

# Rebuilding Education in Georgia

## The Infrastructure Challenge in Georgia's School System

### Policy Paper

September 2021

Lead Author: Mikheil Svanidze

## Contents

Executive Summary.....	1
Introduction .....	3
Methodology.....	4
General Infrastructure condition .....	5
School Population diversity .....	11
Details on infrastructure .....	13
Heating.....	13
Water .....	15
Toilets.....	18
Interior (doors, windows) .....	20
Exterior (Stadium, yard, fence) .....	22
ICT .....	24
Computers.....	24
Internet .....	25
Repair Costs overview.....	25
Recent developments summary (after the 2018-2019 assessment).....	26
Recommendations .....	29

## List of Figures

Figure 1: Budget of School repairs (GEL mln) .....	3
Figure 2: School by FCI condition .....	6
Figure 3: School FCI condition by settlement type .....	7
Figure 4: Share of students by year by settlement .....	8
Figure 5: School FCI condition by regions .....	9
Figure 6: Schools by time of construction.....	10
Figure 7: Schools by FCI condition and time of construction .....	11
Figure 8: Population of schools by settlement .....	12
Figure 9: Type of heating by rural/urban.....	13
Figure 10: Quality of wooden stoves .....	14
Figure 11: Water in schools by rural/urban .....	16
Figure 12: Condition of individual water systems.....	16
Figure 13: Urgent water repairs by settlement .....	17
Figure 14: Quality of toilets in schools.....	18
Figure 15: Location of the toilet .....	19
Figure 16: Quality / existence of water in WC .....	20
Figure 17: Quality of internal infrastructure.....	21
Figure 18: Internal electric network in schools.....	22
Figure 19: Quality of outdoor areas.....	23
Figure 20: Quality/existence of outdoor stadiums .....	23
Figure 21: number of students per computer at public schools in Georgia: .....	24
Figure 22: Number of students per computer per settlement type.....	24
Figure 23: Quality of wi-fi internet.....	25
Figure 24: Repair costs by rural/urban, GEL mln .....	26
Figure 25: Repair costs by condition, GEL mln.....	26
Figure 26: Renovation budget 2018-2021 .....	27
Figure 27: Size of new schools .....	28
Figure 28: FCI condition of schools renovated (cost of over GEL >100,000 GEL) under ESIDA .....	29

## Executive Summary

The physical condition of Georgian school buildings has long been a source of national concern. The vast majority of the country's schools were built during the Soviet Union and, during the chaos and poverty that beset the country following independence, almost no maintenance and repair took place for fifteen years. Many people associate the schools of today with the 1990s, when children even in elite Tbilisi schools wore their winter coats and sat in classrooms with broken windows and kerosene stoves. Thankfully, most Georgian children no longer have to endure such bleak conditions, but much remains to be done to bring the infrastructure of Georgian schools in line with international standards.

Beginning in 2006, Georgia started to invest major government spending on school infrastructure, and over the 15 years since, addressed the most egregious problems of schools. Yet, the situation remains dire and improvement is needed in most schools.

Based on the database we created from the individual school data provided by the Education and Science Infrastructure Development Agency (ESIDA), which the report relies on heavily, just 51 schools, or 3% of all public schools in Georgia, are in good condition, and around half are in either poor condition, or need to be replaced entirely. Currently, over 33,000 children study in schools deemed as replacement, and a further 250,000—almost half of all public school students—study in buildings classified as “poor.” The condition of schools in rural areas is markedly worse.<sup>1</sup>

Providing adequate heating and water to schools is inextricably mixed with general state of physical infrastructure in Georgian countryside: many places around the country still don't have natural gas or running water access. However, immediately hooking up the schools in areas where there is natural gas or fixing the water systems to provide water to schools should be an absolute priority for any infrastructural development in rural areas. Similarly, internet connection in many places around rural Georgia is unstable, but educational infrastructural agencies should invest in strong wi-fi systems for schools for them to have better internet access, and update their old computers to use that internet connection.

Per the assessment data provided by ESIDA, the budget for the complete renovation of all existing schools is around GEL 1.6 billion. About a third of this sum, 551 million, is for urgent works. Overall, 64% of the total repairs budget would be for rural schools (which house just 30% of all students) and 36% for urban schools.

Since 2018, four different government agencies have spent a total of over GEL 350 million to address some of the infrastructural challenges of Georgian schools. However, it was not organized under a centralized plan or with the assistance of the systematized assessment database. Within that renovation, 77 new

---

<sup>1</sup> GeoWel Research. 2021. Rural Schools in Georgia: Devising Education Policy for a Depopulating Countryside. <https://geowel.org/en/education-policy-paper-rural-schools-in-georgia/> (Last accessed September 24)

schools were built, but out of them, just 7 new schools were in cities, where demand is highest, and 70 were in villages around the country.

School infrastructure update is crucial, especially as high number of school buildings are in dire state and close to 300 schools are in replacement condition. However, Georgian education policy should take a more holistic approach and look at long term demographic, sociological data to measure long term population trend and adjust building new schools and renovating the old / consolidating schools accordingly. Thus, any long term projects on school infrastructure development should come in one package and be a part of regional (rural and urban) development, employment, municipal zoning, agriculture, and migration government policies.

Short term, in particular, the government of Georgia should find ways to build more schools in its urban areas, particularly to take pressure off overcrowded schools in Tbilisi, and to a lesser extent, Batumi. One policy could be to make it a legal requirements for developers to build schools if a development complex is over a certain number of units, or tax incentives for new developers to compel them to build schools in newly development areas, or finding land for new schools and building them with state resources, in areas already built up, but with large student overcrowding.

Government of Georgia should make a concerted effort to organize and prioritize refurbishment of schools and building new ones based on data. The current situation where 4 organizations independently work on renovations is not ideal. Such organization could be done on the basis of the infrastructure assessments or other type of information available to Ministry of Education and municipalities.

The organizations providing renovations should coordinate, either under a cross-cutting agency which would decide what to refurbish and rebuild first, or through municipalities, which would control schools in them and their refurbishment strategy. It is logical that the former is the short-term, and latter a long-term optimal strategy.

Within that effort to organize, the government should be more responsive to address look at particular cases of issues with schools with outstanding, immediate problems (heating, water, toilets, internal infrastructure, or other issues) and address them without delay. It can read various reports on schools in extremely dire conditions in media or continue assessing all public schools in areas of concern internally.

## Introduction

The physical condition of Georgian school buildings has long been a source of national concern. The vast majority of the country's schools were built during the Soviet Union and, during the chaos and poverty that beset the country following independence, almost no maintenance and repair took place for fifteen years. Many people associate the schools of today with the 1990s, when children even in elite Tbilisi schools wore their winter coats and sat in classrooms with broken windows and kerosene stoves<sup>2</sup>. Thankfully, most Georgian children no longer have to endure such bleak conditions, but much remains to be done to bring the infrastructure of Georgian schools in line with international standards.

Beginning in 2006, Georgia started to invest major government spending on school infrastructure, representing 19-21% of the Ministry of Education budget, which was used to help alleviate some of the most extreme needs following many years of neglect. Some fifteen years into the reform effort, it is possible to say that the most egregious infrastructural problems have been addressed for many children. Still, the situation remains dire in many places, and the government continues to acknowledge the need for a comprehensive infrastructure overhaul. Georgia's Education Strategy 2017 stated that "most of" the 3000 buildings where Georgian students study are outdated and requiring rehabilitation or dismantling.<sup>3</sup>

Improvements are needed in most Georgian schools, but schools in rural areas are of most concern.

*Figure 1: Budget of School repairs (GEL mln)*

Type of school	Urgent	Non-urgent (1-5 years)	Long-term (5 to 10 years)
Rural	378	528	107
Urban	175	343	43
Total	552	871	150

*Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA*

As seen in Figure 1, the overall cost of improving all school infrastructure to an acceptable level is around GEL 1.6 billion, with immediate, i.e. urgent, repairs taking up a third of this sum. However, recent spending into education has improved some of the infrastructural flaws outlined in 2018-2019 assessment data. The Education and Science Infrastructure Development (ESIDA) has built 38 new schools with capacity of over 6,000 students, spending GEL 98 million, and performed renovations at the cost GEL 96 million. Ministry of Regional Development (MRDI) and Municipal Development Fund (MDF) have separately budgeted GEL 79 million and 83 million, respectively for renovations and net school development. Overall, these entities have spent around GEL 350 million in years 2018-2021, which suggests that around 1/5 of all renovation costs and 2/3 of all urgent costs have already been covered – but this new renovations are

<sup>2</sup> Mikheil Svanidze. 2021. School report: what Georgia's missing in its education reforms OpenDemocracy. <https://www.opendemocracy.net/en/odr/school-report-what-georgias-missing-in-its-education-reforms/> (Last accessed August 17, 2021)

<sup>3</sup> Ministry of Education and Science (2017), *Unified Strategy for Education and Science for 2017-2021*, p16

yet to be assessed and their quality and long-term effect on the quality of general education at large is still to be seen.

