



The Senga of Zambia

Linguistic Survey Report with Recommendations for Literature Development Strategy

Kenneth S. Sawka, Christopher Mbewe,
Daka Josephat, and Ezeckia Ngulube

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Abstract

The language group investigated in this 2013–2014 survey¹ is the Senga located in the Chama District of Zambia's Muchinga Province. No ISO code has been assigned, and Senga is often confused with another language with a similar name, Nsenga [nse]. There are nearly 80,000 speakers of Senga and over 112,000 people claim Senga as their ethnicity.²

The purpose of the research included an examination of the relationships between the Senga language and related languages such as Tumbuka, Bemba, and Bisa. Another reason for this study was to obtain information regarding the viability of the language and to assess the community's desire for a literature development project. Some anthropological and historical data was also collected and included.

The Senga language is often described by outsiders as “a dialect of Tumbuka with a lot of Bemba words mixed into it.” Our analysis shows that Senga is most closely related to Tumbuka, but that Senga stands as a language on its own. It shares 71 percent lexical similarity with Tumbuka and 46 percent lexical similarity with Bemba.

A lexical and phonostatistical comparison was done between five variations or dialects of Senga. The average lexical similarity between the five variations was 81 percent, and the greatest difference between any two varieties was 11 percentage points. The phonostatistical similarity between the five variants was an average of 93 percent and the greatest difference between any two varieties was 7 percentage points.

Based on the wordlist analysis, the Kambombo dialect appears to be the most central form of the language and this, combined with attitudinal results from the interview data, suggests it will be the best form to use in regard to language development.

Senga was found to be an exceptionally viable language. It has a higher level of vitality than any of the other minority languages in Zambia which we have studied. However, in today's changing world it will face ever-increasing pressure from other languages. There are no published materials in the language, and other languages such as Tumbuka and Bemba which do have published materials are already used for some activities such as Bible reading in religious worship services.

¹ This survey is also available as a prepublished manuscript, by Partners in Bible Translation (Sawka, Daison, Mbewe, and Josephat. 2013).

² The Joshua Project reported 68,800 speakers of Senga. However, the Zambian census (2010) is considered to be more accurate and is likely to be more recent.

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1 Introduction and background

1.1 Introduction

This survey was conducted as part of a larger research project begun in 2012 to study the remaining vernacular language development needs of Zambia. This particular survey was conducted to collect information concerning the language of the Senga people of Zambia's Muchinga Province. Dialect issues, comparisons of the language with related neighboring languages, and questions of language endangerment were the main foci of the research. A focus on measuring the vitality of the Senga language was important to this survey. Also included in these goals was an examination of the need for vernacular language development and what the anticipated church and community response would be to a language development project.³

Data for the survey was collected through questionnaires, wordlists, interviews, and a dialect and surrounding languages mapping exercise. Four researchers (Christopher Mbewe, Rev. Daka Josephat, Ezeckia Ngulube, and Kenneth S. Sawka) collected most of the information over seven days from August 28 to September 5, 2014. Additional information regarding the people and their language was obtained on other occasions as well. The data was compiled by Rev. Daka Josephat and then analyzed by Kenneth Sawka, who also wrote the report. SIL Tanzania supplied a wordlist for Nyika (Krüger 2009).

This draft report is dependent upon the input of the Senga people to refine and correct information that may be incorrect. The Senga people themselves are the experts in the knowledge of their language and culture. Therefore, we encourage them to share from their wealth of knowledge to improve the accuracy of the report.

We would like to express our appreciation to the Senior Chief and the four other chiefs for receiving the survey team, blessing the exercise, and allowing the team to collect data from their chiefdoms. Others assisted and helped in the planning of this survey. Rev. Fr. Katete Jackson Jones assisted and helped in the planning of this survey, and many other Senga people encouraged us along the way. We regret that we were not able to visit the two chiefdoms of Mulilo and Lundu.

1.2 Terminology

Senga is the common term used by westerners to refer to both the people group and the language. However, the Bantu custom is to use the prefixes *ba-* to distinguish the people group and *chi-* to indicate the language. For example, *Basenga* is the term to refer to the people as a group that speaks the *Chisenga* language. For the purposes of this study we will generally refer to the language simply as *Senga*.

In conclusion, it is worth repeating what was written by Sawka et al. (November 2013),

...the division of people groups into language groups rarely has clear-cut demarcations. Language use by a community is constantly shifting as smaller language groups are being absorbed by larger ones or larger groups are splintering and separating into smaller subdivisions. "Language group" divisions like the political boundaries that have been placed upon ethnic groups within Africa, can be considered somewhat artificial and not a primary way of identification in the minds of all indigenous peoples. It is not necessarily an "African perspective" to think of people groups divided according to what languages are spoken. Instead what may be more significant is identification with a tribal kingdom and all the connected alliances that kingdom may have.

³ A language development project could include the promotion of an alphabet in the vernacular language, a basic orthography statement, and the production of literacy materials, such as primers for first and second language readers. The language community could select the topics and the media of materials that they would find most helpful. Mother-tongue authorship might also be encouraged. Printed and audio materials produced in the vernacular language could include health books, folk tales, agricultural information, or whatever may be helpful to the people.

With this in mind, we speak of all the language groups in Zambia, including the “Senga language group”, knowing these are not entirely natural subsets but are somewhat artificial groupings.

1.3 Historical background

Most Bantu language groups of Zambia are assumed to be a part of the early Bantu migrations that have been thought to have occurred from 500 to 1000 AD. These migrations originated out of western central Africa approximately in what is now the area of Cameroon. Later migrations into Zambia probably came out of the Lunda and Luba kingdoms of Mwatayamvu in the Congo. The Senga and Kunda peoples trace their roots through the Bisa people to the Luba and Lunda states that existed in the Congo Basin in the 16th century AD. Other Bantu groups in Zambia also identify their origins from what is today the Democratic Republic of the Congo or other neighboring countries. The Lozi language group, for example, explains that they originated from what is today called Angola. Bemba speakers trace their origins back to the DR Congo, and the Chewa speakers tell how their people originated from the DR Congo via a migration through Malawi. The Ngoni have a more recent history in Zambia tracing their entrance into the country from the Zulu kingdom south of Zambia in 1835.⁴

A map by Langworthy (1972:23) shows some of these migrations. Note that the map shows the Ushi people, which are closely related to the Bemba, as giving rise to the Senga and Kunda. This is in contrast with accounts gathered from the Senga and Kunda that tell that each of these groups descended from the Bisa.

Zambian oral histories relate how at one time a Luba king ordered that all male children yet to be born were to be killed. People began to flee the king's tyrannical rule, and the resulting migration led to many tribes entering the area which today is Zambia. Along the way, the diversity of tribes increased as groups split apart from one another. By the early 19th century, a group to which the Bisa trace back their history had formed and established themselves on the eastern side of the Luangwa River.

According to Chondoka and Bota (2007:176), the Bisa moved eastward from the Luapula River sometime before 1720 and settled where Mpika District is today, south of the Muchinga Escarpment. A small segment of the Bisa crossed the Luangwa River between 1780 and 1800 and settled on the east bank much farther to the north in what is today Chama District (Chondoka, et al. 2007:176). Mkunsha (2014:4) estimates that a more southern group of Bisa, which has now become the Kunda, would have crossed the Luangwa River somewhere between 1835 and 1845 if not later.

Later the Bisa extended their territory farther eastward along the west bank of the Luangwa River where they came into contact with the Tumbuka territory. A small segment of the Bisa crossed the Luangwa River between 1780 and 1800 in search of more land. A folk legend connects the root of the Tumbuka word *iza* meaning ‘come’, with the name Bisa/Biza. Thus, the Tumbuka people upon the arrival of newcomers said, “They [the Bisa] have come.”

At one point, the Bisa decided to stop wandering and were given the name Senga. There are two possible origins of the name Senga. One comes from a Tumbuka word, *musenga*, meaning ‘backwoods’. It was said that the Bisa stopped wandering and settled in the backwoods. Another explanation is that a common Bantu verb *kusenga* meaning ‘to ask for’ was attached to the people because they would ask or beg the Tumbuka for food or land to settle upon. Whatever the origin, the name stuck, and the Senga began to morph into a new people group as they grew linguistically and culturally distinct from their Bisa origins.

They established a settlement and eventually a chiefdom at Kambombo with Chibeza as their chief. Eventually other Senga chiefdoms were established, either independently or as a result of disputes over who was to be the next chief when a chief died.

Often, when new settlements were formed, it was the men who ventured out alone. They would search for wives locally once they had begun to establish a new village. In this case, the Senga men encroached upon Tumbuka areas and took Tumbuka wives. It is important to note that both the Bisa and the Tumbuka were at least historically matrilineal societies (Chondoka, et al. 2007:101; Munthali

⁴ Thirty-five Ngoni men crossed the Zambezi River on November 19, 1835. It is said they began crossing at about 14 hours. The exact date and time is known because, as they were crossing, an eclipse of the sun occurred.

2008:1).⁵ So, when Senga men were taking Tumbuka wives, the Senga chiefdom would naturally pass onto the nephews born to the Tumbuka sisters of the deceased Senga chief. Thus, the Tumbuka theoretically would retain the political power over the Senga. However, Chondoka and Bota (2007) recount in detail how the Senga leader, Chibeza, invited a Tumbuka chief, Chamanyavyonse to Chibeza's village to visit the chief's grandson Kasolwe. A child was born to Chamanyavyonse's daughter who had been given in marriage to Chibeza.

During his visit to Chibeza's village, Chief Chamanyavyonse was held to the ground on his back with the child, Kasolwe, standing over him. For the Tumbuka and Senga, it was improper for any chief to be on his back in the presence of others and it was a sign of submission to those who stood over him. Thus, the position of chief was usurped from Chamanyavyonse and transferred to his Senga grandson Kasolwe (Munthali 2008:181). Although power should have been transferred matrilineally to one of Chamanyavyonse's Tumbuka nephews it instead shifted to his Senga grandson, Kasolwe. The shift in power was carried out as a coup d'état. The Sengas, by this time, had greatly increased in number and, having spread out over areas that were previously held by the Tumbuka, were becoming more and more independent.⁶

Historians relate that the Tumbuka kingdom was already in decline, at least on the western side, by the time this transfer of political power was made from the Tumbuka to the Senga. Such accounts help us to explain how the birth of a new people group takes place. These changes occur slowly and over extended periods of time spanning generations. To an outsider's point of view the transfer of political power to the Senga to become independent of the Tumbuka was a mild and non-violent change. It illustrates how language groups would grow and absorb smaller groups, or smaller groups would grow and often innocuously split off into new linguistic and political entities. In the case of the Senga, the Tumbuka chief, Chamanyavyonse, had not been murdered but only forced to admit that he had relinquished the chieftainship. To the credit of the Tumbuka, they did not retaliate through war by attacking the Senga.

Because of its high population, the area, which would later be designated as Malawi, saw terrible atrocities from the slave trade. Although slavery was endemic to pre-colonial Africa and was widely practiced among various tribes, the much larger international slave trade involving the export of slaves from the continent had much more serious and far-reaching effects than the localized forms of slavery did not have. David Livingstone and other reformers from Europe and North America are famous for their battles against slavery. The British passed the Slavery Abolition Act in 1833 but allowed slavery to continue in its East India territories until 1843 when slavery was outlawed in India. However, slave trading intensified in the nineteenth century, and no opposition to slavery ever arose from within the Muslim world through which it continued. Estimates, compiled in the 1860s by British naval patrols in the Indian Ocean, say as many as 20,000 slaves were being exported from the East African coast to Zanzibar and beyond (Rana-lozzi 2015). Slavery has continued to be practiced covertly in North Africa even up to the present time, although the slaves today do not originate from central Africa, but from countries such as Sudan and South Sudan which border Muslim-dominated nations.

McCracken (2000) writes,

Europeans entering the Malawi regions in the 1860s and 1870s described that area as "one of the dark places of the earth, full of abominations and cruelty." The Shire highlands, with its dense population and comparatively limited supplies of ivory was agreed to be one of the major sources for the slave trade, though any estimate as to the actual numbers involved must be treated with

⁵ "The Tumbuka are normally described as patrilineal where inheritance of property including land, cattle, and village headmanship is from the father to the son. Historical evidence, however, is increasingly suggesting that initially the Tumbuka were matrilineal. It has been argued that it was the coming and interaction with the Ngoni and the behaviour of one of the chiefs, among other factors, that transformed the Tumbuka into a patrilineal society" (Munthali 2008:1).

⁶ In rare circumstances, when it is necessary or beyond the control of those involved, a society can transfer power patrilineally in a matrilineal society. Although Chibeza did marry Chamanyavyonse's daughter and the transfer was matrilineal, Tumbukas would maintain that it was done in the wrong way and at the wrong time. Transfers of chiefdom normally only occur upon the death of a chief, and the transfer would never have been transferred to a Senga as it had (Munthali 2008:182).

considerable caution. According to Consul Rigby, 19,000 slaves, most of them from the Malawi region, were passing through the customs house at Zanzibar in the early 1860s and considerable numbers were also exported from Kilwa in this period and from the Portuguese ports as well. Slaves were captured in raids made for this purpose, but as Livingstone noted, Manganja headmen also sold unwanted people from their villages, criminals and those convicted of witchcraft and friendless orphans who lacked influence. There is evidence to suggest that, as the demands for slaves intensified, rulers altered legal procedures to make it easier for them to sell their subjects.

In 1875 the Livingstonia mission of the Presbyterian Church began to be established in what is today Malawi and areas to the north of the Kunda.

McCracken's first mention of the Senga says that groups of Sengas in northern Malawi deliberately submitted to Ngoni rule. The Ngoni had been raiding throughout the area and this disrupted the trade in ivory and copper that had been going on in the region. In those early days of Christian missions in central Africa outreach most likely targeted areas where commercial prospects were brightest as well. This was only logical because populations of indigenous peoples would flock to where roads, railroads, or towns were being constructed. In 1898, it was expected that the Rhodes' railway would cross the Kariba Gorge and proceed north into Tanganyika. Such a move would have brought the Bemba and Senga groups into increased contact with the outside world. However, when coal was discovered in Southern Rhodesia, the railway followed a more westerly route (Weinthal n.d.:11, 33–39).

McCracken says that two Livingstonia missionaries, Prentice and Fraser, toured the northern and southern spheres of the Luangwa valley in 1897 and 1898. They contacted the Senga who lived in

...large stockaded villages, surrounded by thorn trees. A meeting was held at Ekwendeni in June of 1899 and the response was so great that three schools were quickly established in the Senga villages of Kambombo, Tembwe and Chikwa. By 1902 their number had increased to six, but this was eclipsed a year later when fifty-three senior pupils at the Institution, assisted by a small party of agricultural apprentices, spent their long vacation working from twenty-nine separate centers in the Marambo, spread over an area of 400 miles. In 1904, evangelists and teachers went out from all the major stations, Ekwendeni, Loudeon, Bandawe and the Institution, not only to the Senga but beyond into Bemba and Bisa country, where twenty-four teachers and one travelling evangelist were employed for three months working from seven major centres.

In 1907, ten schools were being worked from Loudon among the Kundu, Bisa and Chewa, and nine among the Senga; Bandawe had thirty-five teachers spending six months of the year with the Senga; temporary settlements linked to the Institution had been established in Bembaland.

"In the months of August, September, October, the Livingstonia Church sent away some men to the Bembaland to teach and to preach the great words of Jesus-Christ our Lord," wrote one of the students involved. "The Bemba are very ready to receive Christ as their King. I witness this because I was one of them who went there. I and Samson were teaching and preaching in Chibeza village; the chief of the Biza people and many people came around our preaching of Jesus crucified." (McCracken 2000:165–166).

1.4 Geographical location

Zambia is divided into ten provinces as shown in map 1:

Map 1. Zambia's ten provinces. The Senga are in Muchinga Province



Source: Wikimedia. Created by Golbez in 2006, and in 2015 MellonDor added Muchinga.
https://commons.wikimedia.org/wiki/File:Zambia_provinces_named.png. CC BY-SA 3.0. Accessed 10 April 2019.

Each of the ten provinces is further subdivided into administrative districts. There is a total of 89 administrative districts in the entire country. The Senga people are located mostly in the Chama District in Zambia's Muchinga Province in the northeast of the country. Muchinga Province has seven districts. Besides Chama, the other six are Chinsali, Isoka, Mafinga, Mpika, Nakonde and Shiwangandu.

Muchinga Province is the newest of Zambia's ten provinces. It was created in 2011 from portions of the Eastern and Northern Provinces. It borders Tanzania in the north and Malawi in the east. Muchinga Province borders Zambia's Eastern Province on its southern side and Central Province on the southwest, Luapula Province in the west, and Northern Province in the northwest. Chinsali is the administrative center. The province is named after the Muchinga Mountains which form the watershed of the Zambezi River which flows into the Indian Ocean, and the Congo River that flows west to the Atlantic Ocean. The largest river in the province is the Luangwa River which is a major tributary of the Zambezi.

The Luangwa River is the main geographical feature of Chama District. It flows through six of the Senga chiefdoms generally from North to South. There are more than 30 major tributaries that flow into the Luangwa and they are generally perpendicular to it. The Kamimbiri, Kasamba, Mampanda, Kapembu, Lupamadzi, Liwumbu, Lumpa, Lunzi, Luela, and Lumezi are names used for some of the tributaries that flow mainly through Senga areas and join the Luangwa River on its eastern bank. The Nkanka, Musi, Mwambwa, Mancha, Lumezi, Musalango, Lilundi, and the Kamanangombe are names used for some of the tributaries that flow through Senga areas and unite with the Luangwa River on its western bank. Many small rivers and streams cease to flow in the dry season, but the Luangwa River continues to have water throughout the year as it meanders through the Senga chiefdoms. This enables the Senga people to fish and use the water for small-scale, often hand-powered irrigation for crops planted along the river.

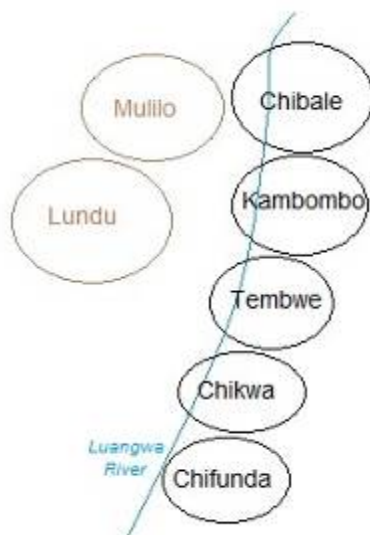
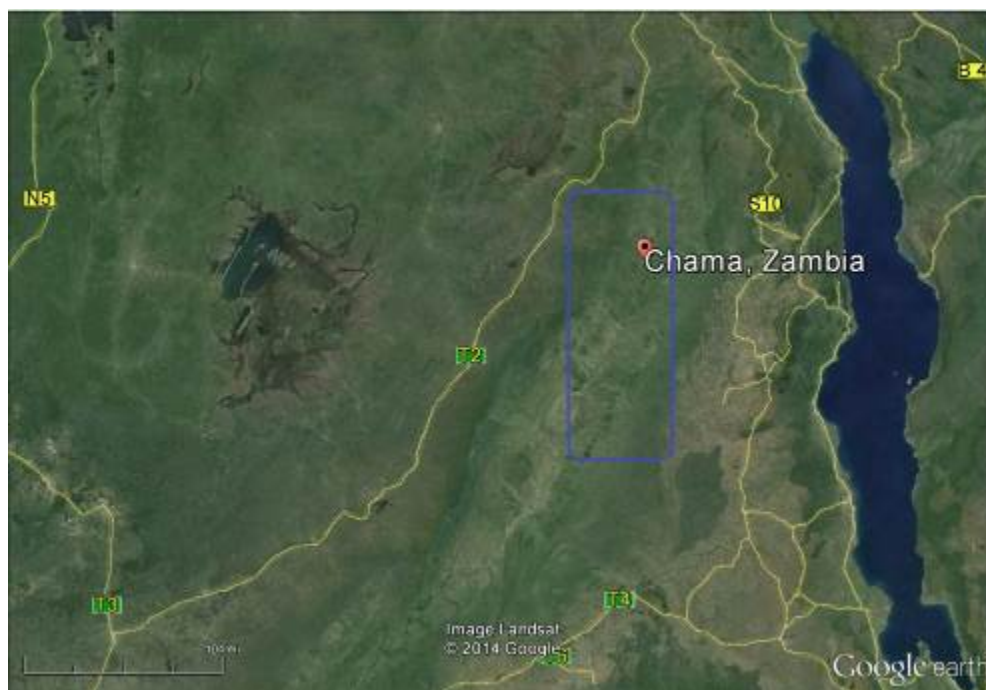


Figure 1. Drawing of approximate locations of Senga chiefdoms.

Map 2 shows Chama, the district administrative center and the T2 road to the west of Chama, the main road between Lusaka, Zambia's capital city and Zambia's Northern Province. The Senga people inhabit the northern and southern regions to the west of Chama, indicated on the map by the blue rectangle.

