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USAID EDUCATION DATA LANGUAGE MAPPING EXERCISE UPDATE

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ACRONYMS

COVID-19	Coronavirus Disease
DEC	Development Experience Clearinghouse
DESO	District Education Standard Officers
DRCC	District Resource Center Coordinators
ECE	Early Childhood Education
ECZ	Examinations Council of Zambia
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
GRZ	Government of the Republic of Zambia
HQ	Headquarters
KII	Key Informant Interview
KM	Kilometer
LME	Language Mapping Exercise
Lol	Language of Instruction
MoE	Ministry of Education
MoH	Ministry of Health
MT	Mother Tongue
NERS	National Estimates Research Study
PEO	Provincial Education Officers
PLP	Primary Literacy Program
PRP	Primary Reading Program
SESO	Senior Education Standard Officers
SPO	Senior Planning Officers
SSME	Snapshot for School Management Effectiveness
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The United States Agency for International Development (USAID) Education Data began implementation in April 2018 to provide education assessment, data management, and research and evaluation services to the USAID Let's Read Zambia project. USAID Education Data also aims to strengthen capacity of the Examinations Council of Zambia (ECZ) and the Ministry of Education (MoE) to track and collect data to improve learning outcomes in Zambia. The main task under USAID Education Data is to measure the change in reading skills for Grade 2 learners in the USAID Let's Read schools in Eastern, Muchinga, North-Western, Southern and Western provinces. For this purpose, USAID Education Data conducted the Early Grade Reading Assessment (EGRA) collecting data for a sample of schools and learners at baseline in 2018 and midline in 2021.

Zambia is a multiethnic and multilingual society with over 70 dialects. The Government of the Republic of Zambia (GRZ) has designated seven Lol in the country. The seven languages of instruction are: Chitonga, Cinyanja, Icibemba, Kiikaonde, Lunda, Luvale and Silozi.

In 2018, USAID Education Data conducted the **first Language Mapping Exercise** to develop a sampling frame for EGRA and to design the EGRA instruments for a baseline study in all languages of instruction in the USAID Let's Read provinces. This exercise also provided an update to MOE's database providing detailed information on the schools that have Early Childhood Education (ECE) programs, their location, and designated Lol.

In 2020, Education Data conducted the **second Language Mapping Exercise** in additional provinces not targeted by Let's Read, these are: Lusaka, Copperbelt, Central, Luapula and Northern province. This task responded to MOE and ECZ's request to expand the geographical scope of EGRA to all the ten provinces of Zambia in order to create nationally representative reading estimates that could inform early reading policy decisions by GRZ. The 2020 Language Mapping Exercise established the predominant Lol in these five provinces and enabled ECZ, MOE, and Education Data obtain a detailed school database for the National Estimates Research Study (NERS). The NERS assessments were conducted in MOE designated Lol in these provinces.

In 2021, USAID Education Data conducted an **update to the 2020 Language Mapping Exercise (LME)** to verify whether the predominant Lol in Lusaka, Central, Copperbelt, Northern and Luapula provinces aligns to the official MoE designated Lol. The first tier of the update process involved verifying education data at the school level by obtaining information from headteachers and District Education Boards (DEBS) in 116 sampled schools. A second tier to the verification process was updating education data for 5 per cent of the schools from the 2020 LME (248 schools) by verifying this school database with the existing database at MOE provincial and district offices. The specific education data that was updated in both steps of this exercise included Education Management Information System (EMIS) codes, location of the school, Lol used and functionality of the school.

The results of the 2021 LME update showed:

1. **All schools adhere to the MoE designated Lols** in the five additional provinces. This finding is what was also established in the 2020 LME. In 2021, a total of 4,055 schools were found to be adhering to the MoE designated Lol, while in 2020, there were 4,113 compliant schools. This shows that both GRZ public and community school typically observe MoE policy guidance on use of Lol in all five provinces.
2. **A reduction of 58 schools operating** between year 2020 and 2021 in the NERS sample. In 2021, there was a total of 4,055 schools, a reduction from 4,113 in 2020. All the 58 schools closed were community-based schools. After consultations with the MoE, USAID Education Data verified

that schools had to close due to the impact that COVID-19 pandemic had, reducing the inflow of resources from the community.

3. **Lusaka and Central province have multiple Lols.** Generally, most schools use the MoE designated Lol and there are approximately 15 other major languages in these 5 additional provinces. The use of multiple Lols means that learners may encounter difficulties learning in a language that may not be used at home. For example, the 2018 Language Mapping Exercise Report concluded that Eastern and Northwestern province use an Lol different from languages spoken in communities and the home, resulting in Mother Tongue (MT) interference in learning to read and write in the Lol.
4. In **Copperbelt Province, Icibemba is the official Lol** and the most widely spoken language in the ten districts although there are other languages spoken in the province. This finding shows that there have been no changes in the use of multiple languages in these 5 provinces. Lamba is used to further explain concepts in the classroom, although it is not an officially recognized Lol, so there are no MoE produced instruction or guidance materials in that language. However, Copperbelt province learners predominantly learn in Icibemba from pre-primary to Grade 3. Copperbelt is the only province with schools that contain one- or two-digit EMIS numbers; these schools are in Chingola and Chililabombwe districts.
5. **Luapula and Northern province most consistently use Icibemba** across all districts: Icibemba is the official Lol in all 12 districts of the Northern province as well as in the 12 districts in Luapula. The Northern province is considered the heartland of Icibemba, so it is unsurprising that Icibemba is used as the Lol in all 12 districts. Other major languages spoken include Bisa, Mambwe, Icilungu, Icimambwe and Tabwa. For Luapula, MoE officials document that all 12 districts use Icibemba and note no other major languages used in schools. Other major languages generally include Ushi and English. Of the KII respondents for Luapula province, no one cites other Lols. This finding is consistent with the results of the 2020 LME.
6. **The MoE databases require updating.** The EMIS codes for some schools were inaccurate, missing or duplicated. Further, administrative information pertaining to the school management contact details and annual enrolment data also needs to be updated.