Improving infrastructure is a priority for school staff, students and parents alike. In The 2018 Teaching and Learning International Survey (TALIS), 70% of surveyed teachers named improving school buildings and facilities as one of the top priorities.<sup>4</sup> A comprehensive study of school staff, conducted in 2015 identified the most prevalent and pressing infrastructure problems, which include toilet and sanitation and classroom infrastructure as main reasons for lack of safety at school.<sup>5</sup>

## Methodology

The research for this policy paper was part of a year of research that has been conducted by GeoWel, as part of the US State Department financed Education Advocacy Project. This, in turn, followed on the research done in 2018 and 2019 for McClain Action for Children (MAC). The current project conducted extensive desk and field research within the project.

Desk research involved analysis of secondary data provided by the government, international organizations and local researchers. We analyzed quantitative data provided by:

- The National Statistics Office of Georgia (GeoStat)
- The Education Management Information System (EMIS)
- The Education and Science Infrastructure Development Agency (ESIDA)

Government data included, and was not limited to, the number and status of schools, students, teachers, teacher qualification, school location and infrastructure, etc.

We also reviewed data and analysis provided by the major international assessment surveys that Georgia has undertaken in recent years. This included:

- Program for International Student Assessment (PISA) 2009, 2015 and 2018 – focusing on student performance in reading, maths and sciences;
- Teaching and Learning International Survey (TALIS) 2013 and 2018 – a survey of teachers focusing on working conditions and learning environments; Teacher Education and
- Development Study in Mathematics (TEDS-M) 2008 – a study of how teachers are prepared to teach mathematics in primary and lower secondary school.

We also reviewed the National Assessment of Georgian as a Second Language 2016, conducted by NAEC, reports by the Georgian Human Rights Ombudsman and research and analysis reports by local researchers and experts. We also referred to our 160-page research report from 2019, which comprehensively reviewed the Georgian education system.<sup>6</sup> In addition, we extensively reviewed and analyzed ordinances of the government of Georgia and the Minister of Education and Science regarding school funding, teacher remuneration and career entry/development.

Another extensive trove of data that was processed by GeoWel was the public school infrastructure assessment data for individual public schools that GeoWel received from ESIDA in 2019. Within the

---

<sup>4</sup> OECD, TALIS 2018 Database

<sup>5</sup> Institute of Social Studies and Analysis (2015), Study of School Organizational Culture, p83

<sup>6</sup> <https://geowel.org/wp-content/uploads/2021/05/GeoWel-Education-Report-for-MAC-Final.pdf>

Education Advocacy Project, we were able to scrape the 2,233 individual excel spreadsheets and create a single database of public school infrastructure and analyze the collated data. Moreover, GeoWel created a publicly available interactive map of these schools, available in English and in Georgian at <https://geowel.org/en/public-school-map/>.

In addition to detailed desk research, we conducted considerable field research. This included:

- 50 online focus groups with parents and teachers of the 300 schools with the poorest infrastructure condition in the 2018-2019 Public school infrastructure assessment database.
- 24 online focus groups with public school teachers and parents representing various schools throughout Georgia – 113 participants in total
- 58 phone interviews and follow-up interviews with public school teachers and parents, experts and government representatives.

The fieldwork took place between February-September 2021. The sampling was designed to include as many rural and disadvantaged communities as possible, including ethnic minority settlements.

## General Infrastructure condition<sup>7</sup>

There had been no comprehensive audit of Georgian public schools until 2019, when, as part of the Millennium Challenge Corporation Compact (MCCC), the MCA – Georgia commissioned an assessment of all of the schools in Georgia and their various facilities, with estimates of what it would cost to fix them. We received these individual assessment reports for 2,233 schools in Georgia from ESIDA in 2019, which we collated in a single database and provide a summary overview below.

The data provided by ESIDA is extremely detailed and thorough. In order to measure the general condition of each school building a Facility Condition Index (FCI) was created.<sup>8</sup> The FCI is the ratio between the cost of full rehabilitation of the existing building and the cost of building a new building with the same dimensions.<sup>9</sup> Per the assessment, an FCI ratio between 0 and 0.1 means the building is in “good” shape; 0.1 to 0.3 means it is in “fair” condition; from 0.3 to 0.5 it is deemed as being in “poor” condition; and FCI

---

<sup>7</sup>Data in this chapter is based on detailed reports from public schools from 2018 and 2019. Developments after those years are described in a separate section

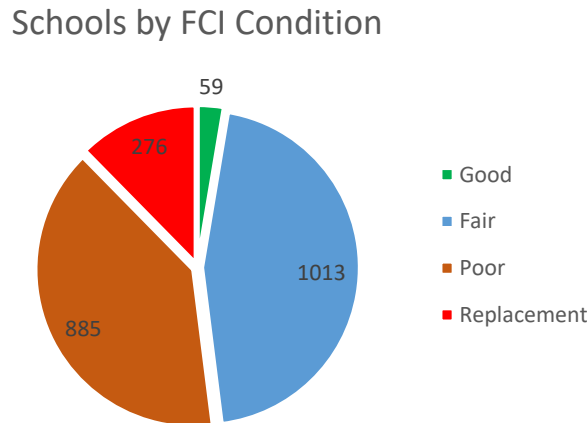
<sup>8</sup> <https://community.ifma.org/fmpedia/w/fmpedia/2459>

<sup>9</sup> School assessment documentation 2018-2019



value over 0.5 means that the cost of fully rehabilitating the existing building is more than half the price of building new one of the same size. The latter is termed replacement condition.

Figure 2: School by FCI condition



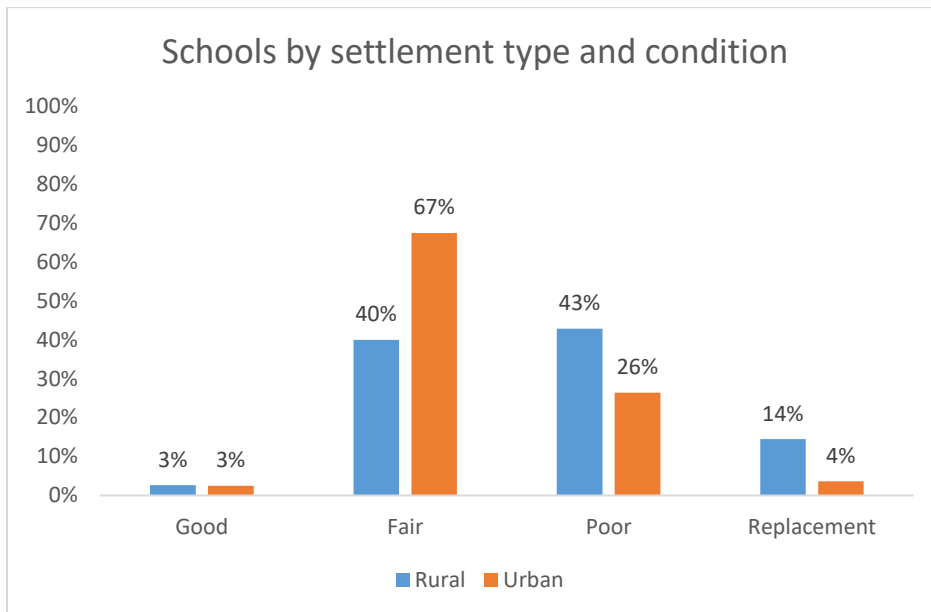
Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

As seen in the figure above, just 51 schools, or 3% of all public schools in Georgia, are in good condition, and around half are in either poor condition, or need to be replaced entirely. Currently, over 33,000 children study in schools deemed as replacement and a further 250,000—almost half of all public school students—study in buildings classified as “poor.”<sup>10</sup>

Schools in rural areas face a number of more acute infrastructural challenges. First, their general physical condition is markedly worse: based on FCI, 14% of rural schools are on replacement level and a further 43% are poor. These two categories collectively represent 57% of all Georgian village schools (see figure 3). Conversely, only 30% of school buildings in urban areas are in poor or replacement condition.