Map 2. The area inhabited by the Senga people



Source: Google Earth <https://www.google.com/maps/@-11.633539,33.2709095,183989m/data=!3m1!1e3>. Accessed 10 April 2019. Redistribution prohibited.

This map shows the location of the district's administrative center, Chama, and the T2 road which is the main road between Zambia's capital city, Lusaka, and Zambia's Northern Province. The Senga people inhabit the northern and southern regions to the west of Chama, indicated here by the blue rectangle.

Chama District is the largest and least populated district of Muchinga Province. The district includes an area of 17,630 km². Chama District was previously part of Zambia's Eastern Province while the other four original districts were transferred from Zambia's Northern Province.⁷

The headquarters for Chama District is in Chama Town. The district includes the large wilderness areas north-east of Zambia's North Luangwa National Park. Much of the population of Chama District lives close to the Malawi border and shares tribal and cultural links with the people of the northern highlands of that country.⁸

Besides the staple crop of maize, Chama is also known for producing rice. Cotton, tobacco, and sunflowers are grown as cash crops. Sorghum, soya, groundnuts, sweet potatoes, pumpkins, and cabbages are also grown. Other than agriculture and tourism in North Luangwa Park, there are not many opportunities for employment and there are not many other industries in the district.⁹

1.5 Population

Zambia has taken a census of their population every ten years. A 1990 Zambian Census listed Chama District as having a population of 55,172 people. In 2000, the census recorded 74,890 people and in 2010, 103,894 inhabitants.¹⁰ The 2010 population density was 5.9 inhabitants per square kilometer. From 2000 to 2010, the change in population density was 3.33 percent per year. The population growth figures include emigrants from other language groups as well as expatriates who have moved to the area.

Table 1 includes data from Zambia's 2010 census report. It summarizes the population figures for Senga and related languages and separates those who identify themselves as Chewa from Nyanja. Some would argue that these two, Chewa and Nyanja, are the same language but Chewa speakers can normally identify their chiefdom and home village while Nyanja speakers would normally not do so.

Table 1. 2010 Population by ethnic origin and language of predominant communication

	Ethnic origin	Language of predominant communication
Chewa	929,842	499,671
Kunda	83,467	40,029
Nsenga	660,947	328,793
Nyanja¹¹	50,761	1,643,686
Senga	112,118	79,546
Tumbuka	549,665	284,917

The Senga population resides in the Chama administrative district of Zambia's Muchinga province. Chama District has two constituencies: Chama North and Chama South. Chama North has twelve wards and Chama South has ten wards. The results for these two constituencies by ward in the 2010 census are tabulated in table 2. Those wards in which questionnaires for this survey were gathered are Nkhankha, Luangwa, Kalinkhu, Kamphemba, Mabinga, Lumezi, Lunzi, Vilimukulu, and Chilenje. Those that were visited but in which no questionnaires were administered are Mphalausenga, Bazimu, Lupamazi, and Chibungwe.

⁷ Later two other districts were added to Muchinga Province. In 2013, [Mafinga District](#) was created by splitting off [Isoka District](#). Both accessed 10 April 2019.

⁸ Wikipedia. http://en.wikipedia.org/wiki/Chama_District. Accessed 10 April 2019.

⁹ Wikipedia. http://en.wikipedia.org/wiki/Chama_District. Accessed 10 April 2019.

¹⁰ Wikipedia. <http://www.citypopulation.de/php/zambia-admin.php>. Accessed 10 April 2019.

¹¹ Nyanja is a trade language in Zambia, and there are no tribal Nyanja chiefs or traditional ethnic systems whereby one could claim to be of Nyanja ethnic origin. Nevertheless, this is the data as collected by the Zambia Central Statistics Office.

Table 2. The 2010 population figures by ward for Chama District

Number of households and population of Chama District by ward				
	Households	Total	Male	Female
Chama District	19,420	103,894	50,856	53,038
Chama North Constituency	9,974	53,313	26,285	27,028
Mazonde	296	1,587	761	826
Nkhankha	1,039	5,339	2,642	2,697
Luangwa	760	3,868	1,906	1,962
Chisunga	729	3,812	1,874	1,938
Ndunda	391	1,919	946	973
Mbazi	566	2,969	1,478	1,491
Manthepa	408	2,183	1,088	1,095
Mphalausenga	1,159	6,421	3,177	3,244
Kalinkhu	394	2,193	1,045	1,148
Kamphemba	2,468	13,542	6,711	6,831
Mwalala	1,124	6,377	3,129	3,248
Muchinga	640	3,103	1,528	1,575

Chama South Constituency	9,446	50,581	24,571	26,010
Chipala	483	2,555	1,220	1,335
Bazimu	1,112	5,936	2,896	3,040
Mabinga	1,070	5,543	2,711	2,832
Lupamazi	437	2,392	1,177	1,215
Lumezi	918	5,284	2,520	2,764
Chibungwe	954	5,352	2,611	2,741
Lunzi	1,458	7,772	3,781	3,991
Vilimukulu	1,054	5,513	2,710	2,803
Chilenje	1,124	6,052	2,940	3,112
Mapamba	836	4,182	2,005	2,177

Table 3 shows the wards for the two constituencies of Chama District sorted by population. Table 3 also shows the percentage of each ward out of the total population for the district.

Table 3. Wards of Chama District in 2010 by population sorted from largest to smallest

Chama District sorted by population size			
District or Ward	Households	Population	Percentage
Chama District	19,420	103,894	100%
Chama North Constituency	9,974	53,313	51%
Kamphemba	2,468	13,542	13%
Mphalausenga	1,159	6,421	6%
Mwalala	1,124	6,377	6%
Nkhankha	1,039	5,339	5%
Luangwa	760	3,868	4%
Chisunga	729	3,812	4%
Muchinga	640	3,103	3%
Mbazi	566	2,969	3%
Kalinkhu	394	2,193	2%
Manthepa	408	2,183	2%
Ndunda	391	1,919	2%
Mazonde	296	1,587	2%

Chama South Constituency	9,446	50,581	49%
Lunzi	1,458	7,772	7%
Chilenje	1,124	6,052	6%
Bazimu	1,112	5,936	6%
Mabinga	1,070	5,543	5%
Vilimukulu	1,054	5,513	5%
Chibungwe	954	5,352	5%
Lumezi	918	5,284	5%
Mapamba	836	4,182	4%
Chipala	483	2,555	2%
Lupamazi	437	2,392	2%

The 2013 demographics profile for Zambia says that an average of 46.2 percent of the country's population is zero to fourteen years of age (Index Mundi 2015). The 2010 census included the breakdown in age showing that 51 percent of the population of Chama District is fourteen years of age or under:

Table 4. The 2010 Age demographics for the wards of Chama District

Chama District population by age				
	0–14 Years	15–34 Years	35–above	Total
Chama District	52,745	33,106	18043	103,894
Percent of total	51%	32%	17%	--
Chama North Constituency	27,101	17,169	9043	53,313
Mazonde	859	455	273	1,587
Nkhankha	2,865	1,666	808	5,339
Luangwa	2,092	1,194	582	3,868
Chisunga	2,093	1,101	618	3,812
Ndunda	998	590	331	1,919
Mbazi	1,450	995	524	2,969
Manthepa	1,148	646	389	2,183
Mphalausenga	3,230	1,991	1,200	6,421
Kalinkhu	1,183	650	360	2,193
Kamphemba	6,373	4,814	2,355	13,542
Mwalala	3,282	2,036	1,059	6,377
Muchinga	1,528	1,031	544	3,103

Chama South Constituency	25,644	15,937	9,000	50,581
Chipala	1,306	836	413	2,555
Bazimu	2,902	1,932	1,102	5,936
Mabinga	2,813	1,756	974	5,543
Lupamazi	1,232	734	426	2,392
Lumezi	2,653	1,664	967	5,284
Chibungwe	2,650	1,688	1,014	5,352
Lunzi	3,850	2,513	1,409	7,772
Vilimukulu	2,835	1,694	984	5,513
Chilenje	3,172	1,907	973	6,052
Mapamba	2,231	1,213	738	4,182

The age demographic of a population is one of the most important considerations when studying language vitality and language shift. For the Senga, table 4 shows that only about 18,000 out of 103,900, or 17 percent of the population, is thirty-five years or older. This older segment of the population is the one which would speak a vernacular language best and have the responsibility of passing it on correctly to the younger generation.

An inventory of 158 villages, listed according to their location within the chiefdoms, is included in Appendix A. Appendix B contains a list of population data and the composition of Senga villages, compiled from data collected from the Village Leader Interviews. The average population of a village was 230 people. Sixty-three out of the seventy-five villages (84%) sampled had a homogenous population of Senga people. Of those that were not 100 percent Senga, only a tiny fraction (the highest being only 1.82%) were not Senga by ethnic origin.

Table 5 shows those language groups that were also present in the Senga villages included in the survey.

Table 5. Percentage of non-Senga groups present in Senga-dominated villages

Bemba	Namwanga	Tambo	Tumbuka	Ngoni	Chewa	Tonga	Lozi	Unclassified
1.83	0.93	0.57	0.41	0.17	0.13	0.13	0.13	0.07

Naturally, those villages that border other neighboring language groups will have a higher percentage of residents who are not mother-tongue Senga speakers.

1.6 Previous research

The largest published source of information on the Senga is included in Chondoka and Bota's resource *A History of the Tumbuka from 1400 to 1900. The Tumbuka under the M'nyanjagha, Chewa, Balowoka, Senga and Ngoni chiefs*, (2007). This work begins with much information on the historical lineage of the Tumbuka chiefs and has very valuable chapters on the Tumbuka customs and ways of life. Other chapters tell about the entrance of other groups into the Tumbuka area including an entire chapter dedicated to the arrival of the Senga and their impact upon the Tumbuka. The work does not have information about the linguistic differences between Senga and Tumbuka, although many examples of names and places are explained.

1.7 Language borders and classification

There is a map that is published for use within Zambia that shows the different ethnic groups in the country.

In that map, it appears that the Tumbuka language does not have a very long common border with the Senga language area, even though Tumbuka is the language that is thought of by Zambians as being most closely related to Senga. There are two reasons for this. One, the map boundaries end at the country borders, and Tumbuka is also spoken in Malawi to the east of the Senga areas. Also, at least three of the groups, the Kamanga, Yombe, and Fungwe, can be considered as dialects of Tumbuka. Indeed, Chondoka and Bota (2007) state that the Yombe are culturally a strong part of the Tumbuka group. They explain how the Tumbuka were once a strong empire but were invaded by foreign groups of people from the north-west and west.

From the north-west, six small groups of culturally related people entered the Tumbuka territory before 1800. These were: Tambo, the Wandya, the Lambya, the Nyika (also known as the Wenya), the Fungwe and the Yombe, the largest of the seven small groups. Other than the Yombe, the rest have had very insignificant impact on the Tumbuka. The important thing is that all these groups have over the centuries, either collectively or individually adopted, accepted or understood the language and known the culture of their demographically superior neighbours, the Tumbuka. The degree of acceptance is naturally greater at the frontier than further from it (Chondoka and Bota 2007:175).

The group which has had the largest effect upon the Tumbuka in terms of encroachment upon Tumbuka territory is the Senga. Some describe the Senga language as a combination of Tumbuka and Bemba. The wordlist analysis in section 3.4 will explore this.

The *Ethnologue* lists the three languages (Lambya, Nyika, Wandya) that are shown on the northeastern side of the Senga on the map as a single language called Nyiha. Tambo is listed by the *Ethnologue* as a dialect of Nyamwanga.

The following is a simplification of the approximate geographic positions of the various languages in relation to Senga taken from the Tribal and Linguistic Map of Zambia and the *Ethnologue* map. The Senga people have a different understanding of what languages surround their territory. This will be explained in Section 3.5.1. Representing any language boundaries with a definite line results in obviously imperfect representations, but figure 2 helps to show that the most influential languages upon

the largest segment of the Senga population are Tumbuka, Bemba, and Bisa since they form the longest borders.

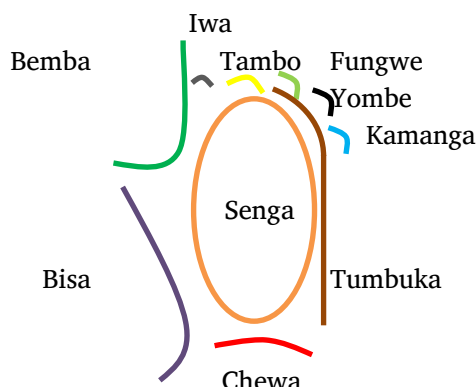


Figure 2. Depiction of approximate positions of bordering languages.

One of the purposes of this study is to examine the linguistic similarities of Senga to other languages. The following gives information on each of the languages that closely affect the Senga language. Much of this information is from the internationally recognized index of the world's languages, the *Ethnologue*. These languages are listed beginning with those that are most influential. More information on the lexical similarities is included in section 3.4.

Tumbuka

Tumbuka [tum] is spoken in Zambia's Muchinga Province, and the 2006 census reported that there were 480,000 speakers in Zambia. In Malawi, there are 2,200,000 speakers. Tumbuka has total population of over 2,566,000 speakers in both countries.

Tumbuka has an EGIDS¹² status of 5 that carries the designation of a "Developing Language". This means that the language is used for face-to-face communication by all generations and has effective educational support in parts of the community. It is not yet classified as a Status 4 "Educational Language" meaning that the language is being transmitted and standardization is promoted through the Department of Education in Zambia. There are seven official languages of Zambia which are currently taught in the school system. They are Bemba, Chewa, Lozi, Kaonde, Lunda, Tonga, and Luvale. The Zambian government has recently put a renewed emphasis upon children doing most of their first four years of primary schooling in the vernacular languages.

Some alternate names that the *Ethnologue* lists for Tumbuka are Chitumbuka, Tambuka, Tew, Timbuka, Tombucas, and Tumboka.

Senga is listed in the *Ethnologue* as a dialect of Tumbuka as are the following: Chikamanga (Henga, Kamanga), Chipoka, Chitumbuka, Fililwa (Filirwa), Fungwe, Hewe (Hewa), Kandawire, Nanya, Ngoni (Magodi), Nthali, Wenya, Yombe.

Tumbuka is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, N, Tumbuka (N.21) language.

Bisa

Bisa [leb] is a language that has a strong connection to the history of the Senga. According to many accounts, the Senga people originated from the Bisa tribes that traveled east into the Tumbuka territories. The Senga language began when Bisa men crossed into Tumbuka territory and married Tumbuka women. This history is explained in section 1.3.

¹² EGIDS is the Expanded Graded Intergenerational Disruption Scale which is an attempt to measure all the world's languages in relation to their vitality and level of endangerment. A language can be evaluated in terms of the EGIDS by answering five key questions regarding the identity function, vehicularity, state of intergenerational language transmission, literacy acquisition status, and a societal profile of generational language use. (Lewis 2009).

The *Ethnologue* includes Bisa as part of a “Lala-Bisa” conglomerate. The Bisa language is spoken in Zambia’s Northern, Central, and Eastern Provinces. The eastern part of this area along the Luangwa River is mainly inhabited by Bisa speakers, and the southwestern part is more or less considered the area of the Lala speakers. The 2010 census reports that there are 197,744 ethnic Bisa and 112,016 people use it as their primary language of communication.¹³ The 2010 census lists a total of 589,627 people in Zambia who listed Lala-Bisa as their ethnicity. There are also speakers of Bisa in the Democratic Republic of the Congo.

Bisa has an EGIDS status of 5 meaning that the language is used for face-to-face communication by all generations and has effective educational support in parts of the community.

Alternate names for Bisa or Lala-Bisa given in the *Ethnologue* are Ambo, Biisa, Ichibisa, Wisa, Wiza, Ichilala, Luano, and Swaka. Lala-Bisa is classified as Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, M, Bisa-Lamba (M.51).

Bemba

Bemba [bem] is arguably the most widely used of Zambia’s indigenous languages. Besides being predominant in the Northern, Copperbelt, and Luapula Provinces, the language is widespread across Zambia’s capital city and other major towns. It is also spoken in the Democratic Republic of the Congo. There are an estimated 3,300,000 speakers in Zambia (Johnstone and Mandryk 2001) but its influence is decreasing as Chewa becomes more prominent.

The *Ethnologue* lists a total Bemba population of 3,600,000, spread across Zambia and the Democratic Republic of the Congo. Some of the significant variations include Bemba proper with a population of 741,000, Luunda [sic] with a population of 32,000, Shila with a population of 5,190, Tabwa with a population of 26,400, Cishinga with a population of 16,800, Kabende with a population of 28,200, Mukulu with a population of 6,710, Ng’umbo with a population of 42,600, and Twa-Unga with a population of 14,000 (1969 census).

Bemba is an EGIDS Status 2 (Provincial) Language. Some alternate names are Chibemba, Chiwemba, Cibemba, Ichibemba, and Wemba. Some of the major dialects are the Chishinga, Kabende, Lembue, Lomotua (Lomotwa), Lunda (Luapula), Mukulu, Ngoma, Ng’umbo, Nwesi, Town Bemba, Twa of Bangweulu, Unga. Town Bemba has a Bemba base with heavy code mixing with English and neighboring Bantu languages.

In the *Ethnologue*, Bemba is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, M, Bemba (M.42).

Chewa

Chewa [nya] is spoken in Zambia’s Eastern and Central Provinces and has become the lingua franca of the capital city, Lusaka, where it is often referred to as Nyanja.¹⁴ A 2010 census reported that there are over two million Zambians that listed Chewa or Nyanja as their primary language of communication.¹⁵ Its use is growing and has become common in major cities where the Senga people may relocate.

¹³ The same report reports that there are 391,883 ethnic Lala, and 200,772 people use Lala as their primary language of communication.

¹⁴ Dr. Ernst Wendland, Personal communication: Chewa and Nyanja are essentially the same language (or different dialects of the same)—known as Chichewa (the ethnic group name) in Malawi and as ciNyanja in Zambia, the “language of the lake” (Malawi/Nyasaland). During Central African Federation days, pre-1964, the term ciNyanja was used in both Malawi (Nyasaland) and Zambia (N. Rhodesia).

The dialect of the language spoken in Zambia (Eastern Province and Lusaka) is of course different from that in Malawi (due to local language “interference” and mixing), and the orthographies are somewhat different, perhaps to express national identities. The Nyanja language is spoken by a number of different ethnic groups.

¹⁵ The 2010 Census has the following breakdown:

	Ethnicity	Predominant Language of Communication
Chewa	929,842	499,671
Nyanja	50,761	1,643,686
Total	980,603	2,143,357

Dialects listed for Chewa in the *Ethnologue* include: Chingoni (Ngoni), Manganja (Waganga), Nyasa, and Peta (Chipeta, Cipeta, Malawi, Marave, Maravi). Chewa is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, N, Nyanja (N.31) language.

Nyika

Nyika [nkɪ] was included in the lexical comparisons done in this survey because a Nyika wordlist was obtained, and the language is spoken geographically close to Senga, although the two languages do not share a common border. Nyika is spoken in the Northern Province, Isoka District, Mulekatembo village area. There are 5,000 Nyika speakers in Zambia according to a 2007 survey. It has an EGIDS status of 6a meaning that the language is classified as vigorous. Alternate names for Nyika include Chinyika and Kinyika. It is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, M, Nyika-Safwa (M.23) language.

Lambya

Lambya [lai] is spoken in Zambia's Northern Province, Isoka District. The *Ethnologue* lists only 2,000 speakers in Zambia (1958), and the Zambian Central Statistics office has not listed it as a language spoken in Zambia. However, it is included here because the northernmost Senga chiefdom that we visited, Chibale chiefdom, listed Lambya as the language spoken on their northeastern border. The *Ethnologue* says that Lambya is an EGIDS 6a language meaning that the language is classified as vigorous. It is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Central, M, Nyika-Safwa (M.201) language.

Kunda

The Kunda¹⁶ of Zambia's Mambwe District is also compared with Senga in this report since both groups claim a common origin with the Bisa. The 2010 census found that there were 83,467 Zambians that claimed Kunda as their ethnic origin, but only 40,029 claimed it as their primary means of communication.

The New Updated Guthrie List compiled by Maho (2009) includes Senga as part of the N20 Tumbuka Group.

N201	Mwera of Mbamba Bay mjh
N21	Tumbuka cluster [tum], Chitumbuka
N21a	– Tumbuka proper
N21b	– Poka
N21c	– Kamanga, Henga
N21d	– Senga
N21e	– Yombe
N21f	– Fungwe
N21g	– Wenya

Some information on the historical links of these languages is in section 1.3.

Having looked at other languages related to Senga we now want to examine Senga itself and explore whether it should be listed separately as a language in lists such as the *Ethnologue*. It is already recognized within Zambia as one of the country's 73 languages and is placed on the language map popularly published within the country. Senga is also listed as a separate language and ethnic group in the 2012 Central Statistics Office reports for Zambia.

¹⁶ Kunda has a provisional code of [xdn], although the *Ethnologue* lists Kunda as a dialect of Chewa. In this author's view, Kunda is not a dialect of Chewa.

