

Original Synthetic Report

Language as genes of culture and biodiversity conservation: The case of “Zaysite” language in southern region of Ethiopia

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Abstract – Background and aim: Ethiopia is a country of a remarkable ‘ mosaic’ people each with its own distinct languages, and cultural norms without which progress and development are impossible and development that does not pay attention to culture and environment cannot produce fruits. *Zeyse ethnic* group is one of the minority ethnic groups whose language and its role to conserve biodiversity is not studied well. The aim of this study was to assess the status of *Zeyse* ethnic group language and its role in biodiversity conservation. **Subjects:** During the study, the status of the language and its role to conserve biodiversity were assessed by, taking a sample of 230 individuals from the population that includes age groups ranged from 10 to 105 years, who were native “*Zaysite*” speakers... **Results and conclusion:** The result indicated positive attitude of the respondents towards their language, the link between linguistically encoded indigenous environmental knowledge and biodiversity conservation, existence of some obsolete words of *Zaysite* language, and progressive decrease of the mean (\bar{X}) numbers of correctly interpreted vocabularies from elders (\bar{X} =63.85) to teenagers (\bar{X} =37.23). These findings prove noticeable gradual decline in the use of *Zaysite* language. Losses of vocabularies, as social genes of culture and some words becoming obsolete have not only negative impacts on the proficiency and communicative functions of the language, but also on the biodiversity conservation because life in a particular human environment is dependent on people’s ability to express the environment using words (cultural genes) of the language. Therefore, language has a direct positive effect on the biodiversity conservation and hence, *Zaysite* and other languages need protection, preservation and documentation in order to conserve biodiversity.

Key words: biodiversity, elders, endangerment, language preservation, teenagers, *Zaysite*, cultural genes

Introduction

Background of the study

Language is one of the most important properties of humans that form communicative tools for the community (Omoregbe 2005). Language value is not only viewed in terms of communication, but also embodies the unique cultural wisdom of the people (UNESCO, 2003). According to Selin (2003), in a specific society, culture is linked and influenced, by locally specific relationships between people and the environment resulting in varied values, knowledge and practices, related to the biodiversity (= variety of life forms including genes ,species, population community and ecosystem) conservation which can be expressed using words or vocabularies (cultural genes/social genes of culture). Moreover, large contributions of traditional farmers to the global stock of plant crop varieties and animal breeds (Thrupp, 1998; Hens and Nath, 2003) and customary beliefs and behaviors such as sustainable resource extraction techniques, sacred grove, ritual regulations of resource harvest and buffer Zone maintenance (Moock and Rhoades 1992) contribute directly and indirectly to biodiversity conservation and these are some of the indicators of the interrelationship between culture and biodiversity (= bicultural diversity).

Furthermore, environment and language (as a component of culture) may be seen as parts of the same whole, because overtime, humans communicated closely with the environment, modifying it as they adapted it, and acquired knowledge of it. This knowledge was encoded and transmitted through the vocabularies (= cultural genes) of the local languages which, become in turn molded by, and specifically adapted to socioecological environment of the society (Maffi 1998), like the biological genes of the species. Moreover, landscapes are anthropogenic (human made), which are not only physically modified by human intervention, but also they are symbolically brought into the sphere of human communication ,by language, by word expression as cultural genes, stories, legends and songs that encode and convey human relation with environment.

Traditional place-naming using languages also occur in an ecological context, which carries high cultural values, significant, for the indigenous people. Besides, named landmarks convey and evoke knowledge on the physical environment, daily activities, historical events, social relations, ritual and moral conducts, and hence” wisdom sits in places” (Huhn 1996; Basso 1996). These are some of the reasons, why life in a particular human environment is dependent on people’s ability to talk about it (Hermon 1990 cited in Maffi 1998), showing an inextricable link between the language and the environment including biodiversity.

However, studies show cultural diversity is being rapidly lost in parallel to biological diversity (UNESCO, 2000). Taking linguistic diversity as an indicator of cultural diversity, over 50% of the world’s approximately 7000 language are currently endangered and it has been speculated that up to 90% of existing languages may not survive beyond 2100 (Matsuura 2008). UNESCO (2003) also estimates, about 90% of the languages may be replaced by the dominant languages by the end of the twenty first century. Biological diversity loss has been also a major concern to mankind, throughout the world and is continuing at an unperceived speed and reverse in this ongoing decline should be urgently needed (Hens and Nath 2003). The causes of biodiversity loss are multiple and complex. However, studies have shown that, one of the traditionally important ones is biological reasons/causes of biodiversity loss which is due to human interventions (Sinclair, 2000a).

Language loss/death may be due to the result of external forces such as genocide, disease, natural catastrophe or military, economic, cultural and educational subjugation or it may be due to internal forces such as a community’s negative attitude towards its own language (Wurm 2001; UNESCO 2003). Moreover, language endangerment can be also caused due to globalization, which appears to demand cultural and linguistic homogenization leading to the extinction of minority languages around the world (Xiulan 2007). Cultural assimilation into dominant cultures in general and linguistic assimilation through the impositions of the dominant language in particular, involving in schooling, government affairs and most other public context through the severe restriction of the

language use, prohibition and punishment for the language and cultural use can lead to the loss of language and indigenous knowledge (Maffi 1998) affecting intergenerational transmission of the indigenous knowledge and the conservation of the biodiversity. The loss of language and indigenous knowledge creates a vicious circle that in turn affects the local ecosystem including biodiversity because any reduction of language diversity diminishes the adaptation strength of our species since it lowers the pool of knowledge from which we can draw (Thieberger 1990; Dianond 1993).