<sup>10</sup> Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

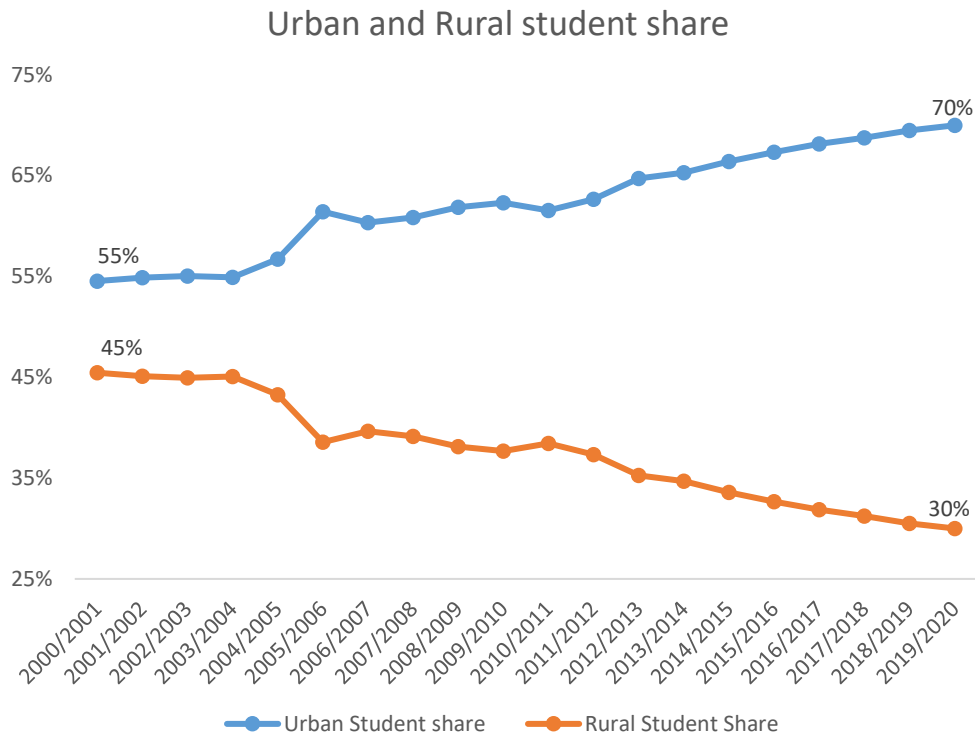
Figure 3: School FCI condition by settlement type



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

As can be seen from the table above, 30% of urban schools are in poor or replacement condition, while the figure is almost double, 57%, for rural schools. This represents a policy headache for the government – current demographic trends show the Georgian countryside rapidly losing population (and therefore, students) at the same time as rural schools are rapidly deteriorating. This means that developing a renovation or rebuilding strategy has to take into account long term demographic trends – urban students are now 70% of all students, compared to 55% at the turn of the 21<sup>st</sup> century (See figure 4), and are housed by just 19% of all school buildings – meaning a fifth of all public schools in Georgia are currently a home to 7 in 10 of all of students. The demographic processes that drive this trend are not set to sharply reverse, therefore any school renovation strategy has to consider these circumstances.

Figure 4: Share of students by year by settlement



Source: GeoStat

Looking from a more detailed regional perspective, it becomes clear that farther away area from Georgia’s infrastructural networks (roads, cities etc.), the worse their school conditions. As visible in the table below – a quarter of all schools in Adjara, which has mountainous area with bad access, 22% of schools in Mtskheta-Mtianeti and other mountainous regions of Svaneti and Racha have 17% of all replacement schools. Conversely, three quarters of all Tbilisi schools are in either good or fair condition.

Figure 5: School FCI condition by regions

Region	Good	Fair	Poor	Replacement
Adjara	4%	32%	38%	26%
Mtskheta-Mtianeti	5%	51%	22%	22%
Samegrelo-Zemo Svaneti	0%	19%	63%	17%
Racha-Lechkhumi	0%	74%	10%	17%
Kvemo Kartli	1%	48%	40%	12%
Guria	4%	35%	51%	10%
Imereti	0%	69%	22%	9%
Shida Kartli	1%	53%	41%	6%
Samtskhe-Javakheti	1%	52%	43%	5%
Kakheti	0%	33%	64%	3%
Tbilisi	1%	73%	23%	3%

Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

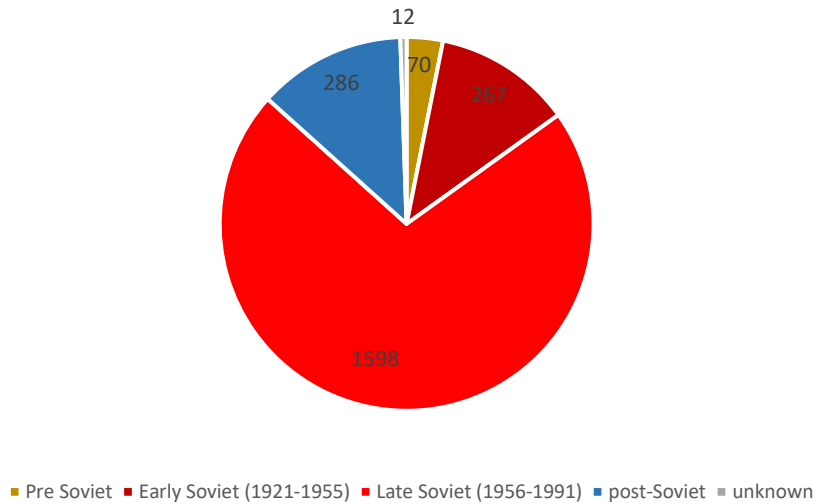
Most of Georgia's school buildings were built in the late Soviet era, defined as after 1956, when Soviet architecture moved from monumental Socialist classicism of the Stalin era to a more standardized modernist style.<sup>11</sup> Three in every four of Georgia's schools were built in the period from the late 1950s until the end of Soviet Union in 1991 (see Figure 6).

---

<sup>11</sup> Resolution of the Central Committee of the Communist Party of the Soviet Union and the Soviet of the Ministers Concerning the Eradication of Excesses in Building Design and Construction.  
<https://web.archive.org/web/20140716132943/http://sovarch.ru/postanovlenie55/>

Figure 6: Schools by time of construction

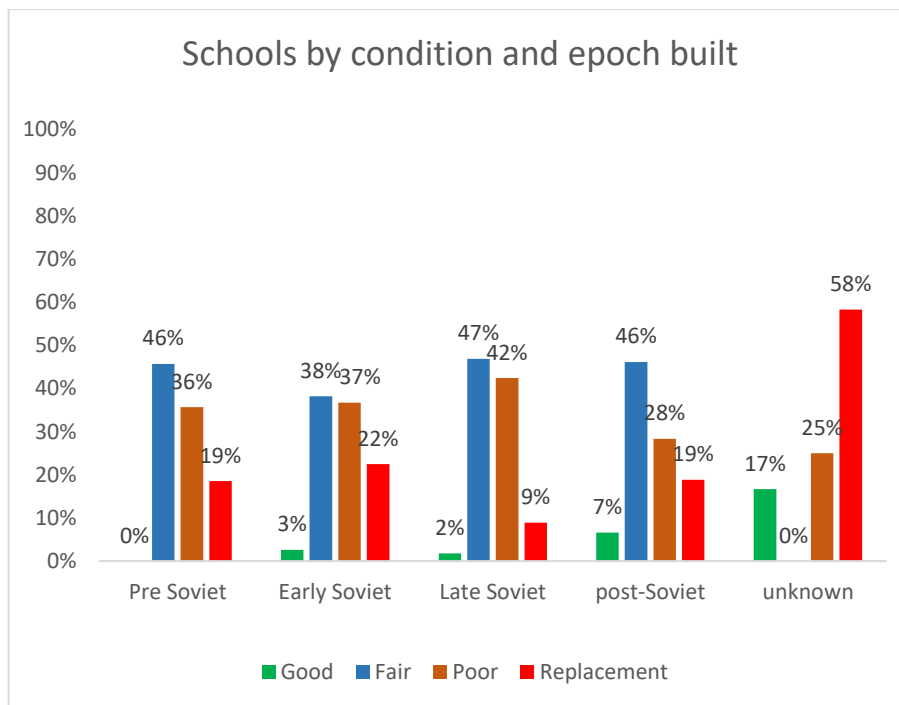
### Schools by era of construction



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

The 1,600 late Soviet schools house almost three quarters (72%) of all Georgian pupils. These buildings were built mostly in a uniform manner out of pre-cast concrete panels. They have, like general Soviet mass housing, a relatively limited life cycle (though it is sometimes possible to upgrade such buildings and significantly prolong their lifetime). Therefore, it is imperative that education infrastructure policy develops a long term strategy for these particular buildings. That said, these late Soviet buildings are extremely resilient and, somewhat surprisingly, a higher share of post-Soviet built schools are of replacement condition, than the late soviet built schools (see Figure 7).

Figure 7: Schools by FCI condition and time of construction



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

Only 9% of “late soviet” schools are in replacement condition, while more than one in every 5 post-Soviet built schools are. This once again highlights the importance of the quality of new construction, not just the quantity of new schools.

