger | Older | Younger | Older |
| | n = 5 | n=2 | n = 13 | n = 11 |
| | SRT = 28 | SRT = 24 | SRT = 19 | SRT = 15 |
| Male | RPE = 3+ | RPE = 3 | RPE = 2+ | RPE = 2+ |
| | s = 7.2 | s = 8.5 | s = 8.0 | s = 7.7 |
| | n = 2 | n = 0 | n = 13 | n = 11 |
| | SRT = 32 | | SRT = 20 | SRT = 19 |
| Female | RPE = 3+ | | RPE = 2+ | RPE = 2+ |
| | s = 1.4 | | s = 7.3 | s = 9.2 |

Figure 26 shows that seven of the nine educated subjects were younger, so this raised the overall score of the younger subjects. When looking at only uneducated subjects, the 26 younger ones scored an average of 20 points on the Bangla SRT, which corresponds to an RPE level 2+. The 22 older subjects averaged 17 points, which also corresponds to an RPE level 2+. This difference is not statistically significant as p = .23.

While education obviously plays an important role in Bangla bilingualism among Mundas, it seems unlikely that education will make a large impact on the community's bilingualism in the near future. According to the community information given by community leaders and displayed in Appendix I, most Munda children attend school through class 5, but few continue through class 10. Thus, the rate at which Mundas are becoming increasingly bilingual in Bangla is probably quite slow.

Koda

For Kodas, the overall score of an average of 14 points on the Bangla SRT seems to be the most important number to look at. This corresponds to an RPE level 2, which has been described as "adequate, basic proficiency." People who speak Bangla at this level are often misunderstood due to their heavy accent and grammatical errors. Their vocabulary is developed in only a few common domains, and they generally understand only simplified speech (Radloff 1991:152). This seems to be a fitting description for the Kodas' ability in Bangla.

The Kodas' fairly low SRT score at first appears to be in contrast to the responses the Koda gave about their best language (see Figure 20). When they were asked what their best language is, 60% of the sociolinguistic questionnaire subjects said Bangla is their best language. For the Koda, the SRT sample does come from a different village than does the sociolinguistic questionnaire sample, so this could explain some of the discrepancy. A more likely explanation, however, is that the Bangla SRT tests for production ability in standard Bangla whereas the Koda speak a colloquial form of Bangla. It is possible, therefore, that some of the Koda speak colloquial Bangla as their best language but that at least their speaking ability in standard Bangla is fairly poor. This is discussed in further detail in the section regarding Bengalis' ability on the Bangla SRT.

Because the Koda are relatively uneducated, no subjects who had passed their SSC exams were tested. Thus, education cannot be tested for its significance. Furthermore, the SRT was administered in only one Koda village, so a comparison across locations is not possible. Scores were analyzed according to age and sex, but neither of these factors statistically significant at p<0.05. Similarly, a combination of these two factors did not reveal any noteworthy differences in scores.

Based on this limited data, it appears that Koda mother tongue speakers have a fairly uniform ability in Bangla, with younger subjects scoring slightly higher than older subjects and males scoring slightly higher than females. This indicates that there is only a slow improvement in their standard Bangla ability and that they currently could not use Bangla literature adequately, nor are they likely to be able to use it well in the foreseeable future.

Kols

The 30 mother tongue Kol subjects also scored relatively low on the Bangla SRT. Their overall average was 16, which is a low RPE level 2+ and is only slightly higher than the Kodas' average. As was the case with the Koda, the SRT was administered in only one Kol village, so a comparison by location cannot be made. Also, only one educated subject was tested, so this cannot be tested for significance. Age was also found to be insignificant with p=0.40.

For the Kol, however, the sex of a subject did prove to be significant. The 16 male Kol subjects scored an average of 19 points on the SRT, but the 14 female subjects scored an average of only 13 points. A two-sample t-test of these sets of numbers results in p = .022. Because the Kols are relatively remote, it is possible that the women have comparatively little contact with Bengalis whereas the men have more contact through their work as farmers and day laborers.

It is also possible that education comes into play in the difference in scores between men and women. Only one of the subjects – a younger male – had passed his SSC exams and was therefore considered educated. The other 15 male subjects were considered uneducated, but the males' reported average was 3.1 years of education. At the same time none of the 14 women had any education. Because some of the men had gone to Bangla medium school for a few years, it is very possible that they scored higher on the SRT even though they are considered "uneducated" for purposes of this study.

As is the case with the Kodas, there is limited data on the Kols' ability in Bangla. Still, it does seem clear that currently they are not sufficiently bilingual in Bangla to use Bangla materials. Furthermore, because of their lack of educational opportunities, it seem highly

unlikely that their Bangla ability will improve much in the future unless Bangla-medium education is made available to them.

Compared with Bengalis' abilities

When the Bangla SRT was being developed, "the variety of Bangla spoken and published in Dhaka...was chosen as the test language.... Partly because of its political and academic importance and partly because of its central location, the variety of Bangla spoken by educated people in Dhaka is considered to be the standard within Bangladesh" (Kim 2003:4). The variety of Bangla spoken in Rajshahi division, however, differs from the standard set by educated speakers in Dhaka. Thus, it was thought important to test mother tongue Bengali speakers on the Bangla SRT so that their scores could be used as a comparison against the scores of the five groups discussed above.

The 66 Bengalis who took the Bangla SRT averaged 24 points, which corresponds to an RPE level 3. A person at this level occasionally mispronounces words and makes grammatical errors but is generally understood and understands. Breaking the results down by demographic category gives the results displayed in Figure 27.

Figure 27: Bangla SRT results for Bengalis, according to demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| n . | ge | Education | | Sex | | Location | |
|---------------|----------|-----------|------------|----------|----------|----------------|-------------|
| Younger Older | | Educated | Uneducated | Male | Female | Less remote | More remote |
| n = 41 | n = 25 | n = 18 | n = 48 | n = 34 | n = 32 | n = 37 | n = 29 |
| SRT = 26 | SRT = 21 | SRT = 31 | SRT = 21 | SRT = 25 | SRT = 23 | SRT = 26 | SRT = 21 |
| RPE = 3 | RPE = 2+ | RPE = 3+ | RPE = 2+ | RPE = 3 | RPE = 3 | RPE = 3 | RPE = 2+ |
| s = 8.6 | s = 8.7 | s = 6.6 | s = 8.1 | s = 6.9 | s = 10.5 | s = 9.1 | s = 7.7 |

Not surprisingly, education is the most significant factor with $p = 8.3^{E-06}$. As Figure 27 shows, the 18 subjects who had at least passed their SSC exams scored an average of 31 points on the SRT while the 48 who had not passed their SSC exams scored only 21 points, a full RPE level lower. This is a strong indication that the Bangla SRT truly does test proficiency in a variety of Bangla spoken by educated people.

There is also a significant difference between the scores of people in the less remote area and those of the people in the more remote area with p = 0.009. When education is taken into consideration, however, the picture changes. This new picture is shown in Figure 28.

Figure 28: Bangla SRT results for Bengalis, according to combinations of demographic categories

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| | Edu | cated | Uneducated | |
|-------------|----------|----------|------------|----------|
| | Younger | Older | Younger | Older |
| | n = 3 | n = 0 | n = 15 | n = 11 |
| 3.5 | SRT = 26 | | SRT = 23 | SRT = 17 |
| More remote | RPE = 3 | | RPE = 3 | RPE = 2+ |
| | s = 2.3 | | s = 7.7 | s = 7.4 |
| | n = 11 | n = 4 | n = 12 | n = 10 |
| | SRT = 34 | SRT = 28 | SRT = 21 | SRT = 23 |
| Less remote | RPE = 4 | RPE = 3+ | RPE = 2+ | RPE = 3 |
| | s = 6.1 | s = 6.9 | s = 7.9 | s = 9.1 |

As Figure 28 shows, there were 15 educated subjects in the less remote area but only three educated subjects in the more remote area. Since only three educated subjects were tested in the more remote area, it is not possible to do a reliable comparison between educated subjects from the more remote area and educated subjects from the less remote area. Controlling for education by comparing only the uneducated subjects in these two areas, however, does not show a statistically significant difference in scores. In this case p = 0.49. Thus, it seems that location in and of itself does not necessarily affect a Bengali's ability in Bangla. Rather, factors such as educational opportunities in different areas affect a person's Bangla ability.

Figure 27 indicates that the younger generation of mother tongue Bengali speakers tends to speak Bangla better than does the older generation. According to Figure 28, this is especially true in the more remote location, where younger people may have had more exposure to standard Bangla through at least some formal education and also through more exposure to mass media. This trend and the probability that Bengalis are becoming more and more educated indicate that in time Bengalis in this area will become increasingly proficient in the variety of Bangla that is spoken among the educated people of Dhaka.

As was mentioned above, the purpose of testing Bengalis on the Bangla SRT was to serve as a comparison with the minority language groups being tested. While most of the Bengali subjects probably understood all of the SRT utterances, they did not produce them perfectly because the patterns of speech where they live are different and because most would have grown up speaking a colloquial form of Bangla. Also, distractions such as children, dogs, and vehicles passing sometimes disrupted subjects' concentration. Finally, some of the subjects who had little or no education were not used to this type of test-taking. Although they were screened and taught through the five practice sentences at the beginning of the test, they sometimes lost interest or the ability to focus on the task at hand and therefore were not

able to repeat what they had heard, even if their Bangla ability may have allowed them to do so.

These same issues of colloquial speech, distractions during testing, and simply not being used to taking tests came into play when testing minority language speakers in the area also. Although the Bangla SRT was control-tested among 40 mother-tongue Bangla speakers when it was developed in Dhaka, it was thought that the conditions in the areas where this survey took place are different enough that a separate control test would be useful. A look at the overall scores for each of the language varieties tested gives a quick comparison across groups. These scores and their corresponding RPE levels are given in Figure 29.

Figure 29: Bangla SRT scores according to subjects' mother tongue

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

| Bengali | Santal | Mahali | Munda | Koda | Kol |
|----------|----------|----------|----------|----------|----------|
| n = 66 | n = 120 | n = 60 | n = 57 | n = 28 | n = 30 |
| SRT = 24 | SRT = 23 | SRT = 22 | SRT = 20 | SRT = 14 | SRT = 16 |
| RPE = 3 | RPE = 3 | RPE = 3 | RPE = 2+ | RPE = 2 | RPE = 2+ |
| s = 8.8 | s = 9.6 | s = 7.5 | s = 8.8 | s = 6.2 | s = 7.6 |

Figure 29 shows that Santals and Mahalis performed nearly as well as Bengalis did on the SRT. This indicates that their ability in Bangla may be nearly as good as that of mother tongue Bangla speakers in the area, at least in the area of production.

Compared to the Santals and the Mahalis, Munda subjects did not do quite as well: they scored an average of only 20 points on the SRT, which corresponds to an RPE level 2+. The Koda and Kol scored even lower with average SRT scores of 14 and 16, respectively. Between them, however, only one educated person took the test, which could very well play a part in these two groups' overall lower scores.

Because education has generally shown itself to be a significant factor in a person's bilingual ability and because there were very few educated subjects among most of the groups studied here, a comparison of only uneducated subjects' scores seems useful at this point. The results are given in Figure 30.

Figure 30: Bangla SRT scores for *uneducated* subjects only, and their corresponding significance levels when compared with Bengalis' scores

n = sample size

SRT = average **SRT** score

RPE = corresponding **RPE** level

s = standard deviation

p = significance using two-sample t-tests

| | r | | | | | | | | |
|----------|----------|----------|----------|------------|-----------|--|--|--|--|
| Bengali | Santal | Mahali | Munda | Koda | Kol | | | | |
| n = 48 | n = 89 | n = 53 | n = 48 | n = 28 | n = 29 | | | | |
| SRT = 21 | SRT = 20 | SRT = 22 | SRT = 18 | SRT = 14 | SRT = 15 | | | | |
| RPE = 2+ | RPE = 2+ | RPE = 3 | RPE = 2+ | RPE = 2 | RPE = 2+ | | | | |
| s = 8.1 | s = 9.2 | s = 7.7 | s = 8.3 | s = 6.2 | s = 6.8 | | | | |
| p = NA | p = 0.94 | p = .72 | p = .07 | p = .00005 | p = .0009 | | | | |

The numbers in Figure 30 show that, at a significance level of p<0.05, only the uneducated Koda and Kol subjects' scores are significantly different from those of the uneducated Bengali subjects. At a level of p<0.1, however, the uneducated Mundas can also be said to have scored significantly lower than the uneducated Bengali subjects.

On the other hand, the uneducated Santals scored nearly as well as the uneducated Bengalis: their average SRT score was 20, and the uneducated Bengalis' average SRT score was 21. This indicates that Santals are nearly as proficient in educated Dhaka Bangla as are mother tongue Bangla speakers from these two locations in Rajshahi division.

Interestingly, the uneducated Mahali subjects actually scored slightly higher than did their Bengali counterparts. They had an average SRT score of 22 compared to the uneducated Bengalis' score of 21. This is very likely because nearly all Mahalis are bamboo weavers. Many Mahalis frequently interact with Bengalis for business purposes, and their villages tend to be situated along main roads. They therefore have more opportunity and more need for communication in Bangla.

It therefore appears that when education level is controlled, Santals, Mahalis, and Bengalis have similar production abilities in standard Dhaka Bangla. It is possible that uneducated people in any of these groups could use literature produced in standard Bangla equally well – or equally poorly. It also appears that the uneducated Mundas' Bangla ability is lower than that of their Bengali counterparts and that the Munda would have a more difficult time with materials in Bangla. Both the Kol and the Koda scored significantly lower than did the uneducated Bengalis, which indicates that they would have quite a difficult time with trying to use Bangla materials adequately.

As a range according to corresponding RPE level

One final way in which the SRT data will be presented is according to the range of scores for each group. For each of the six language varieties studied, Figure 31 displays the percentage of the total number of subjects that falls into each possible RPE level.

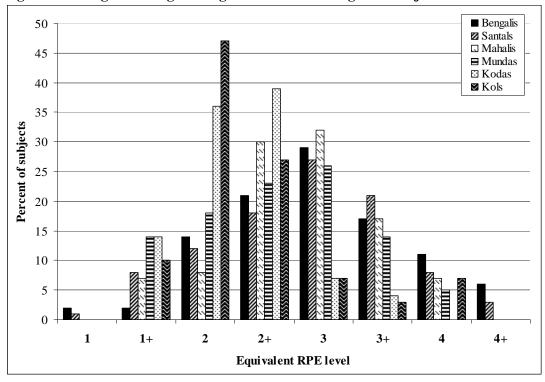


Figure 31: Ranges of Bangla bilingualism levels among SRT subjects

The solid black bars in Figure 31 represent Bengalis' SRT scores, and they show that the greatest percentage of Bengalis scored at an equivalent RPE level 3. Their scores in general form a fairly uniform bell curve with scores ranging from RPE levels 1 to 4+. This shows that even among mother-tongue Bangla speakers there is considerable range in their scores, which is supported by their overall standard deviation of 8.8 (see Figure 27). This is undoubtedly a reflection not only of their Bangla ability but also of their ability to concentrate for the duration of the test, which takes about five minutes to administer to one person.

The bars which represent Santals' scores form a pattern similar to the solid black bars that represent Bengalis' scores, and they, too, had the greatest number of subjects score at an RPE level 3. The main difference between the Santals' and the Bengalis' scores is that considerably more Santals scored an equivalent RPE level 1+. Also, the Bengalis' scores tend to be somewhat more weighted in the higher levels of 4 and 4+. This reflects the slightly lower overall score of the Santals.

Among Mahalis, too, the largest number of subjects scored at an equivalent RPE level 3, but when compared to the Bengalis' and Santals' scores, the Mahalis' scores are much more clustered around RPE level 3. In fact a full 78% of the Mahali subjects scored at either a level 2+, 3, or 3+. This shows that Mahalis are more uniform in their Bangla ability, which is supported by the fact that their overall standard deviation is lower than those of the other groups with the exception of the Koda, who will be discussed momentarily.

As is the case with the three groups mentioned above, the greatest number of Mundas scored at an equivalent level 3. Level 3, however, is not the Mundas' median score as 54% of the subjects scored below level 3 but only 19% scored higher than level three. It is fairly

common for Mundas to be proficient in Bangla at an RPE level 3, but it is uncommon for them to be more proficient than this.

The bars in Figure 31 which represent Kodas' scores show that the greatest number of Kodas scored an equivalent RPE level 2+ but that very few scored higher than this, and nobody scored at a level 4 or 4+. In fact, 75% of all Koda subjects scored at a level 2 or 2+, and another 14% scored at a level 1+. This is reflected in their low standard deviation of 6.2 (see Figure 27). As was shown in Figure 28, these scores are significantly lower than those of the Bengali subjects, and they indicate low ability in Bangla with few exceptions.

Among the Kol subjects the greatest number scored only an equivalent RPE level 2. Nearly half of the subjects fall into this category, and another 27% scored at a level 2+. As was the case with the Kodas, few Kol subjects scored above a level 2+, demonstrating rather low proficiency in Bangla as a community. There are two exceptions, however, and these are both young men who scored at an equivalent level 4. Both of these men had studied through class 10, but only one passed his SSC exams. Few of the other Kol subjects had any formal education at all, which again shows that education is very important in a person's ability to speak standard Bangla.

For each of the minority language varieties studied here, a significant portion of the sample scored at an RPE level 2 or lower. This means that these people would generally have difficulty communicating in Bangla in domains they are not familiar with. On the other end of the spectrum, a number of Santal subjects and a few Mahali and Mundari subjects scored at levels 4 or 4+. These subjects' Bangla ability is likely as good as that of many mother tongue Bangla speakers.

While there do appear to be people in these minority language groups who can speak Bangla as well as mother tongue Bangla speakers, there are also those who apparently speak little Bangla. This shows that none of these communities as a whole is sufficiently bilingual in Bangla to use Bangla literature well. Though all of the sociolinguistic questionnaire subjects said they can speak Bangla, and although most said they can always say what they want to say in Bangla, it is likely that many of these people seldom find themselves having to interact in Bangla beyond basic domains such as the market.

Proficiency data must be seen as indications of general trends. As people in these minority groups become more educated and as they interact more with Bengalis, it is likely that these communities on the whole will become more fluent in Bangla, but there is no evidence that this will happen any time soon.

6. RECOMMENDATIONS

On the surface, all five groups studied here appear rather similar and can seem to have similar needs. After all, they live in the same areas, often as close neighbors; and other than the Mahalis, they make their living as agricultural laborers, and they all occupy a very similar economic stratum. Also, to varying degrees, they share commonalities in their mother tongue that clearly distinguishes them from their Bengali neighbors.

It would be a mistake, however, to think that one type of language development program would be appropriate for every member of the Santali cluster, for when making language-related recommendations, one must go beyond (and beneath) the geographical, religious,

and economic similarities, and even beyond surface linguistic similarities like their lexicon. As the results of the survey have shown, there are important differences in the linguistic abilities, attitudes, and uses among speakers of the five language varieties of the Santali cluster. Thus, the SIL Bangladesh survey team considers the following recommendations as the most appropriate means to best meet the needs of each group.

6.1. Santali

Though the Santals are quite bilingual in Bangla and thus can use Bangla materials to meet educational and social needs, we still recommend a language development program consisting of mother tongue classes and mother tongue literature development. The Santals expressed great pride in Santali and an equally great desire to know it better—particularly for reading and writing. Santali is a literature-rich language (though most of the literature is being produced in India), so there is much precedent and incentive for Santals to read and write their mother tongue. This is particularly true of the Christian Santals who want to read religious materials that are written in the modified Roman script.

Since the Santali spoken in Rajshahi is uniform, educational materials as well as new literature can be developed and used in any Santali village; this means that the location of the language development program is not dependent on linguistic factors but instead on the desires and resources of any local community. Thus, before beginning any such program, it would be advisable to meet with respected leaders of the greater Santali community to explain the process and benefits of a language development program so they can then inform the community as a whole and decide among themselves what can and should be done, looking at what resources are needed and which ones are already available. Following that, it would be good to meet with the leaders of particular villages that show a desire and readiness for mother tongue classes. In our experience, the latter is particularly important: without local leadership and support, it is very difficult to start and run a language development program. It should be noted that this kind of dialogue with leaders at various levels of society is critical not only for the Santali community, but for each of the other groups covered in this report.

Of course, in addition to desire and support, real resources are also needed. Fortunately, one important resource widely available among the Santali community is a place to hold mother tongue classes and various training workshops, since at least one church building already exists in many Santali villages. With perhaps the biggest infrastructural need already in place, the Santali community should feel encouraged that a language development program of mother tongue education and mother tongue literature development is indeed possible.

Finally, a language development program should be conducted with the partnership and cooperation of those who have been working with the Santals for a long time and know the local situation well. In particular, the Catholic church and BNELC have various types of educational materials and programs for the Santali community, and these resources should not be neglected.

6.2. Mahali

In light of the close lexical similarity between Mahali and Santali, the Mahalis' excellent understanding of Santali, their very positive attitude toward Santali, their proximity to Santals, and their shared religious life, we recommend that the Mahali participate in the

Santali language development program as described. All signs point to the effectiveness and usefulness of a program in which the speakers of a less-developed and non-standardized language variety (such as Mahali) learn to become proficient in a more-developed and closely-related standardized variety (such as Santali). The Mahali community would benefit from learning to read and write a variety very close to their own and give them proficiency in the Roman script; for example, it could improve their spiritual lives as they would be able to understand religious materials better.

There is always a bit of danger in recommending the development of one language variety over another, but we are allayed in our fears by the fact that many Mahalis seem to have already chosen this path for themselves. Case in point: in Pachondor, most Mahalis found the Santali story easier to understand than the Mahali story and often could not say which words were Mahali and which words were Santali. Because of the existing positive attitude toward Santali and the close identification with Santali, we feel that it would be a disservice to the Mahali community to recommend that they develop educational and reading materials of their own because of the potential division it could create with the Santali community and because of the community resources such a program would demand.

6.3. Munda

While the Mundas share some sociolinguistic characteristics with the Mahalis, we recommend that the Mundari community initiate a language development program of mother tongue education classes and literature development in Mundari rather than in Santali. The key factor for this difference is that Mundari has a significantly lower lexical similarity with Santali. Although the Mundas appear to understand Santali about as well as the Mahalis, this understanding is learned rather than inherent. Thus, if Mundari children were to join the Santali classes, they would be learning a second language, and that will present a difficult hurdle for children learning to read for the first time. A better strategy would be for them to start learning in a language they already know: Mundari.

A Mundari development program would also be more suitable in that the Mundas view the Bangla script as being the most appropriate, rather than the Roman script favored by Santals. Since Mundari is rarely written using Bangla script, initial work will be needed to develop a standardized spelling that will be acceptable to the Mundari community. SIL Bangladesh will be able to provide orthography consultants who can give technical help for this important process, seeking input from the educated members of the Mundari community who will be able to give native insight into how their mother tongue sounds and how those sounds should be represented. It would also be profitable to build on the experience of people in India who have been involved with writing Mundari there using Devnagri script.

If and when it is decided that a Mundari language development program should commence, it would be good to do some research among a group of people in Satkhira district in Bangladesh who go by the name Munda. While it doesn't seem likely that they speak the same language as the Mundas of Rajshahi, even a short visit would tell whether or not they could use the Mundari literature produced in Rajshahi. We regret that there wasn't the time or the opportunity to visit them during this survey.

6.4. Koda

Our recommendation for the Koda is quite simple: encourage Koda children to go to Bangla-medium schools, whether they be government schools or non-government schools like BRAC. This would be the best way to meet their felt need: to become better educated in Bangla, which they see as the most useful language for them. The ability of many Koda in Bangla seems to be good enough for daily lives as day laborers, but for them to advance economically as a community, they will need more people getting enough education to get jobs other than as day laborers.

While this kind of recommendation will probably lead to decreased vitality of Koda, the Koda themselves do not seem overly bothered by the idea of losing their mother tongue. Understandably, they see Bangla as the language of their future (and perhaps even survival). In such a situation, a mother tongue language development program would usually have little chance of success.

6.5. Kol

The Kol expressed a desire for a mother tongue education class. However, two factors make us hesitate to immediately recommend such a program. First, they seemed quite unaware of their mother tongue, and so we wonder whether they fully understood what was meant by a mother tongue education class. We feel that more conversation—perhaps with members of at least one other Kol village—should take place so that there is a clear understanding of the requirements and consequences of mother tongue development.

Second, we sensed during several conversations that the Kol may not be as much desirous of a mother tongue education class as they are for *any* education class. They are very aware that they lack educational opportunities—Babudaing is at least 4 km from the nearest school—and so when asked about the possibility of a mother tongue education class, it is not surprising that they responded positively. The same motivation seems to lie behind the fact that even though there is relatively low lexical similarity with Santali, a majority of the Kol said they would even send their children to Santali classes.

It is possible that Bangla may serve the Kol community best since, like the Koda, there was no awareness of, or precedent for, the mother tongue as a written language. But again, before we can recommend any program, it would be good to talk with more leaders and more communities.

Some final remarks:

It must be emphasized that without the understanding, sympathy, and cooperation of community leaders, none of our recommendations have much meaning. As such, our recommendations are not final for two reasons.

First, there is value in on-going assessment both by language workers as well as the communities themselves. Sociolinguistic situations can and do change, due to both internal and external factors. This survey is a snapshot of these communities at this time, and while it makes analyses and recommendations based on the current situation and the probable trends, it does not/can not reveal the complete truth or fate of these communities.

Second, we see these recommendations as a starting point for further dialogue about what language development means for the five groups discussed here. A topic for further dialogue that would apply for all minority languages is the option of doing mother tongue development work. Although it is not our primary recommendation, if the desire is there—and along with the desire, a commitment to participate in the work—then it might be good for the Mahali, Koda, and Kol communities also to choose the path of developing their mother tongue. Not only would it be the most direct path of preserving their mother tongue, but it could have the additional benefit of preparing their children for success in education in any medium.

Language development projects are not like other development projects where the fruits of the labor can be seen quickly in terms of buildings or income generation. It takes long-term commitment of human and financial resources and is not something to be entered into lightly. But the fruits of such commitment and labor can be all the more sweet precisely because they touch communities at their deepest level—their history, their identity, their culture—and because they can leave a lasting impact, one that can be felt for generations to come.

BANGLA TRANSLATIONS OF SECTION 1.1, SECTION 2, AND SECTION 6

১. সূচনা

১.১. উদ্দেশ্য এবং লক্ষ্য

এই গোষ্ঠিগত ভাষা জরিপের উদ্দেশ্য ছিল তথ্য সংগ্রহ করা যা বাংলাদেশের সান্তালী, মাহালী, মুভারী, কোল এবং কোডা ভাষীদের ভাষা উন্নয়ন কর্মসূচি পরিকল্পনা প্রণয়নে ব্যবহার করা যেতে পারে। এই পাঁচটি ভিন্ন ভিন্ন ভাষা একসাথে জরিপ করার কারণ ছিল যে এর সবগুলোই হচ্ছে অস্ট্রো-এশিয়াটিক ভাষা, এর প্রায় সবগুলোকেই রাজশাহী বিভাগে পাওয়া যায়, এবং ভাষাভাষীরা একে অপরের কাছাকাছি বসবাস করে, ভাষাগত সাদৃশ্য বা উভয় কারণে এরা সবাই কমবেশী সান্তালী ভাষা বুঝতে পারে। সংখ্যাধিক্য এবং বিস্ত তির কারণে সান্তালী ভাষা এই গোত্রভুক্ত ভাষাগুলোর মূল কেন্দ্রবিন্দু হিসেবে স্বীকৃত। তাই, আমরা বলতে পারি এগুলো একটা সান্তালী গুচ্ছ।

আমরা জানতে চেয়েছি এই ভিন্ন ভিন্ন কথ্য রূপের মধ্যে কোনটিতে তারা তাদের সাহিত্যের উন্নয়ন এবং সাক্ষরতা কার্যক্রমের অগ্রগতি সাধন করতে চায়। এমনকি আমরা ভাষাতত্ত্বের বাস্তব দৃষ্টিভঙ্গি থেকে কোন বিশেষ ভাষার কথ্য রূপের উন্নয়নের পক্ষে এবং বিপক্ষেও জানতে চেয়েছি। আর এই উদ্দেশ্যগুলো পূরণে আমরা নিম্নোক্ত লক্ষ্যগুলো স্থির করেছিলাম:

- ১. সাস্তালী গুচ্ছের প্রত্যেকের ভাষাতত্ত্বের ভিন্নতার পরিধি অনুসন্ধান করা
- ২. সাস্তালী গুচ্ছের প্রত্যেকের তাদের নিজস্ব ভাষার প্রতি এবং অন্য ভাষার প্রতি মনোভাব নিরুপণ করা
- ৩. সান্তালী গুচ্ছের প্রত্যেকের মধ্যে সান্তালীতে বোধগম্যতার মাত্রা নির্ণয় করা
- ৪. বাংলাদেশের সান্তালী গুচ্ছের প্রত্যেকের দীর্ঘকাল টিকে থাকার সম্ভাবনা নির্ধারণ করা
- ে সান্তালী গুচ্ছের প্রত্যেকের বাংলার দক্ষতা পরিমাপ করা

এই লক্ষ্যগুলো অর্জন করতে আমরা পরস্পর সম্পর্কিত তিনটি অংশে সান্তালী গুচ্ছের উপর গোষ্ঠিগত-ভাষাতত্ত্বের জরিপ কার্য পরিচালনা করেছি: ১) ভাষার আঞ্চলিক রূপের পর্যালোচনা, ২) ভাষার ব্যবহার, ভাষার প্রতি মনোভাব এবং স্থায়ীত্ব পর্যালোচনা, এবং ৩) দ্বিভাষীত্ব পর্যালোচনা।

২. প্রাপ্ত তথ্যের সারাংশ

২.১ ভাষার আঞ্চলিক রূপের পর্যবেক্ষণ

২.১.১ আভিধানিক মিল- এর পর্যবেক্ষণ

শব্দের তালিকাগুলো তুলনা করলে দেখা যায় রাজশাহী বিভাগের সান্তালদের মধ্যে অনেক আভিধানিক মিল রয়েছে। এর দ্বারা আমরা যা বার বার শুনেছি যে সব সান্তাল লোকেরা "একইভাবে কথা বলে" তার স্বীকৃতি পাওয়া যায়। এটা শুধু রাজশাহী বিভাগের সান্তালদের ক্ষেত্রে প্রযোজ্য। যখন আমরা সিলেট বিভাগের রশিদপুর চা বাগানের শব্দের তালিকার সাথে রাজশাহী বিভাগের তালিকাগুলো তুলনা করি, তখন সেখানে উল্লেখযোগ্য ভাবে কম আভিধানিক মিল পাওয়া যায়।

বাকী সান্তাল গুচেছর মধ্যে আমরা দুই ধরনের বৈশিষ্ট দেখতে পাই। প্রথমত, গুচেছর মধ্যে অনেক বেশী আভিধানিক মিল রয়েছে। যেমন, মাহালী গ্রাম গুলোর মধ্যে অনেক আভিধানিক মিল রয়েছে, কোডার দুটি গ্রামের মধ্যে এমনকি আরো বেশী আভিধানিক মিল লক্ষনীয়, আর যে দুটি রাজশাহীর মুভারী গ্রামে গিয়েছিলাম তাদের মধ্যে খুবই বেশী আভিধানিক মিল পাওয়া যায়। ঠিক যেমনি সান্তালীর ক্ষেত্রে হয়েছিল, তেমনি যখন রাজশাহীর মুভারী শব্দের তালিকা সিলেটের চা বাগানের মুভারীর সাথে তুলনা করা হয় তখন তাতে আভিধানিক মিল এর ব্রাস ঘটে।

আর দ্বিতীয় বৈশিষ্টটি হচ্ছে যে, যখন প্রত্যেকটি শব্দতালিকাকে রাজশাহী বিভাগের সান্তালী শব্দের তালিকার সাথে তুলনা করা হয় তখন আভিধানিক মিল উল্লেখযোগ্যভাবে কম লক্ষ করা যায়। যদিও অনেক দল গত মিল থাকার কারণে এগুলোকে সান্তাল দলগুচ্ছের অন্তর্ভূক্ত বিবেচনা করার সম্ভব কিন্তু শুধু মাহালীকেই সান্তালীর একটি ভাষার আঞ্চলিক রূপ বলা যেতে পারে কারণ এর সাদৃশ্য ৭৪% এরও অধিক।

২.১.২. ভাষা বোধগম্যতার পর্যালোচনা

সান্তালী গল্প ব্যবহার করে পরীক্ষার মাধ্যমে দেখা যায় যে মাহালী এবং মুভারী লোকেরা ভালভাবে সান্তালী বুঝতে সক্ষম। এটা অবাক করার মত ছিল না কারন মাহালী ও মুভারীরা আমাদের বলেছিল যে, ''আমরা সহজেই সান্তালী বুঝতে পারি''। কিন্তু আশ্বচর্যজনক ব্যাপার ছিল এটা যে তাদের মধ্যে কিছু মাহালী লোক সান্তালী গল্পকে মাহালী গল্পের চেয়েও ভালভাবে বুঝতে সক্ষম হয়েছে।

মুভারীদের মধ্যেও ভারতের মুভা গল্প ব্যবহার করে পরীক্ষা করা হয়েছিল। ফলাফলে দেখা যায় যে বাংলাদেশের মুভারী লোকেরা ভারতে প্রচলিত মুভারী ভাষা মোটামুটি ভাল ভাবে বুঝতে পারে। যদিও স্কোর এর মাধ্যমে জানতে পারা যায় যে ভাষার আঞ্চলিক রূপগুলো যথেষ্ট ভিন্ন রকমের যা বোধগম্যতার প্রতিবন্ধক, আর উচ্চ ষ্ট্যাভার্ড ডিভিয়েশন (standard deviation) এর দিকে তাকিয়ে বলা যায় যে শুধু মাত্র অধিকতর যোগাযোগ ও মেলামেশার মাধ্যমে বাংলাদেশের মুভারী লোকেরা ভারতে প্রচলিত মুভারী ভাষা ভালভাবে বুঝতে পারবে--ঠিক যেমনিভাবে নিরন্তর সান্তাল প্রতিবেশীদের সাথে মেলামেশার মাধ্যমে তারা সান্তালী ভালভাবে বুঝতে সক্ষম হয়েছে।

২.২. ভাষার ব্যবহার, ভাষার প্রতি মনোভাব এবং ভাষার স্থায়িত্বকাল পর্যালোচনা

२.२.५. সান্তাল

তুলনামূলকভাবে সান্তালীরা একটি জনবহুল গোষ্ঠি যাদের ভাষা তাদের ভাষা-গোত্রীয় অন্যান্য ভাষাভাষীদের মাঝে বৃহত্তর যোগাযোগের মাধ্যম হিসেবে ব্যবহৃত হয়। যদিও তারা হাট-বাজারের মত জায়গায় বাংলা ব্যবহার করে থাকে, তবুও তারা সম্ভবপর সব ক্ষেত্রে সান্তালী ব্যবহার করে। ব্যাপক ভাবে সান্তালী ব্যবহার করার পাশাপাশি এটাও পরিষ্কার যে তারা তাদের ভাষার প্রতি ইতিবাচক মনোভাব পোষণ করে। আর একই সাথে তারা বাংলার প্রয়োজনীয়তাকে বুঝতে পারে এবং তাদের ছেলে-মেয়েদেরও দ্বিভাষী করে তুলতে চায়।

পর্যালোচিত পাঁচটা ভাষার প্রকারের মধ্যে সাস্তালী সবচেয়ে বেশী স্থায়ী। এ ভাষাতে লেখা হয়েছে এবং এটা তুলনামূলকভাবে বাংলাদেশের অধিকসংখ্যক সংখ্যালঘুদের ব্যবহৃত ভাষা। যদিও এই ভাষাটির হারিয়ে যাবার ভয় নেই, তবুও যদি বর্তমান ধারা চলতে থাকে তবে সাস্তালী কথ্য রূপের সাথে আরো অধিক বাংলা শব্দ মিশে যেতে থাকবে।

२.२.२. याशनी

বেশীরভাগ সময় মাহালীরা তাদের নিজেদের মধ্যে কথা বলার সময় মাতৃভাষা ব্যবহার করে। আর কোথায় কোন ভাষা ব্যবহার করতে হবে তাদের সে ধারনাও রয়েছে বলে মনে হয়। বেশ কিছু বিষয় রয়েছে যা মাহালীদের নিজস্ব ভাষার প্রতি ইতিবাচক মনোভাব এবং আরো বেশী করে তাদের এটি ব্যবহার করার আকাঙ্খা ব্যাক্ত করে। যদিও তারা তাদের ছেলে-মেয়েদের আরো ভালো করে মাহালী ভাষা শিখানোর আগ্রহ প্রকাশ করে, কিন্তু তারা চায় যেন তাদের ছেলে-মেয়েরা বাংলাও জানুক।

মাহালী ভাষার স্থায়িত্বকে শুধু বাংলা নয় সান্তালী ভাষাও হুমকির দিকে ঠেলে দিচ্ছে। মাহালীদের অনেকেরই বাঙ্গালীদের সাথে নিয়মিত যোগাযোগ রয়েছে এবং তারা সান্তালীদের কাছাকাছি বসবাস করে থাকে। অধিকাংশ সান্তালীদের মতই তারা খ্রীষ্টয় ধর্মের রীতি নীতি পালন করে এবং এদুটি ভাষার প্রকারেরও বেশ মিল রয়েছে। তাই যদিও তাদের ভাষা বাংলার দ্বারা প্রভাবিত হচ্ছে তবুও সম্ভাবনাটা আরো বেশী যে মাহালী ভাষা একসময় সান্তালী ভাষার মাঝে হারিয়ে যাবে। তার মানে, মাহালী ও সান্তালী ভাষার মধ্যে পার্থক্য সময়ের সাথে হারিয়ে যেতে পারে।

২.২.৩. মুগ্ৰা

মুণ্ডারী ভাষাটি ভারতে হিন্দী বর্ণমালায় লিখে ব্যবহৃত হলেও কিন্তু বাংলাদেশে এই ভাষাটি মূলতঃ মৌখিক ভাষা হিসেবে চলে আসছে। যেহেতু মুণ্ডারা বাঙ্গালীদের পাশাপাশী বসবাস করে ও কিছু সংক্ষক লোক অন্য ভাষার লোকদের সাথে বিবাহ বন্ধনে আবদ্ধ হয়েছে তাই তারা গ্রামের ভিতরেও মিশ্র ভাষা ব্যবহার করে থাকে। কিন্তু, তারপরেও অন্য মুণ্ডাভাষীদের সাথে তারা সাধারণত মুণ্ডারী ভাষায় কথা বলে।

যদিও মুভারা মাতৃভাষা নিয়ে গর্ববোধ করে তবুও পর্যালোচিত অন্যান্য ভাষার লোকদের তুলনায় তারা তাদের ছেলে-মেয়েদের জীবনে বাংলাকে একটি গুরুত্বপূর্ণ স্থান দিতে মনোভাব পোষন করে। এখনও বেশীরভাগ ছেলে-মেয়েরাই তাদের ভাষার চেয়ে বাংলা ভাষা ভালো করে বলতে পারে না, কিন্তু যেহেতু বাংলাদেশে মুগুারী জনসংখ্যা কম ও আস্তে আস্তে যখন তারা শিক্ষিত হতে থাকবে তখন সম্ভবতঃ পুরো দলটিই আরো বেশী বেশী করে বাংলা ব্যবহার করবে।

২.২.৪. কোডা

যদিও কোডারা গ্রামের বেশীর ভাগ ক্ষেত্রেই তাদের মাতৃভাষা ব্যবহার করে তবুও পর্যালোচিত অন্য চারটি দলের চেয়ে তাদের মাতৃভাষার প্রতি ইতিবাচক মনোভাব কমই প্রতিয়মান হয়। তুলনামূলকভাবে অল্পসংখক কোডারা মনে করে মায়েরা তাদের ছেলে-মেয়েদের সাথে কোডায় কথা বলা উচিত এবং শুধুমাত্র কয়েকজন লোকই মাতৃভাষায় শিক্ষার জন্য আগ্রহী। তাদের জন্য বাংলা হচ্ছে সবচেয়ে দরকারী ভাষা এবং তারা চায় যেন তাদের ছেলে-মেয়েরাও ভালভাবে বাংলা বলতে পারে।

যদিও তারা তাদের জীবনে বাংলা বেশী ব্যাবহার করতে চায়, কিন্তু কোডা লোকেরা তুলনামূলকভাবে অশিক্ষিত এবং সে কারণে তারা বাংলা শুদ্ধ রূপে শিখতে পারে না যার ফলে তারা বাংলায় শিক্ষিতও হয়না। এজন্যে, সম্ভবতঃ কোডা সম্প্রদায়ের মাঝে কিছু সময়ের জন্যে পাশাপাশি দুটি ভাষা থাকবে ও ধীরে ধীরে বাংলার কথ্য রূপ প্রধান ভাষায় পরিণত হবে।

২.২.৫. কোল

কোলদেরও মাতৃভাষার প্রতি কোডাদের চেয়ে বেশী ইতিবাচক ধারনা আছে বলে মনে হয়না। বেশীর ভাগ কোল লোকেরা বাংলা ভাষাকে তাদের মাতৃভাষার চেয়ে বেশী উপকারী মনে করে, এবং অনেকেই চায় তাদের ছেলে-মেয়েরা ভালভাবে বাংলা বলতে পারুক। যদিও কোলেরা কোডাদের চেয়ে বেশী মাতৃভাষা ব্যবহার করে থাকে তবুও মনে হয় কোলেরা হয়তো বাংলাকে বেশী ব্যবহার করতে চাইবে এবং বাংলা বলায় দক্ষ হতে চাইবে। কিন্তু তারা তা করতে সক্ষম হয়নি, কেননা, তদের বাঙ্গালীদের থেকে অপেক্ষাকৃতভাবে বিচ্ছিন্নতা রয়েছে এবং তারা তেমন শিক্ষিতও নয় যার ফলে খুব কমই ভালভাবে বাংলা শিক্ষার সুযোগ পেয়েছে।

শিক্ষার অভাবও কোল ভাষার স্থায়ীত্বের ক্ষেত্রে ভূমিকা রাখে। কোল লোকেরা তাদের ছেলে-মেয়েদেরকে বাংলা শিখাতে মোটামুটি বেশ আগ্রহী এবং তাদের নিজস্ব ভাষার প্রতি আপাতঃ দৃষ্টিতে উদাসীনতা রয়েছে, এর উভয় কারণই কোলকে খুব একটি স্থায়ী ভাষা হিষেবে স্বীকৃতি দেয় না। কিন্তু তাদের শিক্ষার অভাব এবং তুলনামূলক লোকালয় থেকে বিচ্ছিন্নতা ইজ্ঞিত করে যে তাদের মাতৃভাষা হারিয়ে যাওয়া ধীরে ধীরে ঘটবে।

২.৩. দ্বিভাষিত্ব পর্যবেক্ষণ

পাঁচটি দলের যে সমস্ত লোকদেরকে গোষ্ঠিগতভাষাতত্ত্বের প্রশ্নাবলী করা হয়েছে তাদের প্রত্যেকেই উল্লেখযোগ্য ভাবে দ্বিভাষিক, অন্তত পক্ষে কিছুটা বাংলা তারা বলতেই পারে। আর মাহালী এবং মুভাদের অনেককেই আসলে বহুভাষিক বলে মনে হবে কারণ তারা শুধু তাদের মাতৃভাষাই নয় বরং বাংলা, সান্তালী এবং যথাসম্ভব অন্যান্য ভাষাও বলে থাকে। যদিও বেশীরভাগ উত্তরদাতারা মনে করেন যে তারা দ্বিতীয় ভাষা ব্যাবহারে পারদর্শী কিন্তু আসলে এখনো তারা মাতৃভাষায় সবচেয়ে ভাল ভাবে বলতে সক্ষম --সম্ভবতঃ কোডাদের ক্ষেত্রে এর ব্যতিক্রম রয়েছে।

যখন তারা একটি বাংলা বলার ক্ষমতা নির্ণয় অভিক্ষায় অংশ নেয় তখন পাঁচদলের প্রত্যেকটির উল্লেখযোগ্য সংখকের ক্ষোর ছিল "মোটামুটি, সাধারণ দক্ষতা" বা তার চেয়েও কম। এর মানে হচ্ছে তারা সাধারণতঃ অজ্ঞাত বিষয়ের ক্ষেত্রে বাংলা ব্যাবহারে অসুবিধায় পড়বে। অপরদিকে তাদের মধ্যে কয়েকজন সান্তালী এবং কিছু মাহালী ও মুভারী লোকেরা "চমৎকার দক্ষতা" বা তার চেয়ে বেশী ক্ষোর করেছে। সম্ভবতঃ এইসব লোকদের বাংলার ক্ষমতা বাংলা-মাতৃভাষীদের মতই ভাল।

স্বাভাবিকভাবেই, সংখ্যালঘু ভাষাভাষীদের মাধ্যে যারা বাংলা মাধ্যমের বিদ্যালয়ে শিক্ষা অর্জণ করেছেন তারা সর্বজন স্বীকৃত বাংলায় আরো বেশী দক্ষ। শিক্ষিত লোকদের বাদ দিলে দেখা যায় সান্তালী এবং মাহালীদের ঢাকায় প্রচলিত বাংলা বলার ক্ষমতা রাজশাহীর বাঙ্গালীদের মতই । সম্ভবতঃ এ দলগুলোর যে কোন দলের অশিক্ষিত লোকেরা সর্বজন স্বীকৃত বাংলায় প্রকাশিত লেখা অশিক্ষিত বাঙ্গালীদের মতই ভালভাবে বা একই রকম খারাপভাবে ব্যবহার করতে পারবে। আরো লক্ষ করা যায় যে, অশিক্ষিত মুন্ডাদের বাংলার ক্ষমতা অশিক্ষিত বাঙ্গালীদের চেয়েও কম এবং সেকারণে বাংলার বই-পুস্তক ইত্যাদি মুন্ডাদের কাছে আরো বেশী কঠিন হতে পারে। অবশেষে কোল এবং কোডা উভয়ই অশিক্ষিত বাঙ্গালীদের চেয়ে উল্লেখযোগ্য হারে কম ক্ষোর করেছে, যাতে মনে হয় যে বাংলা বই-পুস্তক ইত্যাদি ব্যবহার করা তাদের কাছে খুবই কঠিন হবে।

৬. সুপারিশ

আপাতঃ দৃষ্টিতে, পর্যাবেক্ষণকৃত পাঁচ দলের সবাইকে একই রকম মনে হয় এবং তাদের একই রকম সাহায্যের দরকার রয়েছে বলে ধারণা করা যায়। কারণ, তারা একই এলাকায় বাস করে; প্রায়শঃ খুব কাছের প্রতিবেশীর মত থাকে, মাহালীদের ছাড়া বাকী সবাই কৃষিকার্য করে জীবিকা নির্বাহ করে এবং তারা অর্থনীতির একটি ক্ষুদ্র অংশে বিস্তার করে থাকে। আর, নানা স্তরে তাদের মাতৃভাষার মধ্যে মিল লক্ষ্য করা যায় যা তাদের বাঙ্গালী প্রতিবেশীদের থেকে ভিন্ন পরিচয় প্রদান করে।

কিন্তু যদি ভাবা হয় যে প্রত্যেক সান্তালী গুচ্ছের সদস্যের জন্য একই রকমের ভাষার উন্নয়ন কর্মসূচীই যথেষ্ট হবে তবে তা ভুল করা হবে, কারণ ভাষা সম্পর্কীত সুপারিশ প্রদানের ক্ষেত্রে একজনকে ভৌগলিক, ধর্মীয়, অর্থনৈতিক সাদৃশ্যের উপরে (এবং গভীরে) যেতে হবে ও এমন কি আভিধানিক মিলের মত বাহ্যিক সাদৃশ্যেরও উপরে দেখতে হবে। জরিপের তথ্য থেকে যেরকম দেখা যাচ্ছে যে, সান্তালীগুচ্ছের পাঁচ সদস্যদের মধ্যে উল্লেখযোগ্য ভাষাতান্তিক দক্ষতা, মনোভাব, এবং ব্যবহারেরও তারতম্য রয়েছে। তাই SIL Bangladesh-এর জরিপ দলের মতে নিমে বর্ণিত পরামর্শগুলো প্রত্যেক দলের প্রয়োজন পূরণের জন্য সবচেয়ে উপযুক্ত উপায় হিসেবে বিবেচনার যোগ্য।

৬.১ সান্তালী

যদিও সান্তালরা বাংলায় বেশ ভালভাবে দ্বিভাষীক এবং বাংলায় প্রকাশিত তথ্য ব্যাবহার করে শিক্ষা ও সামাজিক প্রয়োজন মেটাতে সক্ষম, তবুও আমরা তাদের জন্য মাতৃভাষা শিক্ষা ও সাহিত্যের বিকাশে ভাষার উন্নয়ন কর্মসূচী গ্রহনের সুপারিশ করি। সান্তালরা তাদের সান্তালী ভাষার জন্য খুবই গর্বিত এবং একই ভাবে তারা এটাকে আরো ভাল ভাবে জানতে গভীর আগ্রহ প্রকাশ করেছে—বিশেষত লিখতে ও পড়তে পারার জন্য বটেই। সান্তালী একটি সাহিত্য সমৃদ্ধ ভাষা (যদিও বেশীরভাগ প্রকাশনা আসে ভারত থেকে), তাই মাতৃভাষায় পড়া–লেখার জন্যে সান্তলদের রয়েছে অনেক সাহিত্য ও প্রেরণা। এটা বিশেষ করে খ্রীষ্টিয়ান সান্তালদের জন্যে প্রযোজ্য যারা পরিবর্ত্তীত রোমান অক্ষরে লেখা ধর্মীয় রচনাবলী পড়তে আগ্রহী।

যেহেতু রাজশাহীতে প্রচলিত সান্তালী একই রকমের সেহেতু শিক্ষাদানের নিমিন্তে প্রকাশনা ও অন্যান্য রচনাবলী প্রস্তুত করে যেকোন সান্তালী গ্রামে ব্যবহার করা সম্ভব; তাই বলা যায় যে ভাষা উন্নয়ন কর্মসূচী—এর কোন লোকালয়ের অবস্থিতির বিষয়টি ভাষাতত্ত্বীয় ব্যাপারের উপর নির্ভরশীল নয় বরং কোন এলাকার স্থানীয়দের আগ্রহ ও সম্পদের উপর । তাই এ প্রকারের কর্মসূচী গ্রহনের পূর্বে পরামর্শ দেয়া যাচ্ছে যে বৃহত্তর সান্তাল গোষ্ঠীর সম্মানিত নেতৃবৃদ্দের সাথে সাক্ষাৎ করে ভাষা উন্নয়ন কর্মসূচীর পদ্ধতি ও সুফল বর্ণনা করা উচিত যাতে করে তারা সম্প্রদায়ের লোকদের জানাতে পারেন এবং সকলে মিলে তাদের প্রাপ্ত সম্পদ ও প্রয়োজনীয়তার উপর লক্ষ্য রেখে কি করা যায় এবং কি করা উচিত তা তাদের নিজেদের মধ্যে ঠিক করতে পারেন । এর পরে বিশেষ বিশেষ গ্রাম যারা মাতৃভাষার ক্লাশের প্রতি আগ্রহী ও নিজেদেরকে সে ব্যাপারে প্রস্তুত মনে করে তাদের নেতাদের সাথে মিলিত হলে ভাল হবে । আমাদের অভিজ্ঞতায় দেখা যায় যে, দ্বিতীয় কাজটি বেশী গুরুত্বপূর্ণ কারণ স্থানীয় নেতা ও তাদের সাহায্য ছাড়া ভাষা উন্নয়ন কর্মসূচী গ্রহন এবং চালনা করা খুবই কঠিন । এখানে উল্লেখ্য যে, এ ভাবে গ্রামের বিভিন্ন স্তরের নেতাদের সাথে সাক্ষাৎ করা শুধু সান্তালী সম্প্রদায়ের জন্যই নয় বরং প্রতিবেদনে উল্লেখিত অন্যান্য প্রত্যেক দলের জন্যও গুরুত্বপূর্ণ ।

অবশ্যই আগ্রহ ও সাহায্যের সাথে সাথে বস্তুগত সম্পদেরও দরকার রয়েছে। সৌভাগ্যের ব্যাপার যে, মাতৃভাষার ক্লাশ ও অন্যান্য বিভিন্ন ধরনের প্রশিক্ষণ কর্মশালা চালানোর জন্যে প্রয়োজনীয় জায়গার মত একটি প্রয়োজনীয় সম্পদ তাদের কাছে অনেক পরিমাণে রয়েছে কারণ, অনেক সান্তালী গ্রামেই কমপক্ষে একটি গির্জাঘর রয়েছে। কাঠামোগত সম্ভবতঃ সবচেয়ে বড় প্রয়োজন পূরণ হওয়ার পর সান্তালদের উৎসাহিত হওয়া উচিৎ কারণ মাতৃভাষা শিক্ষা ও মাতৃভাষায় সাহিত্য চর্চার জন্যে ভাষা উন্নয়ন কর্মসূচী এখন বাস্তবিকই গ্রহন করা সম্ভব।