Limitations

This exercise is not intended to be a school census or audit. USAID Education Data relied on provincial- and district-level databases and interviews to verify all schools in Lusaka, Copperbelt, Central, Luapula and Northern province. As a result, not all of the 4,055 schools verified during the 2021 LM exercise were individually contacted. During the 2020 LME, only a limited number of district representatives could attend school verification meetings in the provinces due to the COVID 19 pandemic. However, in 2021, most district officials were readily available and responsive. Generally, the team found district-level teams to have more updated information; however, some districts were not able to gather all zonal- or school-level data. Where there were data gaps, USAID Education Data maintained virtual communication with provincial and district officials and contacted personnel in every district. To the extent possible, every district provided additional information to update the Language Mapping database.

Recommendation

Findings from the Language Mapping Exercise show that MoE and ECZ datasets are not always up to date with the changes happening at the district and school levels. Language of Instruction is directly associated with a learner's ability to read, write, comprehend and fluency. Thus, it is critical to have readily available accurate information about Lol for education sector decision making. MoE and ECZ should regularly consult with the provincial level to reconcile the Language Mapping Exercise dataset with GRZ national and/or provincial datasets. Ensure MoE and ECZ have access to the updated Language Mapping Exercise report and dataset to understand and compare data inconsistencies or gaps. Where there are differences in datasets, seek clarification and identify challenges.

INTRODUCTION

The United States Agency for International Development (USAID) Education Data started in April 2018 to provide education assessment, data management, research, and evaluation services to support the USAID Let's Read project. The goal of the project is to improve the reading ability of pre-primary to Grade 3 learners with a series of interventions that will be measured using the Early Grade Reading Assessment (EGRA). EGRA is an individually administered oral assessment of foundational skills for literacy acquisition in early grades and is used as a diagnostic tool to measure student progress in reading (Sorensen, 2015). USAID Let's Read targets five provinces which include: Eastern, Muchinga, Northwestern, Western and Southern provinces.

The objective of USAID Education Data is to conduct two large-scale EGRAs and strengthen the capacity of the Examinations Council of Zambia (ECZ) and the Ministry of Education (MoE) to track and collect education data to improve learner outcomes in Zambian public schools.

In 2018, USAID Education Data conducted the first Language Mapping Exercise in the USAID Let's Read target provinces to generate a sampling frame for the Baseline 2018 EGRA. The team conducted the Baseline 2018 EGRA from October – December 2018 in all seven Zambian languages of instruction (LoI).

In 2020, USAID Zambia expanded the geographical scope of EGRA to all Zambian provinces to provide nationally representative learner reading level results. Expanding EGRA will inform ECZ and MoE early reading national policy and coordination and provide updated reading levels for the country. The National Estimates Research Study (NERS) will document these efforts by providing current reading levels among Grade 2 learners disaggregated by province and language. USAID Education Data in collaboration with the ECZ conducted the NERS simultaneously with the Midline EGRA between October and December 2021. It assessed 483 schools for the NERS, in Government of the Republic of Zambia (GRZ) and community primary schools across all ten Zambian provinces in all seven official LoI.

The Midline 2021 EGRA analyzed USAID Let's Read progress in the five target provinces by examining learner's reading levels at baseline and approximately two years into the project's implementation. EGRA instruments were piloted in 2018 and further examined for psychometric properties in 2020. USAID Education Data conducted the Midline EGRA in the same 816 schools assessed during the Baseline 2018 EGRA to assess comparability. Figure 1 shows samples across the NERS and EGRA data collections in 2021 and 2018.

FIGURE 1: NERS AND MIDLINE EGRA SAMPLES



PURPOSE OF THE 2021 LANGUAGE MAPPING UPDATE

The 2020 Language Mapping Exercise established that the predominant Lol in all schools in the non-Lets' Read Provinces of Lusaka, Central, Copperbelt, Northern and Luapula provinces aligns with the MoE designated one. This exercise enabled ECZ, MoE and USAID Education Data administer NERS assessments in MoE designated Lol and resulted in a detailed database that functioned as the NERS sampling frame. Further, a NERS random sample of schools was drawn that is representative at the provincial and language level.

The purpose of the 2021 Language Mapping Exercise Update was to conduct school level verification of the database resulting from the 2020 Language Mapping. This verified and updated Language Mapping dataset may assist MoE improve its own school database and strengthen decision making and implementation of early grade reading programming.

BACKGROUND

ZAMBIAN LANGUAGES - POLICY AND REGULATORY FRAMEWORK

Since 1996, changes in language policies have resulted in GRZ reforms. The policies outline that Zambian languages be mandatory components of national assessments and that initial reading skills should be taught in local languages to promote literacy of familiar Zambian languages (USAID Education Data 2019). The Primary Reading Program (PRP) and the Primary Literacy Program (PLP) outline reading and literacy policies to encourage children to read and write in a familiar, local language prior to learning English. The Education Act of 2011 outlines that pre-primary to Grade 4 children learn to read and write in one of the seven designated Lol. The seven official Lol include Cinyanja, Icibemba, Silozi, Chitonga, Kiikaonde, Lunda and Luvale (USAID Education Data, 2019; UNICEF, 2017). Table 1 outlines the Lol in the five additional provinces where the 2020 Language Mapping Exercise took place and the provinces and Lol from the first Language Mapping Exercise in 2018. (LME Report 2018 is available: https://pdf.usaid.gov/pdf_docs/PA00THW7.pdf)

Table 1: GRZ Designated Languages of Instruction – Additional Provinces

Province	Language of Instruction	Language Mapping Exercise
Lusaka	Cinyanja, Chitonga	2020
Central	Icibemba, Chitonga	2020
Copperbelt	Icibemba	2020
Luapula	Icibemba	2020
Northern	Icibemba	2020
Southern	Chitonga	2018
Eastern	Cinyanja	2018
Muchinga	Icibemba	2018
Northwestern	Lunda, Luvale, Kiikaonde	2018
Western	Silozi	2018

Source: Government of the Republic of Zambia, 2020; USAID Education Data, 2019

BASELINE EGRA

In 2018, USAID Education Data conducted the Baseline EGRA with the purpose of establishing Grade 2 learner reading levels at the start of the USAID Let's Read project. The results from the Baseline 2018 EGRA show that a quarter of all learners assessed were learning in a language that was not their mother tongue (MT). This was particularly true for learners assessed in Icibemba as only 50.56 percent noted Icibemba as their MT (USAID Education Data, 2019). The 2018 EGRA baseline results indicate that some children learning in a second language may require additional support, which is consistent with global

evidence that children learn to read best in a language they know and understand (Kim et. al., 2016; UNESCO, 2014).