## School Population diversity

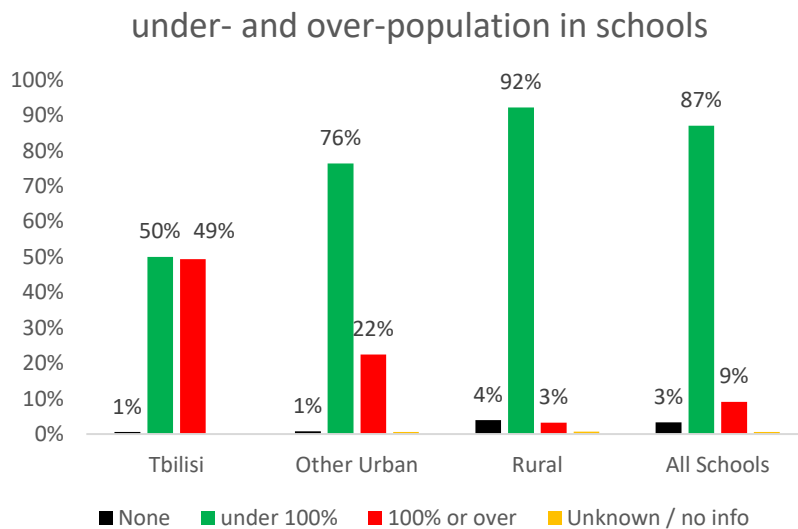
As noted, around 20% of Georgia’s urban schools house 70% of its students, which leads to urban school overcrowding. In Tbilisi alone, which is a home to half of all Georgia’s urban students and around 35% of all students, half of the schools are overpopulated (see figure below), while 92% of all rural schools are below capacity: 249 of schools in the countryside have ten or fewer students, and 17 schools have only one pupil.

To cope with this overcrowding, many schools in Tbilisi use the so-called ‘two shift system’, with half the students coming in the morning and half starting their school day in the afternoon and ending early in the evening. In Tbilisi, 89 schools, over half, use two shifts. Outside the capital, just 4% of schools use this system. Eight Tbilisi schools are at more than double capacity, and two schools use three shifts.

The two shift system helps to alleviate cramped conditions, but produces a host of other issues: it conflicts with families’ daily routines and hinders children’s time for extracurricular work.<sup>12</sup> For students studying in the afternoon, the weather can often be too hot and schools are not equipped with air conditioning.<sup>13</sup> Finally, teachers in double shift schools tend to prefer the first (morning) shift and this can lead to an uneven distribution of staff in terms of quality and experience between shifts.<sup>14</sup>

“Because my older child was in second shift and younger was in the first I had to go to school three, sometimes four times a day to transport them, and then take them to other activities. For this reason I had to cut lectures at the university I worked in to concentrate on my children. This lasted two years” – said one parent.

Figure 8: Population of schools by settlement



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

In order to accommodate increasing demand in urban areas, particularly Tbilisi, due to population growth, new schools have to be built. However, just three new schools have been built in Tbilisi in the last decade, which according to Ministry of Education, is due a combination of lack of space in the capital and new schools needing more space.<sup>15</sup>

<sup>12</sup> Mikheil Svanidze. 2021. School report: what Georgia’s missing in its education reforms OpenDemocracy. <https://www.opendemocracy.net/en/odr/school-report-what-georgias-missing-in-its-education-reforms/> (Last accessed August 17, 2021)

<sup>13</sup> Orkodashvili, Mariam. 2009. Double – shift schooling and EFA goals: assessing economic, educational and social impacts. <https://files.eric.ed.gov/fulltext/ED510593.pdf>

<sup>14</sup> Bray, Mark. 2008. Double-shift schooling: design and operation for cost-effectiveness. P66. Fundamentals of Educational Planning. <https://unesdoc.unesco.org/ark:/48223/pf0000163606> (Reviewed August 27, 2021)

<sup>15</sup> <https://www.opendemocracy.net/en/odr/school-report-what-georgias-missing-in-its-education-reforms/>

“In Tbilisi, we plan new schools in stages, the only problem is that there’s a new standard for schools, it needs a lot of space, and in center of Tbilisi, it’s impossible because of density. Infrastructurally, new development is hard because of the lack of space, but we plan to build more in the suburban areas.”<sup>16</sup>

Such policy is not constructive as this leads to more and more children in Tbilisi and other urban areas to study in overcrowded schools on average. Currently, average Tbilisi school has 34% more students than in 2009, average Batumi school has 16%, and Rustavi 24% has more. One way or another, Georgian education infrastructure policy needs to more thoroughly address demographic changes and the need for more new schools in its capital and urban areas – whether by buying land and building schools or compelling developers of new high-rises to add schools to their development schemes.

## Details on infrastructure

In this section, we will outline the infrastructure conditions of public schools in Georgia based on detailed assessment data provided by ESIDA in 2019, but collected in 2018 and 2019.

### Heating

The provision of adequate, constant and quality heating has been a challenge for the Georgian education sector since the 1990s, when Georgia lost its access to the central Soviet energy system, on which it was completely dependent, and had no money to develop its own infrastructure. This manifested in kids sitting in coats in schools, writing with frozen fingers and teachers collecting fuel from parents to use in rudimentary heating apparatuses in their classrooms. The situation started to slowly change in 2000s with new investment into school infrastructure. However, most development was in the urban sector, and rural schools are still disadvantaged in terms of heating.

*Figure 9: Type of heating by rural/urban*

Type of heating	Rural	Urban
Natural gas	16%	<b>88%</b>
Wood stove	<b>64%</b>	7%
Liquid fuel	6%	2%
Solid fuel	5%	1%
Other/More than one system	7%	1%

*Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA*

All but three urban schools have central heating, while rural schools have a more diverse system of heating and two in three rely on wood stoves, 90% of which are in bad condition (see figure below).

<sup>16</sup> Interview with Lali Kalandadze, Deputy Minister of Education



Figure 10: Quality of wooden stoves



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

Only 15% of schools who used only wood stoves had some kind of central heating system, meaning that the rest, 85% or 816 schools, were able to heat only on a classroom-by-classroom basis.

Heating discussions, particularly about wooden stoves, loomed large in in many focus group interviews at disadvantaged schools in rural areas, where a number of issues were laid out by school personnel and parents.

First, on windy days, smoke from the stoves gets in the classroom and beyond it being harmful, it makes it impossible to study on such days.

“Wooden stoves are an issue. When there’s a wind, it sends smoke into the rooms, and it’s bad for the students’ health and also the ash damages the furniture and the rooms themselves. Some time ago, they installed special knee-pipes [bent flues] outside against the wind, but it did not help”<sup>17</sup>

The widespread use of wood for fuel is usually the simple result of the lack of gasification, since significant areas of rural Georgia remain unconnected to the gas network.<sup>18</sup> In areas where there is no central gas network, wooden or liquid fuel (central diesel heating) are the only options. However, in two focus groups, it turned that while the village had access to the central gas system, it had not reached the school. “Our neighbor has gas, but we still use the stoves.”<sup>19</sup>

<sup>17</sup> Focus Group with G public school

<sup>18</sup> GeoWel Research (2020), *Educating Georgia: An Overview of Georgia’s General Education System and a Consideration of Opportunities and Challenges*, p87

<sup>19</sup> Focus Group with C public school

Secondly, in many cases, teachers have to do double duty of stoking the fire, and teaching at the same time. Some rural schools employ stokers for the fireplaces, while in others, teachers themselves have to manage fires – which means coming in early to heat the stove and keep it safe and warm throughout the day. “We have no stoker, if the stove dies, we need to bring firewood, light it up again and actually it’s not part of our jobs. Teachers are sooty, with tears in their eyes. It’s not suitable.”<sup>20</sup>