অবশেষে, যারা অনেক দিন থেকে সান্তালদের মধ্যে কাজ করছেন এবং স্থানীয় অবস্থা সম্পর্কে ভালভাবে জ্ঞাত আছেন তাদের সহযোগীতা ও সহভাগীতার মাধ্যমে ভাষা উন্নয়ন কর্মসূচী পরিচালনা করা উচিত। বিশেষভাবে, ক্যাথলিক মন্ডলী এবং ইঘউখঈ--এর কাছে সান্তালদের জন্যে অনেক প্রকার শিক্ষার উপকরণ এবং কর্মসূচী রয়েছে, এবং এই উৎস উপেক্ষা করা উচিৎ নয়।

৬.২ মাহালী

মাহালী ও সান্তালীদের মধ্যে অনেক আভিধানিক মিল, মাহালীদের অসাধারণ সান্তালী বোঝার ক্ষমতা, তাদের সান্তালীর প্রতি খুবই ইতিবাচক মনোভাব, সান্তালীদের কাছাকাছি তাদের অবস্থান এবং একই প্রকার ধর্মীয় জীবন যাপনের কারণে আমরা মাহালীদের জন্যে উপরে বর্ণিত সান্তালী ভাষা উন্নয়ন কর্মসূচীতে অংশ গ্রহনের পরামর্শ দিচ্ছি। সকল দিক নির্দেশনাই একটি কার্যকরী এবং প্রয়োজনীয় কর্মসূচীর দিকে ইন্সিত করে যার মাধ্যমে ভাষার একটি অপেক্ষাকৃত কম উন্নত ও কম স্বীকৃত প্রকার (যেমন মাহালী) একটি দক্ষ ও আরো বেশী উন্নত এবং বেশী ব্যবহৃত প্রকার (যেমন সান্তালী) স্বীকৃতি লাভ করবে। মাহালী সম্প্রদায় প্রায় নিজেদের ভাষার মত এ ভাষায় লিখতে ও পড়তে শিখার মাধ্যমে লাভবান হবে এবং রোমান অক্ষর ব্যবহারে পারদর্শী হবে; উদাহরণ স্বরূপ: এর মাধ্যমে তারা ধর্মীয় রচনাবলী আরো ভাল ভাবে বুঝতে পারবে এবং তাদের আত্নিক জীবন বিকশিত হবে।

ভাষার এক প্রকারের উপর অন্যটার প্রাধান্য দিয়ে উন্নয়ন কর্মসূচী গ্রহণ করলে সবসময় কিছুটা ক্ষতির সম্ভাবনা রয়েছে, কিন্তু আমরা আশ্বস্ত হতে পেরেছি যে অনেক মাহালী লোকেরাই এ ধরনের পন্থা বেঁছে নিয়েছে। এক্ষেত্রে পাচন্দরের মাহালী লোকদের কথা বিশেষভাবে উল্লেখ্য, সেখানে অনেকেই মাহালী গল্পের চেয়ে সান্তালী গল্প আরো সহজে বুঝতে পেরেছে এবং অনেক ক্ষেত্রেই তারা সান্তালী ও মাহালী শব্দকে পৃথক করে বলতে সক্ষম হয়নি। সান্তালীর প্রতি তাদের বর্তমান ইতিবাচক ধারনা এবং সান্তালদের সাথে তাদের ঘনিষ্ঠ পরিচয়ের প্রেক্ষিতে আমাদের মনে হয় যদি তারা নিজেরা শিক্ষা এবং পঠনের নিমিত্তে সাহিত্য রচনা করে তবে তা তাদের জন্যে অপকার বয়ে আনতে পারে কারণ এর ফলে তারা সান্তালী সম্প্রদায় থেকে একটি বড় রকমের দূরত্বে পড়বে এবং এ ধরনের কর্মসূচীতে তাদের সাম্প্রদায়ের সম্পদের উপরও যথেষ্ট চাপ বাড়বে।

৬.৩ মুন্ডারী

যাদিও মুভারা মাহালীদের সাথে গোষ্ঠিগত-ভাষাতত্ত্বীয় মিল প্রদর্শন করে তবুও, আমরা মুভারী সম্প্রদায়ের মাঝ থেকে মাতৃভাষা শিক্ষার ক্লাশ ও সাহিত্যের বিকাশে একটি ভাষা উন্নয়ন কর্মসূচীর পরামর্শ দেই যা সান্ত । লী না বরং মুভারীতে হবে। এক্ষেত্রে প্রধান কারণ হচ্ছে মুভারী ও সান্তলীর মাঝে উল্লেখযোগ্য ভাবে স্বল্প আভিধানিক মিল রয়েছে। যদিও মুভারা সান্তালী ভাষা মাহালীদের সমানই বুঝতে পারে বলে মনে হয় কিন্তু এ বোঝার ক্ষমতা তাদের অর্জিত ক্ষমতা যা এমনি এমনি মুভারী ভাষা জানার কারণে পাওয়া সম্ভব

নয়। তাই যদি মুভারী শিশুরা সান্তালী ক্লাশে যায় তবে তাদের দ্বিতীয় আরেকটি ভাষা শিখতে হবে, আর এতে যারা প্রথমবারের মত পড়তে শিখছে তাদের জন্যে একটি বড় সমস্যার সৃষ্টি করবে। এক্ষেত্রে একটি ভাল উপায় হচ্ছে তারা যদি যে ভাষা জানে সে ভাষায় পাঠ গ্রহন করে, আর তা হচ্ছে মুভারী।

মুভারী ভাষা উন্নয়ন কর্মসূচী মুভাদের জন্য আরো বেশী উপযোগী হবে এ কারণে যে তাদের মতে বাংলা-বর্ণমালা লিখার জন্যে বেশী উপযোগী, পরক্ত সান্তালীরা এক্ষেত্রে রোমান অক্ষরের ব্যবহার সমার্থন করে। আর যেহেতু মুভারী ভাষায় বাংলা-বর্ণমালা দিয়ে খুব কম লেখা হয়েছে তাই প্রাথমিক কিছু কাজ সম্পন্ন করতে হবে যাতে মুভারী সম্প্রদায়ের মধ্যে সর্বসম্মতভাবে বানান করার রীতি-নীতি স্থাপন করা যায়। ঝওখ ইধহমষধফবংয এই গুরুত্বপূর্ণ কাজে বানান বিশেষজ্ঞদের নিয়োগ করতে পারবে যারা প্রয়োগিক সাহায্য প্রদান করতে পারে, আর মুভারী সম্প্রদায়ের শিক্ষিত লোকদের কাছ থেকে তথ্য সংগ্রহ করতে পারবে যারা স্বজাতীয় মনোভাব সম্পর্কে অবগত হওয়ার কারণে জানাতে পারবে কিভাবে তাদের মাতৃভাষা উচ্চারণ করা উচিৎ এবং কিভাবে এ শব্দগুলো চিহ্নের মাধ্যমে লেখা যাবে। এছাড়া ভারতের মুভাদের কাছ থেকেও গঠনমূলক অভিজ্ঞতা পাওয়া যাবে যারা হিন্দী অক্ষর ব্যবহার করে মুভারী ভাষায় লিখে আসছেন।

অবশেষে, যদি মুভারী ভাষার উন্নয়ন কর্মসূচী হাতে নেয়া হয় তবে তার পূর্বে সাতক্ষীরার মুভা নামক জনগোষ্ঠীর মধ্যে কিছুটা জরিপ করে নিলে ভাল হবে। যদিও মনে হয় যে, তারা রাজশাহীর মুভাদের মত একইভাবে কথা বলেনা--আর সেখানের (রাজশাহীর) কেউ রাজশাহী ও সিলেট জেলার বাইরে কোন মুভা আছে বলে যানে না-- এমন কি সংক্ষিপ্ত একটি ভ্রমনের মাধ্যমেও আমরা জানতে পারবো যে তারা রাজশাহীতে রচিত মুভারী সাহিত্য বুঝতে সক্ষম কিনা। আমরা দুঃখের সাথে জানাচ্ছি যে এ জরিপ চলাকালে সময় ও সুযোগের স্বল্পতার কারণে তাদের এলাকায় যাওয়া সম্ভব হয়নি।

৬.৪ কোডা

কোডাদের জন্য আমাদের কাছে খুবই সহজ সুপারিশ রয়েছে: কোডা ছেলেমেয়েদের বাংলা মাধ্যমের বিদ্যালয়ে যেতে উৎসাহীত করুন, তা সরকারী স্কুলই হোক বা বেসরকারী স্কুলই হোক (যেমন ব্র্যাক)। এটাই হচ্ছে তাদের আকাংক্ষিত প্রয়োজন: যেন তারা বাংলায় আরো বেশী শিক্ষিত হতে পারে; তা পূরণের সবচেয়ে ভাল পস্থা আর তাদের মতে এটিই হচ্ছে সবচেয়ে গুরুত্বপূর্ণ ভাষা। কোডাদের বাংলায় পারদর্শীতা দৈনন্দিন জীবনে ব্যবহারের জন্য যথেষ্ট, কিন্তু তারা যদি অর্থনৈতিক ভাবে অগ্রসর হতে চায় তবে তাদের মধ্যে আরো বেশী সংখ্যায় লোকদের পর্যাপ্ত শিক্ষার প্রয়োজন যাতে তারা শুধু মাত্র দিনমজুরী ছাড়া অন্যান্য চাকুরীও পেতে পারে।

যদিও এধরনের পরামর্শে কোডার স্থায়ীত্ব দুর্বল হতে পারে কিন্তু কোডারাই তাদের মাতৃভাষা হারিয়ে যাবার ব্যাপারে খুব বেশী চিন্তিত নয়। বস্তুতঃ তারা বাংলাকে তাদের ভবিষ্যত (এবং সম্ভবতঃ তাদের টিকে থাকার জন্যে) ভাষা হিসেবে মনে করে। এমন পরিস্থিতিতে, মাতৃভাষা উন্নয়ন কর্মসূচীর সফলতার সম্ভবনা ক্ষীণ।

৬.৫ কোল

কোলরা তাদের মাতৃভাষা শিক্ষা ক্লাশের ব্যাপারে আগ্রহী। কিন্তু, দুটি কারণে আমরা তাৎক্ষনিকভাবে এ জাতীয় কর্মসূচী গ্রহন করতে অনিশ্চিত। প্রথমতঃ মনে হয় তারা নিজেদের মাতৃভাষা সম্পর্কে বেশ অসচেতন তাই আমরা সন্দেহ করছি যে তারা আদৌ মাতৃভাষা শিক্ষা ক্লাশের অর্থ বুঝতে পেরেছে কিনা। সেহেতু, আরো আলাপ ও আলোচনা করা দরকার --সম্ভব হলে অপর একটি কোল গ্রামের সদস্যের সাথে--যাতে মাতৃভাষা উন্নয়নের প্রয়োজনীয়তা এবং ফলাফল পরিস্কারভাবে ব্যক্ত হয়।

দ্বিতীয়তঃ আমরা বেশ কয়েকবার কথপোকথনের মাধ্যমে বুঝতে পারলাম যে কোলের জন্য মাতৃভাষা শিক্ষা ক্লাস অন্য যেকোন শিক্ষার ক্লাশের চেয়ে বেশী আকর্ষণীয় হবে না। তারা নিশ্চই জানে যে তাদের শিক্ষার সুযোগের অভাব রয়েছে--বাবুডাইং থেকে নিকটবর্ত্তী স্কুল কমপক্ষে ৪-৫ কিলোমিটার দুরে অবস্থিত--এবং তাই যখন মাতৃভাষা শিক্ষা ক্লাশ চালু করার সম্ভাবনার ব্যাপারে জিজ্ঞাসা করা হল তখন তারা আমাদের অবাক না করে দিয়ে ইতিবাচক উত্তর দিয়েছে। একই কারণে সম্ভবতঃ অধিকাংশ কোল লোকেরা তাদের ছেলেমেয়েদেরকে এমনকি সান্তালী ক্লাসেও পাঠাতে চেয়েছে যদিও সান্তালীর সাথে কোলের তুলনামূলকভাবে কমই আভিধানিক মিল রয়েছে।

সম্ভবত বাংলা কোল সম্প্রদায়ের জন্যে বেশী ফলদায়ক ভূমিকা পালন করবে, কারণ কোডার ক্ষেত্রের মত, তাদেরও মাতৃভাষাকে লিখিত রূপে বিবেচনা করার কোন ধারনা বা লিখিত রচনা ছিলনা । কিন্তু তবুও আমরা মনে করি যে কোন কর্মসূচীর কথা বিবেচনা করার আগে আরো নেতৃবৃন্দ এবং অন্যান্য সম্প্রদায়েদের সাথে আলোচনা করা উচিৎ।

শেষ কিছু মন্তব্য:

এটা অবশ্যই জোর দিয়ে বলা দরকার যে, সম্প্রদায়ের নেতৃবৃন্দের সমঝোতা, বিবেচনা এবং সহযোগীতা ছাড়া আমাদের একটি পরামর্শও অর্থবহ নয়। আরো বলা যায় যে, দুটি কারণে আমাদের পরামর্শগুলোই শেষ কথা নয়।

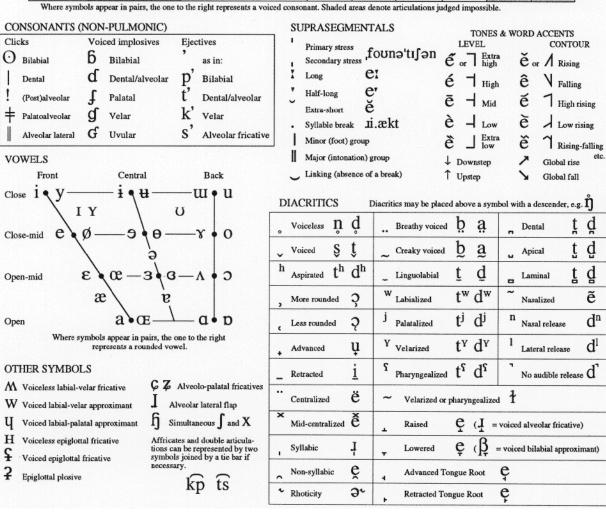
প্রথমত, ভাষাকর্মী ও সম্প্রদায়গুলোর নিজেদের চিন্তা করতে থাকায় যথেষ্ট গুরুত্ব রয়েছে। অভ্যন্তরীণ এবং বাহ্যিক উভয় কারণে ভাষাতান্তিক অবস্থা পরিবর্ত্তিত হতে পারে এবং হয়েও থাকে। এই জরিপ সম্প্রদায়গুলোর একটি বর্তমান চিত্র প্রকাশ করে; যদিও এটা আমাদের অনুভূত বর্তমান অবস্থা এবং সম্ভাব্য চলতি রীতি-নীতির উপর নিরীক্ষণ এবং পরামর্শ দিতে পারে তবুও এটা ঐ সম্প্রদায়গুলোর নিয়তি বা তাদের সম্পূর্ণ বাস্তবতা প্রকাশ করে না বা করতে পারে না।

দিতীয়ত, আমরা এ সুপারিশগুলোকে ভবিষ্যত আলাপ-আলোচনার সূচনা হিসেবে দেখতে চাই যার মাধ্যমে এই পাঁচ সম্প্রদায়ের লোকগুলো তাদের ভাষার উন্নয়নের যৌক্তিকতা খুঁজে পাবে। বস্তুতঃ মাতৃ ভাষা উন্নয়ন কার্যের লক্ষ্যই হচ্ছে আগামীতে আরো আলাপ-আলোচনার বিষয়বস্তু নির্ধারণ করা যা সকল আদিবাসী ভাষার জন্য প্রয়োজনীয়। এখানে, এটা যদিও আমাদের মূল পরামর্শ নয় কিন্তু যদি তাদের ইচ্ছা থাকে--এবং পাশাপাশি একাজে অংশ গ্রহনের সংকল্পও থাকে--তাহলে মাহালী, কোডা, এবং কোল সম্প্রদায়ের জন্যও মাতৃভাষা উন্নয়নের পথ নির্ধারনে ফলদায়ক হবে। এটা শুধু তাদের মাতৃভাষা সংরক্ষণের সবচেয়ে সহজ পন্থাই নয় বরং এর দ্বারা তাদের ছেলেমেয়েদেরকে অন্য কোন ভাষায় সফলতার সাথে শিক্ষা গ্রহণ উপযোগী করে তোলার মত বাড়তি সুবিধাও পাওয়া সম্ভব।

ভাষার উন্নয়ন কর্মসূচী অন্যান্য কর্মসূচীর মত নয় যে এর পিছনে বরাদ্দ শ্রমের ফল শীঘ্রই কাঠামোগত বা আয়ের মত দ্রুত বৃদ্ধির মাধ্যমে প্রতক্ষ করা সম্ভব। এর জন্যে রয়েছে দীর্ঘমেয়াদী মানবিক ও অর্থনৈতিক সম্পদ ব্যবহারের অঙ্গীকার ব্যক্ত করার প্রয়োজনীতা; আর এটাকে হালকাভাবে গ্রহণ করার মত কোন ব্যাপারও নয়। কিন্তু এ জাতীয় দায়বদ্ধতা ও শ্রমের ফলাফল আরো বেশী সুখকর হতে পারে কারণ এর মাধ্যমে সম্প্রদায়কে তার গভীরতম স্তরে স্পর্শ করা যায়--স্পর্শ করা যায় তাদের ইতিহাসকে, পরিচয়কে ও সংস্কৃতিকে--আর তাছাড়া এর মাধ্যমে একটি দীর্ঘ স্থায়ী প্রভাবও পড়বে যা এমন কি ভবিষ্যতের বংশধরদের মাঝেও স্বীকৃতি লাভ করবে।

A. INTERNATIONAL PHONETIC ALPHABET (revised 1993)

| | Bilabi | ial | Labio | dental | Det | ntal | Alve | olar | Postal | veolar | Retr | oflex | Pala | tal | Ve | lar | Uvu | ılar | Phar | yngeal | Glo | ottal |
|------------------------|--------|-----|-------|--------|-----|------|------|------|--------|--------|------|-------|------|-----|----|-----|-----|------|------|--------|-----|-------|
| Plosive | p | b | | | | | t | d | | | t | d | c | f | k | g | q | G | | | ? | |
| Nasal | | m | | m | | | | n | | | | η | | ŋ | | ŋ | | N | | | | |
| Trill | | В | | | | | | r | | | | | | | | | | R | | | | |
| Гар or Flap | | | | | | | | ſ | | | | τ | | | | | | | | | | |
| Fricative | ф | β | f | v | θ | ð | s | Z | l | 3 | ş | Z, | ç | j | X | Y | χ | R | ħ | r | h | f |
| Lateral fricative | | | | | | | 1 | ß | | | | | | | | | | | | | | |
| Approximant | | | | υ | | | | I | | | | Ł | | j | | щ | | | | | | |
| Lateral approximant | | | | | | | | 1 | | | | 1 | | λ | | L | | | | | | |



B. WORD LISTS

B.1. Standard procedures for counting lexical similarity

A standard list of 307 vocabulary items was collected from speakers at geographically representative Santali cluster villages in Bangladesh. This list is presented in Appendix B.3. A phonetic chart presenting the transcription conventions used in this report is given in Appendix A.

In standard procedure for lexical similarity comparison (Blair 1990:26–33), the 307 words are elicited from a person who has grown up in the target locality. The list is then checked with a second speaker (unless the word list is elicited from a group of people). Any differences in responses are examined in order to identify (1) incorrect 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 which are simply at different places along the generic-specific lexical scale. Normally, a single term is recorded for each item of the word list. 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 word list.

The word lists are compared to determine the extent to which the vocabulary of each pair of speech forms is similar. No attempt is made to identify genuine cognates based on a network of sound correspondences. Rather, two items 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

- a. Contoid (consonant-like) segments which match exactly
- b. Vocoid (vowel-like) segments which match exactly or differ by only one articulatory feature
- c. Phonetically similar segments (often are found as allophones) which are seen to correspond in at least three pairs of words

Category 2

All other phonetically similar pairs of segments which are not, however, supported by at least three pairs of words

Category 3

- a. Pairs of segments which are not phonetically similar
- b. A segment which is matched by no segment in the corresponding item

After pairs of items on two word lists had been determined to be phonetically similar or not, according to the criteria stated above, the percentage of items judged similar was calculated. The procedure was repeated for each pair of language varieties. The pair by pair counting procedure was greatly facilitated by the use of *WordSurv*[©], a computer program written by SIL for this purpose.

Occasionally, one or more of the standard 307 lexical items were found to be so problematic that consistent elicitation was impossible or evaluation of similarity became anomalous. In those few cases the problematic lexical items were excluded from the lexical similarity counts.

The word list data and transcribed texts as included in the subsequent appendices are field transcriptions and have not undergone thorough phonological and grammatical analysis.

B.2. Word list notes

A few other comments about word list procedures are in order for this survey. Where there are no elicitations for a given entry, that means that the word was not used for two main reasons: 1) the word was judged to be confusing or imprecise to several of the informants, or 2) the word consistently elicited non-Bangla borrowed words.

Each elicitation is preceded by a number. For each gloss all elicitations which have the same preceding number are considered to be phonetically similar and are grouped together. Following each elicitation is a list of one or more letters/number in brackets. These letters/number represent the word list site of that particular elicitation. The codes for these word list sites are as follows:

| Code: | Word list site: |
|-------|-------------------------|
| a | Rajarampur (Santali) |
| b | Rautnagar (Santali) |
| c | Nijpara (Mundari) |
| d | Paharpur (Santali) |
| e | Abirpara (Mahali) |
| g | Matindor (Mahali) |
| h | Patichora (Santali) |
| i | Jabri (Santali) |
| j | Begunbari (Mundari) |
| k | Pachondor (Mahali) |
| 1 | Kundang (Koda) |
| m | Babudaing (Kol) |
| n | Krishnupur (Koda) |
| 0 | Bodobelghoria (Santali) |
| p | Karimpur (Mundari) |
| q | Rashidpur (Santali) |
| E | Chalagi (Mundari) |
| M | Jharmunda (Mundari) |
| 0 | Bangla |

If a word list site is not listed for a given word, this is because there was no entry for that particular word at that site.

B.3. Word list

badri

 $m\epsilon g^h$

3

[m]

[0]

6 rain 1 sky 1 da.a? [cjn] rimbil [ln] da? 1 [abdeghiklmoq] rimīl 1 [p] 1 da?a [p] 2 ∫erma [g] 1 da?a? [EM] 2 ∫irma [j] 2 brīsti [0] 2 sirima [c] 2 serma [abdehikmoq] 7 rainbow 2 sirma [EM] 1 $ramd^{h}anu$ [cp] 3 aka∫ [0] 1 $ramd^hanuk$ [el] rondhanuk 1 [k] 2 sun roŋdʰonu 1 [00] ∫iŋgi [jnp] 2 $ramlok^hon$ [i] 1 siŋgi [Ec] ramlokhon a [aq] 2 1 siņki [M] 2 t∫ando [bdehikmq] 2 ramlokhon a? [bdh] 2 t∫andu [aglo] 3 romgunt^ha [m] 3 ∫uıd30 [0] 4 luhurbiŋ [M] 4 rurbin [j] 3 moon 5 a? [g] t∫antu [M] bandasike [E] 1 tSantuu? [E] 1 t∫ando [dehikmq] 8 wind 1 t∫andu [abcgjlop] hoj [abdehikmoq] 1 1 t∫andup [n] 1 hojo [j] t[0] 1 hoj [g] 1 hojo [EMcp] 4 star 2 hawa [ln] ipil [EMabcdeghijklmnopq] 1 3 bata∫ [0] 2 [0] tara 9 lightning 5 cloud bidʒili [Mp] rimīl [0] 1 bid_3li [abcdeghiklmnoq] 1 rimbil [Eln] 2 biddut tsomkano [0] 1 rimīl [abcdeghijkpq] 3 hit∫ir [E] 1 rimil [M] 2

10 thunder 14 river 1 rimīl Sadi ſj] gaŋŋa [m] 1 rimīl sadi [cdp] 1 gaŋni [ln] 2 1 rimīl ∫adε [q] gada [E] 2 hudur [abdeghiko] 2 gada [abdghik] 3 2 gardzok [m] gara [e] 3 goldgon [0] 3 $n\alpha^{i}$ [M] 4 here ϵ te [1] 3 naj [cj] t^h ere e te [n]4 nodi [0q] 5 nala [p] 11 sea 15 soil/ground 1 [adeho] gaŋga 1 gaŋni [1] 1 has [m] 2 ∫amudar 1 ha∫a [dehjkq] [j] 1 hasa 2 **Samudro** [p] [abcgilnop] 2 2 \cappa bumc ? [0gm] maţi [0] 2 samudar [c] 3 dzarapuri [k] **16** mud 4 ∫agor [in] lo∫ot [d] 5 dʒala moj [bd] 1]c?cl [j] 6 nodi [q] 1 loso [M] 1 [abcegijlmopq] losot 12 mountain 1 losot [E] 1 buru [abcdeghijkmo] 1 losot [h] 2 2 pahar [0ln] kada [0] 3 t onan [p] bir [q] 17 dust d^hula 1 [0] 13 water d^hura 1 [m]1 da.a? [cjn] d^h uri 1 [abcdeghijklnop] da? 1 [abdeghiklmoq] 2 gitil [q] 1 da?a [p] 3 ďαuďa [E] 1 da?a? [EM] gunda [M] 2 pani [0] 18 stone d^h iri 1 [abdeghiklmnopq] 1 diri [EMcj] 2 pat^hor [0]

| 19 | sand | | | 25 week | | |
|----|--------|--------------------|-------------------|-------------|---------------------|----------------|
| | 1 | gitɪl | [abcdeghijklmnoq] | 1 | hepţa | [M] |
| | 1 | giţil | [EM] | 1 | hapta | [abcdhijko] |
| | 2 | bali | [0] | 1 | ∫opta | [0eglmnq] |
| | 3 | d^{h} uri | [p] | 1 | sapta | [p] |
| | | | | 2 | eta ^u ri | [E] |
| 20 | gold | | | | | |
| | 1 | ∫ona | [0deghijk] | 26 month | | |
| | 1 | sonα | [EM] | 1 | boŋga | [ln] |
| | 1 | sona | [abclmnopq] | 2 | mebina | [M] |
| | | | | 2 | mahima | [h] |
| 21 | silver | | | 2 | mahina | [jp] |
| | 1 | rupi | [abdhilno] | 3 | t∫ando | [dik] |
| | 1 | rupa | [0cegjkmpq] | 3 | | [abcgoq] |
| | | | | 4 | mas [0 | Dem] |
| 22 | today | | | 5 | mi₫t∫ar | լվu?u [E] |
| | 1 | tihīn | [abdghiklmnoq] | | | |
| | 1 | tihiŋ | [e] | 27 year | | |
| | 1 | ţisiŋ | [E] | 1 | bat \S^h or | [j] |
| | 2 | i∫iŋ | [j] | 1 | bot \int hor | |
| | 2 | isıŋ | [cp] | [0acdeghikl | mnopq] | |
| | 2 | isiŋ | [M] | 2 | serma | [b] |
| | 2 | ţisiŋ | [E] | 2 | sirma | [E] |
| | 3 | adʒ | [0] | 3 | peras | [M] |
| 23 | yester | day | | 28 day | | |
| | 1 | hɔlα | [M] | 1 | ∫iŋ [I | n] |
| | 1 | hola | [abdeklmnoq] | 2 | din [0 | Oabcdeghijkmo] |
| | 1 | holα | [E] | 3 | ∫iŋgi | [p] |
| | 1 | hola | [cghij] | 3 | siŋgi | [E] |
| | 2 | gotoka | al / kalke [0] | 3 | siŋki | [M] |
| | 3 | honder | r [p] | | | |
| | | | | 29 morni | ng | |
| 24 | tomor | row | | 1 | ∫εta? | [eghjkn] |
| | 1 | agamil | kal [0] | 1 | seta? | [abcdilmopq] |
| | 1 | gapa | [M] | 2 | ∫okal | [0] |
| | 1 | gappa | [E] | 3 | sața?a | [E] |
| | 1 | gapa | [abcdeghijklmnoq] | 3 | seta? | [abcdilmopq] |
| | 2 | hola | [p] | 3 | siţaa? | [M] |

| 30 | noon | | 35 | cooked | l rice | | |
|-----------|--------|------------------------------|-----------|----------|---------------------|--------|-------------|
| | 1 | dupahar [m] | | 1 | mandi | [cjl | np] |
| | 2 | tikɪn [abcdeghijklno] | | 2 | daka | [abd | eghikmoq] |
| | 2 | ţikin [EM] | | 3 | b ^h at | [0] | |
| | 3 | dupur [0] | | | | | |
| | 4 | baro [p] | 36 | wheat | | | |
| | | | | 1 | gohom | [Ec | jklnp] |
| 31 | evenin | g | | 1 | gohomo | _ [M | 1] |
| | 1 | ijup [abdeghiq] | | 1 | guhum | [ab | dehio] |
| | 1 | ajup [ckmop] | | 2 | gom | [0gmd | a] |
| | 2 | mida [n] | | | | | |
| | 3 | ∫ondʰajna [I] | 37 | corn | | | |
| | 4 | <pre>ſiŋgi dubui̯t [j]</pre> | | 1 | kolaw | [1] | |
| | 5 | ∫ondʰa [0] | | 2 | dзonea | ar [| p] |
| | 6 | tarsin [E] | | 2 | dzoneł | nar | [cj] |
| | 6 | tarasiŋki [M] | | 3 | dzondī | a [| adehikmno] |
| | | | | 3 | dzonra | a [b | g] |
| 32 | night | | | 4 | b^hutta | [00 | 7] |
| | 1 | nida [n] | | | | | |
| | 1 | nide [E] | 38 | potato | | | |
| | 1 | nindi [abdghikmoq] | | 1 | ilu | [abcd | eghijmo] |
| | 1 | ninda [e] | | 1 | αlu | [EM] | |
| | 2 | nidajna [l] | | 1 | alu | [0klnp | pq] |
| | 3 | ejub [M] | | | | | |
| | 3 | ajup [cjp] | 39 | caulifle | ower | | |
| | 4 | rat [0] | | 1 | bahaka | bi | [EM] |
| | | | | 1 | bahako | bi | [p] |
| 33 | paddy | | | 1 | bahako | pi | [k] |
| | 1 | horo [m] | | 1 | bahakı | ıbi | [abcdehioq] |
| | 1 | horo [abq] | | 1 | bahakı | ıpi | [j] |
| | 1 | horo [i] | | 2 | p ^h ulko | pi | [0glmn] |
| | 1 | horu [h] | | | | | |
| | 1 | huru [deglno] | 40 | cabbag | ge | | |
| | 2 | baba [cjp] | | 1 | poton | kobi | [M] |
| | 3 | d ^h an [0] | | 1 | poțoŋ | kobi | [E] |
| | | | | 1 | potom | kobi | [p] |
| 34 | uncool | ked rice | | 1 | potom | | [abcdhikoq] |
| | 1 | t∫α ^u li [M] | | 1 | potom | Kupi | [j] |
| | 1 | tsavuli [E] | | 2 | bad ^h ak | opi | [0] |
| | 1 | t∫awlε [abdegikmoq] | | 2 | bad ^h ak | upi | [glmn] |
| | 1 | tsawli [chjlnp] | | 3 | sakamk | kubi | [e] |
| | 2 | tsal [0] | | | | | |

41 eggplant

- 1 bagun [e]
 1 bajg∧n [m]
 1 bεgun [0]
- 2 toko [cjp]
- 3 bengada [E]
- 3 bεηgar [abdghiklnoq]

42 peanut

1 badam [Oabcdeghijklmnopq]

43 tree

- 1 darε [abdegkmoq]
- 1 dari [hi]
- 1 daru [cjlnp]
- 1 daru [EM]
- 2 gat [0]

44 branch

- 1 dir [abdghikoq]
- 1 daer [In]
- 1 dar [e]
- 2 dir [abdghikoq]
- $2 \quad d^h ir \quad [m]$
- 3 daεr [In]
- 3 dal [0]
- 3 dar [e]
- 4 koto [cj]
- 5 daεr [In]
- 5 dar [e]
- 5 daεr [p]

45 leaf

- 1 patari [In]
- 2 Sakam [egh]
- 2 sekam [EM]
- 2 sakam [abcdikmopq]
- 3 pata [0]

46 thorn

- 1 dʒinum [bg]
 1 dʒanum [E]
- 1 dgenum [M]
- 1 dʒanum [cejklmnp]
- 1 dgenum [adhioq]
- 2 kata [0]

47 root

- 1 dʒar [m]
- 2 pata [In]
- 3 re? [E]
- 3 rεt [p]
- 4 mul [0]
- 5 re?he? [M]
- 5 rεhεt [abcdeghijkoq]

48 bamboo

- 1 mat [abcdegklmnopq]
- 1 mat [hi]
- 1 mãt [j]
- 2 bã; [0]

49 fruit

- 1 d30 [EM]
- 1 dൂാ [abcdeghijkmopq]
- $2 p^h \text{ol} [0ln]$

50 jackfruit

- 1 kant har [abcdghijklnopq]
- 1 kat lal [0em]

51 coconut (ripe)

- 1 nirkol [ad]
- 1 nirkor [bo]
- 1 nirkol [h]
- 1 nirkor [i]
- 1 narkol [jq]
- 1 narikel [Ocglmnp]
- 1 narkel [k]
- 1 nirkol [e]

52 banana 58 lime for betelnut 1 kεra [ln] t∫un [0abdeghiklmnoq] 1 kɔla 1 [cjp] [0cjpq] t. Suna 2 kajra [abdeghikmo] 2 kεra [ln] 59 liquor 3 kade] [M] hindi / piuri [abdghikoq] 3 kede l [E] handi [j] 2 hindi / piuri [abdghikoq] 53 mango 2 pauri [m] 1 uli [EMcjp] 2 piura [e] 2 υl [abdeghiklmnoq] 3 ark^hi 3 [cjlnp] am[0] bcm [0] 54 flower 60 milk 1 pha [EM] toa [abcdehijklmnopq] 1 baha [abcdeghijklmnopq] 1 1 tua [g] 2 p^hul [0] 1 towa [EM] 2 dud^h [0] 55 seed 1 bidzon [1] **61** oil bit, Shon 1 [m] 1 [ehjkln] ∫unum 1 bit∫on [n] [EMabcdgimopq] 1 sunum 2 bid3 [0] 2 tεl [0] 3 hita [j] 3 iti [abdghiko] 62 meat 3 ita [e] d,zel [ek] 4 dzaŋ [cijpq] 1 d_3Il [abdghimoq] 1 dʒilu [Eln] 56 sugarcane 2 mas [Mcj] kosear 1 [cj] 2 mas [p] 1 koser [ln] 3 manso [0] 1 kusir [g] 2 kotari [em] 63 salt 3 ik^h [abdhiko] 1 buluŋ [abcdeghijklmnopq] 4 ak^h [p0] 1 bulun [EM] kujjar [p] 2 lobon / nun [0] 57 betelnut 64 onion [0egjklmn] 1 ∫upari pɛ̃adʒ [Oabcdeghijklmnopq] 1 1 sopari [c] 1 piad3 [M] 2 gui [abdhioq] piadzu [E]

2

gua

[p]

| | | | | | 1 | horin | [0egklm | nn] |
|-----------|--------|------------------------|-----------|-----|---------|----------------------|-----------------|---------|
| | | | | | 2 | dzil | [abdhio] | |
| | | | | | 3 | dʒil m | εrom [c | 1] |
| 65 | garlic | | | 71 | monke | v | | |
| 00 | 1 | rijun [h | 1] | | 1 | bindri | [g] | |
| | 1 | risun [b | | | 1 | bandra | [cjlmn | pq] |
| | 1 | | EM] | | 1 | bandri | [e] | |
| | 1 | rajun [e | · !] | | 1 | bʌndɾi | [k] | |
| | 1 | ra§uni [| [ln] | | 2 | gĩŗi | [adhio] | |
| | 1 | rasun [ir | m] | | 2 | gadi | [E] | |
| | 1 | rosun [0 | lk] | | 3 | banor | [0] | |
| | 1 | rosun [a | idgoq] | | 4 | sera | [M] | |
| | 2 | rasuni [| [EM] | | | | | |
| | 2 | ra∫ori [| j] | 72 | rabbit | | | |
| | 2 | ra∫uni [| [ln] | | 1 | p^h atua | [ln] | |
| | 2 | rasori [| [c] | | 2 | kulij | [abdghi | oq] |
| | 2 | rasuri [| [p] | | 2 | kulaj | [km] | |
| | | | | | 2 | kulej | [e] | |
| 66 | red pe | pper | | | 2 | kulhaj | [cjp] | |
| | 1 | | [boq] | | 3 | k ^h orgo[| [0] | |
| | 1 | morit; [| [0adgi] | | | | | |
| | 1 | marits [| [h] | 73 | snake | | | |
| | 2 | mart∫ε [| [ekm] | 75 | 1 | bin [| abcdijklm | noa1 |
| | 2 | martʃi [| [cjlnp] | | 1 | | EMeghp] | 9] |
| | | | | | 2 | | 0] | |
| 67 | elepha | nt | | | | J 1 L | | |
| | 1 | | odklmo] | 74 | crocod | ile | | |
| | 1 | hat ^h i [n] | 1 | 7-4 | 1 | tajan | [abdghi | ko1 |
| | 1 | | eghijpq] | | 1 | tajεn | [ln] | |
| | | | | | 2 | tajnu | [m] | |
| 68 | tiger | | | | 3 | bot∫a | | |
| ••• | 1 | tirup [a | bdghikoq] | | 4 | kumb ^h ε1 | | |
| | 1 | tarup [e | | | 4 | kumb ^h ir | | |
| | 2 | kula [cjl | np] | | 4 | kumir | [p0] | |
| | 3 | bag ^h [0] | | | - | Kulli | [oq] | |
| | | | | 75 | house l | lizard | | |
| 69 | bear | | | | 1 | tiktik | i [0egk | dmopq] |
| | 1 | bana [ab | deghikmo] | | 1 | tıktık: | ia [cj] | |
| | 2 | baluk [p |)] | | 2 | tserts: | εrtii̯t | [b] |
| | 2 | b ^h aluk [(| Ocjlnq] | | 2 | t[srt] | εrte <u>i</u> t | [adhio] |
| 70 | deer | | | | | | | |
| . 0 | 1 | harın [c | j] | | | | | |
| | 1 | harin [p | | | | | | |

| 76 | turtle | : | 81 | buffal | 0 |
|-----------|----------|----------------------------------|----|--------|--------------------------|
| | 1 | horo [abdopq] | | 1 | kada [abdhikmo] |
| | 1 | horo [hi] | | 1 | kad ^h a [n] |
| | 2 | katShin [ekln] | | 1 | kara [eg] |
| | 3 | dura [cgjm] | | 1 | kεda [cjl] |
| | 4 | kott[hop [0] | | 1 | kεdα [M] |
| | | | | 1 | kedα [E] |
| 77 | frog | | | 2 | mohis [0] |
| ,, | nog 1 | ţ∫okε [cj] | | 3 | bojra [pq] |
| | 1 | tSoke [Inp] | | | |
| | 2 | | 82 | horn (| (of buffalo) |
| | 2 | rote [hi] | _ | 1 | ∫in [0m] |
| | 3 | bæŋ [0] | | 2 | Singi [g] |
| | 3 | | | 3 | derein [b] |
| 70 | مامم | | | 3 | dirīŋ [acdehijklnopq] |
| 10 | dog | Cata [agilpp] | | 3 | dirin [EM] |
| | 1 1 | <pre>\$\text{Sta} [egjInp]</pre> | | _ | #=- =-0 [=- · ·] |
| | 1 | Sita [k] | Q2 | tail | |
| | 1 | | 0J | | phytchia [a] |
| | 1 | seța [M] | | 1 | phut[hia [g] |
| | | seța [E] | | 1 | puţ∫ʰia [e] |
| | 1 | sita [h] | | 2 | nanrom [m] |
| | 2 | kukur [0] | | 3 | t∫arbol [k] |
| | | | | 3 | t∫arbon [q] |
| 79 | cat | | | 4 | tsamdol [ah] |
| | 1 | pu∫i [ehjkn] | | 4 | t[andol [d] |
| | 1 | pusi [abcdgilmoq] | | 4 | t[andbol [bio] |
| | 2 | bilaj [p] | | 5 | t∫a.a?lom [cjlnp] |
| | 2 | biral [0] | | 5 | tsalom [E] |
| | | | | 5 | [M] molfs] |
| 80 | cow | | | 6 | ledʒ [0] |
| | 1 | ga ⁱ [E] | | | |
| | 1 | gaj [m] | 84 | goat | |
| | 2 | urīk' [clnp] | | 1 | merom [abcdeghijklmnopq] |
| | 2 | uru <u>i</u> k [j] | | 1 | merom [EM] |
| | 3 | dingri [q] | | 2 | t∫ ^h agol [0] |
| | 3 | daŋŗa [egk] | | | |
| | 3 | daŋɾa [abdhio] | 85 | pig | |
| | 4 | goru [0] | | 1 | ∫ukri [ehjk] |
| | 5 | gundi [M] | | 1 | ∫ukuri [n] |
| | | | | 1 | sukri [abdgilmopq] |
| | | | | 1 | sukuri [c] |
| | | | | 2 | <pre>Sukor [0]</pre> |
| | | | | 2 | ∫ukuri [n] |
| | | | | 2 | sukuri [c] |

86 rat 92 insect 1 godo [abikmo] 1 ted_30 [begkm] 1 godu [ln] 1 tεdzu [ai] 1 1 [deghq] tid_3u [cdhjlnopq] gudu 2 2 huni poka [0] [cjp] 3 idur [0] 93 cockroach 1 tεlpia [j] 87 chicken (adult female) 1 \im 1 tilpia [c] [eghjklnq] 1 sim [EMabcdimop] 2 tεlt∫ata [ep] 2 3 tεlapoka murgi [0] [0] 4 tεtε [ln] 5 **88** egg t∫apra [abdhio] 5 t∫apri [gk] 1 bεlε [abgkm] 5 t∫epret¹ bili [q] 1 [dehilnoq] t∫apot [m] 2 d'3staw [M] 2 mclas.p [E] 2 dzarom [cjp] 94 bee dim [0] 1 taŋna [h] 2 b^h omora [ln] **89** fish 3 $mod^{h}u$ [eg] hako [abghikmo] 4 lεlε [cj] 1 haku [cdejlnpq] 4 nεlε [abdhiko] 1 h∧ku [M] 5 moumat Shi [0] 2 mat_{s}^{h} [0] 6 hurumsuku [p] 3 hαi [E] 7 terom [q] 90 duck 95 fly 1 gεdε [abcdeghjkopq] 1 ro [eg] 1 kεdε [n] 1 ro [k] 2 [0lm] ha∫ 1 rõ [abdhioq] 2 roko [cjlnp] 91 bird 3 roŋ [m] 1 ago [j] 3 rõ [abdhioq] 1 310 [clnp] 4 mat, [0] 2 [clnp] 310 2 sısĮj [eg]

2

3

t∫ãrã

pak^hi

[abdhikmoq]

[0]

| 96 | spider | | 100 | face | |
|----|--------|-------------------------|-----|------|--|
| | 1 | makra [egkm] | | 1 | mεt a ha [k] |
| | 1 | makrosa [I] | | 1 | m̃t naha [o] |
| | 2 | bindi [abdhioq] | | 2 | mεn hã [i] |
| | 3 | bindram [cp] | | 2 | mεt hã [abdh] |
| | 3 | bindram [j] | | 3 | met muar [cp] |
| | 3 | binţiram [EM] | | 3 | met muhar [j] |
| | 4 | makorsa [On] | | 3 | met murha [q] |
| | 5 | makrosa [I] | | 4 | mεt mot∫a [egln] |
| | | | | 5 | mot∫a [m] |
| 97 | ant | | | 6 | muk^h [0] |
| | 1 | muit [abcdeghijklmnopq] | | 7 | t∫enka [M] |
| | 2 | pipta [0] | | 8 | menmuãn [E] |
| | 3 | mu? [E] | | | |
| | 3 | mu ⁱ [M] | 101 | neck | |
| | | | | 1 | hoto o? [cnp] |
| 98 | mosqu | ito | | 1 | [pomliddda] Ycjcd |
| | 1 | ∫ikri [ejkl] | | 1 | hoto? [egjk] |
| | 1 | <pre>Sikrit [n]</pre> | | 2 | gola [0] |
| | 1 | sikri [acdghimopq] | | | |
| | 1 | sikrī [b] | 102 | hair | |
| | 2 | [0] scm | | 1 | u:p [q] |
| | 3 | sikini [E] | | 1 | นใp [M] |
| | 3 | sikni [M] | | 1 | up [abcdeghijklmnop] |
| | 4 | sikni [M] | | 2 | tsul [0] |
| | 4 | sikri [acdghimopq] | | 3 | u?mɪn [E] |
| 99 | head | | 103 | eve | |
| | 1 | bolo [E] | | 1 | mεt [abcdeghiklmnopq] |
| | 1 | ხა?ა [p] | | 1 | m̃t [j] |
| | 1 | boho [M] | | 1 | me? [E] |
| | 1 | boho? [abcdlnq] | | 1 | me?tme?tme?tme?tme?tme?tme?tme?tme?tme?t |
| | 1 | boho? [hi] | | 2 | tsok [0] |
| | 1 | boho? [egjkmo] | | | |
| | 2 | mat ^h a [0] | 104 | nose | |
| | | | | 1 | mohū [cd] |
| | | | | 1 | muhu [j] |
| | | | | 1 | muhũ [Mp] |
| | | | | 2 | mu [Eabegiklmnoq] |
| | | | | 2 | mũ [h] |
| | | | | 3 | nak [0] |

105 ear 111 elbow [abcdeghijklmnopq] konui 1 lutur 1 [0] 1 lutur [EM] 1 kuni [n] 2 2 kan [0] kimni [m] 2 kuni [n] 3 kihini [egk] 106 cheek 3 kohina [I] 1 galpha [egk] 4 moka [abdhio] d3oa [abcdhijlmnop] 4 uka [cjp] 2 dgoha [q] 4 ukα [EM] 3 gal [0] tirian gunt^hi 5 [q] **107** chin **112** hand 1 thatuna [In] 1 ti.i [cjp] 2 kεwa [abdeghikmoq] tihi 1 [ln] 2 kiwa [cj] 2 ti [abdeghikmoq] 3 t[ibuk [0] 3 hat [0] dari [p] **113** palm 108 mouth 1 tajla [ln] 1 mot∫a [EM] tajln 1 [m] 1 mot∫a [abcdegijlmnopq] 2 talka [abcdeghijkop] 1 mut,∫a [hk] 2 2 muk [0] $\mathsf{talk}^\mathsf{h}\mathsf{a}$ [q] 2 telka [EM] 3 hater tola [0] 109 tongue 1 elan [M] 114 finger 1 alaŋ [abcdeghijklmnopq] 1 2 ∫ar∫ar [j] dʒɪb [0] 1 sarsar [cp] lε?je [E] 2 kiţup [bhik] 2 kitup [adoq] 110 tooth 2 kaţup [eglmn] dat,α 1 [M] 3 angur [0] 1 atsp [E] 4 eŋkţi [M] 1 data [cdehjp] ketulu [E] [abgiklmnoq] daţa 1 dãt [0] 115 fingernail 1 rama[M] 1 [abcdeghijklmnopq] rama

2

3

nok

nearsa

[0]

[E]

116 knee 122 sweat hatu [0] 1 1 garam [em] hetu [1] 1 1 garom [gk] 2 balbal [cip] 2 gunthi [h] 2 balbalao [abdho] 2 gunthi [abdegikoq] 3 gham [Oln] 3 t^h imn Λ [m] udgirta [q] 4 mukŗi [m] mukuri [cnp] 123 belly lahe? 1 [M] **117** foot 1 lahait [cj] [abdeghikoq] 1 dzaŋga 1 lahīt [ln] 1 dzaŋŋa [m] 2 lα?i [E] 2 kata [cjlnp] 2 lahe? [M] 3 pa [0] 2 lahīt [ln] 3 lahait [cj] **118** bone 3 [abdeghikmopq] lait 1 d.zaŋ [M] 4 pεţ [0] 1 d3sü [E] 1 d,zaŋ [abcdeghijklmnopq] 124 heart (organ) 2 har [0] 125 back 119 fat 1 dεa [abegim] 1 itil [abcdeghijklmnopq] 1 dia [dhkoq] 1 iţil [EM] 1 doja [cjlnp] t∫orbi [0] 2 pit^h [0] **120** skin **126** body 1 uhur [ci] 1 hormo [abdeghikmoq] 1 uhur [M] hodmo 1 2 [EM] harta [abdeghjklmno] 1 [cjlnp] hormo 3 tsamra [Opq] 2 ga [0] 4 ur [E] 127 person 121 blood 1 hor [abdeghikoq] 1 mcjom [EM] 1 horo [ln] 1 majam [abdhio] 1 horo [cjp] 1 majaŋ [q] 2 admi [m] 1 majom [cegjklnp] 3 lok 1 [0] mεjom [m]

2

rokto

[0]

128 man 132 husband koda [E] 1 1 bojo [ln] 1 kora [j] 2 dzamaj [q] 2 1 kora [deghiko] [ceikmpq] dzãwaj 2 herel [g] 3 kodα [EM] 2 herelhon [In] 3 kora [cp] 3 babahor [abdhiko] 4 herel [bj] 4 5 purus [0] d,zuri [a] 5 [M] obch 6 ∫ami [0m] 129 woman 133 wife ora?horo 1 erahon [In] 1 [j] 2 2 εra bihu [g] [adhioq] 3 2 kudi [EM] bahu [egkln] 3 3 kuri [cejkmpq] kudi [E] 3 ajuhor [abdhiko] kuri [cp] 5 mohīla [0] 4 ajo [b] 5 stri [0m] 130 father 1 babahor [k] **134** son 2 ba [e] babu gidra [m] 3 apu [cj] 1 kora gidri [abdhioq] 3 apum [p] 1 kora gidra [egk] 2 4 hon [In] aba [EM] baba [0abdghilmnoq] 3 $t_{1}^{h} \epsilon l \epsilon = [0]$ 4 koda hõn [E] 131 mother 4 kora hon [cjp] 1 5 aji [m] kũã [M] 2 man [ln] 3 maj [egk] 135 daughter 4 uma [cj] 1 kuri gidri [abdhikoq]

kuri gidra

kuri gidra

kudi hõn

kuri hon

[0]

[M] era hon [In]

mεjε

kudi

1

2

2

3

4

[eg]

[m]

[E]

[cjp]

4

5

6

7

7

umma

gogo

εŋgam

ma

[M]

[p]

[0]

ıŋgα [E]

[abdhioq]

136 elder brother

1 latu dada [eg]

1 maraŋ/litu dada

[abilmnp]

- 2 meran dada [E]
- 2 maraŋ/lɨtu dada

[abilmnp]

- 2 maran haga [cj]
- 3 litu bojha [dhko]
- 4 boro bhai [0]
- 5 dada [q]
- 5 dαdα [M]

137 elder sister

- 1 latu didi [eg]
- 1 maraŋ/lɨtu didi

[abdgilmno]

- 1 merαŋ daⁱ [E]
- 2

maraŋ/lɨtu didi [abdgilmno]

- 2 maran misi [cj]
- 2 maran nana [p]
- 3 litu mi∫ra [k]
- 4 boro bon [0]
- 5 didi [q]
- 6 nena [M]

138 younger brother

- 1 hudīn bhaj [ln]
- 1 hudīn bojha [m]
- 2 kati? babu [g]
- 3 kati bojha [e]
- 4 hudin haga [E]
- 4 hudin haga [cjp]
- 5 kiti? bojha [abdhikoq]
- 6 tshoto bhai [0]
- 7 hega [M]

139 younger sister

- 1 hudin bojha [m]
- 1 hudin bohin [In]
- 2 kiti mesra [k]
- 2 kiti? misra [abho]
- 2 kiti? misren [i]
- 3 kati boj [e]
- 3 kati? boj [g]
- 4 kiti? bohin [q]
- 4 kiti? bojha [d]
- 4 kati? boj [g]
- 5 hudın misi [cjp]
- 6 t_{s}^{h} oto bon [0]
- 7 misi [EM]

140 friend

- 1 \square angi [j]
- 1 sangi [c]
- 2 gatε [eq]
- 2 gatei [b]
- 2 gati [adhijko]
- 3 bondhu [Olmnq]

141 name

- 1 putum [bhiko]
- 1 nutum [acdegjlmnpq]
- 1 nutum [EM]
- 2 nam [0]

142 village

- 1 ato [dghiko]
- 1 atu [aeq]
- 1 heţu [EM]
- 1 hatu [cjp]
- 1 mato [m]
- 2 tola [j]
- 2 tola [In]
- 3 ato [dghiko]
- 3 ato? [b]
- 3 atu [aeq]
- 4 gram [0]