1.8 Religion

Even before the advent of Christianity the Senga people were monotheistic. They have been greatly influenced by the Tumbuka in their religious and cultural practices and follow the religion of the *kavuba* shrine. Worship at these shrines gives the Senga a sense of security and a means for obtaining help and protection. Likewise, they have an assurance of life after death and a sense of individual fulfillment and meaning in life (Chondoka and Bota 2007: 144).

Although the Senga believe in one supreme god, called *chiuta*, this god cannot be reached directly by them and can be described as being distant. Rather than praying to *chiuta*, the Senga interact and deal with the spirits (*mizimu*) of deceased relatives. These spirits can have interactions with *chiuta* and therefore act as mediums for the people.

A *kavuba* is a small shrine or temple that is commonly seen in Senga villages or along roads. It is a miniature thatched structure resembling a traditional meeting place having a roof and supporting poles but no walls, doors or windows. It usually measures no more than a meter high. At first sight, one may think that the *kavuba* is something built by children, similar to a doll house that western children play with. The wood used to build the shrine must come from the *musolo* tree. The Senga believe that the ancestral spirits live under the roots of the *musolo* tree. Thus, the shrine is a residence for the deceased spirits.

Inside the *kavuba*, carved sticks or stones are placed in a particular order. These stones commemorate the headmen of each clan or village. Each family may have one or more shrines for deceased relatives, but there is normally at least one for each deceased chief.

At the *kavuba* people may pray and seek to appease the spirits in times of famine, drought, floods, plagues, or other natural disasters. It is believed that, when such calamities come, it is because the spirits of their ancestors are angry. Offerings can be made of food (whether cooked or uncooked) including meat, beer, or newly harvested crops. If the offerings were disturbed by vermin overnight, for example, or missing, then the Senga believe that they were consumed by the ancestors. It was a good sign that the ancestors were appeased and that the calamity would cease or their prayers would be answered.

Chondoka and Bota (2007) explain that the Tumbuka do not pray to natural forces such as winds, rain or to natural objects such as trees, hills, or rocks. Their concerns, as are those of the Senga, are for the unseen spirit world of the ancestors that inhabit these objects but not the physical objects themselves (Chondoka and Bota 2007:146). The Senga are concerned about what can be called the “living dead,” which are the spirits of the deceased relatives. These spirits are assumed to be active and watching every step or action of the relatives that live in the village.

Despite these widespread and entrenched animistic beliefs, many Senga people today would call themselves Christian. Our survey collected the names of twenty-five different denominations or groups that respondents said were found in the five Senga chiefdoms we visited. They are the following:

- Anglican
- Apostolic Church in Zambia
- Assemblies of God
- Baptist
- Bible Gospel in Africa - BIGOCA
- Roman Catholic
- Church of Central Africa Presbyterian (CCAP)
- Church of God
- Four Square Church
- Pentecostal Assemblies of God
- Pentecostal Holiness
- Reformed Church in Zambia
- Seventh Day Adventist
- United Church of Zambia

Besides the more common mainline Christian denominations, there are also the following groups with congregations among the Senga:

- African National Church
- Apostolic Faith Mission
- Bread of life
- Covenant (Chipangano)
- Deeper life
- Divine Truth Ministry
- Everlasting Gospel Apostolic Church
- Hilltop Church
- New Apostolic
- Pentecost
- Zion

The Jehovah's Witness Watchtower Society is also present in Senga areas.

1.9 Livelihood and customs

Livelihood

Most of the Senga people are farmers. Crops grown for food are the following:

- beans
- Finger millet
- groundnuts
- kafir corn
- maize
- millet
- rice
- sorghum
- sunflowers
- sweet potatoes
- vegetables

Most of these crops are produced for home consumption or local trade but the area is also known for its rice production which is exported to urban areas. Maize is also produced and sold since the Zambian government buys maize from farmers for government food reserves. Cotton and tobacco are also grown as cash crops on a small scale. Large trucks patrol the Senga areas during the latter part of the dry season to buy bags of cotton. Tobacco is normally for local trade.

Those who do not subsist through farming may have government jobs. They may be employed as teachers or health workers, for example. Some Senga people work for the Zambia Wildlife Authority or the tourist industry which caters to those visiting the North Luangwa National Park. A few Senga have shops and, unlike many areas of Africa, most of the shops, even comparatively large ones, are owned and operated by Sengas within their home areas. The Senga we interviewed said that they do not keep livestock such as cattle, goats, or pigs like the Tumbuka do. Neither do they use oxen for plowing. This may somehow be related to the infestation of the tsetse fly which harbors the sleeping sickness virus that attacks both humans and domestic animals. The Senga can fish along the Luangwa River or its tributaries. A small amount of money can be earned through cutting timber, making brooms, or making charcoal.

Rites of passage

The process of passing from adolescence into adulthood is an important rite of passage for the Senga girls. However, there is no special ceremony or training for the boys. They are left to discover things among their peers. The Senga do not circumcise; while other groups such as the Luvale, Lunda, Kachokwe, Nkoya, Tonga, and Lozi in Zambia do.

For girls, the passage from adolescence into womanhood is called *uzamba*. When a girl has her first menstruation, she will inform her aunt or grandmother. The girl is then hidden for seven days, often at her aunt's house. During this time, she is taught by a group of women about her menstrual cycle, how to bathe and wear protective clothing. She is also taught how to satisfy a man sexually but is warned not to have sex with any man until marriage. She is also taught how to care for a baby. On the last day she is taught how to dance, how to interact with elders in the village, and how to respond to men who may be attracted to her.

Matriarchal system

The Senga people are organized according to a matriarchal system, which is different from the Tumbuka who are now patrilineal. In a matrilineal system, descendants trace their ancestry through the clan of their mother's side. In such a system, it is believed that a true blood relation is one born from a woman. A man's inheritance is reserved for the nephews of his sisters as they are considered his true blood relations. He cannot carry on his original bloodline, and it cannot therefore be passed on to his children through his wife. She is not part of the original family tree and, in any case, children born to her could have been fathered by someone else.

However, his sisters, even if they marry husbands who are not part of the original family, or, even if they have children through an adulterous relationship, will always bear offspring that carry on the family bloodline. Children are reckoned as "belonging to the mother" or "the mother is the owner of the children." For the Senga, the women are the true owners of the children.

Under the matriarchal system, the father's children do not inherit the father's possessions or any position in society that he may have had. These will go to the uncles and nephews from the mother's side. Under both the matriarchal and patriarchal systems, the wife (or wives) receive/s nothing upon the death of her spouse; however, under the patriarchal system, the father's children do receive his inheritance; and the wife often benefits more in this system because she may still be the guardian of the children and would have access to whatever assets remain. More recently, the widow has been permitted to stay in her late husband's home until she also passes on or she may leave if she marries someone else. In 1996, the Succession Law in Zambia was enacted which stated that the inheritance of the father would go to his spouse(s) as well as to the surviving children. Although enacted nearly twenty years ago, very few of the ethnic groups in Zambia are following this law.

When a man becomes of marriageable age, he will inform his uncle who will begin to look for a suitable wife. The uncle will also likely pay the dowry on behalf of his nephew. The dowry can include several things such as a small amount of money (such as K500¹⁷ or K1000), a hoe, beer, and a chicken. All these payments depend upon the girl's family demands or decisions. Other groups such as the Namwanga set the price of marriage much higher and may require cattle to be given. Besides a dowry to the family of his future wife, the husband will also pay for each of the children they have as they are born.

After the marriage process is completed, the husband will remain with his wife and her family for at least two rainy seasons. During this time, he is to prove to his in-laws that he is capable of taking care of their daughter. If the parents are not convinced that the man is responsible enough to be with their daughter as wife, they simply pay him back his dowry and order him to leave their village. However, when the new husband performs well by doing all the works required, he can then request of his in-laws to take his wife to his own village and settle there.

Under the Senga system, a woman does not abandon her maiden name and only use the name of her husband. Instead, she will maintain her maiden name and differentiate her husband's name from hers with the prefix *nya* before the name. For example, she may say *Katete Nya Banda*. She can also be referred to as a *muka Katete*, 'wife of [Mr.] Katete'. The husband's name is not changed; however, he can be referred to as a *muka Nyaimba*, 'husband of Nyaimba'.

When a Senga man dies, the widow is forced to start crawling along the ground with her elbows. This is proof of her grieving and is part of the cleansing process which shows that she is not at fault in the man's death.

Selection of a chief

When a Senga chief dies, candidates for his replacement are chosen from among his nephews. The selection is usually a long, drawn-out process involving much discussion. It is overseen by elders within the family who know the lineage and the history of the chiefdom well. The most suitable nephews are chosen, taking into account a number of issues including the best characteristics such as exhibiting responsibility, generosity, and cultivating enough food for his family. Once a nephew is chosen, then the senior village chief counselor, the *induna*, holds a secret meeting. The chosen nephew is invited but is not

¹⁷ 500 Kwacha is about 80 USD.

informed as to the reason for the meeting. At the meeting, his head is anointed with millet or sorghum flour. This is called *kumuthila unga*, meaning anointing him with flour. After this person is chosen, the people begin to brew beer for the installation. Guests are invited including the paramount Chief Kambombo.

To obtain the approval of the deceased relatives, beer is poured into a bowl and left in the kavuba shrine overnight. If it is determined that the spirits of the dead approve the candidate, then those that are living will accept him as well. Traditional dances are performed and, to seal the selection, a special drum known as *kwenje* is played to signal to the people that the new chief has been installed. The Zambian government also accepts the chief by adding his name to an official list of chiefs which specifies the area he is to rule over. This is a process called *gazetting*.

Traditional ceremonies

When asked what distinguished the Senga from other groups such as the Tumbuka, several answers were given, but the most common response is that the Senga have their own important cultural ceremony called *kwenje*. *Kwenje* means “big drum”. The ceremony takes place during the first week of October. It is always held at the senior chief’s location in Kambombo. During the ceremony, there are different dances performed which are in commemoration of the ancestors.

Besides its use at the traditional ceremony, the *kwenje* drum is beaten only for four reasons: a funeral, to alert the people of a dangerous animal, if someone has gone missing in the bush, and for the installation of a new chief.

The *isopo* ceremony is held at the end of September at the chief’s palace. In preparation for this ceremony, traditional beer is brewed. This beer is then poured out as a libation at shrines. Some of the harvested crops from the previous years’ harvests are also placed in the shrines. Then the Senga pray to the ancestors for rain and often for more children.

One traditional Senga dance is called *chidiwiti* or *chidikiti*. It is used to express happiness and is performed by both men and women simultaneously. Two lines are made, one for men and boys and another for the women and girls. As a drum is played and songs begin, the men and women pair up with a member of the opposite sex, similar to ballroom dancing and usually of the same age group. They hold each other and dance two by two. Another dance called *visango* is performed only by girls or women but is also used to express joy and happiness.

2 Survey purpose and approach

2.1 Purpose of the survey

The purpose of this survey was to obtain information concerning the Senga people and their language in order to assess the need for a vernacular language development program. Such a program could include language development that the Senga people request and find useful for the advancement of their society and language, such as literacy programs, access to vernacular Scripture, and mother-tongue authorship of various materials.

The following questions outline the purpose of the survey:

1. Language Viability, Vitality, and Shift
 - 1.1 Is the Senga language alive and being widely used among all segments of society?
 - 1.2 Is the Senga language vital or necessary for all domains in the daily life of the Senga communities?
 - 1.3 Does a shift away from Senga to the use of another language appear likely in the future?
2. Dialectology
 - 2.1 What dialects of Senga are identified by the community?
 - 2.2 Are the various speech varieties mutually intelligible? Can speakers of all the dialects use the same literature and educational materials?

3. Relationship to other languages
 - 3.1 What are the lexical similarities between Senga and other languages such as Tumbuka, Bemba, and Bisa with which Senga is said to be related?
4. Church and community response to a language development project
 - 4.1 Would the Senga people use vernacular literature if it were available?
 - 4.2 Is the Senga community likely to support and respond well to a language project?

2.2 Survey approach

The surveyors worked in cooperation with the government and traditional leadership to obtain permission to do language survey in each region. To familiarize them with our work, we arranged meetings with traditional leaders and church leaders of the area. In each case, the survey questions were translated orally from English into Senga at the time of the interview for the participants. Responses were normally given in Senga, Tumbuka, Chewa, or English and the responses were written in English.

2.3 Selection of survey locations

We visited a total of thirteen wards in Chama District. Most of the data was collected along the main road, RD 105 that connects the five Senga chiefdoms which are in the heart of the Senga areas. Those five Senga chiefdoms are Kambombo, Chibale, Tembwe, Chikwa and Chifunda. Group Questionnaires were administered, and wordlists were collected in all five of the chiefdoms. Individual Questionnaires and Village Leader Interviews were also administered in all five chiefdoms.

Villages in which to gather data were selected largely upon their ease of access to the main road. There were many other Senga villages that are located away from the main road that the survey team was not able to visit. Of those along the road, villages were selected according to their social conditions, such as their centrality within the language community and their homogeneity. In other words, villages were chosen based upon what were the most centrally located Senga villages, or what were the best locations to find Senga speakers instead of randomly selecting a set of locations. Although this method does not present an equal and complete representation of the entire community, it was the most effective method for the purpose of this survey.

We are confident that the results of this survey are as accurate as possible with a minimal margin of error. Any survey has some margin of error because of mistakes, misinterpretations in the responses obtained, and inherent faults in the tools used. But these have been kept to a minimum by the methods used and by cross checking the results obtained from other researchers.

The greatest margin of error, nonetheless, is likely in the wordlist elicitation. Words from the wordlist could be misunderstood and or have a semantic domain that is not identical across languages. One example is “belly,” which could include meanings ranging from “belly,” “abdomen,” “stomach,” or “pregnancy.” Use of Zambian surveyors who had some knowledge of the language and culture helped to minimize many misunderstandings, although time did not always permit respondents to clearly understand the nuances of meanings that they were being asked. It is estimated that the margin of error could approach 2 percent for the wordlist elicitations but is likely less than 2 percent for the sociolinguistic portion of the survey.

2.4 Selection of participants

The categories for the selection of participants used were “young” (those who are fifteen to thirty-five years old) and “old” (those who are thirty-six years old and older). Respondents were classified as either “educated” (having completed Standard seven school level and above) or “uneducated” (Standard six school level and below). There was no other categorization such as by occupation since this was not significant to the survey (Bergman 1990; Wetherill 1995; Hasselbring 1996).

The questions in the survey often distinguished between “children” and “young people.” “Children” are those under the age of thirteen approximately, and “young people” are those who are between thirteen and roughly twenty-two years of age.

For the Group and Individual Questionnaires and Village Leader Interviews, all the participants were Senga. The average age of the participants in the Individual Questionnaires was forty years old. The youngest participant was sixteen and the oldest was seventy-nine years old. The average age of forty years old reflects that segment of the population known as “the keepers of the language” meaning that they are the ones who pass the language on to their children. The demographics in section 0 show that only 17 percent of the Senga population is thirty-five years of age or older. However, although this thirty-five-and-above age group does not represent the majority of the population, as “keepers of the language”, it does represent the most reliable segment of the population for the type of data that was collected.

The total sample size of all those directly involved in interviews or questionnaires was 205 people. This is miniscule compared to the number of Senga speakers. However, each of the sixteen village leaders represents hundreds of adults and with forty-eight Individual Questionnaires and 141 people involved in ten Group Questionnaires the sample size is calculated at 4.24 percent. This is still small but is adequate for the purposes of our survey. Moreover, each of the five chiefdoms were including in the survey, and two Group Questionnaires were conducted in each chiefdom giving a full sample size.

2.5 Individual Questionnaire

Forty-eight Individual Questionnaires were administered in twenty-six different locations. They were designed to collect information on the issues of language vitality and viability, language attitudes, and desire for vernacular materials. Mother-tongue usage in the home and neighborhood domains was investigated as the primary indicator of vitality.

2.6 Group Questionnaire

Ten Group Questionnaires were administered in five chiefdoms. Each group consisted of anywhere from six to thirty people. Several groups had an equal number of men and women. When men were present, they tended to give most of the responses. Most of the participants in the Group Questionnaires tend to be older rather than younger as the older members of the community are customarily called upon to represent and share information about the village or people.

The Group Questionnaire included questions about differences between dialects, language vitality and viability, attitudes towards the mother tongue, and attitudes towards the development of vernacular literature. Also included in the Group Questionnaire was a dialect mapping exercise as described by Hasselbring (2010). Dialect mapping helped to clarify the relationships between varieties of Senga and the bordering languages and to obtain an insider’s perspective on intelligibility between the speech varieties.

Group Questionnaires were given at each of the following locations in these five chiefdoms:

Kambombo chiefdom:	Lyetuba village Nthowaimo village
Chibale chiefdom:	Malama village Chibale school
Tembwe chiefdom:	Mbubeni village Tembwe village Chitheba village
Chikwa chiefdom:	Chiponda village
Chifunda chiefdom:	Muzumbwa village Mazakabinga village

2.7 Village Leader Interview

Sixteen Village Leader Interviews were conducted. These included interviews with fifteen village headmen and one pastor. These interviews gather information on the demographics of the villages, including the villages' composition of different ethnic groups, as well as development, religious, educational, and language development issues.

2.8 Wordlists

Analysis of wordlists, or lexicostatistics, is used to determine the relatedness of languages.

A language may split into two (or more) dialects, [and] later [develop into] two [distinct] languages. As they move through time, they share progressively less vocabulary. The more vocabulary they share, the more recent the split; the less they share, the more distant the split. Lexicostatistics is based on counting these shared words and is thus a measure of lexical similarity and retention (Nurse 2001:28).

For this study, we collected a wordlist of 202 words from each of the five chiefdoms. The wordlists were double-checked for accuracy. Then they were entered into the WORDSURV program for lexicostatistical analysis and phonostatistical comparisons. The three varieties of Senga were compared with each other. Comparing these lists from different dialects within a language helps to know their relatedness. This is especially important in determining whether more than one language development project is needed in a language group or if the speakers of each dialect may use a common translation.

The same wordlist was used for phonological and lexical comparisons to the related languages Tumbuka, Bisa, Bemba, Chewa, and Kunda. Tumbuka, Bisa, Bemba, and Chewa share borders with Senga, by far the longest border and the greatest influence being Tumbuka. Kunda was included because of its historical ties to Senga since they both claim lineage from Bisa. Chewa was included not because of its linguistic relatedness but merely as a matter of interest and its common border.

According to the *Ethnologue* (Lewis, et al. 2013),

The percentage of lexical similarity between two linguistic varieties is determined by comparing a set of standardized wordlists and counting those forms that show similarity in both form and meaning. Percentages higher than 85 percent usually indicate a speech variant that is likely a dialect of the language with which it is being compared. Unlike intelligibility, lexical similarity is bidirectional or reciprocal.

The analysis of wordlists in this survey will be examined in relation to this 85 percent lexical similarity. The number is a debatable limit, but it provides a point of demarcation between what is considered a distinct language and what is considered to be a dialect or variation of a language.

3 Results and data analysis

The Individual Questionnaire was used to collect the responses to fifty-eight questions from each respondent. Not every person answered every one of the fifty-eight questions. In several instances, such as in a “yes or no” question, the follow-up question was only answered by a subset of the respondents because the follow-up question may or may not have applied to that individual. The responses from these ten open-ended questions were analyzed separately. Responses from the remaining forty-eight questions were tabulated in a spreadsheet for comparison and totaled in various ways. These results are given in the sections that follow.

From the forty-eight questions that were tabulated twenty-eight questions were selected for special consideration and divided into three categories: language viability, language vitality, and language shift. Often it is impossible to separate data that supports one of these three categories from the other two categories because they are all interrelated. Simple definitions to keep in mind are the following:

Language viability—how alive a language is, that is, how much it is used in daily life.

Language vitality—how important a language is in the community.

Language shift—when a community stops using one language to begin using another.

3.1 Language viability

Language viability is how well a language is thriving or how “alive” it is. The opposite of a viable language is one that is being used less and less, is dying, or becoming extinct. Survey questions related to this focus upon the language which is being studied as opposed to questions on language shift which focus upon other languages that the language being studied is in contact with.

Some summary statements regarding Senga language viability are:

- Ninety-six percent of adults speak only Senga to their children at home.
- Ninety-six percent of the children respond to adults using Senga at home.
- Ninety-six percent said that children use Senga when playing together with other children.
- One hundred percent said that Senga alone is used when the Senga people gather together.

Details of the above summary statements are as follows:

The primary indicator that a language is no longer serving a community is when children no longer use the language, and parents speak it only to older people. At that point, the language is in danger of dying and will likely be replaced by another language within a generation. When asked what language adults use with children at home 96 percent of adults responded that only Senga is used.¹⁸ Two respondents said that they speak Senga and another language, Chewa or English, at home with their children. Table 6 indicates these findings.

Table 6. Languages adults use when speaking to children at home

Only Senga	Senga and Chewa or Senga and English
96%	4%

When asked what language the children respond to at home, the results were identical to the above question.¹⁹

Table 7. Language children respond to adults in at home

Only Senga	Senga and Chewa or Senga and English
96%	4%

When asked what language children use when playing with other children, the results were identical to the above as well; however, instead of English, Tumbuka was also a language that children might use.²⁰

Table 8. Language children use when playing

Only Senga	Senga and Chewa or Senga and Tumbuka
96%	4%

When asked what language those interviewed use with friends of the same age, 98 percent used only Senga and the remaining 2 percent responded that they use Senga and English.²¹

¹⁸ Appendix D, Individual Questionnaire 3.1(a).