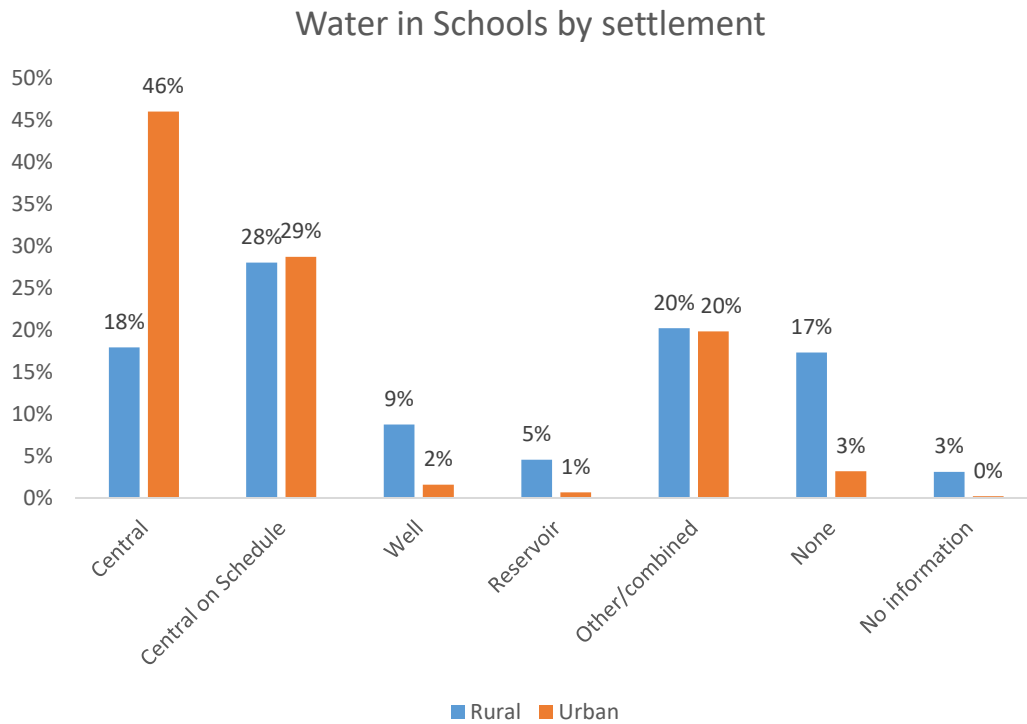
### Water

The availability of running water is also an issue in many Georgian regions, and schools have to accommodate the lack of water in their settlements. This is not limited to rural areas – many large cities, notably Kutaisi, Georgia’s third largest city, and Telavi, largest city in Eastern Georgia, still have water “on schedule”, meaning water is only available at certain times of day and/or varies by season. In many areas with no running water, or no constant running water, schools keep wells and water tanks. Even in these circumstances, around one in five schools in the Georgian countryside have no water at all (see Figure below).

---

<sup>20</sup> Focus Group with K Public School

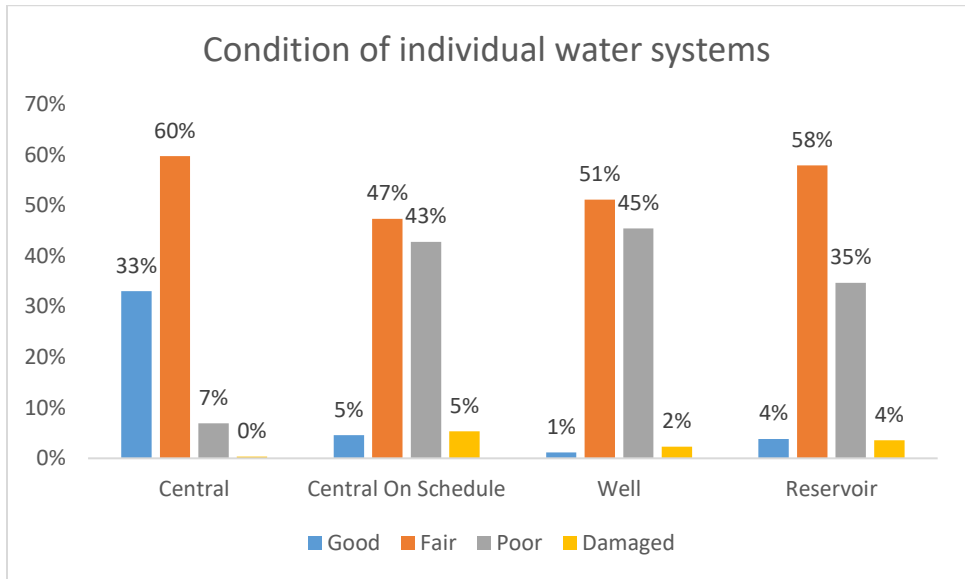
Figure 11: Water in schools by rural/urban



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

As can be seen, the better the system is (central, or central on schedule), the better condition the water supply system is in. This highlights large disparity both by the type of water system school uses, and its quality.

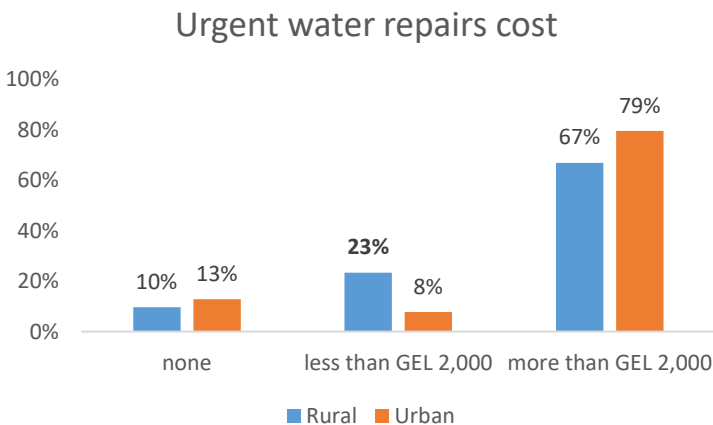
Figure 12: Condition of individual water systems



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

Providing clean and constant water in Georgia’s countryside is not a task for education policy as such and is a part of a more general infrastructural development package. In the limited number of cases where water provision could be improved easily (such as investing in a new well or repairing existing piping around the school), such repairs can and should be carried out from the education budget: based on the assessment data, 23%, or 420 rural schools’ water systems need urgent, but relatively cheap (<GEL 2,000) water repairs. Such works could greatly improve school conditions (see Figure 14 for details).

Figure 13: Urgent water repairs by settlement



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

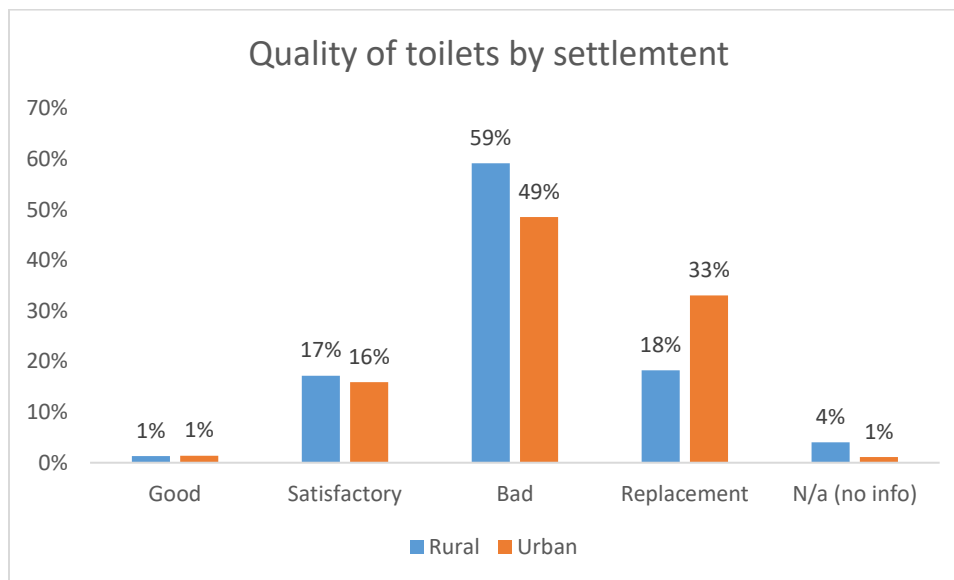
In some mountainous areas with cold winter weather, recently installed water systems can't handle the weather.

"The problem is, the water tank and network was not adequate and not suitable for this cold. We have to keep constant running water in order for it not to freeze in the pipes, and the water tank can't handle this, the pressure falls. We're on the second floor and it's not enough for us. It's impossible to keep toilets clean in this period<sup>21</sup>"

### Toilets

Generally speaking, toilets in urban and rural schools are relatively similar in terms of quality: very few schools have good or satisfactory toilets, and while there are more "bad" toilets in rural schools, a third of urban school toilets need replacement compared to 18% of rural schools.