As part of the Baseline 2018 EGRA, USAID Education Data measured whether Grade 2 learners were meeting MoE established Grade 2 benchmarks, such as learners reading 20 words correctly per minute. These MoE benchmarks were set in 2014 for Grade 2 and apply uniformly across all languages. The 2018 EGRA baseline thus established that approximately 12 – 15 percent of learners met the benchmarks. Approximately 10.2 percent of learners demonstrated reading fluency and comprehension of grade level text at the end of Grade 2.

Midline 2021 EGRA and future end line data are expected to show whether and to what extent the USAID Let's Read project is improving the ability of Grade 2 learners to read at grade level.

2018 LANGUAGE MAPPING EXERCISE SUMMARY

From May 2018 to January 2019, USAID Education Data conducted the first Language Mapping Exercise in the five USAID Let's Read target provinces, of Eastern, Western, Northwestern, Southern and Muchinga provinces. USAID Education Data verified 4,738 schools in the 58 districts of the five USAID Let's Read provinces in three stages. Major findings of the mapping include:

1. Of the 4,738 schools, **there were differences in the number of schools and districts in each province between the MoE database and the USAID Education Data field verified database.** Explanations to account for variations include that some community schools were no longer operable; districts were administratively moved by the government from one province to another and new districts were created.
2. **Except Northwestern province, only one GRZ designated Lol is used in the other provinces.** Northwestern province uses Lunda, Luvale and Kiikaonde. See Table I for additional information on Lols per province.
3. **Eastern province is the only province that has locally developed standardized EGRAs** in Cinyanja administered by MoE standards officers.
4. **English is sometimes used as an Lol in Northwestern province.** English is sometimes viewed as a neutral language to avoid conflicts between the Lunda and Luvale tribes (USAID Education Data Activity, 2019)

Table 2: Language of Instruction by Province and District, as Verified in June 2018 by USAID Education Data

Province	Language of Instruction	# of Districts	Total # Schools	# Schools, By School Type				# Schools, by Location	
				Public	Public+ECE	Community	Community+ECE	Urban	Rural
Southern	Chitonga	13	1,158	142	639	160	217	333	825
Eastern	Cinyanja	10	1,263	456	518	214	75	164	1,099
Muchinga	Icibemba	6	550	307	85	158	0	22	636
North-Western	Kiikaonde	5	395	250	71	72	2	87	308
	Lunda	5	205	105	39	61	0	6	196
	Luvale	4	208	115	44	47	2	5	203
	English	.	3	3	0	0	0	0	3
Western	Silozi	15	959	475	283	152	49	123	836
TOTAL		58	4,738	1,850	1,679	864	345	740	4,106

Source: USAID Education Data, 2018

2020 LANGUAGE MAPPING EXERCISE SUMMARY

From November 2020 to January 2021, USAID Education Data conducted the second Language Mapping Exercise in the additional five provinces where USAID Let's Read is NOT operating. These provinces include, Central, Copperbelt, Luapula, Lusaka and Northern province. USAID Education Data verified 4,113 primary schools in the 53 districts. Major findings of the mapping include:

1. **USAID Education Data verified 4,113 schools in 53 districts in comparison to 3,874 schools in 52 districts in the MoE HQ dataset.** Explanations to account for the variation of 239 additional schools were that the MoE dataset was from 2019, whereas the Language Mapping Dataset was verified from November 2020 – January 2021. However, consistent with the MoE dataset, there are more than twice as many rural schools than urban ones, i.e., 74 percent and 26 per cent respectively.
2. **Generally, most schools use the MoE designated Lol and there are approximately 15 other major languages in the five additional provinces.** The Lol in these provinces include Cinyanja, Chitonga Icibemba and Kiikaonde. All schools use only one Lol except Lusaka and Central Province which use two Lol. In Lusaka, some schools use both Chitonga and Cinyanja, while in Central Province, some schools use Icibemba, Chitonga and kiikaonde. There are at least 15 other major languages and/or dialects spoken in the additional provinces.
3. **Most MoE staff believe teachers are fluent in the MoE designated Lol in the district and/or province where they teach.** An estimate of teacher fluency in reading and writing in the Lol of the additional provinces showed that 45 percent of the respondents are “very fluent” in the MoE designated Lol in the district and/or province where they teach. 17 percent and 45 percent of key informant interview respondents rated Grade 2 teachers’ abilities to read and write in the Lol as “excellent” and “very good”.

METHODOLOGY

USAID Education Data team employed a multi-step, mixed-methods approach involving desk review and quantitative and qualitative field data collection and verification to conduct the 2021 Language Mapping Exercise in the five additional provinces.

STEP 1: CONDUCT SCHOOL-LEVEL VERIFICATION DURING THE NATIONAL ESTIMATES RESEARCH STUDY

The verification exercise involved reviewing and analyzing school profile data of 116 schools in the five provinces from the NERS research sample. In this process, data gaps, inconsistencies and areas requiring attention were identified by comparing existing databases of MoE and USAID Education Data. Based on these shortcomings, school visits were conducted to collect information from headteachers and DEBS to close these gaps. Among the key school profile information verified were actual EMIS codes, correcting of wrong database entries and duplicated information.

USAID Education Data updated EMIS codes for 8 schools for Lusaka, Copperbelt and Central province. The Lol for 5 schools in Lusaka and Central province was also updated as the schools used different language of instruction compared to that showing in the USAID Education Data database.

Table 3 below shows some of the school profile data for the 116 schools verified during this 2021 Language Mapping Exercise Update.

Table 3: School level data during NERS

Province	Language of Instruction	# of Districts	# of schools	# of schools by school type		# of schools by location	
				Public	Community	Urban	Rural
Central	Icibemba	8	12	9	3	2	10
	Chitonga	3	16	11	5	0	16
Copperbelt	Icibemba	5	16	12	4	8	8
Luapula	Icibemba	8	13	11	2	2	11
Lusaka	Cinyanja	7	39	15	24	30	9
	Chitonga	1	2	2	0	1	1
Northern	Icibemba	9	18	14	4	1	17
TOTAL		41	116	74	42	44	72

Source: USAID Education Data, 2021

STEP 2: CONDUCT VERIFICATION OF SCHOOL DATA BASE AT PROVINCIAL AND DISTRICT LEVELS

Data gaps identified during the NERS data collection deemed it necessary to update the sampling frame. These gaps included duplicate EMIS codes, no EMIS codes, duplicate school entries and wrong district or provincial profile. A case in point is Lusaka Province where 12 schools had duplicate EMIS codes, while 122 had no EMIS codes at all.