¹⁹ Appendix D, Individual Questionnaire 3.1(b).

²⁰ Appendix D, Individual Questionnaire 3.7.

²¹ Appendix D, Individual Questionnaire 3.2(a).

Table 9. Language adults use when speaking with friends

Language adults use when speaking with friends	
Senga	Senga and English
98%	2%

When asked what language is used when the Senga people gather in the evening and talk, all the respondents said only Senga.²²

Table 10. Language used when Senga people gather

Language used when Senga people gather
Senga
100%

3.2 Language vitality

Language vitality considers how important or necessary the language is to the daily life of the people. If other languages work just as well or are being used in certain contexts, then the first language is said to have lost some of its vitality. For example, if the Senga people do not use their language for a particular aspect of life, such as praying, then we can say that Senga has lost some of its vitality. According to SIL, language vitality is “demonstrated by the extent that the language is used as a means of communication in various social contexts for specific purposes.”²³

Besides the points above on language viability that also apply to language vitality, some additional summary points are as follows:

- Nine-eight percent of the respondents said that Senga was sufficient to express all their thoughts, and 100 percent said that an argument, such as a dispute in court, could be totally resolved by using Senga.²⁴
- Eighty-eight percent said that in a religious domain, such as praying, they would use Senga alone, while 12 percent of the respondents would use another language either with or without Senga when praying.²⁵
- Ninety-eight percent said they use Senga to discuss politics with other Senga.²⁶

Details on the above three summary statements are as follows:

Regarding language use in different domains, in response to “What language is used to resolve an argument in court?”, for example, all the respondents said they would use their mother tongue Senga. However, the second choice of language, if they had to use another language, was English. Twenty-five percent of the respondents said if they had to use another language it would be English. Bemba and Chewa tied the second most popular choice. Twenty-one percent of the respondents said that if they had to use another language it would be Bemba or Chewa. Only 12.5 percent of respondents said they would use Tumbuka as a second language in court.²⁷ Table 11 includes all the languages cited when this question was asked.

²² Appendix D, Individual Questionnaire 3.14(a).

²³ SIL Language Assessment. Language Vitality. 2015. <http://www.sil.org/language-assessment/language-vitality>. Accessed 10 April 2019.

²⁴ Appendix D, Individual Questionnaire 3.14(a) and 3.15(a).

²⁵ Appendix D, Individual Questionnaire 3.9 and 3.5(a).

²⁶ Appendix D, Individual Questionnaire 3.6.

²⁷ Appendix D, Individual Questionnaire 3.15(b).

Table 11. Second languages used in court

Language used besides Senga to resolve an argument in court			
English	Bemba	Chewa	Tumbuka
25%	21%	21%	12.5%

When asked what language is used for religious functions such as praying for a sick person, 88 percent said Senga alone is used, while another 4 percent said that both Senga and another language such as Tumbuka, Bemba, or English are used. Six percent said that Tumbuka alone is used.²⁸ Some reasons given as to why other languages are used are because the Bible is in print in these languages.²⁹

Table 12. Language used for religious purposes

Language used for religious purposes			
Senga alone	Senga and some other language	Tumbuka	Bemba
88%	4%	6%	2%
92%		8%	

Nine factors which are used to judge low language vitality (Bergman 2001) include the following:

1. Generational shift. Obviously, if children no longer speak the language, that language has low vitality and is likely going to be lost within a generation.
2. Lack of homogeneity. A language exhibits low vitality when one or more surrounding language groups intermingle with the group in a way that there is now a mixture of languages being used within the population. This is especially true when the language used by the children shows a lack of homogeneity.
3. Small proportion of speakers within the ethnic group. The language exhibits low vitality if only a portion within the broader ethnic group uses the language.
4. Small population for the region. The smaller the number of speakers spread over a geographical area is directly related to the vitality of a language.
5. High proficiency in a second language. If there is a high proficiency in a second language, the speakers will find it easier to shift away from using their first language.
6. Positive attitude toward a second language. If the second language is perceived as advantageous, this could be a factor that adversely affects the vitality of the first language.
7. Not used in the religious domain. The language not being used in religious practices shows a lack of vitality.
8. If the vernacular is not strategic in reaching the people at the deepest level, that language has low vitality.
9. If formal education is not offered in the vernacular, but instead is widespread in a language of wider communication the vitality of the vernacular can be threatened.

Regarding homogeneity, it was explained in section 1.5 that 84 percent of the villages in which data was gathered were found to be 100 percent Senga, and those that are not purely Senga have a very small percentage (less than 2%) of the population which are not Senga.

After studying the above results, table 13 is an attempt to express the overall impressions of the surveyors for where Senga may be in regard to these nine indicators of language vitality.

²⁸ Appendix D, Individual Questionnaire 3.5(a).

²⁹ Appendix D, Individual Questionnaire 3.5(b).

Table 13. Nine indicators of Language Vitality for Senga

	Factor	Vitality	Lack of vitality
1	Generational shift	Parents speak to children in Senga	
2	Lack of homogeneity	Low degree of mixture in villages	
3	Small proportion of speakers within the ethnic group ³⁰	High proportion	
4	Small population for the region		Small population of speakers (79,546) relative to other Bantu groups
5	High proficiency in a second language.		Yes, most often in Tumbuka
6	Positive attitude toward a second language.	Not opposed to other languages but proud of their own	
7	Use in the religious domain.		No written scriptures in Senga
8	Use of vernacular not strategic for reaching the people at the deepest level.	Use of the vernacular is very important for cultural identity.	
9	Education in a language of wider communication is widespread.		Yes, in Chewa
	Total	5	4

From this attempt, we see that Senga has just one more factor indicating its vitality as opposed to its lack of vitality. The feeling is that the Senga language is likely to be around for a long time but will face continued gradual loss of status and vitality in the coming generations.

3.3 Language shift

Language shift is the process whereby a language community gradually stops using one language in favor of using another language. This obviously occurs when the language community has a large amount of influence or contact with a second language community. Language shift research focuses upon the speakers' attitudes toward their own language as well as their attitude towards the second language that they may be shifting to using. It includes, for example, studying in what domains speakers use each language (Ravindranath. 2009:1).

Some summary statements related to language shift among the Senga found in this survey are:

- Nineteen percent of the Senga interviewed said they do not know any other language.³¹
- Tumbuka and Bemba are the predominant second languages for Senga speakers.³²
- Only 7 percent of adults married someone of another language group.³³
- One hundred percent of the Senga people said that their grandchildren would continue to speak Senga.³⁴

³⁰ Bergman (2001) cites Grimes (1986) who suggested that, when a group becomes sufficiently small, they are in danger of being absorbed by a larger population. There is a critical size, below which a language is less likely to maintain itself. This critical population size for Africa is 10,000 language speakers.

³¹ Individual Questionnaire, question 1.4.

³² Individual Questionnaire, question 1.5(a).

³³ Individual Questionnaire, question 1.2(d).

³⁴ Individual Questionnaire, question 4.8.

- Only 13 percent of adults believed that young people are leaving Senga to use other languages.³⁵
- Rather than Tumbuka being the most likely language to which the Senga speakers are switching, Nyanja was chosen by the majority (60%) of the respondents who said that children were leaving Senga to speak another language.
- Every group responded that they are proud of the Senga language and want to hold on to it.

Following are the details on the above summary statements:

For the nine out of forty-eight respondents (19%) who said that they do not know any other language besides Senga, we looked further to see if they were only very old people. Four of the nine were in the “young” category, that is, below thirty-five years of age. Their ages were sixteen, eighteen, nineteen, and twenty-one years old. The average age of the nine respondents who did not know any language but Senga, was thirty-eight years old. This, and other factors, suggest that a significant percentage of the population is monolingual.

From the Individual Questionnaires it was found that 93 percent of the married Senga are married to another Senga person. Only 7 percent of the Senga people have a spouse from another language group, from Namwanga, Ngoni, or Nyika.³⁶

When participants in the Group Questionnaires were asked how often intermarriage with other language groups occurs, 70 percent said it occurred rarely. Sixty percent concluded that it was good to marry outside of your language group. Forty percent decided that it was bad to do so. Intermarriage may not necessarily be a clear indicator of language loss because, whether it influences language shift, depends, of course, upon whether it is a Senga man or a Senga woman that is marrying an outsider. It is usually the mother’s language that is taught to the children first, but it also depends upon where the intermarried couple resides. However, compared to four surveys among other people groups we have done in Zambia, it can be shown that a high level of intermarriage means that there is usually a greater degree of language shift occurring in the society. In other words, the more positive a relatively small language group’s attitude is to intermarriage, the more likely their language is going to be influenced towards language loss simply because they are a minority in comparison to larger, more influential language groups such as Bemba, Tonga, Lozi, or others across Zambia.

The Senga language like other minority languages in Zambia could face decline due to several factors. A major factor is the government’s endorsement of only seven official languages for use in Zambia’s primary and secondary school system. Chewa is the language taught in schools in Zambia’s Muchinga Province where the Senga reside. The Zambian government in 2014 decided that instruction in primary schools from grades one to four should be predominantly in one of the vernacular languages. The amount of English used in these grades should gradually increase so that, by grade five, children, having learned in the vernacular the concepts of reading and other cognitive skills, can then become better learners in a second language such as English. After grade four, English is the primary medium for teaching, but the vernacular, in this case Chewa, remains a separate and compulsory subject in all grades of primary schools. Secondary schooling is dominated by the use of English, although Chewa can be taken as an elective course. If other languages, beyond the present seven now permitted, were used in schools it would help other languages, such as Senga, to be less threatened.

But, in comparing the linguistic situation of Senga with other groups in Zambia, such as the Soli [sby] of Zambia’s Lusaka Province, the Senga language is more stable. The Soli people have a higher exposure to and influence from the Chewa language due to the Soli areas being bisected by a road that is Zambia’s major trade route to and from Malawi. When the Soli were surveyed, 92 percent of them believed that their language community was shifting to another language, while only 13 percent of the Senga believe that their children are leaving their language.^{37, 38}

³⁵ Individual Questionnaire, question 3.12(a).

³⁶ Individual Questionnaire, question 1.2(d). Fourteen out of thirty-three respondents that were married have a Senga spouse.

³⁷ Individual Questionnaire, question 3.11(b). Eleven out of the twelve responses said “Nyanja.”

³⁸ Individual Questionnaire, question 3.12(a).

Table 14. Young people leaving Senga for other languages

Are young people leaving Senga for other languages only?	
Yes	No
13%	87%

Of the 13 percent of the respondents who said that young people are leaving Senga to speak another language, 60 percent said they are leaving Senga to speak Nyanja, 20 percent included Bemba as an option and Tumbuka and English were chosen 10 percent of the time.³⁹

Table 15. Languages children are switching to use

Languages children are switching to use besides Senga			
Nyanja	Bemba	Tumbuka	English
60%	20%	10%	10%

However, in the Group Questionnaires when the question was asked, “What language will the children of your children speak?” One hundred percent said that their grandchildren would continue to speak Senga.⁴⁰

Senga is the language most often used by adults in a variety of settings. When asked what other languages adults know, we found that Tumbuka and Bemba were the next most commonly used neighboring languages. Twenty-seven out of the 48 respondents included Tumbuka as a second language that they know, and 25 included Bemba.⁴¹ Because the sampling size was so small, the difference between Tumbuka and Bemba here is inconsequential. The results in 0 were collected. Percentages total more than 100 percent because respondents could include more than one language as an answer.

Table 16. Second neighboring language adults know

Second neighboring language adults know				
Tumbuka	Bemba	Nyanja	Namwanga	Nyika
56%	52%	23%	10%	1%

When asked if there are Senga people who do not know how to speak Senga well, 55 percent of the respondents said that they are familiar with such people.⁴² Most often respondents will say that such people live in larger towns where the language is not spoken. A number of respondents said that there are some Senga people scattered in other villages as well who do not know Senga well. The reason cited for this was that these people had grown up outside the Senga areas and have now moved back.

Speaking one’s vernacular language is an important part of a Zambian’s heritage. To explore the people’s attitudes towards their language and cultural ties, we asked if there are people who are ethnically Senga yet do not speak Senga and instead speak other languages. Seven of the nine, or 78 percent, of the groups interviewed said that there were. Most often they explained that this was due to people living in towns or in villages far from Senga land.⁴³ When asked if a person was still a Senga if they could not speak the language, an equal number of respondents said that a person was no longer considered to be Senga compared to those who said that such a person was still Senga.⁴⁴ This is in contrast to some other groups we have surveyed such as the Batwa and the Kunda. They tend to be more inclusive with who they consider to be a member of the language group.

³⁹ Individual Questionnaire, question 3.12(b). Since more than one answer was given, the percentages can total more than 100 percent.

⁴⁰ Group Questionnaire, question 4.8.

⁴¹ Individual Questionnaire, question 1.5(b).

⁴² Individual Questionnaire, question 3.16(a).

⁴³ Group Questionnaire, questions 4.3, 4.4.

⁴⁴ Individual Questionnaire, questions 3.16(a), (b), (c); 3.17.

Table 17. Comparison of language attitudes

If someone no longer speaks the mother tongue are they still a member of the language group?							
Senga		Toka-Leya		Batwa		Kunda	
Yes	No	Yes	No	Yes	No	Yes	No
55%	45%	50%	50%	88%	13%	84%	16%

From this, we can postulate that groups like the Batwa, in which the language has a much higher degree of endangerment, are more likely to include those who do not know the language. They are open to others being in their group, even though they may have lost the language identity battle and they want to claim the membership of those who have already shifted to speaking a different language. On the other hand, groups, in which the language is less threatened, are more likely to deny membership to those who no longer can speak the language. They can afford to do this; while groups that are more endangered cannot afford to exclude them. In other words, a greater level of exclusiveness in language attitudes would indicate a lower level of endangerment of the language. From this we conclude that Senga is less endangered than Batwa or Kunda.

One hundred percent of those who took part in the Group Questionnaires said that the children were speaking the language correctly and the same percentage said that the young people (those between 13 to twenty years old) were speaking the language correctly.⁴⁵ As already mentioned, 100 percent of the Senga people believed that their grandchildren would be speaking Senga.⁴⁶

Fifteen headmen and one pastor gave responses through Village Leader Interviews. One question asked about developmental needs. The most requested needs for development were roads, bridges, and improved transportation, requested by 69 percent. The next highest developmental need was for education. Sixty-three percent of respondents of the Village Leader Interviews included education as a major need for development. Some who included this as a major need specifically mentioned the need for books that are written in Senga. Not having anything printed in Senga is a significant factor. Equal with education and books in Senga was the request for water for human consumption. Health care, such as the need for clinics, was expressed 50 percent of the time.⁴⁷

Every group felt without a doubt that it was important to keep speaking Senga and they expressed great pride in their language.⁴⁸ They do not think that the Senga people will stop using Senga to speak only some other language. None of the groups we interviewed said they have ever seen anything published in Senga, except for one that said that a storybook was written in Senga a long time ago. All were very enthusiastic about the possibility of having something written.⁴⁹

3.4 Wordlists results

3.4.1 Lexicostatistical comparison within Senga speech varieties

Eighty percent of the people responding to the Senga Group Questionnaires agreed that there are dialect variations in their language. Ninety percent said that they could tell where a person is from by how they spoke the language.⁵⁰ The most common differences expressed are differences in vocabulary and pronunciation.

Most people responding to the Group Questionnaires said that the purest form of the language is spoken in the chiefdom in which they themselves are located. An exception to this is the Chibale chiefdom which said that the purer form of Senga is spoken in Kambombo chiefdom. Tembwe chiefdom

⁴⁵ Group Questionnaire, questions 4.1 and 4.2.

⁴⁶ Group Questionnaire, question 4.8.

⁴⁷ Village Leader Interview, question 7.3.

⁴⁸ Group Questionnaire, questions 4.9, 4.10(a).

⁴⁹ Group Questionnaire, questions 6.1 and 6.2.

⁵⁰ Group Questionnaire, questions 2.6, 2.8.

also said Kambombo chiefdom had the purer form of Senga, but they maintained as well that Tembwe had what they considered to be pure Senga.

A wordlist of 202 words was collected from each of the five chiefdoms. The percent of similarity for each of the five varieties is shown in table 18. Highest values are marked with a darker highlight and lowest values with a lighter shade of color.

Table 18. Percent of lexical similarity among Senga varieties

Senga Variety	Kambombo	Chibale	Tembwe	Chikwa	Chifunda
Kambombo	100	77	87	79	77
Chibale	77	100	82	78	76
Tembwe	87	82	100	84	83
Chikwa	79	78	84	100	85
Chifunda	77	76	83	85	100

Table 19 shows the five varieties reorganized from the highest to lowest percent of lexical similarity for the ten pairs of possible comparisons.

Table 19. Highest to lowest lexical similarities of Senga varieties

Highest to Lowest Similarities of Senga Varieties		
Varieties	Percent similarity	Percent difference
Kambombo – Tembwe	87	13
Chikwa – Chifunda	85	15
Chikwa – Tembwe	84	16
Tembwe – Chifunda	83	17
Tembwe – Chibale	82	18
Kambombo – Chikwa	79	21
Chikwa – Chibale	78	22
Kambombo – Chibale	77	23
Kambombo – Chifunda	77	23
Chifunda – Chibale	76	24
Average	81	19

Table 19 shows that the overall average lexical similarity between all the five dialects is 81 percent. In comparison with Chitwa⁵¹, another language in Zambia, its three varieties have 93 percent similarity, Toka-Leya⁵² has 88 percent similarity with the three varieties that were surveyed, and Soli and Kunda⁵³ each have 86 percent similarity with the Senga varieties.

The above results show that in the simplest analysis, the Kambombo and Tembwe dialects are the most closely related dialects, sharing 87 percent lexical similarity. The percentage of lexical similarity between the Chifunda and Chibale is the lowest among any two varieties at 76 percent. As mentioned above, the speakers of most chiefdoms said that their form of the language was the purest form of Senga;

⁵¹ Sawka, et al. August 2013.

⁵² Sawka, et al. November 2013.

⁵³ Sawka, et al. 2006.

however, the Kambombo variety was also mentioned by two chiefdoms as also having the best-spoken form of Senga.⁵⁴

To carry the analysis further, we can investigate how geographical distance affects the lexical similarity between these five dialects. One would expect that if there were no other factors involved (such as political allegiances, non-uniform trade routes, or irregular geographical barriers), that the farther apart two dialects are the greater their lexical difference would be.

Table 20 shows the varieties reorganized according to their distance from each other. The Chifunda and Chibale chiefdoms, for example, are at the extreme north and south limits of the Senga areas, separated by 227 kilometers of difficult roads. They understandably have the highest percentage of lexical difference (24%). However, the Kambombo and Tembwe dialects have the lowest percentage of difference (13%) but are not the closest geographically.

Table 20. Lexical similarities of Senga varieties sorted by geographical distance between them

Senga varieties sorted by geographical distance			
Varieties	Percent similarity	Percent difference	Distance in Km
Chikwa – Chifunda	85	15	36
Chikwa – Tembwe	84	16	42
Kambombo – Tembwe	87	13	60
Tembwe – Chifunda	83	17	78
Kambombo – Chibale	77	23	89
Kambombo – Chikwa	79	21	102
Kambombo – Chifunda	77	23	138
Tembwe – Chibale	82	18	149
Chikwa – Chibale	78	22	191
Chifunda – Chibale	76	24	227
Average	81	19	111

To carry the analysis further, we can investigate how the factor of geographical distance affects the lexical similarity between these five dialects. One would expect that if there were no other factors involved (such as special political allegiances, traditional trade routes, or geographical barriers between the dialects) that the farther apart two dialects are the greater their lexical difference would be. By dividing the lexical similarity by geographical distance, we can get a more even comparison between the three dialects.

In our study, we have divided the percent of lexical similarity between the dialects by the distance between those two dialects are from each other. The lower the result, the more similar those two dialects are to each other regardless of their geographical distance.

Table 21 shows the results organized according to the correlation of lexical similarity divided by geographical distance.

⁵⁴ It is not always the case that what is considered to be the purest form of a language would have the highest lexical similarity with other varieties. In some languages, such as Kunda, in which there is an invasion of neighboring languages into the border varieties, what is considered the purest form of the language actually has the least similarity with other speech varieties. In the Kunda language, the Nsefu variety is considered the purest form of the language but has the least similarity with all the other varieties studied as it has shielded itself from the influence of other languages more than the other varieties did (Sawka, et al. November 2013:34.).