Studies have also shown the impacts of loss of cultural diversity may include, local food insecurity due to reduction of traditional varieties of crops, devaluation of gender specific knowledge of biodiversity especially women's knowledge of medicine and food resources and loss of traditional and local know ledge, practices, sustainable use of biodiversity. Like other African countries, Ethiopia is culturally and linguistically diverse country, a country where many languages are used in everyday communication. However, most of the languages of the Ethiopians are unwritten and hardly preserved and are not modernized at all in vocabulary (Bender *et al.* 1976). Since language loss is a threat to linguistic resources worldwide, so Ethiopia is no exception. Therefore, linguistic diversity and biodiversity cannot be seen in isolation, and should be conserved simultaneously in order to guarantee sustainable bicultural diversity.

Zeyse is one of the minority ethnic groups in southern Ethiopia whose language as well as vocabularies (cultural genes) transmit indigenous knowledge to younger generation (intergenerational transmission). However, cultural role of biodiversity conservation, comprehensive language studies such as producing dictionaries, grammar Sketches; phonology, dialect loss etc at a national level in general and **Zeyse** in particular have not been studied well. This prospective study is therefore undertaken to assess intergenerational language transmission from elders to younger generation and the negative impacts of language loss on biodiversity conservation. The study result is expected to assist, language documentation, preservation and safe language transmission so as to conserve biodiversity.

Rationale of the study

Language vitality is not only viewed interims of communication, but embodies the unique cultural wisdom of the people. The loss of any language is the loss for cultural diversity which leads to biodiversity crisis leading to the loss of humanity (UNESCO 2003). Thus, there is a need to promote multilingualism and linguistic diversity, including preservation of the endangered languages. Within this context, the aim of this study is, to assess the status of “**Zaysite**” one of the Omotic languages, in Southern Nations Nationalities, and people’s administrative region of Ethiopia and also to show some negative impacts of language loss on biodiversity conservation.

Materials and Methods

Description of the study area

Ethiopia is a sub-Saharan African country located in the Horn of Africa (Fig.1). It is extremely ethnically diverse country inhabited by more than 80 ethnic groups of which over 56% are indigenous to the Southern Nations Nationalities and Peoples (SNNP) region. These ethnic groups are distinguished by their different languages, culture and socioeconomic organizations. The languages spoken in SNNPR can be classified into 4 linguistic families: Cushitic, Nilotic, Omotic and Semitic, of which the majority of the ethnic groups in the region speak Omotic linguistic family (BOPRD, 1996). **Zaysite**” is a language of **Zeyse** ethnic group (Abayneh Unasho, 2007). This language is one of the Omotic linguistic origin, spoken by **Zeyse** people, one of the minority ethnic groups in southern Ethiopia. **Zeyse** people live in a place called “**Zeyse**” (Fig. 1 and 2), which is located in Semen Omo zone (Gamo Gofa Zone) (Fig. 1). According to CSA (1984) of Ethiopia, 17,843 people belong to **Zeyse** Ethnic group. However, demographic projection of the present estimation, using the 1984 population census result, shows the number of **Zeyse** population would approximately reach to 35,435 in the year 2008. There are several least studied languages and dialects in Ethiopia (Bender *et al.* 1976) and “**Zaysite**” language is the one, which is the concern of the present study.