After the NERS data collection was completed, USAID Education Data updated an additional 5% of the schools from the 2020 language mapping database. This included schools with no EMIS numbers and those bearing the same EMIS numbers. USAID Education Data verified an additional 248 schools with support from MoE officials at provincial level and the planning unit at MoE. The provincial totals are indicated in table 4 below.

Table 4: Schools verified at provincial and district level after NERS data collection

Province	Language of Instruction	# of Districts	# of schools	# of schools by school type				# of schools by location	
				Public	Public with ECE	Community	Community with ECE	Urban	Rural
Central	Icibemba	7	49	19	13	30	6	7	42
	Chitonga	4	15	6	3	9	6	0	15
Copperbelt	Icibemba	3	4	0	0	4	3	2	2
Luapula	Icibemba	6	12	6	3	6	0	0	12
Lusaka	Cinyanja	4	155	22	5	133	82	147	8
	Chitonga	1	2	1	1	1	0	1	1
Northern	Icibemba	3	11	3	1	8	0	1	10
TOTAL		28	248	57	26	191	97	158	90

Source: USAID Education Data, 2021

LIMITATIONS

This exercise was not intended to be a school census or audit. Rather, USAID Education Data relied on provincial- and district-level databases and interviews to verify all schools in Lusaka, Copperbelt, Central, Luapula and Northern province. This means that not all of the 4,055 schools verified during this exercise were individually contacted.

During the 2021 language mapping verification, USAID Education Data verified 116 schools in the non-Let's Read provinces. With regards to the NERS sample frame, USAID Education Data updated only 5% of the NERS database based on where there were data gaps. This was because there was limited time between data collection and the expected timeline for development of the language mapping report. Some schools especially in Lusaka province were difficult to identify as they needed further verification of EMIS codes, duplicate school names and if the school was operational or not.

USAID Education Data conducted further Language Mapping data verification during the Midline 2021 EGRA and NERS data collection. A total of 116 schools were verified in the five new provinces: 28 schools in Central province, 16 schools in Copperbelt province, 13 schools in Luapula province, 41 schools in Lusaka province and 18 schools in Northern province. This represents approximately almost 3% of the total schools in the five provinces. Therefore, this verification is not considered statistically representative, and should be considered only as an additional activity or process that solidifies the findings of Language Mapping Exercise conducted in year 2020, which was further complemented during the NERS data collection.

FINDINGS

This exercise ascertains whether the predominant Lol in Lusaka, Central, Copperbelt, Northern and Luapula provinces aligns to the MoE designated Lol. This section outlines overall and provincial specific findings.

OVERALL FINDINGS

Finding 1: Most schools adhere to the designated Lol in the five additional provinces

USAID Education Data verified a total of 4,055 schools in Central, Copperbelt, Luapula, Lusaka and Northern Province. The Lol used in 98 percent of these schools is the designated one by MoE for each of these provinces. Two percent of the schools use multiple Lol. This finding is consistent with the results of the 2020 LME as all 4,113 schools verified then were also found to be compliant with MoE policy. Sixty nine percent (2,811) of the schools in 2021 were GRZ Public and 31 percent (1,244) were community schools.

Finding 2: Lusaka and Central province have multiple Lols as was found in the 2020 LME.

All schools in the additional provinces use only one Lol except Lusaka and Central provinces which use two and three languages, respectively. Lusaka predominantly uses Cinyanja but two districts, Chilanga and Chirundu, use both Chitonga and Cinyanja. Central province uses Icibemba, Chitonga and Kiikaonde. USAID Education Data found that all schools use the Moe designated Lol except one school in Central province that uses Kiikaonde, an Lol of Northwestern province. As Table 5 demonstrates, out of the 73 dialects in Zambia and excluding the seven Lol, there are at least 15 other major languages and/or dialects spoken in the five additional provinces. Other major languages spoken in the province tend to vary based on geography and Lol used in schools. For example, Swahili is listed as another major language in Ndola district, Copperbelt province, which borders the Democratic Republic of the Congo. This finding from the 2021 LME, shows that there have been no changes in the use of multiple languages in these 5 provinces.

Table 5: Summary of Schools After Language Mapping Field Visits by Language of Instruction, School Type, ECE and Districts

Province	MoE designated Lol	Language Mapping Exercise Verified Lol	Other Major Languages	Schools	GRZ	Comm	ECE	Districts *
Lusaka	Cinyanja	Cinyanja	Chikunda, Chitonga, English, Lenje, Soli	613	368	354	377	5
	Chitonga	Chitonga	Cinyanja, English	34	26	8	30	2
	Icibemba	Icibemba	Chitonga, Icilamba, Ila, Lala, Lenje, Swaka	687	497	190	385	9
Central	Chitonga	Chitonga	Cinyanja, Icibemba, Icilamba, Kiikaonde, Ila, Lenje, Sala, Silozi	455	332	123	363	2
		Kiikaonde* *	Ila	1	1	0	1	1

Copperbelt	Icibemba	Icibemba	English, Cinyanja, Lamba, Swahili	782	544	238	549	10
Northern	Icibemba	Icibemba	Bisa, Icilungu, Icimambwe, Tabwa	869	659	209	260	12
Luapula	Icibemba	Icibemba	Ushi	616	499	116	220	12
TOTAL				4,055	2,926	1,238	2,185	53

Source: USAID Education Data activity, 2021

*The number of districts (Lusaka and Central) that use more than one Lol exceeds the total number of districts (53) because some districts use more than one Lol.

**Only one school in Mumbwa district uses Kiikaonde.

Findings 3: A reduction of 58 schools is shown between those operating between year 2020 and 2021 in the NERS sample. As shown in Table 5 below, a comparison of the total number of schools whose profile information was verified in 2020 and 2021 shows that there has been a reduction in the number operating. This reduction can be attributed to the effect of Covid-19 on the operations of these schools. Community schools are typically poorly resourced. The findings from the 2021 school verification revealed that all these institutions had faced resource challenges which in-turn resulted in their closure. The distribution of these schools across provinces is as follows: Lusaka Province, 45, Central Province, 11 and Northern Province, two. The COVID-19 pandemic precipitated the closure of these community schools that already had limited resources prior to the pandemic.