Table 21. Lexical similarities of Senga varieties sorted by the correlation of lexical difference divided by geographical distance

Senga varieties sorted by lexical similarity divided by geographical distance				
Varieties	Percentage of similarity	Percentage of difference	Distance in Km.	Correlation of lexical similarity divided by distance
Chifunda – Chibale	76	24	227	0.335
Chikwa – Chibale	78	22	191	0.408
Tembwe – Chibale	82	18	149	0.550
Kambombo – Chifunda	77	23	138	0.558
Kambombo – Chikwa	79	21	102	0.775
Kambombo – Chibale	77	23	89	0.865
Tembwe – Chifunda	83	17	78	1.064
Kambombo – Tembwe	87	13	60	1.450
Chikwa – Tembwe	84	16	42	2.000
Chikwa – Chifunda	85	15	36	2.361
Average	81	19	111	1.037

Table 21 shows the five varieties reorganized from the lowest correlation of lexical distance divided by distance, to the highest value. The results are surprising and show that the Chifunda dialect at the extreme south of the Senga area has the highest lexical similarity with the Chibale dialect, which is at the far north of the Senga territory, when the similarities are factored for distance. Likewise, Chibale factored in the top three (lowest correlation values) sharing high lexical similarity with Chikwa and Tembwe when distance is factored in. The Chikwa and Chifunda varieties which have the lowest geographical distance between them (36 km) are the least similar when their shared lexical similarity percentage is divided by distance.

The fact that the correlation values are not closer to one another shows that the differences between the dialects are not exactly linear in relation to their geographical distances from each other. This indicates that there are factors, other than simple geographical distance and shared words, which influences the differences between these dialects. Figure 3 is a rough diagram showing the five chiefdoms that were surveyed with distances and percentage of lexical similarity between each. The highest percent of lexical similarity and the highest distance between chiefdoms are shown in bold font.

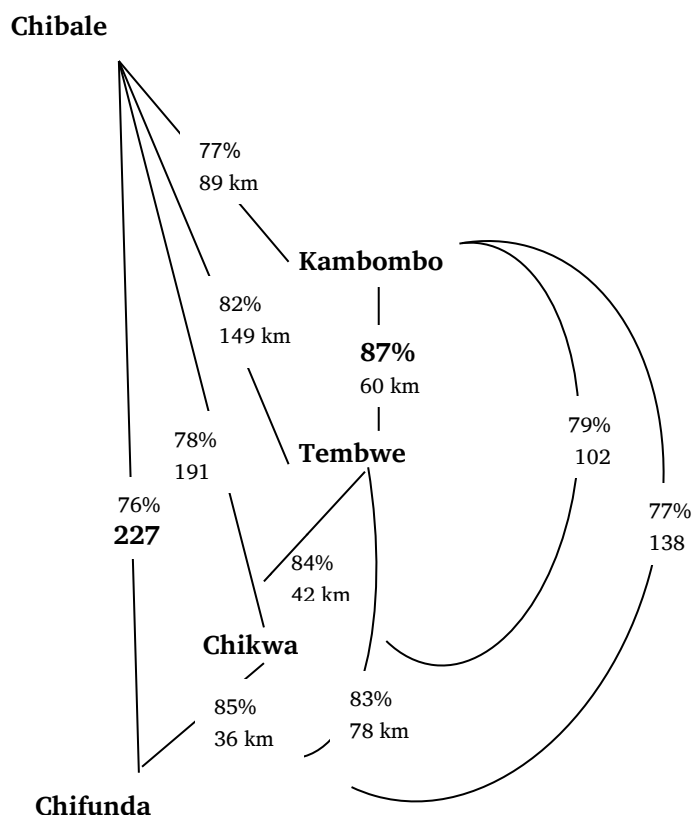


Figure 3. Depiction of distances and lexical similarity of Senga speech varieties.

3.4.2 Phonostatistical comparison within Senga speech varieties

Besides the lexicostatistical analysis, a phonostatistical comparison was made as well, using the WORDSURV program. The phonostatistical analysis calculates the average percentage of difference per correspondence of phonetic segments. The WORDSURV program exports this analysis as the degrees of difference values divided by the correspondences value. Therefore, the lower the ratio, the closer the similarity is between the two varieties.⁵⁵ However, for our purposes and to more easily show the correspondences to the lexicostatistical data, we converted the ratios to percentages. Table 22 shows the percentages of phonostatistical similarity between the varieties of Senga.

Table 22. Phonostatistical percentage analysis results for Senga varieties

Variety	Kambombo	Chibale	Tembwe	Chikwa	Chifunda
Kambombo	100	97	94	92	94
Chibale	97	100	94	90	91
Tembwe	94	94	100	93	92
Chikwa	92	90	93	100	95
Chifunda	94	91	92	95	100

Surprisingly the Chibale and Kambombo varieties have the highest phonostatistical ratio. This means that, among the five varieties compared, these two varieties shared the highest number of phonemes. This was true even though their lexical similarities were only 77 percent. Put into less

⁵⁵ WORDSURV 6.0.2. 2006:32.

technical terms, while these two varieties may only share about 77 percent of their vocabulary, the choice of vowels and consonants that are used to form words by these two varieties is as high as 97 percent similarity. The average for the phonostatistical analysis for all the varieties was 93 percent.

Table 23 shows the percentages of lexical and phonostatistical similarity between the varieties of Senga.

Table 23. Lexical and phonostatistical similarities for Senga varieties

Senga lexical & phonostatistical similarity		
Varieties	Lexical similarity	Phonostatistical similarity
Kambombo – Tembwe	87	94
Chikwa – Chifunda	85	95
Chikwa – Tembwe	84	93
Tembwe – Chifunda	83	92
Tembwe – Chibale	82	94
Kambombo – Chikwa	79	92
Chikwa – Chibale	78	90
Kambombo – Chibale	77	97
Kambombo – Chifunda	77	94
Chifunda – Chibale	76	91

From table 23, we can see that the phonostatistical similarity generally follows the lexical similarity with some exceptions, such as the Kambombo – Chibale and the Kambombo – Chifunda comparisons. With the results given, we cannot be sure of why these anomalies occur, but the phonostatistical similarities do indicate that these varieties do indeed form one language.

3.4.3 *The most linguistically central Senga variety*

The comparison among varieties is important when making decisions as to what variety of Senga will be most understood by the largest portion of the Senga population. For example, if Chibale is chosen as the variety for written materials, the population of the Chifunda chiefdoms could perhaps understand only 76 percent of the vocabulary.

Another analysis of Senga varieties is shown in table 24. The percentage of lexical similarity for the five varieties of Senga as shown in 0 (page 29) are organized into separate columns and totaled as shown in table 24.

Table 24. Percentage of lexical similarity organized for each Senga variety

	Chibale	Chifunda	Chikwa	Kambombo	Tembwe
Chifunda – Chibale	76	76	--	--	--
Chikwa – Tembwe	--	--	84	--	84
Chikwa – Chibale	78	--	78	--	--
Chikwa – Chifunda	--	85	85	--	--
Kambombo – Chibale	77	--	--	77	--
Kambombo – Chifunda	--	77	--	77	--
Kambombo – Chikwa	--	--	79	79	--
Kambombo – Tembwe	--	--	--	87	87
Tembwe – Chibale	82	--	--	--	82
Tembwe – Chifunda	--	83	--	--	83
Total	313	321	326	320	336
Average	78	80	82	80	84

The totals above show that the Tembwe variant has the highest total lexical similarity compared to the other four variants, but the other three variants, Kambombo, Chikwa, and Chifunda are not far behind. These other variants all have a difference of no more than 13 total points, or 4 percentage points. The Chibale variant has the lowest total similarity and it would not be a good candidate as a variant which would be most understood by the greatest number of Senga speakers. In summary, Tembwe, Kambombo, or Chikwa variants may be the best alternatives for reaching the largest number of Senga people. However, as mentioned in section 3.4.1, some of the Group Questionnaire responses pointed to Kambombo as the location in which the best form of the language is spoken.⁵⁶ For reasons of status then, as well as the evidence of lexical similarity, the Kambombo variant, could be the best choice as a medium to reach all Senga areas.

3.4.4 *Comparison of Senga with other languages*

Senga will be compared to Bemba, Bisa, and Tumbuka because of their historical connections as explained in section 1.3. Chewa and Nyika are included because they share a common border with Senga areas. Since Kunda of Mfuwe District reportedly shares a common heritage from Bisa, it is also included. Two variants of Kunda, Kunda-Nsefu and Kunda-Malama were analyzed separately but, to simplify, the results in table 25 are shown combined into one average. Nsenga is included partly because of its close relationship with Kunda, but more so to establish that it is unrelated to Senga, despite the similarity in names. Chikunda is probably the least related language and it is included as a control to show how different other Bantu languages are to each other.

⁵⁶ Group Questionnaire, question 2.10(a).

Table 25. Lexical similarity of Senga varieties compared to other languages

	Senga Variety					
	Kambombo	Chibale	Tembwe	Chikwa	Chifunda	Average
Bemba	46	43	47	44	48	45.6
Bisa	44	41	45	42	44	43.2
Tumbuka	72	70	73	69	72	71.2
Nyika	24	23	23	21	24	23
Chewa	41	40	41	39	40	40.2
Nsenga	47	45	48	44	47	46.2
Kunda	45	44	46	45	46.5	45.3
Chikunda	35	35	36	34	35	35

This shows that of the eight languages compared to Senga, Tumbuka shares the highest lexical similarity at 71.2 percent. Considering that Senga has been classified by the *Ethnologue* as a dialect of Tumbuka and that, normally, dialects of a language have 85 percent or more lexical similarity, this lexical similarity of 71.2 percent is low.

It is also worth noting that Senga shares only 43.2 percent lexical similarity with Bisa and 45.6 percent with Bemba. We had been told that Senga is a mixture of Tumbuka and Bemba. This is true. However, if we took the percentage of lexical similarities of Tumbuka to Senga and of Bemba to Senga, the ratio of Tumbuka in Senga as compared to Bemba in Senga is 1.56 to 1. Simply stated, Senga shares about one and a half times as many Tumbuka words as it does Bemba words.

If we take table 25 and reorder it from the highest to lowest lexical similarity to Senga, the results in table 26 are obtained.

Table 26. Lexical similarity of Senga varieties compared to other languages sorted from highest to lowest

	Senga Variety					
	Kambombo	Chibale	Tembwe	Chikwa	Chifunda	Average
Tumbuka	72	70	73	69	72	71.2
Nsenga	47	45	48	44	47	46.2
Bemba	46	43	47	44	48	45.6
Kunda	45	44	46	45	46.5	45.3
Bisa	44	41	45	42	44	43.2
Chewa	41	40	41	39	40	40.2
Chikunda	35	35	36	34	35	35
Nyika	24	23	23	21	24	23

Surprisingly, Nsenga has a slightly higher lexical similarity than Bemba and Bisa. It has a slightly higher lexical similarity than Kunda as well, even though both Kunda and Senga claim to have a common origin from Bisa. Regardless of these numbers, we do not think that Senga and Nsenga are related historically but that the similarity in names is coincidental.

Nyika, although it shares a common border, has the lowest lexical similarity with Senga. It is surprising that Chewa has not exerted more influence upon Senga and that is despite it having a common border with Senga.

When the participants in the Group Questionnaires were asked which language is most like Senga, eight out of nine groups (88%) said that the Tumbuka language was the language most like Senga. One group included Bisa as well, and another group included Namwanga. According to the results shown in table 25, Bemba should have been mentioned. Since the Senga people do not have contact with the

Kunda or Nsenga, it is understandable how these two groups were not mentioned. Tumbuka is by far the most like Senga in the minds of those questioned as well as according to the analysis of the wordlists.

3.4.5 Comparison of languages other than Senga

Table 27 shows an average of all the Senga varieties combined into one average and all the other eight languages compared to each other.

Table 27. Lexical similarity of Senga and other languages

	Bemba	Bisa	Senga	Tumbuka	Nyika	Chewa	Nsenga	Kunda	Chikunda
Bemba	100	84	46	37	21	30	47	49	29
Bisa	84	100	43	35	20	30	44	48	28
Senga	46	43	100	71	23	40	46	45	35
Tumbuka	37	35	71	100	26	48	45	40	37
Nyika	21	20	23	26	100	22	22	23	21
Chewa	30	30	40	48	22	100	56	46	56
Nsenga	47	44	46	45	22	56	100	70	46
Kunda	49	48	45	40	23	46	70	100	40
Chikunda	29	28	35	37	21	56	46	40	100

Nyika was included because it is spoken near Senga territory, but the two languages do not share a common border. A wordlist was obtainable, and we wanted to explore if there was any linguistic relationship. It was found that Nyika shared the lowest lexical similarity with Senga of the eight languages compared, only 23 percent. Nyika had the lowest lexical similarity with any of the eight languages, only 20 percent lexical similarity with Bisa. Chewa is included, not because it is considered closely related but because it shares a border and is one of Zambia's most influential languages. Chewa has 40 percent lexical similarity with Senga.

Table 28 sorts the lexical similarity of these nine languages from highest (most related) to lowest (least related). Comparisons with Senga are in bold font.

Table 28. Sorted lexical similarity comparison of languages other than Senga

Nine-language ranking by lexical similarity			
Ranking	Language pair	% Lexical similarity	Grouping
1	Bemba – Bisa	84	High lexical similarity
2	Senga – Tumbuka	71	
3	Nsenga – Kunda	70	
4	Nsenga – Chewa	56	Medium lexical similarity
5	Chewa – Chikunda	56	
6	Bemba – Kunda	49	
7	Bisa – Kunda	48	
8	Chewa – Tumbuka	48	
9	Bemba – Nsenga	47	
10	Senga – Nsenga	46	
11	Chewa – Kunda	46	
12	Nsenga – Chikunda	46	
13	Senga – Bemba	46	
14	Senga – Kunda	45	
15	Nsenga – Tumbuka	45	
16	Nsenga – Bisa	44	Low lexical similarity
17	Senga – Bisa	43	
18	Senga – Chewa	40	
19	Tumbuka – Kunda	40	
20	Kunda – Chikunda	40	
21	Bemba – Tumbuka	37	
22	Tumbuka – Chikunda	37	
23	Tumbuka – Bisa	35	
24	Senga – Chikunda	35	
25	Bemba – Chewa	30	
26	Bisa – Chewa	30	
27	Bemba – Chikunda	29	Very low lexical similarity
28	Bisa – Chikunda	28	
29	Tumbuka – Nyika	26	
30	Senga – Nyika	23	
31	Kunda – Nyika	23	
32	Chewa – Nyika	22	
33	Nsenga – Nyika	22	
34	Bemba – Nyika	21	
35	Chikunda – Nyika	21	
36	Bisa – Nyika	20	

A few things can be said from looking at table 28. Bemba and Bisa are more closely related to each other (84%) than Senga and Tumbuka are related to each other (71%). Nsenga and Kunda have nearly the same percentage of lexical similarity (70%) as Senga and Tumbuka. The Kunda language is often considered as being closely related to Nsenga or a dialect of Nsenga; however, the Kunda people have recently started their own language development project even though there is a Nsenga language

development project ongoing as well. The comparisons can be placed into four categories: high lexical similarity (having approximately 70 percent lexical similarity or more), medium (having between 45 and 70 percent lexical similarity), low (having 30 to 44 percent lexical similarity), and very low (having less than 30 percent lexical similarity). The classification of these languages into these four groupings is what would be expected by those who are familiar with Zambian languages.

A few examples from the wordlist are included in table 29 to show some differences in these languages.

Table 29. Examples from the wordlist

	head	God	dog	eye	liver
Bemba	umutwe	lesa	imbwa	ilinso	amabu
Bisa	umutwe	lesa	imbwa	ilinso	iliuu
Senga	mutu	chiuta	nyimbwa	jiso	cu
Tumbuka	mutu	chiuta	ncheŵe	jiso	chiwwindi
Nyika	kichwa	mungu	mbwa	jicho	ini
Chewa	mutu	mulungu	galu	diso	ciu
Nsenga	mutu	mulungu	imbwa	liso	ciu
Kunda	mutu	mulungu	imbwa	liso	ciu
Chikunda	m'solo	mulungu	mbwaya	diso	cilopa

According to Grimes (1988),

The threshold level high enough to guarantee good communication from the central dialect to its periphery is usually 85% or above. When the percentage of similarity in the two languages is 85% or above, it is then reasonable to speak of the two as a dialect cluster of a single language. From the linguistic point of view speech varieties that come together only at 70% or below are too distinct to qualify as the same language. In between, 70% to 85% is an area of marginal intelligibility where some communication is satisfactory, and some is not. The threshold depends on the risk associated with not communicating well. The final criteria for making these decisions are normally not purely linguistic criteria.

Senga's lexical similarity with any other language is below the 85 percent that is often used to distinguish one language from another and close enough to the 70 percent threshold (71.2%) with its most closely related language, Tumbuka. Therefore, it should be considered as a language separate and distinct from Tumbuka, Bemba, or Bisa.

3.5 Dialect and surrounding language mapping exercise

The mapping exercise depends upon the speakers' knowledge of and insight into their language and its relationship to neighboring languages. A group of knowledgeable speakers are gathered and asked to identify the different varieties of their language. The name of each dialect is written on a card, and the speakers are asked to arrange them according to how they are geographically located in relation to each other. The participants are also asked general questions about the degree to which the speakers of each variety can understand one another or whether they must change how they speak to effectively communicate. After mapping dialects of their language, the group is then asked about other surrounding languages that they have contact with.

Two mapping exercises were conducted, one in the northernmost chiefdom visited, Chibale chiefdom and one in the southernmost chiefdom visited, Chifunda chiefdom. One purpose of the exercise is to gather data on the geographical locations of dialects and surrounding languages. Another purpose is to explore the comprehension and communication difficulties that exist between the speech varieties and the bordering languages.

Besides asking what languages are spoken surrounding the Senga areas, the participants were asked, “How much do Senga speakers understand of the other language?” and “When you meet someone of the other language do you, they, or both of you change the way you speak in order to communicate?”

3.5.1 *Senga varieties*

Participants from both chiefdoms, Chibale and Chifunda, would not identify any distinct varieties or dialects of Senga, except to say that each chiefdom speaks Senga in its own slightly unique way. Therefore, we could not collect any additional information on different Senga varieties through a dialect mapping exercise there.

3.5.2 *Other languages*

When asked what languages surround Senga on each side, the Chibale chiefdom participants identified six languages. They are depicted in figure 4. This diagram can be compared with a more complete depiction in figure 2.

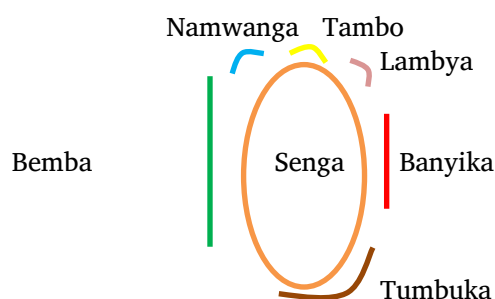


Figure 4. Chibale chiefdom depiction of bordering languages.

It is notable that Chewa, which forms the largest southern border depicted in figure 2 is absent from the figure 4 Chibale figure. This is because the northernmost groups of Sengas are probably the least familiar with those languages which are on their southern borders. Note also that Bisa, which is on the southwestern side in figure 2, is absent as well.

The southernmost chiefdom, Chifunda, listed seven surrounding languages depicted in Figure 5 as shown here. We can note that Chewa, which should, according to the Tribal and Linguistic Map of Zambia and the *Ethnologue* map, form a southern boundary is missing as well from figure 5, the Chifunda chiefdom figure.

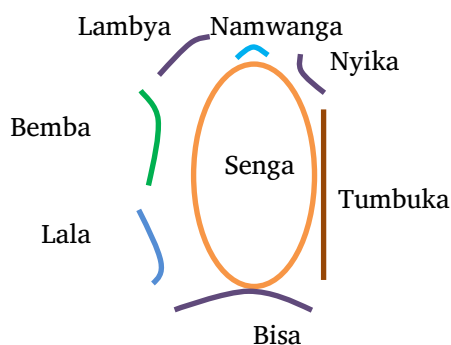


Figure 5. Chifunda chiefdom depiction of bordering languages.

Table 30 summarizes the exercises completed in the dialect mappings done in Chibale chiefdom.

Table 30. Surrounding language mapping exercise results for Chibale chiefdom

Neighboring language	Comprehension by Senga speakers	Communication	
		Other language	Senga
1. Bemba	Half	No change	Change: will speak half Senga, half Bemba
2. Tumbuka	A little	No change	No change
3. Banyika	A little	No change	No change
4. Tambo	A little	No change	No change
5. Lambya	A little	No change	No change
6. Namwanga	A little	No change	No change

Table 31 summarizes the exercises completed in the dialect mappings done in Chifunda chiefdom.

Table 31. Surrounding language mapping exercise results for Chifunda chiefdom

Neighboring language	Comprehension by Senga speakers	Communication	
		Other language	Senga
1. Bemba	A little	No change	No change
2. Lala	A little	No change	No change
3. Bisa	A little	No change	No change
4. Tumbuka	A little	No change	Change
5. Nyika	A little	No change	No change
6. Namwanga	A little	No change	No change
7. Lambya	A little	No change	No change

The only differences noted are that the Chibale speakers say that they understand only half of the Bemba spoken to them and, in order to communicate, they will change the way they speak, adding in more Bemba. For the Chifunda group the only change they make to communicate with another language is with Tumbuka. Considering that Senga originates from Bemba (via Bisa) and Tumbuka, one would think that changes to communication would have occurred more often with less related languages such as Lala, Nyika, Tambo, Lambya and Namwanga. Obviously more work needs to be done to determine what are the surrounding languages and what is the level of comprehension and communication difficulty with each.