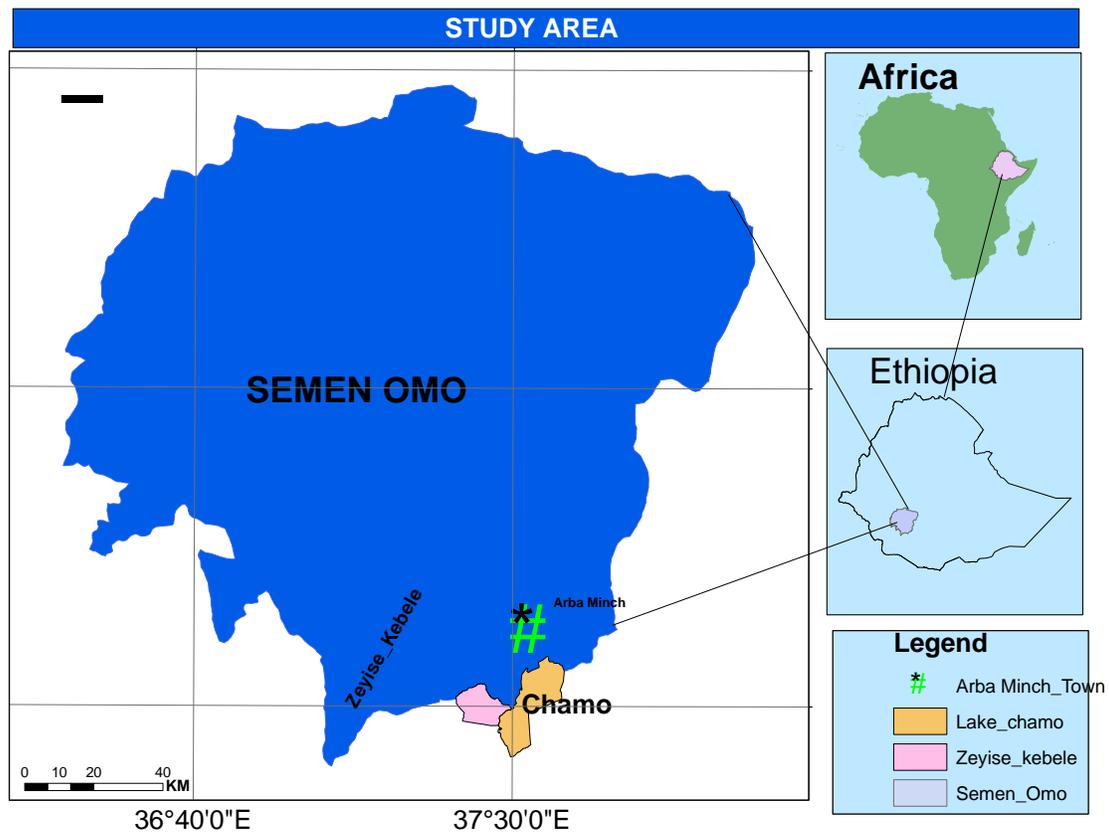


Fig 1. the study area

Source: *Ethiopian Geographical information system 2003 (Ethio. GIS, 2003)*

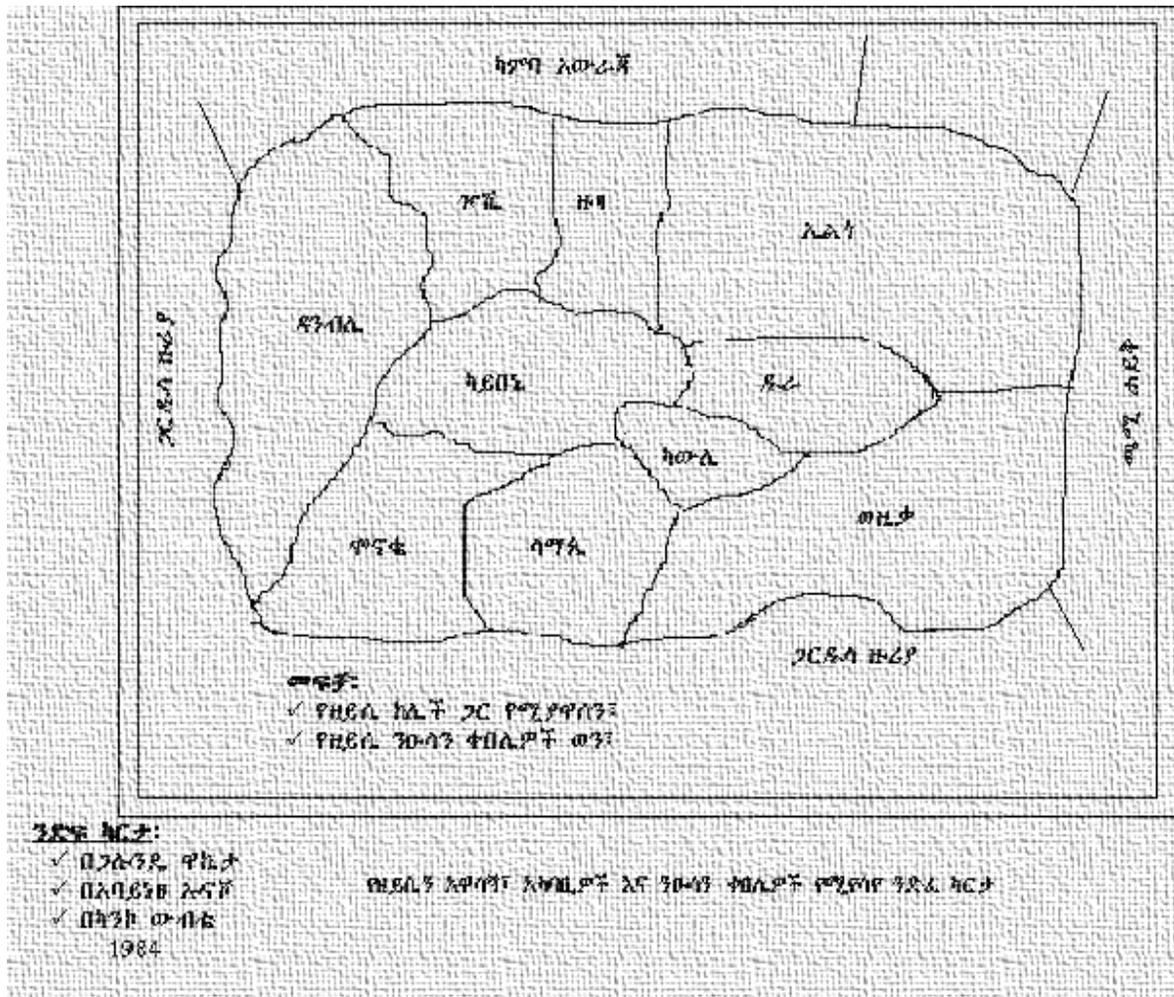


Fig. 2. Map of Zeys locality (according to Abayneh Unasho, 2007)

Design of the Study

This study was carried out, involving the assessment of *Zaysite* language and its role in biodiversity conservation. It was done by taking 230 individuals from the population, whose age ranged from 10 to 105 years old including individuals who inhabit in Zeyse, Arba Minch, Awassa and Addis Ababa to include members of the ethnic group in both rural and urban regions. The study employed both quantitative and qualitative research methods. Quantitative data were obtained from questionnaire and vocabulary test with all the respondents and qualitative data were obtained from focus group discussion (FGD) with community elders. Data triangulation was employed to produce quality research results. The study was conducted from March 10 to 18 June 2008. Moreover, data collection was done by the researcher himself and other volunteer individuals of the ethnic group and analysis and interpretation were done by the researcher himself.

- Study population and method of sampling

This study was done by taking a sample units of 230 individuals, all of them were native speakers of the language. The method of sampling was purposive sampling to include the targeted study groups. However, elders of the ethnic group, who provided vocabularies of *zaysite* language and sons and daughters from the intermarried individuals, were deliberately excluded from the sample units to avoid language biases and language conflicts respectively. The respondents vary according to the following social criteria: age (varying from 10 to 105 years), educational status (illiterate to M.sc. degree) and sex including both males and females. The age estimates have been classified into 7 age categories: 10 - 20 years, 21 – 30, 31 - 40, 41 - 50, 51 - 60, 61 - 70 and those 71 and older. These categories were used to grade language use (language proficiency) and observe the state of intergenerational language transmission.

- Methods of data collection

This paper has used questionnaire for all study groups and group interview known as focus group discussion (FGD) methods, involving community elders whose age ranged 60 years and above to collect its data (Fig.3 and 4). All the respondents were also asked, vocabulary (words) competence in the language of *zaysite*, particularly how they communicate during

their daily lives i.e. when they are talking about a particular subject and their attitudes towards “their” language.