143 house 149 blanket 1 [M3] byc ora? [abcdeghijklmnopq] 150 ring (on finger) 2 bari / ghor [0] ant^hi 1 [ln] 1 anti [0q] 2 mudam 144 door [cjp] 1 duir [hio] 2 $mud_{\Lambda}m$ [m] 1 2 duar [dgjm] mudam [EM] duar 1 2 mundim[abdhiko] [ckln] 2 1 duεr mundam [e] [g] 2 1 duvar mundom [e] [E] 2 silpın [abdq] 3 dordza [0] 151 clothing 4 prjej [M] t.hat.ra [q] 152 cloth 145 window 153 medicine 1 dzalna [bcdegijklmno] 1 ran [abdeghikmoq] 2 dʒanala [0ah] 1 [cjln] ranu 3 k^h ilki o∫ud [0] [pq] 154 paper 146 roof 1 kagad3 [cjln] 1 t,∫atal [n] 1 kagod3 [0abdeghikmo] 2 koţ.ʰa [jk] 2 $\mathtt{kot}^\mathtt{h}\mathtt{a}$ [cdeglm] 155 needle 3 sirim [abhioq] 1 ∫uj [0ehjkn] 4 t,∫^had [0] 1 ∫uja [g] 5 sarmi [E] 1 su^i [EM] 6 k_p spra [M] 1 [abcdilmopq] suj 2 [0] \ut\ 147 wall of house 1 kawla [m] 156 thread 2 kãth / bhit [abdhiko] ∫utim 1 [hi] 3 [0cegjlnpq] dεal 1 ∫utam [j] 1 [abdkoq] sutim 148 pillow 1 sutam [clnp] 1 u∫a [ln] 1 sutom [eg] 2 bilis [bi] 1 $\operatorname{sut}_{\Lambda m}$ [m] 2 bili∫ [k] suțam 1 [EM] 2 bilus [dh] 2 \utim [hi] 2 balı∫ [0acegjmoq] 2 ∫uta [0] kutungi [p] 2 ∫utam ſj]

157 broom 161 axe 1 heke [EM] dʒono.o [cjp] 1 1 d.zono? [abdghimoq] 1 hakε [cdjlnp] 1 d3ono? [E] 1 makε [m] d.zonoo? 2 [M] taŋga [egk] 1 d3ono? [ekln] 3 kuthar [0] 2 d3^haru [0] tengoit [abhioq] 158 spoon (for eating) **162** bow 1 t[amat[[clnp] $gunt^{h}a$ 1 [n] t[amot] [0bdeghijkmo] 1 gunt han [1] 2 t∫irtu [q] 2 d^h anu [cjmp] 2 d^h anuk [ek] 159 knife (to cut meat) 2 d^h onuk [0] 1 t∫iku [hk] 2 [g] d^h onuk 1 t∫aku [ln] 3 a? [abdioq] 2 ketu [EM] 2 kati [m] 163 arrow 2 katu [cj] 1 bidzel [m] 3 t∫hora [g] 2 apiri [q] t∫huri 3 [0abcdeikop] 2 apari [ek] dao [q] 2 ap^hari [ln] 3 sar [k] 160 hammer 4 ∫ahar [j] 1 haţur [gk] 4 sahar [cp] 1 haţuri [ln] 5 tir [0g] 1 haturi [0] 6 [abdhio] ipiri 2 kuru [m] 6 apiri [q] 3 koţasi [E] 3 koţa∫i [j] 164 spear 3 koţasi [c] 1 balam [p] 3 kuţisi [b] 1 p^hala [bcdeghijkmno] 3 kuta∫i [e] 2 balam [p] 3 kuti∫i [hi] 2 bolom [aceijoq] 3 kutisi [ado] 3 bor∫a [0] 4 mirtul [q] 4 marţul [M] **165** fire matul [p] [eghjkn] 1 ∫εŋgεl 1 sengel [abcdilmopq] 2 [0] agun

171 path 166 ashes pindi hor [0] ari rasta 1 torε? [egkm] 2 [n] 3 1 [jlnp] hor [ad] toreit 3 hora 1 toroit [abcdhioq] [c] 3 hora [j] 2 t.∫ʰai [0] 4 guli [gl] 4 kulhi [b] **167** smoke 5 dahar [dehk] $d^{\text{h}}u\text{m}\text{i}$ 1 [dh] 6 pot [0] 1 d^huma [gm] 1 $d^hum\Lambda$ [i] 172 to go 1 d^huŋɨ [aboq] 1 t∫a? [m] 1 d^huŋga [e] 2 ∫εno.o [j] 2 1 d^huŋwa [k] seno.o [cln] 2 2 seno [M] ∫ukur [j] 2 2 seno? sukul [clnp] [E] 3 t[ala? [abdeghikoq] 3 $d^h\tilde{o}a\\$ [0] 4 dzawa [0] 5 dola [p] 168 candle mombati 1 173 to come [0abcdeghijklmnopq] 1 hɨdʒu? [abdhimoq] 1 hed,30? [k] **169** boat [abdhio] hed_zu? [cegln] 1 liuki 1 1 hid3u [EMjp] lauka [cjlmn] 2 asa [0] leuka 1 [egk] 1 nauka [p] 1 nouka [0] 174 to stand 1 nouka [q] 1 tingu [h] 1 tεŋgo [bgk] 1 **170** road tεŋgu [io] 1 1 rod [m] tεŋguo [a] 1 2 hora [cp] tεŋŋo [m] 2 1 [cdejlnpq] tıŋgu hora [j] darano [0] 2 hur / dahar [abghio] 3 Sorok [dk] 4 [0lnq] rasta 175 to sit dub 1 [E] 1 dubo [ln] 1 dup [cjp] 1 dup [M] 2 durup [abdeghikmoq]

3

bo∫a

[0]

176 to lie down 180 to kick 1 baţin [E] 1 pada [n] 1 bati? [ln] 1 padaj [1] 2 giti? [k] 1 p^hada [cjp] 2 giti [eg] 2 kol∫a [ek] 2 giti? [abcdhijmopq] 2 kolsa [gm] 2 giţi [M] 3 t^hiji [abdhio] 3 Soa [0] 3 tʰijɨ [q] laț^hi mara [0] 177 to walk 1 ſεſεn [n] 181 to swim 1 sεsεn [1] 1 helo? [m] 2 daraŋ [m] 2 pajra [abho] 3 sεn [cjp] 2 pajra? [degik] 4 [abdeghikoq] taram 2 para [q] 5 hãţa [0] 3 ojar [cjlnp] 6 ţahal [E] Satar kata [0] dolα [M] **182** to see 178 to fly 1 nεl [abdhio] 1 oţaŋ [M] 1 nεl [mq] 1 oţaŋ [ekln] 2 lεl [cegjklnp] 1 oţoŋ [g] 3 dεkʰa [0] 2 udį? [dq] 2 uru? [m] 183 to hear 3 apir [E] 1 atεn [n] 3 apir [cjp] 1 atεŋ [1] 4 ud.i? [dq] 2 ajum [cjp] 4 udip [b] 3 and_zom [abdeghikmoq] 4 udiu [ahio] 4 ∫ona [0] ora [0] 184 to wait 179 to enter 1 deri [1] 1 derim [n] 2 t^hirup [m]

3

4

4

4

5

6

hapoj

tingi

taŋgi

tajn

tingup [q]

opεkkha kora

[p]

[egk]

[cj]

[abdhio]

[0]

| 1 | Scled | [abdhio] |
|---|-----------|----------|
| 1 | bolo | [clnp] |
| 1 | bolo.o | [j] |
| 1 | bolo? | [egkq] |
| 1 | bolon | [m] |
| 2 | d^h oka | [0] |

185 to cry

- 1 jam [ln]
- 2 ra [g]
- 3 ra.a? [cjp]
- 3 ra? [abdehikmoq]
- 4 kãda [0]

186 to cook

- 1 isin [jq]
- 1 isin [abcdhilmo]
- 2 daka utu [egiko]
- 3 ranna kora [0]
- 4 bajem [p]

187 to boil (water)

- 1 heredz [m]
- 2 ojon [j]
- 3 tiki [d]
- 3 tεki [abo]
- 3 tiki [hi]
- 4 lolo [cegklnq]
- 5 \iddho kora [0]
- 6 I[p]

188 to eat

- 1 dʒom [EMabcdeghijklmnopq]
- $2 k^h awa [0]$

189 to drink

- 1 nu [EMcegjklmnp]
- 2 pu [abdhio]
- 3 pani khawa [0]
- 4 d3om [q]

190 to sing

- 1 Sirin [gik]
- 1 serein [b]
- 1 sirin [adehmoq]
- 2 duran [cjlnp]
- 2 sirin [adehmoq]
- 3 gan gawa [0]

191 to bite

- 1 hambu [I]
- 1 hambur [n]
- 1 hamur [m]
- 2 hawa.a [j]
- 2 hawa? [ce]
- 2 howa? [gk]
- 2 huα?α [E]
- 3 gεr [abdhioq]
- 4 kamrano [0]
- 5 habεm [p]
- 6 tagoj [M]

192 to laugh

- 1 nada [m]
- 2 landa [abcdeghijklnopq]
- 3 hasa [0]

193 to speak

- 1 mæn [g]
- 1 men [mq]
- 2 gam [In]
- 3 lor [ek]
- 3 ror [abdhio]
- 4 ked_3i [M]
- 4 kadji [cjp]
- 5 bola [0]
- 6 d_gagar [E]

194 to tell

195 to know

- 1 aten [lmn]
- 2 sari [cp]
- 3 baraj [gk]
- 3 barajn [e]
- 3 badaj [abdhioq]
- 4 dgana [0]

196 to forget

- 1 lirin [ln]
- 1 rigin [cmp]
- 1 ririn [j]
- 2 hirin [i]
- 2 hirin [abdeghkoq]
- 3 hirin [abdeghkoq]
- 3 lirin [In]
- 4 bhule dgawa [0]
- 5 hirin [i]
- 5 ririn [cmp]
- 5 ririn [j]

197 to sleep

- 1 dʒipɪt [abdhi]
- 1 dgapit [egkm]
- 1 dgsprt [0]
- 2 durum [cjlnp]
- 3 ghumano [0]
- 4 gitit [q]
- 4 giţi? [E]
- 4 gitig [M]

198 to dream

- 1 kukmu [abdhioq]
- 1 kukumu [egkln]
- 1 kumu [cjp]
- 2 sapna lel [m]
- 3 $\int \text{opno d} \epsilon k^h a$ [0]

199 to do/make

- 1 bana [q]
- 1 bano [m]
- 1 bεna [e]
- 1 benaw [abdhio]
- 1 bεno [gk]
- 2 baj [cjnp]
- 3 kora [0]

200 to work

- 1 kimi [abdhio]
- 1 kami [cegjklmnpq]
- 2 kadz kora [0]

201 to play

- 1 εnd,3ο [ln]
- 2 εneit [abcdeghijkmnop]
- $3 k^h \epsilon l [q]$
- 3 $k^h \epsilon la$ [0]

202 to dance

- 1 εnd30 [ln]
- 2 εneit [abcdeghijkmnoq]
- 3 nat[a [0]
- 4 susu.u [p]

203 to throw

- 1 lapda [m]
- 2 tempa [In]
- 3 huduma [cp]
- 3 hutma [jn]
- 4 tsapat [abdeghikoq]
- 5 t, \(\)^h ora [0]

204 to lift

- 1 rakap [ehiklmn]
- 2 uthaj [p]
- 2 uthaw [cj]
- 3 tola [0]
- 3 tul [abdgko]
- 4 kutun [q]

205 to push

- 1 t^hεla [Inp]
- 1 t^hεlaw [abhoq]
- 1 $t^h \epsilon lo$ [gkm]
- 2 ilin [cj]
- 3 d^hεka [di]
- 3 t^hεla [Inp]
- 4 dhakka dewa [0]
- 4 d^hεka [di]

206 to pull 212 to take bath 1 1 tanom [m] um [gq] 2 tait [ln] 2 umen [p] 3 2 or [abcdeghijkoq] umin [cj] 2 tana [0] [el] umo 2 umo? [n] 5 thadizi [p] 2 umu [km] 3 dibri [abdh] **207** to tie 3 dibri? [io] thol [cjp] 1 gosol kora [0] 1 tol [abdeghiklmnoq] bãd^ha [0] 213 to cut something k^h anda 1 [ln] 208 to wipe 2 had [j] d_got [abcdeghijklmnopq] 1 hadem 3 [cp] $mot \int_{a}^{b} a$ [0] 4 get [abdeghikmoq] 5 kata [0] 209 to weave (on loom) 1 baj [lp] 214 to burn 2 galan [hjmn] 1 d_zeret [m] 3 tεar [egk] 2 rapa.a [j] 4 tein [b] 2 rapa? [abcdeghiklno] tin [adhio] 3 porano [0] 5 tate bona [0] 4 ondor [p] rodojt [q] 5 lo [q] **210** to sew **215** to buy 1 ∫ɛlai kora [0g] 1 kiŗīn [aijoq] 1 ſεlaj [g] 1 kirın [bcdghlmnp] 1 ∫ilaj [I] 1 kirıŋ [ek] 2 ro.o [cjnp] 2 kena [0] ro? [abdehikmoq] 216 to sell 211 to wash (face/hand) 1 ik^hrin [abdhio] abo? 1 [I]1 ik^hrin [q] 1 abum [p]

 ak^hrin

ak^hrīn

akriŋ

akrın

[cjlnp]

[e]

[k]

[gm]

bikri kora [0]

1

1

1

1

2

1 abor [1]
1 abum [p]
1 abun [n]
1 abun [cj]
2 irup [abdhio]
2 arup [egkmq]
3 dhoa [0]

217 to steal

- 1 komro [abdghikmo]
- 1 kumru [e]
- 1 kumuru [cjlnpq]
- 2 tsuri kora [0]

218 to lie, fib

- 1 bεndεla [I]
- 1 pεndεla [n]
- 2 bεda [cjmp]
- 3 εrε [abdeghiko]
- 3 iuri [q]
- 4 mrttha bola [0]

219 to take

- 1 εηηεm [m]
- 2 agu [In]
- 3 hataw [bdhio]
- 3 hato [egk]
- 4 aw [cjp]
- 5 nεa [0]
- 6 ataw [q]
- 6 hataw [bdhio]

220 to give

- 1 ma [m]
- 2 εm [MabcdeghijkInopq]
- 3 dεa [0]
- 4 om [E]

221 to kill

222 to die

- 1 goit [abcdeghijklmnopq]
- 2 mara dʒawa [0]

223 to love

- 1 dulir [abdhio]
- 1 dular [ckp]
- 1 dular [j]
- 2 ador [eg]
- 3 bhalobasa [Olmnq]

224 to hate

- 1 ghina [I]
- $1 g^h inna [n]$
- $1 g^h irna [g]$
- 1 ginna [e]
- 2 hilan [cdjp]
- 3 hirk^hi [abhiko]
- 4 baŋ bʰalobaʃa [m]
- 5 ghrina kora [0]

225 one

- 1 mijan [M]
- 1 mitan [m]
- 2 mina [In]
- 3 mijan [M]
- 3 mijat [cjp]
- 4 mrt [abdeghikoq]
- 5 ek [0]
- 6 mijan [M]
- 6 mojon [E]

226 two

- 1 barije [E]
- 1 berija [M]
- 1 baria [cegijklmnpq]
- 2 bar [abdho]
- 3 dui [0]

227 three

- 1 apia [cjklnp]
- 1 pεa [egim]
- 1 pia [q]
- 2 pε [abdho]
- 3 apije [E]
- 3 epija [M]
- 3 apia [cjklnp]
- 3 trn [0]

228 four **233** nine 1 opunie [E] 1 arε [abdhiko] 1 ponia [dim] 1 area [c] 2 1 [0egjlmnpq] punia [egk] noi 3 areje [EM] 1 upenijα [M] 3 1 upuna [cjlp] area [c] 1 upunia [n] 2 pon [abdhoq] 234 ten tsar [0] 1 gelea [c] 1 geleje [E] 2 **229** five gɛl [abdhiko] 1 morε [egkm] 3 lcb [0egjlmnpq] 1 morεa [cjlnp] 1 morε̃ [adioq] 235 eleven 1 mõrε̃ [bh] barti mit te [g]2 pat∫ [0] 2 gelmit [abdhiko] 3 mõηojα [M] ægaro [Ocejlmnpq] moηejα [E] gelbαrija [E] 230 six 236 twelve barti baria 1 [g] 1 t∫ho [eln] 2 baro [0pq] 1 ţ∫ʰɔi̯ [0gm] 2 baro [cejlmn] 2 turia [cjp] 3 gɛlbar [abdhiko] 2 turija [EM] 3 gelbαrija [E] 3 turuj [abdhikoq] turijα [EM] 237 twenty 1 punti [g] 231 seven 2 kuri [c] 1 εјај [abcdk] 3 bargel [abdhiko] 1 eje: [E] 4 bis [Oejlmnpq] 1 ijaj [hio] 5 midsi [E] 2 ∫at [0egjlmnpq] 2 sαţ [M] 238 hundred 1 su [I] 232 eight 2 ∫oto [j] 1 arel [k] 3 ∫aj [hik] 1 iril [abcdhio] 3 [abcdo] saj 2 at [Oegjlmnpq] 4 boho [g] 3 iralije [E] 5 (e) o? 5 [pqnm0] cl 6 modehisi [E] mi?sou [M]

239 thousand 244 big 1 karol [k] liţu [i] 2 barti boho [g] 1 litu [abdho] 3 [0bcdehijlmnopq] hadzar 1 latu [ek] 2 [EM] meran 2 maraŋ [chjlmnpq] 240 few 3 ogcd [0] **241** some 245 small 1 kntulun [m] 1 kitīt [abdhioq] 2 d,3ahana [ln] kati.i 1 katıt [egkm] 3 [j] 2 hudīŋ [chjlnp] 4 t^hora [abdioq] 2 huriŋ [EM] 4 t^hõra [h] 3 t,∫hoto [0] 5 thoragan [egk] 6 $kit \int_{a}^{b} u$ [0] **246** long 7 hudīŋ [cp] 1 dzilın [ao] 1 dzelijn [b] **242** many 1 dʒεlεŋ [gkm] 1 mεlaj [lmn] dʒilɪŋ [cehijlnpq] 1 2 t^h imba [cj] 1 dzilin [EM] 2 t^h Imba [M] 2 lomba [0] 3 ajma [abdeghikoq] 4 onεk [0] 247 short (length) 5 bed zan [q] 1 kʌtuluŋ [m] pura?a [E] 2 hudin [jlnp] 2 hudin [M] 243 all 3 kitīt [abdhioq] 1 ∫anam [egk] 3 kaţīt [egk] 1 sanam [m] 4 kʰat.o [0] 2 ∫agana [j] 5 dinga?a [E] 2 sogena.a [c] 3 d3oto [bdhln] 248 heavy 3 d3oto? [aioq] 1 hembal [EM] 4 [0] dc? 1 hamal [abcdghikmo] 5 soben [p] 1 hambal [ejlnpq] 5 sobena?a [E] 2 b^h ari [0] 6 ţ¹imbαgi [M] 7 sobena?a [E] 7 sogena.a [c]

254 deep 249 light (not heavy) 1 [ln] patla gadlu [m] 2 lawar [egkm] 2 gada [p] 3 rebal [E] 2 gadha [ln] 3 ramal [cjp] 2 gata [q] 3 rawal [abdhio] 3 k^h indri [ao] 4 halka [0] khindrin [bdhi] 3 5 hudin [M] 3 k^h andri [ek] 6 hirki [q] 4 latʰar [j] 7 lawar [egkm] 5 k^hand,zu [g] 7 rawal [abdhio] 6 ikir [c] gob^hir [0] 250 fat moţa [0abcdeghijklmnopq] 255 shallow **251** thin 1 mihĩ [lmn] **256** full (cup) nahan [cj] prreit [abdeghiklmnoq] nanha [abdeghiko] p^hεrei̯t [cjp] 4 t(ikon [0] 2 purno [0] 5 patla [pq] **257 empty** (**cup**) 252 wide, broad 1 o∫ar [eghijk] 258 hungry 1 osal [c] 1 renge [E] 1 osar [abdmnoq] ranneit [m] 2 t∫ora [0] 1 rengeit t∫akal [p] [abcdeghijklnopq] 2 k^hidε laga [0] 253 narrow renkekgi [M] mihĩ [ln] 2 nanha [eiko] 259 thirsty nahan [cj] 1 [I]tatan 4 sakra [abdhio] 1 [abcdegijkmnopq] tεtaŋ 5 ∫oru [0] 1 titaŋ [h] 6 hudīŋ [p] 1 ţεţαŋ [M] 7 kiti? [q] 1 tetan [E] pipa∫a pawa [0] 260 sweet 1 herem [bhi] [acdegjklmnopq] 1 herem mi∫ţi [0]

261 sour **266** fast 1 d,3±d,30 [h] 1 Satken [n] 1 ರ್ವಿತಿ [abcdeijklmnopq] 2 sat laka [m] 3 1 ძკიძკი [g] sat [1] 2 tok [0] 4 usraw [j] 5 usiŗa [h] 5 usiri [i] 262 bitter 5 usira [ado] 1 tita [0] 1 tito 6 u∫aŗa [egk] [n] 6 1 titota [1] usira [h] 7 2 satpat [c] hεbεl [eg] taratari [0] 8 2 hεbεr [m] 9 dzardi [p] 3 meher [cjp] 9 d_3oldi [q] 4 harhat [abdhiko] 5 hara? [q] **267** slow 263 spicy, hot 1 [m] gangan 2 diram [ln] 1 hara? [p] 3 kalskals [egk] 1 harat [jln] 4 mari [cj] 1 harhat [c] 5 bijbij [abdhio] 2 arhat [m] 2 harhat [c] 6 d^h ire d^h ire [0] 3 d3had3hal [i] 7 astε [0q] 7 astir [p] dʒʰal [0abdeghkoq] **268** same **264** ripe 1 [km] mit rokom 1 bεlε [bgkm] 2 mɪt dia [bd] 1 bili [acdehijlnopq] 2 mit gε [h] 2 paka [0] 2 mɪt gi [g] 2 mīt gi.i [j] 265 rotten (fruit) 2 mrt gia [iq] 1 ſεa [eg] 2 miţgi [M] 1 ∫ia [k] 3 [0] εki 1 ∫oja [jn] 4 enlikα [E] 2 ∫εa [eg] 5 mīt leka [p] 2 ∫ia [k] 2 [abdim] sεa 2 sĩa [q] 2 sia [ho] 3 ∫oja [jn] 3 soja [cl]

pot∫a [0p]

| 269 | differ | ent | 274 | good | |
|-----|--------|--------------------------|------------|-------|--------------------------|
| | 1 | barokom [m] | | 1 | modzgi [g] |
| | 2 | alada [I] | | 2 | bes [pq] |
| | 3 | dკudi dკudi [abhijo] | | 2 | bεζ [e] |
| | 3 | ქჳuda ქჳuda [cegkn] | | 2 | bes [EM] |
| | 4 | b ^h inno [0] | | 3 | bugin [cjln] |
| | 5 | bar dʒajt [p] | | 4 | modz [bdhko] |
| | 6 | eta eta?a [E] | | 4 | [is] ljcm |
| | 7 | [M] spals (M) | | 5 | b ^h alo [0m] |
| 270 | dry | | 275 | bad | |
| | 1 | lohor [egklmnq] | | 1 | ka bugin [j] |
| | 1 | rohor [abcdhijop] | | 1 | ka bugina [cln] |
| | 2 | <pre>\$ukna [0]</pre> | | 2 | birit [abdhioq] |
| | 3 | rodo [E] | | 2 | barīt [egk] |
| | 4 | rodor [M] | | 3 | k ^h arap [0m] |
| | | | | 4 | bagraw [p] |
| 271 | wet | | | 5 | e?ţka [E] |
| | 1 | oda [g] | | 6 | siţru [M] |
| | 2 | lohot [abcdehijklmnoq] | | | |
| | 3 | b ^h idʒa [0] | 276 | new | |
| | 4 | lum [EM] | | 1 | nαυᾶ [E] |
| | 4 | lun [p] | | 1 | nevã [M] |
| | | | | 1 | nawa [abcdeghijklmnopq] |
| 272 | hot (v | weather) | | 2 | notun [0] |
| | 1 | lolo [EM] | | | |
| | 1 | lolo [abdhmo] | 277 | old | |
| | 1 | lolo [cegijkInp] | | 1 | mari [M] |
| | 2 | gorom [0] | | 1 | maŗi [j] |
| | 3 | sotun [q] | | 1 | maria [i] |
| | | | | 1 | marε [degkm] |
| 273 | cold (| (weather) | | 1 | marej [abchlnopq] |
| | 1 | lear [m] | | 2 | purano [0] |
| | 1 | leher [In] | | 2 | ρυτηα [Ε] |
| | 1 | τεar [j] | | | |
| | 1 | rεar [abcdikoq] | 278 | broke | en |
| | 1 | riar [h] | | 1 | pεtei̯t [In] |
| | 2 | larst [eg] | | 2 | rapu? [M] |
| | 3 | t ^h anda [0] | | 2 | rapud [E] |
| | 4 | rabaŋ [M] | | 2 | ripu? [q] |
| | 4 | rabaŋ [p] | | 2 | riput [abdhio] |
| | 5 | tutukun [E] | | 2 | raput [cegjkmp] |
| | | | | 3 | bʰaŋŋa [0] |

279 above 283 right 1 t[stan [abcdgijnopq] 1 dзоdзma [m] 1 t∫εtaŋ [ek] 2 mandi [ln] 3 1 t∫εtar [m] dzidzom [dh] t. Setn [EM] 3 1 d,zed,zom [i] t∫itan 3 1 [h] d_3 o d_3 om[aboq] 2 upore [0] 3 d3od3om[egk] 4 d_zom [Ecjp] 5 d<u>a</u>n [0] 280 below 6 dʒom ti? [M] 1 $p^h \epsilon r$ [m] 2 latar [E] **284** left 2 letar [M] letra 2 latar 1 [m] [abcdeghijklnopq] 2 lεŋga [abcdeghijklnopq] 3 nit∫ε [0] 2 lεŋgα [E] 3 bam [0] 281 far 4 lεŋkα ţi [M] [E] 1 sangin 1 saŋkiŋ [M] 285 black 1 sahiŋ [m] 1 hεndε [abcdeghijklmnopq] 2 Sangin [In] 1 hεnde [E] 2 ∫aŋgiŋ [egjk] 1 hεnte [M] 2 singin [abdhio] 2 kalo [0] 2 sangin [E] 2 saŋkiŋ [M] 2 **286** white sangin [cp] 3 1 torsa [In] dure [0] 2 põd [bdhoq] dzirgi [q] 2 põth [aim] 2 282 near pũd [k] 3 1 hεdε [ln] põr [g] 2 3 naret [cp] pur [e] 2 4 [j] pundi nareit [EM] 3 4 ∫ur [gk] pundi [cjp] 3 5 sor [abdhimo] ∫ada [0] 3 sur [e] 4 $kat \int_{0}^{h} \varepsilon$ [0] 287 red 5 samne 1 raŋga [ln] [q] 6 [EM] 2 ara?a [E] nane 2 [M] 2 caa? 2 ara? [abcdeghijkmopq] 3 lal [0]

288 green 292 who hiriil [abdhikmo] 1 1 okaje [M] 1 hariar [c] 1 okoj [E] 1 hari∧r 1 okoj [abcdeghijklnopq] [j] herial 2 kε [0m] 1 [e] 2 ∫obudʒ [0gln] 3 lil [pq] **293** what 1 kina? [n] 1 kinja 289 yellow [I]1 [eghk] 2 t∫it∧ ∫a∫aŋ [m] 1 2 sasaŋ [abcdijlmnopq] t[ina [Mcjp] 2 holud tSana?a [E] [0] 3 4 t.∫εt [abdeghiko] 5 ki [0] 290 when (near future) tsu? [q] 6 tind,3ok^hε [eh] tindgokhoit [g] 294 how many 2 t∫intam [cjp] 1 tini? [abdhioq] 2 t∫imiţaŋ [E] 1 tina [k] 2 tSimtan [M] 1 tini? [m] 3 tince [km] 2 t∫imin [ln] 3 tire [i] 2 t,∫iminaŋ [E] tindre [abdho] 4 2 t∫iminaŋ [c] 4 tinre [km] 2 t∫imn∧n [j] 4 tire [i] 3 kajti [e] 5 kokhon [0] 4 koita [<u>0]</u> 6 tire [i] 5 t∫iminthu [p] 6 tirum [q] 5 t∫iminαŋ [<u>E</u>] 7 t[sintam [cjp] 6 [E] t,∫iminαŋ 7 t∫into [ln] 6 t∫iminaŋgi [M] 6 t∫iminaŋ [c] 291 where akarε 1 [mq] 295 this thing 1 arare [g] 1 nεa [cdjp] 1 [abdehiko] okare 1 nεε [<u>n</u>] 2 okoman [In] 1 nejα [<u>E]</u> 3 okote [M] 1 nia [<u>el]</u> 3 okaţa? [E] 1 nijα [M] 3 okata.a [cp] 1 niΛ [<u>m</u>] 3 okta.a [j] 1 [abghiko] noa kot^hai [0] 2 eţa [0] 3 ona [<u>q]</u>

| 296 | that t | thing | 301 | 2s (h | onorifi | ic) |
|------------|--------|-------------------------|-----|---------|---------|--------------------|
| | 1 | αnε [<u>q]</u> | | 1 | apni | [0] |
| | 1 | hana [<u>EM]</u> | | 2 | am [| [E] |
| | 1 | hana [abcdeghijkmop] | | 3 | αben | [M] |
| | 1 | hane [<u>n]</u> | | | | |
| | 2 | ini [<u>]</u> | 302 | 3s (g | eneric/ | male) |
| | 3 | ota [<u>0]</u> | | 1 | ani | [m] |
| | | | | 1 | ini | [EMcjlnp] |
| 297 | these | things | | 1 | uni | [abdeghikoq] |
| | 1 | neako [<u>cjp]</u> | | 2 |]ε [| [0] |
| | 1 | nεεku [<u>n]</u> | | | | |
| | 1 | nejako [<u>E]</u> | 303 | 3s (fe | emale) | |
| | 1 | niaku [<u>el]</u> | | | | |
| | 1 | пілко [<u>m]</u> | 304 | 1n | | |
| | 1 | noako [<u>abdhio]</u> | | -r 1 | abo | [abdhmq] |
| | 1 | noaku [gk] | | 1 | abu | [cegjmnop] |
| | 2 | εgulo [<u>0]</u> | | 2 | αle | [E] |
| | 3 | αma [<u>q]</u> | | 2 | ele | [M] |
| | 4 | nejαko [<u>E]</u> | | 2 | alε | [acdhiln] |
| | 4 | nijα [<u>M]</u> | | 3 | amra | [0] |
| | | | | | | |
| 298 | those | things | 305 | 2p (f | amilia | r) |
| | 1 | εnεkota [I] | | 1 | αpe | (E) |
| | 2 | hanako [E] | | 1 | epe | [M] |
| | 2 | hanako [abcdhijmop] | | 1 | арє | [abcdeghijklmnopq] |
| | 2 | hanaku [egkn] | | 2 | tomra | [0] |
| | 3 | ogulo [0] | | | | |
| | 4 | inja [q] | 306 | 2p (h | onorif | ic) |
| | 5 | hen [M] | | 1 \ | | -, |
| | | | 307 | 3p | | |
| 299 | | | | _ | anko | [m] |
| | 1 | in [abcdeghijklmnop] | | 1 | inku | [Eq] |
| | 1 | in [M] | | 1 | onko | [b] |
| | 1 | iŋ [q] | | 1 | uŋku | [egiq] |
| | 2 | ami [0] | | 1 | unku | [aho] |
| | 3 | α ⁱ ɲ [Ε] | | 2 | taku | [ln] |
| | | | | 3 | anko | [m] |
| 300 | 2s (fa | miliar) | | 3 | hanku | [M] |
| | 1 | am [EMabcdeghijklmnopq] | | 3 | hanku | [cjk] |
| | 2 | tumi [0] | | 3 | onko | [b] |
| | | | | 3 | unku | [aho] |
| | | | | 4 | tara | [0] |

C. RECORDED TEXT TESTS

C.1. Recorded Text Test procedures¹

The extent to which speakers of related linguistic varieties understand one another can be studied by means of tape recorded texts. Such studies investigate whether speakers of one variety understand a narrative text in another variety and are able to answer questions about the content of that text. The accuracy with which subjects answer these questions is taken as an index of their comprehension of that speech form. From the percentage of correct answers, the amount of intelligibility between speech forms is inferred. The recorded text testing used in this survey is based on the procedures described in Casad (1974) and Blair (1990).

Short, personal-experience narratives are deemed to be most suitable for recorded text testing in that the content must be relatively unpredictable and the speech form should be natural. Folklore or other material thought to be widely known is avoided. A three- to five- minute story is recorded from a speaker of the regional vernacular. The story is then transcribed and a set of comprehension questions is constructed based on various semantic domains covered in the text. Normally, a set of fifteen or more questions is initially prepared. Some of the questions will prove unsuitable—perhaps because the answer is not in focus in the text, or because the question is confusing to native speakers of the test variety. Unsuitable questions are then deleted from the preliminary set, leaving a minimum of ten final questions for each RTT. To ensure that measures of comprehension are based on the subjects' understanding of the text itself and not on a misunderstanding of the test questions, these questions must be recorded in the regional variety of the test subjects. This requires an appropriate dialect version of the questions for each RTT for each test location.

In the RTTs used in this study, test subjects heard the complete story text once, after which the story was repeated with test questions and the opportunities for responses interspersed with necessary pauses in the recorded text. Appropriate and correct responses are directly extractable from the segment of speech immediately preceding the question, such that memory limitations exert a negligible effect and indirect inferencing based on the content is not required. Thus the RTT aims to be a close reflection of a subject's comprehension of the language itself, not of his or her memory, intelligence, or reasoning. The average or mean of the scores obtained from subjects at one test location is taken as a numerical indicator of the intelligibility between speakers of the dialects represented.

In order to ensure that the RTT is a fair test of the intelligibility of the test variety to speakers from the regions tested, the text is first tested with subjects from the region where the text was recorded. This initial testing is referred to as the *hometown test*. The hometown test serves to introduce subjects to the testing procedure in a context where intelligibility of the dialect is assumed to be complete since it is the native variety of test subjects. In addition, hometown testing ensures that native speakers of the text dialect could accurately answer the comprehension questions used to assess understanding of the text in non-native dialect areas. Once a text has been hometown tested with a minimum of ten subjects who have been able to correctly answer the selected comprehension questions, with an average score of 90% or above, the test is considered validated.

¹The description of recorded text test procedures is adapted from that found in Appendix A of O'Leary (ed. 1992). It is used by permission of the author.

It is possible that a subject may be unable to answer the test questions correctly simply because he does not understand what is expected of him. This is especially true with unsophisticated subjects or those unacquainted with test-taking. Therefore a very short pretest story with three questions is recorded in the local variety before beginning the actual testing. The purpose of this pre-test is to teach the subject what is expected according to the RTT procedures. If the subject is able to answer the pre-test questions, it is assumed that he or she would serve as a suitable subject. Each subject then participates in the hometown test in his or her native variety before participating in RTTs in non-native varieties. Occasionally, even after the pre-test, a subject fails to perform adequately on an already validated hometown test. Performances of such subjects are eliminated from the final evaluation, the assumption being that uncontrollable factors unrelated to the intelligibility of speech forms are skewing such test results. In this study, subjects performing at levels of less than 70 percent on their hometown test are eliminated from further testing. (The exception was one subject in Abirpara who, after we finalized the acceptable responses, turned out to have scored only 65%.)

When speakers of one linguistic variety have had no previous contact with that represented by the recorded text, the test scores of ten subjects from the test point tend to be more similar—especially when the scores are in the higher ranges. Such consistent scores are often interpreted to be closer reflections of the inherent intelligibility between speech forms. If the sample of ten subjects accurately represents the speech community being tested in terms of the variables affecting intelligibility, and the RTT scores show such consistency, increasing the number of subjects should not significantly increase the range of variation of the scores.

However, when some subjects have had significant previous contact with the speech form recorded on the RTT, while others have not, the scores usually vary considerably, reflecting the degree of learning that has gone on through contact. For this reason it is important to include a measure of dispersion which reflects the extent to which the range of scores varies from the mean—the standard deviation. On a RTT with 100 possible points (that is 100 percent), standard deviations of more than 12 are considered high. If the standard deviation is relatively low, say 10 or below, and the mean score for subjects from the selected test point is high, the implication is that the community as a whole probably understands the test variety rather well, either because the variety in the RTT is inherently intelligible or because this variety has been acquired rather consistently and uniformly throughout the speech community. If the standard deviation is low and the mean RTT score is also low, the implication is that the community as a whole understands the test variety rather poorly and that regular contact has not facilitated learning of the test variety to any significant extent. If the standard deviation is high, regardless of the mean score, one implication is that some subjects have learned to comprehend the test variety better than others. In this last case, inherent intelligibility between the related varieties may be mixed with acquired proficiency which results from learning through contact.

The relationship between RTT scores and their standard deviation can be seen in the following chart (Blair 1990:25):

STANDARD DEVIATION

| רד) . | , | High | Low |
|-------|------|---|-----------------------------------|
|)RE | | Situation 1 | Situation 2 |
| SCOR | High | Many people understand the story on the | Most people understand the story |
| JE S | 0 | test tape well, but some have difficulty. | on the test tape. |
| 4G | | Situation 3 | Situation 4 |
| VER. | Low | Many people cannot understand the | Few people are able to understand |
| M | LOW | story, but a few are able to answer | the story on the test tape. |
| A | | correctly. | |

High standard deviations can result from other causes, such as inconsistencies in the circumstances of test administration and scoring or differences in attentiveness or intelligence of subjects. Researchers involved in recorded text testing need to be aware of the potential for skewed results due to such factors and to control for them as much as possible through careful test development and administration.

Questionnaires administered at the time of testing can help researchers discover which factors are significant in promoting contact which facilitates acquired intelligibility. Travel to or extended stays in other dialect regions, intermarriage between dialect groups, or contacts with schoolmates from other dialect regions are examples of the types of contact that can occur.

In contrast to experimentally controlled testing in a laboratory or classroom situation, the results of field-administered methods such as the RTT cannot be completely isolated from potential biases. Recorded texts and test questions will vary in terms of their relative difficulty and complexity or in terms of the clarity of the recording. Comparisons of RTT results from different texts need to be made cautiously. It is therefore recommended 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% or higher with accompanying low standard deviations 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% are interpreted to indicate inadequate intelligibility.

C.2. Codes used in the transcription of texts

In the following texts, these line codes are used:

| Code | Meaning: |
|------|--|
| \n | Line number |
| \p | Phonetic transcription |
| \g | Word-by-word English gloss of transcribed text |
| \b | Free (natural) Bangla translation of the text |
| \e | Free (natural) English translation of the text |

The following abbreviations are used in the glosses:

PAST = past tense marker SM = subject marker OM = object marker CONT = continuous tense PL = plural POSS = possessive marker

Because a comprehensive grammar study was not a part of this survey, no attempt was made to delve into the miry depths of syntax, such as distinguishing among various types of past tense markers. The glosses were taken to make sure that we understood the story well enough to produce accurate questions that would elicit clear answers. Even though the glosses are far from being complete or highly technical, they were judged to be good enough. Such are the limitations of fieldwork and the decisions we learn to live with.

C.3. Text transcription

```
C.3.1. Santali text
Title: Kati, my dog
```

Location: Rajarampur: Birol subdistrict, Dinajpur district

Date: 8 November 2004

Language: Santali

```
\n 1
\p kɨṭṭi dʒokʰɛ in mitten seta asulin mena
\g small time-at I one dog raise wanted
\b আমি যখন ছোট ছিলাম তখন একটা কুকুর পালতে চাইতাম।
\e When I was young, I wanted to have a dog.
```

Question 1: What did the boy want to have? Answer: a dog

```
\n 2
\p kintu iŋ baba gʰanɛgʰuriɛ mɛnɛ kantahɛya baŋ
\g but my father always said PAST no
\b কিন্তু আমার বাবা সবসময় বলতেন "না"।
\e But my father always said "No."
```

 $\n 3$ \p in baba dэ kusiku kantaheya idis dzasti seta bai **PAST** \g my father SM very much dog not like \p tsida?dze uni mɨhilɨua tsintea seta dэ idi atku \g because think dog SM very much dirty \b আমার বাবা খুব বেশি কুকুর পছন্দ করতেননা, কারণ তিনি মনে করতেন কুকুর খুব নোংড়া ।

\e My father really disliked dogs because he thought that dogs were very dirty.

```
\n 4
\p sergin mit din iŋak mitgelmit botʃhor bojoste mitten seta njam kidja \g finally one day my eleven years age-at one dog get PAST \b অবশেষে আমার এগারো বছর বয়সে একদিন আমি একটা কুকুর পেয়ে গেলাম।
\e Finally, one day, at the age of eleven I got a dog.
```

```
\n 5
\p d3okhon in
                    i∫kulk<sup>h</sup>oi
                                   in hidzuk kantahea tokhon hor
                                                                          arire
\g when
                    from-school I
                                       come
                                                PAST
                                                           then
                                                                   road beside
\p mitten
                                                          kidia
              seta hopon
                                   iŋ
                                      njεl
                                               njam
\setminus g one
                                                          PAST
              dog puppy
                                  Ι
                                      see
                                               get
\b যখন আমি স্কুল থেকে বাড়ি ফিরছিলাম তখন রাস্তার ধারে একটা কুকুর ছানা দেখতে পেলাম।
```

\e When I was coming back from school, I saw a puppy beside the road.

```
Question 2: Where did he see the dog?
       Answer: beside the road
\n 6
cb ni q/
            inak ature
                             tisnoho unilakan seta bin
                                                          njel akakua
        SM my village-at never
                                      that
                                                dog not see
                                                              PAST
\b আমি আমার গ্রামে কখনো ঐ কুকুরটি দেখিনি।
\e I had never seen that dog before in my village.
\n 7
\p uni seta hopon do idi
                               moit(
                                         tahekana
\g that dog puppy SM very beautiful PAST
\b কুকুর ছানাটি দেখতে খুব সুন্দর ছিল।
\e The puppy looked very beautiful.
       Question 3: How did the puppy look?
       Answer: very beautiful
\n 8
\p uni hormaria ron
                         tahekanteja pund kintu tsandbol tahekanteja hende
\g 3p body
                   color was
                                                    tail
                                                                          black
                                      white but
                                                              was
\b তার গায়ের রং ছিল সাদা কিন্তু শুধু লেজটা ছিল কালো।
\e Its body was white but its tail was black.
       Question 4: What part of its body was black?
       Answer: tail
\n 9
\p uni do
             in pandzaj eho.ena
\g he
        SM me follow
                           started
\b এটা আমাকে অনুস্মরণ করতে লাগলো।
\e It started to follow me.
\n 10
\p in
          t∫intaena
                    unido idi
                                 at
                                        rengeit
                                                    dikantaheja ar
\g I
          thought
                    he
                           very much hungry
                                                    PAST
                                                                and
\p tsinti kantaheja dze
                           indo uni
                                        dʒomt∫ejia
\g think PAST
                    that
                           I
                                 him
                                        feed
b আমি মনে করলাম তার খুব ক্ষিদা পেয়েছে এবং ভাবছে যে, আমি তাকে খাওয়াবো ।
\e I thought that it was very hungry and that it was thinking that I would feed him.
```

```
\n 11
                                             tokhon indo
\p indo
              dzokhon orain
                                   hei.ena
                                                                idi
                                                                      at
                                                                              rask<del>i</del>lena
\g I
              when
                        home-my
                                   reached
                                             then
                                                                very much happy
\p tsida?dze in
                        baba
                                   ora.ε
                                             baε
                                                     tahekana
                        father
\g because
              my
                                                     was
                                   home-at not
\b আমি যখন বাড়িতে পৌছলাম তখন খুব খুশি হয়েছিলাম কারণ বাবা বাড়িতে ছিলেননা।
\e When I arrived home, I was very happy because my father wasn't at home.
\n 12
                 menkeda unido nithho gadare hakui sasapkana
\p in
        gogoi
\g my mother said
                            he
                                   still
                                           river-at fish
                                                            catching
\b আমার মা বললেন যে. তিনি এখনো নদীতে মাছ ধরছেন।
\e My mother told me that he was still fishing at the river.
        Question 5: What was the father doing?
        Answer: fishing at the river
\n 13
\p oniate indo idi
                       us<del>i</del>rote
                                k<sup>h</sup>irt∫ute
                                              thora daka mitte batire
                                                                                  aditahein
                 very quickly spoon-with some rice
                                                           one
                                                                  bowl-at give PAST
\b তাই আমি খুব তাড়াতাড়ি করে একটা বড় চামচ দিয়ে কিছু ভাত একটা বাটিতে করে এনে দিয়েছিলাম।
\e So I quickly used a spoon to give him some rice in a bowl.
        Question 6: With what did he put the rice into the bowl?
        Answer: spoon
\n 14
\p thik
           undzokhajki in
                               babai
                                             hei.ena ar
                                                               mεkεda
           that-time
\g just
                               father
                                             came
                                                      and
                                                               said
                        mv
\p unido t\ili
                        kena mitge
                                             unido
                                                      udug
                                                               gidikahape
\g this
           what
                        is
                               immediately it
                                                      outside remove
\b ঠিক সে মুহূর্তে আমার বাবা এসে পড়লেন আর বললেন - "এটা কী? এখনই এটাকে বেড় করে দাও"।
\e Just then, my father arrived and said, "What's this? Get rid of him right now."
\n 15
\p kintu
                                                  dzoto hor
          iη
                  gogo
                           menkeda ale
                                             do
                                                                   uni
                                                                        sεtalε
                                                                                kusikaodia
\g but
                  mother said
                                                                  this dog-to like
                                     we
                                             SM
                                                  every
                                                         person
          my
\p ar
          unido idi
                           at
                                     kitige ar
                                                  ba
                                                          miluwa
                  very
                           much
                                     small and not
                                                          dirty
\b কিন্তু আমার মা বললেন, "আমরা সবাই কুকুরটাকে পছন্দ করেছি এবং এটা এখন খুব ছোট ও নোংড়া না"।
\e But my mother said, "We all like it and it's very small and not dirty.
```

```
\n 16
\p tokhonho in
                  baba
                          menkidia ban
\g still
              my father said
\b কিন্তু আমার বাবা তখনও বললেন -"না"।
\e My father still said "No."
\n 17
                  d30khon in
\p kintu
           in
                                  menkida
                                            dze uni haralenkhan iboj ora?
\g but
                  when
                                  said
                                             that he
                                                       get-big
                                                                    our house will-guard
\p tokhon unido seta
                            dohe rebenena
\g then
           3p
                  dog
                            keep agreed
\b কিন্তু যখন আমি বললাম যে, এটা বড় হলে আমাদের বাড়ি পাহাড়া দিবে তখন তিনি কুকুরটা রেখে দিতে রাজি হলেন।
\e But when I said it could guard our home after it grows up, then he agreed to keep the dog.
       Question 7: Why did the father finally agree to keep the dog?
       Answer: could guard the house
\n 18
\p unihila khon kiti
                                  songe tahena
                       do iŋ
            from Kati SM me with
                                         was
\b সেদিন থেকে "কাটি" সবসময় আমার সঙ্গেই থাকত।
\e From that day, Kati was with me.
\n 19
   unido ghaneghuri in
                             songe i∫kul
                                              tsala?
                                                        kantahea ar
                                                                       duar lahare
                                                        PAST
   he
           always
                             with
                                    school
                                                                  and door front-at
\g
                      me
                                              go
                                    tangidin kantahea
\p
   iη
           lagi
                      durup kate
           for
                      sit
                             PAST wait-me PAST
\g me
\b এটা সবসময় আমার সঙ্গে স্কুলে যেত আর দরজার সামনে বসে আমার জন্য অপেক্ষা করত।
\e He always went with me to school and waited for me outside the door.
\n 20
         do idi
\p kiti
                    t∫aluwe tahekana
\g Kati SM very clever
                             was
\b "কাটি" খুব চালাক ছিল।
\e Kati was very smart.
\n 21
\p unido dinom hilo ɨμpbɛla bojhɨr khoj? alaren danrakuj aguitku kantahea
                        evening field
                                         from our
                                                       cows
                                                                 bring
                                                                          PAST
\b সে প্রত্যেকদিন বিকালে মাঠ থেকে আমাদের গরুগুলেকে নিয়ে আসতো।
\e Every evening, he would bring the cows in from the field.
```

```
Question 8: When did the dog bring the cows in from the field?
       Answer: evening
\n 22
\p kintu kiti
                      ale songe banuja
          Kati more us with
\g but
\b কিন্তু "কাটি" আজ আর আমাদের সঙ্গে নাই।
\e But Kati isn't with us any more.
\n 23
\p turi
                                    songe i∫kul
                                                   khoj? hidzu dzokhej
           maha
                  laharei in
\g six
           month before me
                                    with
                                           school from come time-at
\p mitten trak
                  gadite tenkate
                                   unido goitena
                                           died
\g one
           track
                  car-by crushed he
\b আমার সঙ্গে স্কুল থেকে ফেরার পথে একটা ট্রাকের নীচে চাপা পড়ে সে মারা গেল।
\e One day, while coming back from school with me, he was crushed under a truck.
       Question 9: How did the dog die?
       Answer: crushed by a truck
\n 24
\p onaiote in do
                    idi
                          kostoj niamleda
            I SM very pain
                                 got
\b আমি অনেক কষ্ট পেয়েছিলাম।
\e Because of that, I was very sad.
       Question 10: How did the boy feel?
       Answer: very sad
\n 25
                        una khobore andziom thia?kida tokhon uni ho
\p d33khon in
                 baba
                                                                            kiți
                                                                                 lagite ra?keda
\g when
            my father this news
                                      hear
                                                PAST
                                                          then
                                                                  he
                                                                      also Kati for
                                                                                        cried
\b যখন আমার বাবা খবরটা শুনতে পেলেন তখন তিনিও "কাটির" জন্য কেঁদেছিলেন।
```

\e When my father heard the news, then he cried for Kati.

C.3.2. Mahali text

Title: Sunflower

Location: Abirpara: Ghoraghat subdistrict, Dinajpur district

Date: 12 November 2004

Language: Mahali

\n 1

\b আজ থেকে তিন বছর আগে একটি ঘটনা ঘটেছিল ।

\e There was an incident that occurred three years ago from today.

Question 1: When did this incident occur?

Answer: three years ago

\n 2

\p mitte kimi aja poribar latu ora? tahekana \g one farmer POSS family big house had

b একটি কৃষক পরিবারের একটা বড় বাড়ি ছিল।

\e A farmer's family had a big house.

 $\n 3$

\p kisanţi aja ora?re mɪtţe era barija gidra kuţi ar koţa nije menʌ?kuja \g farmer POSS house-at one wife two child girl and boy with lived \b কৃষকটির স্ত্রী এবং এক ছেলে ও মেয়ে ছিল ।

\e The farmer lived with his wife and a boy and a girl.

\n 4

\p akua ajma abad bargi tahekana takua \g their much farming land had ? \b তাদের অনেক আবাদের জমি ছিল।

\e They had a lot of farming land.

Question 2: What did the farmer have a lot of?

Answer: farming land

\n 5

\p baria seta asulani tahekanatin

\g two dog raise PAST

\b তাদের দুটি পোষা কুকুর ছিল।

\e They had two dogs.

```
\n 6
                      kora gidra ora?re
                                                                           goro akinkane
\p kuri gidra ar
                                              engette
                                                                apatte
         child and boy
                            child house-at
                                              mother-to
                                                          and father-to
                                                                           help PAST
\b ছোট মেয়ে ও ছেলেটি বাড়ীতে মা ও বাবাকে সাহায্য করতো।
\e The girl and the boy helped their parents at home.
        Question 3: What did the boy and girl do at home?
       Answer: help their parents
\n 7
\p ajubse
                             dangar li
                                            agui?ku.e
                seta tigi
                                           brought
\g evening-at
                dog from
                                      OM
                             cow
\b কুকুর সন্ধাবেলা গরু বাড়ীতে নিয়ে আসতো।
\e The dog brought the cows back in the evening.
        Question 4: What did the dog bring back in the evening?
        Answer: cows
\n 8
\p kuri gidra engette
                             mete?
                                     dije mitte
                                                  baha
                                                           bagan
                                                                    tejarme
                                                  flower
\g girl child mother-to
                             say
                                           one
                                                          garden
                                                                   make
\b মেয়েটির মা তাকে একটি বাগান তৈরী করতে বললেন।
\e The girl's mother told her to plant a flower garden.
\n 9
\p iniren apatte hat
                             k<sup>h</sup>oj
                                    kajekți
                                            baha
                                                     bit(on
                                                             agujli
                                                                     menkedije
            father market from
                                    few
                                            flower
                                                     plant
\g her
                                                             bring
                                                                     said
\b তার বাবা বললেন বাজার থেকে কিছু ফুলের চারা কিনে আনতে।
\e Her father said to bring some flower plants from the market.
        Question 5: What kind of plants did the father bring back?
        Answer: flower plants
\n 10
\p nija botshor tsabajre
                            skul
                                     t(abajna
\g that year
                  end-at
                            school
                                     ended
\b বছর শেষে স্কুল বন্ধ হল।
\e The school closed at the year's end.
```

```
\n 11
\p mit din hilo mod3
                               sεta
                                          baha
                                                  bagan
                                                           tεar
                                                                  kεjε
\g one day after beautiful morning
                                         flower
                                                  garden make start
\b একদিন সুন্দর সকালে তারা বাগান করতে শুরু করলো।
\e The next day, on a beautiful morning, they started to work on their garden.
\n 12
                    k<sup>h</sup>ɔj
\p apujn hat
                           ajma
                                   baha
                                            bit∫on
                                                   aguke
\g father market from many flower
                                           plant
                                                   brought
\b বাবা বাজার থেকে অনেক ফুলের চারা কিনে আনলেন।
\e The father brought many flower plants from the market.
\n 13
\p pε
           din habi baha
                               ichen neltid
                                                kauku
\g three day for? flower
                              plant
                                      planted PAST
\b তিন দিন ধরে ফুলের চারা লাগালো।
\e They planted the flower plants for three days.
\n 14
\p kajek din hilo
                       tidzu karonte
                                       t∫ãdo
                                              baha
                                                       goit t∫abajna
\g few
           day after bug
                             because
                                              flower die
                                                             end
\b কিছুদিন পর সূর্যমুখী ফুলগাছ পোকার কারণে মারা গেল।
\e After a few days, the sunflower plant died because of bugs.
       Question 6: Which flower plant died?
       Answer: sunflower
\n 15
\p onate kuri gidra ajma
                               kosto lagakedeja
\g so
           girl
                child much
                                     felt
                              pain
\b মেয়েটি সেজন্য অনেক কন্ট পেল।
\e So the girl was very sad.
       Question 7: How did the girl feel?
       Answer: very sad
\n 16
\p tshuti
             tsabajna onate arhoj skulte
                                                t∫alajnε
\g holiday end
                              again school-to
                                               went
\b ছুটি শেষে তারা স্কুলে ফিরে গেল।
\e The holiday ended, so they returned to school.
```

Question 8: Why did they go back to school?