4 Conclusions and recommendations

From the data gathered, several conclusions for each of the areas studied can be formulated.

4.1 Language vitality and viability

For the majority of the Senga people, their language is essential for them and is used in all domains of daily life. Ninety-six percent of adults speak only Senga to their children at home, and an equal percentage of children respond back to their parents in Senga. When Senga people gather together, 100 percent of them said that the Senga language alone is used. The people are proud of their language, but there are no materials written in Senga and, in some domains, such as religion, languages like Bemba or Tumbuka, which have a complete Bible, are more commonly used.

4.2 Language shift

Compared with the other five Zambian languages (Soli, Ila, Toka-Leya, Chitwa, and Kunda) that this researcher has surveyed, Senga shows the highest level of stability and lowest degree of language shift. Only seven percent of Senga adults intermarry with people of other language groups. All of those involved in the Group Questionnaires said that their grandchildren would speak Senga. Only 13 percent of adults believed that children are leaving Senga to use other languages. All these numbers are low compared with other minority languages in Zambia which experience greater pressures of language shift. However, there are some signs of encroachment of other languages, for example, Tumbuka, Bemba, and English into some aspects of life, such as in education and in daily life in large towns. It is surprising that only 17.4 percent of the population is thirty-five years or older. This is the portion of the population that has the responsibility of passing the language on to the younger generation.

A language development project is important at this time if Senga is to continue to be viable and not regress in relation to encroaching languages. A language development project would help the Senga language community to have a better prospect of preserving their language. Research shows that mother-tongue literacy helps build language awareness which encourages a higher standard of education in the community. Literacy programs in the mother tongue can lead to added language skills in languages of wider communication, such as English or Chewa, but without losing the first language. Lastly, any language development program brings increased recognition to Senga as a separate and distinct language.

4.3 Dialectology

Because the Senga chiefdoms are arranged more or less linearly along the Luangwa River, a central variant of Senga that avoids the extreme north or southern boundaries would probably be the most accepted standard form of the language. Responses from those interviewed and evidence from the wordlist includes the Kambombo dialect as the central form of the language. While there are certain to be differences between the varieties, a major challenge for any language development project would be the reconciling of differences between the different forms of the language and the acceptability of a standard form of Senga that can be used throughout the chiefdoms.

4.4 Relationship to other languages

Senga has the highest lexical similarity with Tumbuka (71.2%) than with any other language to which it was compared. Senga was found to have a slightly lower lexical similarity with Bisa (43.2%), from which it is said to have originated, than with Bemba (45.6%). The results are congruent with what is said regarding Senga's history, that is, Bisa men took Tumbuka wives and a new language, Senga resulted.

4.5 Church response

Responses to the surveys indicate that the Senga people would greatly welcome any literature written in Senga. The few church leaders that we interviewed during our survey expressed interest in Senga language development and showed a willingness to participate in such a development project.

The use of the vernacular language in written or audio materials would help raise the literacy level, give greater recognition to the Senga language, and help the Senga people adjust to other languages of wider communication while positively affecting the survival of their own language. The goal of a language development project is not to stem the pressures of other languages, but to assist the community in adapting to changes that may occur.

The Senga community would likely respond well to a project, but much needs to be done in this area to educate the people to help them understand their important role in supporting the project. We suggest that a program of church education and mobilization for the support of the project begin immediately with the guidance of an organization such as Partners in Bible Translation. Support of the

project needs to be sought not only from the church but from all who are interested in the Senga language.

It is important that the support of the project be centered among Senga people themselves for it to be sustained. Local support and involvement in the project are key factors in ensuring the wide acceptance and use of literacy materials. These factors are also important for changing the attitudes that would enable long-term advances in literacy and education.

4.6 Recommendations

Based on the results showing that the Senga language is a vital part of daily life for a significant percentage of the population, the following is recommended:

- That the Senga people convene to discuss the present situation of the Senga language and the language's decline which will occur in today's changing world. To not take action at this time may allow Senga culture and the Senga language to further degenerate. They could invite qualified linguists to help guide their discussions and planning.
- Discussions could include how a language development project could be sustained by the local community and how they can practically demonstrate a significant level of support.
- Discussions could clarify the goals of the project. These can include, for example, the creation of literacy primers in Senga, or topical books of interest to the Senga people such as folktales or their history.

Should there be enough local support for a language project, some factors related to the location of the project should be considered. The Senga community also needs to discuss these issues:

- The community could establish a representative committee to evaluate the acceptance of the Kambombo variant as the standard form of the language across the chiefdoms.
- Networks can be established to build a language development team. This might include contacts from within the Senga community as well as commitments from individuals outside the community who could fill the role of consultants, for example.
- The location best suited for a professional work environment could be defined, including access to reliable electricity and communication networks (phone and Internet services).
- The location most suitable to allow the highest degree of community ownership and access to all the Senga areas could be defined.

It is important to note that the location where most of the language development work occurs does not limit the participation of other areas. There would be need for local revision committees, literacy centers, and other related project activities to occur throughout the Senga areas.

- Senga should be listed in the *Ethnologue* as a separate language, rather than as a dialect of Tumbuka.

4.7 Further research needed

- Further work needs to be done to determine the grammatical similarities of Senga with Tumbuka or Bemba. Such a study of the grammar can greatly help a language development project. For example, linguists today are able to do consult with Senga vernacular translators to produce a draft copy of translated vernacular materials fairly quickly from a related language.
- Levels of bilingualism and literacy among all age groups should be studied. How could the written materials be most effectively presented, through printed, audio, or other mediums?

5 Distribution of results

The results of the survey will be distributed to the following Senga leaders:

- Chief Chibale
- Chief Chifunda
- Chief Chikwa
- Chief Kambombo
- Chief Tembwe
- Chief Mulilo
- Chief Lundu

A copy will be given to the Office of the President, Provincial Administration, Chama, and to the Chama District Commissioner. Copies will be submitted to the Linguistics and Literature Department of the University of Zambia, the Bible Society of Zambia, and to the headmen in those centers that helped us during the survey. Copies may also be made available to interested agencies upon request.

Some information will be made available to the public by making our survey results available in public libraries or the Internet.

Appendix A: 158 Senga Villages Listed Alphabetically by Chiefdom

Kambombo	32. Mphundu	21. Tafuna	29. Mulenda	16. Kauzeba	7. Malunga
1. Biti	33. Muzyeba	22. Zambwe	30. Mulondola	17. Kwangifya	8. Mulinda
2. Bunsala	34. Mwininkhonde		31. Mungwalala	18. Lungululu	9. Mwazakabinga
3. Chaumbwa	35. Naka	Tembwe	32. Mupepu	19. Makondola	10. Ng'oma
4. Chibisi	36. Ng'anjo	1. Chaula A	33. Muyeleva	20. Malepa	11. Selema
5. Chiboyela	37. Ngwalala	2. Chaula B	34. Mwami	21. Malinga	12. Tema
6. Chigobi	38. Nthonkho	3. Chazankhu	35. Mwase	22. Matanda	13. Yambani
7. Chikhalanga	39. Nthowaimo	4. Chibenkhu	36. Ng'anjo	23. Mateyo	
8. Chimbundu	40. Simuzandu	5. Chikhazika	37. Ng'olani	24. Mlusika	
9. Chinkhalanga	41. Yibili	6. Chilubaluba	38. Ngwala	25. Mongo	
10. Chioyela		7. Chinyondo	39. Nyika	26. Mukuluwe	
11. Chipapate	Chibale	8. Chitheba	40. Thowowo	27. Mulamba	
12. Chipeta	1. Chibeleketi	9. Chitimbe	41. Uzu	28. Mulozi	
13. Chipundu	2. Chipingo	10. Chola	42. Vwilu	29. Musangwe	
14. Chiwozya	3. Chitapankhwa	11. Chuma	43. Zabongo	30. Musapheni	
15. Chiyabe	4. Chontho	12. Dewe		31. Mwanasamba	
16. Chiyabi	5. Fukatila	13. Jenkhu	Chikwa	32. Mziba	
17. Ituba	6. Fyatwe	14. Kalangalika	1. Akuzanga	33. Tembezani	
18. Kabilo	7. Kabanda	15. Kamulibwe	2. Boobo	34. Tereka	
19. Kadongo	8. Kabangila	16. Kasesewo	3. Chibaula	35. Tondo	
20. Kafuka	9. Kayoyo	17. Kavimba	4. Chimpamba	36. Tundwe	
21. Kambombo	10. Kazembe	18. Kazilondo	5. Chinkhalanga	37. Tungwa	
22. Kambwili	11. Khafoma	19. Kwinya	6. Chipalukwe	38. Zeru	
23. Kapilingizya	12. Kolera	20. Lambwe	7. Chiponda	39. Zoole	
24. Kasama	13. Maimbi	21. Lundu	8. Chowa		
25. Kasolwe	14. Malama	22. Lwambo	9. Fokolani	Chifunda	
25. Kaululumo	15. Masankhule	23. Mbang'andwe	10. Fwanamimi	1. Chalowazyola	
27. Khumka	16. Matola	24. Mbubeni	11. Kabilo-tondo	2. Chuchi	
28. Lindila	17. Mengo	25. Mbwaue	12. Kakuni,	3. Game camp	
29. Luwaniko	18. Muzalira.	26. Msasu	13. Kanabeza	4. Gunda	
30. Malama	19. Mwami	27. Mucheleka	14. Kanthangwa	5. Jentu	
31. Masakamika	20. Sarala	28. Muhobe	15. Kapingila	6. Kalimasenga	

Appendix B: Ethnic Composition of Senga Villages

Chiefdom	Village	Population	Percentages by language group										
			Senga	Bemba	Tumbuka	Namwanga	Chewa	Tambo	Ngoni	Nyika	Lozi	Tonga	Unclassified
Kambombo	Biti	500	100	0	0	0	0	0	0	0	0	0	0
	Chimbundu	100	100	0	0	0	0	0	0	0	0	0	0
	Chinkhalanga	400	100	0	0	0	0	0	0	0	0	0	0
	Chipapate	40	100	0	0	0	0	0	0	0	0	0	0
	Chipundu	120	100	0	0	0	0	0	0	0	0	0	0
	Chiwozya	60	100	0	0	0	0	0	0	0	0	0	0
	Chiyabe	332	100	0	0	0	0	0	0	0	0	0	0
	Chowa	100	100	0	0	0	0	0	0	0	0	0	0
	Ituba	115	100	0	0	0	0	0	0	0	0	0	0
	Kadongo	50	100	0	0	0	0	0	0	0	0	0	0
	Kafuka	50	100	0	0	0	0	0	0	0	0	0	5
	Kambombo	4000	100	0	0	0	0	0	0	0	0	0	0
	Kapilingizya	800	100	0	0	0	0	0	0	0	0	0	0
	Kasama	150	100	0	0	0	0	0	0	0	0	0	0
	Kasolwe	60	100	0	0	0	0	0	0	0	0	0	0
	Lindila	230	100	0	0	0	0	0	0	0	0	0	0
	Luwaniko	100	100	0	0	0	0	0	0	0	0	0	0
	Masakamika	20	100	0	0	0	0	0	0	0	0	0	0
	Mphundu	150	100	0	0	0	0	0	0	0	0	0	0
	Muzyeba	200	100	0	0	0	0	0	0	0	0	0	0
	Mwininkhonde	500	100	0	0	0	0	0	0	0	0	0	0
	Naka	125	100	0	0	0	0	0	0	0	0	0	0
	Nthonkho	500	100	0	0	0	0	0	0	0	0	0	0
	Nthowaimo	120	100	0	0	0	0	0	0	0	0	0	0
	Simuzandu	20	100	0	0	0	0	0	0	0	0	0	0

Chibale	Chipingo	128	50	35	0	10	0	5	0	0	0	0	0
	Chontho	200	80	5	0	10	0	5	0	0	0	0	0
	Fukatila	120	70	16	0	10	0	4	0	0	0	0	0
	Fyatwe	260	70	16	0	10	0	4	0	0	0	0	0
	Kabanda	425	70	15	0	5	0	10	0	0	0	0	0
	Kazembe	36	100	0	0	0	0	0	0	0	0	0	0
	Malama	89	100	0	0	0	0	0	0	0	0	0	0
	Mwami	118	60	25	0	10	0	5	0	0	0	0	0
Tembwe	Chitheba	80	100	0	0	0	0	0	0	0	0	0	0
	Chitimbe	70	100	0	0	0	0	0	0	0	0	0	0
	Kavimba	20	100	0	0	0	0	0	0	0	0	0	0
	Mabinga	2500	100	0	0	0	0	0	0	0	0	0	0
	Mulondola	200	100	15	0	5	0	10	0	0	0	0	0
	Mulondola	90	100	0	0	0	0	0	0	0	0	0	0
	Mwami	30	100	0	0	0	0	0	0	0	0	0	0
	Ng'anjo	150	100	0	0	0	0	0	0	0	0	0	0
	Ngwala	40	100	0	0	0	0	0	0	0	0	0	0
Chikwa	Chibaula	40	100	0	0	0	0	0	0	0	0	0	0
	Chimphamba	514	86	0	2	0	0	0	12	0	0	0	0
	Chinkhalanga	40	100	0	0	0	0	0	0	0	0	0	0
	Chiponda	83	100	0	0	0	0	0	0	0	0	0	0
	Fokolani	515	98	0	1	0	0	0	1	0	0	0	0
	Kakuni	320	98	0	2	0	0	0	0	0	0	0	0
	Lungululu	30	100	0	0	0	0	0	0	0	0	0	0
	Makondola	350	100	0	0	0	0	0	0	0	0	0	0
	Mateyo	40	100	0	0	0	0	0	0	0	0	0	0
	Mlusika	30	100	0	0	0	0	0	0	0	0	0	0
	Mongo	30	100	0	0	0	0	0	0	0	0	0	0
	Mukuluwe	20	100	0	0	0	0	0	0	0	0	0	0
	Mulozi	10	100	0	0	0	0	0	0	0	0	0	0
	Musapheni	46	100	0	0	0	0	0	0	0	0	0	0
	Mwanasimba	10	100	0	0	0	0	0	0	0	0	0	0
	Mziba	35	100	0	0	0	0	0	0	0	0	0	0
	Tereka	10	100	0	0	0	0	0	0	0	0	0	0
	Tungwa	15	100	0	0	0	0	0	0	0	0	0	0
	Zeru	55	90	0	10	0	0	0	0	0	0	0	0

	Zoole	600	84	0	16	0	0	0	0	0	0	0	0
Chifunda	Chalowazyola	50	100	0	0	0	0	0	0	0	0	0	0
	Chuchi	100	100	0	0	0	0	0	0	0	0	0	0
	Game camp	120	50	10	0	10	10	0	0	0	10	10	0
	Gunda	44	100	0	0	0	0	0	0	0	0	0	0
	Jentu	52	100	0	0	0	0	0	0	0	0	0	0
	Kalimasenga	150	100	0	0	0	0	0	0	0	0	0	0
	Malunga	200	100	0	0	0	0	0	0	0	0	0	0
	Mulinda	8	100	0	0	0	0	0	0	0	0	0	0
	Mwazakabinga	150	100	0	0	0	0	0	0	0	0	0	0
	Ng'ma	32	100	0	0	0	0	0	0	0	0	0	0
	Selema	70	100	0	0	0	0	0	0	0	0	0	0
	Tema	49	100	0	0	0	0	0	0	0	0	0	0
	Yambani	33	100	0	0	0	0	0	0	0	0	0	0
Average		230	96	2	0	1	0	1	0	0	0	0	0
Total		17,249	7206	137	31	70	10	43	13	0	10	10	5

[illegible]

hand	zanja	kwanja	kwanja	kwanja	dzanza	cinzanza	mukono	mtwi	ichisansa	wwoko	kuboko	chizaza	chiboko	chiboko	kuboko	kuboko	mkono
head	mutu	mutu	mutwe	mutu	mutu	umutwe	mutwe	moyo	umutwe	mutu	mutu	mutu	mutu	mutu	mutu	mutu	kichwa
heart	mtima	mtima	mutima	mutima	m'tima	umutima	moyo	inchend wa	umutima	mtima	mtima	mutima	mutima	mutima	mtima	mtima	moyo
jawbone	chigama	nzanganda	nzanganda	nzanganda	chibwano	iciponshi	mweebo	linongo	insekete	chigama	njeeyeye	njeeyeye	chibangwa ca mutu	njeeyeye	njeeyeye	njeweyew e	
knee	nkhokola	nkhokola	likonkho	nkhokola	mabondo	ikonko	igondo	mwendo	ikufi	khongono	khongono	khongono	khongono	khongono	khongono	khongono	goti
leg	mwendo	kwendo	kwendo	kwendo	mwendo	ukulu	mweendo	mpafwa	ukulu	lundi	lundi	chilundi	chilundi	chilundi	lundi	lundi	mguu
liver	ciu	ciu	ciu	ciu	chilopa	iliuu	muni	lipungu	amabu	chiwwindi	chiwu	chu	chu	chiu	chiwu	chibu	ini
lung	pwapwa	pwapwa	pwapwa	pwapwa	chisape	pwapwa	fufwe	mulomo	pwapwa	papo	pafwa	pafwa	mapafwa	pafwa	pafwa	pafwa	
mouth	kamwa	kanwa	kamwa	kamwa	mulomo	akamwa	molomo	inshingo	akanwa	mulomo	mulomo	mulomo	mulomo	mulomo	mulomo	mulomo	mdomo
neck	khosi	mkosi	mukosi	mukosi	m'khosi	umukoshi	insingo	mupem bo	umukoshi	singo	mukosi	singo	singo	singo	mukosi	mukosi	shingo
nose	mphuno	mphuno	mphuno	mphuno	mphuno	umona	mpemo	chipaya ca nyama	umona	mphuno	mphuno	mphuno	mphuno	mphuno	mphuno	mphuno	pua
palm	zanja	kwanja	chanzanza	chanzanza	dzanza	icinsansa		mtwi	ichisansa	mumawwo ko	lupi	lupi	panza	lupi	lupi	lupi	kiganja
skin (animal)	chikopa	cikumba			khanda	umukupo			impapa	chikumba	mukupo	mukupo	mukupo	mukupo	mukupo	mukupo	ngozi (ya mnyama)
skin (human)	khungu	nkhandu	nkhaanda	nkhaanda	khanda	inkanda	cikutu	chilonda	inkanda	chikumba	nkhandu	nkhandu	nkhandu	nkhandu	nkhandu	nkhandu	ngozi (ya mtu)
sore	chilonda	cilonda	chilonda	chilonda	chilonda	ichilonda	cicisa	muchila	chilonda	chilonda	chilonda	chilonda	chilonda	chilonda	chilonda	chilonda	
tail	mchila	mchila	muuchila	muchila	mchila	umucila	mucila	lulimi	umucila	mchila	muzhila	mcila	mcila	mcila	muzhila	muzhila	mkia
tongue	lilime	lulimi	lulimi	lulimi	lilime	ululimi	mulaka	lino	ululimi	lulime	lulimi	lulimi	lulimi	lulimi	lulimi	lulimi	ulimi
tooth	zino	linu	linu	linu	dzino	ilino	linyo	liswi	ilino	jino	jino	jino	jino	jino	jino	jino	jino
voice	liu	lizu	liwu	liwu	fala	ishiwu	jwi	lipapam ino	ishiwu	mazgo	mazyo	mazgo	lizyo	mazyo	mazyo	mazyo	
wing	phiko	papiko	chipapiko	papiko	phaphiko	icipipiyo	bbaba	kamo	kapipiyo	phapindo	papindo	pampha	papindo	papindo	papindo	papindo	ubawa
one	kamodzi	kamo	chimo	kamo	chibozi	chimo	komwe	tubili	chimo	kamodza	chimoza	kamoza	kamoza	cimoza	chimoza	chimoza	moja
two	tuwiri	viwwili	vibili	vibili	bzibili	chibili	tobilo	tusanu	chibili	viwwili	vibili	tubili	tubili	vibili	vibili	vibili	mbili
three	tutatu	vitatu	vitatu	vitatu	bzitatatu	totatu	totatwe	tusanu ne kamo	citatu	vitatu	vitatu	tutatu	tutatu	vitatu	vitatu	vitatu	tatu