The purpose of specific *zaysite* vocabulary test as part of the data collection process was to collect quantifiable data on who knows/speaks, the language using correct words to specify a particular subject. This was because mere interview, questionnaire, or self-reports of language preferences may not necessarily represent the actual communicative language use of the communities (Lewis 1996). Therefore, in order to assess the language competence and intergenerational transmission, the sampled individuals were asked to interpret 72 vocabulary/words of *zaysite*, into their daily life activities. The number of correct interpretation/ word definition was taken as a measure of intergenerational language transmission and individuals’ language proficiency in *zaysite* language, i.e. the total number of wrong and right interpretations of vocabularies were determined and the results were taken as a numerical value of a speaker’s proficiency of the language (Lewis 1996).

Estimating language proficiency by vocabulary list (72 items) as Lewis (1996) stated:

Total Number of Vocabularies used – Number of wrongly interpreted = Numerical value of linguistic proficiency (correctly interpreted / responded Vocabularies).

Moreover, the total mean numbers of right and wrong number of vocabularies (= correctly and incorrectly responded vocabularies) were determined, to assess the status of the language.

- *Data analysis*

Research design includes quantitative and qualitative data collection method to provide information about language status and its role in biodiversity conservation. Qualitative data analysis was made by using descriptive approach while quantitative data were analysed using statistical parameters such as mean, percentages, graph and tables, to meet the research objectives.

- *Ethical aspects*

Researcher did not want to interfere directly into the privacy of the community due to ethical reasons. Therefore, voluntary consent of the community elders, parents/guardians of the teen age groups and other study participants was sought and the validity of the study was clearly explained to them. Individuals involved in the study were also given verbal consent before the data collection was made.



Fig. 3. pictures showing respondents with age grading involved in the data collection

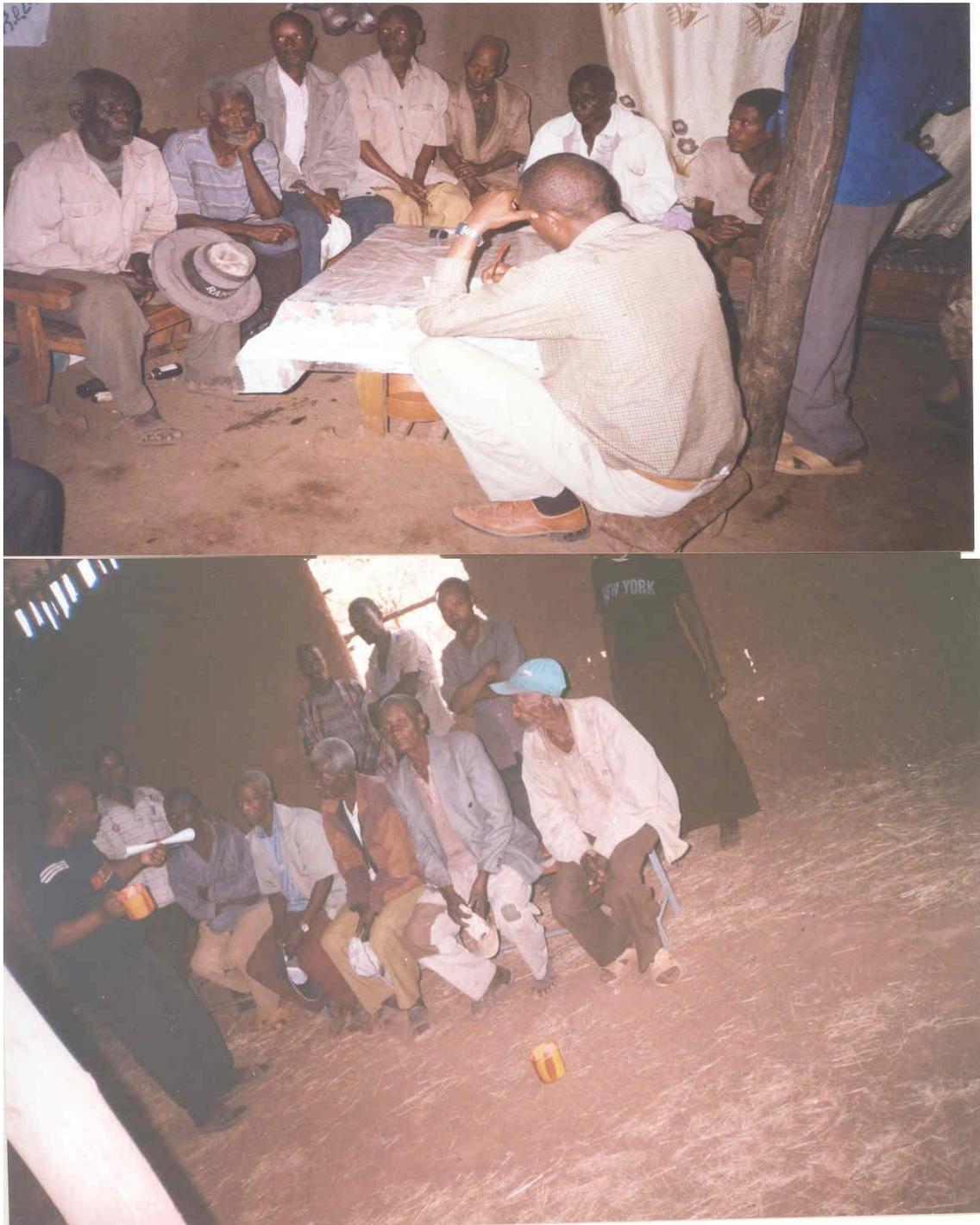


Fig. 4 . Elders involved in Focus Group Discussion (FGD)

Results and discussions

Background information about the respondents

A total of 230 respondents were involved in the study and their background information was given in Table 1.