Table 6: Number of Districts, Schools and Location in 2020 and 2021

	DISTRICTS		SCHOOLS		URBAN		RURAL	
	2020	2021	2020	2021	2020	2021	2020	2021
Lusaka	7	7	691	647	479	435	212	212
Central	12	12	1,154	1,143	110	110	1,044	1033
Copperbelt	10	10	782	782	410	410	372	372
Northern	12	12	870	868	48	48	822	821
Luapula	12	12	616	615	38	38	578	578
TOTAL	53	53	4113	4,055	1085	1041	3,028	3,016

Source: USAID Education Data, 2021

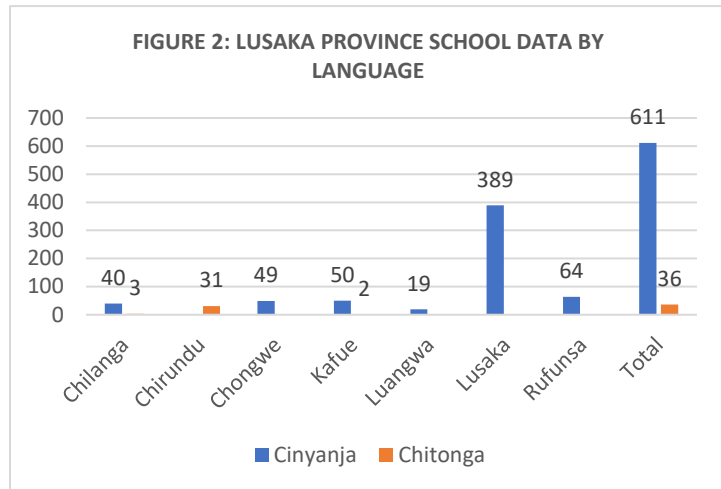
Similar to the 2020 mapping, there is a consistency between the MoE HQ dataset, and the Language Mapping dataset in the rural/urban designation of schools. In 2020, 74 percent of the schools were classified rural and 26 percent urban. This finding has not changed with the 2021 data. (see 2018 LME https://pdf.usaid.gov/pdf_docs/PA00THW7.pdf)

PROVINCIAL FINDINGS

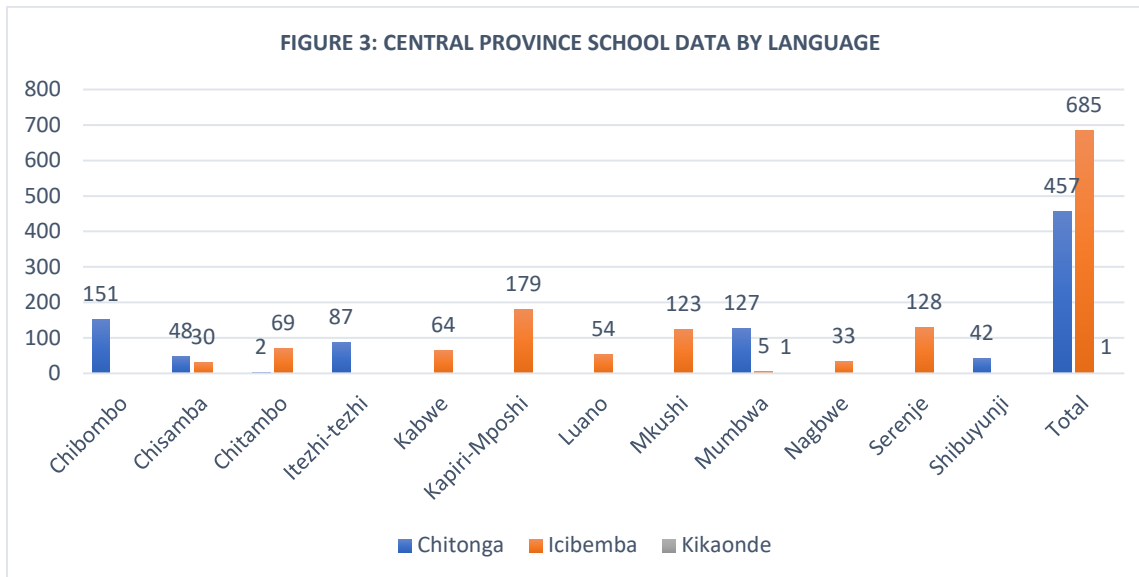
The USAID Education Data team verified 4,055 GRZ public and community run schools across Lusaka, Central, Copperbelt, Luapula and Northern provinces. Findings for each province are below.

LUSAKA PROVINCE

The USAID Education Data team verified a total of 647 schools across seven districts in Lusaka. There are 279 GRZ public and 368 community schools. Of these, 407 (63 percent) offer ECE. Most of the schools 435 (67 percent) operate in urban areas. Some schools are as far as 333 kilometers (km) from the DEBS office. The 647 verified school total is a two percent (15 schools) increase from the MoE HQ dataset. As shown in Figure 2, most schools in Lusaka province are based in Lusaka city. The schools use Cinyanja. All Lusaka province districts except two—Chilanga and Chirundu—use Cinyanja as the Lol. Chitonga is used in all Chirundu district schools. Forty-five schools in Lusaka province were removed from the initial database because their entries were duplicated.



CENTRAL PROVINCE



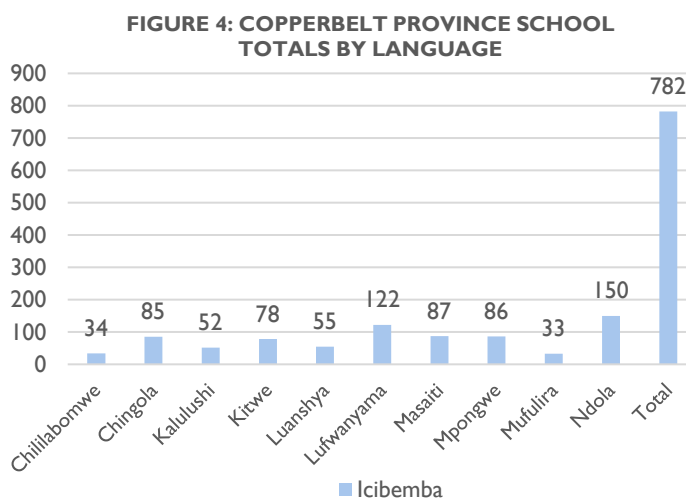
In comparison to all the other five additional provinces, Central provinces has the most schools and some are located as far as 500 km from the DEBS office. Figure 3 above shows that most schools in Central province use Icibemba. Kapiri Mposhi district has the highest number of verified schools and these use icibemba as the Lol. Chibombo, Chisamba, Itezhi-Tezhi, Mumbwa and Shibuyunji provinces use Chitonga. Mumbwa district has one school that uses Kiikaonde.