four	tunai	vinai	vene	folo	bzinai	cine	tone	tusanu ne tubili	cine	vinai	vinayi	tunayi	tunayi	vinayi	vinayi	vinayi	nne
five	tusanu	visano	visano	faifi	bzishano	cisano	tosanwe	tusanu ne tutatu	cisano	vikondi	visano	tusano	chinkhonde	visano	vinkhonde	vinkhond e	tano
six	tusanu ndi kamodzi	visano chimo	visano nakamo	sikisi	bzitanthato	mutanda	cisambom we	tusanu ne tuna	mutanda	vikondi na kamodza	visano na chimoza	tusano na kamoza	chinkhonde na kamoza	visano na chimoza	vinkhonde na kamoza	vinkhond e na kamoza	sita
seven	tusanu ndi tuwiri	visano viwwili	visano navibili	seveni	sele	cine lubali	ciloba	likumi	cine lubali	vikondi na viwwili	visano na vibili	tusano na tubili	chinkhonde na tubili	visano na vibili	vinkhonde na tubili	vinkhond e na tubili	saba
eight	tusanu ndi tutatu	visano navitatu	visano navitatu	eiti	nomwe	cine konsekon se	lusele		cine konsekon se	vikondi na vitatu	visano na vitatu	tusano na tutatu	chinkhonde na tutatu	visano na vitatu	vinkhonde na tutatu	vinkhond e na tutatu	nane
nine	tusanu ndi tunai	visano navinai	visano navine	naini	fhemba	pabula	ifuka	lukuku	pabula	vikondi na vinai	visano na vinayi	tusano na tunayi	chinkhonde na tunayi	visano na vinayi	vinkhonde na tunayi	vinkhond e na tunayi	tisa
ten	nkhumi	kumi	kumi	kumi	kumi	ikumi	ikumi	tatatu	ikumi	khumi	khumi	nkhonde	khumi	khumi	khumi	khumi	kumi
chicken	nkhuku	nkhuku	nkhoko	nkhuku	nkhuku	inkoko	nkuku	kabwa	inkoko	nkhuku	nkhuku	nkhuku	nkhuku	nkhuku	nkhuku	nkhuku	kuku
dog	galu	imbwa	imbwa	imbwa	mbwaya	imbwa	mubwa	luswi	imbwa	nyimbwa	nyimbwa	nyimbwa	nyimbwa	nyimbwa	nyimbwa	nyimbwa	mbwa
fish	nsomba	sawwi	inswi	sabi	nsomba	inswi	inswi	lupuka	isabi	somba	somba	somba	somba	somba	somba	somba	samaki
bee	njuci	nzimu	nzimu	nzimu	nyuci	ulushimu	nzuki	kakeni	ishimu	njuci	zimu	zimu	nzimu	zimu	zimu	nzimu	
bird	mbalame	kanyoni	koni	koni	mbalami	icuni	muyuni	injati	akoni	chiyuni	kayuni	kayuni	kayuni	kayuni	kayuni	kayuni	ndege
buffalo	njati	mboo	mboo	mboo	nyati	mboo	munyati	muchen de	mboo	njati	njati	njati	njati	njati	njati	njati	
bull	nkhunzi	nkhunzi	kakuli	ng'ombe inalume	kapado	kakuli	poho	koombe	ng'ombe iyaume	nkhuzi	kakuli	kakuli	ng'ombe ya nalume	kakuli	kakuli	ng'ombe yoskina	ng'ombe dume
calf	litole	litole	chisonzela	mwana wang'ombe	nchele	akana kang'omb e	moombe	kakiti	kang'omb e	thole	kamwana ka ngobe	kazuzu	mwana wa ng'ombe	kamwana ka ngobe	kana ng'ombe	kamwana kang'omb e	
cat	chona	chona	choona	pusi	mphaka	nyau	kaaze	kombwe	pushi	chona	pusi	pusi	pusi	pusi	pusi	pusi	
cock	tambala	kombwe	tambala	kombwe	chongwe	mukolwe	mukomb we	ing'omb e	mukolwe	tambala	tambala	tambala	tambala	tambala	tambala	tambala	jogoo
cow	ng'ombe	ng'ombe	ng'ombe	ng'ombe	ng'ombe	ing'ombe ikota	ng'ombe	intale	ng'ombe	ng'ombe	ngobe	ng'ombe	ng'ombe ya nakazi	ng'ombe ya nakazi	ng'ombe	ng'ombe	ng'ombe
crocodile	ng'ona	ng'wena	ng'wena	ng'wena	nyakhokho	ing'wena	ciwena	njofu	ing'wena	ng'wena	ng'wena	ng'wina	ng'wina	ng'wena	ng'wena	ng'wena	

elephant	njobvu	nzovu	nzobvu	nzobvu	nzou	insofu	muzovu	pongo	insofu	zovu	zhovu	zhovu	nzovu	nzovu	zovu	nzovu	tembo
goat	mbuzi	mbuzi	mbuzi	mbuzi	mbuzi	imbushi	mpongo	indaa	imbushi	mbuzi	mbuzi	mbuzi	mbuzi	mbuzi	mbuzi	mbuzi	mbuzi
head louse	nsabwe	inda	inda	inda	nsawawa	inda	njina	mfubu	inda	nyinda	nyinda	nyinda	nyinda	nyinda	nyinda	nyinda	chawa
hippo	mvuwu	mvuwu	mvuwu	mvuwu	mvuwu	imfubu	civubwe	inkalamu	imfubu	chigwele	chigwele	chigwele	chigwele	chigwele	chigwele	chigwele	
lion	mkango	nkhalamu	nkalamu	nkalamu	mphondolo	inkalamu	syaanza	kakwele	inkalamu	nkhalamu	nkhalamu	nkhalamu	nkhalamu	nkhalamu	nkhalamu	nkhalamu	
rhino	chipembe	chipembe	chipembe	chipembe	chipembe	chipembe le	chipembe	injoka	chipembe le	pembe	chipembe	pembe	pembe	pembe	pembe	pembe	
snake	njoka	njoka	nzoka	njoka	nyoka	insoka	nzoko	nyama ya mukiswa	insoka	njoka	njoka	njoka	njoka	njoka	njoka	njoka	nyoka
wild animal	nyama yakuthango	nyama yamsanga	nama yamuchonde	nyama yamusanga	nyama zamthengo	inama mpanga	munyama	buuta	inama mpanga	nyama ya kunthengele	nyama zamunthengele	nyama zamunthengele	nyama zamunthengele	nyama zamunthengele	nyama zamunthengele	nyama zamunthengele	mnyama wa porini
knife	mpeni	chipula	chipula	lubezi	chisu	umwele	cipoko	chibeshicinene	umwele	chimai	chimai	chimai	chimai	chimai	chimai	chimai	kisu
big knife	cimpeni	chipula	pwitika	chipula	chibemba	panga	cibesi	kwikala	icipanga	chimai	chipula	chingwandala	panga	chingwandala	chipula	chimai	panga
sit	khala	nkhalala	kwikala	kunkhala	khala	ikala	kala	bakuleni bakame batuloba	kwikala	khala	khala	khala	khala	khala	khala	khala	kaa
brother	mbale	mkwasu	muwanji	mukwasu	mbale	indume	mukwesu	mwami	munyina	mukulu	dumbu	dumbu	dumbu	dumbu	dumbu	mukulu	kaka (wa mwanamu me)
chief	mfumu	mfumu	mfumu ya ndodo	mfumu ya ndodo	mfumu	imfumu	mwami	mwana	imfumu	fumu	fumu	fumu ikulu	fumu	fumu	fumu	fumu	mfalme
child	mwana	mwana	mwaaiche	mwana	mwana	umwana	mwana	mwana mutukashi	umwana	mwana	mwana	mwana	mwana	mwana	mwana	mwana	mwana (mtoto)
daughter	mwana wamkadzi	mwana munakazi	mwana mwanakazi	mwana mwanakazi	mwana mukazi	umwana umwanakashi	mwana musimbi	ukupatana	umwanakashi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi	mwana mwanakazi (mtoto) wa kike
enemy	mdani	mulwani	mulwani	mudani	chipondo	umulwani	sinkondo	ma	bata	umulwani	murwani	mulwani	mulwani	mulwani	mulwani	mulwani	adui
father	atate	atata	baata	baata	pai	tata	taata	lesa	batata	adada	tata	atata	tata	tata	atata	atata	baba

God	mulungu	mulungu	nyamaleng a	mulungu	mulungu	lesa	leza	mulume	lesa	chiuta	chiuta	chiuta	chiuta	chiuta	chiuta	chiuta	mungu
husband	mwamuna	mulume	wwalume	mulume	mwamuna	umulume	mulumi	mutulob a	abalume	afumu	mulume	alume	mfumu wane	mfumu wane	mulume	mulume	mume
man	mwamuna	munalume	mwanalum e	mwanalume	mwamuna	umwaum e	musankw a	bama	umwaum e	mwanalum e	mwanalume	mwanalum e	mwanalume	mwanalum e	mwanalume	mwanalu me	mwanamu me
mother	amai	amama	wwaama	bama	amai	mayo	baama	bamum watu	bamayo	amama	mayo	amama	mayo	mayo	amayo	amayo	mama
mother's brother	amalume	amalume	amalume	amalume	atiyu	yama	aisya	muntu	bayama	asibweni	sibweni	sibweni	sibweni	sibweni	sibweni	sibweni	mjomba
person	munthu	munthu	munthu	munthu	munthu	umuntu	muntu	mwana mutulob a	umuntu	munthu	munthu	munthu	munthu	munthu	munthu	munthu	mtu
son	mwana wamwamuna	mwana munalume	mwana	mwana	mwamuna	umwana umwaum e	mwana	bampun du	umwana umwaum e	mwana mwanalum e	mwana mwanalume	mwana mwanalum e	mwana mwanalume	mwana mwanalum e	mwana	mwana mwanalu me	mwana (mtoto) wa kiume
twins	amapasa	amapasa	wwaamphu ndu	amapasa	mapasa	bampund u	maanga	niani	bampund u	maphaska	anthembwa	amphundu	banthembwa	amphundu	anthembwa	anthemb wa	
who	ndani	nibani	bani	nibani	mbani	nani	nguni	mukashi	nani	ninjani	njani	njani	njani	njani	njani	njani	nani
wife	mkadzi	mukazi	mukazi	mukazi	m'kazi	umukashi	mukaintu	mutukas hi	abakashi	muwwoli	mukazi	mukazi	mukazi wane	mukazi	mwanakazi	mukazi	mke
woman	mkadzi	munakazi	mwanakazi	mwanakazi	m'kazi	umwanak ashi	mukaintu	chaipa	umwanak ashi	mwanakazi	mwanakazi	mwanakazi	mwanakazi	mwanakazi	mwanakazi	mwanakazi	mwanamk e
arrow	mubvi	mumvwi	muuvwi	musumbu	dipa	ifumo	muvwi	mulata	ubuta	muvwi	mufwi	muvwi	kamsompho	muvwi	muvwi	munvwi	mshale
bow (shoots arrow)		uta			chikankha	ubuta			ubuta	mphichi	buta	wuta	uta	uta	buta	uta	
ash	phulusa	mulota	choto	choto	dotha	imito	twe	kembe	imito	vyoto	vyoto	vyoto	joto	vyoto	vyoto	vyoto	jivu
axe	nkhwangwa	katemo	katemo	katemo	mbadzo	izembe	keembe	chikaye	akasembe	mbavi	mbavi	mbavi	mbavi	mbavi	mbavi	mbavi	shoka
branch (of tree)	nthambi	msambo	musambo	musambo	m'thabi	umusamb o	mutabi	mutolo	umusamb o	munthavi	musambo	musambo	musambo	musambo	musambo	musambo	gamba (la mti)
burden	katundu	mtolo	chiipe	cholema	bvuto	ichisendo	mukuli	chipuna	chisendo	katundu	chizoto	unonono	nthangwanik a	katundu	mtembo	katundu	mzigo
chair	mpando	mpando	mpando	mpando	mpando	umupand o	cuuna	makumb i	ichipuna	mupando	mupando	mupando	mupando	mupando	chitengo	mupando	kiti (kirefu)
bark (of tree)	chikwa	cikwa	chipande	chikwa	chikhanda	umukwa	mapapa	musamp i	icipapa	chikwa	chikwa	chikwa	chikwa	chikwa	chipuba	chipuba	gamba (la mti)

stool	mpando	mpando	chiti	kampando	mpando	akapuna	cuuno	lisuba	akatebe	chigotwo	chitengo	chitengo	chitengo	chitengo	chitengo	situli	kigoda
cloud	mtambo	mkumbi	makumbi	mukumbi	mitambo	ikumbi	kumbi	nongo	makumbi	mabingo	makumbi	makumbi	matutu	makumbi	makumbi	makumbi	mawingu
cooking pot	m'phika	poto	nthaalo	poto	chikalango	impoto	mpoto	mushish e	impoto	m'phika	poto	poto	poto	poto	nthalo	poto	chungu
darkness	mdima	mfinzi	kufita	mfinzi	mdima	infinfi	musinze	munshi	infinfi	mdima	zhisi	chisi	chisi	chisi	chisi	chisi	giza
day time	usana	mzuwwa	kazuba	muzuba	masikati	akasuba	sikati	mume	akasuba	muhanya	kazuba	zuba lino	muhanya	muhanya	zuba	zuba	mchana
dew	mame	mame	chime	chime	mame	icime	mume	lufunte	umume	jume	zume	jume	jume	jume	jume	jume	umande
dust	fumbi	lukungu	lukungu	lukungu	fumbi	ulukungu	suko	bulongo	ulukungu	fuvu	lungungu	lungungu	lungungu	lungungu	lungungu	lungungu	mavumbi
earth (planet)	nthaka	chalo	musili	musili	dziko	icalo	nyika	liyi	chalo	chalo	chalo chapasi	calo	calo	calo	calo	calo	udongo
egg	dzila	lungu	lisumbi	sumbi	dzayi	ilini	ji	lipepe	ilini	sumbi	sumbi	lisumbi	sumbi	sumbi	sumbi	lisumbi	yai
feather	nthenga	mangala	mangala	lingala	matenga	isako	pepe	libala	isako	maweya	mangala	maweya	maweya	mangala	mangala	lingala	
field	munda	munda	munda	munda	munda	ibala	muunda	maila	mabala	munda	munda	munda	munda	munda	munda	munda	shamba
finger millet	mawele	mabele	wwule	mabele	mapila	amale	maase	mulilo	amale	mabele	kambala	kambala	kambala	kambala	kambala	kambala	
fire	moto	mulilo	mulilo	mulilo	moto	umulilo	mulilo	inkuni	umulilo	moto	moto	moto	moto	moto	moto	moto	moto
firewood	nkhuni	nkhuni	nkhuni	nkhuni	nkhuni	inkuni	nkuni	liluba	inkuni	nkhuni	khuni	nkhuni	nkhuni	nkhuni	nkhuni	nkhuni	kuni
flower	duwa	liluwwa	maluba	maluba	duwa	iluba	duba	mwila	iluba	maluwwa	liluba	liluba	nduba	liluba	liluba	liluba	ua
grass	udzu	uzu	zani	uzu	mausya	ichani	bwizu	ukupeng a	ifyani	uchani	uteka	uteka	uteka	uteka	uteka	uteka	majani
hardship	zolemetsa	masauso	kukasisha	mabvuto	mabvuto	amacushi	mapenzi	likasu	ukushupa	masuzgo	unonono	kutokatoka	unonono	masuzyo	unonono	masuzyo	
hoe	khatsu	kambwili	kakasu	kambwili	phaza	ulukasu	jamba	mwindo	ulukasu	jembe	jembe	jembe	jembe	jembe	jembe	jembe	jembe
hole	dzenje	chisengu	chilindi	chisengu	kadindi	icilindi	cilindi	bwichi	icilindi	khululu	khululu	khululu	khululu	khululu	khululu	khululu	shimo
honey	uci	uci	uci	uci	uci	ubuci	buci	ing'anda	ubuci	uci	uchi	uchi	uchi	uchi	uchi	uchi	
house	nyumba	ng'anda	nanda	ng'anda	nyumba	ing'anda	ng'anda	nsala	ing'anda	nyumba	nyumba	nyumba	nyumba	nyumba	nyumba	nyumba	nyumba
hunger	njala	njala	nzala	njala	njala	insala	nzala	cela	insala	njala	njala	njala	njala	njala	njala	njala	
iron	chisulo	nsimbi	nsimbi	nsimbi	nsimbi	inshimbi	cibulo	lutambo	inshimbi	simbi	simbi	simbi	chela	simbi	simbi	simbi	chuma
knot	nfundo	nfundo	mfundo	nfundo	mfundo	ulushindo		mulung a unene	ifundo	findo	fundo	fundo	fundo	fundo	fundo	fundo	
lake	nyanja	chimana	chitowo	chitowo	thabale	imana icapasuka	bweza	liteu	beemba	dambo	nyanja	dambo	chiziba	chiziba	nyanja	dambo	ziwa

leaf	tsamba	citepo	litepo	tepo	tsamba	libala	itu	chapuba	ilibula	jani	nthepo	nthepo	nthepo	nthepo	nthepo	nthepo	jani (la mti)
light	kuunika	kung'welela	nyale	nyale	kuchena	ulubuto	mumuni	nyama	ulubuto	kungweluka	ungwelu	ungwelu	ungwelu	ungwelu	ungwelu	ungwelu	kitu chepesi
meat	nyama	nyama	nama	nyama	chisai	inama	nyama	mutondo	inama	nyama	nyama	nyama	dende	nyama	nyama	nyama	nyama
medicine	mankhwala	mankhwala	muuti	mankhwala	mankhwala	umuti	musamu	mandili	umuti	munkhwala	mukota	munkhwala	munkhwala	munkhwala	munkhwala	munkhwala	
milk	mukaka	mkaka	mukaka	mukaka	mukaka	umukaka	mukupa	mwenshi	umukaka	mukaka	mukaka	mukaka	mukaka	mukaka	mukaka	mukaka	maziwa
month	mwezi	mwezi	mwezi	mwezi	mwezi	umweshi	mwezi	mwenshi	umweshi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi
moon	mwezi	mwezi	mwezi	mwezi	mwezi	umweshi	mwezi	mulundu	umweshi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi	mwezi
sky	thambo	kululu	mumulu	mulu	kuzulu	mulu	julu	bwishi	mulu	kuchanya	kuchanya	kuchanya	kuchanya	calo	calo	calo	mbingu
star	nyenyezi	nthandala	ntandala	ntandala	nyenyezi	lutanda	inyenyezi	libwe	lutanda	nyenyezi	nthanda	nthanda	nthanda	nthanda	nthanda	nthanda	nyota
sun	zuwa	zuwwa	kazuba	zuwwa	dzuwa	akasuba	izuba	chintu	akasuba	zuwwa	zuba	zuba	zuba	zuba	zuba	zuba	jua
mountain	phiri	lupili	lupili	lupili	phili	ulupilli	malundu	ukulila	ulupilli	phiri	phiri	lupili	mapiri	phiri	phiri	phiri	mlima
mourning - sadness	kulira-cisoni	cisoni	chililo	kulila	nkhawa	ukulosha	kulila	lina	ukulila	chitengelo	kulila	kulila	chitima	nifwa	kulila	kulizya	
name	zina	zina	zina	zina	zina	ishina	zina	mashuku	ishina	zina	zina	zina	zina	zina	zina	zina	jina
night	usiku	usiku	usiku	usiku	kwadoka	ubushiku	masiku	inshila	ubushiku	usiku	usiku	usiku	usiku	usiku	usiku	usiku	usiku
path	njira	njila	njila	kanjila	njira	insalalondo	kazila	lupele	akashila	nthowa	nthowa	muswapuswapu	nthowa	nthowa	mugwagwa	kanthowa	njia
porridge	phala	nkhoto	nkoto	nkhoto	phala	umusungu	ceelee	imfula	umusungu	bala	phele	bala	nkhoto	bala	phele	phele	
rain	mvula	mvula	mvula	mvula	mvula	infula	mvula	mulonga	imfula	vula	mvula	vula	mvula	mvula	mvula	mvula	mvua
river	mtsinje	m'mana	mumana	kamana	kamadzi	umumana	mulonga	muyanda	umumana	mulonga	dambo	mulonga	dambo	dambo	dambo	dambo	mto
root	mudzu	muzhyu	muzu	muzu	muzu	mushila	muyanda	lutambo	mushila	musisi	musisi	musisi	musisi	musisi	musisi	musisi	mzizi
rope	chingwe	nthambo	mwando	tambo	nthambo	intambo	lukalo	muchelee	intambo	nthambo	mukusa	nthambo	nthambo	nthambo	mukusa	nthambo	kamba
salt	mcere	munyu	mcere	munyu	munyu	umucele	munyo	museya	umucele	mcele	mcele	mcele	mcele	mcele	mcele	mcele	chumvi
sand	mcenga	msece	muchanga	muchanga	mcenga	umucengacenga	musenga	imbuto	umucanga	mucenga	mucenga	mucenga	mucenga	mucenga	cebecebe	mucenga	mchanga