Figure 14: Quality of toilets in schools

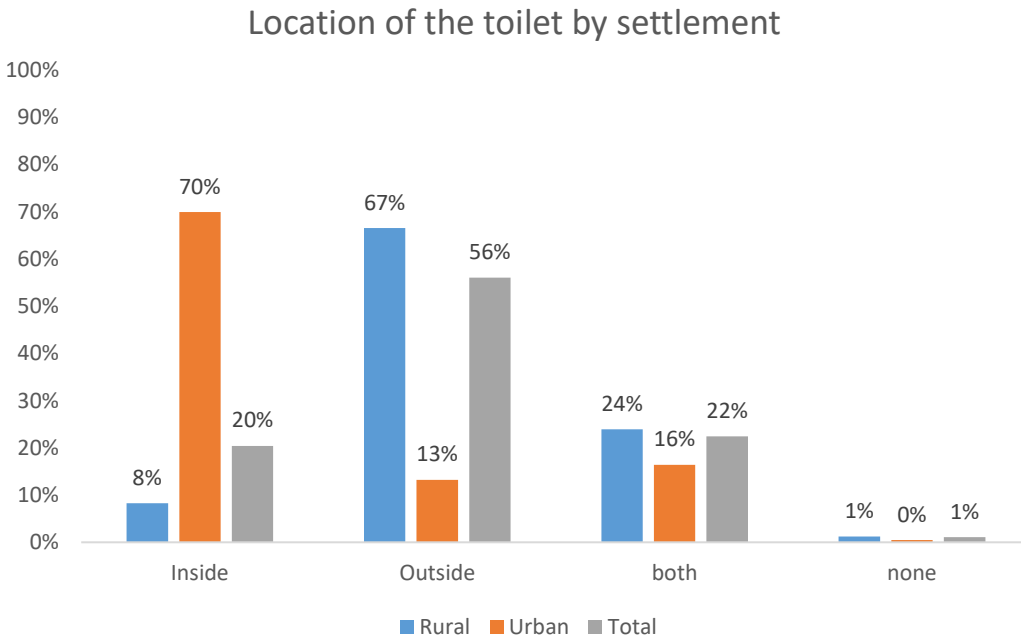


Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

This, however, conceals the fact that over half of village schools have toilets outside the building.

<sup>21</sup> Focus Group with O public school

Figure 15: Location of the toilet

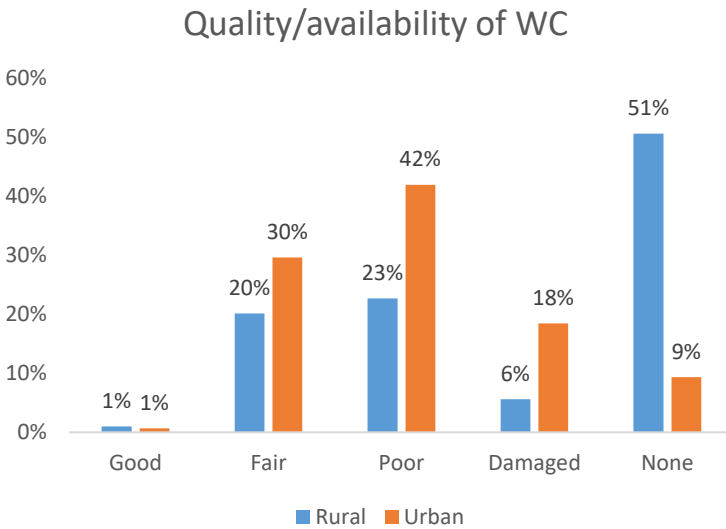


Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

As seen, two thirds of schools in the country side have outside toilets only. In addition, 24 schools, 22 of them rural, have no toilets listed at all.

The existence of water in toilets is clearly important, and here we can see the similar issue – over half of rural schools have no water in their WC’s.

Figure 16: Quality / existence of water in WC

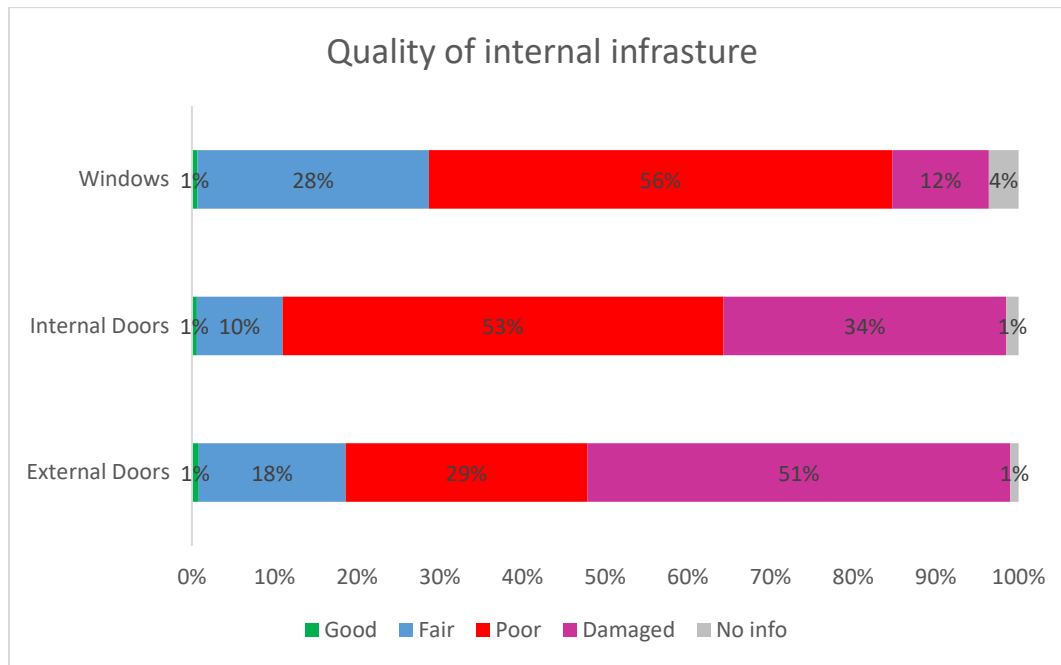


Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

### Interior (doors, windows)

The condition of internal infrastructure is particularly dire. As visible in the chart below, the vast majority of external/internal doors and windows around the country are either in poor condition or damaged. However even in these circumstances, teachers and parents around the country rarely mention them as their main source of infrastructural concern, based on focus groups. This could suggest that having loose doors and windows in the school is considered somewhat of an “acceptable reality” within schools and fixing more pressing issues, like heating, water and toilets is seen as more important.

Figure 17: Quality of internal infrastructure



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

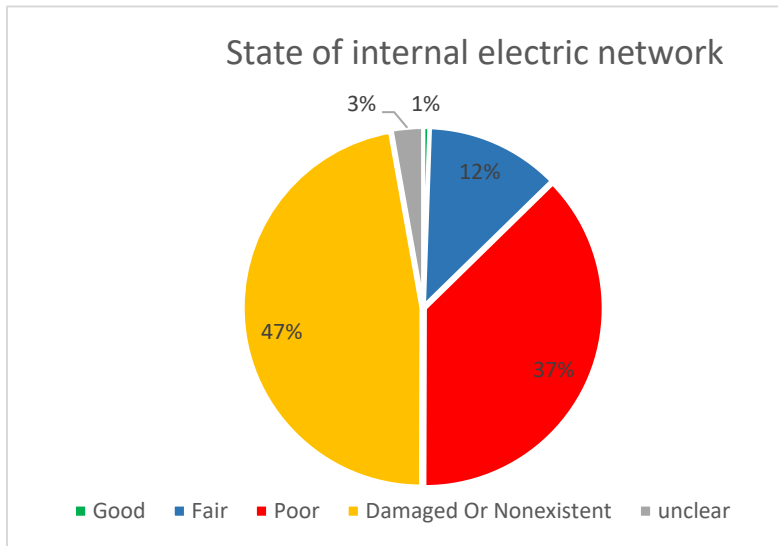
Electricity within school buildings can also be a problem. Based on the assessment data, some three quarters of schools have poor, damaged or nonexistent electric systems. As opposed to internal infrastructure, this was abundantly mentioned in focus groups with the schools. In many cases, teachers complained that they could not have interactive classes because not every room had electricity. Some had even more basic problems of lighting –teachers spoke of morning classes in the winter (or in the second shift in the afternoon) that had to take place in darkness.

“The whole school electric system is out of order, in 80% of our classrooms there is no electricity at all. Therefore, if we want to use a projector or whatever technical capability, we have to go to other rooms. The corridors also have no lighting, it is dark.”<sup>22</sup>

<sup>22</sup> Focus Group with L School



Figure 18: Internal electric network in schools

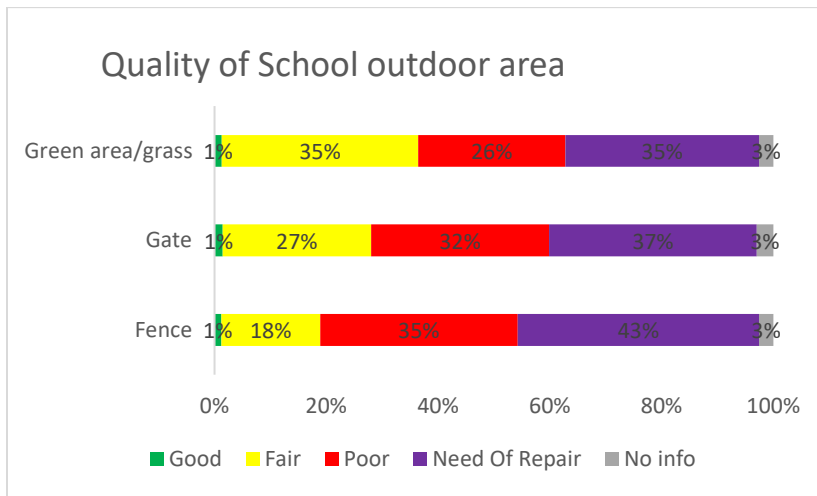


Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

### Exterior (Stadium, yard, fence)

As visible in the chart, most outdoor infrastructure is in poor or replacement condition. However, like in the cases of doors and windows, for many teachers in our focus groups there is a hierarchy of repairs. While mentioning that gates and fences are in a bad state, they continue to note that other issues (heating, internet or water) are more pressing.