Table 1. Background of the respondents

No	Features	Sex		%	Rem .
		Male	Female		
1	Age groups (in years)				
	10-20	42	31	73(31.74%)	
	21-30	47	21	68(29.57%)	
	31-40	33	8	41(17.83%)	
	41-50	19	2	21(9.13%)	
	51-60	10	4	14(6.09%)	
	61-70	4	2	6(2.61%)	
	71 and above	6	1	7(3.04%)	
	Total	161	69	230(100%)	
2	Educational bacground				
	2.1 M,Sc/MA	3	-	3(1.30%)	
	2.2. B.Sc/BA	10	-	10(4.34%)	
	2.3 10+1, 10+2 or 3 10+1, 12+2 or 3	29	9	38(16.50%)	
	2.1. Preparatory	8	2	10(4.35%)	
	2.5 Grade 9&10	21	19	40(17.40%)	
	2.6 Grade 7 &8	25	10	35(15.22%)	
	2.7 Grade 6 & below	53	18	71(30.87%)	
	2.8 Non academic background	14	9	23(10%)	
		Total	163	67	230 (100%)

Background information about the respondents indicated, different social criteria including age, education and sex. Age of the respondents vary from 10 to 105 (teenagers, to elders), and this age grading in language use would help to estimate the language use (proficiency) and intergenerational language transmission (Lewis 1996).

Furthermore, Table 1. Item 2 indicated, all social groups having non educational background up to a qualification of M.sc were involved in the study to assess the status of the language, and this showed the involvement of educational and non educational background of the respondents.

Assessment of the language status**- Attitudes of the members towards their language**

Sampled respondents involved in the study, replied, to; how they understand their language, and their feelings towards the language and their responses and these feelings were shown in Table 2.

Table 2. Attitudes of the respondents to their language

No	Item	Alternatives	Respondents		Rem
1	The value(s) of the language is (are)	A) Communication	42	42(18.26%)	
		B) To understand the environment	3	3(1.30%)	
		C) Symbolizes social being	6	6(2.61%)	
		D) Expresses identity	1	1(4.3%)	
		E) Preserves culture	4	4(1.74%)	
		F) All	174	147(100%)	
	Total		230	230(100%)	
2	Whom do you Think can speak “Zaysite” correctly?	A) All age gropes including children	96	96(41.74%)	
		B) Elders and a few children	10	10(4.35%)	
		C) Elders and grandparents	50	50(21.74%)	
		D) Grandparents and above	43	43(18.36%)	
		E) Only few people	12	12(5.22%)	
		F) all	19	19(8.26%)	
	Total		120	230(100%)	
3	Are vocabularies, spoken by the elders being forgotten? Total	A) yes	224	224(97.4%)	
		B) No	6	6(2.60%)	
			230	230(100%)	
4	Zeyse ethnic group (is)	A) Proud of its language	14	14(6.08%)	
		B) Everybody values the language to develop	5	5(2.20%)	
		C) Wants language attrition		-	
		D) Wants linguistic assimilation with other languages)		-	
		E) majority of the people	16	16(6.95%)	
		F) A&B	195	195(84.78%)	
	Total		230	230(100%)	
5	Are you happy when you speak “ Zaysite”?	Yes	230	230(100%)	
		No	-	-	

As for questionnaire item 1 in Table 2, respondents feedback indicated the vitality of the language, i.e. 174 (75.65%) of the respondents, expressed the value of language being communicative, understanding the environment, expresses identity, preserves culture and symbolizes social being while 42(18.26%) of the respondents reflected language is used for communicative purpose whilst only few proportion of them responded to language validity for expressing individual identity, preserve culture, understanding the environment including biodiversity and symbolizes social being.

This result showed that majority of the respondents 174 (75.65%) understood the value of the language correctly and they would support the development of the language. This finding was also in agreement with similar conclusions reported by Matsuura (2008), where he explains the role of the language in wider ranges. Moreover, Xiulan (2007) also explains the use of language as a means of perceiving, the world and the environment, essential elements of a person's identity, understanding the work of brain and linguistic human rights.

Moreover, for item 2, 96 (41.74%), of the respondents, witnessed that all age groups including children speak *Zaysite* language correctly while 50 (21.74%) responded that elders and grandparents, whilst 43 (18.69%), grandparents and above speak the language correctly, but the rest responded in favor of only few people, elders and grandparents do speak *Zysite* language correctly. According to UNESCO (2003), safe intergenerational language transmission exists when all age groups including children speak the language. However, this result indicated mixed responses showing a threat to language intergenerational transmission and consequently weak inheritance of indigenous knowledge about the environment.

Responses of the individuals to item 3 also indicated vocabulary loss of the language, i.e. 224 (97.40%) of the respondents showed that there is a steady loss of *zaysite* language vocabularies, while only 6 (2.60%) of the respondents denied, loss of *zaysite* language vocabularies. This finding also indicated that loss of vocabularies, leads to language loss that can also affect intergenerational language transmission to the next generation (UNESCO 2003). Besides, vocabulary (= social genes of culture) loss implies language loss affecting conservation of nature and environment because life in a particular

human environment is dependent on people's ability to talk about it using their language (Hermon 1990 cited in Maffi 1998).

For item 4 and 5 (Table 2), respondents clearly indicated their positive attitude (= a complex mental state involving beliefs, opinions, and feelings) towards their language, i.e. 195 (84.78 %) of the respondents, replied that *Zeyse* ethnic group is proud of its language, and everybody values it, uses it and wants to preserve it, while 14 (6.08%) are proud of their language whereas, 5 (2.20%) responded that everybody values the language and wants to develop it, but still others 16 (6.95%) said, majority of the people want their language to be developed.