seed	mbeu	mbuto	mbuto	nsele	mbeu	imbuto	nseke	chimwii le	imbuto	mbuto	mbuto	mbuto	mbuto	mbuto	mbuto	njele	mbegu
shade	mthunzi	cimfule	chimfule	chimfule	mthunzi	icintelelw e	cinivule	mulwas hi	cintelelwe	mthuzi	munthuzi	munthuzi	munthuzi	munthuzi	munthuzi	munthuzi	kivuli
sickness	matenda	matenda	matenda	kulwala	matenda	ubulwele	bulwazi	likumbi	ukulwala	matenda	matenda	ulwali	matenda	kuwala	matenda	kulwala	ugonjwa
smoke	utsi	cusi	chusi	chusi	utsi	icushi	busi	lifumo	icushi	josi	josi	josi	josi	josi	josi	josi	moshi
spear	mkondo	n'kondo	musumbu	mkondo	dipa	ifumo	muumba	nyenyen shi	ifuumo	mukondo	mukondo	mukondo	mukondo	mukondo	mukondo	musomph o	mkuki
stone	mwala	mwala	liwe	mwala	mwala	ilibwe	bbwe	chipuna	ilibwe	libwe	libwe	libwe	libwe	libwe	libwe	libwe	
thing	kanthu	kanthu	chinthu	chinthu	chinthu	icintu	cintu	inyoto	icintu	chinthu	chinthu	chinthu	chinthu	chinthu	chinthu	chinthu	kitu
thirst	ludzu	njota	chaka	njota	njota	icilaka	nyota	munga	icilaka	nyota	nyota	nyota	nyota	nyota	nyota	nyota	
thorn	munga	munga	munga	munga	munga	umunga	bumvwa	buluba	umunga	minga	minga	munga	munga	munga	munga	munga	mwiba
thread		mwando	uzi	kanthambo	usalu	intambo	bunywiba	lelo	intambo	wuzu	wuzu	kotoni	mucheta	wuzu	wuzu	buzi	uzi
today	lero	lelo	lelo	lelo	lelo	lelo	sanu	lilo	lelo	lino	nalelo	mwauno	lero	lero	nalelo	nalelo	leo
tomorro w	mawa	mailo	mailo	mailo	mangwana	mailo	cifwamo	chitond o	mailo	namachelo	namachelo	namachelo	mailo	mailo	naucelo	mailo	kesho
yesterday	zulo	mailo	mailo	mailo	zulo	mailo	jilo	chibeshi	mailo	mailo	mailo	mailo	mailo	macelo	mazoilo	mailo	jana
tree	mtengo	cimuti	chiti	chimuti	muti	icimuti	cisamu	ndonco	icimuti	chikuni	chikuni	chikuni	chikuni	chikuni	chikuni	chikuni	mti
untensil	ziwiya	ciya	vyela	viya (chiya)	bzakukichi ni	ifipikilo	zibelesyo	mushi	ifipe	chakuteww etsha	vipe	vipe	viselo	vipe	vipe	vipe	chombo
village	mudzi	munzi	munzi	munzi	muyi	umushi	munzi	inkoli	umushi	mudzi	munzi	munzi	munzi	munzi	munzi	munzi	
walking stick	ndodo	ndodo	ndodo	ndodo	nkholi	inkonto	musako	chibum bu	inkonto	ndodo	ndodo	ndodo	ndodo	ndodo	ndodo	ndodo	fimbo (ya kutembele a)
wall	ciumba	cipupa	chiumba	chiumba	konga	icibumba	bwaanda	inkondo	icibumba	cimati	chiumba	chiumba	chiumba	chiumba	chiumba	chiumba	
war	nkhondo	nkhondo	nkhondo	nkhondo	nkhondo	inkondo	nkondo	menshi	inkondo	nkhondo	nkhondo	nkhondo	nkhondo	nkhondo	nkhondo	nkhondo	vita
water	madzi	manzi	menzi	menzi	madzi	amenshi	maanzi	nicani	amenshi	maji	maji	maji	maji	maji	maji	maji	maji
what	chani	nivinji	nindo	nichinji	tani	inshani	ninzi	lukukwe	ninshi	vici	nchivichi	nivichi	vichi	vici	nchivichi	nivichi	nini
wind [noun]	mphepo	cinkhuka	mpheepo	mpheepo	chonzi	icipupu	moya	caka	umwela	mphepo	mutunga	mutunga	mutunga	mutunga	mutunga	mutunga	upepo
year	caka	caka	caka	caka	sumana	umwaka	mwaka	lilo lyapwa	umwaka	caka	chaka	caka	caka	caka	chiimika	chaka	mwaka

bad	kuipa	kuipa	chiwwi	chiipa	chakuipa	ububi	mubi	chinene	cibi	chiheni	chiheni	chiheni	uheni	uheni	chiheni	chiheni	mbaya
dull	ubuntha	kubuntha	kufumpha	kufumpha	kubuntha	ukufupa	kuziima	chabomba	ukufupa	chakubuntha	kubwamwa	bumphu	bumphu	ubumphu	cibumphu	cibumphu	kisu kisicho kikali
sharp	kuthwa	kulumata	chakuthwa	chonola	kuthwa	icatwa	kubosha	chifuپی	ukutwa	chakuthwa	kuthwa	kuthwa	kuthwa	kuthwa	kuthwa	chokuthwa	kisu kikali
many	zambiri	vinyinji	vinji	vinyinji	bzizinji	ifingi	zinjizinja	tuna	ifingi	vinandi	vinandi	vinandi	vinandi	vinandi	vinandi	vinandi	nyingi
few	ting'ono	vitontho	kanini	tutonto	bzing'ono	finono	tunini	kusula	utunono	vidoko	vidoko	vidoko	vichoko	vidoko	vyocepa	vidoko	chache
full	uzala	kuzula	chayuula	chayuula	kudzaza	ukwisula	kuzula	chaina	ukwisula	kuzula	kuzula	kuzula	kuzuzya	kuzula	kuzula	kuzula	imejaa
heavy	kulema	cholema	chalema	cholema	kulema	ukkufina	kulema	kulungula	ukufina	chizito	chizito	chizito	cholema	uzito	chizito	chizito	nzito
hot	kupsya	kupya	chakupya	kupya	kupsya	kukaba	kupya	ichitali	kukaba	chakuphya	chipyo	kupya	kupya	kupya	kupya	bupyo	joto
cold	kuzidzila	kuzizila	kutalala	kumwalala	kwejela	kutalala	kutontola	chayuma	ukutalala	chizizimu	kuzizila	kuzizimu	kuzizima	kuzizima	kuzizimu	kuzizimu	baridi
long	utali	kutalimpha	uutali	chitali	kutali	icitali	cilamfu	kang'ana	icitali	chitali	chitali	utali	utali	utali	utali	utali	ndefu
short	kufupika	kafupi	wweepi	chifuپی	kufupi	uwipi	fwiimpa	ching'ana	icipi	chifuپی	chifuپی	ufupi	ufupi	ufupi	chifuپی	chifuپی	fupi
good	bwino	chiweme	chiweeme	chiweeme	chabwino	icisuma	cibotu	chalema	icisuma	chiweme	chiweme	ciwemi	ciwemi	ciwemi	chiweme	chiweme	nzuri
new	casopano	calombapano	chanyuwan	chalomba	bzanyuwani	icipya	nyowana	chifubela	icipya	chipya	chanyuwani	cipya	cipya	cipya	calero	chayuwan	mpya
white	kuyera	kutuwwa	chauuta	kutuba	bzichena	chabuta	tuba	chinene	chabuta	cituwwa	chituba	chituba	chituba	chituba	chituba	chituba	nyeupe
red	kufiila	kusweta	chisweta	chisweta	bzifwiila	calopalopa	salala	kobola	ukukashika	chiswesi	chiswesi	chiswesi	chiswesi	chiswesi	chiswesi	chiswesi	nyekundu
yellow	chikasu	chikasu			nyakazozo	umutuntu	la		mutuntula	nyonga	chanthula	chanthula	chanthula	chanthula	chanthula	yelo	
black (color)	kuda	kufipa	chafita	chafita	bzisyipa	cafita	cisiya	kutontola	ukufita	chifipa	chifipa	chifipa	chifipa	chifipa	chifipa	chifipa	nyeusi
rotten	coola	kuwola	choola	choola	bzakuola	ubola	bola	chibeshi	ukubola	kuvunda	chovunda	chovunda	kuvunda	chovunda	chovunda	kubola	bovu
wide	ukula	kukula	kukula	chikulu	ukula	mubukulu	kwakwabuka	kutali	mubukulu	usani	chisani	usani	usani	chisani	chisani	usani	pana
narrow	kucipa	kucepa	kanini	kuchepa	mukati	ubwipi	kaniini	nyowani	mubwipi	ufinyi	kafinye	kafinye	ufinye	kafinye	kafinye	kafinye	nyembamba

big	ukula	cikulu	chikulu	chikulu	chikulu	ukukula	cipati	chishipa	icikulu	chikuru	chikulu	chikulu	chikulu	chikulu	chikulu	chikulu	kubwa
small	ucepa	katontho	kanini	katonto	ching'ono	kanono	ceya	chateka	akanono	kadoko	kadoko	kadoko	kadoko	kadoko	kadoko	kadoko	ndogo
difficult	cobvuta	kuvuta	chakoosa	kuvuta	kunesa	ukwafya	buyumuyumu	kushilila	icasupa	chakusuzga	suzyo	chinonono	chosuzy	chinonono	cinonono	sunzyo	ngumu
easy	capafupi	cosavuta	chapepi	chapafupi	i'butalini	kwanguka	cuuba	ing'ana	kwanguka	chipusu	chapafupi	chipusu	chipusu	chipusu	nchipusu	kubebu	rahisi
dirty	dothi	lunsa	chafita	usali	dothi	ifiko	tombe	chayuma	ifiko	malikho	likho	malikho	chobinkha	likho	likho	malikho	chafu
dry	kuuma	kuyuma	chauuma	chiyumu	kuuma	ukuuma	kuyuma	chibeshi	cashima	ukuuma	kuwomila	chomila	chomila	chomila	chomila	kumila	kikavu
wet	kunana	kunana	chanaka	kunaka	bzibisi	unaka	bomba	chituba	ukuboomba	kuzumbwa	chonaka	chozumbwa	kunyeka	chozumbwa	kunaka	kunaka	kilicholawana
far	kutali	kutali	kutali	kutali	kutali	apatali	kule	mukati	ukutali	kutali	kutali	kutali	kutali	kutali	kutali	kutali	mbali
inside	mkati	mkati	mukati	mukati	mkati	mukati	mukati	chipiko	mukati	mukati	mkati	mkati	mkati	mkati	mkati	mkati	
left side	kumanzele	kumanzhyele	kumanzhyele	kumanzhyele	kumanzele	kukuso	lumwensi	pepi	kukuso	kumazele	kumanzele	kumazele	kumazele	kumanzele	kumanzele	kumanzele	kumanzele
near	pafupi	pafupi	pepi	pafupi	pafupi	apepi	munsi	munsi	pansa	apepi	pafupi	pafupi	pafupi	pafupi	pafupi	pafupi	karibu
outside	kunja	kunja	kunze	panja	kunja	kunse	anze	lulyo	panse	kuwalo	kuwalo	kuwalo	kuwalo	kuwalo	kuwalo	pawalo	
right side	kulamanja	kwanja	kwendi	nkwendi	nkwendi	kulamanja	kukulyo	kululyo	nichani	kukulyo	kumalyelo	kumalyelo	kumalyelo	kumalyelo	kumalyelo	kumalyelo	kumalyelo
why	chifukwa	chikomo	nindo	nichinji	chifukwa	cinshi	kambonzi	chikasa	ninshi	chifukwa	chifukwa	chifukwa	chifukwa	chifukwa	chifukwa	nchivichi	kwa nini

Appendix D: Questionnaires

D.1 Individual questionnaire (polar questions are indicated in blue)

Date: _____ Researcher: _____ Location: _____
Individual's Name _____ Individual's contact info: _____

Languages used during interview: _____

D.1.1 Ethnolinguistic identity

- 1a) Are you a native of the area? _____
b) Where were you born? _____
c) (If no): When did you move here? _____
- 2a) What is your ethnic group _____
b) What is the ethnic group of your father? _____
c) What is the ethnic group of your Mother? _____
d) What is the ethnic group of your husband /wife? _____
- 3a) What is the first language you spoke most when you were a child? _____
b) What other languages do you speak? _____
c) Can you speak the neighboring languages? Yes/no Which ones?

- 4a) What year were you born? _____
b) Calculate age _____
- 5) Sex: male / female

D.1.2 Education and religious factors

- 1a) How many years have you studied? _____
b) Can you read and write? _____
c) Have you studied adult education? Yes / no
d) What grade? _____
- 2a) What religion do you follow? Traditional Christian Muslim Other _____
b) If Christian, what denomination do you attend? _____
c) On average, how many times a month do you attend church? _____
- 3a) How many times have you traveled outside of this language area? _____
b) For how long were you on each of these trips? _____
c) What were the reasons for your travels? _____
d) When you traveled, what languages did you use? _____

D.1.3 Sociolinguistic questions

- 1a) In your home, what language do adults usually speak with the children? _____
 b) In what language do the children usually answer? _____
- 2a) What language do you use with your Senga friends of the same age? _____
 b) When you were 15 years old, which language did you use with your peers? _____
- 3a) Are the children of this village able to speak other languages before school? Yes / no
 If yes:
 b) Which ones? _____
 c) Do they speak it well or just a little before school? _____
- 4) When the Senga people gather in the evening and talk, what language do they use most often?

 If it is one of the other languages, do they use it:
 a) All the time? b) Most of the time? c) Sometimes? d) Rarely?
- 5a) If a Senga person is sick, and a family member wants to pray for him/her, in what language is it best for him/her to pray? _____
 b) Explain: _____
- 6) When discussing politics with other Senga people, what language do you use? _____
- 7) What languages do your children use when playing with other children?

- 8a) Can you say everything that you want to say in Senga without getting confused? Yes / no
 b) If no, what subjects are difficult to express in Senga? _____
- 9) When you talk with other Senga people about religion, what language do you use?

- 10a) If you met another Senga person in the city, what language would you use to talk to them?

 b) If Senga, is it only to greet, or in your all conversation? Greetings only / all
- 11a) What language do you speak most often in your home? _____
 If not Senga, then:
 b) What languages are they? _____
 c) How often do you use these other languages?
 All the time Most of the time Sometimes Rarely
- 12a) Do you believe that young people (those between 13 and ~20) in this village are leaving Senga to use other languages only? Yes / no
 b) If yes, what languages are they using most? _____

13a) Are the Senga children growing up in town these days learning to speak *both* Senga and other languages? Yes / no

b) If yes, what languages are they using most? _____

c) Do they speak other languages well or only a little? Well / a little

14a) Is Senga sufficient to express all of your thoughts/ideas? Yes / no

b) If no, why not? _____

15a) If you were to have an argument with your neighbor, and you had to take it before the local court, would you be able to solve the matter completely in Senga? Yes / no

b) If you had to use other languages, besides Senga, what would you use?

16a) Are there some Senga people who are unable to speak Senga well? Yes / no

b) Where are they? _____

c) Why don't they know Senga? _____

17a) If a Senga person does not know how to speak Senga well, is he truly of your language or not?

b) Choose one answer: Yes / no

Explanation: _____

Notes: _____

D.2 Group questionnaire

Date: _____ Village: _____ Chiefdom: _____

Interviewer: _____ Setting notes: _____

D.2.1 Introduction/group composition

- 1) What people groups are present here during the meeting?
- 2) What is the ethnic origin of the people in the village?
- 3) What ethnic groups are present in the village nowadays?

D.2.2 Language relationships

- 1) In English, people of your ethnolinguistic group are called the *Senga*; what are they called in your language?
- 2) What are names that other language groups call the Senga language?
- 3) Where is the Senga language used? In what districts/divisions/wards/villages?
- 4) Who borders with the Senga to the north, south, east and west? What is the last Senga village?

N

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S

- 5) If the borders are not clear or there are some mixed villages, write down the names of all the villages where the language is spoken:
- 6) In all of the Senga villages, do people speak Senga in the same way you do? Or is there a difference?
- 7) Explain what the difference is. Is it words or only sounds (accent)?
- 8) If you heard someone from a certain village speaking Senga, would you be able to tell where he came from by his way of speaking?

- 9) If I want to learn good Senga which is correct, where should I go?
- 10) Use if needed to clarify:
- 11) Where do the Senga speak Senga the best?
- 12) In what way?
- 13) The language of what other people resembles or is similar to Senga?
- 14) Which language do you use to speak with these people?
- 15) What is the relationship between the Senga and the Tonga? and the Lozi? And the Lenje?
- 16) How about languages?
- 17) Are they similar?
- 18) What are the differences? Which language, Tonga, Lenje, Lozi or some other is closest to Senga?
- 19) Are there any Senga who cannot speak Senga well?
- 20) Where do they live?

D.2.3 Language use and attitudes

- 1) Is it good for a Senga to speak Senga?
- 2) Why?
- 3) What language do the younger children who haven't entered school use when playing together?
- 4) What language do the school-age children use when playing?
- 5) Which language do you prefer to speak the most?
- 6) Why?
- 7) If you meet other Senga in town, which language do you use to talk?
- 8) (If a Senga met with a Tonga person or a Lozi or a Lenje, what language would (s) he use?
- 9) If a foreigner who does not know Senga were to move to your village, which language should s/he learn to communicate with the Senga?

D.2.4 Language shift

- 1) Do the children here speak Senga correctly, as it should be spoken?
- 2) Do the young people here speak Senga correctly, as it should be spoken?

- 3) Are there Senga who do not speak Senga but only speak Tonga, Lenje, Lozi, Chewa or some other language?
- 4) Where do they live?
- 5) Are there any in this village?
- 6) Who are they?
- 7) What do you think about them?
- 8) When the children of this village become adults and have children, what language do you think those children will speak?
- 9) Is it important to continue speaking Senga?
- 10) Why?
- 11) What language are the schools here teaching the children in?

D.2.5 Socioeconomic environment

- 1) What do the Senga do to provide for themselves to prosper?
- 2) What language do they speak when doing this work?
- 3) Do you have a market here?
- 4) Where do the people from this village go to the market?
- 5) How many times per week?
- 6) People from which tribes usually go?
- 7) Which languages do you use there?
- 8) Is it every week, or when?
- 9) People from which tribes usually go?
- 10) Which languages do you use there?
- 11) Do the Senga of this village marry people from other language groups?
 If yes: From which tribes?
 Frequently or rarely?
 What do you think of them? Is it a good thing or bad?
- 12) What language do their children speak at home?

- 13) What customs do you have that differentiate the Senga from other people?
What customs differentiate Senga from Tonga, Lozi or Lenje?
- 14) Are there Senga from this village that have moved outside the area?
How many? Many, or a few?
- 15) Why do they leave?
- 16) How long do they stay living in another place before they return again to live here? Or maybe they do not come back?
- 17) Have they stopped speaking Senga? Or do they continue to speak Senga?
- 18) What things do the people of this village do together?
- 19) Is there cooperation between Senga villages?
- 20) Is there any co-operation among the villages of the Senga and the Tonga or the Lozi or Lenje?

D.2.6 Language development

- 1) Have you ever seen anything written in Senga?
- 2) If there were books in Senga, would you like to read them?
Health books?
Religious books?
Periodicals?
- 3) If there were books in Senga and Tonga, and Lozi, and Chewa, Lenje, and you were able to read all languages, which language would you choose to read:
- 4) Would you yourselves like to write stories and songs in Senga?

D.2.7 Miscellaneous

- 1) Do you know how many Senga people live in Zambia?
- 2) What churches are there here?
- 3) What languages are used in the church service?
- 4) What is the attendance of each congregation?
- 5) What percentage of Senga attend a church service once a week?
- 6) We are researchers from a mission whose task is to help people translate literature into their own languages. Our aim here is to see if the Senga would be helped by having sacred literature in the Senga language. What do you think?

- 7) Thank you very much. We have now finished with our questions. If you have any questions to ask us, you are welcome to ask them.
- 8) Questions from the crowd:
- 9) General remarks:

D.3 Village leader interview

Interviewer: _____ Date _____
 Village leader's name: _____ Mother tongue _____
 Position: _____ Number of years (a) in the ward/village, (b) in the position: _____

D.3.1 Demographics (circle which is appropriate: ward / village)

1a) How many villages are in this ward? _____
 b) What are their names? _____

2) What is the population of this ward? _____

3) In this village there people from which ethnic groups? What percentages of people come from each people group?

Village	Population	Tribe	%	Tribe	%	Tribe	%	Tribe	%	Tribe	%

D.3.2 Developments

1) What do people of this village do to provide for themselves? _____
 2) In this village history, have there been any mission/NGO development projects? Yes / no

D.3.3 Religious composition

1) How many villagers are Christians? _____
 2) How many villagers follow the tradition religion? _____
 3) What denominations are present in your village? _____
 4) Which one denomination is in the majority? _____
 5) Which one is the next largest after that? _____
 6) What other religions are practiced? _____

D.3.4 Education

- 1) How many primary schools are present in your village? _____
- 2) How many secondary schools? _____
- 3a) What is the number of children who attend primary school in your village? _____
- b) Number of children of who attend secondary school? _____

D.3.5 Language relationship

- 1) Other than Senga which language do the Senga understand best? _____
- 2) If a person wants to learn good Senga, where should he go? _____

D.3.6 Language development

- 1) Do you think that it will be beneficial for the Senga to be able to read and write in Senga? Yes / no
- 2) If no, why not? _____

D.3.7 People group profile

- 1) What percentage of the Senga are able to read and write in any language? _____
- 2) What work in general do the Senga do to earn a living (all the Senga besides this village)?

- 3) Concerning development issues, what are the biggest needs for the people?

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