Answer: holiday ended

\n 17

p ini kuri gidra ajren gate kuri li uduakukane

\g this girl child her friend girl OM told

\b সে তার বন্ধুকে বললো।

\e The girl told her friend.

\n 18

∖p skul k^hɔj hidʒu səməj gatɛ kuri bagan nɛl tʃalaj sanajkua

\g school from come time friend girl garden see go wanted

\b স্কুল থেকে ফিরার পথে তার বন্ধ বাগান দেখতে চাইলো।

\e On their way back from school, her friend wanted to go see the garden.

Question 9: Where did her friend want to go?

Answer: garden

\n 19

\p gate kuri tuli neldaku baganre ajma t∫ando bahakana

\g friend girl both saw garden-at many sun flowers

\b তারা দুজন বাগানে দেখলো অনেক সূর্যমুখী ফুল।

\e The girl and the friend saw many sunflowers in the garden.

Question 10: What did they see?

Answer: many sunflowers

C.3.3. Mundari (Begunbari) text

Title: The Flood

Location: Begunbari: Dhamoirhat subdistrict, Naogaon district

Date: 23 November 2004

Language: Mundari

\n 1

\p intam tajkena dzaput din

\g then was rainy season

\b তখন বর্ষাকাল ছিল।

\e It was the rainy season.

```
Question 1: What season was it?
       Answer: rainy season
\n 2
\p api
           dinte
                    da?a
                          hob<sub>A</sub>?
                                       tajkena
                                       PAST
\g three day-for rain
                          happening
\b তিনদিন ধরে বৃষ্টি হচ্ছিল।
\e It had been raining for three days.
       Question 2: For how many days was it raining?
        Answer: three
n 3
\p εn
         hulan seta?
                                  hojo
                                         1<sub>1</sub>?
                                                tajkena
                           tigi
                                 storm blow PAST
\g that day
                morning
                          from
\p enate en
                hulan ora?te
                                   dzetaj odon kako
                                                            dhari tajkena
\g so
          that day
                       house-dat from
                                          leave anybody can't PAST
\b সেদিন সকাল থেকেই ঝড় বইছিল তাই কেউই ঘর থেকে বাইরে বের হতে পারছিল না।
\e A storm was blowing since the morning, so no one could leave the house.
       Question 3: Why could no one leave the house?
       Answer: storm
\n 4
\p k<sup>h</sup>ub gi.i
                 da?a karonte
                                 duba keda
\g very much rain because
                                 flood was
\b প্রচুর বৃষ্টিপাতের ফলে বন্যা হয়ে গেল।
\e There was a flood due to the heavy rain.
\n 5
\p duba karonte
                    ale.e or.a
                                  ajure
                                            gedla da?a
                                                           hundi
                                                                   kantajkena
\g flood because our
                          house front-of much water gather PAST
\b বন্যার ফলে আমাদের বাডির সামনে অনেক পানি জমেছিল।
\e Because of the flood, a lot of water gathered in front of our house.
       Question 4: Where did much water gather?
       Answer: in front of the house
\n 6
                      seno bondo kantajkena
\p enate
             hat
\g so
             market go
                            close PAST
\b তাই বাজারে যাওয়াটা বন্ধ হয়ে গেল।
\e So going to the market wasn't possible.
```

```
Question 5: Where was it not possible to go?
        Answer: market
\n 7
\p alε.ε
           d<sub>3</sub>omanuja
                        t∫haba
                                   kantajkena
\g our
           food
                        finished
                                  was
\b আমাদের খাবারও শেষ হয়ে গেল।
\e We were out of food.
\n 8
\p enate ale.e seta?te
                                             d<sub>3</sub>omtele
                                                         tajkena
                                   begar
\g so
           we
                  morning-from
                                   without eating
                                                         was
\b তাই সকাল থেকে আমরা না খেয়ে বসে থাকলাম।
\e We hadn't eaten anything since morning.
\n 9
\p inja apujn
                 tijire
                            mia?
                                           sapkete
                                                     odon
                                   da.o
                                                               nana
         father hand-at
                           one
                                   sickle
                                           holding
                                                     outside
                                                              went
\b আমার বাবা হাতে একটা দা নিয়ে বের হয়ে গেলেন।
\e My father took a sickle in his hand and went out.
        Question 6: What did the father have in his hand?
        Answer: sickle
\n 10
                      g<sup>h</sup>ari
\p ena mit
                               tojomte
                                          in.i
                                                       da?are lohot lohote
\g this one
                      time
                               after
                                          he
                                                       rain-at wet
                                                                      wet-condition
\p mit gha.ur
                      kola
                               aukete
                                         hidzunanaj
\g one big-bunch banana bringing returned
\b এর কিছুক্ষন পর তিনি বৃষ্টিতে ভিজতে ভিজতে হাতে এক ছরি কলা নিয়ে ফিরে এলেন।
\e After a while, he came back soaking wet with a big bunch of bananas.
\n 11
\p kola
             tajkena
                      berelgi
\g banana was
                       unripe
\b কলাগুলো ছিল কাচাঁ।
\e The bananas were unripe.
```

```
Question 7: How were the bananas?
        Answer: unripe
\n 12
             t∫<sup>h</sup>iri
                     iηgajnkε
\p kola
                                 ti?ire emkete kadzi kidzaj
                                                                εnakε
                                                                         ojonkete
                                                                                   emajnme
\g banana bunch mother-to
                                 hand gave
                                                 word said
                                                                 this-to boiling
                                                                                   give-to-me
\b কলার ছরিটা মায়ের হাতে দিয়ে বললেন, "এটা সিদ্ধ করে দাও"।
\e He gave the bunch of bananas to Mother and said, "Boil them for me."
\n 13
\p mit g<sup>h</sup>ari təjəmte iŋgajn
                                  kolako
                                            ojonte
                                                     idikedaj
\g one time after
                         mother bananas to-boil took
\b তারপর মা কলাগুলো সিদ্ধ করতে নিয়ে গেলেন।
\e Then Mother took the bananas to boil them.
        Question 8: What did the father tell the mother to do with the bananas?
        Answer: boil them
\n 14
\p apujn
           lohot rigi
                              hadoj
                                        senonanaj
\g father wet
                  condition
                              again
                                       left
\b বাবা সে ভিজা অবস্থাতেই আবার চলে গেলেন।
\e Father went out again in that wet condition.
\n 15
\p barija ghanta tojomte hadoj hidzunanaj
\g two
           hour
                   after
                             again returned
\b দুই ঘন্টা পরে তিনি আবার ফিরে এলেন।
\e He came back again after two hours.
        Question 9: How much time later did he come back?
        Answer: two hours
\n 16
\p imin
                                     thar-tharo?
                                                   tajkena
             ghari lohot karonte
\g for-that time
                           because shake
                                                   PAST
                    wet
\b আর এতক্ষন ভিজার কারণে তিনি কাঁপছিলেন।
\e He was shaking after being wet for so long.
\n 17
arcmrch tedel ini q/
                         lid3ate
                                        d3o?nana
                                                        badlanana
\g he wet
              body-at
                         cloth-with
                                        wiped
                                                   and changed
\b তিনি তাঁর ভিজা শরীর মুছে কাপড় পাল্টালেন।
\e He wiped his soaked body with a cloth and changed.
```

```
\n 18
\p intam singi tikin
                                                                kantajkena
\g then
                              day
                                               noon
                                                                was
\b তখন বেলা ১২ টা বাজে।
\e Then it was noon.
\n 19
\p int \m da?aj
                                                   komaokedaj
\g then
                              rain
                                                    stopped
\b তখন বৃষ্টি থেমেছে।
\e The rain stopped.
\n 20
                                                                                   mijat b<sup>h</sup>ura
                                                                                                                       bajkedaj
\p apujin
                              kola
                                                      darute
\g father
                               banana
                                                      tree-with
                                                                                                     raft
                                                                                                                        made
                                                                                   one
\b বাবা কলাগাছ দিয়ে একটা ভেলা তৈরী করলেন।
\e Father made a raft using a banana tree.
                    Question 10: What did the father make with the banana tree?
                    Answer: raft
\n 21
\p εn
                      b<sup>h</sup>urate
                                                  al.e or.agenaren
                                                                                                   mihur horoke hidikete hataj
                                                                                                                                                                                                     senonana
\g that raft-with our neighbor
                                                                                                   one
                                                                                                                        person
                                                                                                                                              take
                                                                                                                                                                        market-at
                                                                                                                                                                                                    left
\b আর সে ভেলা নিয়ে আমাদের এক প্রতিবেশীর সঙ্গে তিনি বাজারে গেলেন।
\e He went with a neighbor on his raft and went to the market.
\n 22
chad atmetiation of the chad at the chad a
                                                                                                                     da?a
                                                                                                                                                              sante hidzunana
                                                                                                həjə
                                                                                                                                    ajub
\g then one time after
                                                                               again storm rain
                                                                                                                                     evening
                                                                                                                                                             until
                                                                                                                                                                               came
\b এর \ ঘন্টা পর আবার বৃষ্টি ও ঝড় শুরু হল ও সন্ধা পর্যন্ত চলল।
\e Then a bit later, the rainstorm started again until evening.
\n 23
\p ingajin apujin laj paham kentajkenaj
\g mother father for worry
\b মা বাবার জন্য চিন্তা করলেন।
\e Mother was worried about Father.
\n 24
\p enate ajub
                                                                                                                         hidzakanaj
                                                    satta
                                                                                 hat
                                                                                                        tεj
                           evening 7-o'clock market from came
\g and
\b আর সন্ধা ৭ টায় বাবা বাজার থেকে ফিরে এলেন।
\e At seven in the evening, Father came back from the market.
```

\n 25

\p t∫auli dajl at asakam kirin aukete engajinke emakidʒaj \g rice lentil and vegetables buy brought mother-to gave \b চাল-ডাল আর সজি কিনে এসে মাকে দিলেন।

\e He bought rice, lentils and vegetables and gave them to Mother.

\n 26

\p iŋgajn ai.a hudiŋ misiteke idikete dʒɔmanuja bajlajkin senonana \g mother her younger sister-with took food to-make was \b মা তার ছোট বোনকে নিয়ে খাবার তৈরী করতে চলে গেলেন।

\e Mother took her younger sister and went to cook.

C.3.4. Mundari (Ranchi) text

Title: Hunting

Location: Hutar: Ranchi district, Bihar state

Date: February 1997

Language: Mundari

This story comes courtesy of fellow researchers Troy Bailey and Loren Maggard. While it was shortened slightly to make it more test-friendly, we present the transcriptions, glosses, and free translations as given by them in their original report written in 1997.

| Code | Meaning: |
|------|--|
| \n | Line number |
| \p | Phonetic transcription |
| \g | Word-by-word English gloss of transcribed text |
| \f | Free (natural) English translation of the text |
| ∖a | Answer to the question |

The following abbreviations are used in the glosses:

PAST = past tense marker CONT = continuous PL = plural

\n 1

\p a'ŋən tʃıntən dəngəta kənta'kena skul hokə dʒante \g I-am when young was school stop going \f When I was young, I stopped going to school.

QUESTION 1

\p okodipire ini skul hokə dʒana \g when he school stop PAST \f When did he stop going to school? \a when he was young

```
\n 2
  \p entajomte ale dangara gattiko lo netahante
                                                          inun koţe
                                                                        senotangode tanta hina
  \g that-after we young
                            friend-PL with here-and-there play whatever go-CONT
                                                                                      kept on were
  \f After that, I and my young friends were going all around playing.
\ln 3
  \p en lekən səməjəra? a'n dəngərasəməjəra? ghətna a'n tısın
  \g this like time that I young time that event I today
  \p uduve<sup>1</sup> sənəntəna ınədo nelekən hovadzana
  \g telling
               wants
                        thus
                               like
                                      happen-PAST
  If At that time when I was young, an event happened that I am telling you about today.
\n 4
  \p musin a'n a'na songeko lo
                                      bəhut səngin losono dzana
                 my friend-PL with many distance travel
  \f One day I and my friends travelled a long distance.
\n 5
                                            ta¹kena
  \p oro
           a¹ŋ
               hətuvəte
                               eskar
                                       a<sup>1</sup>n
                                       I
                village-from
                               only
  \f I was the only one among my friends from my village.
\n 6
  \p εta
            həturən
                          songeko
                                    lote
                                                    senodzana
                                              əle
  \g other village-from friend-PL
                                    with-to
                                              we
                                                    go-PAST
  \f My friends came from other villages.
OUESTION 2
  \p ini?a
                         kota?renko
                                       taikena
             songeko
                         where-from
  \g his
             friend-PL
                                       was
  \f Where were his friends from?
  \a other villages
\n 7
                               dzana oro hidzu lotodo purvagele
  \p entarenke singi
                       dubu
                                                                           nuba dzana
  \g there-??
                               PAST
                                      and come back
                                                           much-became
                                                                           dark PAST
               sun
                       set
  \f The sun was setting and as we came back, it became very dark.
QUESTION 3
                                      ta¹kena ımta
                                                       tſılka
                                                               taikena
  \p oko
               ımta
                      ını
                           ruvərtən
  \g anything when he
                           returning
                                      was
                                               when
                                                       how
                                                               was
  \f When returning, what happened?
  \a became very dark
  \p a<sup>i</sup>ŋa ora
                sențe țebaloțedo țela nida heladzola hova dzana
  \g my house go-to reach-if
                                   mid night about
                                                         happen PAST
  \f If I were to reach my house, it would be about midnight.
```

OUESTION 4 \p okon səməjəre ını aja ora?e tebajəte \g what time-in he his house reached \f What time would it be if he reached his home? \a midnight \n 9 \p do a^urın tebaⁱrege dzəinkuahətu teba side dzana \g then not reaching their village reach earlier PAST \f I then reached my friend's village earlier than midnight. \n 10 \p inkuko məntə¹n təna t∫ī alom sena hətute \g they-PL telling CONT that do-not go village-to \f All my friends are telling me not to go to my village. **OUESTION 5** \p ini?ke tsena?ko menta?ija songeko \g him-to friend-PL what told \f What did his friends tell him? \a don't go to his village \n 11 \p neta rege ta komekupul kome \g here stay please guest kindly \f My friends said, "Please stay here as our guest." **OUESTION 6** \p ini?ke t∫ena rikae menteko kadzija tena \g him-to what asking for said CONT \f What were they asking him to do? \a stay here as a guest \n 12 \p tsiatsi nida nubare kotare tsikana hubakova əle meneja tsi ını senodzana \g because night dark-in where-in what happen-will we tell-will that he go-PAST If They said to me, "Because it is dark, we will say, 'What will happen and where did he go?" \n 13 \p oro ora renko menejatsi kotar aja songe kotar sena kana \g and house belong-PL tell-will that where his friend where go \f "And our family would also ask where our friend went." \n 14 \p bitsi dzen təla hora kore dzana hova dzanaredzeta kako nelma any mid way there whatever happen PAST-in anyone not \f "If on the way something happened to you, no one would see you."

\n 15 \p nelekən ko kadzija a'təna \g this-like they said me-cont \f They were saying this to me. \n 16 \p mendo a'nınkuva kadzı ka¹ŋ mənatın dzana \g but I-their PAST sav not accept \f But I did not accept what they said. \n 17 \p səⁱkəl teⁱn sen hora təntaⁱkena \g cycle by go way CONT-was \f I was going by cycle. \n 18 \p oro əlejanedisunge sobenkoinuvənat∫ı mijəd bonka burura isu tsələnko mena place all-PL know that one mountain god many custom-PL remaining \f And everyone in our place knew that ghost worship is still existing. **OUESTION 7** \p tsika tsələnko na?səntemena \g what custom-PL existing remaining \f What is still existing? \a ghost worship \n 19 \p ajub səməjəre hentare oko sukuri lekən lelova hentare toju hova hentare kula lekən \g night time-in there-in anything pig like see-will there-in fox happen there-in tiger Like hentare sədom lekən nelekən nelekən kadzı ko ne disunge isu \p lelova pura mena \g see-will there-in horse like this-like say PL this place many more remaining If It is believed that at night time a ghost looks like a pig, a fox, a tiger or a horse, especially in this place. \n 20

\p həlakı ınku dzıtəna kako riga mendosir horo bə¹riko botonga

\g though they anything not doing but only man only

\f However, these appearances do nothing but frighten people.

\n 21

\p en lekaţe dzebt∫ı eskarke senokore dzana **PAST** \g this like-to when-that alone go-if \p nel tainre nida nuba səməjəre boro do hidzu geja \g you will-live night dark time-in fear then come DEFINITE

\f If you go out alone in the dark, you will definitely be frightened.

OUESTION 8

\p am nida nubare eskar g^jəm senore do t∫ika hova

\g if night dark-in alone do go-in then what happen

\f What will happen if you go out alone in the dark?

\a fear will come

```
\n 22
  \p do en leken dzagegeko a'n manı manıte sen perom dzete'n
  \g then this like place
                                I slowly slowly-to go cross doing
  \f Then I was going very slowly across the place.
OUESTION 9
  \p tsilka ini hora peromtenta kena
  \g how he way crossing was
  \f How was he going across?
  \a slowly
\n 23
  \p na do a'na hətu t∫e ora tenebaren teba dzana
  \g now then my village or house nearer
                                              reach PAST
  \f I now reached nearer to my village house.
\n 24
                                                                        koroveked taikena
  \p en a'n senakadhora rege hora dzəparelinkasa dzenaresənga
  \g this I going on way stay way near
                                            left
                                                            sweet potato lying
                                                                                   was
  \f As I was going on my way, on the left side was lying a sweet potato.
OUESTION 10
                             kovakəntaikena
  \p sənga
                  kotare
  \g sweet potato where-in
                             lving
  \f Where was the sweet potato lying?
  \a on the left side
\n 25
                          dzom nəgentemijəd əle həturengeko əsulə kər ta'kena
  \p do en sənga
  \g then this sweet potato eat
                              for
                                       one our village-in
                                                               keep do was
  \p bode-məran sukurı ar ını pudige ta'kena
                         and he white was
                 pig
  \f In our village we were keeping a big, white pig which was eating the sweet potato.
\n 26
  \p sə\kəl te\n hıdzu lena sə\kəlre
                                     avadz dzeb ajum keda inijo kiţil dzana
  \g cycle by come PAST cycle-from voice when hear did he
  \f As I came by cycle, the pig heard the sound of the cycle and was startled.
\n 27
  p həre ını do dzəbdzınəda nuvareoko horo hıdzuve a'nke nokambotonga ena dzas
  \g and he then while
                               dark-in
                                           man come-willI
                                                               like
                                                                      frighten that suppose
  \p unu
             tana mane barakin boro do
                                            lıŋ
                                                       boro tənta'kena
  \g thinking CONT means both
                                  fear then each other fear
  \f In this darkness we were both frightened, I kept on thinking.
\n 28
  \p mendo a n sahas keden tsi
                                  akir donevo a<sup>i</sup>n hətuvisun ora a<sup>i</sup>n teba keda geja
            I dare stood that last so now I village
                                                           house I reach did DEFINITE
  \f But I was bold and at last I reached my village house.
```

D. RECORDED TEXT TEST SCORES

D.1. Scoring and answer notes

The following tables display the answers given by RTT subjects. They are displayed according to subject location and text location. The following abbreviations and scoring codes are used in the tables in section D.2:

- *Subj. No.* = subject identification number
- AI A10 = Answers given to questions 1–10 about the content of the text. Questions and correct answers vary among tests. Actual questions and accepted answers are given within the texts shown in Appendix C.3.
- *Total* = Total score for the given subject, based on 10 points per question. The maximum score of a test is 100. The scores are then turned into percentages, 100 points being 100%, 85 points 85%, and so on.

Correct answer: Full credit (10)

Partially correct answer: Half credit (5)

Incorrect answer: No credit (0)

The tables in section D.3. display post-HTT and post-RTT questionnaire responses. The questionnaires are given in Appendices E.2. and E.3.

The following abbreviations are used throughout appendix D:

- Y = yes
- N = no
- DK = does not know
- NA = not applicable

D.2. Recorded Text Test answers and scores

D.2.1. Santali HTT validation: Rajarampur subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
|--------------|-----|----------------|-----------|-------------|------------------|-----------------|------------------------------|----------------|--------------------------|----------|-------|
| R1 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R2 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by car | very sad | 100 |
| R3 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | by day | crushed by a truck | very sad | 90 |
| R4 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R5 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R6 | dog | by the road | DK | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| R7 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R8 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R9 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| R10 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a car | very sad | 100 |
| • | • | | Ave | erage = 9 | 98.0, Standar | d Deviation | = 4.2, Sample Siz | e = 10 | • | • | |

D.2.2. Mahali HTT validation: Abirpara subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
|--------------|-------------------|----------------------|-------------------|---------------------|-----------------------------|--|-------------|---|-------------------------------------|------------------------------|-------|
| A1 | 3 years | much farming land | help | cows | many | sunflower | sad | end of the break | garden | sunflower | 90 |
| A2 | 3 years | boy & girl | help | cows | many flower plants | sunflower | very sad | DK | see garden | sunflower | 80 |
| A3 | 3 years | much farming land | help | cows | flower plants | DK | very sad | end of the break | garden | many flowers | 90 |
| A4 | 3 years before | farming land | help parents | bring the cows back | many plants | sunflower | very sad | end of the break | garden | flower | 90 |
| A5 | 1 year | much farming land | help at home | cows | many flower plants | flower-tree died | very sad | end of the break | flower garden | flower | 85 |
| A6 | 3 years | much farming land | helped parents | cows | flower plants | flower | very sad | end of the break | flower garden | sunflower | 95 |
| A7 | 3 years | much farming land | help | cows | brought many nice things | all the flower plants died because of the heat | very sad | finished their books and then returned to school the following year | asked the girls at the school | many flowers | 65 |
| A8 | 3 years | farming land | help | DK | flower plants | flower plant died | sad | end of the break | flower garden | sunflower | 85 |
| A9 | 3 years before | land | helped parents | cows | flower plants | sunflower | sad | end of the break | flower | sunflower | 100 |
| A10 | 3 years before | much farming land | help | cows | flower | sunflower | sad | end of the break | garden | many sunflowers | 100 |
| A11* | DK | much land | help | cows | flower plants | flower plant | very sad | went to get flower plants | garden | all the plants died | 70 |
| A12* | 2 years before | land | help | cows | DK Standard De | sunflower plant | very sad | because the flower plant died and was upset | flower garden | many different flowers | 70 |

Average Score = 88.0, Standard Deviation = 10.3, Sample Size = 10

*Note: These two subjects were not needed for HTT validation, but were tested anyway because we needed more older men for the RTT study.

D.2.3. Mundari HTT validation: Begunbari subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
|--------------|-----------------|--------|-----------------------------|-------------------------|-------------|---------------------------------|------------|--------------------|------------------|--------------------------|-------|
| G1 | rainy season | 3 days | due to rain | front/ near house | to bazaar | took a sickle in his hand | green | to boil bananas | 2 hours later | raft | 95 |
| G2 | rainy season | 3 days | due to rain | front/ near house | to bazaar | took a sickle in his hand | green | to boil bananas | 2 hours later | raft | 95 |
| G3 | it's morning | 3 days | due to storm | front/ near house | to bazaar | sickle | green | scolded | 1 hour later | raft | 70 |
| G4 | rainy season | 3 days | due to rain and storm | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 100 |
| G5 | rainy season | 3 days | due to storm and rain | front/ near house | to bazaar | sickle | green | to boil bananas | 3 hours later | boiled banana tree | 80 |
| G6 | rainy season | 3 days | due to rain | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 95 |
| G7 | rainy season | 3 days | due to rain | on lands | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 85 |
| G8 | rainy season | 3 days | due to rain | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 95 |
| G9 | it's morning | 3 days | due to rain and storm | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 90 |
| G10 | rainy season | 3 days | due to rain and storm | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 100 |
| | | | A | verage = 90. | 5, Standard | Deviation = | 9.6, Sampl | e Size = 10 | | | |

D.2.4. Mundari HTT: Nijpara subjects

| rainy season rainy season rainy season | 3 days 3 days | due to rain due to rain and storm due to rain | front/ near house front/ near house front/ near | to bazaar | sickle sickle | green | to boil bananas to boil bananas | 2 hours later 2 hours later | raft raft | 95 |
|---|---|---|---|---|--|--|--|--|--|--|
| rainy season rainy | , | rain and storm due to | near house front/ | to bazaar | sickle | green | | | raft | 100 |
| season | 3 days | | | | | | 1 | | 1 | |
| , | | 1 | house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 95 |
| season | 3 days | due to rain and storm | in river | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 90 |
| rainy season | 3 days | due to storm | front/ near house | DK | sickle | green | to boil bananas | 2 hours later | raft | 90 |
| rainy season | 3 days | due to rain | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 95 |
| rainy season | 3 days | due to storm | was flooded after rain | to bazaar | sickle | green | to boil bananas | DK | raft | 80 |
| rainy season | 3 days | due to rain and storm | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 100 |
| rainy season | 3 days | due to rain | front/ near house | to bazaar | sickle | green | to boil bananas | 2 hours later | raft | 95 |
| | rainy season rainy season rainy season rainy season rainy | rainy season 3 days rainy season 3 days rainy season 3 days rainy 3 days rainy 3 days | rainy season 3 days due to storm rainy season 3 days due to rain rainy season 3 days due to rain rainy season 3 days due to storm rainy season 3 days rain and storm rainy season 3 days due to rain and storm | rainy season 3 days due to storm house front/ near house front/ near house front/ near house front/ near house was flooded after rainy season 3 days rain and storm front/ near house flooded after rain and storm house front/ near house front/ near house season 3 days rain and storm house front/ near house | rainy season 3 days due to storm front/ near house front/ near house front/ near house season 3 days due to rain due to storm flooded storm rainy season 3 days rain and storm house front/ rainy season 3 days rain and storm house front/ rain due to rain house front/ near house to bazaar to bazaar to bazaar to bazaar house | rainy season Tainy season 3 days due to storm due to rain rainy season 3 days due to rain and season 3 days due to rain due to storm rainy season 3 days due to storm rainy season 3 days due to storm rainy season 3 days due to front/ near rain rain due to front/ near house rainy season 3 days due to front/ near house rainy season 3 days due to front/ near house rainy season 3 days due to rain and storm rainy season 3 days due to rain house rainy house rainy season 3 days due to rain house rainy house | rainy season 3 days due to storm house front/ near house front/ near house season 3 days due to rain house flooded storm season 3 days season 3 days season 3 days flooded storm front/ near rainy season 3 days flooded storm front/ near house front | rainy season 3 days due to storm house front/ near house front/ near house season 3 days rain and storm front/ season 3 days rain and storm front/ near house front/ near to bazaar sickle green to boil bananas sickle green to boil bananas front/ near to bazaar sickle green to boil bananas to bazaar sickle green to boil bananas front/ near to bazaar sickle green to boil bananas to bazaar sickle green to boil bananas front/ near to bazaar sickle green bananas bananas | rainy season 3 days due to storm front/ near house front/ season 3 days rain and storm front/ near house front/ near house house after rain house front/ near house front/ n | rainy season 3 days due to storm bouse front/ near house front/ season 3 days due to rain house front/ near house fron |

D.2.5. Santali RTT: Abirpara and Pachondor subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Tot |
|--------------|--------------|---|-------------------|--------------------|---|----------------------------|--|------------------------------|--------------------------|--------------|-----|
| A1 | dog | DK | very beautiful | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by truck | very sad | 90 |
| A2 | puppy | by the road | nice | the tail | catching fish | ladle | it will protect the house | in the evening | crushed by truck | very sad | 10 |
| A3 | dog | DK | very beautiful | the tail | DK | DK | it will protect the house | in the evening | crushed by truck | sad | 70 |
| A4 | puppy | by the road | very beautiful | in the front | father was catching fish at the river | milk and rice | it will protect the house | in the evening | crushed by a train | very sad | 70 |
| A5 | dog | on his way back from school | was beautiful | the body | catching fish | with a ladle | it will protect the house that's why | in the evening | crushed by truck | very sad | 80 |
| A6 | dog | by the road | beautiful | the tail | catching fish | DK | it will protect the house | in the evening | crushed by truck | very sad | 9 |
| A7 | dog | by the road | beautiful | the neck | fishing | gave with curry | because it was small | in the evening | crushed by car | very sad | 7 |
| A8 | dog | by the road | very beautiful | the tail | fishing in the river | with a ladle | it will protect the house | in the evening | crushed by car | very sad | 10 |
| A9 | dog | at home | very beautiful | the tail | catching fish | with curry | it will protect the house | in the evening | crushed by vehicle | very sad | 8 |
| A10 | dog | by the road | very beautiful | the tail | catching fish | with a ladle | DK | in the evening | crushed by truck | very sad | 9 |
| A11 | dog | in the school ground | very beautiful | the neck | father was at home | gave rice with curry | for their benefit | in the evening | died sick | very sad | 4 |
| A12 | puppy | DK | very beautiful | DK | take away the dog | curry | DK | just before the sunset | crushed by car | very sad | 5 |
| | | | Abirpara | a Averag | e: 77.9, Standard | Deviation = | 17.8, Sample size | e = 12 | | | |
| C1 | dog | by the road | very beautiful | the tail | fishing in the river | ladle | it will protect the house | in the evening | crushed by car | very sad | 10 |
| C2 | dog | inside the house | very beautiful | the tail | fishing | curry | it will protect | in the evening | crushed by car | very sad | 8 |
| C3 | dog | on the road | very beautiful | the back | fishing | with a ladle | it will protect the house | in the evening | crushed by truck | very sad | 9 |
| C4 | dog | on the road | very beautiful | the tail | fishing in the river | with fish | it will protect the house | in the evening | crushed by truck | very sad | 9 |
| C5 | dog | by the road | very beautiful | the tail | fishing in the river | ladle | it will protect the house | from the field | crushed by truck | sad | 9 |
| C6 | raise dog | by the road | very beautiful | the tail | catching fish | with curry | it will protect the house | in the evening | crushed by truck | very sad | 9 |
| C7 | dog | on the road | very beautiful | the tail | fishing in the river | ladle | DK | in the evening | crushed by truck | very sad | 9 |
| C8 | raise dog | on the road | very beautiful | the tail | fishing | with a ladle | protect the house | in the evening | crushed | very good | 9 |
| C9 | raise dog | by the road | very beautiful | the tail | fishing | with a ladle | protect the house | in the evening | crushed by truck | very sad | 10 |
| | dog | on the road | very beautiful | the tail | fishing in the river | with fish | protect the house | in the evening | crushed by truck | very sad | 9 |
| C10 | | | | | fishing in the | | protect the | in the | crushed | very | |
| C10 | dog | by the road | very beautiful | the tail | river | with fish | house | evening | by truck | sad | 9 |

Abirpara and Pachondor: Average = 84.1; Standard Deviation = 14.7; Sample Size = 23

D.2.6. Santali RTT: Begunbari subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
|--------------|----------|-------------------|--------------|-----------|------------------|-----------------|------------------------------|--|-----------------------|-------------|-------|
| G1 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G2 | dog | on the way | black | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G3 | dog | on the way | very nice | the tail | scolded | in a bowl | fond of | in the evening | crushed by a truck | very sad | 70 |
| G4 | dog | in the jungle | white | the tail | working | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 70 |
| G5 | dog | by the road | black | the tail | DK | with a ladle | DK | DK | crushed by a truck | very sad | 60 |
| G6 | dog | next to school | very nice | the tail | DK | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 80 |
| G7 | dog | by the road | white | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G8 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G9 | dog | by the road | very nice | middle | working | with a spoon | it will protect the house | in the evening | crushed by a truck | very sad | 80 |
| G10 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G11 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G12 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G13 | dog | by the road | small | the tail | DK | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 80 |
| G14 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the morning | crushed by a truck | very sad | 90 |
| G15 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G16 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | at noon, at night and in the evening | crushed by a truck | very sad | 95 |
| G17 | dog | on the way | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G18 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | at noon | crushed by a truck | very sad | 90 |
| G19 | dog | by the road | very nice | the tail | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 100 |
| G20 | dog | by the road | very nice | middle | catching fish | with a ladle | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G21 | dog | by the road | very nice | the tail | catching fish | in a bowl | it will protect the house | in the evening | crushed by a truck | very sad | 90 |
| G22 | dog | by the road | white | the tail | catching fish | with a ladle | it was very good | in the evening | DK | very sad | 70 |
| | <u> </u> | | | Average = | 87.5, Stand | lard Deviat | ion = 11.7, Samp | le size = 22 | | | |

D.2.7. Mahali HTT: Pachondor subjects

| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
|--------------|------------------------|-------------------------|---|----------|--------------------------|-------------------------------|-------------|-----------------------------|------------------|------------------------|-------|
| C1 | 3 years | farming land | help | cows | flower plants | sunflower | very sad | end of the break | see garden | many sunflowers | 100 |
| C2 | 3 years before | much farming land | helped at home | cows | nice flowers | flower tree died | very sad | end of the break | garden | many sunflowers | 90 |
| С3 | 3 years | land | worked | cows | two | bugs ate the plants | very sad | because she was upset | flower garden | flower garden | 60 |
| C4 | DK | land, two kids | helped at home | cows | flower plants | flower tree died | very sad | because she was upset | garden | many flowers | 75 |
| C5 | 3 years before | farming land | helped at home | cows | many flower plants | DK | very sad | end of the break | see garden | many flowers | 90 |
| C6 | 3 years | land | looked after the garden, and were students | cows | flower trees | sunflower | sad | DK | garden | many flowers | 80 |
| C7 | 3 years | farming land | helped at home | cows | many flower plants | DK | very sad | end of the break | garden | many flowers | 90 |
| C8 | 3 years | farming land | were students | cows | flower plants | china-rose flower | DK | DK | garden | flower | 60 |
| С9 | 3 years before | much farming land | helped at home | cows | nice plants | whichever ones were bad | very sad | end of the break | garden | sunflower | 80 |
| C10 | many days before | much farming land | helped | cows | nice plants | beautiful flower | sad | DK | garden | many flowers | 60 |
| C11 | DK | land | helped at home | cows | flower plants | DK | sad | DK | garden | bugs ate the plants | 60 |
| | | | Averag | e = 76.8 | Standard I | Deviation = 14 | 9, Samp | le Size = 11 | | | |

D.2.8. Mundari (Ranchi) RTT: Nijpara subjects

| | arraarr | 1 | , | | a. a oak | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | |
|--------------|-----------------|-------------------|---------------------|------------------|------------------------|---|---|---|--------|------------------|-------|
| Subj. No. | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | Total |
| N1 | at young age | in villages | became dark | 7 in the evening | don't go | stay at village | ghost worship | get scared | slowly | on the left | 80 |
| N2 | at young age | DK | became dark | midnight | don't go | stay as guest | ghost worship | get scared | slowly | on the left | 90 |
| N3 | at young age | other villages | became very dark | morning | don't go to village | stay at village | ghost worship and fear of ghosts | get scared/ see ghosts | slowly | on the road | 80 |
| N4 | DK | outside | became dark | 12 o'clock | don't go | get changed and stay here | didn't have good practices | saw many things | slowly | next to house | 50 |
| N5 | at young age | DK | DK | DK | don't go | stay here | DK | DK | scared | on the road | 30 |
| N6 | at young age | same village | became very dark | midnight | don't go | stay here | ghost worship | get scared | slowly | on the road | 80 |
| N7 | DK | in schools | after sunset | midnight | don't go | stay and get married here | DK | get scared | slowly | on the road | 50 |
| N8 | DK | DK | after sunset | midnight | don't go to village | stay here as guest | ghost worship | if scared; will see horse, pig etc. | DK | on the left | 70 |
| N9 | at young age | other villages | became dark | midnight | don't go home | stay as guest | ghost worship | get scared | slowly | next to village | 90 |
| | | | Ave | rage = 68.9, | Standard De | viation = 20.9 | , Sample size | = 9 | | | |

D.3. Post-HTT/RTT responses

D.3.1. Post-Santali HTT validation: Rajarampur subjects

| Subj. No. | 1a. Speech pure? | | 2. Understand how much? |
|--------------|------------------|----|-------------------------------|
| R1 | Y | NA | most |
| R2 | Y | NA | all |
| R3 | Y | NA | all |
| R4 | Y | NA | all |
| R5 | Y | NA | all |
| R6 | Y | NA | all |
| R7 | Y | NA | all |
| R8 | Y | NA | all |
| R9 | Y | NA | all |
| R10 | Y | NA | all |

D.3.2. Post-Mahali HTT validation: Abirpara subjects

| Subj. No. | 1a. Speech pure? | | 2. Understand how much? |
|--------------|------------------|---------|-------------------------------|
| A1 | Y | NA | all |
| A2 | Y | NA | all |
| A3 | Y | NA | all |
| A4 | Y | NA | all |
| A5 | Y | NA | all |
| A6 | N | Santali | most |
| A7 | Y | NA | most |
| A8 | Y | NA | all |
| A9 | Y | NA | all |
| A10 | Y | NA | all |
| A11 | Y | NA | all |
| A12 | Y | NA | all |

D.3.3. Post-Mundari HTT validation: Begunbari subjects

| Subj. No. | 1a. Speech pure? | | 2. Understand how much? |
|--------------|------------------|----|-------------------------------|
| G1 | Y | NA | all |
| G2 | Y | NA | all |
| G3 | Y | NA | all |
| G4 | Y | NA | all |
| G5 | Y | NA | all |
| G6 | Y | NA | all |
| G7 | Y | NA | all |
| G8 | Y | NA | all |
| G9 | Y | NA | all |
| G10 | Y | NA | all |

D.3.4. Post-Mundari HTT: Nijpara subjects

| Subj. No. | 1a. Speech pure? | | 2. Understand how much? |
|--------------|------------------|---------|-------------------------------|
| N1 | Y | NA | all |
| N2 | N | Santali | all |
| N3 | Y | NA | all |
| N4 | Y | NA | all |
| N5 | Y | NA | all |
| N6 | Y | NA | all |
| N7 | Y | NA | all |
| N8 | Y | NA | all |
| N9 | Y | NA | all |

D.3.5. Post-Santali RTT: Abirpara subjects

| Subj. No. | 1. What language? | 2a. Speech pure? | 2a. Mixed with what language? | 3. Understand how much? |
|--------------|---------------------|------------------|-------------------------------|-------------------------|
| A1 | Santali | Y | NA | all |
| A2 | Santali | Y | NA | all |
| A3 | Santali | Y | NA | most |
| A4 | Santali & Mahali | N | Mahali | most |
| A5 | Santali | Y | NA | all |
| A6 | Santali | Y | NA | all |
| A7 | Santali | Y | NA | most |
| A8 | Santali | Y | NA | all |
| A9 | Santali | Y | NA | all |
| A10 | Santali | Y | NA | all |
| A11 | Santali | Y | NA | most |
| A12 | Santali | Y | NA | all |

D.3.6. Post-Santali RTT: Pachondor subjects

| Subj. No. | 1. What language? | 2a. Speech pure? | 2a. Mixed with what language? | 3. Understand how much? |
|--------------|-------------------|------------------|-------------------------------|-------------------------|
| C1 | Santali | Y | NA | all |
| C2 | Mahali | Y | NA | all |
| C3 | Santali | Y | NA | most |
| C4 | Santali | Y | NA | all |
| C5 | Santali | Y | NA | all |
| C6 | Santali | Y | NA | all |
| C7 | Santali Y | | NA | most |
| C8 | Santali | Y | NA | all |
| C9 | Santali | Y | NA | all |
| C10 | Santali | Y | NA | half |
| C11 | Santali | Y | NA | all |

D.3.7. Post-Santali RTT: Begunbari subjects

| Dioiri i dat dantan ivi i Doganbari dabjedte | | | | | |
|--|-------------------|------------------|-------------------------------|-------------------------|--|
| Subj. No. | 1. What language? | 2a. Speech pure? | 2a. Mixed with what language? | 3. Understand how much? | |
| G1 | Santali | Y | NA | all | |
| G2 | Santali | Y | NA | all | |
| G3 | Santali | Y | NA | all | |
| G4 | Santali | Y | NA | all | |
| G5 | Santali | Y | NA | little | |
| G6 | Santali | Y | NA | all | |
| G7 | Santali | Y | NA | all | |
| G8 | Santali | Y | NA | all | |
| G9 | Santali | Y | NA | all | |
| G10 | Santali | Y | NA | all | |
| G11 | Santali | Y | NA | all | |
| G12 | Santali | Y | NA | most | |
| G13 | Santali | Y | NA | all | |
| G14 | Santali | Y | NA | all | |
| G15 | Santali | Y | NA | all | |
| G16 | Santali | Y | NA | most | |
| G17 | Santali | Y | NA | all | |
| G18 | Santali | Y | NA | most | |
| G19 | Santali | N | Bangla | all | |
| G20 | Santali | Y | NA | all | |
| G21 | Santali | Y | NA | all | |
| G22 | Santali | Y | NA | most | |

D.3.8. Post-Mahali HTT: Pachondor subjects

| Subj. No. | 1. What language? | 2a. Speech pure? | 2a. Mixed with what language? | 3. Understand how much? |
|--------------|-------------------|------------------|-------------------------------|-------------------------|
| C1 | Mahali | Y | NA | most |
| C2 | Mahali | Y | NA | all |
| C3 | Mahali | Mahali Y | | little |
| C4 | Mahali | Y | NA | all |
| C5 | Mahali | N | Kohole | most |
| C6 | Mahali | Y | NA | all |
| C7 | Mahali | Y | NA | most |
| C8 | Mahali | Y | NA | half |
| C9 | Mahali | Y | NA | most |
| C10 | Mahali | Y | NA | little |
| C11 | Mahali | Y | NA | half |

D.3.9. Post-Mundari (Ranchi) RTT: Nijpara subjects

| Subj. No. | 1. What language? | 2a. Speech pure? | 2b. Mixed with what language? | 3. Understand how much? | 4. Where is the story teller from? |
|--------------|-------------------|------------------|-------------------------------|-------------------------|---|
| N1 | Mundari | Y | NA | most | Ranchi |
| N2 | Mundari | N | Bangla, Santali | all | Nagpur, Ranchi |
| N3 | Mundari | Y | NA | most | Ranchi |
| N4 | Mundari | Y | NA | most | Ranchi |
| N5 | Mundari | N | Bangla, Santali | half | Ranchi |
| N6 | Mundari | Y | NA | all | Ranchi |
| N7 | Mundari | Y | NA | most | Ranchi |
| N8 | Mundari | Y | NA | most | Not from Bangladesh; maybe Ranchi |
| N9 | Mundari | Y | NA | all | Ranchi |

E. QUESTIONNAIRES

E.1. Sociolinguistic questionnaire

- 1. In each of the following places and activities, what language do you use most of the time?
- ১. নিম্নে বর্ণিত স্থান এবং কার্যক্রমে. বেশীরভাগ সময়ে আপনারা কোন ভাষাটি ব্যবহার করেন?
 - 1a. At home
 - ১ক. বাড়ীতে
 - 1b. With neighbors
 - ১খ. আপনার প্রতিবেশীর সাথে
 - 1c. With a village leader
 - ১গ. আপনার গ্রামের নেতার সাথে
 - 1d. At church/temple/mosque
 - ১ঘ. গীর্জায়/ উপাসনালয়ে/ মসজিদে
 - 1e. With shopkeepers in the market
 - ১৬. বাজার/হাটে গিয়ে দোকানদারদের সাথে
- 2. In a typical week, which language do you use most?
- ২. সাধারণত একটি সপ্তহে আপনি কোন ভাষাটি বেশী ব্যবহার করেন?
- 3a. Other than your MT, what languages do you speak? ৩ক. আপনার মাতৃভাষা ছাড়া কোন কোন ভাষায় আপনি কথা বলেন?
- 3b. At what age did you begin to learn each? ৩খ. কোন বয়সে আপনি এই ভাষাগুলো শিখতে শুক্ত করেছিলেন?
- 4. What language are you able to speak with the most ability?
- ৪. কোন ভাষাটি আপনি সবচেয়ে ভালোভাবে বলতে পারেন?
- 5. What language are you able to speak with the second-most ability?
- ৫. কোন ভাষাটি আপনি দ্বিতীয় ভালোভাবে বলতে পারেন?
- 6. Can you always say what you want to say in the language in which you have second-greatest ability?
- ৬. আপনি দ্বিতীয় যে ভাষাটি ভালোভাবে বলতে পারেন সেই ভাষাতে কি সবসময় যা বলতে চান তা বলতে পারেন?
- 7a. Are there any MT people who speak differently than you?
 ৭ক. আপনার মাতৃভাষার লোকদের মধ্যে, কোন লোকেরা আপনার থেকে ভিন্নভাবে কথা বলে?
- 7b. If yes, where? ৭খ. যদি হ্যা, কোথায়?

- 7c. When you speak with someone from there, how much do you understand? (little, half, most, all)
- ৭গ. যখন আপনি এ জায়গার লোকদের সাথে আলাপ করেন, কতটুকু বুঝতে পারেন? (একটু, অর্ধেক, বেশীরভাগ, সব)
- 8. What language do children in your village speak first?
- ৮. এই গ্রামের শিশুরা সর্বপ্রথম কোন ভাষা বলে?
- 9. What language should a mother in your language group speak to her children?
- ৯. আপনার ভাষাভাষী মায়েরা তাদের শিশুদের সাথে কোন ভাষায় কথা বলা উচিত বলে আপনি মনে করেন?

10a. Do many children in your village speak another language before starting school? ১০ক. স্কুলে যাবার আগেই কি আপনার গ্রামের অনেক শিশুরা মাতৃভাষা ছাড়া অন্য ভাষা বলে?

10b. If yes, which one(s)? ১০খ. যদি হাঁা, তাহলে কোন ভাষাটি?

- 11. Do young people (age 10) in your village speak your language well, the way it ought to be spoken?
- ১১. আপনার গ্রামের দশ বছরের বয়সী শিশুরা যেমন করে বলা উচিত তেমন করে কি আপনাদের মাতৃভাষা সঠিকভাবে বলতে পারে?
- 12a. Do children in your village speak another language better than your language? ১২ক. আপনার গ্রামের শিশুরা কি আপনার ভাষার চাইতেও অন্য কোন ভাষা বেশী ভাল করে বলতে পারে?

12b. If yes, which one(s)? ১২খ. যদি হাঁা, তাহলে কোন ভাষাটি?

- 13. What language do children in your village speak with each other?
- ১৩. আপনার গ্রামের ছেলেমেয়েরা একজন অন্য জনের সঙ্গে কথা বলার সময়ে কোন ভাষা ব্যবহার করে?
- 14. When the children in this village grow up and have children of their own, what language do you think those children will speak?
- ১৪. এই গ্রামের শিশুরা বড় হয়ে যখন পিতা-মাতা হবে, তখন তাদের ছেলেমেয়েরা কোন ভাষায় কথা বলবে আপনি মনে করেন?
- 15. Would you like if your children speak other languages better than your MT?
- ১৫. আপনার কাছে কি এটা ভাল লাগবে যদি আপনার শিশুরা আপনার মাতৃভাষা ছাড়া অন্য ভাষা আরও ভালকরে বলতে পারে?
- 16. What language should be used as the medium of education in primary school?
- ১৬. শিক্ষার মাধ্যম হিসেবে প্রাথমিক স্কুলে কোন ভাষাটি ব্যবহার করা উচিত বলে আপনি মনে করেন?
- 17. What is the most useful language for you to know?
- ১৭. আপনার জন্য কোন ভাষাটি সবচেযে বেশী কাজে লাগে?

- 18. What language should be used at church/temple/mosque?
- ১৮. গীর্জায়/ উপাসনালয়ে/ মসজিদে গিয়ে কোন ভাষাটি ব্যবহার করা উচিত বলে আপনি মনে করেন?
- 19. What language is best for praying by yourself at home?
- ১৯ ঘরে নিজের জন্য প্রার্থনা কোন ভাষাটি সবচেয়ে ভালো?
- 20. Can you read and write letters and notices in Bangla?
- ২০. আপনি কি বাংলা ভাষায় চিঠি এবং নৌটিসগুলো পড়তে ও লিখতে পারেন?
- 21a. Can you read and write letters and notices in MT?
- ২১ক. আপনি কি আপনার মাতৃভাষায় চিঠি এবং নৌটিসগুলো পড়তে ও লিখতে পারেন?
- 21b. If yes, in which script?
- ২১খ. যদি হাঁা, তাহলে কোন বর্ণমালা দিয়ে?
- 22. What script should be used to write MT?
- ২২. আপনার মাতৃভাষা লিখতে কোন বর্ণমালা ব্যবহার করা উচিত?
- 23a. If your community leaders set up a class to teach young children how to read and write in your MT, would you send your children?
- ২৩ক. যদি আপনার গ্রামের নেতৃস্থানীয় ব্যক্তিরা আপনার মাতৃভাষা শিক্ষার জন্য ক্লাস চালু করেন, আপনি কি আপনার শিশুদের সেখানে পাঠাবেন?
- 23b. Why or why not?
- ২৩খ. কেন পাঠাবেন বা কেন পাঠাবেন না?
- 23c. Would you help and cooperate with such classes?
- ২৩গ. এই রকম কাজে আপনি কি সাহায্য ও সহযোগীতা করবেন?

[The following questions are for non-Santals only;

নিচের প্রশ্নগুলো শুধু অসান্তালী লোকদের জন্য

- 24a. If your community leaders set up a class to teach young children how to read and write Santali, would you send your children?
- ২৪ক. যদি আপনার গ্রামের নেতৃস্থানীয় ব্যক্তিরা সান্তালী ভাষা শিক্ষার জন্য ক্লাস চালু করেন, আপনি কি আপনার শিশুদের সেখানে পাঠাবেন?
- 24b. Why or why not?
- ২৪খ. কেন পাঠাবেন বা কেন পাঠাবেন না?
- 24c. Would you help and cooperate with such classes?
- ২৪গ. এই রকম কাজে আপনি কি সাহায্য ও সহযোগীতা করবেন?

E.2. Post-HTT questionnaire

1a. Is the storyteller's language pure?

১ক যিনি গল্পটা বলেছেন তাঁর ভাষাটাকি শুদ্ধ?

- 1b. If not, in what way(s)? ১খ. যদি না হয়, তাহলে কিভাবে?
- 2. How much did you understand? (little, half, most, all)
- ২. আপনি কতটুকু বুঝতে পেরেছেন? (অল্প. অর্ধেক, বেশীরভাগ, সব)

E.3. Post-RTT questionnaire

- 1. In what language did the storyteller speak?
- ১. যিনি গল্পটা বলৈছেন তিনি কোন ভাষায় বলেছেন?
- 2a. Is the storyteller's language pure? ২ক. যিনি গল্পটা বলেছেন তাঁর ভাষাটাকি শুদ্ধ?
- 2b. If not, in what way(s)? ২খ. যদি না হয়, তাহলে কিভাবে?
- 3. How much did you understand? (little, half, most, all)
- ৩. আপনি কতটুকু বুঝতে পেরেছেন? (অল্প, অর্ধেক, বেশীরভাগ, সব)
- 4*. Where do you think the storyteller is from?
- ৪. যিনি গল্পটা বলেছেন তিনি কোথাকার লোক বলে আপনি মনে করেন?

*Note: This question was used only with the Mundari (Ranchi) RTT because it was a story from outside Bangladesh.

E.4. Subject biodata questionnaire

Number of interview:

সাক্ষাৎকারের ক্রমিক নং:

Date of interview:

সাক্ষাৎকারের তারিখ:

Location of interview:

সাক্ষাৎকারের স্থান:

- 1. What is your name?
- ১ আপনার নাম কি?
- 2. How old are you?
- ২. আপনার বয়স কত?
- 3. Sex of interviewee:
- ৩. উত্তরদাতার লিঙ্গ পরিচয়:
- 4. Up to what standard have you studied?
- 8. আপনি কোন শ্রেণী পর্যন্ত পড়ালেখা করেছেন?
- 5. What is your occupation?
- ৫. আপনার পেশা কি?

- 6. What is the name of the village you are now living in?
- ৬. আপনি যে গ্রামে বাস করেন তার নাম কি?
- 7. What do you call your mother tongue?
- ৭. আপনার মাতৃভাষার নাম কি?
- 8a. What is your mother's mother tongue? ৮ক. আপনার মায়ের মাতৃভাষা কি?
- 8b. What is your father's mother tongue? ৮খ. আপনার বাবার মাতৃভাষা কি?
- 9. Where else have you lived and for how long?
- ৯. এর আগে আপনি অন্য কোথায় বসবাস করেছেন? কতদিনের জন্য?
- 10. What is your religion? ১০. আপনি কোন ধর্ম পালন করেন?