The USAID Education Data team verified a total of 1,143 schools across the 12 districts of Central province. During verification, it was established that twenty-eight schools did not have EMIS codes and twenty had duplicate EMIS numbers. A total of eleven schools were not functional at the time of verification. These entries were submitted to MoE for updating. This represents a nine percent drop in schools from the 2020 data and this can be attributed to some schools not having the resources to continue operations. All of the 11 schools that were reported to be non-functional are community schools operating in rural areas. In total there are 830 GRZ public and 313 community schools. Of these, 741 (65 percent) offer ECE.

The use of Kiikaonde is likely due to civic or tribal leadership preference, where leaders decreed that the school is to use Kiikaonde instead of Chitonga or Icibemba. Of all the additional provinces, Central province uses the most GRZ recognized Lols and has the highest number of recorded other languages spoken, which include Icilamba, Ila, Lala, Lenje, Swaka, Sala, Silozi, Swahili, Bisa, Icilungu, Icimambwe, Tabwe and Ushi.

COPPERBELT PROVINCE

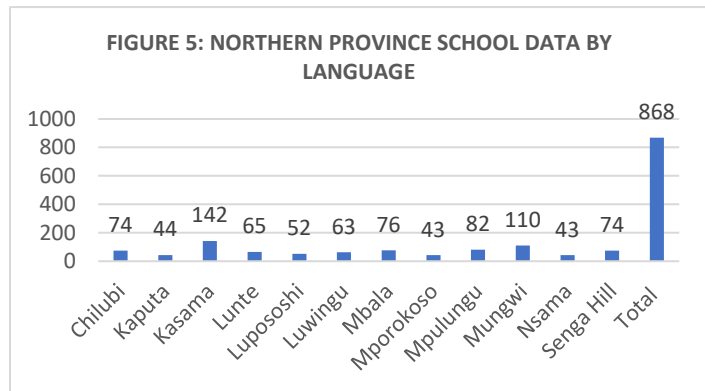
The USAID Education Data team verified a total of 782 schools in the ten districts of Copperbelt province. There are 544 GRZ public and 238 community schools. Of these, 549 (70 percent) offer ECE. The 782 verified school total is a five percent (42 schools) increase from the MoE database. A narrow majority of schools (52 percent) operate in urban areas. The schools are as far as 200 km from the DEBS office. As shown in Figure 4, all schools in Copperbelt province use Icibemba and Ndola, the provincial capital, has the most schools.



Like the 2020 LM Exercise, it was established that EMIS numbers in Chingola and Chililabombwe districts, are unusually different from those assigned to all other schools countrywide. These districts have EMIS numbers that contain one or two digits as compared to other district in the province and country which contain at least 3 digits. This peculiarity is explained by the DEBS office assigning their own numbers, rather than seeking guidance from MoE HQ.

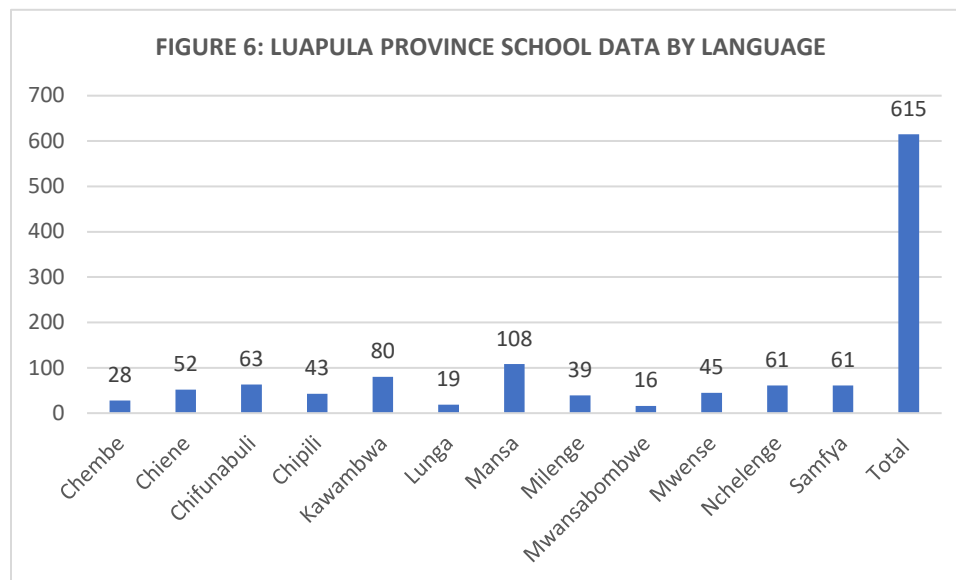
NORTHERN PROVINCE

The USAID Education Data team verified a total of 868 schools in the 12 districts of Northern Province. During the desk review, it was noted that as many as ten schools had duplicate EMIS codes which were later corrected by the Provincial Office during the verification exercise. There are 659 GRZ public and 209 community schools. Of these, 260 (30 percent) offer ECE. The 868 verified school total is a decrease of 2 schools from the MoE database. Two community schools closed due to resource challenges resulting from the Covid-19 impact on the education sector.



Most of the schools (94 percent) operate in rural areas. The schools are as far as 397 km from the DEBS office. As shown in Figure 5, all schools in Northern province use Icbemba and the provincial capital, Kasama, has the most schools.

LUAPULA PROVINCE



The USAID Education Data team verified a total of 615 schools in the 12 districts of Luapula province. This information is generally consistent with data obtained in the 2020 Language Mapping Exercise, except for one school in Samfya district. Data for this school was duplicated in the 2020 LME and the correction was made to the database. There are 499 GRZ public

and 116 community schools. Of these, 220 (36 percent) offer ECE. Most of the schools (94 percent) operate in rural areas. Some schools are as far as 407 km from the DEBS office. As shown in Figure 6, all schools in Luapula use Icbemba and the provincial capital, Mansa, has the most schools. MoE officials document that all 12 districts use Icbemba and note no other major languages used in schools. Other major languages generally include Ushi and English.