Moreover, for item 5, all of the respondents, 230 (100%) agreed that they are happy and have positive feeling when they speak *Zaysite* reflecting positive attitude towards their language. This result agrees with the survey study on reading and voice samples (written in different orthographies) on 224 students from Tankang University and Tamsui College in Taiwan, shows student's positive attitude towards Taibun (written Taiwanese) language (Chiung 2001).

Moreover, in line with this result, Omoregbe (2005) indicates that, positive attitude of the speakers of the language, will do everything possible to promote the language, ensure its preservation and maintenance, and this attitude was shown by the respondents. Moreover, according to Suojanen (1992), respondents reflected cultural-self-esteem (e.g. high appreciation of one's own culture) and the result also does not show cultural stigma (spoiled = identity) or negative attitude towards the language. This result therefore indicated, people of *Zeyse* have positive attitude towards their language and do not have any cultural stigma and hence they can maintain their language and biodiversity.

- *Vocabulary test of the language*

According to Crystal (2000), age is a critical factor, as it shows the extent to which language transmission between generations has been successful. Thus, 72 specific *Zaysite* vocabularies (words) were provided to sample individuals of different age groups to assess language proficiency and languages pass over from parents to children. The total numbers of correctly and incorrectly interpreted vocabularies were determined and the mean numbers of correctly and incorrectly interpreted vocabularies were presented in Table 3 and Fig. 5.

Table 3 Mean numbers of correctly and incorrectly interpreted (responded) vocabularies

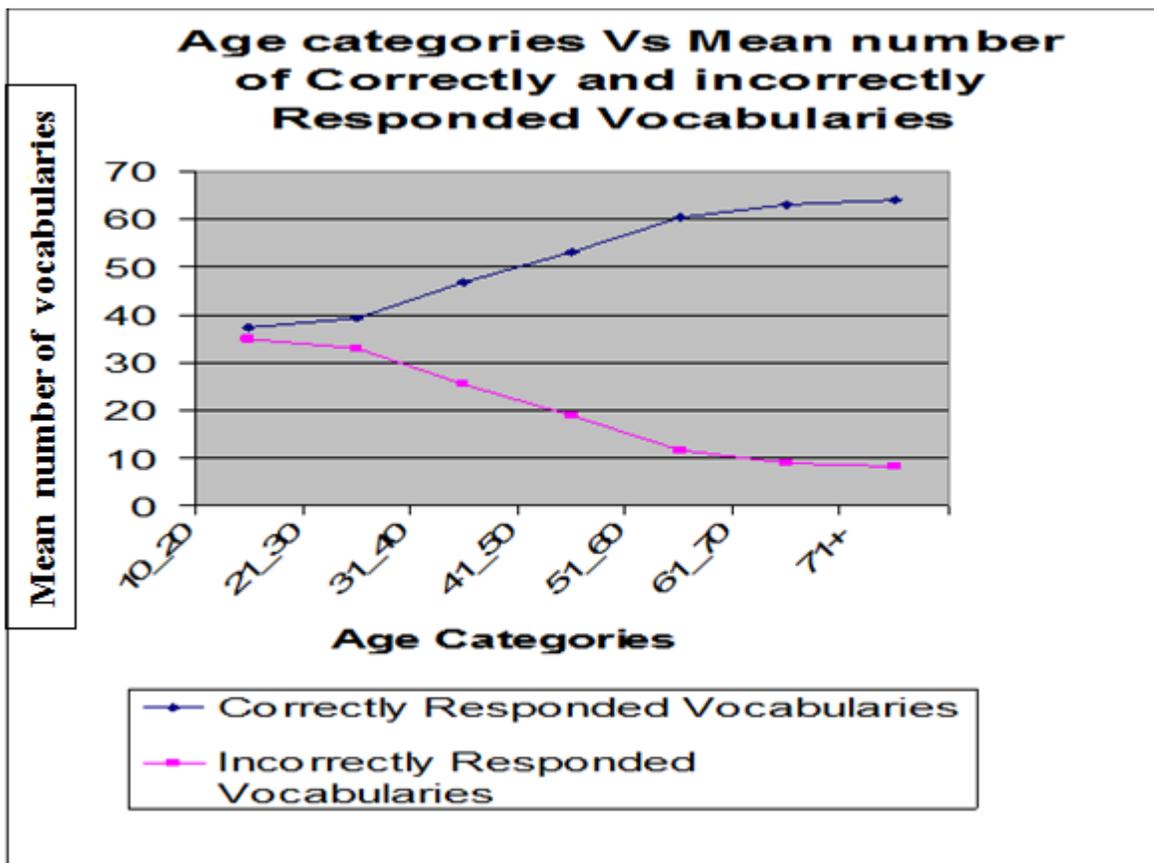
Age groups in years	Age categories (n)	Total no of correctly interpreted vocabularies $\sum x$	Mean number of correctly interpreted vocabularies $\bar{X} = \frac{\sum x}{n}$	Total no of incorrectly interpreted vocabularies $\sum x$	Mean number of incorrectly interpreted vocabularies $\bar{X} = \frac{\sum x}{n}$
10 -20	74	2755	37.23	2574	34.77
21 – 30	66	2587	39.2	2175	32.95
31 – 40	42	1960	46.67	1067	25.40
41 -50	21	1113	53	399	19
51 – 60	14	846	60.43	162	11.57
61 – 70	6	378	63	54	9
71 about	7	447	63.85	57	8.14
Total	230	-	-	-	-

In Table 3, the result showed that the mean number of correctly interpreted vocabularies by the sample individuals, progressively decreased from elders (mean number of correctly interpreted vocabularies = 63.85) to teenagers (mean numbers = 37.23) showing gradual decline in the use of the language (Fig. 5). In line with this result, language proficiency was indicated by a Canadian census based on the study between 1981 and 1996 on Aboriginal language, using age trends. This shows a steady decline of language use, i.e. 60% of those aged 85+ used an indigenous mother tongues and 30% of those aged 40 - 44 and 20% of children under 5 (Crystal, 2000).