E.5. Community Information Questionnaire

Name of village:

গ্রামের নাম:

Transportation to village:

যাতায়াতের মাধ্যম:

- 1. What is the location of your village by subdistrict and district?
- ১. আপনার গ্রামটি কোন থানায় ও কোন জেলায় অবস্থিত?
- 2. How many people and families live in this village?
- ২. এই গ্রামটির জনসংখ্যা কত ও কতটি পরিবার বসবাস করে?
- 3. What religions are followed here?
- ৩ এখানকার লোকেরা কোন কোন ধর্ম পালন করে?
- 4. Which languages are spoken as mother tongues in your village?
- ৪. মাতৃভাষা হিসেবে কোন কোন ভাষাটি আপনার গ্রামের লোকজন ব্যবহার করে?
- 5. What jobs do people in your village do?
- ৫. আপনার গ্রামের লোকজন সাধারণত কোন ধরণের কাজ করে?
- 6. Where is the nearest post office?
- ৬. সবচেয়ে কাছের পোস্ট অফিসটি কোথায় অবস্থিত?
- 7a. Can you make TNT calls in your village? ৭ক. আপনার গ্রাম থেকে আপনি কি টিএনটি ফোন করতে পারেন?
- 7b. Can you make mobile calls in your village? ৭খ. আপনার গ্রাম থেকে আপনি কি মোবাইল ফোন করতে পারেন?

- 7c. If not, where is the nearest place you can make phone calls?
 ৭গ. যদি না পারেন, সবচেয়ে কাছের কোন জায়গা থেকে আপনি ফোন করতে পারেন?
- 8a. Where is the nearest hospital?

৮ক সবচেয়ে কাছের হাসপাতালটি কোথায়?

8b. Where is the nearest clinic?

৮খ. সবচেয়ে কাছের ক্লিনিকটি (বা চিকিৎসা কেন্দ্র) কোথায়?

9a. Are there government schools in your village?

৯ক. আপনার গ্রামে কি সরকারী স্কুল আছে?

9b. If yes, what kinds?

৯খ. যদি থাকে. সেটি কি ধরণের?

- 10. Are there any other types of schools or non-formal educational institutions in your village?
- ১০. আপনার গ্রামে কি অন্য কোন ধরণের স্কুল অথবা উপানুষ্ঠানিক শিক্ষা প্রতিষ্ঠান আছে?
- 11. How many children in your village go to school? (all, most, half, few)
- ১১. আপনারা গ্রামে কত সংখ্যক শিশুরা স্কুলে যায়? (সবাই, বেশীরভাগ, অর্ধেক, অল্প)
- 12. How many girls in your village go to school? (all, most, half, few)
- ১২. আপনার গ্রামে কত সংখ্যক মেয়েরা স্কুলে যায়? (সবাই, বেশীরভাগ, অর্ধেক, অল্প)
- 13. At which standard do most children in your village stop going to school?
- ১৩. আপনার গ্রামে কোন শ্রেণী পর্যন্ত লেখাপড়া শেষে বেশীরভাগ শিশুরা স্কুলে যাওয়া বন্ধ করে দেয়?
- 14. In your village, how many students who begin school end up finishing 5th standard? (all, most, half, few)
- ১৪. আপনার গ্রামে যারা স্কুল শুরু করে তাদের মধ্যে কতজন পঞ্চম শ্রেণী শেষ করে? (সবাই, বেশীরভাগ, অর্ধেক, অল্প)
- 15. In your village, how many students who begin school end up finishing 10th standard? (all, most, half, few)
- ১৫. আপনার গ্রামে যারা স্কুল শুরু করে তাদের মধ্যে কতজন দশম শ্রেণী শেষ করে? (সবাই, বেশীরভাগ, অর্ধেক, অল্প)
- 16. How many people in your village have completed BA or higher?
- ১৬. আপনার গ্রামে কতজন বি.এ. অথবা তার চেয়ে উচ্চতর ডিগ্রী লাভ করেছে?
- 17. Do you have electricity in your village?
- ১৭. আপনার গ্রামে কি বিদ্যুৎ আছে?
- 18. What is your water source?
- ১৮. আপনার গ্রামে পানির উৎস কি?

19a. Do you listen to radio programs? ১৯ক. আপনি কি রেডিও শোনেন?

19b. If yes, in what language(s)? ১৯খ. যদি হাঁা, তাহলে কোন কোন ভাষায়?

20a. Do you watch TV programs? ২০ক. আপনি কি টিভি দেখেন?

20b. If yes, in what language(s)? ২০খ. যদি হাঁ, তাহলে কোন কোন ভাষায়?

F. SOCIOLINGUISTIC QUESTIONNAIRE RESPONSES

The following tables display subjects' responses to the sociolinguistic questionnaire. The questionnaire itself is in Appendix E.1, and the question numbers there correspond with the numbers given at the top of each table in this appendix. Subject biodata is given in Appendix H.4, and the subject numbers given in the biodata correspond to those in this appendix.

The following abbreviations are used in these tables:

Languages and people groups:

B = Bangla and Bengali

E = EnglishH = Hindi

Kd=Koda

Ma = Mahali

Mu = Mundari and Munda

S = Santali and Santal

Other:

Dev = Devnagri script

DK = does not know

Lg/lg = language

MT = mother tongue

NA = not applicable

ND = no data

R = Roman script

w/ = with

F.1 Language use responses

| Subj. No. | 1a. Lg use in home | 1b. Lg use w/ neighbors | 1c. Lg use w/ village leader | 1d. Lg use at worship | 1e. Lg use in market | 2. Lg use most | 20. Literate in B? | 21a. Literate in MT? | 21b. In which script? |
|--------------|--------------------------|-------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|-----------------------------|-----------------------|
| Rj1 | S | S | В | S | В | В | Y | Y | В |
| Rj2 | S | S, B | S | S | В | S | little | Y | R |
| Rj3 | S | S | S | S | В | S | N | N | NA |
| Rj4 | S | S | В | В | В | В | N | N | NA |
| Rj5 | S | S | В | S | В | S | N | N | NA |
| Rj6 | S | S | S | S | NA: doesn't go | S | N | N | NA |
| Rj7 | S | S | В | S | В | S, B | Y | Y | R |
| Rj8 | S | S | S | S | В | В | Y | Y | R |
| Rj9 | S | S w/S, B w/B | S | S | В | S | Y | little | R |
| Rj10 | S | В | В | S | В | S, B | N | N | NA |
| Rt1 | S | S | S | S | В | S | N | N | NA |
| Rt2 | S | S | S | S | В | S | Y | Y | R |
| Rt3 | S | S | S | S | В | S | Y | Y | R |
| Rt4 | S | S | S | S | В | S | N | N | NA |
| Rt5 | S | S w/S, B w/B | S | NA | В | S | Y | little | R |
| Rt6 | S | S | S | S | В | В | Y | Y | R |
| Rt7 | S | S | S | S | В | S | N | N | NA |
| Rt8 | S | S | S | S | В | S | Y | can read; can't write | R |
| Rt9 | S | S | S | NA | В | S | N | N | NA |
| Rt10 | S | S | S w/S, B w/B | S | В | S | Y | Y | R |
| Rt11 | S | S | S | S | В | S | N | N | NA |

| Subj. No. | 1a. Lg use in home | 1b. Lg use w/ neighbors | 1c. Lg use w/ village leader | 1d. Lg use at worship | 1e. Lg use in market | 2. Lg use most | 20. Literate in B? | 21a. Literate in MT? | 21b. In which script? |
|--------------|--------------------------|-------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|----------------------------|-----------------------|
| Rt12 | S | S w/S, B w/B | S w/S, B w/B | S | В | S | Y | Y | R |
| Pp1 | S | S | S | S | В | S | Y | N | R |
| Pp2 | S | S | S | S | В | S, B | Y | Y | R |
| Pp3 | S | S w/S, B w/B | S | S | В | S | N | N | NA |
| Pp4 | S | S w/S, B w/B | S | S | В | S | N | N | NA |
| Pp5 | S | S | S | S | В | S | Y | Y | R |
| Pp6 | S | S | S | S | В | S | Y | Y | R |
| Pp7 | S | S | S | S | NA | S | Y | Y | R |
| Pp8 | S | S w/S, B w/B | S | S | В | S | Y | Y | R |
| Pp9 | S | S | S | S | В | S | Y | Y | R |
| Pp10 | S | S | S | S | В | S | Y | Y | R |
| Pt1 | S | S | В | S | В | В | Y | Y | R |
| Pt2 | S | S | S | B, Sanskrit | В | В | Y | N | NA |
| Pt3 | S | S w/S, B w/B | S | B, S | В | В | N | N | NA |
| Pt4 | S | S | S | S | В | В | N | N | NA |
| Pt5 | S | S | S | S | В | S | N | N | NA |
| Pt6 | S | S w/S, B w/S | S | S | В | S | Y | little | R |
| Pt7 | S | S | S | S | В | S | N | N | NA |
| Pt8 | S | S w/S, B w/ others | В | NA | В | S | N | N | NA |
| Pt9 | S | S w/S, B w/B | S | S | В | S | N | N | NA |
| Pt10 | S | S | S | Sonaton lg. | В | S | N | N | NA |
| J1 | S | S w/S, B w/B | S | S | В | S | little | little | R |
| J2 | S | S w/S, B w/B | S | S | В | S | N | little | R |
| Ј3 | S | S w/S, B w/B | S w/S, B w/B | В | В | S | Y | Y | R |
| J4 | S | S | S | S | В | S, B | N | N | NA |
| J5 | S | S | S | S | В | S | Y | N | NA |
| J6 | S | S | S | S | S w/S, B w/B | S | N | N | NA |
| J7 | S | S | S | S | В | S | N | N | NA |
| Ј8 | S | S | S | S | В | S | N | N | NA |
| J9 | S | S | S | S | В | S | N | N | NA |
| J10 | S | S w/S, B w/B | S | В | В | S | N | N | NA |
| J11 | S | S | S | S | В | S | N | N | NA |
| B11 | S | S w/S, B w/B | S w/S, B w/B | В | В | В | Y | Y | R |

| Subj. No. | 1a. Lg use in home | 1b. Lg use w/ neighbors | 1c. Lg use w/ village leader | 1d. Lg use at worship | 1e. Lg use in market | 2. Lg use most | 20. Literate in B? | 21a. Literate in MT? | 21b. In which script? |
|--------------|--------------------------|--------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|-----------------------------|-----------------------|
| B12 | S | S | S w/S, B w/B | S | В | S | Y | Y | R |
| B13 | S | S w/S, B w/ others | S | S | В | S | Y | Y | R |
| Bl4 | S | В | S w/S, B w/B | S w/S, B w/B | В | S, B | Y | Y | R |
| B15 | S | S w/S, B w/B | S w/S, B w/B | S | В | S | Y | Y | R |
| Bl6 | S | S | S | S | В | S | N | N | NA |
| Bl7 | S | S | S | S | В | S | N | N | NA |
| B18 | S | S | S | S | В | S | N | N | NA |
| B19 | S | S | В | S | В | S | Y | N | NA |
| B110 | S | S w/ S, B w/ B | S w/ S, B w/ B | S | В | ND | N | N | NA |
| B111 | S | S | S | S | В | S | Y | Y | R |
| Am1 | S | S w/ S, B w/ B | S | S | В | S | Y | Y | R |
| Am2 | S | S | S | S | В | В | Y | Y | R |
| Am3 | S | S w/S, B w/B | S w/S, B w/B | S | В | S | Y | Y | R |
| Am4 | S | S | S w/ S, B w/ B | S | В | S | Y | Y | R |
| Am5 | S | S | S | S | В | S | Y | Y | R |
| Am6 | S | S | S | S | В | S | Y | can read; can't write | R |
| Am7 | S | S w/ S, B w/ B | S | S | В | В | Y | Y | R |
| Am8 | S | S | S | S | В | S | Y | Y | R |
| Am9 | S | S | S | S | В | S | Y | Y | R |
| Am10 | S | S | S | S | В | S | N | N | NA |
| A1 | Ma | Ma w/ Ma, B w/ B, S w/ S | Ma | S | В | Ma | Y | N | NA |
| A2 | Ma | Ma | Ma | S | В | Ma | N | N | NA |
| A3 | Ma | Ma | Ma | S | В | Ma | Y | Y | В |
| A4 | Ma | Ma | Ma | S | В | Ma | N | N | NA |
| A5 | Ma | Ma | Ma | S, B | В | Ma | N | N | NA |
| A6 | Ma | Ma | Ma | S, B | В | В | Y | Y | В |
| A7 | Ma | Ma | Ma | S | В | Ma | N | N | NA |
| A8 | Ma | Ma | Ma | S, B | В | Ma | N | can read; can't write | ND |
| A9 | Ma | Ma | Ma | S, B | В | Ma | Y | Y | В |
| A10 | Ma | Ma | Ma | S | В | Ma | Y | Y | R |
| M1 | Ma | Ma w/ Ma, B w/ B | Ma w/ Ma, B w/ B | S | В | В | Y | Y | В |
| M2 | Ma | Ma w/ Ma, B w/ B | Ma w/ Ma, B w/ B | S | В | В | Y | can read; can't write | R |

| Subj. No. | 1a. Lg use in home | 1b. Lg use w/ neighbors | 1c. Lg use w/ village leader | 1d. Lg use at worship | 1e. Lg use in market | 2. Lg use most | 20. Literate in B? | 21a. Literate in MT? | 21b. In which script? |
|--------------|--------------------------|--------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|----------------------------|----------------------------|
| M3 | Ma | Ma w/ Ma, B w/ B | Ma w/ Ma, B w/ B | D | В | Ma | Y | Y | В |
| M4 | Ma | Ma w/ Ma, B w/ B | Ma | Ma | В | В | Y | Y | R |
| M5 | Ma | Ma w/ Ma, B w/ B | Ma | Ma | В | В | Y | Y | R |
| M6 | Ma | Ma w/ Ma, B w/ B | Ma | S | В | Ma, B | Y | Y | В |
| M7 | Ma | Ma | Ma | Ma, B | В | В | N | N | NA |
| M8 | Ma | Ma | Ma | Ma, S | В | Ma | N | N | NA |
| M9 | Ma | Ma w/ Ma, B w/ B | Ma | Ma | В | Ma | N | N | NA |
| M10 | Ma | Ma | Ma | Ma | В | Ma | N | N | NA |
| Pc1 | Ma | Ma | Ma | S, B | В | Ma | Y | N | NA |
| Pc2 | Ma | Ma | Ma | S | В | Ma | N | N | NA |
| Pc3 | Ma | Ma | Ma | Ma | В | Ma | N | N | NA |
| Pc4 | Ma | Ma | Ma | В | В | В | N | N | NA |
| Pc5 | Ma | Ma w/ Ma, B w/ B | Ma | S | В | B, Ma | Y | Y | Е |
| Pc6 | Ma | Ma | Ma | S | В | Ma | N | N | NA |
| Pc7 | Ma | Ma w/ Ma, B w/ others | Ma | В | В | Ma | Y | N | R |
| Pc8 | Ma | Ma, B | В | S | В | Ma, B | Y | Y | R |
| Pc9 | Ma | Ma w/ Ma, B w/ B | Ma | B, S | В | Ma | Y | Y | В |
| Pc10 | Ma | S w/ S, B w/ B, Ma w/ Ma | Ma | S, B | В | Ma | N | N | NA |
| Pc11 | Ma | Ma w/ Ma, B w/ B | Ma | S, B | В | Ma | N | N | NA |
| Pc12 | Ma | Ma w/ Ma, B w/ others | Ma | S | В | В | N | N | NA |
| N1 | Mu | Mu w/ Mu, S w/ S, B w/ B | Mu | S, B | В | Mu | Y | N | NA |
| N2 | Mu | Mu | Mu w/ Mu, B w/ B | S, B | В | Mu | Y | N | NA |
| N3 | Mu | B, Mu | В | Mu, B, S | В | В | N | N | NA |
| N4 | Mu | B w/B, Mu w/Mu | Mu | S, B | В | Mu | N | N | NA |
| N5 | Mu | Mu | Mu | S | В | Mu | N | N | NA |
| N6 | Mu | Mu | Mu | S, B | В | В | Y | N | NA |
| N7 | Mu | B w/B, Mu w/Mu | В | S, B | В | В | N | N | NA |
| N8 | Mu | S w/ S, B w/ B, Mu w/ Mu | Mu | S | В | Mu | N | N | NA |
| N9 | Mu | Mu w/ Mu, S w/ S, B w/ B | Mu w/ Mu, B w/ B, S w/ S | S | В | Mu | Y | Y | mostly R, little Dev |

| Subj. No. | 1a. Lg use in home | 1b. Lg use w/ neighbors | 1c. Lg use w/ village leader | 1d. Lg use at worship | 1e. Lg use in market | 2. Lg use most | 20. Literate in B? | 21a. Literate in MT? | 21b. In which script? |
|--------------|--------------------------|--------------------------------|------------------------------------|-----------------------------|----------------------------|----------------------|--------------------------|----------------------------|-----------------------|
| N10 | Mu | Mu w/ Mu, B w/ B | В | S, B | В | В | Y | little | В |
| N11 | Mu | Mu | Mu | S, B | В | Mu | Y | N | NA |
| N12 | Mu | S w/ S, B w/ B, Mu w/ Mu | Mu | S | В | В | Y | N | NA |
| Bg1 | Mu | В | Mu | Mu, S | В | В | Y | N | NA |
| Bg2 | Mu | Mu w/ Mu, B w/ B | S | В | В | | Y | Y | В |
| Bg3 | Mu | Mu | Mu | S | В | Mu | Y | N | NA |
| Bg4 | Mu | Mu w/ Mu, B w/ B | Mu w/ Mu, B w/ B | Mu, S | В | Mu | Y | Y | В |
| Bg5 | Mu | В | В | Mu | В | Mu | N | N | NA |
| Bg6 | Mu | В | Mu | Mu, S | В | Mu | Y | N | NA |
| Bg7 | Mu | Mu | Mu | Mu, S | В | В | Y | Y | Dev |
| Bg8 | Mu | Mu | Mu | Mu, S | В | Mu | Y | Y | В |
| Bg9 | Mu | Mu w/ Mu, B w/ B | Mu | S | В | В | Y | N | NA |
| Bg10 | Mu | Mu | Mu | Mu, S | В | Mu | N | N | NA |
| K1 | Kd | Kd w/ Kd, B w/ B | Kd w/ Kd, B w/ B | В | В | Kd | N | N | NA |
| K2 | Kd | Kd | Kd | В | В | В | N | N | NA |
| К3 | Kd | Kd w/ Kd, B w/ B | Kd | В | В | В | N | N | NA |
| K4 | Kd | Kd | Kd | В | В | DK | N | N | NA |
| K5 | Kd | Kd | Kd | В | В | Kd | N | N | NA |
| K6 | Kd | Kd | Kd | В | В | Kd | N | N | NA |
| K7 | Kd | Kd | Kd | В | В | В | N | N | NA |
| K8 | Kd | Kd | В | В | В | Kd | N | N | NA |
| К9 | Kd | Kd w/ Kd, B w/ B | Kd | В | В | Kd | N | N | NA |
| K10 | Kd | Kd | Kd | Kd | В | В | N | N | NA |
| Bd1 | Kol | Kol w/ Kol, B w/ B | Kol | В | В | В | Y | N | NA |
| Bd2 | Kol | Kol | Kol w/ Kol, B w/ B | В | В | Kol | N | N | NA |
| Bd3 | Kol | Kol, B w/ Kol; B w/ B | Kol | Kol | В | Kol | N | N | NA |
| Bd4 | Kol | Kol | Kol | В | В | Kol | N | N | NA |
| Bd5 | Kol | Kol | Kol | В | В | Kol | Y | N | NA |
| Bd6 | Kol | Kol | Kol | В | В | Kol | N | N | NA |
| Bd7 | Kol | Kol | Kol | В | В | Kol | N | N | NA |
| Bd8 | Kol | Kol | Kol | В | В | Kol | N | N | NA |
| Bd9 | Kol | Kol | Kol | B | В | Kol | N | N | NA NA |
| Bd10 Bd11 | Kol Kol | Kol w/ Kol, B w/ others | Kol B | Kol B | B B | Kol Kol | N N | N N | NA NA |

F.2 Language attitudes responses

F.2.1 Regarding language use and Towards other languages

| Subj. No. | 9. Lg mom should use | 16. Primary school lg | 18. Lg should use at worship | 19. Best lg for prayer | 22. Script should use for MT | 15. OK if kids speak other better? | 17. Most useful lg |
|--------------|-------------------------|-----------------------------|------------------------------------|------------------------------|--|------------------------------------|--------------------------|
| Rj1 | S | В | S | S | R | Y | В |
| Rj2 | В | В | S | S | R | Y | S |
| Rj3 | S, B | В | S | S | DK | Y | S, B |
| Rj4 | S, B | В | В | S | В | Y | В |
| Rj5 | S | S | S | S | R | Y | В |
| Rj6 | S | В | S | S | R | Y | S |
| Rj7 | S | В | S | S | R | N | S |
| Rj8 | S | S | S | S | R | Y | Е |
| Rj9 | S | В | S | S | R | Y | S, B |
| Rj10 | S | S | S | S | DK | Y | S |
| Rt1 | S | В | S | S | DK | Y | S |
| Rt2 | S | S | S | S | R | N | S |
| Rt3 | S | S | S | S | R | N | S |
| Rt4 | S | S | S | S | DK | N | S |
| Rt5 | S | S, B | S | S | R | N | В |
| Rt6 | S | В | В | S | В | Y | В |
| Rt7 | S | S | S | S | DK | Y | S |
| Rt8 | S | S | S | S | R | Y | S |
| Rt9 | S | S | S | S | whichever script each person wants | N | S |
| Rt10 | S | S | S | S | Its own (because it's not like E) | Y | В |
| Rt11 | S | S | S | S | DK | DK | S |
| Rt12 | S | first S, then B | S | S | R | N | S |
| Pp1 | S | В | S | S | R | Y | S, B |
| Pp2 | S | S, B | S | S | R | N | S |
| Pp3 | S | S | S | S | R | Y | S |
| Pp4 | S | S, B | S | S | DK | Y | S |
| Pp5 | S | В | S | S | R | Y | S |
| Pp6 | В | В | S | S | R | Y | S |
| Pp7 | S | В | S | S | R | Y | S |
| Pp8 | S | S, B | S | S | R | N | В |
| Pp9 | S | S | S | S | R | Y | В |
| Pp10 | S | S | S | S | R | Y | S |
| Pt1 | S | В | В | S | R | Y | В |
| Pt2 | S | В | S, Sonaton lg | S | R | N | S |
| Pt3 | S, B | В | S in village, B outside | В | DK | N | В |
| Pt4 | S | В | S | S | DK | DK | В |
| Pt5 | S | В | S | S | DK | DK | S |
| Pt6 | S | В | S | S | R | Y | В |
| Pt7 | S | В | B, S | S | В | DK | В |

| Subj. No. | 9. Lg mom should use | 16. Primary | 18. Lg should use | 19. Best lg for | 22. Script should use | 15. OK if kids speak | 17. Most useful lg |
|--------------|----------------------|--------------------|----------------------|--------------------|-----------------------|----------------------|--------------------|
| | | school lg | at worship | prayer | for MT | other better? | ŭ |
| Pt8 | В | В | В | S | DK | N | В |
| Pt9 | S | В | S | S | DK | N | В |
| Pt10 | S | DK | В | S | DK | Y | S |
| J1 | S | S | S | S | R | N | S |
| J2 | S | В | S | S | R | N | S |
| J3 | S | В | S | S | B, R | N | В |
| J4 | S | S | S | S | DK | Y | В |
| J5 | S | В | S | S | DK | N | B, S |
| J6 | S | S | S | S | DK | N | S, B |
| J7 | S | first S, then B | S | S | DK | DK | S |
| J8 | S | В | S | S | DK | В | S |
| J9 | S | В | S | S | DK | Y | S |
| J10 | S | S | S | S | DK | Y | S |
| J11 | S | В | S | S | R | Y | S |
| B11 | S | S | S | S | R | N | S |
| B12 | S | В | S | S | R | DK | S, B |
| B13 | S | В | S | S | R | Y | S |
| B14 | S first S, | S, B | S | S | R | N | В |
| B15 | then B | S | S | S | R | N | В |
| Bl6 | S | В | S | S | DK | Y | S |
| B17 | S | В | S | S | R | N | В |
| B18 | В | В | В | S | В | Y | В |
| B19 | S, B | В | S | В | DK | Y | В |
| B110 | ND | S | S | S | DK | DK | S |
| B111 | S | В | S | S | R | N | В |
| Am1 | S | В | S | S | R | Y | S, B |
| Am2 | S | В | S | S | R | Y | В |
| Am3 | S | S | S | S | R | N | В |
| Am4 | S | S | S | S | R | N | S |
| Am5 | S | В | S | S | В | Y | В |
| Am6 | ND | В | S | S | R | Y | В |
| Am7 | S | S | S | S | В | Y | В |
| Am8 | В | В | S | S | В | Y | В |
| Am9 | S | S | S | S | R | Y | S |
| Am10 | S | S | S | S | DK | N | S |
| A1 | Ma | В | S | Ma | R | N | Ma |
| A2 | Ma | В | Ma | Ma | В | Y | Ma |
| A3 | Ma | В | S | S | В | Y | Ma |
| A4 | Ma | В | В | S | В | Y | В |
| A5 | Ma | В | В | B | В | Y | В |
| A6 | Ma | M | В | Ma | В | Y | В |
| A7 | Ma | В | В | S | В | Y | В |
| A8 | Ma | В | ND | В | В | Y | Ma |
| A9 | Ma | Ma | Ma | Ma | В | Y | В |
| A10 | Ma | B, Ma | Ma | S | В | Y | В |
| M1 | Ma | B | Ma, S | S | R | Y | В |
| M2 | Ma | Ma | Ma | S | R | Y | В |
| M3 | Ma | В | S | S | В | Y | В |
| 1713 | ivia | ע | ъ | b | ט | 1 | ע |

| M4 M5 M6 M7 M8 M9 | Ma Ma | school lg Ma | at worship | | | kids speak | useful lg |
|----------------------------------|----------|-----------------|-------------------------------------|---------|----------|---------------|-----------|
| M5 M6 M7 M8 | | Ma | • | prayer | for MT | other better? | Ü |
| M6 M7 M8 | Ma | | Ma | Ma | R | Y | E, B |
| M7 M8 | | Ma | S | Ma | R | Y | Ma |
| M8 | Ma | В | Ma | Ma | R | Y | Ma |
| | Ma | Ma | M | Ma | DK | N | Ma |
| MO | Ma | Ma | S | S | DK | Y | Ma |
| | Ma | Ma | S | S | R | Y | Ma |
| M10 | Ma | В | Ma | Ma | DK | Y | Ma |
| Pc1 | Ma | В | S | S | R | N | В |
| Pc2 | Ma | В | S | Ma | R | N | Ma |
| Pc3 | Ma | Ma | Ma | Ma | DK | N | Ma |
| Pc4 | Ma | В | В | Ma | Е | Y | В |
| Pc5 | Ma | В | the lg prayers are written in | Ma | Е | N | В |
| Pc6 | Ma | В | S | S | DK | Y | B, Ma |
| Pc7 | Ma, B | В | В | В | R | Y | В |
| Pc8 | Ma | Ma | Ma | В | В | Y | Ma |
| Pc9 | Ma | В | Ma | Ma | В | N | В |
| Pc10 | Ma | В | Ma | S | В | DK | Ma |
| Pc11 | Ma | В | S, B | Ma | DK | Y | В |
| Pc12 | Ma | В | Ma | Ma | В | Y | В |
| N1 | В | Mu | Mu | Mu | R | Y | В |
| N2 | Mu | В | S | Mu | R | N | Mu |
| N3 | В | В | В | Mu | В | Y | Mu |
| N4 | Mu | В | S | S | В | Y | Mu |
| N5 | Mu | В | S | Mu | DK | Y | В |
| N6 | В | В | S | S | В | Y | В |
| N7 | Mu | В | В | Mu | S | Y | В |
| N8 | Mu | В | В | В | В | Y | В |
| N9 | Mu | В | Mu | Mu | R | Y | Mu |
| N10 | Mu | В | В | В | В | Y | В |
| N11 | Mu | В | S | S | В | Y | В |
| N12 | В | В | В | Mu | В | Y | Mu |
| Bg1 | Mu | В | S | Mu | R | Y | В |
| Bg2 | Mu | В | Mu | Mu | Н | N | В |
| Bg3 | Mu | В | В | В | В | N | В |
| Bg4 | Mu | В | Mu, S | Mu | В | N | В |
| Bg5 | Mu, B | В | M | Mu | DK | N | B |
| Bg6 | B | В | M | Mu | В | Y | Mu |
| Bg7 | Mu | В | Mu | Mu | Dev | N Y | В |
| Bg8 | Mu Mu | <u>В</u> В | Mu | Mu | R B | Y | B |
| Bg9 | Mu | В В | Mu | Mu | DK | Y | Mu |
| Bg10 K1 | Kd | В | Mu B | Mu B | DK DK | Y | Mu B |
| K1 K2 | Kd | В В | В | Kd | В | Y | В |
| K2 K3 | Kd | В | В | Kd | DK | Y | Kd, B |
| K3 K4 | B | В | В | B | DK DK | Y | В |
| K5 | В | В | В | В | DK | Y | В |
| K6 | Kd | В | В | Kd | B | Y | Kd, B |
| K0 K7 | Kd | В | В | B | DK | Y | B B |
| K8 | B | В | В | Kd | DK | Y | В |

| Subj. No. | 9. Lg mom should use | 16. Primary school lg | 18. Lg should use at worship | 19. Best lg for prayer | 22. Script should use for MT | 15. OK if kids speak other better? | 17. Most useful lg |
|--------------|-------------------------|-----------------------------|------------------------------------|------------------------------|------------------------------------|------------------------------------|--------------------|
| K9 | В | В | В | Kd | DK | Y | В |
| K10 | Kd | В | В | В | В | Y | В |
| Bd1 | В | В | В | В | В | N | В |
| Bd2 | Kol | Kol | В | Kol | DK | Y | Kol |
| Bd3 | Kol | В | Kol | Kol | DK | Y | В |
| Bd4 | В | В | В | Kol | В | Y | В |
| Bd5 | Kol | В | В | В | R | Y | В |
| Bd6 | Kol | В | Kol, B | Kol | DK | N | Kol |
| Bd7 | В | DK | В | В | DK | Y | Kol |
| Bd8 | В | В | В | В | DK | Y | В |
| Bd9 | Kol | DK | В | NA | DK | Y | В |
| Bd10 | В | В | Н | DK | DK | Y | Kol |
| Bd11 | Kol | В | В | В | В | N | В |

F.2.2 Towards language classes

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|---|---------------|-----------------------------|----------------------|---------------|
| Rj1 | Y | To learn Roman script | Y | NA | NA | NA |
| Rj2 | Y | To learn | Y | NA | NA | NA |
| Rj3 | Y | To learn to read and write S | Y | NA | NA | NA |
| Rj4 | Y | To learn whatever is being taught | Y | NA | NA | NA |
| Rj5 | Y | To gain knowledge; it will be easier for them to learn because S can be used to explain. | Y | NA | NA | NA |
| Rj6 | Y | They'll become more knowledgeable. | DK | NA | NA | NA |
| Rj7 | Y | To learn their own language and thereby boost community strength. | Y | NA | NA | NA |
| Rj8 | Y | Learning S will benefit their further studies and help open their minds. | Y | NA | NA | NA |
| Rj9 | Y | To learn S; learning through S will be easy. | Y | NA | NA | NA |
| Rj10 | Y | For the learning experience and knowledge | Y | NA | NA | NA |
| Rt1 | Y | To learn S, B, etc. | DK | NA | NA | NA |
| Rt2 | Y | To learn S, which is important | Y | NA | NA | NA |
| Rt3 | Y | To learn to speak S well and to learn S alphabet | Y | NA | NA | NA |
| Rt4 | Y | To learn to write S | Y | NA | NA | NA |
| Rt5 | Y | The alphabet is different from B, so unless they learn it in class they won't be able to read & write their MT but only speak it. | Y | NA | NA | NA |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|--|---------------|-----------------------------|----------------------|---------------|
| Rt6 | Y | They should learn MT. | Y | NA | NA | NA |
| Rt7 | Y | To learn to read and write | Y | NA | NA | NA |
| Rt8 | Y | Because a lot of S children can speak S but cannot read and write S | Y | NA | NA | NA |
| Rt9 | Y | For reading and writing | Y | NA | NA | NA |
| Rt10 | Y | To learn their own lg. and culture and because S kids are afraid to go to B school | Y | NA | NA | NA |
| Rt11 | Y | To learn to read and write S | Y | NA | NA | NA |
| Rt12 | Y | Of course they should learn their own language | Y | NA | NA | NA |
| Pp1 | Y | To get education in S lg | Y | NA | NA | NA |
| Pp2 | Y | To preserve S; they must first learn S and then B so that S is not lost. | Y | NA | NA | NA |
| Pp3 | Y | To learn to read S | Y | NA | NA | NA |
| Pp4 | Y | For education | Y | NA | NA | NA |
| Pp5 | Y | To learn their MT well | Y | NA | NA | NA |
| Pp6 | Y | To learn their MT well, especially the alphabet | Y | NA | NA | NA |
| Pp7 | Y | To learn S because its their own lg | Y | NA | NA | NA |
| Pp8 | Y | To learn and preserve S | Y | NA | NA | NA |
| Pp9 | Y | To learn S; they especially need to learn to read and write S. | Y | NA | NA | NA |
| Pp10 | Y | To learn their own MT | Y | NA | NA | NA |
| Pt1 | Y | To learn S; many in the younger generation do not know how to read and write it. | Y | NA | NA | NA |
| Pt2 | Y | To get education, which will help open their eyes to knowledge | Y | NA | NA | NA |
| Pt3 | Y | So they can learn and thereby have their eyes opened to knowledge | Y | NA | NA | NA |
| Pt4 | Y | DK | Y | NA | NA | NA |
| Pt5 | Y | For education | Y | NA | NA | NA |
| Pt6 | Y | It's good to learn to read and write in their MT. | Y | NA | NA | NA |
| Pt7 | Y | For their kids' education | Y | NA | NA | NA |
| Pt8 | Y | For education because learning S will help them learn B later on | Y | NA | NA | NA |
| Pt9 | Y | For education and so they can learn to read and write S and thus develop understanding | Y | NA | NA | NA |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|-----------------------------------|---|---------------|-----------------------------|----------------------|---------------|
| Pt10 | Y | Education in MT is important and good. | Y | NA | NA | NA |
| J1 | Y | To learn their MT and thereby be more proud of it | Y | NA | NA | NA |
| J2 | Y | To learn to read and write and to sign their names and about agreements they make w/ others. This will help them prosper. | Y | NA | NA | NA |
| J3 | Y | For education, which helps develop minds | Y | NA | NA | NA |
| J4 | Y | To learn in MT since it is hard to begin learning in B as most don't know B, but all know S from the start | Y | NA | NA | NA |
| J5 | Y | To learn to read and write in their MT | Y | NA | NA | NA |
| J6 | Y | To learn to write in their MT and increase in knowledge | Y | NA | NA | NA |
| J7 | Y | To learn to read and write in their MT | Y | NA | NA | NA |
| Ј8 | DK: She has no kids and can't say | NA | NA | NA | NA | NA |
| J9 | N | They need to learn Bangla. | NA | NA | NA | NA |
| J10 | Y | It's good to read and write in S. | Y | NA | NA | NA |
| J11 | Y | To learn their MT better | Y | NA | NA | NA |
| B11 | Y | To learn their MT and thereby help preserve it | Y | NA | NA | NA |
| B12 | Y | To learn to read and write S properly | Y | NA | NA | NA |
| B13 | Y | To learn how to read and write their MT | Y | NA | NA | NA |
| Bl4 | Y | To learn their MT | Y | NA | NA | NA |
| B15 | Y | Because we cannot teach them properly at home | Y | NA | NA | NA |
| Bl6 | Y | To preserve their MT | Y | NA | NA | NA |
| B17 | Y | They need to learn their own lg. | Y | NA | NA | NA |
| B18 | Y | To make learning to read and write their MT easier | Y | NA | NA | NA |
| B19 | Y | It's good for their development. | Y | NA | NA | NA |
| B110 | Y | So they can read the Santali Bible | Y | NA | NA | NA |
| B111 | Y | To preserve their MT | Y | NA | NA | NA |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|--|---------------|-----------------------------------|---|---------------|
| Am1 | Y | The school here teaches both S and B, but if they attend the special S class it will be helpful in school. | May- be | NA | NA | NA |
| Am2 | Y | For education | Y | NA | NA | NA |
| Am3 | Y | To learn their MT and thus help preserve their culture | Y | NA | NA | NA |
| Am4 | Y | To learn to read and write in S well | Y | NA | NA | NA |
| Am5 | Y | To learn to read and write in S script | Y | NA | NA | NA |
| Am6 | Y | To learn our own lg | Y | NA | NA | NA |
| Am7 | Y | To learn to read and write S as many people don't know how | Y | NA | NA | NA |
| Am8 | Y | Because they don't learn to read and write S in government school | Y | NA | NA | NA |
| Am9 | Y | Without a class they won't learn to read and write | Y | NA | NA | NA |
| Am10 | Y | To learn their MT well | Y | NA | NA | NA |
| A1 | Y | To learn their MT better | Y | Y | They don't know much S, so it would be good – but not as important – if they learn. | Y |
| A2 | Y | So they can use it to pray at church | Y | Y | They need to learn all lgs. | Y |
| A3 | Y | To learn their own MT; it would be good if there were books in Ma. | Y | Y | To learn to read and write S | Y |
| A4 | Y | To learn Ma lg | Y | Y | To learn S lg; her children should learn Ma, B, & S. | Y |
| A5 | Y | To get education | Y | Y | To get education | Y |
| A6 | Y | To learn MT and to develop our economical condition | Y | If there is no Urao class, then Y | To learn S | Y |
| A7 | Y | It will be useful for them to learn their MT well. | Y | Y | We pray in S at church, so for that it would be good so we can pray together. | Y |
| A8 | Y | It will be good for them. | Y | у | Our language is almost like S. | Y |
| A9 | Y | So they can learn MT | Y | Y | It's good if they can learn another lg. | Y |
| A10 | Y | To learn their MT | Y | N | Because our MT is Ma not S. Ma and S are different. | NA |
| M1 | Y | To learn MT so they can then teach others and also have future prospects | Y | Y | To learn S because there is similarity between Ma and S. | Y |
| M2 | Y | It's good to learn own lg. | Y | Y | To help build bridges between the communities and to help learn Ma. | Y |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|--|---------------|-----------------------------|---|---------------|
| M3 | Y | To learn Ma and know about themselves and thus to maintain Ma | Y | Y | They need S to pray in church and for meetings, and there is a Bible in S. | Y |
| M4 | Y | To preserve their own lg | Y | Y | To learn S if there is no Ma lg class | Y |
| M5 | Y | Because most children can't speak Ma well | Y | Y | To learn S because S and Ma are the same | Y |
| M6 | N | They'll learn on their own. | NA | Y | Because the Bible is written in S | Y |
| M7 | Y | It will be good for their education and to learn Ma. | Y | Y | To learn S because we don't know it but want to | Y |
| M8 | Y | Then they can learn how to pray in their MT, and they can speak MT well | Y | Y | To learn S lg. | Y |
| M9 | Y | To learn Ma lg; it's good to have books in Ma lg. | Y | Y | To learn S lg so they can read the Bible nicely | Y |
| M10 | Y | To learn MT better | Y | Y | S lg is same as Ma, so if they learn S better, they'll know Ma better. | Y |
| Pc1 | Y | To learn their lg, know who they are, and preserve their culture | Y | Y | Church services are done in S, so we need to learn S. | Y |
| Pc2 | Y | To learn their own lg. | Y | Y | To learn S and then be able to read S books because there are no books in Ma | Y |
| Pc3 | Y | It will be good to learn MT. These days many Bangla words are coming into Ma. | Y | Y | To learn as many languages as possible | Y |
| Pc4 | Y | To help them learn Ma, which many of the children can't speak well | Y | Y | It is good to know many languages, which might help our future. | Y |
| Pc5 | Y | To build up our lg. more | Y | Y | It couldn't hurt, and there is no alternative for education. | Y |
| Pc6 | Y | To learn Mahali | Y | Y | To learn as many languages as possible | Y |
| Pc7 | Y | To learn and preserve Ma; people in the north can speak Ma well, but we can't and this could be the opportunity. | Y | Y | They need to learn S since the Bible is in S. Then if they are asked to read from it they will be able to. | Y |
| Pc8 | Y | To learn and help keep Ma | Y | Y | To learn about our culture and community. S have same way of pronouncing as we do, and we understand both S and Ma. | Y |
| Pc9 | Y | To learn to read and write Ma and to preserve Ma | Y | Y | To learn S | Y |
| Pc10 | Y | To learn to read and write. | Y | Y | To learn S; it is important to learn many languages. | Y |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|---|---------------|-----------------------------|--|---------------|
| Pc11 | Y | To learn MT, which will be useful later on | Y | Y | They need to learn S if they want to understand S. | Y |
| Pc12 | Y | To learn our own lg and be more proud of it | Y | Y | To learn S; S and Ma are similar. | Y |
| N1 | Y | To learn and preserve MT | Y | Y | It's good to know 2 lgs. | Y |
| N2 | Y | To be able to learn Mu lg. | Y | Y | To learn S lg | Y |
| N3 | Y | So they can learn their lg. better for prayer, etc. | Y | N | They don't need this. | NA |
| N4 | Y | To learn | Y | Y | To learn S lg. | Y |
| N5 | Y | To learn | Y | Y | To learn S lg. | Y |
| N6 | Y | To learn Mu better | Y | Y | To learn S because Santals like when Mundas speak with them in S | Y |
| N7 | Y | To learn their own lg. | Y | Y | To learn S lg. | Y |
| N8 | Y | To get education | Y | Y | To get education | Y |
| N9 | Y | To learn their lg, culture, songs & to keep their lg. | Y | Y | To learn S | Y |
| N10 | Y | Then they'll learn their own lg, which is needed. | Y | Y | Even though it's S, they need to learn what they can, and many of them know S anyway. | Y |
| N11 | Y | To learn their MT and thus keep it from being lost | Y | Y | To get education | Y |
| N12 | Y | To learn MT | Y | Y | They associate with S, so it's important to learn S. | Y |
| Bg1 | Y | To learn Dev script so they can read materials available it | Y | Y | To learn S because S is used in church, the Bible is available in S, and they associate with S people. | Y |
| Bg2 | Y | To know MT is important; otherwise it might be lost. | Y | Y | We can understand S and the Bible is in S. | Y |
| Bg3 | Y | They'll learn their own MT. Many do not know Mu is different from S & Urao, so this class would help establish an identity for Mu. | Y | Y | To learn S so they can understand prayers in S and can participate in functions in S and also read and write letters in S and help build a bridge between S and Mu | Y |
| Bg4 | Y | Learning their own MT will assign status/value to the community. | Y | Y | To learn S because the church uses S, so they need to know it if they want to be a priest or nun | Y |
| Bg5 | Y | To learn MT | Y | Y | S is used more these days. | Y |
| Bg6 | Y | To learn Mu because it is their own MT | N | Y | To learn S because both lgs. are important | N |
| Bg7 | Y | To learn their own lg | Y | Y | To learn S | Y |
| Bg8 | Y | To learn their MT script | Y | Y | S is very close to Mu. | Y |
| Bg9 | Y | So they can try to read and write in Mu | Y | Y | So they can read letters or papers written in S | Y |
| Bg10 | Y | To learn to read and write in Mu | N | Y | To learn S | N |

| Subj. No. | 23a. Kids to MT class? | 23b. Why or why not? | 23c. Help? | 24a. Kids to S class? | 24b. Why or why not? | 24c. Help? |
|--------------|------------------------------|---|---------------|-----------------------------|---|---------------|
| K1 | N | They can learn Kd at home. | NA | N | S and Kd are similar, and they can learn Kd at home. | NA |
| K2 | N | After they learn B, then they can learn Kd easily. | NA | N | I want my children to learn B. | NA |
| К3 | N | Knowing Kd will not help. They need to learn B. | NA | N | We will teach them B not S. | NA |
| K4 | N | They already know Kd. | NA | Y | So they can learn a new lg | Y |
| K5 | Y | To learn Kd, but it would be better if they learn B. | Y | Y | To learn S | Y |
| K6 | N | We want our kids to speak in B. | NA | N | They need to learn B, which will give honor and prestige and bring money. | NA |
| K7 | Y | To learn, which will improve their situation and then change our society | Y | N | We would send them for B education. | NA |
| K8 | Y | To learn; it's good to be educated. | Y | Y | It will be good to learn more. | Y |
| K9 | Y | They should learn their MT. | Y | Y | To learn S | Y |
| K10 | Y | If you teach them, I'll send them. | Y | Y | To be educated | Y |
| Bd1 | Y | To learn MT | Y | N | ND | NA |
| Bd2 | Y | It's important to learn Kol. | Y | Y | To learn S | Y |
| Bd3 | Y | To learn MT | Y | Y | So they can learn and speak S well | Y |
| Bd4 | Y | So that they can learn; everyone here is blind to knowledge; this might be an opportunity he did not have | Y | Y | So that they can learn; everyone here is blind to knowledge | Y |
| Bd5 | Y | It will be good to learn Kol and an opportunity I didn't have. | Y | Y | To learn S, which will help them learn to write Kol | Y |
| Bd6 | N | They need to learn Bangla. | NA | N | DK | NA |
| Bd7 | Y | They need education. | Y | N | They don't know S. | NA |
| Bd8 | DK | NA | NA | DK | NA | NA |
| Bd9 | Y | To learn to read and write | N | DK | NA | NA |
| Bd10 | Y | To learn to read and write | Y | Y | To learn to read and write | Y |
| Bd11 | Y | To learn MT | Y | Y | To learn S; they should learn any lg they can. | Y |

F.3 Language vitality responses

| Subj. No. | 8. Kids' first lg | 10a. Kids speak other? | 10b. Which? | 11. Kids speak well? | 12a. Kids speak other better? | 12b. Which? | 13. Kids w/ each other | 14. Lg use next generation |
|--------------|-------------------------|------------------------------|----------------|----------------------------|-------------------------------------|----------------|----------------------------|--|
| Rj1 | S | N | NA | Y | Y | В | S | S |
| Rj2 | S | Y | В | N | N | NA | S | S |
| Rj3 | S | N | NA | Y | N | NA | S | S |
| Rj4 | S | N | NA | Y | N | NA | S w/S, B w/B | S |
| 15) . | | 11 | 1111 | | 11 | 1111 | S w/ young | 2 |
| Rj5 | S | Y | В | N | N | NA | ones, B and S w/ others | S |
| Rj6 | S | Y | В | Y | Y | В | S | S, B |
| Rj7 | S | Y | В | Y | N | NA | S w/S, B w/B | S |
| Rj8 | S | Y | В | Y | N | NA | S w/S, B w/B | S |
| Rj9 | S | Y | В | Y | N | NA | S | S |
| Rj10 | S | N | NA | Y | N | NA | S | S |
| Rt1 | S | Y | В | Y | N | NA | S | S |
| Rt2 | S | N | NA | Y | N | NA | S | S |
| Rt3 | S | N | NA | Y | N | NA | S | S |
| Rt4 | S | N | NA | Y | N | NA | S | S |
| Rt5 | S | N | NA | Y | N | NA | S | S |
| Rt6 | S | N | NA | Y | N | NA | S | S |
| Rt7 | S | N | NA | Y | N | NA | S | S |
| Rt8 | S | N | NA | Y | N | NA | S | S |
| Rt9 | S | N | NA | Y | N | NA | S | S |
| Rt10 | S | Y | little B | N | N | NA | S | S |
| Rt11 | S | N | NA | Y | N | NA | S | S |
| Rt12 | S | Y | little B | Y | N | NA | S | S |
| Pp1 | S | Y | В | Y | N | NA | S | S, B |
| Pp2 | S | N | NA | Y | N | NA | S | S |
| Pp3 | S | N | NA | Y | N | NA | S | S |
| Pp4 | S | Y | В | Y | Y | В | S | S |
| Pp5 | S | N | NA | Y | N | NA | S | S |
| Pp6 | S | Y | В | Y | N | NA | S w/ S, B w/ B | S, B |
| Pp7 | S | N | NA | Y | N | NA | S | S |
| Pp8 | S | Y | В | Y | N | NA | S | S; B if they are raised in a non-S community |
| Pp9 | S | Y | little B | Y | N | NA | S | S |
| Pp10 | S | Y | little B | Y | N | NA | S | S |
| Pt1 | S | Y | little B | Y | N | NA | S | В |
| Pt2 | S | Y | В | Y | N | NA | S | S, B |
| Pt3 | S | Y | В | Y | N | NA | S w/S, B w/B | first S, then B |
| Pt4 | S | N | NA | Y | N | NA | S | More educted ones will use more B. Others will use S. |
| Pt5 | S | N | NA | Y | N | NA | S | S |
| Pt6 | S | Y | В | Y | N | NA | S w/S, B w/B | S |

| Subj. No. | 8. Kids' first lg | 10a. Kids speak other? | 10b. Which? | 11. Kids speak well? | 12a. Kids speak other better? | 12b. Which? | 13. Kids w/ each other | 14. Lg use next generation |
|--------------|-------------------------|------------------------------|-----------------------|---|-------------------------------------|----------------|---------------------------|--|
| Pt7 | S | N | NA | Y | N | NA | S | S |
| Pt8 | S | N | NA | Y | N | NA | В | S, B |
| Pt9 | S | N | NA | Y | N | NA | S w/S, B w/B | S |
| Pt10 | S | Y | В | Y | N | NA | S | S |
| J1 | S | Y | little B | Y | N | NA | S | S |
| J2 | S | N | NA | Y | N | NA | S | S |
| J3 | S | N | NA | Y | N | NA | S | S |
| J4 | S | Y | В | Y | N | NA | S w/ S, B w/ B | S |
| J5 | S | N | NA | Y | N | NA | S | S |
| J6 | S | N | NA | Y | N | NA | S | S |
| J7 | S | N | NA | Y | N | NA | S | S |
| J8 | S | Y | В | Y | N | NA | S | В |
| J9 | S | N | NA | Y | N | NA | S | S |
| J10 | S | N | NA | Y | N | NA | S | S |
| J11 | S | N | NA | Y | N | NA | S | S |
| B11 | S | Y | В | Y | N | NA | В | В |
| B12 | S | Y | В | N | Y | В | S w/ S, B w/ B | S |
| B13 | S | N | NA | Y | N | NA | S | S |
| B14 | S | Y | В | Y | N | NA | S w/S, B w/B | S if raised in a village; B if raised in town |
| B15 | S | Y | В | N | Y | В | S w/S, B w/B | S |
| Bl6 | S | Y | В | Y | DK | NA | S | S, B |
| B17 | S | Y | В | Y | N | NA | S | S |
| B18 | В | Y | В | Y | Y | В | S w/S, B w/B | В |
| B19 | S | Y | little B | Y | N | NA | В | S |
| B110 | S | Y | В | Y | N | NA | S | S |
| B111 | S | Y | В | Y | N | NA | S | В |
| Am1 | S | Y | В | Y | N | NA | S w/ S, B w/ B | S |
| Am2 | S | N | NA | Y | N | NA | S | S |
| Am3 | S | N | NA | Y, except those whose families teach them B | N | NA | S | mostly S, depending on whether they are taught S or B |
| Am4 | S | N | NA | Y | N | NA | S w/S, B w/B | S |
| Am5 | S | Y | В | Y | N | NA | S | S |
| Am6 | В | Y | В | Y | N | NA | S | S |
| Am7 | S | Y | little B | Y | N | NA | S | В |
| Am8 | S | Y | little B | Y | N | NA | S | S, B |
| Am9 | S | N | NA | Y | N | NA | S | S |
| Am10 | S | Y | little B | Y | N | NA | S | S |
| A1 | Ma | N | NA 1: (1 P | Y | N | NA | Ma | Ma |
| A2 | Ma | Y | little B, little S | Y | N | NA | Ma | Ma |
| A3 | Ma | Y | В | Y | Y | В | Ma | Ma |
| A4 | Ma | N | NA | Y | Y | В | Ma | Ma |

| Subj. No. | 8. Kids' first lg | 10a. Kids speak other? | 10b. Which? | 11. Kids speak well? | 12a. Kids speak other better? | 12b. Which? | 13. Kids w/ each other | 14. Lg use next generation |
|--------------|-------------------------|------------------------------|----------------|----------------------------|-------------------------------------|----------------|-----------------------------|----------------------------|
| A5 | Ma | Y | В | Y | N | NA | Ma | Ma |
| A6 | Ma | N | NA | Y | N | NA | Ma | Ma |
| A7 | Ma | N | NA | Y | N | NA | Ma | Ma |
| A8 | Ma | Y | В | Y | N | NA | Ma w/ Ma, B w/ B | Ma |
| A9 | Ma | Y | В | Y | N | NA | Ma w/ Ma, B w/ B, S w/ S | Ma |
| A10 | Ma | N | NA | Y | N | NA | Ma | Ma |
| M1 | Ma | Y | В | Y | Y | В | Ma | В |
| M2 | Ma | Y | В | Y | Y | В | Ma w/ Ma, B w/ B | Ma |
| М3 | Ma | Y | В | Y | Y | В | Ma w/ Ma, B w/ B | Ma, B |
| M4 | Ma | N | NA | Y | N | NA | Ma | Ma, B |
| M5 | Ma | Y | B, S | Y | N | NA | Ma w/ Ma, B w/ others | Ma |
| M6 | Ma | Y | В | Y | N | NA | Ma | Ma |
| M7 | Ma | N | NA | Y | N | NA | Ma | Ma |
| M8 | Ma | Y | В | Y | Y | В | Ma | В |
| M9 | Ma | N | NA | Y | N | NA | Ma | Ma |
| M10 | Ma | N | NA | Y | N | NA | Ma | Ma |
| Pc1 | Ma | N | NA | Y | N | NA | Ma | Ma |
| Pc2 | Ma | N | NA | Y | N | NA | Ma | Ma |
| Pc3 | Ma | Y | В | Y | Y | В | Ma | Ma |
| Pc4 | Ma | N | NA | Y | N | NA | Ma | Ma |
| Pc5 | Ma | Y | В | Y | N | NA | Ma | Ma, B |
| Pc6 | Ma | Y | В | Y | Y | В | B, Ma | DK |
| Pc7 | Ma | Y | В | Y | N | NA | Ma | В |
| Pc8 | Ma | Y | В | Y | N | NA | Ma, B | Ma |
| Pc9 | Ma | Y | В | Y | N | NA | Ma | Ma |
| Pc10 | Ma | N | NA | Y | N | NA | Ma | Ma |
| Pc11 | Ma | N | NA | Y | N | NA | Ma w/ Ma, B w/ others | Ma |
| Pc12 | Ma | Y | В | Y | Y | В | Ma | В |
| N1 | Mu | N | NA | Y | Y | S | Mu | Mu |
| N2 | Mu | N | NA | N | N | NA | Mu | Mu |
| N3 | Mu | Y | В | Y | Y | В | Mu | Mu |
| N4 | Mu | Y | В | Y | N | NA | Mu | Mu |
| N5 | Mu | Y | S | Y | N | NA | Mu | Mu |
| N6 | Mu | Y | S, B | Y | N | NA | Mu | B, Mu |
| N7 | Mu | Y | B, S | Y | N | NA | Mu | Mu |
| N8 | Mu | Y | В | Y | N | NA | Mu | Mu |
| N9 | Mu | Y | B, S | Y | N | NA | Mu | Mu |
| N10 | Mu | Y | В | Y | Y | S | Mu | Mu |
| N11 | Mu | Y | В | Y | N | NA | Mu | Mu |
| N12 | Mu | Y | ND | Y | Y | S | Mu | Mu |
| Bg1 | Mu | Y | В | Y | N | NA | Mu | В |
| Bg2 | Mu | Y | В | Y | N | NA | Mu | Mu |

| Subj. No. | 8. Kids' first lg | 10a. Kids speak other? | 10b. Which? | 11. Kids speak well? | 12a. Kids speak other better? | 12b. Which? | 13. Kids w/ each other | 14. Lg use next generation |
|--------------|-------------------------|------------------------------|----------------|----------------------------|-------------------------------------|----------------|-------------------------------------|----------------------------------|
| Bg3 | Mu | Y | В | Y | N | NA | Mu w/ Mu, S w/ S, B w/ others | В |
| Bg4 | Mu | Y | B, S | Y | Y | В | Mu w/ Mu, S w/ S, B w/ others | Mu |
| Bg5 | Mu | Y | S | Y | N | NA | Mu w/ Mu, S w/ S, B w/ others | Mu |
| Bg6 | Mu | Y | В | Y | N | NA | Mu | В |
| Bg7 | Mu | Y | B, S | Y | N | NA | Mu | Mu |
| Bg8 | В | Y | В | N | N | NA | В | В |
| Bg9 | Mu, few B | N | NA | Y | DK | NA | Mu w/ Mu, B w/ B | Mu |
| Bg10 | Mu | Y | В | Y | N | NA | Mu w/ Mu, B w/ B | Mu |
| K1 | Kd | Y | В | Y | N | NA | Kd w/ Kd, B w/ B | Kd |
| K2 | Kd | Y | В | Y | N | NA | Kd w/ Kd, B w/ B | Kd, B |
| К3 | Kd | N | NA | Y | N | NA | Kd w/ Kd, B w/ B | Kd |
| K4 | Kd | N | NA | Y | N | NA | Kd w/ Kd, B w/ B | Kd |
| K5 | Kd | Y | В | Y | N | NA | Kd | Kd |
| K6 | Kd | N | NA | N | N | NA | Kd | Kd |
| K7 | Kd | Y | В | Y | Y | В | Kd w/ Kd, B w/ B | Kd, B |
| K8 | Kd | Y | В | Y | N | NA | Kd | Kd |
| K9 | Kd | N | NA | Y | N | NA | Kd | Kd |
| K10 | Kd | N | NA | Y | Y | В | Kd w/ Kd, B w/ B | Kd |
| Bd1 | Kol | Y | В | Y | N | NA | Kol | Kol |
| Bd2 | Kol | N | NA | Y | N | NA | Kol w/ Kol, B w/ B | Kol |
| Bd3 | Kol | N | NA | Y | N | NA | Kol w/ Kol, B w/ others | Kol |
| Bd4 | Kol | Y | В | Y | N | NA | Kol | Kol |
| Bd5 | Kol | N | NA | Y | Y | В | Kol w/ Kol, B w/ B | Kol |
| Bd6 | Kol | Y | В | Y | N | NA | Kol | Kol |
| Bd7 | Kol | Y | В | Y | N | NA | Kol | Kol |
| Bd8 | Kol | Y | В | Y | Y | В | В | Kol, B |
| Bd9 | Kol | Y | В | Y | Y | В | Kol | Kol |
| Bd10 | Kol | N | NA | Y | N | NA | Kol | Kol |
| Bd11 | Kol | N | NA | Y | N | NA | Kol | Kol |