Figure 19: Quality of outdoor areas

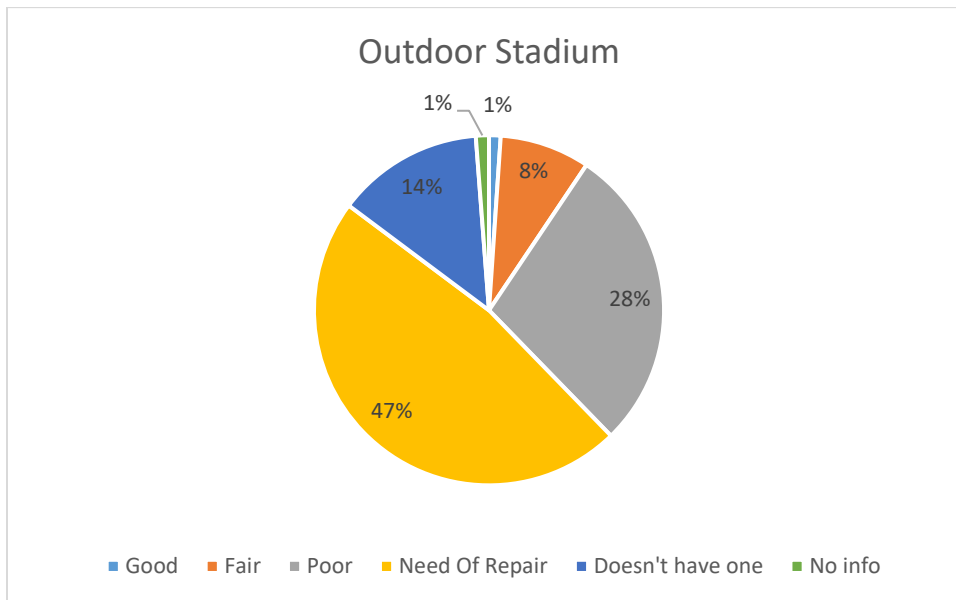


Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

Outdoor sports facilities are an exception: many teachers and especially parents in focus groups note that having a functional sports ground is something most desired by their children.

As can be seen from the table below, most schools have some sort of outdoor sports facilities, but they are in need of repair or in poor state in three quarters of cases.

Figure 20: Quality/existence of outdoor stadiums



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

## ICT

### Computers

In the beginning of 2019, the over 2,300 public schools in Georgia had about 29,500 computers at them.<sup>23</sup>

Figure 21: number of students per computer at public schools in Georgia:

N of students per computer	N	%
Less than 1	237	10%
From 1 to 2	43	2%
From 2 to 5	226	10%
From 5 to 10	487	21%
From 10 to 20	794	34%
From 20 to 50	471	20%
50 and more	47	2%
<b>Total</b>	<b>2 305</b>	<b>100%</b>

Source: EMIS

Figure 22: Number of students per computer per settlement type

N of students per computer	Rural		Urban - Capital		Urban - City		Urban - Town	
	N	%	N	%	N	%	N	%
Less than 1	27	2%	115	40%	40	30%	55	20%
From 1 to 2	41	3%		-	1	1%	1	0.4%
From 2 to 5	221	14%	4	1%		-	1	0.4%
From 5 to 10	444	28%	6	2%	8	6%	29	10%
From 10 to 20	594	37%	52	18%	37	28%	111	40%
From 20 to 50	234	15%	114	39%	46	35%	77	28%
50 and more	41	3%		-	1	1%	5	2%
<b>Total</b>	<b>1 602</b>	<b>100%</b>	<b>291</b>	<b>100%</b>	<b>133</b>	<b>100%</b>	<b>279</b>	<b>100%</b>

Source: EMIS

However, the assessment database does not provide data on the condition of the computers. In many focus groups, school computers were said to be extremely old.

“They should all be written-off,” said one teacher and indeed, in that school the computers had not been replaced since purchase, 15 years ago.<sup>24</sup>

In many focus groups, the date of 2007, when the Education Ministry’s “Milky Way Fund” started giving away computers, was listed as the last time the school received the hardware from the Ministry. It is

<sup>23</sup> GeoWel Research (2020), *Educating Georgia: An Overview of Georgia’s General Education System and a Consideration of Opportunities and Challenges*, p91

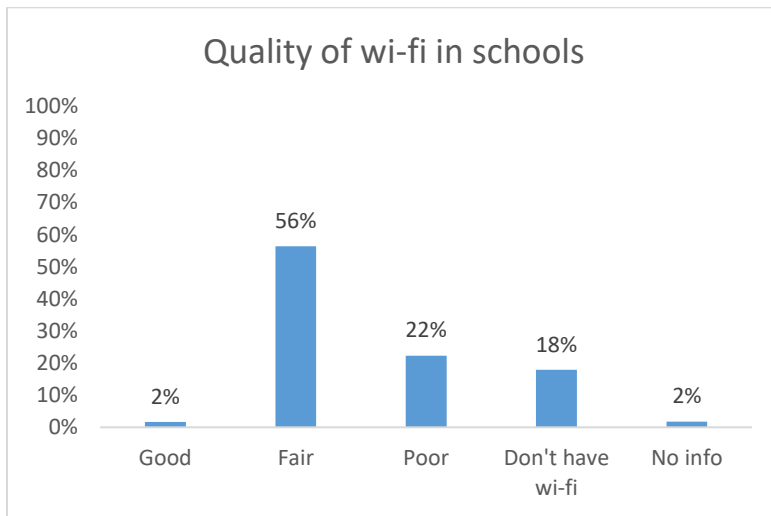
<sup>24</sup> Focus Group with J School

clear that 15 year old computers can't really be seen as trustworthy, especially when, after 2021, having an online journal to keep attendance sheets and marks becomes a must.<sup>25</sup>

### Internet

Again and again, our respondents pointed to the inevitable trade-offs that have to be made in schools with poor infrastructure. One focus group member wryly noted that if they buy computers, they won't have enough money to buy firewood in winter to stay warm. Needless to say, schools should not have to make a choice between having adequate, up to date computers and keeping children warm in the winter. The importance of a quality of internet connection in schools grew exponentially as schools moved online due to the COVID-19 pandemic. As visible in the chart below, around 22% of schools have bad quality wi-fi and another 18% has none at all, and have to rely on accessing the internet via mobile phone data.

Figure 23: Quality of wi-fi internet



Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

In many cases it is beyond the purview of the educational authorities to ensure fast internet provision. However, where possible, schools should be provided with more powerful wi-fi systems, both within the school and to provide adequate networking to connect with the internet system externally.

### Repair Costs overview

The budget for the complete renovation of all existing schools is in the vicinity of GEL 1.6 billion. However, that is distributed extremely unevenly, and urgent and mid-range repair for rural only schools are 60% of all the expected costs while urban schools—which house 70% of students—would be just 11% of all costs in the first year and 32% of costs if you sum up urgent and non-urgent repairs. Overall, 64% of the total repairs budget would be for rural schools and 36% for urban schools (see figure below).

<sup>25</sup> Focus Group with K School

Figure 24: Repair costs by rural/urban, GEL mln

Type	Urgent total	Non-urgent total	Long-term total
Rural	378	528	107
Urban	174	343	43
<b>Total</b>	<b>551</b>	<b>871</b>	<b>150</b>

Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

Figure 25: Repair costs by condition, GEL mln

Condition	Urgent total	non-urgent total	long-term total	Total
Good	0.8	1.3	0.9	3
Fair	231	441	69	741
Poor	253	381	64	698
Replacement	66	48	16	130
<b>TOTAL</b>	<b>552</b>	<b>871</b>	<b>150</b>	<b>1,573</b>

Source: Public school infrastructure assessment database 2018-2019 collated by GeoWel based on data provided by ESIDA

## Recent developments summary (after the 2018-2019 assessment)

As seen in the figure above, the overall cost of improving all school infrastructure to an acceptable level is around GEL 1.6 billion, with immediate, i.e. urgent, repairs taking up a third of this sum. However, recent spending has improved some of the infrastructural flaws outlined in the 2018-2019 assessment.

Finding out detailed information on exactly how much Georgia spends on school infrastructure in a given year is extremely complicated, as financing comes from at least four different sources.