According to Crystal (2000), teenage years are characterized by both from peer-groups and from the demands of job-market and are sensitive to language change. Studies have therefore shown that, it is the case that people prefer to use or learn the language that is socially and economically useful to them. This probably accounts for the reason why, the young generation and adults particularly who are urban dwellers and students of *zaysite* speakers, have lower vocabulary proficiency than the elders and middle age groups.

Moreover even the elders of the study group did not show complete vocabulary proficiency, i.e. have no longer able to use some vocabularies that were previously spoken by elders, and this shows a steady language loss which may lead to language attrition and potential language endangerment. Due to an inextricable link between the language and biodiversity, Paris and Martin (2008) show vocabulary loss which affects bicultural heritages, if not protected and preserved. Furthermore, when parent generations (elders and middle aged groups) experience some loss of vocabularies, this is another challenge in intergenerational language transmission. According to Matsuura (2008), languages are strategic factors for the environmental sustainability, and hence language loses this factor when the intergenerational language transmission is affected.

Fig. 5: Age categories vs. mean number of correctly and incorrectly responded Vocabularies



Assessment of the language based on the focus Group discussion (FGD) and my personal observation.

** Status of the language.*

The results of focus group discussion conducted, as well as my personal observation showed that all elders clearly witnessed language loss, and children and young generation of the ethnic group do not know proverbs and folktale of the people. Moreover, elders rationale about gradual *zaysite* language attrition is mainly due to:

1. External pressure and influence of different languages from the surrounding ethnic groups etc, leading to language shift either by an individual or group influences. This result agrees with similar study on language which shows gradually language shift either by an individual or group influences (Crystal 2000).

2. Obsolescence situations of words or phrases (= no longer used or actively spoken by the community) may affect language role and intergenerational transmission.

** Linguistically encoded environmental knowledge.*

According to Matsuura (2008), languages encode and convey local indigenous knowledge which brings sound management of the natural resources. In line with this, on language use, elders witnessed the fact that linguistically encoded environmental knowledge, such as traditional way of biodiversity conservation (e.g., terracing), ethno botanical knowledge of the local people, ritual regulation of forest and sacred trees, traditional place-naming (e.g. Zhosha boke, and Gendo boke i.e. Zhosha and, Gendo boundaries of the ethnic group) etc. were considered as symbols for biodiversity conservation. These witnesses of the community elders also agreed with the following study results.

- Traditional way of biodiversity conservation, such as terracing (Persic and Martin, 2008).
- Persistence of ethno botanical knowledge i.e. competence of identifying local plants by their names and cultural uses of the same plants using indigenous knowledge (Maffi 1998).

- Ritual ceremony which has an intimate spiritual and physical connection with respect to nature adding biodiversity conservation. Traditional place - naming using language such as “*Zhosha boke, Gendo boke, Gato kimbre, and Dito kela* (Abayneh Unasho 2007), occur in an ecological and environmental context, which carries high cultural values, significant, for the indigenous people to protect their environment.
- Besides, named landmarks convey and evoke knowledge on the physical environment, reflect historical events “wisdom sits in places” (Huhn, 1996; Basso 1996). These traditional interconnections of zeyse ethnic group and environment have been either forgotten or not understood by the younger generation like their parents and grandparents.
- Knowledge encoded and transmitted through the vocabularies (= social genes of culture) becomes in turn molded by, and specifically adapted to socioecological environment of the society (Maffi 1998), like the biological genes of the species (= species inherit hereditary genes that reflects biological behavior of the species whilst vocabularies of the language are the reflection of social behavior of the community).
- sacred grove, ritual regulations of resource harvest and buffer Zone maintenance (Moock and Rhoades 1992) contribute directly and indirectly to biodiversity conservation and these are some of the indicators of the interrelationship between culture including language and biodiversity (= bicultural diversity).

* *Obsolescence situations of words:*

Elders witnessed Obsolescence situations of words may affect communicative role of the language and safe intergenerational transmission (Table 4). Language is a complex system and its functional building blocks are nouns which need verbs, prepositions and adverbs and when any one of these blocks is affected, language roles of the community will be affected. Therefore, obsolescence of words may be a potential threat to language and its communicative role in a community because the effects will lead to the loss/change of certain linguistic knowledge in the language. Studies also show no language is static over time and is at a state of change due in time and place (Trask 1994). However, what must be assessed is whether changes are likely to lead to newer forms of a language (e.g. Middle English vs Modern English) or to death of the language. This study showed some of the

words of Zeysse ethnic group are not transforming into new forms of the language, but are dying or becoming obsolete and therefore they need protection and conservation and the impacts of language protection will lead to biodiversity conservation.

Table 4: Some examples of obsolescence words

No.	Native Language(Zaysite)	Translation (English)	Current Status of the word (S)
1	Udd	Abuse of human right	No longer used by the younger generation
2	Utto	People without a leader	-
3	Guuzo	spy	-
4	Saza	Grass (runner), native or indigenous	-
5	Mama	Something to be expressed	-
6	Tunga	Addis Ababa	-
7	Kemo/Kere	Comfortable life	-
8	Faro	Zebra	-
9	Doha/Tuna	Something that is undermined due to traditional belief	-
10	Zaka	Elephant	-
11	Zhito	orphan	-
12	Bizi Desse	Group based One age range of the individuals	-
13	Lasho	Traditional way of problem solving	-

I summarize the results, of focus group discussion and vocabulary test, by taking my specific observations on the attitude of sampled individuals:

Among the members of the focus group discussion, one of the farmers expressed his concern about the language status by using his native language (mother tongue) by saying:

“Asi Hyumute Badey (zeriy) Ban! Nuy Haachesum Aggay Nu Badey Bayan”?