F.4 Bilingualism and Language variation responses

| Subj. No. | 3. Lgs speak and age | 4. Best lg | 5. 2 nd - best lg | 6. Always say in 2 nd -best? | 7a. Speak differently? | 7b. Where? | 7c. How much understand? |
|--------------|-------------------------------|------------------|------------------------------|---|------------------------|---|--|
| Rj1 | B:6 | S | В | Y | N | NA | NA |
| Rj2 | B:6 | S | В | Y | N | NA | NA |
| Rj3 | B:3 | S | В | Y | N | NA | NA |
| Rj4 | B:3 | S | В | Y | N | NA | NA |
| Rj5 | B:7 | S | В | Y | N | NA | NA |
| Rj6 | B:at old age | S | В | N | N | NA | NA |
| Rj7 | B:4 | S | В | Y | N | NA | NA |
| Rj8 | B:6, E:9 | S | В | Y | N | NA | NA |
| Rj9 | B:6 | S | В | Y | Y | India (has never been there but has heard about it) | little |
| Rj10 | B:13 | S | В | Y | N | NA | NA |
| Rt1 | B:8 | S | В | Y | DK | NA | NA |
| Rt2 | B:7 | S | В | Y | N | NA | NA |
| Rt3 | B:7, E:11, H:20 | S | В | Y | N | NA | NA |
| Rt4 | B:8 | S | В | N | N | NA | NA |
| Rt5 | B:6 | S | В | Y | N | NA | NA |
| Rt6 | B:6, H:15, Urao:22 | В | S | Y | Y | Thakurgaon | DK: hasn't been there but has heard from others |
| Rt7 | B:8 | S | В | Y | N | NA | NA |
| Rt8 | B:7 | S | В | Y | N | NA | NA |
| Rt9 | B:7 | S | В | Y | N | NA | NA |
| Rt10 | B:8, Pahan:3 | S | В | Y | N | NA | NA |
| Rt11 | B:9 | S | В | Y | N | NA | NA |
| Rt12 | B:6, E:6 | S | В | Y | Y | India | DK:hasn't talked w/ anyone from there |
| Pp1 | B:6, E:14 | S | В | Y | N | NA | NA |
| Pp2 | B:15, little E:20 | S | В | Y | N | NA | NA |
| Pp3 | B:5 | S | В | N | N | NA | NA |
| Pp4 | B:5, little H:ND | S | В | Y | N | NA | NA |
| Pp5 | B:6, Robidas:9, Kormakar:9 | S | В | Y | N | NA | NA |
| Pp6 | B:4 | S | В | Y | N | NA | NA |
| Pp7 | B:6 | S | В | Y | N | NA | NA |
| Pp8 | B:8, E:14, H:22 | S | В | Y | N | NA | NA |
| Pp9 | B:10, E:14 | both S & B | NA | Y | N | NA | NA |
| Pp10 | B:5, little E:12 | S | В | Y | N | NA | NA |
| Pt1 | B:7, H:25 | S | В | Y | N | NA | NA |
| Pt2 | B:7 | В | S | Y | N | NA | NA |
| Pt3 | B:10 | В | S | Y | N | NA | NA |
| Pt4 | B:7 | S | В | Y | DK | NA | NA |
| Pt5 | little B:30 | S | В | N | DK | NA | NA |
| Pt6 | B:7 | S | В | Y | N | NA | NA |

| Subj. No. | 3. Lgs speak and age | 4. Best lg | 5. 2 nd - best lg | 6. Always say in 2 nd -best? | 7a. Speak differ- ently? | 7b. Where? | 7c. How much understand? |
|--------------|-------------------------|------------------|------------------------------|---|--------------------------------|---|--------------------------|
| Pt7 | B:15 | S | В | N | N | NA | NA |
| Pt8 | B:2 | S | В | Y | Y | Chanpur (1 km west of Patichora) | most |
| Pt9 | B:4 | S | В | N | N | NA | NA |
| Pt10 | B:2 | S | В | Y | N | NA | NA |
| J1 | B:12 | S | В | Y | N | NA | NA |
| J2 | B:11 | S | В | Y | N | NA | NA |
| J3 | B:7 | S | В | Y | N | NA | NA |
| J4 | B:4 | S | В | Y | Y | Godagari, Nazipur | most |
| J5 | B:5 | S | В | Y | N | NA | NA |
| J6 | B:8 | S | В | N | N | NA | NA |
| J7 | B:15 | S | В | Y | DK | NA | NA |
| J8 | B:6 | S | В | N | N | NA | NA |
| J9 | B:12 | S | В | N | N | NA | NA |
| J10 | B:7 | S | В | N | N | NA | NA |
| J11 | B:13 | S | В | Y | N | NA | NA |
| B11 | B:11 | both S & B | NA | Y | N | NA | NA |
| B12 | B:6 | S | В | Y | N | NA | NA |
| B13 | B:8 | both S & B | NA | Y | N | NA | NA |
| Bl4 | B:10, E:15 | В | S | Y | Y | Madinipuri, India | all |
| B15 | B:10 | S | В | Y | N | NA | NA |
| Bl6 | B:DK | S | В | Y | DK | NA | NA |
| Bl7 | B:4 | S | В | N | Y | DK | all |
| B18 | B:4 | S | В | Y | DK | NA | NA |
| B19 | B:2 | S | В | Y | Y | DK: She's heard of such people but hasn't met them. | NA |
| B110 | B:DK | S | В | Y | DK | NA | NA |
| B111 | B:2 | В | S | Y | N | NA | NA |
| Am1 | B:11 | both S & B | NA | Y | N | NA | NA |
| Am2 | B:8 | S | В | N | Y | Benagaria mission, India | half |
| Am3 | B:5, E:14 | both S & B | NA | Y | N | NA | NA |
| Am4 | B:8, E:12 | S | В | Y | Y | Bakura, Hughlie, Assam | all |
| Am5 | B:11, H:12 | S | В | Y | N | NA | NA |
| Am6 | B:7 | S | В | Y | DK | NA | NA |
| Am7 | B:7, little E:15 | both S & B | NA | Y | N | NA | NA |
| Am8 | B:10, E:10 | В | S | Y | N | NA | NA |
| Am9 | B:3 | S | В | Y | N | NA | NA |
| Am10 | B:12 | S | В | N | N | NA | NA |
| A1 | B:6, S:7, H:12 | Ma | В | Y | Y | Mariampur | all |
| A2 | B:9, S:4 | Ma | both B & S | Y | Y | here in Abirpara | all |

| Subj. No. | 3. Lgs speak and age | 4. Best lg | 5. 2 nd - best lg | 6. Always say in 2 nd -best? | 7a. Speak differently? | 7b. Where? | 7c. How much understand? |
|--------------|-----------------------------|-------------------|------------------------------|---|------------------------|---|--------------------------|
| A3 | B:11, S:11, Mu:11, Ma:11 | Ma | S | Y | N | NA | NA |
| A4 | B:10, S:5 | Ma | В | Y | N | NA | NA |
| A5 | B:9, S:9 | Ma | В | Y | N | NA | NA |
| A6 | B:7, S:10, Urao-Sadri:12 | В | Ma | Y | N | NA | NA |
| A7 | B:15, S:5 | В | Ma | Y | Y | Nayanagar & Hili | all |
| A8 | B:3, S:1 | Ma | В | Y | N | N | NA |
| A9 | B:6, S:12 | Ma | В | Y | N | N | NA |
| A10 | B:6, S:9, Urao:20 | Ma | В | Y | Y | Balughat, India | little |
| M1 | B:5, S:5, E:15 | B, S, & Ma | NA | Y | Y | Lowpara, Patnitala | all |
| M2 | B:5, S:3, E:6 | Ma | В | Y | Y | Banilowpara | all |
| M3 | B:4 | Ma | В | Y | Y | Banilowpara | all |
| M4 | B:12, S:3, | Ma | В | Y | Y | Lowpara & | all |
| | Urao:14 | | | | | Mundumala | an |
| M5 | B:10, S:5 | Ma | S | Y | Y | Mundumala | all |
| M6 | B:7, S:3 | Ma | В | Y | Y | Mundumala | all |
| M7 | B:10, S:5 | Ma | В | Y | N | NA | NA |
| M8 | B:8 | Ma | В | Y | N | NA | NA |
| M9 | B:4, S:5 | Ma | В | Y | N | NA | NA |
| M10 | B:12, S:4, Urao:12 | Ma | В | Y | Y | Lowpara, Patnitala & Chandpukur, Patnitala & Kijirbonna, Badolgachi | all |
| Pc1 | B:5, S:15 | Ma | В | N | Y | Matindor | most |
| Pc2 | B:17, S:10 | Ma | S | Y | Y | Matindor & Beniduar | half |
| Pc3 | B:10 | Ma | В | Y | Y | Niamatpur subdistrict & Matindor & Dinajpur | all |
| Pc4 | B:5, S:7 | В | Ma | N | Y | Matindor | less than half |
| Pc5 | B:5, S:12 | both B & Ma | NA | Y | Y | Matindor | all |
| Pc6 | B:10, S:10 | Ma | В | Y | Y | Matindor & Bakrol & Dhamoir & northern area | little |
| Pc7 | B:7, S:3, E:15 | Ma | В | Y | Y | Chanpukur & Matindor & Muskor & Balator & Geeolbarie & Beniduar | little |
| Pc8 | B:2, S:2, E:10 | Ma | В | Y | Y | Naogaon & Joypur & Khanjhanpur & Bodolgachi | all |
| Pc9 | B:8, S:2 | Ma | В | Y | Y | Naogaon | all |

| Subj. No. | 3. Lgs speak and age | 4. Best lg | 5. 2 nd - best lg | 6. Always say in 2 nd -best? | 7a. Speak differ- ently? | 7b. Where? | 7c. How much understand? |
|--------------|------------------------------|------------------|------------------------------|---|--------------------------------|-------------------------|--------------------------|
| Pc10 | B:5, S:2 | Ma | both S & B | Y | N | NA | NA |
| Pc11 | B:6, S:3 | Ma | S | Y | Y | Niamatpur & Dinajpur | all |
| Pc12 | B:6, S:2 | Ma | В | Y | Y | Naogaon & northern area | DK |
| N1 | B:8, S:5, E:14 | Mu | both S & B | Y | N | NA | NA |
| N2 | B:8, S:15 | Mu | В | Y | N | NA | NA |
| N3 | B:5, S:7 | Mu | В | Y | N | NA | NA |
| N4 | B:10, S:15 | Mu | В | Y | N | NA | NA |
| N5 | B:6, S:6 | Mu | S | N | N | NA | NA |
| N6 | B:7, S:7 | Mu | S | Y | N | NA | NA |
| N7 | B:8, S:5 | Mu | S | Y | N | NA | NA |
| N8 | B:14, S:14 | Mu | S | Y | Y | Rajshahi | half |
| N9 | B:8, S:10, E:15 | Mu | both B & S | Y | N | NA | NA |
| N10 | B:10, S:3 | Mu | В | Y | N | NA | NA |
| N11 | B:10, S:8 | Mu | both S & B | Y | N | NA | NA |
| N12 | B:2, S:2 | Mu | В | N | N | NA | NA |
| Bg1 | B:6, S:13, Ma:7 | Mu | В | Y | Y | maybe Ranchi | most |
| Bg2 | B:3, S:8 | Mu | В | Y | Y | Sylhet | most |
| Bg3 | B:2, S:15, Ma:15, Urao:10 | Mu | В | Y | Y | India | almost everything |
| Bg4 | B:3, S:3 | Mu | В | Y | Y | Ranchi, India | all |
| Bg5 | B:5, S:5 | Mu | В | Y | N | NA | NA |
| Bg6 | B:5, S:7, Urao:5 | Mu | В | Y | N | NA | NA |
| Bg7 | B:5, S:5, Sadri:12 | B, S, & Mu | NA | Y | Y | India | all |
| Bg8 | B:8, Ma:6, S:2, Sadri:12 | Mu | S | Y | Y | India | all |
| Bg9 | B:7, S:15 | Mu | В | Y | N | NA | NA |
| Bg10 | B:12, S:12, Urao:12 | Mu | S | Y | N | NA | NA |
| K1 | B:5, S:10 | Kd | В | Y | N | NA | NA |
| K2 | B:7, S:9 | В | Kd | Y | N | NA | NA |
| K3 | B:8 | Kd | В | Y | N | NA | NA |
| K4 | B:5, S:10 | В | Kd | Y | N | NA | NA |
| K5 | B:5, S:10 | В | Kd | Y | N | NA | NA |
| K6 | B:5, S:10 | Kd | В | Y | N | NA | NA |
| K7 | B:3 | В | Kd | Y | N | NA | NA |
| K8 | B:3 | В | Kd | Y | DK | NA | NA |
| K9 | B:10 | Kd | В | Y | N | NA | NA |
| K10 | B:2 | В | Kd | Y | N | NA | NA |
| Bd1 | B:11 | Kol | В | Y | N | NA | NA |
| Bd2 | B: 3 | Kol | В | Y | N | NA | NA |
| Bd3 | B:7, S:7 | S | Kol | Y | N | NA | NA |

| Subj. No. | 3. Lgs speak and age | 4. Best lg | 5. 2 nd - best lg | 6. Always say in 2 nd -best? | 7a. Speak differently? | 7b. Where? | 7c. How much understand? | |
|--------------|-------------------------|--------------------|------------------------------|---|------------------------|------------------------|--------------------------|--|
| Bd4 | B:7, S:7 | Kol | В | Y | N | NA | NA | |
| Bd5 | B:7 | both Kol & B | NA | Y | N | NA | NA | |
| Bd6 | B:8 | Kol | В | Y | DK | NA | NA | |
| Bd7 | B:7 | Kol | В | Y | DK | NA | NA | |
| Bd8 | B:7 | В | Kol | Y DK | | NA | NA | |
| Bd9 | B:10 | Kol | В | Y | N | NA | NA | |
| Bd10 | B:6 | Kol | В | N | Y | some here in Babudaing | all | |
| Bd11 | B:9 bc | | NA | Y | N | NA | NA | |

G. BANGLA SENTENCE REPETITION TEST

G.1. Standard Sentence Repetition Test procedures¹

A sentence repetition test (SRT) is based on the premise that people's ability to repeat sentences in a second language is limited by the level of their mastery of the morphology and syntax of that second language. The greater proficiency they have in that language, the better able they are to repeat sentences of increasing length and complexity. An SRT is developed separately for each language to be tested. Detailed procedures for developing and calibrating a sentence repetition test are presented in Radloff (1991).² The sentences selected are calibrated against an evaluative instrument called the Reported Proficiency Evaluation (RPE), where mother tongue raters are provided with a detailed framework of proficiency descriptions against which to evaluate the proficiency of their second-language speaking acquaintances.³ The half-levels of the RPE describe increasing levels of proficiency in a second language, as elaborated in Figure G.1.

Figure G.1: Descriptions of RPE proficiency levels

| RPE proficiency level | Brief description |
|-----------------------|--|
| 0+ | Very minimal proficiency |
| 1 | Minimal, limited proficiency |
| 1+ | Limited, basic proficiency |
| 2 | Adequate, basic proficiency |
| 2+ | Good, basic proficiency |
| 3 | Good, general proficiency |
| 3+ | Very good, general proficiency |
| 4 | Excellent proficiency |
| 4+ | Approaching native speaker proficiency |

An SRT provides a rapid assessment of a person's second language proficiency, suited to the purposes of a bilingualism survey. It is often the goal of a bilingualism survey to obtain a profile of the second language proficiencies in the community under investigation, that is, a picture of what percentage of the population can be projected to be at each of the different levels of proficiency. In order to do this, a large and representative sample of the population must be tested. This speaks to the need for an assessment instrument that is quick and easy to administer.

The short administration time, however, is offset by careful attention to the development and calibration of a sentence repetition test. The SRT provides a general assessment; thus, the researcher must be able to place full confidence in the results through strict attention to the quality of each developmental step. A complete step-by-step methodology for developing and calibrating an SRT is given in Radloff (1991).

¹ The description of procedures for sentence repetition testing is quoted from Appendix A of O'Leary (ed. 1992); it was authored by Carla F. Radloff. It is used by permission of the author.

² Radloff, Carla F. 1991. *Sentence repetition testing for studies of community bilingualism*. Dallas: Summer Institute of Linguistics and The University of Texas at Arlington.

³ RPE levels as assigned by mother tongue raters show an internal consistency, but have not yet been correlated with any other, more widely recognized, scale of second language proficiency. The rationale and methodology for the Reported Proficiency Evaluation is also included in Radloff (1991).

The development and calibration of an SRT proceeds through several steps: A preliminary form of the test is developed through the assistance of mother tongue speakers of the test language. A large group of second language speakers of the test language have their proficiency assessed through a second, more descriptive proficiency standard instrument, in this case the RPE. These people are then administered the preliminary form of the test. Based on their performances, fifteen sentences are selected, which prove to be the most discriminating of performance and also represent increasing complexity and length. These fifteen sentences are calibrated against the proficiency assessments from the RPE. This fifteen-sentence final form of the test is used in the bilingualism survey, and the resulting test scores are interpreted in terms of equivalent RPE proficiency levels.

The ranges of Bangla SRT scores corresponding to RPE levels are presented in Figure G.2 (Kim 2003).

Figure G.2: Bangla SRT scores and predicted RPE levels

| Bangla SRT Score | Predicted RPE Level |
|------------------|---------------------|
| 0 - 2 | 1 |
| 3 - 8 | 1+ |
| 9 - 14 | 2 |
| 15 - 21 | 2+ |
| 22 - 27 | 3 |
| 28 - 33 | 3+ |
| 34 - 39 | 4 |
| 40 - 45 | 4+ |

G.2. Bangla Sentence Repetition Test

In the following transcription of the Bangla SRT, these line codes are used:

| | | \mathcal{C} | 1 2 / | | | | | | | | |
|--------------|----------|---------------|--|--|--|--|--|--|--|--|--|
| | Code | I | Meaning | | | | | | | | |
| | \# | , | Sentence number | | | | | | | | |
| | \b |] | Bangla sentence | | | | | | | | |
| | \p | J | Phonetic transcription | | | | | | | | |
| | \g | 7 | Word-by-word English gloss of transcribed text | | | | | | | | |
| | \f | I | Free (natural) English translation of the text | | | | | | | | |
| | | | | | | | | | | | |
| \ P 1 | | | | | | | | | | | |
| \b | আজকে | তার | জনুদিন । | | | | | | | | |
| \p | ad3ke | ţar | dzonmodin | | | | | | | | |
| \g | today | 3s-poss | birthday | | | | | | | | |
| \f | Today is | his birtho | lay. | | | | | | | | |
| | | | | | | | | | | | |

```
\P2
\b
    আমার
               বাবা
                       মাছ
                                ধরে ।
                                d^{h}ore \\
               baba
                       mats
\p
     amar
     1s-poss
               father
                       fish
                                catches
\g
\f
    My father catches fish.
\P3
\b
    সেখানে
                তারা
                      সারাদিন
                                 কাজ
                                        করে ।
\p
    ∫ek<sup>h</sup>ane
                      Saradin
                                kad3
                                        kore
                tarə
    there-in
                      all-day
\g
                3p
                                 work
    They work there all day long.
\P4
    কিন্তু
             আগামী
\b
                       কাল
                              এটা
                                    আমার
                                              লাগবে ।
    kintu
                                               lagbe
\p
             agami
                       kal
                              eta
                                    amar
    but
             coming
                       day
                              this
                                               will-need
\g
                                    1s-poss
\f
    But tomorrow I will need this.
\P5
    কাঠের
                  মিস্ত্রী
\b
                              একটা
                                     নতুন
                                               জানালা
                                                          বানাচ্ছে ।
    kather
                                                          banat she
\p
                  mıstri
                              æktə
                                     notun
                                               dzanala
                                                          is-building
\g
     wood-poss craftsman
                              one
                                     new
                                               window
\f
    The wood craftsman is making a new window.
\1
                                      মিষ্টি
\b
    দোকানে
               বিভিন্ন
                          ধরনের
                                               পাওয়া
                                                        যায় ।
\p
     dokane
               bib<sup>h</sup>in:0
                          d<sup>h</sup>oroner
                                      mi∫ti
                                               paowa
                                                        dzaj
                                              getting
\g
    store-at
               various
                          type-poss
                                      sweet
                                                        goes
\f
    Various types of sweets can be found in stores.
\backslash 2
\b
    তারা
           বিশ্রামের
                       তেমন
                                  সুযোগ
                                                      না ।
                                                পায়
\p
    tarə
           bisramer
                       tæmon
                                 ∫ud3og
                                                paj
                                                      na
           rest-poss
                       such
                                  opportunity
\g
    3p
                                               get
                                                      not
\f
    They don't get much opportunity to rest.
\3
\b
    আজ
             বিকালে
                                          কিনতে
                            তাকে
                                   ফল
                                                   হবে ।
\p
    ad3
             bikale
                            take
                                   φol
                                                   hobe
                                          kinte
             afternoon-in
                           3s-to fruit to-buy
\g
    today
                                                   will-have-to
    He has to buy fruit this afternoon.
\4
\b
    আমি আমার
                                              থেকে
                                                       উপহার
                                                                 পেয়েছি ।
                     বোনের
                                  কাছ
                                  katsh
                                              theke
                                                                 pejet shi
\p
     ami
           amar
                     boner
                                                       upohar
\g
           1s-poss
                     sister-poss
                                  nearness
                                             from
                                                       gift
                                                                 have-received
\f
     I received a gift from my sister.
```

```
\5
    বাড়ীতে
\b
                কোন
                        লোক
                                  আছে
                                          বলে
                                                  মনে
                                                                       না ।
                                                            হয়
                                  at∫he
\p
    barite
                kono
                        lok
                                          bole
                                                 mone
                                                            hoi
                                                                       ŋа
    home-in
                any
                        person
                                                  mind-in
                                                            becomes
\g
                                 is
                                          says
                                                                       not
\f
    It doesn't seem as if there's anyone home.
\6
             পর্যন্ত
\b
    যে
                           বৃষ্টি
                                   না
                                         থামে
                                                         পর্যন্ত
                                                                                এখানে
                                                   সে
                                                                       আমরা
                                                                                          থাকব ।
\p
     d<sub>3</sub>e
             pordzonto
                           bri∫ti
                                         thame
                                                  ſe
                                                         pordzonto
                                                                                ek<sup>h</sup>ane
                                                                                          t<sup>h</sup>akbo
                                   na
                                                                       amra
             until
                           rain
\g
     when
                                   not
                                         stops
                                                   then
                                                         until
                                                                       1p
                                                                               here-at
                                                                                          will-stay
    We will stay here until the rain stops.
\7
     একটু
                                        একটা
                                               ইলিশ
                                                               কিনে
                                                                                 এনেছি ।
\b
              আগে
                                থেকে
                                                       মাছ
                     বাজার
                               theke
                                                       mat (h
                                                                                 enet [hi
\p
    ektu
                      badzar
                                        ækţa
                                               iliſ
                                                               kine
              age
    a-little
\g
              ago
                      market
                                from
                                        one
                                                hilsa
                                                       fish
                                                               having-bought
                                                                                have-brought
\f
    Having bought a hilsa fish at the market a little while ago, I brought it.
\8
\b
    সে জানতো
                                         অনুকরণ
                                                      প্রিয়
                      বানরেরা
                                  খুব
                                                                २श् ।
                      banorera khub
\p
    se dzanto
                                         onukaron
                                                      prijo
                                                                hoj
                     monkeys
         did-know
                                  very
                                         imitation
                                                      favorite
                                                                becomes
\g
\f
    He knew monkeys really like to imitate.
\9
\b1
     যদি
              আপনি
                      মানুষকে
                                   ভাল
                                           না
                                                         মানুষও
                                                                       আপনাকে
                                                                                  ভাল
                                                 বাসেন
\p1
     dzodi
                      manu∫ke
                                  b<sup>h</sup>alo
                                                 basen
                                                         manu∫o
                                                                       apnake
                                                                                  b<sup>h</sup>alo
              apņi
                                           na
\glessim
     if
              2s
                      people-to
                                   well
                                           not
                                                 deem
                                                         people-also
                                                                       2s-to
                                                                                  well
\b2
     বাসবে
                   না ।
     basbe
\p2
                   nΛ
\g2
     will-deem
                   not
      If you don't treat people well, they won't treat you well either.
\10
    এবং
             জীবনে
                        সবসময়
                                    কিছু
                                              নিয়ম
                                                       মেনে
\b
                                                                           চলতে
                                                                                      হবে ।
\p
    ebon
             dzibone
                        ∫əb∫əmoj
                                    kit∫hu
                                              nijom
                                                                           tsolte
                                                                                      hobe
                                                       mene
    and
             life-in
                        all-time
                                    some
                                              rules
                                                       having-followed
                                                                           to-move
                                                                                      will-have-to
\g
\f
    And in life at all times one must follow some rules.
\11
                  নদী
\b1
     সুতরাং
                         আমাদের
                                    অনেক
                                             উপকার
                                                            করে
                                                                    এবং
                                                                             মাঝে-মাঝে
\p1
     Sutoran
                  nodi
                                             upokar
                                                            kore
                                                                    ebon
                                                                             mad3he-mad3he
                         amader
                                    onek
\glessim
      therefore
                  river
                         1p-to
                                    much
                                             benevolence
                                                            do
                                                                    and
                                                                             sometimes
```

```
\b2 অপকারও
                  করে ।
\p2
     opokaro
                  kore
\g2
     harm-also
                  do
     Therefore, rivers benefit us a lot and sometimes also harm us.
\12
     পটল
                                  সবজী
\b1
              নামের
                          কোন
                                              বাজারে
                                                          পাওয়া
                                                                    যায়
                                                                                  আগে
                                                                           তা
\p1
     potol
              namer
                          kono
                                  sobdzi
                                              badzare
                                                          paowa
                                                                    dzaj
                                                                                  age
                                                                           ta
                                                                                  before
\g1
     patol
              name-poss
                          any
                                   vegetable
                                              market-in
                                                          getting
                                                                    goes
                                                                           that
\b2
     আমি
            জানতাম
                        না ।
\p2
     ami
            dzantam
                        na
\g2
            did-know
      1s
     I didn't know before that there is such a vegetable as "patol" available in the market.
\13
                                  খুবই
\b1
     নদী
             আমাদের
                        জন্য
                                              প্রয়োজনীয়
                                                               কারণ
                                                                         নদী
                                                                                পথে
                                  k<sup>h</sup>ubi
\p1
     nodi
             amader
                        dzonio
                                              projodzonijo
                                                               karon
                                                                         nodi
                                                                                pothe
\glessim
     river
             1p-poss
                                  very-emph
                                              important
                                                               because
                                                                        river
                                                                                route-on
                        for
\b2
     আমরা
              ব্যবসা
                                 পারি ।
                        করতে
\p2
     amra
              bæb∫a
                        korte
                                 pari
\g2
     1p
              business
                        to-do
                                 are-able
      Rivers are very important for us because we are able to do business along river routes.
\f
\14
                                                                         আনন্দ-ফুর্তি
\b
    তবুও
                   মাঝে-মাঝে
                                      বিশেষ
                                               সময়ে
                                                         তারা
                                                                কিছু
                                                                                         করে ।
                   madzhe-madzhe bises
                                                                kit (hu
\p
    tobuo
                                               Somoje
                                                                         anondo-burti
                                                         tarə
                                                                                         kore
                   sometimes
                                      special time-in
                                                                some
                                                                         joy-delight
                                                                                         do
    Nevertheless, sometimes on special occasions they have some fun.
\15
    নদীর
                  পানি
                          গভীর
\b1
                                                                 খুঁজেও
                                   হওয়ায়
                                                        অনেক
                          gobhir
                                                                 k<sup>h</sup>ũdzeo
\p1
     nodir
                  pani
                                   howaj
                                                        onek
\glessim
     river-poss
                  water
                          deep
                                   happening-because
                                                        much
                                                                having-searched-although
                    কুঠারটা
\b2
     সে
          তার
                               পেল
                                         না।
                    kutharta pelo
\p2
     ſe
          tar
                                         nΛ
\g2
     3s
                    axe
                               did-find not
          3s-poss
     Although he searched a lot, he didn't find his axe because the river was deep.
```

G.3. Sentence Repetition Test scores

The tables in this section display the SRT scores for all 361 SRT subjects. The subject numbers in the far left column correspond with the subject numbers given with the biodata in Appendix H.5. For each of the 20 sentences (five practice sentences and 15 test sentences), each subject's score is given. This is based on a four-point scale (0-3) for each sentence. The total score at the far right is a summation of the subject's scores for only the 15 test sentences.

| Subj. | Bangla SRT sentence number | | | | | | | | | | | | | Total | | | | | | | |
|-------|----------------------------|-----------|-----------|-----------|-----------|---|---|---|---|---|---|---|---|-------|----|----|----|----|----|----|-------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| P1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 26 |
| P2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 27 |
| P3 | 2 | 3 | 1 | 0 | 0 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| P4 | 3 | 3 | 3 | 2 | 0 | 3 | 2 | 2 | 1 | 2 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 16 |
| P5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 0 | 2 | 1 | 1 | 0 | 32 |
| P6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 2 | 1 | 0 | 0 | 0 | 29 |
| P7 | 3 | 3 | 3 | 2 | 0 | 3 | 1 | 2 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 12 |
| P8 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 21 |
| P9 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 25 |
| P10 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 0 | 0 | 0 | 31 |
| P11 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| P12 | 1 | 3 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| P13 | 2 | 3 | 3 | 0 | 0 | 3 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| P14 | 1 | 3 | 2 | 0 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| P15 | 1 | 3 | 3 | 1 | 0 | 2 | 1 | 1 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| P16 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 25 |
| P17 | 1 | 3 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 15 |
| P18 | 2 | 3 | 3 | 0 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| P19 | 0 | 3 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| P20 | 1 | 3 | 2 | 1 | 1 | 3 | 2 | 0 | 2 | 3 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 15 |
| P21 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 27 |
| P22 | 2 | 3 | 1 | 0 | 0 | 2 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| R1 | 3 | 3 | 3 | 0 | 2 | 2 | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| R2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 0 | 1 | 0 | 35 |
| R3 | 2 | 3 | 3 | 0 | 2 | 3 | 2 | 2 | 1 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| R4 | 0 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 22 |
| R5 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 2 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| R6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 25 |
| R7 | 2 | 3 | 3 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| R8 | 3 | 3 | 2 | 1 | 2 | 3 | 1 | 2 | 2 | 3 | 1 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 18 |
| R9 | 1 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| R10 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 0 | 1 | 0 | 1 | 2 | 29 |
| R11 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| R12 | 1 | 3 | 2 | 1 | 0 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| R13 | 3 | 3 | 3 | 0 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |

| Subj. | | | | | | 1 | Ran | gla | SRT | Γ se | ntei | 1CE | niin | nhe | r | | | | | | Total |
|------------|----|-----------|-----------|-----------|-----------|---|-----|-----|-----|------|------|-----|------|-----|----|----|---------------|----|----------|----|-------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| R14 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 0 | 3 | 0 | 36 |
| R15 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| R16 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 22 |
| R17 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 0 | 30 |
| R18 | 2 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| R19 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 3 | 2 | 2 | 1 | 1 | 0 | 32 |
| R20 | 0 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| R21 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 17 |
| R22 | 1 | 3 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| R23 | 3 | 3 | 2 | 0 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| R24 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 3 | 1 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 21 |
| R25 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 0 | 3 | 2 | 0 | 0 | 1 | 31 |
| R26 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 0 | 1 | 0 | 32 |
| R27 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| R28 | 2 | 3 | 2 | 1 | 0 | 2 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| U1 | 3 | 3 | 2 | 0 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| U2 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 3 | 1 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 21 |
| U3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 0 | 0 | 1 | 31 32 |
| U4 U5 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| U6 | 2 | 3 | 2 | 1 | 0 | 2 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| U7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 2 | 1 | 0 | 36 |
| U8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 32 |
| U9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 30 |
| U10 | 3 | 3 | 2 | 1 | 3 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 19 |
| U11 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 41 |
| U12 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 3 | 0 | 0 | 2 | 32 |
| U13 | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| U14 | 3 | 3 | 3 | 3 | 1 | 2 | 1 | 0 | 1 | 2 | 3 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| U15 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 26 |
| U16 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 29 |
| U17 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 26 |
| U18 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 33 |
| U19 | 2 | 3 | 3 | 2 | 2 | 3 | 0 | 3 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| U20 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 24 |
| U21 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 24 |
| U22 | 1 | 3 | 3 | 0 | 3 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 13 |
| U23 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 22 |
| U24 U25 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 3 | 0 | 3 | 0 | 2 | 0 | 33 |
| U25 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 0 | 2 | 0 | 33 |
| U27 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 2 | 0 | 2 | 1 | 0 | 0 | 28 |
| U28 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | $\frac{2}{0}$ | 0 | 0 | 0 | 25 |
| U29 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 22 |
| U30 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 41 |
| 030 | J | J | J | J | J | J | J | J | J | J | J | J | | J | J | J | J | J | <i>_</i> | 1 | 71 |

| Subj. | | | | | | I | Ban | gla | SR | Γ se | ntei | ıce | nun | nbe | r | | | | | | Total |
|------------|----|-----------|-----------|-----------|-----------|---|-----|-----|----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| U31 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 26 |
| U32 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 22 |
| U33 | 3 | 3 | 3 | 3 | 0 | 3 | 2 | 3 | 3 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| U34 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 22 |
| U35 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 33 |
| D1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 41 |
| D2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 22 |
| D3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| D4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 3 | 1 | 2 | 1 | 0 | 0 | 30 |
| D5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 0 | 0 | 32 |
| D6 D7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 0 | 1 | 3 | 0 | 0 | 26 39 |
| D8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 39 |
| D9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 25 |
| D10 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 18 |
| D11 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 22 |
| D12 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 27 |
| D13 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 28 |
| D14 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 23 |
| D15 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 2 | 3 | 1 | 0 | 1 | 0 | 29 |
| D16 | 3 | 3 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| D17 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 26 |
| D18 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| D19 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 27 |
| D20 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 0 | 0 | 2 | 1 | 31 |
| D21 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 3 | 0 | 2 | 1 | 0 | 0 | 29 |
| D22 D23 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 1 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 40 24 |
| D23 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 26 |
| D25 | 3 | 3 | 3 | 1 | 2 | 3 | 1 | 3 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| D26 | 2 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| D27 | 3 | 3 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| D28 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 0 | 39 |
| D29 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 0 | 25 |
| D30 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 1 | 0 | 0 | 32 |
| D31 | 3 | 3 | 2 | 2 | 1 | 3 | 0 | 1 | 3 | 3 | 1 | 3 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 19 |
| D32 | 1 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 0 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 19 |
| D33 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 2 | 2 | 3 | 2 | 1 | 37 |
| D34 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 20 |
| D35 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 0 | 2 | 3 | 2 | 3 | 0 | 1 | 33 |
| A1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 26 |
| A2 | 1 | 3 | 3 | 2 | 0 | 3 | 2 | 3 | 3 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| A3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 1 | 1 | 27 |
| A4 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 28 15 |
| A5 | 3 | 3 | 3 | | 2 | 3 | | | | | 1 | 7 | 1 | 0 | 0 | 0 | U | 0 | U | U | 12 |

| Subj. | | | | | | I | Ban | gla | SR | Γ se | ntei | nce | nun | nbe | r | | | | | | Total |
|------------|-----------|-----------|-----------|-----------|-----------|---|-----|-----|----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| A6 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 20 |
| A7 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| A8 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 3 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 17 |
| A9 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| A10 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 26 |
| A11 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 2 | 3 | 3 | 1 | 0 | 0 | 32 |
| A12 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 24 |
| A13 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 27 |
| A14 | 3 | 3 | 2 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 0 | 2 | 1 | 0 | 1 | 29 |
| A15 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 3 | 3 | 1 | 1 | 0 | 0 | 29 |
| A16 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 18 24 |
| A17 A18 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 0 | 3 | 0 | 0 | 34 |
| A19 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 23 |
| A20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 0 | 1 | 36 |
| A21 | 2 | 3 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| A22 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 25 |
| A23 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 1 | 0 | 0 | 29 |
| A24 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| A25 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 27 |
| A26 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 20 |
| A27 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 26 |
| A28 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 22 |
| A29 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 2 | 0 | 0 | 0 | 30 |
| A30 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 25 |
| M1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 17 |
| M2 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 25 |
| M3 M4 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| M5 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 24 24 |
| M6 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 29 |
| M7 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 21 |
| M8 | 3 | 3 | 3 | 0 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 19 |
| M9 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 22 |
| M10 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 15 |
| M11 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| M12 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 1 | 39 |
| M13 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 1 | 1 | 0 | 34 |
| M14 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 21 |
| M15 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 23 |
| M16 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 18 |
| M17 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 32 |
| M18 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 21 |
| M19 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 29 |
| M20 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |

| Subj. | | | | | | 1 | Ban | gla | SR | Γ se | ntei | nce | nun | nbe | r | | | | | | Total |
|------------|----|-----------|-----------|-----------|-----------|---|-----|-----|----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| M21 | 3 | 3 | 2 | 0 | 1 | 3 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| M22 | 2 | 3 | 2 | 0 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 17 |
| M23 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 24 |
| M24 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 20 |
| M25 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 23 |
| M26 | 1 | 3 | 2 | 1 | 0 | 2 | 1 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| M27 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 0 | 1 | 31 |
| M28 | 3 | 3 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| M29 | 2 | 3 | 2 | 0 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| M30 | 1 | 3 | 0 | 1 | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 20 |
| G1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 0 | 2 | 3 | 3 | 3 | 2 | 1 | 0 | 33 |
| G2 G3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 19 |
| G4 | 3 | 3 | 3 | 0 | 3 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| G5 | 2 | 3 | 2 | 1 | 2 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| G6 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 23 |
| G7 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| G8 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 23 |
| G9 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 0 | 35 |
| G10 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 3 | 3 | 2 | 1 | 2 | 0 | 34 |
| G11 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 27 |
| G12 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 24 |
| G13 | 3 | 3 | 3 | 2 | 0 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 21 |
| G14 | 2 | 3 | 2 | 2 | 0 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 16 |
| G15 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 20 |
| G16 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 24 |
| G17 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 31 |
| G18 G19 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 25 22 |
| G20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 1 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 25 |
| G21 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 2 | 2 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| G22 | 2 | 3 | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| G23 | 2 | 3 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| G24 | 2 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 22 |
| G25 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 20 |
| G26 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 21 |
| G27 | 1 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| G28 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 30 |
| N1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 0 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 23 |
| N2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| N3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 0 | 2 | 1 | 0 | 2 | 2 | 1 | 2 | 0 | 0 | 23 |
| N4 | 2 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 22 |
| N5 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 1 | 3 | 2 | 0 | 1 | 0 | 1 | 0 | 26 |
| N6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 1 | 39 |
| N7 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 15 |

| Subj. | | | | | | I | Ban | gla | SR | Γ se | ntei | nce | nun | nbe | r | | | | | | Total |
|------------|----|-----------|-----------|-----------|-----------|---|-----|-----|----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| N8 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 21 |
| N9 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 18 |
| N10 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| N11 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 2 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 13 |
| N12 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| N13 | 2 | 3 | 3 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| N14 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 3 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 13 |
| N15 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 26 |
| N16 | 3 | 3 | 3 | 0 | 1 | 1 | 2 | 3 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 13 |
| N17 | 0 | 3 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| N18 | 2 | 3 | 1 | 1 | 2 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| N19 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 29 |
| N20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 0 | 0 | 2 | 0 | 33 27 |
| N21 N22 | 2 | 3 | 3 | 2 | 3 | 3 | | | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 |
| N23 | 2 | 3 | 3 | 1 | 1 | 3 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| N24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 0 | 31 |
| N25 | 2 | 3 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 |
| N26 | 1 | 2 | 1 | 1 | 0 | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| N27 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| N28 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 32 |
| N29 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 0 | 2 | 2 | 3 | 1 | 0 | 0 | 30 |
| K1 | 2 | 3 | 2 | 1 | 0 | 3 | 2 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| K2 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| K3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 18 |
| K4 | 3 | 3 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| K5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| K6 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 3 | 1 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| K7 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 |
| K8 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 3 | 2 | 0 | 2 | 0 | 31 |
| K9 K10 | 3 | 3 | 3 | 0 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 19 |
| K10 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 18 |
| K11 | 2 | 3 | 2 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| K12 | 2 | 3 | 3 | 3 | 0 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 24 |
| K13 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 |
| K15 | 3 | 3 | 1 | 1 | 3 | 3 | 2 | 3 | 2 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| K16 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| K17 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| K18 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| K19 | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| K20 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| K21 | 2 | 3 | 1 | 0 | 0 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| K22 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 19 |
| K23 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |

| Subj. | | | | | | I | Ban | gla | SR | Γ se | ntei | nce | nun | nbe | r | | | | | | Total |
|------------|----|-----------|-----------|-----------|-----------|---|-----|-----|----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| K24 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 22 |
| K25 | 3 | 3 | 3 | 0 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 17 |
| K26 | 3 | 3 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| K27 | 3 | 3 | 3 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| K28 | 2 | 3 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| I1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 25 |
| I2 | 1 | 3 | 1 | 2 | 0 | 2 | 1 | 3 | 2 | 3 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 15 |
| I3 | 3 | 3 | 3 | 0 | 0 | 3 | 2 | 3 | 2 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 16 |
| I4 | 3 | 3 | 3 | 3 | 0 | 2 | 2 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| I5 | 2 | 3 | 3 | 1 | 0 | 2 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| I6 I7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 35 20 |
| 17 I8 | 2 | 3 | 3 | 0 | 2 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 26 |
| I9 | 2 | 3 | 2 | 2 | 0 | 2 | 1 | 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 |
| I10 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 3 | 1 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 14 |
| I11 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 36 |
| I12 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 28 |
| I13 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 |
| I14 | 3 | 3 | 2 | 0 | 2 | 2 | 1 | 3 | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| I15 | 2 | 3 | 3 | 1 | 0 | 3 | 2 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| I16 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 3 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| I17 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| I18 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| I19 | 3 | 3 | 3 | 0 | 1 | 2 | 0 | 3 | 1 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| I20 | 2 | 3 | 1 | 2 | 2 | 2 | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| I21 | 2 | 3 | 3 | 2 | 0 | 2 | 1 | 3 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| I22 I23 | 3 | 3 | 2 | 0 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 14 17 |
| 123 124 | 1 | 3 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| I25 | 2 | 3 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 3 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 14 |
| I26 | 2 | 2 | 3 | 0 | 0 | 2 | 0 | 2 | 1 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| I27 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| I28 | 3 | 3 | 2 | 2 | 0 | 3 | 2 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| I29 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| I30 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| B1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 23 |
| B2 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| В3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 22 |
| B4 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| B5 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| B6 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 38 |
| B7 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 22 |
| B8 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 22 |
| B9 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 22 |
| B10 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 21 |

| Subj. | | | | | | I | 3an | gla | SRT | Γ se | ntei | ıce | nun | nbe | r | | | | | | Total |
|------------|-----------|-----------|-----------|-----------|-----------|---|-----|-----|-----|------|------|-----|-----|-----|----|----|----|----|----|----|----------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| B11 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 19 |
| B12 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 24 |
| B13 | 2 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| B14 | 2 | 3 | 3 | 0 | 1 | 1 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| B15 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 17 |
| B16 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| B17 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 |
| B18 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 0 | 2 | 1 | 2 | 2 | 1 | 0 | 0 | 27 |
| B19 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 31 |
| B20 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 0 | 1 | 1 | 1 | 34 |
| B21 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 24 |
| B22 | 1 | 3 | 2 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| B23 | 2 | 3 | 3 | 1 | 0 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 0 | 21 |
| B24 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 21 |
| B25 B26 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 31 19 |
| B27 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 27 |
| B27 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 23 |
| B29 | 1 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Z1 | 2 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Z2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 16 |
| Z3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Z4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 2 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 25 |
| Z 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 41 |
| Z6 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 29 |
| Z 7 | 2 | 3 | 2 | 0 | 3 | 3 | 2 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| Z8 | 3 | 3 | 2 | 2 | 3 | 2 | 0 | 2 | 2 | 3 | 3 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 17 |
| Z 9 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 1 | 2 | 0 | 2 | 0 | 32 |
| Z10 | 3 | 3 | 3 | 2 | 2 | 3 | 0 | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Z11 | 3 | 3 | 3 | 3 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 12 |
| Z12 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 0 | 37 |
| Z13 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 26 |
| Z14 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 34 |
| Z15 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 0 | 0 | 0 | 28 |
| Z16 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 30 |
| Z17 Z18 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 29 |
| Z18 Z19 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 23 29 |
| Z19 Z20 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 0 | 2 | 1 | 1 | 0 | 29 |
| Z21 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 0 | 1 | 0 | 1 | 2 | 2 | 1 | 1 | 0 | 24 |
| Z22 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 1 | 1 | 1 | 35 |
| Z23 | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Z24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 0 | 0 | 0 | 32 |
| Z25 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 43 |
| Z26 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 2 | 2 | 40 |

| Subj. | | | | | | I | Ban | gla | SRT | Γ se | ntei | ıce | nun | nbe | r | | | | | | Total |
|-------|-----------|-----------|-----------|-----------|-----------|---|-----|-----|-----|------|------|-----|-----|-----|----|----|----|----|----|----|-------|
| No. | P1 | P2 | P3 | P4 | P5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Score |
| Z27 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Z28 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 0 | 35 |
| Z29 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 1 | 0 | 0 | 0 | 30 |
| Z30 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 0 | 40 |
| Z31 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 25 |
| Z32 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 37 |
| Z33 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 18 |
| Z34 | 3 | 3 | 3 | 3 | 0 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 21 |
| Z35 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 0 | 1 | 0 | 32 |
| Z36 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 23 |
| Z37 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 20 |

H. SUBJECT BIODATA

H.1 Biodata notes

The following abbreviations are used in the biodata tables below:

Column headings:

Educ = education MT = mother tongue

M's MT = mother's mother tongue F's MT = father's mother tongue

Rel = religion

Education:

SSC = secondary school certificate HSC = higher secondary certificate

10 = completed class 10 but did not pass

SSC exam

BA = Bachelor's degree MA = Master's degree

Other:

ND = no data

Languages:

S = Santali Ma = Mahali Mu = Mundari

Kod = Koda

Religions:

C = Christian

C (RC) = Christian, Roman Catholic

C(P) = Christian, Protestant

Sn = Sonaton H = HinduI = Islam

T = Traditional

Note: Dates are given as MM/DD/YY

H.2 Word list (WL) and CIQ informant biodata

| W L | C I Q | Date | Location | Age | S e x | Educ | MT | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------|-------------|----------|------------|-----|-------------|------|-----|-----------|-----------|--|--------|
| X | | 11/6/04 | Rajarampur | 44 | M | 10 | S | S | S | Dinajpur:11 | C (RC) |
| | X | 11/6/04 | Rajarampur | 60 | M | 0 | S | S | S | none | C |
| X | | 11/8/04 | Rautnagar | 60+ | M | 0 | S | S | S | Isanpur:34 | Н |
| | X | 11/8/04 | Rautnagar | 47 | M | SSC | S | S | S | Birisiri:1 | C |
| X | X | 11/9/04 | Nijpara | 55 | M | SSC | Mu | Mu | Mu | Begunbari:22 | C |
| X | | 11/10/04 | Paharpur | 27 | F | HSC | S | S | S | Hasarpara:19 | C (RC) |
| | X | 11/10/04 | Paharpur | 50+ | M | SSC | S | S | S | none | C |
| X | X | 11/12/04 | Abirpara | 45 | M | 7 | Ma | Ma | Ma | Bogra:4 | C (RC) |
| X | X | 11/14/04 | Matindor | 56 | M | 10 | Ma | Ma | Ma | Rajshahi:24 | C (RC) |
| X | | 11/15/04 | Patichora | 27 | F | 2 | S | S | S | none | C (P) |
| | X | 11/15/04 | Patichora | 40+ | M | 9 | S | S | S | none | C |
| X | | 11/16/04 | Jabri | 26 | M | 10 | S | S | S | none | Sn |
| | X | 11/16/04 | Jabri | 52 | M | 8 | S | S | S | none | Sn |
| X | | 11/18/04 | Begunbari | 18 | M | SSC | Mu | Mu | Mu | none | C (RC) |
| | X | 11/18/04 | Begunbari | 54 | M | SSC | Mu | Mu | Mu | none | C (RC) |
| X | X | 11/21/04 | Pachondor | 74 | M | 6 | Ma | Ma | Ma | none | C (RC) |
| X | X | 11/21/04 | Kundang | 18 | M | 3 | Kod | Kod | Kod | none | Н |