CONCLUSIONS

The 2021 Language Mapping Exercise is an update to the 2020 Language Mapping Report produced by USAID Education Data. It examines whether the predominant Lol in Lusaka, Central, Copperbelt, Northern and Luapula provinces aligns to the official MoE designated Lol. USAID Education Data found that 4,055 schools adhere to the MoE designated Lols in the five additional provinces. USAID Education Data verified that most districts have at least one major language as summarized in Annex C. Overall, there are no tangible changes in the predominant Lol in Lusaka, Central, Copperbelt, Northern and Luapula provinces as they align to the official MoE designated Lol. Ninety-eight per cent of schools follow MoE designated Lol in the five provinces. Two percent use multiple Lol in Central and Lusaka Province. Major conclusions from the exercise were as follows:

1. **Overall, the most significant finding of the LMR 2021 is that there has been a reduction in the number of operating schools between year 2020 and 2021.** In 2020 USAID Education Data verified 4,113 schools, while MoE had 3,874 schools in their list. In 2021, USAID Education Data found 4,055 operating schools meaning that there was a reduction of 58 operating schools compared with the previous year: 45 correspond to Lusaka province, 11 to Central Province and 2 to Northern Province. All these 58 schools closed were community schools. After consultations with the MoE, USAID Education Data verified that these schools closed due to the impact that COVID-19 pandemic resulting from reduced inflow of resources from the community.
2. **As in 2020, Lusaka and Central province still use multiple Lols.** Schools in Lusaka province use ichinyanja and chitonga. Schools in Central province use Icibemba, Chitonga and Kiiikaonde. Further, Central province has the most other major languages in comparison to the other additional provinces. The use of multiple Lols means that learners may encounter difficulties learning in a language that may not be used at home. For example, the 2018 Language Mapping Exercise Report concluded that Eastern and Northwestern provinces use a Lol different from languages spoken in communities and the home, resulting in MT interference in learning to read and write in the Lol.
3. **Icibemba is the official Lol and the most widely spoken language in the ten districts of the Copperbelt province although there are other languages spoken in the province.** Lamba is used to further explain concepts in the classroom, although it is not an officially recognized Lol, so there are no MoE produced instruction or guidance materials in that language. However, Copperbelt province learners predominantly learn in Icibemba from pre-primary to Grade 3. Copperbelt is the only province with schools that contain one- or two-digit EMIS numbers; these schools are in Chingola and Chililabombwe districts.
4. **Luapula and Northern province most consistently use Icibemba across all districts: Icibemba is the official Lol in all 12 districts of the Northern province as well as in the 12 districts in Luapula.** The Northern province is considered the heartland of Icibemba, so it is unsurprising that Icibemba is used as the Lol in all 12 districts. Other major languages include Bisa, Mambwe, Icilungu, Icimambwe and Tabwa. For Luapula, MoE officials document that all 12 districts use Icibemba and note no other major languages used in schools. Other major languages generally include Ushi and English. Of the KII respondents for Luapula province, no one cites other Lols.

RECOMMENDATIONS

1. Findings from the Language Mapping Exercise show that MoE and ECZ datasets are not always up to date with the changes happening at the district and school levels. Language of Instruction is directly associated with a learner's ability to read, write and comprehend fluency. Thus, it is critical to have readily available accurate information about LoI for education sector decision making. It is therefore recommended that: **MoE and ECZ regularly consult with the provincial level to reconcile the Language Mapping Exercise dataset with GRZ national and/or provincial datasets.** Ensure MoE and ECZ have access to the updated Language Mapping Exercise report and dataset to understand and compare data inconsistencies or gaps. Where there are differences in datasets, seek clarification and identify challenges.
2. MoE should review its database on schools in the other provinces in order to establish changes arising from the impact of Covid-19 as a significant number of community schools closed in the 5 provinces.
3. EMIS codes for Chingola and Chililabombwe districts in Copperbelt province must be standardized in line with the MoE database structure.

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ANNEX A: STAFF INTERVIEWED DURING THE LANGUAGE MAPPING EXERCISE

No	Sex	Station	District	Province
1	Male	PEO	Ndola	Copperbelt
2	Female	PEO	Ndola	Copperbelt
3	Male	PEO	Ndola	Copperbelt
4	Male	PEO	Ndola	Copperbelt
5	Male	DEBS	Ndola	Copperbelt
6	Female	DEBS	Ndola	Copperbelt
7	Male	DEBS	Mpongwe	Copperbelt
8	Male	DEBS	Lufwanyama	Copperbelt
9	Male	DEBS	Masaiti	Copperbelt
10	Male	Buyantashi Community School	Ndola	Copperbelt
11	Female	Buyantashi Community School	Ndola	Copperbelt
12	Female	Buyantashi Community School	Ndola	Copperbelt
13	Female	Buyantashi Community School	Ndola	Copperbelt
14	Female	Buyantashi Community School	Ndola	Copperbelt
15	Female	Buyantashi Community School	Ndola	Copperbelt
16	Female	Northrise	Ndola	Copperbelt
17	Female	Northrise	Ndola	Copperbelt
18	Female	Northrise	Ndola	Copperbelt
19	Female	Northrise	Ndola	Copperbelt
20	Female	Northrise	Ndola	Copperbelt
21	Female	Twapia Primary	Ndola	Copperbelt
22	Female	Twapia Primary	Ndola	Copperbelt
23	Male	Twapia Primary	Ndola	Copperbelt
24	Female	Twapia Primary	Ndola	Copperbelt
25	Male	Make a Difference School	Ndola	Copperbelt
26	Female	Make a Difference School	Ndola	Copperbelt
27	Female	Make a Difference School	Ndola	Copperbelt
28	Male	Ndola Primary	Ndola	Copperbelt
29	Male	PEO	Mansa	Luapula
30	Male	PEO	Mansa	Luapula