Nu aka, Nu feysha Nu gade waysun krende? (Human mouth closes or his language dies when he dies, but why is our mouth closing / = our language is dying / and yet we are alive?), how can we maintain our being and our environment? This rationale of the farmer language status agrees, with the study result, that a language is said to be dead when no one speaks it any more (Crystal, 2005) and the farmer confirms that he has a sympathy and positive feeling about his language (Omoregbe, 2005).

In conclusion, the overall results indicated *zaysite* language is undergoing vocabulary/words loss and language attrition, which may lead to potential language endangerment, if not protected and documented. Besides, biodiversity can be conserved and maintained only when the language diversity is conserved. However, *zeyse* people have positive feelings and attitudes towards their language and are loyal to develop and protect it, and their environment, if they get political and economic support from the government

Recommendations :

1. Every language is the vital part of cultural diversity and is therefore should be conserved and maintained regardless of its political, demographic and linguistic status.
2. Nationwide researches on linguistic studies, including the endangered languages should be carried out, to end up with sustainable solutions, such as publishing books on culture, producing dictionaries, glossaries, carrying out comprehensive language studies including grammar Sketches, phonology etc.
3. Linguistic diversity and biodiversity cannot be seen in isolation, therefore should be conserved simultaneously in order to guarantee sustainable bicultural diversity, and human development.
4. Proper recognitions should be given to indigenous knowledge, so that the biodiversity conservation will be sustainable and long- lasting.
5. We should document indigenous knowledge to promote it and to maintain bicultural diversity.
6. Education has been reported to be a highly important variable in language maintenance, so we should work in favor of mother tongue as part of the primary education in educating children (Matsuura 2008).

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References

- Abayneh U.,2007. *Culture of Zeyse ethnic group*. Lisan Printing Press, Addis Ababa.
- Bender M.L.,Bowen J.D., Cooper R.L.and Ferguson C.A., 1976. *Language in Ethiopia*. Oxford University press, Great Britain.
- Bernard H.R., 1992. Preserving language diversity. *Human organization*. 51(1): 82-89 .
- Basso K.H., 1996. Wisdom sits in places, Landscape and language among the western. Apache, University of New Mexico press,
- Bopd., 1996. Burean of Planning and Economic Development. A.Socio-economic profile, SNNP Reginal Government, Awassa, Ethiopia:
Constitution of Federal Democratic Republic Government of Ethiopia, 1995. Addis Ababa
- Chiung W.T., 2001.Language attitude towards writing Taiwanese. *Journal of multilingual and multicultural development*. 22(6):502-523.
- Crystal D., 2000. *Language death*. Cambridge,University press. United Kingdom.
- CSA., 1984.Cetral Statistics Authority, Transitional Government of Ethiopia. Office of the Population and Housing Census commission. The 1984 population and Housing Census of Ethiopia. Analytical Report at the National level, Addis Ababa, December, 1991.
- Diamond J.,1993. Speaking with a single tongue, *Discover* .14(2):78-85.
- Hale K.,.1998. On endangered languages and importance of linguistic diversity. In: Endangered language loss and community response. Pp.192-216 (Gramolbe, L.B; and Whale, L.J.eds). Cambridge University press.
- Hens L .and Nath, B., 2003. The Johannesburg Conference on Environment, *Development and Sustainability*. 5:7-39.
- Huhn E.S.,1996. Columbia plateau place names. What can they teach us? *Journal of Linguistic Anthropology*. 6 (1) 3-26.

Lewis M.P.,1996. Measuring “Kiche” (Mayan) Language maintenance: A Comprehensive methodology. Paul Lewis and Summer in Central America Institute of Linguistic Inc.

Maffi L., 1998.Language:A resource for nature, nature and resource. *The UNESCO Journal on the environment and natural resources*. 34(4):12-21

Matsuura K., 2008.The international year of languages 01, Director General of UNESCO Message for international year of languages, 2008.

Moock J.and Rhoades R., 1992. *Diversity, former knowledge and sustainability*. Cornell university press.

Omogbe E.M., 2005. Language vitality: The experience of *Edo* community in Nigeria. In: Language in India, Strength for today and bright hope for tomorrow, volume 5 (Therumalia, M.S; Mallikarjun, B. A. and Fati, A.R.eds).Faculty of Arts, University of Benin, Nigeria.

Persic A.and Martin G., 2008..Links between biological and cultural diversity. Reports of International Workshop, Organized by UNESCO with Support from the Christensen fund, 26-28 September 2007, UNESCO HQ, Paris.

Selin H., 2003.*Nature across Culture*, views in non western cultures, Kluwer Academic publishers.

Sinclair A..R..E.,2000a. The loss of biodiversity: the sixth great extinction. In: *Conserving Nature’s Diversity*, pp. 30-44 (Van, E.H. and Sinclair A..R..E.Eds). Ashgate,Vermont.

Trask R.L.,1994. Language change,London;Routledge.

Thieberger N., 1990. Language maintenance: Why we bother? *Multilingua*, 9(4): 333-58.

Thrupp L.,1998.*Cultivating Diversity*. Resources institute, Washington D.C.
UNESCO., 2000 .Science for the twenty –first century: A New Commitment, World Conference on Science, United Nations Educational, Scientific and Cultural Organization, Paris.

Suojanen P., 1992. Aspects of Identity, Rights and Obligations of Ethnic groups. *Nordic Journal of African Studies*. 1 (2): 5-16.

UNESCO., 2003. UNESCO Ad HOC expert group on endangered languages, language vitality and endangerment, introduction. A group of linguistic and Language Advocates worked in collaboration with UNESCO, from November 2001 and March 2003.

Wurm S., 2001. Atlas of the world languages in danger of disappearing, 2nd. Paris, UNESCO publishing.

Xiulan Z., 2007. China Policy towards minority languages in globalizing age. *Transnational curriculum inquiry*. 4(1): 80-91.