Word list and CIQ informant biodata, cont.

| W L | C I Q | Date | Location | Age | S e x | Educ | MT | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------|-------------|----------|--------------------|-----|-------------|------|-----|-----------|-----------|--|-----|
| | X | 11/21/04 | Amnura | 22 | F | 10 | S | S | S | none | C |
| X | X | 11/22/04 | Babudaing | 42 | M | 5 | Kol | Kol | Kol | none | Sn |
| X | X | 11/23/04 | Krishnupur | 39 | M | 7 | Kod | Kod | Kod | Natore:19 | Sn |
| X | X | 11/24/04 | Bodo- belghoria | 25 | M | SSC | S | S | S | Rajshahi:16 | C |
| X | X | 01/25/05 | Karimpur | 37 | M | 4 | Mu | Mu | Mu | none | C |
| X | X | 01/26/05 | Rashidpur | 20 | M | 0 | S | S | S | none | Н |

H.3 RTT subject biodata

H.3.1. Santali HTT validation subject biodata

| Subj. | Date | Location | Ag | S e | Educ | MT | M's | F's | Other residences and |
|-------|----------|----------|----|--------|------|----|-----|-----|---|
| No. | | | e | X | | | MT | MT | length (in years) |
| R1 | 05/17/07 | Agartala | 48 | M | HSC | KB | KB | KB | Basurampara (22 km away):15 |
| R2 | 05/17/07 | Agartala | 38 | M | BA | KB | KB | KB | Bisramganj (35 km away):22 |
| R3 | 05/17/07 | Agartala | 54 | M | SSC | KB | KB | KB | Odaipur (62 km away):40 |
| R4 | 05/17/07 | Agartala | 15 | F | SSC | KB | KB | KB | none |
| R5 | 05/17/07 | Agartala | 45 | F | MA | KB | KB | KB | Telianura (45 km east):10; Shillong:10; North Mohanpur (37 km north):10 |
| R6 | 05/17/07 | Agartala | 42 | F | 6 | KB | KB | KB | Bisramganj:16; Rangamatia:4 |
| R7 | 05/17/07 | Agartala | 47 | M | BA | KB | KB | KB | Mohanpur:17; Shillong:6 |
| R8 | 05/18/07 | Agartala | 32 | M | 0 | KB | KB | KB | Simna (37 km away):32 |
| R9 | 05/18/07 | Agartala | 40 | F | 0 | KB | KB | KB | Kwai, Kolanpur:18 |
| R10 | 05/18/07 | Agartala | 22 | M | 6 | KB | KB | KB | Jiraniya:21; Shillong:1 |

H.3.2 Mahali HTT validation subject biodata

| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|----------|-------------|-------------|------|--------|-----------|-----------|--|--------|
| A1 | 12/13/04 | Abirpara | 22 | F | 10 | Ma | Ma | Ma | none | C |
| A2 | 12/13/04 | Abirpara | 45 | M | 7 | Ma | Ma | Ma | Chothra:4 | C |
| A3 | 12/13/04 | Abirpara | 23 | M | 8 | Ma | Ma | Ma | none | C |
| A4 | 12/13/04 | Abirpara | 32 | M | SSC | Ma | Ma | Ma | Dhaka:7, Naogaon:1, Panchbibi:2 | С |
| A5 | 12/13/04 | Abirpara | 20 | F | 9 | Ma | Ma | Ma | Panchbibi:17 | C |
| A6 | 12/13/04 | Abirpara | 25 | F | 7 | Ma | Ma | Ma | none | C |
| A7 | 12/13/04 | Abirpara | 46 | M | 7 | Ma | Ma | Ma | none | C (RC) |
| A8 | 12/13/04 | Abirpara | 45 | F | 0 | Ma | Ma | Ma | none | C |
| A9 | 12/13/04 | Abirpara | 25 | M | SSC | Ma | Ma | Ma | none | C |
| A10 | 12/13/04 | Abirpara | 22 | F | 10 | Ma | Ma | Ma | Rangpur: 14 | C |

H.3.3 Mundari HTT validation subject biodata

| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|-----------|-------------|-------------|------|--------|-----------|-----------|--|--------|
| G1 | 12/16/04 | Begunbari | 40 | M | 7 | Mu | Mu | Mu | none | C |
| G2 | 12/16/04 | Begunbari | 28 | F | 0 | Mu | Mu | Mu | Nijpara:20 | C |
| G3 | 12/16/04 | Begunbari | 30 | F | 2 | Mu | Mu | Mu | Dhaka:3 | C |
| G4 | 12/16/04 | Begunbari | 55 | M | 8 | Mu | Mu | Mu | none | C |
| G5 | 12/16/04 | Begunbari | 18 | F | 7 | Mu | Mu | Mu | none | C |
| G6 | 12/16/04 | Begunbari | 30 | M | 10 | Mu | Mu | Mu | none | C |
| G7 | 12/16/04 | Begunbari | 40 | F | 3 | Mu | Mu | Mu | Nijpara:19 | C |
| G8 | 12/16/04 | Begunbari | 25 | M | 10 | Mu | Mu | Mu | Dinajpur:4, Bonnpara, Natore:1 | C (RC) |
| G9 | 12/16/04 | Begunbari | 45 | F | 7 | Mu | Mu | Mu | Beniduar:20, Dinajpur:2 | С |
| G10 | 12/16/04 | Begunbari | 50 | F | 9 | Mu | Mu | Mu | none | C |

H.3.4 Santali RTT subject biodata

| Subj. No. | Date | Location | A g e | S e x | Educ | MT | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|-----------|-------------|-------------|------|----|-----------|-----------|--|--------|
| A1 | 12/13/04 | Abirpara | 22 | F | 10 | Ma | Ma | Ma | none | C |
| A2 | 12/13/04 | Abirpara | 45 | M | 7 | Ma | Ma | Ma | Chothra:4 | C |
| A3 | 12/13/04 | Abirpara | 23 | M | 8 | Ma | Ma | Ma | none | C |
| A4 | 12/13/04 | Abirpara | 32 | M | SSC | Ma | Ma | Ma | Dhaka:7, Naogaon:1, Panchbibi:2 | С |
| A5 | 12/13/04 | Abirpara | 20 | F | 9 | Ma | Ma | Ma | Panchbibi:17 | C |
| A6 | 12/13/04 | Abirpara | 25 | F | 7 | Ma | Ma | Ma | none | C |
| A7 | 12/13/04 | Abirpara | 46 | M | 7 | Ma | Ma | Ma | none | C (RC) |
| A8 | 12/13/04 | Abirpara | 45 | F | 0 | Ma | Ma | Ma | none | C |
| A9 | 12/13/04 | Abirpara | 25 | M | SSC | Ma | Ma | Ma | none | C |
| A10 | 12/13/04 | Abirpara | 22 | F | 10 | Ma | Ma | Ma | Rangpur:14 | C |
| A11 | 12/13/04 | Abirpara | 55 | M | 3 | Ma | Ma | Ma | none | C (RC) |
| A12 | 12/13/04 | Abirpara | 60 | M | 0 | Ma | Ma | Ma | none | C (RC) |
| C1 | 12/20/04 | Pachondor | 17 | F | SSC | Ma | Ma | Ma | Rajshahi:3 | C |
| C2 | 12/20/04 | Pachondor | 25 | M | 5 | Ma | Ma | Ma | none | C |
| C3 | 12/20/04 | Pachondor | 40 | F | 0 | Ma | Ma | Ma | Dampara, Rajshahi:16, Makanda:5 | С |
| C4 | 12/20/04 | Pachondor | 50 | F | 0 | Ma | Ma | Ma | Damkura, Rajshahi:17 | С |
| C5 | 12/20/04 | Pachondor | 26 | M | SSC | Ma | Ma | Ma | none | C (RC) |
| C6 | 12/20/04 | Pachondor | 45 | M | 5 | Ma | Ma | Ma | Narayanpur:2 | C |
| C7 | 12/20/04 | Pachondor | 23 | F | SSC | Ma | Ma | Ma | none | C (RC) |
| C8 | 12/20/04 | Pachondor | 35 | M | 8 | Ma | Ma | Ma | none | C (RC) |

Santali RTT subject biodata, cont.

| Santai | I K I I SUD | ject biodata, | | _ | 1 | | 1 | | | |
|--------|-------------|---------------|--------|--------|------|------|-----|-----|-----------------------------------|-----------|
| Subj. | Date | Location | A | S | Educ | MT | M's | F's | Other residences | Rel |
| No. | Date | Location | g e | e x | Educ | IVII | MT | MT | and length (in years) | Kei |
| C9 | 12/20/04 | Pachondor | 19 | M | SSC | Ma | Ma | Ma | Makanda, Lalitnagar:9 | С |
| C10 | 12/20/04 | Pachondor | 55 | F | 0 | Ma | Ma | Ma | Pakri (7 km):16, Lalitnagar:20 | C (RC) |
| C11 | 12/20/04 | Pachondor | 50 | F | 0 | Ma | Ma | Ma | Bautala, Rampur:14 | С |
| G1 | 12/16/04 | Begunbari | 40 | M | 7 | Mu | Mu | Mu | none | С |
| G2 | 12/16/04 | Begunbari | 28 | F | 0 | Mu | Mu | Mu | Nijpara:20 | С |
| G3 | 12/16/04 | Begunbari | 30 | F | 2 | Mu | Mu | Mu | Dhaka:3 | С |
| G4 | 12/16/04 | Begunbari | 55 | M | 8 | Mu | Mu | Mu | none | С |
| G5 | 12/16/04 | Begunbari | 18 | F | 7 | Mu | Mu | Mu | none | С |
| G6 | 12/16/04 | Begunbari | 30 | M | 10 | Mu | Mu | Mu | none | С |
| G7 | 12/16/04 | Begunbari | 40 | F | 3 | Mu | Mu | Mu | Nijpara:19 | С |
| G8 | 12/16/04 | Begunbari | 25 | M | 10 | Mu | Mu | Mu | Dinajpur:4, Bonnpara, Natore:1 | C (RC) |
| G9 | 12/16/04 | Begunbari | 45 | F | 7 | Mu | Mu | Mu | Beniduar:20, Dinajpur:2 | С |
| G10 | 12/16/04 | Begunbari | 50 | F | 9 | Mu | Mu | Mu | none | С |
| G11 | 12/16/04 | Begunbari | 18 | F | 10 | Mu | Mu | Mu | Rajshahi:6 | С |
| G12 | 12/16/04 | Begunbari | 45 | M | 9 | Mu | Mu | Mu | none | С |
| G13 | 12/16/04 | Begunbari | 38 | F | 10 | Mu | Mu | Mu | Nijpara:14, Dinajpur:9 | C (RC) |
| G14 | 12/16/04 | Begunbari | 56 | M | 0 | Mu | Mu | Mu | none | C (RC) |
| G15 | 12/16/04 | Begunbari | 44 | M | 5 | Mu | Mu | Mu | Dinajpur:27 | C |
| G16 | 12/16/04 | Begunbari | 35 | M | 5 | Mu | Mu | Mu | none | С |
| G17 | 12/16/04 | Begunbari | 15 | M | 10 | Mu | Mu | Mu | none | С |
| G18 | 12/16/04 | Begunbari | 45 | F | 10 | Mu | Mu | Mu | Beniduar:20 | C (RC) |
| G19 | 12/16/04 | Begunbari | 20 | F | HSC | Mu | Mu | Mu | Dhaka:3, Dinajpur:3 | С |
| G20 | 12/16/04 | Begunbari | 23 | M | SSC | Mu | Mu | Mu | Dinajpur:12 | С |
| G21 | 12/16/04 | Begunbari | 27 | M | SSC | Mu | Mu | Mu | none | С |
| G22 | 12/16/04 | Begunbari | 30 | M | 8 | Mu | Mu | Mu | none | С |

H.3.5 Mahali RTT subject biodata

| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|-----------|-------------|-------------|------|--------|-----------|-----------|--|--------|
| C1 | 12/20/04 | Pachondor | 17 | F | SSC | Ma | Ma | Ma | Rajshahi:3 | С |
| C2 | 12/20/04 | Pachondor | 25 | M | 5 | Ma | Ma | Ma | none | С |
| C3 | 12/20/04 | Pachondor | 40 | F | 0 | Ma | Ma | Ma | Dampara, Rajshahi:16, Makanda:5 | С |
| C4 | 12/20/04 | Pachondor | 50 | F | 0 | Ma | Ma | Ma | Damkura, Rajshahi:17 | С |
| C5 | 12/20/04 | Pachondor | 26 | M | SSC | Ma | Ma | Ma | none | C (RC) |
| C6 | 12/20/04 | Pachondor | 45 | M | 5 | Ma | Ma | Ma | Narayanpur:2 | C |
| C7 | 12/20/04 | Pachondor | 23 | F | SSC | Ma | Ma | Ma | none | C (RC) |
| C8 | 12/20/04 | Pachondor | 35 | M | 8 | Ma | Ma | Ma | none | C (RC) |
| С9 | 12/20/04 | Pachondor | 19 | M | SSC | Ma | Ma | Ma | Makanda, Lalitnagar:9 | С |
| C10 | 12/20/04 | Pachondor | 55 | F | 0 | Ma | Ma | Ma | Pakri (7 km away):16, Lalitnagar:20 | C (RC) |
| C11 | 12/20/04 | Pachondor | 55 | F | 0 | Ma | Ma | Ma | Bautala, Rampur:14 | C |

H.3.6 Mundari (Ranchi) RTT subject biodata

| | | • | , | | , | | | | | |
|--------------|---------|----------|-------------|-------------|------|--------|-----------|-----------|--|--------|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| N1 | 2/12/05 | Nijpara | 29 | F | HSC | Mu | Mu | Mu | Dinajpur:10 | С |
| N2 | 2/12/05 | Nijpara | 70 | M | SSC | Mu | Mu | Mu | Begunbari:21 | C |
| N3 | 2/12/05 | Nijpara | 49 | F | 5 | Mu | Mu | Mu | none | C |
| N4 | 2/12/05 | Nijpara | 30 | M | 7 | Mu | Mu | Mu | none | C |
| N5 | 2/12/05 | Nijpara | 65 | F | 2 | Mu | Mu | Mu | Ranchi:8 | C (RC) |
| N6 | 2/12/05 | Nijpara | 20 | F | 10 | Mu | Mu | Mu | Beniduar:20 | C (RC) |
| N7 | 2/12/05 | Nijpara | 20 | M | 8 | Mu | Mu | Mu | none | C |
| N8 | 2/12/05 | Nijpara | 50 | M | HSC | Mu | Mu | Mu | Begunbari:7, Dinajpur:6, Dhaka:3 | С |
| N9 | 2/12/05 | Nijpara | 50 | M | SSC | Mu | Mu | Mu | Begunbari:22 | С |

H.4 Sociolinguistic questionnaire subject biodata

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|--------------|----------|------------|-------------|-------------|-------|--------|-----------|-----------|---|--------|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| Rj1 | 11/6/04 | Rajarampur | 45 | M | 4 | S | S | S | none | Н |
| Rj2 | 11/6/04 | Rajarampur | 25 | F | 3 | S | S | S | Joganatpur, Pirganj:3 | С |
| Rj3 | 11/6/04 | Rajarampur | 19 | F | 0 | S | S | S | none | С |
| Rj4 | 11/6/04 | Rajarampur | 35 | F | 1 | S | S | S | Sankat, Birganj:15 | Sn |
| Rj5 | 11/6/04 | Rajarampur | 42 | M | 0 | S | S | S | none | C |
| Rj6 | 11/6/04 | Rajarampur | 65 | F | 0 | S | S | S | Shivbari, India:7, Bhagpur, Khaharol:10, Paharpur, Garol:3 | С |
| Rj7 | 11/6/04 | Rajarampur | 80 | M | 3 | S | S | S | none | C (RC) |
| Rj8 | 11/6/04 | Rajarampur | 44 | M | 10 | S | S | S | Dinajpur:22 | C (RC) |
| Rj9 | 11/6/04 | Rajarampur | 20 | F | 5 | S | S | S | none | C |
| Rj10 | 11/6/04 | Rajarampur | 25 | M | 0 | S | S | S | Balamdoir, Birol:15 | C (RC) |
| Rt1 | 11/8/04 | Rautnagar | 30 | F | 0 | S | S | S | Patandoba:15 | T |
| Rt2 | 11/8/04 | Rautnagar | 18 | F | SSC | S | S | S | none | C |
| Rt3 | 11/8/04 | Rautnagar | 22 | F | HSC | S | S | S | Dinajpur:3 | С |
| Rt4 | 11/8/04 | Rautnagar | 60 | M | 0 | S | S | S | none | C |
| Rt5 | 11/8/04 | Rautnagar | 20 | F | 10 | S | S | S | Birganj subdistrict:16 | Sn |
| Rt6 | 11/8/04 | Rautnagar | 22 | M | HSC | S | S | S | none | C |
| Rt7 | 11/8/04 | Rautnagar | 70 | F | 0 | S | S | S | Kodakait, Parbotipur:20 | C |
| Rt8 | 11/8/04 | Rautnagar | 22 | M | 10 | S | S | S | Jaydahadarpara, Rajshahi:ND | C |
| Rt9 | 11/8/04 | Rautnagar | 60 | M | 0 | S | S | S | India:6 | Sn |
| Rt10 | 11/8/04 | Rautnagar | 47 | M | SSC | S | S | S | Birisiri:1 | С |
| Rt11 | 11/8/04 | Rautnagar | 80 | M | 0 | S | S | S | none | Sn |
| Rt12 | 11/8/04 | Rautnagar | 20 | F | SSC | S | S | S | none | C |
| Pp1 | 11/10/04 | Paharpur | 18 | M | 10 | S | S | S | none | С |
| Pp2 | 11/10/04 | Paharpur | 48 | M | 10 | S | S | S | none | С |
| Pp3 | 11/10/04 | Paharpur | 60 | F | 0 | S | S | S | Khabar Dhebipur (1.5 km north):15 | T |
| Pp4 | 11/10/04 | Paharpur | 75 | M | 0 | S | S | S | none | T |
| Pp5 | 11/10/04 | Paharpur | 22 | F | HSC | S | S | S | Khonyonpur Mission:4, Hili:5, Panchbibi:11 | С |
| Pp6 | 11/10/04 | Paharpur | 22 | F | SSC | S | S | S | UttarLaxmipur:16, Rangpur:1 | С |
| Pp7 | 11/10/04 | Paharpur | 43 | F | 4 | S | S | S | none | C |
| Pp8 | 11/10/04 | Paharpur | 24 | M | SSC | S | S | S | none | C |
| Pp9 | 11/10/04 | Paharpur | 50 | M | SSC | S | S | S | none | C |
| Pp10 | 11/10/04 | Paharpur | 27 | F | HSC | S | S | S | Hasarpara, Nababganj:19 | C |

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|--------------|-------------|--------------------|-------------|-------------|---------------------|--------|-----------|-----------|--|-----|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| Pt1 | 11/15/04 | Patichora | 45 | M | 9 | S | S | S | none | С |
| Pt2 | 11/15/04 | Patichora | 22 | M | 10 | S | S | S | none | Sn |
| Pt3 | 11/15/04 | Patichora | 25 | F | 0 | S | S | S | none | Sn |
| Pt4 | 11/15/04 | Patichora | 35 | F | 0 | S | S | S | Zahanpur (by Manglebari):20 | Sn |
| Pt5 | 11/15/04 | Patichora | 58 | F | 0 | S | S | S | Pongidor (south of Shibpur): 18 | Sn |
| Pt6 | 11/15/04 | Patichora | 19 | M | SSC | S | S | S | none | Sn |
| Pt7 | 11/15/04 | Patichora | 45 | F | 0 | S | S | S | Jogdol:18 | Sn |
| Pt8 | 11/15/04 | Patichora | 35 | M | 0 | S | S | S | none | Н |
| Pt9 | 11/15/04 | Patichora | 60 | M | 0 | S | S | S | none | Sn |
| Pt10 | 11/15/04 | Patichora | 45 | F | 0 | S | S | S | Shibpur, Mahanandpur:15 | Sn |
| J1 | 11/16/04 | Jabri | 52 | M | 8 | S | S | S | none | Sn |
| J2 | 11/16/04 | Jabri | 47 | M | 0 | S | S | S | Desipara, Porsha :35 | Sn |
| J3 | 11/16/04 | Jabri | 22 | M | 9 | S | S | S | none | Н |
| J4 | 11/16/04 | Jabri | 30 | M | Caritas adult educ. | S | S | S | none | Sn |
| J5 | 11/16/04 | Jabri | 22 | M | 10 | S | S | S | none | Sn |
| J6 | 11/16/04 | Jabri | 50 | M | 0 | S | S | S | none | Sn |
| J7 | 11/16/04 | Jabri | 50 | F | 0 | S | S | S | none | Sn |
| Ј8 | 11/16/04 | Jabri | 32 | F | 0 | S | S | S | Babhanga, Gomestapur:6 | Sn |
| J9 | 11/16/04 | Jabri | 35 | F | 0 | S | S | S | Adda Tungklepur, Niamatpur:21 | Sn |
| J10 | 11/16/04 | Jabri | 30 | F | 0 | S | S | S | Desipara, Porsha:18 | Sn |
| J11 | 11/16/04 | Jabri | 45 | F | 0 | S | S | S | Panihara, Niamatpur:12 | Sn |
| B11 | 11/24/04 | Bodo- belghoria | 41 | M | 9 | S | S | S | Amnura Mission:2, Naogan:3 | C |
| B12 | 11/24/04 | Bodo- belghoria | 30 | M | SSC | S | S | S | none | C |
| B13 | 11/24/04 | Bodo- belghoria | 40 | M | 5 | S | S | S | none | C |
| B14 | 11/24/04 | Bodo- belghoria | 60 | М | SSC | S | S | S | Khonjonpur, Joypurhat:2, Barisal:2, Birisiri:3, Rajshahi:1, Paitapukur, Godagari:7, Naogaon:7, England:1 | С |
| B15 | 11/24/04 | Bodo- belghoria | 31 | M | 10 | S | S | S | Beniduar:5, Dinajpur:3, Mominpur:1, Boidharhat, Chittagong:3 | C |
| Bl6 | 11/24/04 | Bodo- belghoria | 42 | F | 0 | S | S | S | Jogdol:18 | C |

| Subj. No. | Date | Location Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|--------------------|-------------|-------------|------|--------|-----------|-----------|--|--------|
| B17 | 11/24/04 | Bodo- belghoria | 55 | F | 0 | S | S | S | Rampara, Natore:8, Jalabaj, Natore:6 | С |
| B18 | 11/24/04 | Bodo- belghoria | 35 | F | 3 | S | S | S | none | С |
| B19 | 11/24/04 | Bodo- belghoria | 20 | F | 10 | S | S | S | Fazilpur, Nawabgonj:19 | C |
| B110 | 11/24/04 | Bodo- belghoria | 75 | F | 3 | S | S | S | Panchbibi:15 | C |
| B111 | 11/24/04 | Bodo- belghoria | 25 | M | SSC | S | S | S | Rajshahi:16 | С |
| Am1 | 11/22/04 | Amnura | 43 | M | 10 | S | S | S | Mirjapur:12 | С |
| Am2 | 11/22/04 | Amnura | 29 | M | SSC | S | S | S | Pipra mission:6, Dinajpur: 8 | С |
| Am3 | 11/22/04 | Amnura | 19 | M | SSC | S | S | S | Rahanpur, Mirakathal:1 | С |
| Am4 | 11/22/04 | Amnura | 60 | M | BA | S | S | S | Chautpur, Tanor:25 | С |
| Am5 | 11/22/04 | Amnura | 22 | M | 9 | S | S | S | Mirjha: 4 | C |
| Am6 | 11/22/04 | Amnura | 18 | F | 8 | S | S | S | Kochuakajipara:14 | С |
| Am7 | 11/22/04 | Amnura | 19 | F | SSC | S | S | S | none | С |
| Am8 | 11/22/04 | Amnura | 40 | F | SSC | S | S | S | Lolitnsagar, Godagari:20, Natore:1 | C |
| Am9 | 11/22/04 | Amnura | 45 | F | 5 | S | S | S | Rahanpur, Mirakathal:15, Chatnaka (5 km from Sisatola):20 | С |
| Am10 | 11/22/04 | Amnura | 42 | F | 0 | S | S | S | Mundumala:15 | С |
| A1 | 11/12/04 | Abirpara | 27 | M | SSC | Ma | Ma | Ma | none | С |
| A2 | 11/12/04 | Abirpara | 47 | F | 3 | Ma | Ma | Ma | Bochapukur, Birganj:18 | С |
| A3 | 11/12/04 | Abirpara | 60 | M | 5 | Ma | Ma | Ma | Balughat,India:8 | С |
| A4 | 11/12/04 | Abirpara | 35 | F | 0 | Ma | Ma | Ma | Gulapbak, Rampura:18 | С |
| A5 | 11/12/04 | Abirpara | 55 | F | 0 | Ma | Ma | Ma | Malgura, Ghoraghat:10, Raniganj:7 | С |
| A6 | 11/12/04 | Abirpara | 23 | M | 9 | Ma | Ma | Ma | none | С |
| A7 | 11/12/04 | Abirpara | 45 | M | 4 | Ma | Ma | Ma | Chotrai, Rangpur:11, Balughat, India:1 | C |
| A8 | 11/12/04 | Abirpara | 22 | F | 10 | Ma | Ma | Ma | Panchbibi:19 | C |
| A9 | 11/12/04 | Abirpara | 18 | F | 10 | Ma | Ma | Ma | Ruiha, Thakurgaon:5 | C |
| A10 | 11/12/04 | Abirpara | 45 | M | 7 | Ma | Ma | Ma | Balughat, India:2 | C |
| M1 | 11/14/04 | Matindor | 56 | M | 10 | Ma | Ma | Ma | Sushnipara, Rajshahi:24 | C (RC) |
| M2 | 11/14/04 | Matindor | 52 | F | SSS | Ma | Ma | Ma | Dinajpur:8 | C (RC) |
| M3 | 11/14/04 | Matindor | 23 | M | 10 | Ma | Ma | Ma | Chandpukur Mission, Patnitala:11 | C (RC) |
| M4 | 11/14/04 | Matindor | 36 | M | SSC | Ma | Ma | Ma | Karkaria, Niamatpur:10 | C (RC) |
| M5 | 11/14/04 | Matindor | 25 | F | SSC | Ma | Ma | Ma | Dhamoirhat:15, Bonpara, Natore:4 | C (RC) |

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|--------------|-------------|-------------|-------------|-------------|---------|--------|-----------|-----------|--|--------|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| M6 | 11/14/04 | Matindor | 33 | M | 8 | Ma | Ma | Ma | Niamatpur:2 | C (RC) |
| M7 | 11/14/04 | Matindor | 52 | M | 0 | Ma | Ma | Ma | Goyapur (near Shibrajpur):10, Kuarn, India:1 | C (RC) |
| M8 | 11/14/04 | Matindor | 50 | F | 0 | Ma | Ma | Ma | none | C |
| M9 | 11/14/04 | Matindor | 30 | F | 0 | Ma | Ma | Ma | Bakrul, Chanpukur:3 | С |
| M10 | 11/14/04 | Matindor | 41 | F | 2 | Ma | Ma | Ma | none | С |
| Pc1 | 11/21/04 | Pachondor | 20 | M | SSC | Ma | Ma | Ma | Lolitnagar, Godagari:5 | C |
| Pc2 | 11/21/04 | Pachondor | 50 | F | 0 | Ma | Ma | Ma | Bautialaranpur, Godagari:16 | С |
| Pc3 | 11/21/04 | Pachondor | 40 | M | 1 | Ma | Ma | Ma | Lalitnagar, Godagari:2 | C |
| Pc4 | 11/21/04 | Pachondor | 15 | F | SSC | Ma | Ma | Ma | Rajshahi:10 | С |
| Pc5 | 11/21/04 | Pachondor | 18 | M | 10 | Ma | Ma | Ma | none | С |
| Pc6 | 11/21/04 | Pachondor | 41 | F | KG 1 | Ma | Ma | Ma | none | C (RC) |
| Pc7 | 11/21/04 | Pachondor | 17 | F | SSC | Ma | Ma | Ma | Rajshahi:3 | C (RC) |
| Pc8 | 11/21/04 | Pachondor | 27 | M | SSC | Ma | Ma | Ma | none | C |
| Pc9 | 11/21/04 | Pachondor | 32 | F | SSC | Ma | Ma | Ma | none | C (RC) |
| Pc10 | 11/21/04 | Pachondor | 65 | M | 0 | Ma | Ma | Ma | Pipirakanda, Tanor:25 | C (RC) |
| Pc11 | 11/21/04 | Pachondor | 45 | M | 0 | Ma | Ma | Ma | Deemka, India:12 | C |
| Pc12 | 11/21/04 | Pachondor | 28 | F | 0 | Ma | Ma | Ma | none | C |
| N1 | 11/9/04 | Nijpara | 28 | M | BA | Mu | Mu | Mu | Barisal:2 | C |
| N2 | 11/9/04 | Nijpara | 20 | M | 2 | Mu | Mu | Mu | Dhaka:4, Kaliganj, Gajipur:4 | C |
| N3 | 11/9/04 | Nijpara | 35 | M | 3 | Mu | Mu | Mu | none | С |
| N4 | 11/9/04 | Nijpara | 32 | F | 0 | Mu | Mu | Mu | Dhamoipara:3 | С |
| N5 | 11/9/04 | Nijpara | 55 | F | 0 | Mu | Mu | Mu | none | С |
| N6 | 11/9/04 | Nijpara | 39 | M | SSC | Mu | Mu | Mu | Rajshahi:2, Beniduar:1 | С |
| N7 | 11/9/04 | Nijpara | 70 | M | 3 | Mu | Mu | Mu | Rairanj:2 | C |
| N8 | 11/9/04 | Nijpara | 42 | F | 0 | Mu | Mu | Mu | none | C |
| N9 | 11/9/04 | Nijpara | 70 | M | SSC | Mu | Mu | Mu | Beniduar:25, Jamalganj:1 | C |
| N10 | 11/9/04 | Nijpara | 29 | F | HSC | Mu | Mu | Mu | none | C |
| N11 | 11/9/04 | Nijpara | 53 | F | 5 | Mu | Mu | Mu | Beniduar:20 | C |
| N12 | 11/9/04 | Nijpara | 55 | M | SSC | Mu | Mu | Mu | Beniduar:22 | С |
| Bg1 | 11/18/04 | Begunbari | 54 | M | SSC | Mu | Mu | Mu | Nijpara:5 | C (RC) |
| Bg2 | 11/18/04 | Begunbari | 18 | M | SSC | Mu | Mu | Mu | none | C |
| Bg3 | 11/18/04 | Begunbari | 22 | M | SSC | Mu | Urao | Mu | Dinajpur:12 | C (RC) |
| Bg4 | 11/18/04 | Begunbari | 27 | M | SSC | Mu | Mu | Mu | none | C (RC) |
| Bg5 | 11/18/04 | Begunbari | 45 | F | 0 | Mu | Mu | Mu | Tore, India:16 | C |
| Bg6 | 11/18/04 | Begunbari | 24 | F | 5 | Mu | Mu | Mu | none | С |
| Bg7 | 11/18/04 | Begunbari | 28 | F | 10 | Mu | Mu | Mu | Beniduar:2, Niamatpur:1 | C (RC) |

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|--------|-------------|--------------|----|-----|---------|--------|------|------|--------------------|--------|
| Subj. | D 4 | T 4. | A | S | Б. | N 4770 | M's | F's | Other residences | ъ. |
| No. | Date | Location | g | e | Educ | MT | MT | MT | and length | Rel |
| | | | e | X | | | | | (in years) | |
| Bg8 | 11/18/04 | Begunbari | 45 | F | 10 | Mu | Mu | Mu | Beniduar:20 | C (RC) |
| Bg9 | 11/18/04 | Begunbari | 50 | M | 3 | Mu | Urao | Mu | none | C |
| Bg10 | 11/18/04 | Begunbari | 55 | F | 0 | Mu | Mu | Mu | Balughat:ND | C |
| K1 | 11/23/04 | Krishnupur | 40 | M | 0 | Kod | Kod | Kod | Atrai, | Sn |
| 111 | 11/25/01 | Tiriomapar | | 111 | Ů | 1100 | 1100 | 1100 | Naogaon:20 | |
| | | | | | | | | | Natorpur Bagan, | |
| K2 | 11/23/04 | Krishnupur | 35 | M | 0 | Kod | Kod | Kod | Natore:7, | Sn |
| 112 | 11/23/01 | Ttrisimapur | 33 | 171 | | Rou | Rou | Rod | Basbaria, | SII |
| | | | | | | | | | Puthia:6 | |
| | | | | | | | | | Phulbagan, | |
| K3 | 11/23/04 | Krishnupur | 42 | F | 0 | Kod | Kod | Kod | Natore:10, | Н |
| | | | | | | | | | Nosidpur, India:1 | |
| | | | | | | | | | Natorpur Bagan, | |
| K4 | 11/23/04 | Krishnupur | 32 | M | 0 | Kod | Kod | Kod | Natore:7, Basbaria | H |
| | | | | | | | | | Puthia:6 | |
| K5 | 11/23/04 | Krishnupur | 60 | F | 0 | Kod | Kod | Kod | Phulbagan, | Н |
| | | • | | | | | | | Natore: 12, | |
| K6 | 11/23/04 | Krishnupur | 18 | F | 4 | Kod | Kod | Kod | none | Н |
| K7 | 11/23/04 | Krishnupur | 50 | F | 0 | Kod | Kod | Kod | Natore:12 | H |
| K8 | 11/23/04 | Krishnupur | 22 | F | 0 | Kod | Kod | Kod | Nodia, India:18 | Н |
| K9 | 11/23/04 | Krishnupur | 22 | M | 0 | Kod | Kod | Kod | none | Н |
| | | | | | | | | | Nogadi India:3, | |
| K10 | 11/23/04 | Krishnupur | 55 | M | 3 | Kod | Kod | Kod | Bardhaman, | Н |
| | | | | | | | | | India:2 | |
| Bd1 | 11/22/04 | Babudaing | 16 | M | 5 | Kol | Kol | Kol | Dhaka:3 | Sn |
| Bd2 | 11/22/04 | Babudaing | 20 | M | 0 | Kol | Kol | Kol | none | Sn |
| Bd3 | 11/22/04 | Babudaing | 40 | M | 0 | Kol | Kol | Kol | none | Sn |
| Bd4 | 11/22/04 | Babudaing | 27 | M | 0 | Kol | Kol | Kol | Jhilimay, | Sn |
| DU4 | | Dabudanig | | | | | | | Amnura:12 | SII |
| Bd5 | 11/22/04 | Babudaing | 50 | M | 2 | Kol | Kol | Kol | none | Sn |
| Bd6 | 11/22/04 | Babudaing | 30 | F | 0 | Kol | Kol | Kol | Jetkepara:14 | Sn |
| Bd7 | 11/22/04 | Babudaing | 42 | F | 0 | Kol | Kol | Kol | none | Н |
| Bd8 | 11/22/04 | Babudaing | 80 | F | 0 | Kol | Kol | Kol | Rohanpur:50 | Н |
| Bd9 | 11/22/04 | Babudaing | 45 | F | 0 | Kol | Kol | Kol | Pandua, India:11 | Н |
| Bd10 | 11/22/04 | Robudoina | 24 | F | 0 | Kol | Kol | Kol | Dangapara (2 km | Н |
| Duit | 11/22/04 | Babudaing | | Г | U | | | | away):9 | П |
| Bd11 | 11/22/04 | Babudaing | 26 | M | 0 | Kol | Kol | Kol | none | Sn |

H.5 SRT subject biodata

| | | | A | S | | | | | Other residences | |
|-------|----------|------------|----|-----|------|-----|-----|-----|--|--------|
| Subj. | Date | Location | g | e | Educ | M | M's | F's | and length | Rel |
| No. | Date | Location | e | X | Dauc | T | MT | MT | (in years) | ICI |
| P1 | 12/14/04 | Patichora | 16 | M | 10 | S | S | S | none | Sn |
| P2 | 12/14/04 | Patichora | 30 | M | 0 | S | S | S | none | Sn |
| P3 | 12/14/04 | Patichora | 41 | M | 8 | S | S | S | none | C |
| P4 | 12/14/04 | Patichora | 15 | M | 10 | S | S | S | Beniduar:7 | Sn |
| P5 | 12/14/04 | Patichora | 18 | F | 0 | S | S | S | none | Sn |
| P6 | 12/14/04 | Patichora | 29 | M | 3 | S | S | S | Bangdong:3 | H |
| P7 | 12/14/04 | Patichora | 21 | M | SSC | S | S | S | none | H |
| P8 | 12/14/04 | Patichora | 16 | M | 10 | S | S | S | none | Н |
| P9 | 12/14/04 | Patichora | 21 | M | 1 | S | S | S | none | Н |
| P10 | 12/14/04 | Patichora | 21 | F | 0 | S | S | S | Kashipur:16 | Sn |
| P11 | 12/14/04 | Patichora | 35 | F | 0 | S | S | S | Sahopur, Dhamoir:3 | Sn |
| P12 | 12/14/04 | Patichora | 18 | F | 4 | S | S | S | none | Sn |
| P13 | 12/14/04 | Patichora | 80 | F | 0 | S | S | S | Dumka:2 | Sn |
| P14 | 12/14/04 | Patichora | 21 | F | 0 | S | S | S | Sapahar:17 | Sn |
| P15 | 12/14/04 | Patichora | 40 | M | 0 | S | S | S | none | Sn |
| 113 | 12/14/04 | Taticilora | 40 | 171 | U | | | | Ramrampur, | SII |
| P16 | 12/14/04 | Patichora | 65 | M | 1 | S | S | S | Dhamoir:40, India:1 | Sn |
| P17 | 12/14/04 | Patichora | 60 | M | 4 | S | S | S | Phulbari:15 | Sn |
| P18 | 12/14/04 | Patichora | 27 | F | 5 | S | S | S | Porsha:1 | C |
| P19 | 12/14/04 | Patichora | 70 | M | 0 | S | S | S | none | Sn |
| P20 | 12/14/04 | Patichora | 60 | F | 0 | S | S | S | Dangapara, Patnitala:16 | С |
| P21 | 12/14/04 | Patichora | 60 | F | 0 | S | S | S | Niamatpur:20, India:1 | Sn |
| P22 | 12/14/04 | Patichora | 46 | F | 0 | S | S | S | none | Sn |
| R1 | 12/8/04 | Rajarampur | 30 | F | 3 | S | S | S | Pirganj:3 | С |
| R2 | 12/8/04 | Rajarampur | 15 | F | 9 | S | S | S | Kosba:4 | С |
| R3 | 12/8/04 | Rajarampur | 40 | F | 0 | S | S | S | none | С |
| R4 | 12/8/04 | Rajarampur | 15 | F | 8 | S | S | S | Dhanjuri: 3 | С |
| R5 | 12/8/04 | Rajarampur | 35 | M | 0 | S | S | S | none | С |
| R6 | 12/8/04 | Rajarampur | 42 | M | 7 | S | S | S | none | С |
| R7 | 12/8/04 | Rajarampur | 30 | M | 0 | S | S | S | Gopalganj: 1 | С |
| R8 | 12/8/04 | Rajarampur | 50 | M | 3 | S | S | S | Gobindpur:9, Krishnupur:20 | Sn |
| R9 | 12/8/04 | Rajarampur | 65 | F | 0 | S | S | S | Gopalganj:20 | С |
| R10 | 12/8/04 | Rajarampur | 20 | F | 0 | S | S | S | none | С |
| R11 | 12/8/04 | Rajarampur | 43 | M | 0 | S | S | S | none | С |
| R12 | 12/8/04 | Rajarampur | 20 | F | 0 | S | S | S | Nazipur:10 | Sn |
| R13 | 12/8/04 | Rajarampur | 45 | M | 2 | S | S | S | none | Sn |
| R14 | 12/8/04 | Rajarampur | 26 | F | SSC | S | S | S | Dinajpur:10, St. Joseph, Ganesh Tola:1 | C (RC) |
| R15 | 12/8/04 | Rajarampur | 40 | M | 0 | S | S | S | none | С |
| R16 | 12/10/04 | Rajarampur | 45 | F | 0 | S | S | S | Kaharol: 8 | C (RC) |
| R17 | 12/8/04 | Rajarampur | 18 | M | 10 | S | S | S | Dinajpur:7, Dhanjuri:3 | C |
| , | | | | | | _ ~ | _ ~ | ~_ | Jr, | |

| Subj. | abject biod | | A | S | E | M | M's | F's | Other residences | D.1 |
|-------|-------------|------------|--------|--------|------|---|-----|-----|--|--------|
| No. | Date | Location | g e | e x | Educ | T | MT | MT | and length (in years) | Rel |
| R18 | 12/8/04 | Rajarampur | 45 | F | 0 | S | S | S | Bitura, Birol:12 | C |
| R19 | 12/8/04 | Rajarampur | 21 | F | SSC | S | S | S | Dinajpur:11 | C |
| R20 | 12/8/04 | Rajarampur | 65 | F | 0 | S | S | S | Bikrampur:25 | Sn |
| R21 | 12/8/04 | Rajarampur | 22 | M | 0 | S | S | S | Kashipur, Khanshama:18 | Sn |
| R22 | 12/8/04 | Rajarampur | 35 | F | 0 | S | S | S | Madhobpur:15, Jhinaikuri:11 | Sn |
| R23 | 12/8/04 | Rajarampur | 40 | M | 4 | S | S | S | Jhinaikuri:30 | Sn |
| R24 | 12/8/04 | Rajarampur | 50 | M | 0 | S | S | S | none | С |
| R25 | 12/8/04 | Rajarampur | 14 | M | 8 | S | S | S | Maheshpur:2, Suihari:5 | C |
| R26 | 12/10/04 | Rajarampur | 14 | M | 7 | S | S | S | Suihari:6, Maheshpur:1, Dhanjuri:1 | C (RC) |
| R27 | 12/10/04 | Rajarampur | 45 | M | 0 | S | S | S | none | C (RC) |
| R28 | 12/10/04 | Rajarampur | 80 | M | 1 | S | S | S | Dumka:2 | Sn |
| U1 | 12/20/04 | Amnura | 23 | F | HSC | S | S | S | Cheknakha, Rajshahi:4 | С |
| U2 | 12/20/04 | Amnura | 19 | F | 10 | S | S | S | none | С |
| U3 | 12/20/04 | Amnura | 24 | F | 8 | S | S | S | Talbana, Naogaon:20 | C |
| U4 | 12/20/04 | Amnura | 23 | M | 10 | S | S | S | Modhumath, Godagari:18 | С |
| U5 | 12/20/04 | Amnura | 19 | M | SSC | S | S | S | none | C |
| U6 | 12/20/04 | Amnura | 15 | M | 5 | S | S | S | none | С |
| U7 | 12/20/04 | Amnura | 35 | F | 8 | S | S | S | Rajshahi:8 | C |
| U8 | 12/20/04 | Amnura | 26 | F | 10 | S | S | S | none | C |
| U9 | 12/20/04 | Amnura | 42 | M | 8 | S | S | S | none | C |
| U10 | 12/20/04 | Amnura | 20 | M | SSC | S | S | S | none | C |
| U11 | 12/20/04 | Amnura | 17 | M | 10 | S | S | S | none | C |
| U12 | 12/20/04 | Amnura | 33 | M | 9 | S | S | S | none | C |
| U13 | 12/21/04 | Amnura | 50 | F | 0 | S | S | S | Dilbarie (6 km west):15 | С |
| U14 | 12/21/04 | Amnura | 35 | F | 5 | S | S | S | none | С |
| U15 | 12/21/04 | Amnura | 50 | F | 0 | S | S | S | Natore:21 | С |
| U16 | 12/21/04 | Amnura | 50 | M | 0 | S | S | S | Piprakanna, Tanor:20 | С |
| U17 | 12/21/04 | Amnura | 60 | M | BA | S | S | S | Choitpur:27 | С |
| U18 | 12/21/04 | Amnura | 65 | M | 0 | S | S | S | Lalitnagar:18 | С |
| U19 | 12/21/04 | Amnura | 40 | F | 0 | S | S | S | Nachole:2 | С |
| U20 | 12/21/04 | Amnura | 18 | F | 10 | S | S | S | none | С |
| U21 | 12/21/04 | Amnura | 58 | M | 0 | S | S | S | Iyagpur, Lalitnagar:5 | С |
| U22 | 12/21/04 | Amnura | 38 | M | HSC | S | S | S | Dinajpur:7 | С |

| Subj. | • | lata, cont. | A | S | | | M's | F's | Other residences | |
|-------|----------|-------------|--------|--------|------|----|-----|-----|---|-----|
| No. | Date | Location | g e | e x | Educ | MT | MT | MT | and length (in years) | Rel |
| U23 | 12/21/04 | Amnura | 28 | M | SSC | S | S | S | none | C |
| U24 | 12/21/04 | Amnura | 16 | M | 10 | S | S | S | none | C |
| U25 | 12/21/04 | Amnura | 20 | F | SSC | S | S | S | none | C |
| | | | | | | | | | Dinajpur:4, | |
| U26 | 12/21/04 | Amnura | 35 | F | HSC | S | S | S | Rajshahi:7 | C |
| U27 | 12/21/04 | Amnura | 60 | F | 0 | S | S | S | Choitpur, Tanor:13 | С |
| U28 | 12/21/04 | Amnura | 60 | F | 0 | S | S | S | Dhanjuri, Dinajpur:20, Birganj:20 | C |
| U29 | 12/21/04 | Amnura | 55 | M | 10 | S | S | S | Badhair Mission (7 km away):23 | C |
| U30 | 12/21/04 | Amnura | 23 | M | SSC | S | S | S | none | C |
| U31 | 12/21/04 | Amnura | 42 | M | SSC | S | S | S | Choknaka, Tanor:40 | С |
| U32 | 12/21/04 | Amnura | 38 | M | HSC | S | S | S | Baydobrie, Dinajpur:10, Birganj:7 | C |
| U33 | 12/21/04 | Amnura | 30 | M | SSC | S | S | S | Choknaka:20, Rajshahi:3, Nazipur:2 | C |
| U34 | 12/21/04 | Amnura | 24 | F | SSC | S | S | S | Rajshahi:2 | С |
| U35 | 12/21/04 | Amnura | 27 | F | SSC | S | S | S | Dinajpur:5 | С |
| D1 | 12/13/04 | Adampur | 25 | F | HSC | S | S | S | Naogaon:4, Khonzonpur, Joypurhat:6, Dinajpur:2, Rangpur:1, Dhaka:4 | С |
| D2 | 12/13/04 | Adampur | 49 | F | SSC | S | S | S | Dinajpur:13, Naogaon:1 | С |
| D3 | 12/13/04 | Adampur | 43 | F | 5 | S | S | S | Sapahar, Naogaon:3 | С |
| D4 | 12/13/04 | Adampur | 19 | M | 9 | S | S | S | Laxmitala, Dinajpur:5 | С |
| D5 | 12/13/04 | Adampur | 51 | F | SSC | S | S | S | Dinajpur:5, Amnura:1 | С |
| D6 | 12/13/04 | Adampur | 55 | M | 8 | S | S | S | none | С |
| D7 | 12/13/04 | Adampur | 20 | F | SSC | S | S | S | Dhaka:5, Joypurhat:5 | С |
| D8 | 12/13/04 | Adampur | 16 | F | 10 | S | S | S | Pargaripur, Dinajpur:8 | С |
| D9 | 12/13/04 | Adampur | 25 | F | 0 | S | S | S | Nittipara, Joypurhat:18 | С |
| D10 | 12/13/04 | Adampur | 45 | F | 7 | S | S | S | Zalalabad, Natore:5, Bodobelghoria:4, Shibpur:4, Jogdol:3, Uzirpur, Patnitala:6, Sapahar, Naogaon:2 | С |
| D11 | 12/13/04 | Adampur | 18 | F | 10 | S | S | S | none | С |
| D12 | 12/13/04 | Adampur | 16 | F | 10 | S | S | S | none | С |
| D13 | 12/13/04 | Adampur | 14 | F | 7 | S | S | S | none | С |
| D14 | 12/13/04 | Adampur | 17 | M | 9 | S | S | S | none | С |

| Subj. No. | ubject biod Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|---------------------|----------|-------------|-------------|------|--------|-----------|-----------|---|-----|
| D15 | 12/13/04 | Adampur | 20 | M | SSC | S | S | S | Nozipur:6, Nirmol:1, Sambati:6, Kamalpur:1 | С |
| D16 | 12/13/04 | Adampur | 33 | M | 0 | S | S | S | none | C |
| D17 | 12/13/04 | Adampur | 30 | F | HSC | S | S | S | Amnura:20 | C |
| D18 | 12/13/04 | Adampur | 43 | M | 5 | S | S | S | none | C |
| D19 | 12/13/04 | Adampur | 36 | F | 2 | S | S | S | Dolla, Dinajpur:14 | C |
| D20 | 12/13/04 | Adampur | 52 | M | 1 | S | S | S | Dolla, Dinajpur:39 | C |
| D21 | 12/13/04 | Adampur | 15 | M | 5 | S | S | S | Dulal Mission:ND | C |
| D22 | 12/13/04 | Adampur | 36 | F | SSC | S | S | S | Chinirbandar, Dinajpur:22 | C |
| D23 | 12/13/04 | Adampur | 42 | M | 9 | S | S | S | Dhaka:4, Hili:4 | C |
| D24 | 12/13/04 | Adampur | 30 | M | 10 | S | S | S | none | C |
| D25 | 12/13/04 | Adampur | 55 | F | 4 | S | S | S | none | C |
| D26 | 12/13/04 | Adampur | 60 | F | 0 | S | S | S | none | C |
| D27 | 12/13/04 | Adampur | 50 | F | 0 | S | S | S | Kutrapara, Ghoraghat:18 | C |
| D28 | 12/13/04 | Adampur | 46 | F | BTh | S | S | S | Atlakhi, Malda, India:16 | С |
| D29 | 12/13/04 | Adampur | 25 | F | SSC | S | S | S | Thuknipara:15, Nirmol, Patnitala:1 | С |
| D30 | 12/13/04 | Adampur | 28 | F | BA | S | S | S | Kalikandar, Tanor:12,Uzirpur, Patnitala:4, Rajshahi:8 | С |
| D31 | 12/13/04 | Adampur | 50 | M | BA | S | S | S | Dinajpur:2, Joypurhat:3, Bhutgaria, Gaibandha:6 | С |
| D32 | 12/13/04 | Adampur | 50 | M | 3 | S | S | S | none | C |
| D33 | 12/13/04 | Adampur | 32 | M | HSC | S | S | S | Chapai Nababganj:7, Uzirpur, Patnitala:2 | C |
| D34 | 12/13/04 | Adampur | 35 | M | HSC | S | S | S | Parbatipur:1 | C |
| D35 | 12/13/04 | Adampur | 24 | M | HSC | S | S | S | Rajshahi:5, Amnura:3, Dinajpur:10, Sylhet:1 | C |
| A1 | 12/12/04 | Abirpara | 50 | M | 7 | Ma | Ma | Ma | Chatra, Pirganj:4 | С |
| A2 | 12/12/04 | Abirpara | 25 | F | 0 | Ma | Ma | Ma | Sotibari, Rangpur:17 | C |
| A3 | 12/12/04 | Abirpara | 45 | F | 3 | Ma | Ma | Ma | none | С |
| A4 | 12/12/04 | Abirpara | 20 | F | 10 | Ma | Ma | Ma | Ruhia, Panchagar:5 | C |
| A5 | 12/12/04 | Abirpara | 25 | M | SSC | Ma | Ma | Ma | none | C |
| A6 | 12/12/04 | Abirpara | 35 | M | SSC | Ma | Ma | Ma | Panchagar:1, Rangpur:1 | C |
| A7 | 12/12/04 | Abirpara | 35 | F | 0 | Ma | Ma | Ma | none | C |
| A8 | 12/12/04 | Abirpara | 36 | F | 0 | Ma | Ma | Ma | Baldipukur, Rangpur:1 | C |
| A9 | 12/12/04 | Abirpara | 40 | F | 0 | Ma | Ma | Ma | none | C |
| A10 | 12/12/04 | Abirpara | 30 | M | 6 | Ma | Ma | Ma | none | C |
| A11 | 12/12/04 | Abirpara | 16 | F | 8 | Ma | Ma | Ma | Dhanjuri, Phulbari:4 | C |
| A12 | 12/12/04 | Abirpara | 26 | M | 10 | Ma | Ma | Ma | Ruhia, Panchagar:2, Gopalganj:1, Savar:1, Konabari, Gazipur:2 | С |