First, the ESIDA is the main centralized government agency under the Ministry of Education generally responsible for the purchase and maintenance of physical infrastructure and equipment for schools. In the years 2018-2021 it has built 38 new schools with capacity of over 6,000 students for a total of GEL 98 million. It has also performed 979 individual renovations that cost GEL 96 million. If we only take 2020 and 2021, a period which fell fully outside the 2018-2019-assessment, the numbers are, respectively, eight new schools worth 33 million and 55 million worth of renovations.

However, since 2018 ESIDA has given up some of its responsibilities to the Ministry of Regional Development and Infrastructure (MRDI), who have further deferred responsibility and funds to the MDF and the local governments. MRDI has delegated repairs to individual Georgian municipalities (other than municipality of Tbilisi and Adjara Autonomous Republic), and transferred a total of GEL 79 million in the years 2019, 2020 and 2021.

However, in order to find out the details of the spending through MRDI line, one has to apply for information to each of the 57 municipalities in question<sup>26</sup>. None of the municipalities individually build new schools, and this money is usually spent for small scale renovations<sup>27</sup>. Additionally, starting in late 2019, MDF, a government entity under the MRDI, has also started issuing tenders on building new schools and some large renovations. In 2019, 2020 and 2021, it has spent a total of GEL 83 million building 39 new schools which can house 5,360 students, as well as repairing two village schools. MDF’s profile in this area is geared toward larger projects (planning and building new buildings) rather than renovations. Finally, there is an unknown (but likely smaller) number of school renovations that are financed privately by local or national sponsors. GeoWel has applied for information on the quantity and type of these private renovations, but ESIDA wrote in an official letter that such knowledge is “outside the agency’s competence.”<sup>28</sup>

Overall, if we check the period after the 2018-2019 assessment (either 2018 or 2019, depending on the school), analyzing the sum total of all income sources suggest that from 2018, GEL 357 million was spent for renovations and the building of new schools, and 77 new schools (38 through ESIDA and 39 through MDF) were built.

*Figure 26: Renovation budget 2018-2021*

Channel	2018	2019	2020	2021 (January-August)	Total
ESIDA	50,658,758	60,648,928	71,761,140	11,520,377	194,589,202
MRDI (through municipalities)	-	39,990,000	38,207,395	1,070,472	79,267,867
MDF	-	1,063,757	24,981,977	57,343,262	83,388,996
<b>Total</b>	<b>50,658,758</b>	<b>101,702,684</b>	<b>134,950,511</b>	<b>69,934,111</b>	<b>357,246,064</b>

*Source: Data provided upon individual requests from ESIDA, MRDI and MDF*

Out of these 77, just 7 new schools were in cities, where demand is highest, and 70 were in villages around the country. This was highlighted in conversation with experts, who noted that the government’s decision to build new schools in areas where the population is not expected to grow was not based on rational action, but for political purposes.<sup>29</sup> Of the schools built by the MDF, 20 were standard 60-students village schools and another nine were 90-student schools. In addition, ESIDA built 18 20-students schools.

<sup>26</sup> Response to GeoWel request to MRDI to provide detailed data on renovations paid for by MRDI budget

<sup>27</sup> Conversation with Zviad Chantladze, ESIDA Head of Administration

<sup>28</sup> Official ESIDA response to GeoWel letter

<sup>29</sup> Interview with Revaz Abkhazava

Figure 27: Size of new schools

Capacity	ESIDA	MDF	Total
60 students or less	19	20	39
61-150 students	8	12	20
151-500 students	7	6	13
501 or more students	4	1	5
<b>Total</b>	<b>38</b>	<b>39</b>	<b>77</b>

Source: data provided upon requests to ESIDA and MDF

Newer renovations and school development have not been audited, and the quality of these works is unknown. In general, school renovations are often dictated by political interests rather than actual school needs<sup>30</sup>. Focus groups revealed that in some cases, newer renovations of the heating systems have failed and staff had to resort to old methods for heating. In one school, built in 2013, teachers reported that because the new central heating system can't handle the winter cold they now bring in their own electric heaters. Additionally, the material used to build walls in this particular school cracked, and now this relatively new school has cracks in its outer walls.<sup>31</sup> Such cases indicate the need for full auditing and quality control to be established.

It is clear that there is no organized effort to refurbish and rebuild schools under a centralized plan based on school needs. It's hard to imagine that ESIDA, MDF, MRDI and each of 57 municipalities as well as private sponsors work under one plan according to the renovation needs of the schools. This is unfortunate, as the school evaluations could be used as a benchmark to create an overarching refurbishment strategy<sup>32</sup>. That said, it's still not too late, and there are two plans to correct this organizational issue – one is to centralize all school refurbishment and rebuilding (ESIDA, MDF, MRDI/municipalities, private) under a cross-cutting agency which will decide what to refurbish and rebuild first based on hard data. Another way is to out-source all refurbishment to municipalities. It is logical that the former is the short-term, and latter a long-term optimal strategy.

It is also clear that the schools in most need of infrastructural help are often overlooked by the current, almost haphazard system. Looking at the MDF and ESIDA projects and comparing them with the 2018-2019 assessment, we see that out of the 77 newly built schools, just 7 were built to replace “replacement” level schools, 10 were built instead of poor and fair schools instead of refurbishing them, and 61 were built in a brand new location. If we analyze ESIDA renovations that cost more than GEL 100,000 – 202 pieces of renovation, 144 of them (over 70%) were for schools deemed as fair under 2018-2019 assessment data. The total cost of 146 renovations of good and fair schools that cost over GEL 100,000 in years 2018-2021 was about GEL 47 million. Many of these were “full rehabilitation” projects.

<sup>30</sup> Interview with Simon Janashia

<sup>31</sup> Focus group with school G (mountainous area)

<sup>32</sup> GeoWel Research (2020), *Educating Georgia: An Overview of Georgia's General Education System and a Consideration of Opportunities and Challenges*, p22

Figure 28: FCI condition of schools renovated (cost of over GEL >100,000 GEL) under ESIDA

Condition	Cost (GEL)
Good	2
Fair	144
Poor	52
Replacement	4
<b>Total</b>	<b>202</b>

Source: provided by ESIDA upon request

## Recommendations

School infrastructure update is crucial, especially as high number of school buildings are in dire state and close to 300 schools are in replacement condition. However, Georgian education policy should take a more holistic approach and look at long term demographic, sociological data to measure long term population trend and adjust building new schools and renovating the old / consolidating schools accordingly. Thus, any long term projects on school infrastructure development should come in one package and be a part of regional (rural and urban) development, employment, municipal zoning, agriculture, and migration government policies.

Short term, in particular, the government of Georgia should find ways to build more schools in its urban areas, particularly to take pressure off overcrowded schools in Tbilisi, and to a lesser extent, Batumi. One policy could be to make it a legal requirements for developers to build schools if a development complex is over a certain number of units, or tax incentives for new developers to compel them to build schools in newly development areas, or finding land for new schools and building them with state resources, in areas already built up, but with large student overcrowding.

On the opposite end of the spectrum, government should look at extremely small rural schools, with single digit students, in areas which don't have immediate projections for growth. Renovating some of these schools, could be futile in short term as they won't change the demographic destiny and urbanization of Georgia in short and medium term. At the same time, it shall identify rural areas where more development, business (tourism, agriculture, heavy industry or otherwise) could be projected, identify schools that are in poor or replacement condition there and renovate them.

Government of Georgia should make a concerted effort to organize and prioritize refurbishment of schools and building new ones based on data. The current situation where 4 organizations independently work on renovations is not ideal. Such organization could be done on the basis of the 2018-2019 assessments or other type of information available to Ministry of Education and municipalities. The organizations providing renovations (ESIDA, MRDI, municipalities, MDF, sponsors) should at all times coordinate their work with each other. This can be done in two ways: one is to centralize all school refurbishment and rebuilding under a cross-cutting agency which will decide what to refurbish and rebuild first. Another way is to decentralize and outsource all refurbishment to municipalities, which would control schools in them and their refurbishment strategy. It is logical that the former is the short-term, and latter a long-term optimal strategy.



Within that effort to organize, government should be more responsive to address look at particular cases of issues with schools with outstanding, immediate problems (heating, water, toilets, internal infrastructure or other issues) and address them without delay. It can read various reports on schools in extremely dire conditions in media or continue assessing all public schools in areas of concern internally.

Finally, government should renew ICT infrastructure, particularly computers to the best of their financial ability: the survey conducted by GeoWel suggested that in schools in the bottom of infrastructural conditions (based on the 2018-2019 assessment data) 60% of people cited that computers in their school were “outdated” or “completely outdated”. Considering renewed need for ICT infrastructure in the context of moving online due to COVID-19 pandemic, having working computers in school is key for both teachers and students.