31	Female	PEO	Mansa	Luapula
32	Female	DEBS	Mansa	Luapula
33	Female	DEBS	Chewe	Luapula
34	Male	DEBS	Lunga	Luapula
35	Female	DEBS	Mansa	Luapula
36	Male	DEBS	Milenge	Luapula
37	Female	Mabondo Community School	Mansa	Luapula
38	Female	Mabondo Community School	Mansa	Luapula
39	Female	Mutende	Mansa	Luapula
40	Female	Mutende	Mansa	Luapula
41	Female	Mutende	Mansa	Luapula
42	Female	Mutende	Mansa	Luapula
43	Female	Don Bosco	Mansa	Luapula
44	Male	Chakopo	Mansa	Luapula
45	Female	Lukangaba	Mansa	Luapula
46	Female	Lukangaba	Mansa	Luapula
47	Female	Lukangaba	Mansa	Luapula
48	Female	Lukangaba	Mansa	Luapula
49	Male	Lukangaba	Mansa	Luapula
50	Male	Kamipundu Primary	Mansa	Luapula
51	Female	Kamipundu Primary	Mansa	Luapula
52	Female	Kamipundu Primary	Mansa	Luapula
53	Male	Kamipundu Primary	Mansa	Luapula
54	Female	DEBS	Mpulungu	Northern
55	Female	PEO	Kasama	Northern
56	Female	Mubanga Chipoya Primary	Kasama	Northern
57	Female	Milungu Primary	Kasama	Northern
58	Female	Milungu Primary	Kasama	Northern
59	Female	Milungu Primary	Kasama	Northern
60	Female	Milungu Primary	Kasama	Northern
61	Female	Kapulanga Community	Kasama	Northern
62	Female	Chifwani Primary	Kasama	Northern
63	Female	Chifwani Primary	Kasama	Northern
64	Female	Chifwani Primary	Kasama	Northern
65	Female	Kapulanga Community	Kasama	Northern
66	Female	Kapulanga Community	Kasama	Northern

67	Female	Milungu Primary	Kasama	Northern
68	Female	Shata Community	Kasama	Northern
69	Male	PEO	Kasama	Northern
70	Male	DEBS	Kasama	Northern
71	Male	DEBS	Chilubi	Northern
72	Male	DEBS	Kaputa	Northern
73	Male	DEBS	Kasama	Northern
74	Male	PEO	Kasama	Northern
75	Male	Kasama Primary	Kasama	Northern
76	Male	Milungu Primary	Kasama	Northern
77	Male	Kapulanga Community	Kasama	Northern
78	Male	DEBS	Chilanga	Lusaka
79	Male	St Patricks Community	Chilanga	Lusaka
80	Male	DEBS	Lusaka	Lusaka
81	Male	DEBS	Rufunsa	Lusaka
82	Male	DEBS	Luangwa	Lusaka
83	Male	DEBS	Chirundu	Lusaka
84	Male	DEBS	Lusaka	Lusaka
85	Male	Guardian Angels Community	Chilanga	Lusaka
86	Female	Chilanga Primary	Chilanga	Lusaka
87	Female	Guardian Angels Community	Chilanga	Lusaka
88	Female	Musamba Primary	Chilanga	Lusaka
89	Female	Chilanga Primary	Chilanga	Lusaka
90	Female	St Patricks Community	Chilanga	Lusaka
91	Female	DEBS	Lusaka	Lusaka
92	Female	DEBS	Lusaka	Lusaka
93	Female	Lotus Primary	Lusaka	Lusaka
94	Female	Kamwala Primary	Lusaka	Lusaka
95	Female	DEBS	Chilanga	Lusaka
96	Female	DEBS	Chilanga	Lusaka
97	Female	DEBS	Kabwe	Central
98	Female	Nyama (Hamududu Primary)	Kabwe	Central
99	Female	DEBS	Ngabwe	Central
100	Female	Neemtree Primary	kabwe	Central
101	Female	PEO	Kabwe	Central
102	Female	Makwati Community	Kabwe	Central

103	Female	Makwati Community	Kabwe	Central
104	Female	Makwati Community	Kabwe	Central
105	Female	Lukanga Primary	Kabwe	Central
106	Female	Lukanga Primary	Kabwe	Central
107	Female	Lukanga Primary	Kabwe	Central
108	Female	Ein Hau Fur Kinder Communiy	Kabwe	Central
109	Female	Ein Hau Fur Kinder Communiy	Kabwe	Central
110	Female	DEBS	Kabwe	Central
111	Female	DEBS	Kabwe	Central
112	Female	Neemtree Primary	Kabwe	Central
113	Female	Neemtree Primary	Kabwe	Central
114	Male	DEBS	Kabwe	Central
115	Male	PEO	Kabwe	Central
116	Male	DEBS	Luano	Central
117	Male	PEO	Kabwe	Central
118	Male	DEBS	Kabwe	Central
119	Male	PEO	Kabwe	Central
120	Male	Makwati Community	Kabwe	Central
121	Male	Ein Hau Fur Kinder Community	Kabwe	Central

Note: staff names and positions are not included to ensure anonymity of MoE staff.

ANNEX B: LANGUAGE MAPPING QUESTIONNAIRE

INTERVIEW QUESTIONS

Province:			
District:			
Zone:			
School:		ECCDE (Tick):	
EMIS#:			
Name(s) of respondents (s):		Position (s):	M/F
Name of interviewer			
Date of interview			

Instructions

1. Pay courtesy call on provincial education officer to introduce yourself and explain the task.
2. At the province, district, zone, or school, request officers or teachers whom you can interview about local languages of instruction.
3. Introduce yourself to the interviewees and explain the task and why it is important.
4. Assure interviewees about confidentiality of information they will give and anonymity and seek their consent.
5. Listen attentively and write their responses. Ask questions to prompt them.
6. Ask for the latest list of primary schools – GRZ and community run – with EMIS numbers and a list of schools offering early childhood education.
7. Thank the interviewees.

Questions

1. What is the official language of instruction from Grades 1-4 in school(s)?
 1. Chinyanja 2. Chitonga 3. Icibemba 4. Kiikaonde 5. Lunda 6. Luvale 7. Silozi 8. Other (Specify: (mark all that apply))
2. Apart from the GRZ-designated language (s) of instruction, what are the two most commonly used languages for communication in the
 Province

District

3. How do you rate the ability of Grade 2 teachers to read and write in local language used for “reading” instruction?
 Excellent Very good Good Fair Poor
4. Are there schools that use a local language of reading instruction different from the GRZ designated language?

Yes No

5. If yes to 4, How many?
6. Ask for a list of primary schools with EMIS codes. Let them identify schools that use different languages apart from the GRZ-designated languages.
7. On the same list, indicate schools that offer Early Childhood Education.

Thank the respondents.

**ANNEX C: SCHOOLS BY LANGUAGE OF INSTRUCTION AND OTHER LANGUAGES SPOKEN
IN THE PROVINCE (IN ATTACHED EXCEL FILE)**

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