| SKI SU | bject biod | ata, cont. | | | | | | | 0/1 11 | |
|--------|------------|------------|----|----|------|------|------|-----|--------------------|--------|
| Subj. | 5 | . | A | S | | M | M's | F's | Other residences | ъ. |
| No. | Date | Location | g | e | Educ | T | MT | MT | and length | Rel |
| | | | e | X | | | | | (in years) | |
| A13 | 12/12/04 | Abirpara | 15 | F | 5 | Ma | Ma | Ma | none | С |
| A14 | 12/12/04 | Abirpara | 45 | M | 8 | Ma | Ma | Ma | none | С |
| | | | | | | | | | Uttara:7, | |
| A15 | 12/12/04 | Abirpara | 32 | M | SSC | Ma | Ma | Ma | Naogaon:2, | C |
| | | | | | | | | | Panchbibi:3 | |
| A16 | 12/12/04 | Abirpara | 45 | F | 1 | Ma | Ma | Ma | none | С |
| A17 | 12/12/04 | Abirpara | 22 | M | 9 | Ma | Ma | Ma | none | C |
| A18 | 12/12/04 | Abirpara | 38 | F | 10 | Ma | Ma | Ma | Dinajpur:18 | С |
| A19 | 12/12/04 | Abirpara | 40 | M | 2 | Ma | Ma | Ma | Dinajpur:5 | C |
| A20 | 12/12/04 | Abirpara | 17 | M | 10 | Ma | Ma | Ma | none | C |
| A21 | 12/12/04 | Abirpara | 80 | F | 0 | Ma | Ma | Ma | none | С |
| A22 | 12/12/04 | Abirpara | 23 | M | 10 | Ma | Ma | Ma | Khulna:3 | С |
| | | | | | | | | | Chintaman, | |
| A23 | 12/12/04 | Abirpara | 40 | M | 0 | Ma | Ma | Ma | Phulbari:13, | C |
| | | _ | | | | | | | Gobindaganj:4 | |
| A24 | 12/12/04 | Abirpara | 25 | M | 0 | Ma | Ma | Ma | none | С |
| A25 | 12/12/04 | Abirpara | 40 | M | 1 | Ma | Ma | Ma | Chotra, Rangpur:5 | С |
| A26 | 12/12/04 | Abirpara | 42 | M | 5 | Ma | Ma | Ma | Chotra, Rangpur:10 | С |
| A27 | 12/12/04 | Abirpara | 74 | M | 0 | Ma | Ma | Ma | none | С |
| A28 | 12/12/04 | Abirpara | 55 | F | 0 | Ma | Ma | Ma | none | С |
| 4.20 | 12/12/04 | A 1- : | 15 | E | 4 | М. | Μ- | M | Bochapukur, | C |
| A29 | 12/12/04 | Abirpara | 45 | F | 4 | Ma | Ma | Ma | Birganj:20 | C |
| A30 | 12/12/04 | Abirpara | 28 | M | HSC | Ma | Ma | Ma | none | С |
| M1 | 12/15/04 | Matindor | 60 | M | 7 | Ma | Ma | Ma | none | C (RC) |
| M2 | 12/15/04 | Matindor | 56 | M | SSC | Ma | Ma | Ma | Susnipara:30 | C |
| M3 | 12/15/04 | Matindor | 40 | F | 0 | Ma | Ma | Ma | none | С |
| | | | | | | | | | Bodolgachi, | |
| | | | | | | | | | Naogaon:3, | |
| M4 | 12/15/04 | Matindor | 49 | M | 8 | Ma | Ma | Ma | Dhamoirhat:7, | C |
| | | | | | | | | | Beniduar:5, | |
| | | | | | | | | | Dinajpur:2 | |
| M5 | 12/15/04 | Matindor | 36 | M | 4 | Ma | Ma | Ma | none | C |
| M6 | 12/15/04 | Matindor | 58 | M | 0 | Ma | Ma | Ma | Dhamoirhat:2 | C (RC) |
| M7 | 12/15/04 | Matindor | 18 | F | 5 | Ma | Ma | Ma | none | C |
| M8 | 12/15/04 | Matindor | 38 | M | 1 | Ma | Ma | Ma | none | C (RC) |
| | | | | | | | | | Khonzonpur, | |
| M9 | 12/15/04 | Matindor | 35 | M | 0 | Ma | Ma | Ma | Joypurhat:6, | C |
| | | | | | | | | | Panchbibi:11 | |
| M10 | 12/15/04 | Matindor | 30 | F | 0 | Ma | Ma | Ma | Bodolgachi, | С |
| | 12/13/04 | | | 1, | | ıvıa | ıvıa | | Naogaon:25 | |
| M11 | 12/15/04 | Matindor | 25 | M | 5 | Ma | Ma | Ma | none | C |
| | | | | | | | | | Bodolgachi, | |
| M12 | 12/15/04 | Matindor | 35 | F | 10 | Ma | Ma | Ma | Naogaon:10, | C |
| | | | | | | | | | Beniduar:4 | |

| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|-----------|-------------|-------------|------|--------|-----------|-----------|--|-----------|
| M13 | 12/15/04 | Matindor | 26 | F | 10 | Ma | Ma | Ma | Bodolgachi, Naogaon:25 | С |
| M14 | 12/15/04 | Matindor | 20 | F | 0 | Ma | Ma | Ma | Paikur Barmaonkuri, Patnitala:14 | С |
| M15 | 12/15/04 | Matindor | 43 | M | 3 | Ma | Ma | Ma | none | C |
| M16 | 12/15/04 | Matindor | 48 | F | 0 | Ma | Ma | Ma | Pakri, Godagari:12 | C |
| M17 | 12/15/04 | Matindor | 22 | F | 10 | Ma | Ma | Ma | none | C |
| M18 | 12/15/04 | Matindor | 27 | M | 5 | Ma | Ma | Ma | none | C |
| M19 | 12/15/04 | Matindor | 60 | M | 5 | Ma | Ma | Ma | none | C |
| M20 | 12/15/04 | Matindor | 75 | F | 0 | Ma | Ma | Ma | none | C |
| M21 | 12/15/04 | Matindor | 40 | F | 0 | Ma | Ma | Ma | none | C |
| M22 | 12/15/04 | Matindor | 45 | M | 1 | Ma | Ma | Ma | none | C |
| M23 | 12/15/04 | Matindor | 33 | M | 8 | Ma | Ma | Ma | Korkoria, Niamatpur:5 | C |
| M24 | 12/15/04 | Matindor | 28 | F | SSC | Ma | Ma | Ma | Swapnapu, Phulbari:16 | C |
| M25 | 12/15/04 | Matindor | 32 | M | 8 | Ma | Ma | Ma | Joypurhat:1, Panchbibi:1, Burikatha, Phulbari:2 | С |
| M26 | 12/15/04 | Matindor | 45 | F | 0 | Ma | Ma | Ma | Boldipukur, Rangpur:11 | С |
| M27 | 12/15/04 | Matindor | 35 | М | SSC | Ma | Ma | Ma | Korkoria, Niamatpur:5, Mohonpur, Rajshahi:1, Beniduar:4, Boldipukur, Rangpur:3, Porsha, Nitpur:6 | С |
| M28 | 12/15/04 | Matindor | 80 | F | 0 | Ma | Ma | Ma | Bodolgachi, Naogaon:14 | C |
| M29 | 12/15/04 | Matindor | 80 | M | 0 | Ma | Ma | Ma | Korkoria, Niamatpur:40 | C |
| M30 | 12/15/04 | Matindor | 55 | M | 5 | Ma | Ma | Ma | none | C |
| G1 | 12/16/04 | Begunbari | 40 | M | 7 | Mu | Mu | Mu | none | C |
| G2 | 12/16/04 | Begunbari | 28 | F | 0 | Mu | Mu | Mu | Nijpara:20 | C |
| G3 | 12/16/04 | Begunbari | 30 | F | 2 | Mu | Mu | Mu | Dhaka:3 | C |
| G4 | 12/16/04 | Begunbari | 55 | M | 8 | Mu | Mu | Mu | none | C |
| G5 | 12/16/04 | Begunbari | 18 | F | 7 | Mu | Mu | Mu | none | C |
| G6 | 12/16/04 | Begunbari | 30 | M | 10 | Mu | Mu | Mu | none | C |
| G7 | 12/16/04 | Begunbari | 40 | F | 3 | Mu | Mu | Mu | Nijpara:19 | C |
| G8 | 12/16/04 | Begunbari | 25 | M | 10 | Mu | Mu | Mu | Siliguri, India:2, Tior, India:1, Dinajpur:4, Bonpara, Natore:1 | С |
| G9 | 12/16/04 | Begunbari | 45 | F | 7 | Mu | Mu | Mu | Beniduar:20, Dinajpur:2 | C |
| G10 | 12/16/04 | Begunbari | 50 | F | 9 | Mu | Mu | Mu | none | C |
| G11 | 12/16/04 | Begunbari | 18 | F | 10 | Mu | Orao | Mu | Rajshahi:6 | C |
| G12 | 12/16/04 | Begunbari | 45 | M | 9 | Mu | Mu | Mu | none | C |
| G13 | 12/16/04 | Begunbari | 38 | F | 10 | Mu | Mu | Mu | Nijpara:14, Dinajpur:9 | C (RC) |

| Subj. No. | ibject biod Date | Location | A g e | Sex | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|---------------------|-----------|-------------|-----|------|--------|-----------|-----------|---|--------|
| G14 | 12/16/04 | Begunbari | 56 | M | 0 | Mu | Mu | Mu | none | C (RC) |
| G15 | 12/16/04 | Begunbari | 15 | M | 10 | Mu | Mu | Mu | none | C |
| G16 | 12/16/04 | Begunbari | 45 | F | 10 | Mu | Mu | Mu | Beniduar:20 | C (RC) |
| G17 | 12/16/04 | Begunbari | 20 | F | HSC | Mu | Mu | Mu | Dhaka:3, Balubari, Dinajpur:3 | С |
| G18 | 12/16/04 | Begunbari | 23 | M | HSC | Mu | Mu | Mu | Dinajpur:12 | C |
| G19 | 12/16/04 | Begunbari | 27 | M | SSC | Mu | Mu | Mu | none | С |
| G20 | 12/16/04 | Begunbari | 30 | M | 8 | Mu | Mu | Mu | none | C |
| G21 | 12/16/04 | Begunbari | 40 | M | 5 | Mu | Mu | Mu | none | С |
| G22 | 12/16/04 | Begunbari | 23 | M | 5 | Mu | Orao | Mu | none | С |
| G23 | 12/16/04 | Begunbari | 60 | M | 0 | Mu | Mu | Mu | none | С |
| G24 | 12/16/04 | Begunbari | 19 | F | 5 | Mu | Mu | Mu | none | С |
| G25 | 12/16/04 | Begunbari | 35 | M | 5 | Mu | Mu | Mu | none | С |
| G26 | 12/16/04 | Begunbari | 25 | M | 10 | Mu | Mu | Mu | Bonpara:1, Sapahar, Naogaon:6, Joypurhat:1 | С |
| G27 | 12/16/04 | Begunbari | 50 | F | 0 | Mu | Mu | Mu | Tior, India:8 | C |
| G28 | 12/16/04 | Begunbari | 34 | F | 10 | Mu | Orao | Mu | none | C |
| N1 | 12/7/04 | Nijpara | 35 | M | SSC | Mu | Mu | Mu | Beniduar:2 | С |
| N2 | 12/7/04 | Nijpara | 40 | F | 3 | Mu | Mu | Mu | none | С |
| N3 | 12/7/04 | Nijpara | 20 | F | 8 | Mu | Mu | Mu | Beniduar:19 | С |
| N4 | 12/7/04 | Nijpara | 35 | F | 5 | Mu | Mu | Mu | India:10 | С |
| N5 | 12/7/04 | Nijpara | 20 | F | 6 | Mu | Mu | Mu | Pagaldewan, Naogaon:2, Dhaka:2, Rajshahi:10 | С |
| N6 | 12/7/04 | Nijpara | 25 | M | SSC | Mu | Mu | Mu | none | C |
| N7 | 12/7/04 | Nijpara | 20 | M | 2 | Mu | Mu | Mu | Dhaka:5 | C (RC) |
| N8 | 12/7/04 | Nijpara | 40 | F | 0 | Mu | Mu | Mu | India:7 | C (RC) |
| N9 | 12/7/04 | Nijpara | 22 | M | 10 | Mu | Mu | Mu | Begunbari:9 | C |
| N10 | 12/7/04 | Nijpara | 30 | F | 3 | Mu | Mu | Mu | Dhaka:9, Mirjapur, Dinajpur:3, Baganpara, Rajshahi:2 | С |
| N11 | 12/7/04 | Nijpara | 48 | M | 10 | Mu | Mu | Mu | none | C |
| N12 | 12/7/04 | Nijpara | 50 | F | 5 | Mu | Mu | Mu | Ranchi, India:3 | C |
| N13 | 12/7/04 | Nijpara | 30 | F | 1 | Mu | Mu | Mu | none | С |
| N14 | 12/7/04 | Nijpara | 40 | M | 5 | Mu | Mu | Mu | Balughat, India:5 | C (RC) |
| N15 | 12/7/04 | Nijpara | 45 | F | 5 | Mu | Mu | Mu | Beniduar:20 | C |
| N16 | 12/7/04 | Nijpara | 70 | M | 3 | Mu | Mu | Mu | none | С |
| N17 | 12/7/04 | Nijpara | 80 | M | 3 | Mu | Mu | Mu | Begunbari:4 | C (RC) |
| N18 | 12/7/04 | Nijpara | 50 | F | 0 | Mu | Mu | Mu | none | Č |
| N19 | 12/7/04 | Nijpara | 30 | M | 5 | Mu | Mu | Mu | Beniduar:1 | C (RC) |
| N20 | 12/7/04 | Nijpara | 29 | F | HSC | Mu | Mu | Mu | Dinajpur:8 | C |
| N21 | 12/7/04 | Nijpara | 22 | F | 10 | Mu | Mu | Mu | none | С |
| N22 | 12/7/04 | Nijpara | 30 | M | 5 | Mu | Mu | Mu | none | С |

| Subj. No. | ubject biod Date | Location | A g e | S e x | Educ | MT | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|---------------------|-----------|-------------|-------------|------|-----|-----------|-----------|--|--------|
| N23 | 12/7/04 | Nijpara | 60 | M | 4 | Mu | Mu | Mu | none | С |
| N24 | 12/7/04 | Nijpara | 30 | M | 3 | Mu | Mu | Mu | none | С |
| N25 | 12/7/04 | Nijpara | 15 | M | 3 | Mu | Mu | Mu | none | С |
| N26 | 12/7/04 | Nijpara | 49 | F | 0 | Mu | Mu | Mu | Begunbari:16 | C |
| N27 | 12/7/04 | Nijpara | 70 | M | SSC | Mu | Mu | Mu | Begunbari:20 | C |
| N28 | 12/7/04 | Nijpara | 28 | M | BA | Mu | Mu | Mu | none | C (RC) |
| N29 | 12/7/04 | Nijpara | 55 | M | SSC | Mu | Mu | Mu | Beniduar:22 | С |
| K1 | 12/19/04 | Kundang | 38 | M | 0 | Kod | Kod | Kod | none | Н |
| K2 | 12/19/04 | Kundang | 45 | F | 0 | Kod | Kod | Kod | Puthia:12 | Sn |
| K3 | 12/19/04 | Kundang | 60 | F | 0 | Kod | Kod | Kod | none | Н |
| K4 | 12/19/04 | Kundang | 45 | M | 0 | Kod | Kod | Kod | none | Sn |
| K5 | 12/19/04 | Kundang | 20 | F | 2 | Kod | Kod | Kod | Puthia:18 | Sn |
| K6 | 12/19/04 | Kundang | 30 | F | 0 | Kod | Kod | Kod | none | Sn |
| K7 | 12/19/04 | Kundang | 41 | F | 0 | Kod | Kod | Kod | Puthia:10 | Sn |
| K8 | 12/19/04 | Kundang | 37 | M | 0 | Kod | Kod | Kod | none | Sn |
| K9 | 12/19/04 | Kundang | 45 | F | 0 | Kod | Kod | Kod | none | Sn |
| K10 | 12/19/04 | Kundang | 22 | F | 0 | Kod | Kod | Kod | none | Sn |
| K11 | 12/19/04 | Kundang | 20 | F | 0 | Kod | Kod | Kod | none | Sn |
| K12 | 12/19/04 | Kundang | 50 | M | 0 | Kod | Kod | Kod | none | Sn |
| K13 | 12/19/04 | Kundang | 45 | M | 0 | Kod | Kod | Kod | none | Sn |
| K14 | 12/19/04 | Kundang | 25 | M | 0 | Kod | Kod | Kod | none | Sn |
| K15 | 12/19/04 | Kundang | 40 | M | 0 | Kod | Kod | Kod | none | Sn |
| K16 | 12/19/04 | Kundang | 50 | M | 0 | Kod | Kod | Kod | none | Sn |
| K17 | 12/19/04 | Kundang | 25 | F | 0 | Kod | Kod | Kod | Bhaniganj:20 | Sn |
| K18 | 12/19/04 | Kundang | 22 | F | 0 | Kod | Kod | Kod | Bhagmara:15 | Sn |
| K19 | 12/19/04 | Kundang | 50 | F | 0 | Kod | Kod | Kod | none | Sn |
| K20 | 12/19/04 | Kundang | 40 | F | 0 | Kod | Kod | Kod | none | Sn |
| K21 | 12/19/04 | Kundang | 50 | F | 0 | Kod | Kod | Kod | Natore:20 | Sn |
| K22 | 12/19/04 | Kundang | 25 | M | 0 | Kod | Kod | Kod | none | Sn |
| K23 | 12/19/04 | Kundang | 50 | F | 0 | Kod | Kod | Kod | none | Sn |
| K24 | 12/19/04 | Kundang | 20 | M | 0 | Kod | Kod | Kod | Calcutta:10 | Н |
| K25 | 12/19/04 | Kundang | 22 | M | 4 | Kod | Kod | Kod | none | Sn |
| K26 | 12/19/04 | Kundang | 18 | M | 0 | Kod | Kod | Kod | none | Sn |
| K27 | 12/19/04 | Kundang | 30 | F | 0 | Kod | Kod | Kod | Bela:15 | Sn |
| K28 | 12/19/04 | Kundang | 45 | M | 0 | Kod | Kod | Kod | Kamarga:30 | Sn |
| I1 | 12/20/04 | Babudaing | 17 | M | 7 | Kol | Kol | Kol | none | Н |
| I2 | 12/20/04 | Babudaing | 30 | M | 2 | Kol | Kol | Kol | none | Н |
| I3 | 12/20/04 | Babudaing | 15 | F | 0 | Kol | Kol | Kol | Sitni:10 | Н |
| I4 | 12/20/04 | Babudaing | 25 | F | 0 | Kol | Kol | Kol | none | Н |
| I5 | 12/20/04 | Babudaing | 17 | F | 0 | Kol | Kol | Kol | none | Н |
| I6 | 12/20/04 | Babudaing | 32 | M | SSC | Kol | Kol | Kol | Hasundanga: 20 | Н |
| I7 | 12/20/04 | Babudaing | 14 | M | 2 | Kol | Kol | Kol | none | Н |
| I8 | 12/20/04 | Babudaing | 50 | M | 5 | Kol | Kol | Kol | none | Н |
| I9 | 12/20/04 | Babudaing | 25 | F | 0 | Kol | Kol | Kol | Nitpur, Naogaon:15 | Н |

| SKI SI | ubject biod | лата, сопт. | | | | | | 1 | 0.0 | |
|--------------|-------------|-----------------|-------------|-------------|------|--------|-----------|-----------|--|---------------|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| I10 | 12/20/04 | Babudaing | 18 | F | 0 | Kol | Kol | Kol | Chandila, Tanor:14 | Н |
| I11 | 12/20/04 | Babudaing | 22 | М | 10 | Kol | Kol | Kol | Gongapukur, Godagari:18 | Н |
| I12 | 12/20/04 | Babudaing | 52 | M | 2 | Kol | Kol | Kol | none | Н |
| I13 | 12/20/04 | Babudaing | 45 | M | 0 | Kol | Kol | Kol | Dudhai, Godagari:5 | Н |
| I14 | 12/20/04 | Babudaing | 55 | M | 3 | Kol | Kol | Kol | Mundumala:22 | Sn |
| I15 | 12/20/04 | Babudaing | 55 | M | 0 | Kol | Kol | Kol | none | Н |
| I16 | 12/20/04 | Babudaing | 55 | M | 0 | Kol | Kol | Kol | none | Н |
| I17 | 12/20/04 | Babudaing | 25 | F | 0 | Kol | Kol | Kol | Kapsapara, Godagari:12 | Sn |
| I18 | 12/20/04 | Babudaing | 27 | M | 2 | Kol | Kol | Kol | none | Sn |
| I19 | 12/20/04 | Babudaing | 50 | F | 0 | Kol | Kol | Kol | none | Н |
| I20 | 12/20/04 | Babudaing | 30 | F | 0 | Kol | Kol | Kol | Rohonpur, Chapai- Nababganj:10 | Sn |
| I21 | 12/20/04 | Babudaing | 65 | M | 0 | Kol | Kol | Kol | none | Sn |
| I22 | 12/20/04 | Babudaing | 17 | M | 5 | Kol | Kol | Kol | Chotipukur, Godagari:5 | Sn |
| I23 | 12/20/04 | Babudaing | 60 | M | 2 | Kol | Kol | Kol | none | Sn |
| I24 | 12/20/04 | Babudaing | 60 | F | 0 | Kol | Kol | Kol | none | Н |
| I25 | 12/20/04 | Babudaing | 40 | F | 0 | Kol | Kol | Kol | Kalupara, Tanor:18 | Sn |
| I26 | 12/20/04 | Babudaing | 48 | F | 0 | Kol | Kol | Kol | Dudhoi, Godagari:14 | Korm -akar |
| I27 | 12/20/04 | Babudaing | 25 | M | 0 | Kol | Kol | Kol | Porsha, Dhamoirhat:5 | Sn |
| I28 | 12/20/04 | Babudaing | 85 | F | 0 | Kol | Kol | Kol | Rohonpur:45 | Sn |
| I29 | 12/20/04 | Babudaing | 42 | F | 0 | Kol | Kol | Kol | Agradun, Naogaon:12 | Sn |
| I30 | 12/20/04 | Babudaing | 20 | F | 0 | Kol | Kol | Kol | Roonpur, Nababganj:16 | Sn |
| B1 | 12/8/04 | Rajarampur | 22 | M | 3 | В | В | В | none | Sn |
| B2 | 12/8/04 | Rajarampur | 38 | F | 0 | В | В | В | Ajitpur:16 | Sn |
| В3 | 12/8/04 | Rajarampur | 40 | M | 4 | В | В | В | Ajitpur:16 | Sn |
| B4 | 12/8/04 | Rajarampur | 45 | M | 9 | В | В | В | none | Sn |
| B5 | 12/8/04 | Rajarampur | 32 | M | 0 | В | В | В | none | I |
| B6 | 12/8/04 | Rajarampur | 15 | M | 8 | В | В | В | none | I |
| B7 | 12/8/04 | Rajarampur | 19 | F | 10 | В | В | В | Maheshpur:15 | I |
| B8 | 12/10/04 | Rajarampur | 14 | F | 9 | В | В | В | none | I |
| B9 | 12/10/04 | Rajarampur | 43 | F | 0 | В | В | В | Rajshahi:5 | I |
| B10 | 12/10/04 | Rajarampur | 15 | F | 9 | В | В | В | none | I |
| B11 | 12/10/04 | Rajarampur | 50 | F | 0 | В | В | В | Rajshahi:20 | I |
| B12 | 12/10/04 | Rajarampur | 70 | M | 0 | В | В | В | Rajshahi:35 | I |
| B13 | 12/10/04 | Rajarampur | 40 | F | 0 | В | В | В | Rajshahi:22 | I |
| B14 | 12/10/04 | Rajarampur | 40 | F | 0 | В | В | В | none | I |
| B15 | 12/10/04 | Rajarampur | 36 | M | 10 | В | В | В | none | Sn |
| B16 | 12/10/04 | Rajarampur | 15 | F | 3 | В | В | В | none | I |
| B17 | 12/10/04 | Rajarampur | 80 | M | 0 | В | В | В | Rajshahi:40 | I |

| Subj. No. | Date | Location | A g | S e | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
|--------------|----------|------------|--------|--------|------|--------|-----------|-----------|---|-----|
| D10 | 12/10/04 | <i>p</i> . | e | X | 999 | Т. | | | , , , | |
| B18 | 12/10/04 | Rajarampur | 26 | M | SSC | В | В | В | none | Sn |
| B19 | 12/10/04 | Rajarampur | 16 | M | 0 | В | В | В | none | I |
| B20 | 12/10/04 | Rajarampur | 18 | F | 10 | В | В | В | none | Sn |
| B21 | 12/10/04 | Rajarampur | 18 | F | 10 | В | В | В | none | Sn |
| B22 | 12/10/04 | Rajarampur | 50 | F | 0 | В | В | В | Aguria:14 | Sn |
| B23 | 12/10/04 | Rajarampur | 55 | M | 6 | В | В | В | Rajshahi:22 | I |
| B24 | 12/10/04 | Rajarampur | 16 | M | 9 | В | В | В | none | Sn |
| B25 | 12/10/04 | Rajarampur | 20 | F | 10 | В | В | В | Belai, Kotoali:16 | Н |
| B26 | 12/10/04 | Rajarampur | 15 | M | 5 | В | В | В | none | Sn |
| B27 | 12/10/04 | Rajarampur | 22 | M | SSC | В | В | В | none | Н |
| B28 | 12/10/04 | Rajarampur | 29 | M | SSC | В | В | В | none | Sn |
| B29 | 12/10/04 | Rajarampur | 70 | F | 0 | В | В | В | Kahorol:10 | Sn |
| Z1 | 12/20/04 | Amnura | 33 | F | 0 | В | В | В | Hopaina, Nachole:21 | I |
| Z2 | 12/20/04 | Amnura | 40 | F | 0 | В | В | В | Hopaina, Nachole:16 | I |
| Z3 | 12/20/04 | Amnura | 15 | F | 5 | В | В | В | none | I |
| Z4 | 12/20/04 | Amnura | 20 | F | 10 | В | В | В | Kahon, Godagari:18 | I |
| Z5 | 12/21/04 | Amnura | 28 | F | BA | В | В | В | Rajshahi:18 | I |
| Z6 | 12/21/04 | Amnura | 22 | F | HSC | В | В | В | Amnura:17, Tangail:7 | I |
| Z 7 | 12/21/04 | Amnura | 30 | M | 0 | В | В | В | Krishna Gobindapur, Nababganj:20 | I |
| Z8 | 12/21/04 | Amnura | 27 | M | 0 | В | В | В | none | I |
| Z9 | 12/21/04 | Amnura | 18 | F | 3 | В | В | В | none | I |
| Z10 | 12/21/04 | Amnura | 27 | F | 0 | В | В | В | none | I |
| Z11 | 12/21/04 | Amnura | 22 | M | 9 | В | В | В | none | I |
| Z12 | 12/21/04 | Amnura | 21 | M | SSC | В | В | В | Jhinaidah:1, Kushtia:1 | I |
| Z13 | 12/21/04 | Amnura | 20 | M | 8 | В | В | В | none | I |
| Z14 | 12/21/04 | Amnura | 22 | M | 9 | В | В | В | Bardhaman, India:8, Dhaka:1 | I |
| Z15 | 12/21/04 | Amnura | 45 | F | 5 | В | В | В | Narayanpur, Rajshahi:12 | I |
| Z16 | 12/21/04 | Amnura | 40 | M | SSC | В | В | В | Rohonpur, Nababganj:10 | I |
| Z17 | 12/21/04 | Amnura | 50 | М | 3 | В | В | В | Laxminarayanpur- Nababganj:16, Padnichan, Dinajpur:18 | I |
| Z18 | 12/21/04 | Amnura | 18 | M | 3 | В | В | В | Dhaka:1 | I |
| Z19 | 12/21/04 | Amnura | 35 | F | 0 | В | В | В | Bindara, Bogra:6 | I |
| Z20 | 12/21/04 | Amnura | 26 | M | SSC | В | В | В | Nachole:31 | I |
| Z21 | 12/21/04 | Amnura | 19 | M | SSC | В | В | В | Dhaka:1 | I |
| Z22 | 12/21/04 | Amnura | 23 | M | HSC | В | В | В | Saidhara, Tanor:16 | I |
| Z23 | 12/21/04 | Amnura | 42 | F | 0 | В | В | В | none | I |
| Z24 | 12/21/04 | Amnura | 36 | F | SSC | В | В | В | Sirajganj:8 | Sn |
| Z25 | 12/21/04 | Amnura | 22 | F | SSC | В | В | В | none | I |
| Z26 | 12/21/04 | Amnura | 50 | F | 8 | В | В | В | Sirajganj:15 | Sn |
| Z27 | 12/21/04 | Amnura | 50 | F | 0 | В | В | В | Digram, Godagari:12 | I |
| Z28 | 12/21/04 | Amnura | 24 | M | SSC | В | В | В | Kustia:5 | I |

| | J | | | | | | | | | |
|--------------|----------|----------|-------------|-------------|------|--------|-----------|-----------|---|-----|
| Subj. No. | Date | Location | A g e | S e x | Educ | M T | M's MT | F's MT | Other residences and length (in years) | Rel |
| Z29 | 12/21/04 | Amnura | 19 | F | SSC | В | В | В | Nababganj:2 | I |
| Z30 | 12/21/04 | Amnura | 20 | F | SSC | В | В | В | none | I |
| Z31 | 12/21/04 | Amnura | 45 | F | HSC | В | В | В | Ranihati, Sibganj:20 | I |
| Z32 | 12/21/04 | Amnura | 52 | M | BA | В | В | В | Santahar:1, Iswardi:1, Chapai-Nababganj:3, Rohonpur:2 | I |
| Z33 | 12/21/04 | Amnura | 65 | M | 4 | В | В | В | none | I |
| Z34 | 12/21/04 | Amnura | 55 | M | SSC | В | В | В | Iswardi:8,Parbatipur:1 | I |
| Z35 | 12/21/04 | Amnura | 42 | М | 10 | В | В | В | Chittagong:9, Nabinagar, Savar:5, Joydebpur:3, Sayedpur:3, Mymensingh:2 | I |
| Z36 | 12/21/04 | Amnura | 53 | M | 5 | В | В | В | Dhaka:2 | I |
| Z37 | 12/21/04 | Amnura | 45 | M | 2 | В | В | В | none | I |

I. SANTALI CLUSTER COMMUNITY INFORMATION

SANTALI VILLAGES:

I.1. Rajarampur

Date: November 6, 2004

Transportation to village: From BNELC guest house near Dinajpur, go north to Baserhat (College of Agriculture) by bus; go west to Dhepa river and walk northeast 2–3 kms.

1a. Subdistrict: Birol, Azimpur union

1b. District: Dinajpur

2. Population: 34 families, 315 people; 300 families total in all of Rajarampur

3. Religions: Christian4. Mother tongues: Santali

5. Work: farmers, mostly day laborers **6. Nearest post office:** Singol (4 kms)

7a. TNT: no7b. Mobile: no

7c. Nearest phone: Hasila village has one man who has a mobile phone (2 kms away)

8a. Nearest hospital: St. Phillip's hospital in Dinajpur; also govt. hospital

8b. Nearest clinic: one doctor in Hasila

9a. Government school: yes9b. What kinds: primary

10. Non-government education: yes, 3-year BRAC school

11. Children who attend school: nearly all12. Girls who attend school: nearly all13. Most students complete: class 4–5

14. Children who finish 5th: ND

15. Children who finish 10th: 3–4 (total)

16. Number who have completed BA: 0 (2 people have completed IA)

17. Electricity: yes

18. Water source: tube wells for every 3–4 families

19a. Radio: very little 19b. Language: DK 20a. Television: yes, little 20b. Languages: Bangla

I.2. Rautnagar

Date: November 8, 2004

Transportation to village: Go from Paschim Shibrampur, Dinajpur to Pirganj by bus (Tk.30). It takes nearly 2 hours to reach there. Take a rickshaw (Tk.5) to Ranisongkoil bus stand. Take a bus from Pirganj to Ranisongkoil (Tk.8). Then go to the south to Rautnagar by a van (Tk. 7).

1a. Subdistrict: Ranisongkoil**1b. District:** Thakurgaon

2. Population: 90 families, 700+ people

3. Religions: 50% Christian, 50% non-Christians

4. Mother tongues: Santali

5. Work: farmers, day laborers, drivers

6. Nearest post office: Rautnagar

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Ranisongkoil8b. Nearest clinic: Kathaldangi9a. Government school: yes9b. What kinds: primary

10. Non-government education: yes, primary

11. Children who attend school: most
12. Girls who attend school: most
13. Most students complete: class 8
14. Children who finish 5th: most
15. Children who finish 10th: few

16. Number who have completed BA: 2 **17. Electricity:** yes (only few families)

18. Water source: tube well

19a. Radio: yes

19b. Language: Bangla, Hindi, English (sometimes)

20a. Television: yes

20b. Languages: Bangla, Hindi, English (sometimes)

I.3. Paharpur

Date: November 10, 2004

Transportation to village: From Jora-bridge bus stand (also known as Bogra bus stand) in Dinajpur take 6:50 a.m. mail bus to Birampur (Tk.40; 1 hour, 5 min). Take a bus to Nababganj (Tk.5; 30 min). Take van gari to Binodnagar (Tk.4/person; 30 min). From Binodnagar, ask where Paharpur is, where James Mondol Murmu's house is; can walk the one mile distance or take a van gari.

1a. Subdistrict: Nababganj1b. District: Dinajpur

2. Population: 74 families, 500–600 people

3. Religions: more than 90% Christian, less then 10% non-Christian

4. Mother tongues: Santali and Bangla

5. Work: farmers, day laborers6. Nearest post office: Binodnagar

7a. TNT: no **7b. Mobile:** no

7c. Nearest phone: Binodnagar 8a. Nearest hospital: Nababganj 8b. Nearest clinic: Nababganj 9a. Government school: no

9b. What kinds: NA

10. Non-government education: yes (CARITAS primary)

11. Children who attend school: most
12. Girls who attend school: most
13. Most students complete: class 5–10
14. Children who finish 5th: most
15. Children who finish 10th: half

16. Number who have completed BA: 4

17. Electricity: no

18. Water source: tube well, pump

19a. Radio: not really (2 radios in whole village)

19b. Language: NA

20a. Television: yes (one TV in whole village)

20b. Languages: Bangla

I.4. Patichora

Date: November 15, 2004

Transportation to village: 15-minute walk to the northwest of the BNELC Thuknipara guest

nouse

1a. Subdistrict: Patichora1b. District: Naogaon

2. Population: 50 families, about 250 people

3. Religions: Christian, Sonaton
4. Mother tongues: Santali
5. Work: farmers, day laborers
6. Nearest post office: Najibpur

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Najibpur **8b. Nearest clinic:** Najibpur **9a. Government school:** no

9b. What kinds: NA

10. Non-government education: yes (primary)

11. Children who attend school: most
12. Girls who attend school: few
13. Most students complete: class 5
14. Children who finish 5th: most

15. Children who finish 10th: few

16. Number who have completed BA: 1

17. Electricity: yes

18. Water source: tube well

19a. Radio: yes (sometimes; there are few radios)

19b. Language: Bangla 20a. Television: yes 20b. Languages: Bangla

I.5. Jabri

Date: November 16, 2004

Transportation to village: Take a 1-hour bhatbhati ride east from Manda Ferry Ghat, getting off at Bhabicha, about 3 km before reaching Niamatpur. Then walk north 1.5 km to the village.

1a. Subdistrict: Niamatpur**1b. District:** Naogaon

2. Population: 60 families; 250+ people

3. Religions: Sonaton4. Mother tongues: Santali

5. Work: farmers; day laborers6. Nearest post office: Bhabicha

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Niamatpur8b. Nearest clinic: Niamatpur9a. Government school: no

9b. What kinds: NA

10. Non-government education: Ashroy (NGO) school to class 5

11. Children who attend school: few
12. Girls who attend school: very few
13. Most students complete: class 5
14. Children who finish 5th: 20–25%
15. Children who finish 10th: very few
16. Number who have completed BA: none

17. Electricity: no

18. Water source: tube well **19a. Radio:** yes; 4–5 in village **19b. Language:** Bangla

20a. Television: yes; one in village

20b. Languages: Bangla

I.6. Amnura Missionpara

Date: November 21, 2004

Transportation to village: 11/2-hour bus ride from Rajshahi city via Tanor

1a. Subdistrict: Chapai-Nababganj1b. District: Chapai-Nababganj

2. Population: 37 Santali families with 200 people; also 30 Bengali families

3. Religions: Christian; Muslim4. Mother tongues: Santali; Bangla

5. Work: weavers, farmers, service holders

6. Nearest post office: Amnura

7a. TNT: yes7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Chapai-Nababganj **8b. Nearest clinic:** Amnura Mission

9a. Government school: no; but in Amnura, it's available up to class 10

9b. What kinds: NA

10. Non-government education: mission school up to class 5

11. Children who attend school: all12. Girls who attend school: all

13. Most students complete: class 6–7

14. Children who finish 5th: all **15.** Children who finish 10th: half

16. Number who have completed BA: 2–3

17. Electricity: yes

18. Water source: tube well

19a. Radio: some; fewer than half have radios

19b. Language: Bangla, Santali **20a. Television:** yes; many have them **20b. Languages:** Bangla, Hindi

I.7. Bodobelghoria

Date: November 24, 2004

Transportation to village: Bus to Natore; 30-minute bhatbhati ride to village

1a. Subdistrict: Nordanga

1b. District: Natore

2. Population: 7 families; 35–40 people

3. Religions: Baptist

4. Mother tongues: Santali

5. Work: farmer

6. Nearest post office: Bashudebpur

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Nosrotpur

8b. Nearest clinic: Belghoria mission, one day a week

9a. Government school: no

9b. What kinds: NA

10. Non-government education: Baptist mission school KG thru class 3

11. Children who attend school: all 12. Girls who attend school: all

13. Most students complete: class 7–8

14. Children who finish 5th: all **15.** Children who finish 10th: few

16. Number who have completed BA: 0

17. Electricity: no

18. Water source: tube well

19a. Radio: very little; 3–4 in village

19b. Language: NA

20a. Television: yes; 3 in village

20b. Languages: Bangla

I.8. Rashidpur

Date: January 26, 2005

Transportation to village: Take a bus from Srimangal to Kamaichora (towards Habiganj).

Then take rickshaw (Tk.20) north through the Finlay tea garden.

1a. Subdistrict: Bahubol1b. District: Habiganj

2. Population: 75 families; 500 people

3. Religions: Hindu

4. Mother tongues: Santali

5. Work: tea garden workers, day laborers, farmers

6. Nearest post office: Rashidpur

7a. TNT: yes7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Rashidpur

8b. Nearest clinic: Kalighat, Srimangal

9a. Government school: yes

9b. What kinds: primary and high school

10. Non-government education: BRAC (classes 1–5)

11. Children who attend school: fewer than half

12. Girls who attend school: almost twice the number of boys

13. Most students complete: class 3 **14. Children who finish 5th:** ND

15. Children who finish 10th: few (5 or 6)

16. Number who have completed BA: none

17. Electricity: yes

18. Water source: government water supply **19a. Radio:** yes (most have radios at home)

19b. Language: Bangla, Hindi

20a. Television: yes (3 TV sets in all) **20b. Languages:** Bangla, Hindi

MAHALI VILLAGES:

I.9. Abirpara

Date: November 12, 2004

Transportation to village: From the Bogra bus stand in Dinajpur take the 6:50 a.m. mail bus to TNT mor/Osmanpur (Tk.65). Get off at TNT mor, walk half km north to the sign for the Nazarene Mission and walk down the small road. Abirpara is near the mission.

1a. Subdistrict: Ghoraghat **1b. District:** Dinajpur

2. Population: 80 families; 250–300 people

3. Religions: Christians (some Nazarene; most Catholic)

4. Mother tongues: Mahali5. Work: bamboo weavers

6. Nearest post office: Osmanpur (1 km away)

7a. TNT: no7b. Mobile: no

7c. Nearest phone: mission-mor (less than 1 km away)

8a. Nearest hospital: Osmanpur

8b. Nearest clinic: Catholic mission, less than 1 km away

9a. Government school: no

9b. What kinds: NA

10. Non-government education: yes, BRAC school, Catholic mission school

11. Children who attend school: all12. Girls who attend school: all

13. Most students complete: class 5

14. Children who finish 5th: almost all

15. Children who finish 10th: few

16. Number who have completed BA: none **17. Electricity:** no (because they can't afford it)

18. Water source: tube well

19a. Radio: no (there are only 2–3 radios)

19b. Language: NA

20a. Television: no (only 1 TV set in the whole village)

20b. Languages: NA

I.10. Matindor

Date: November 15, 2004

Transportation to village: 90-minute van gari ride from Patnitala; or a 30-minute bus ride

from Mahadebpur

1a. Subdistrict: Patnitala1b. District: Naogaon

2. Population: 45 families; about 300 people

3. Religions: almost all Catholic, with one Nazarene family

4. Mother tongues: Mahali5. Work: bamboo weavers6. Nearest post office: Sisahat

7a. TNT: no
7b. Mobile: yes
7c. Nearest phone: NA
8a. Nearest hospital: Sisahat
8b. Nearest clinic: Sisahat
9a. Government school: yes

9b. What kinds: primary

10. Non-government education: BRAC (to class 5); Catholic mission (to class 3)

11. Children who attend school: most
12. Girls who attend school: most
13. Most students complete: class 5
14. Children who finish 5th: almost all
15. Children who finish 10th: very few
16. Number who have completed BA: none

17. Electricity: no

18. Water source: tube well **19a. Radio:** yes; 6–7 in village

19b. Language: Bangla

20a. Television: yes; 5 in village

20b. Languages: Bangla

I.11. Pachondor

Date: November 19, 2004

Transportation to village: 90-minute bus ride from Rajshahi city; get off at Catholic

mission, 1 km before reaching Mundumala

1a. Subdistrict: Tanor1b. District: Rajshahi

2. Population: 75 families; about 450 people

3. Religions: Catholic4. Mother tongues: Mahali5. Work: bamboo weavers

6. Nearest post office: Mundumala Hat (1 km away)

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Mundumala Hat **8b. Nearest clinic:** Mundumala Hat

9a. Government school: no

9b. What kinds: NA

10. Non-government education: Catholic mission school

11. Children who attend school: all 12. Girls who attend school: all

13. Most students complete: class 8 or 9

14. Children who finish 5th: most **15. Children who finish 10th:** half

16. Number who have completed BA: 0

17. Electricity: yes

18. Water source: carry from nearby village **19a. Radio:** yes; there are a few in the village

19b. Language: Bangla

20a. Television: yes; there are a few in village

20b. Languages: Bangla

MUNDARI VILLAGES:

I.12. Nijpara

Date: November 9, 2004

Transportation to village: Take bus from Dinajpur to Birganj (Tk. 30; 40 minutes). Then take van gari (Tk.10/person) or rickshaw (Tk. 25) from bus stand to Nijpara (30 minutes).

1a. Subdistrict: Birganj1b. District: Dinajpur

2. Population: 60 families, 250+ people (200 Mundas, 50 Santalis)3. Religions: Christian, Hindu, Muslim (Mundas are mostly Christians.)

4. Mother tongues: Mundari, Santali, Bangla **5. Work:** farmers, day laborers, businessmen

6. Nearest post office: Bolorampur

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA 8a. Nearest hospital: Chakai

8b. Nearest clinic: mission, Khulsi Hat (half a km away)

9a. Government school: yes

9b. What kinds of: primary school (class 1–5)

10. Non-government education: yes, non-govt. high school (class 6–10)

11. Children who attend school: most (90%)

12. Girls who attend school: most (90%)

13. Most students complete: class 5

14. Children who finish 5th: most, 75% (50% Mundas)

15. Children who finish 10th: few, 25% (20% among Mundas)

16. Number who have completed BA: 6 Mundas, 25 others

17. Electricity: no

18. Water source: tube well.

19a. Radio: yes

19b. Language: Bangla20a. Television: yes20b. Languages: Bangla

I.13. Begunbari

Date: November 18, 2004

Transportation to village: Take van gari from Beniduar mission to the village (Tk.10/person; about 30 minutes) or by bus, get off at Kokil and then walk south about 2 km to Begunbari.

1a. Subdistrict: Dhamoirhat **1b. District:** Naogaon

2. Population: 70–80 families; 300 people

3. Religions: Catholic

4. Mother tongues: Mundari, Bangla

5. Work: farmers, day laborers and very few service holders

6. Nearest post office: Sholpi

7a. TNT: no **7b. Mobile:** no

7c. Nearest phone: Sholpi

8a. Nearest hospital: Dhamoirhat **8b. Nearest clinic:** Beniduar mission

9a. Government school: no

9b. What kinds: NA

10. Non-government education: yes, mission primary school (Bangla medium)

11. Children who attend school: most
12. Girls who attend school: most
13. Most students complete: class 5
14. Children who finish 5th: most
15. Children who finish 10th: few

16. Number who have completed BA: 2

17. Electricity: no

18. Water source: tube well

19a. Radio: yes

19b. Language: Bangla

20a. Television: yes (three TV sets in the village)

20b. Languages: Bangla

I.14. Karimpur

Date: January 25, 2005

Transportation: Take a Sylhet-bound bus from Chandnighat bus stand in Moulvibazar. Get off at the stop closest to Karimpur tea garden; take rickshaw to tea garden (Tk. 10).

1a. Subdistrict: Rajnagar1b. District: Moulvibazar

2. Population: 60 families; 200–250 people
3. Religions: Hindu (80%), Christian (20%)
4. Mother tongues: Mahali, Bagani, Bangla

5. Work: tea garden workers6. Nearest post office: Karimpur

7a. TNT: no7b. Mobile: yes

7c. Nearest phone: NA

8a. Nearest hospital: Karimpur8b. Nearest clinic: Moulvibazar9a. Government school: yes9b. What kinds: primary

10. Non-government education: Catholic mission (primary)11. Children who attend school: 80%; 100% of Mundas12. Girls who attend school: fewer before, but now 100%

13. Most students complete: class 6–8
14. Children who finish 5th: almost all
15. Children who finish 10th: few
16. Number who have completed BA: 1

17. Electricity: yes

18. Water source: tube well

19a. Radio: yes (fewer than half of the households have)

19b. Language: Santal, Bangla, Hindi20a. Television: yes (most have)20b. Languages: Bangla, Hindi

KODA VILLAGES:

I.15. Kundang

Date: November 16, 2004

Transportation: Take bus from Rajshahi city to Krishnapur mor (5 km before reaching Mundumala). Take van gari from Krishnapur mor to Krishnapur bazaar (Tk.2). Then walk another 1½ km south to the village.

1a. Subdistrict: Tanor1b. District: Rajshahi2. Population: 32 families

3. Religions: Christian, Muslim, Hindu **4. Mother tongues:** Santali, Koda, Bangla

5. Work: farmers

6. Nearest post office: Krishnapur

7a. TNT: no **7b. Mobile:** yes

7c. Nearest phone: NA 8a. Nearest hospital: Tanor 8b. Nearest clinic: Tanor 9a. Government school: no

9b. What kinds: NA

10. Non-government education: yes, up to class 5

11. Children who attend school: all 12. Girls who attend school: all 13. Most students complete along 4

13. Most students complete: class 4–5 **14. Children who finish 5**th: most

15. Children who finish 10th: few

16. Number who have completed BA: none

17. Electricity: yes

18. Water source: tube well

19a. Radio: yes (3–4 households have a radio)

19b. Language: Bangla 20a. Television: yes 20b. Languages: Bangla

I.16. Krishnupur

Date: November 23, 2004

Transportation to village: Take bus from Rajshahi city to Puthia. Then take a 10-minute

rickshaw ride to the village. 1a. Subdistrict: Puthia **1b. District:** Rajshahi

2. Population: 36 families; 200–250 people

3. Religions: Sonaton 4. Mother tongues: Koda

5. Work: farmers

7a. TNT: no

6. Nearest post office: Puthia

7b. Mobile: yes 7c. Nearest phone: NA 8a. Nearest hospital: Puthia 8b. Nearest clinic: Puthia **9a. Government school:** yes **9b. What kinds:** primary

10. Non-government education: no 11. Children who attend school: 25% 12. Girls who attend school: 25% 13. Most students complete: class 5 14. Children who finish 5th: few 15. Children who finish 10th: 0

16. Number who have completed BA: 0

17. Electricity: no

18. Water source: tube well **19a. Radio:** yes; 5–6 in village

19b. Language: Bangla; Santali on Sundays

20a. Television: yes; 2 in village

20b. Languages: Bangla

KOL VILLAGE:

I.17. Babudaing

Date: November 22, 2004

Transportation to village: From Amnura, take a 20-minute bus ride to Atahar. Then take a

30-minute van/rickshaw ride followed by a 15-minute walk to Babudaing.

1a. Subdistrict: Godagari **1b. District:** Rajshahi

2. Population: 70+ families; about 1000 people?

3. Religions: Sonaton 4. Mother tongues: Kol **5. Work:** farmers

6. Nearest post office: Amnura

7a. TNT: no **7b. Mobile:** no

7c. Nearest phone: NA

8a. Nearest hospital: Horsendang **8b. Nearest clinic:** Nababganj

9a. Government school: no; closest school is 5 km away in Horsendang

9b. What kinds: NA

10. Non-government education: no
11. Children who attend school: few
12. Girls who attend school: few
13. Most students complete: 5
14. Children who finish 5th: few
15. Children who finish 10th: 1

16. Number who have completed BA: 0

17. Electricity: no

18. Water source: tube well
19a. Radio: yes; 5–6 in village
19b. Language: Bangla

19b. Language: Bangla20a. Television: yes20b. Languages: Bangla

REFERENCES

- A Portal for Santals. Wesanthals E Group. No date. Retrieved 10 October 2004. http://wesanthals.tripod.com/id39.html and http://wesanthals.tripod.com/id45.html
- Bailey, Troy, and Loren Maggard. 1997. A sociolinguistic survey of the Bhumij people of *India*. Unpublished manuscript.
- Blair, Frank. 1990. *Survey on a shoestring: A manual for small-scale language surveys*.

 Dallas: The Summer Institute of Linguistics and The University of Texas at Arlington.
- "BRDP-Part 2". Histosearch. No date. Retrieved 17 March 2004. http://www.histosearch.com/homepages/BRDP.Part-2.html
- Casad, Eugene. 1974. *Dialect intelligibility testing*. Norman, OK: Summer Institute of Linguistics and The University of Oklahoma. (reprinted 1980, 1987.)
- Distribution of Bangladesh tribal population. No date. Retrieved 7 March 2003. http://www.bbsgov.org/ana-vol1/Projection.htm.
- Fasold, Ralph. 1984. The Sociolinguistics of society. Oxford: Blackwell Publishers.
- Fisher, Solveig G. "Indian Languages" found in Microsoft Encarta Premium 2009.
- Grimes, Barbara F, editor. 2000. *Ethnologue: Languages of the world*. 14th edition. Dallas: Summer Institute of Linguistics, Inc.
- Hasda, Abraham. 2002. "History of the Mahalis." *Platinum Jubilee 1927-2002*. Dinajpur: Platinum Jubilee Committee of the Dinajpur Catholic Diocese.
- Hasda, Marcel. 2002. "Introducing the Santals." *Platinum Jubilee 1927-2002*. Dinajpur: Platinum Jubilee Committee of the Dinajpur Catholic Diocese.
- Hossain, Kazi Tobarak. 2000. "The Santals of Bangladesh: an ethnic minority in transition." Paper presented at the Sixth Workshop of the European Network of Bangladesh Studies. Oslo.
- "Indigenous People of Bangladesh: Santals." SDNP Bangladesh. No date. Retrieved 9 August 2004. http://www.sdnpbd.org/sdi/international_day/Indigenous-people_bd/bangla_tribe4.html
- Kim, Amy. 2003. A Report on the Development of the Bangla Sentence Repetition Test. Unpublished manuscript.
- "Mundas." Encyclopedia Brittanica Online Encyclopedia. No date. Retrieved 10 October 2004. http://encyclopedia.jrank.org/MOS_NAN/MUNDAS.html

- O'Leary, Clare F (series editor). 1992. *Sociolinguistic survey of Northern Pakistan*. Islamabad, Pakistan; High Wycombe, England: National Institute of Pakistan Studies and Summer Institute of Linguistics.
- Radloff, Carla F. 1991. *Sentence repetition testing for studies of community bilingualism*. Publications in Linguistics, 104. Dallas: The Summer Institute of Linguistics and The University of Texas at Arlington.
- Rafiq, Ahmad. "The Santals." Banglapedia. 2003 CD-ROM
- Topna, Elizabeth. 2002. "Introducing the Munda people." *Platinum Jubilee 1927-2002*. Dinajpur: Platinum Jubilee Committee of the Dinajpur Catholic Diocese.
- Wikipedia. No date. "Munda languages." Retrieved 10 October 2004. http://en.wikipedia.org/wiki/Munda_languages>
- Wimbish, John S. 1989. *WordSurv: A program for analyzing language survey word lists*. Dallas: The Summer Institute of Linguistics.
- স্নাত্ন ধর্ম [The Sonaton Religion]. 2002. Chittagong, Bangladesh: Literature Division.