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# A Spending Review on School Infrastructure in the Eastern Cape


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# EXECUTIVE SUMMARY

## Overview

The Eastern Cape Department of Education has a constitutional obligation to provide basic education to all children between seven and fifteen years within the province. For any child, this right to access basic education encompasses access to: (i) safe and appropriate schools' infrastructure, (ii) the correct textbooks and learning material when they need it, and (iii) qualified teachers. However, since 1994, the Eastern Cape province has struggled to deliver these three elements to the nearly 1.8 million children enrolled in primary and secondary schools across the province.

## Methodology

Spending reviews use a six-step methodology to analyse and make sense of government spending. The first step is an institutional analysis, which outlines the stakeholders involved in the programme and the flow of funds. In the second step, the methodology examines the processes involved in delivering school infrastructure. The third step identifies indicators that can analyse the school infrastructure programme's performance, such as number of projects and average turnaround times. Next, the expenditure analysis step uses the information from the first three steps to allocate and assign expenditure to functions. Typically, an expenditure analysis in a spending review requires considerable and large-scale datasets.

This spending review has been hamstrung by the limited data on school infrastructure projects. Data issues can be broadly categorised into (i**) incomplete and missing data** and (ii) **unreliable and misclassified data**. First, even though the Department has invested close to R7 billion in school infrastructure over five years under review, it has an incomplete set of asset registers to record its investments. Second, data is frequently unreliable and misclassified. As the BAS analysis shows, several infrastructure expenditures have been incorrectly classified under programmes other than the infrastructure development budget. Moreover, fields such as the regional identifiers and project fields (with the school names) are not used consistently, making it challenging to identify where the infrastructure expenditure occurs.

## Problem statement

There are several reasons why building school infrastructure has been challenging for the Eastern Cape. Part of the problem stems from the legacy of apartheid and its continuing effects on spatial and demographic patterns. Before 1994, the Eastern Cape province included two former homeland provinces – the Transkei and Ciskei – responsible for building and operating schools. By the time the democratic government took over and unified the basic education system, the province had thousands of small farm and mud schools across the province.

Another dimension of the problem is the province's distinct rural and urban divide. Migration in the provinces drives changes in demographic patterns. On the one hand, the province experiences outbound migration from the Eastern Cape to other provinces (e.g. Western Cape), reducing the number of learner enrolments in rural districts. On the other hand, there are clear migration patterns within the province from rural to urban districts and even within urban districts as parents seek to enrol their children in better-performing schools. Overall, migration affects the demand for school infrastructure. In the Eastern Cape, migration has left many rural schools under-utilised and led to overcrowding in urban areas. The school rationalisation project deals with changing migration patterns by rationing, closing and merging schools. However, the school infrastructure programme is still responsible for supplying infrastructure based on the decisions of the rationalisation programme.

Like the rest of the country, the province is faced with significant schools' infrastructure backlogs. In particular, the infrastructure backlog is most pronounced in two districts: OR Tambo Coastal (Ngquza Hill, Nyandeni and Port St Johns), being the worst education district with infrastructure backlogs, followed by Alfred Nzo West (Matatiele, Ntabankulu & Umzimvubu). Nevertheless, the analysis reveals that the Eastern Cape province has made **substantial progress in addressing severe backlogs – only 2% of schools are without electricity, and projects are underway to connect schools.** In addition, there are no schools without water and sanitation. That said, there is still much work to **improve basic services' reliability.** However, half of the schools report an unstable water supply, and 18% of schools still use dangerous pit latrines as a form of sanitation.

## Policy and legislative review

There are several policies and acts that govern the school infrastructure programme in the Eastern Cape. However, the legislation that has the most direct bearing on the shape of the school infrastructure programme is the 2013 Government Regulations Relating to Minimum Uniform Norms and Standards on School Infrastructure. As the name suggests, this regulation specifies the minimum infrastructure standards for schools. It states that every school must be provided with water, electricity and sanitation; schools made of inappropriate materials to be replaced within three years following the publication of the regulations; detailed physical norms that should be followed when building new schools or updating existing infrastructure. And yet, while the Minister of Basic Education set the target 2020 as the target year for meeting these minimum norms and standards, several provinces, including Limpopo, Mpumalanga, Eastern Cape, Western Cape and Gauteng did not meet this deadline.[1]

**Flow of funds**

There are three distinct sources of funding for school infrastructure: (i) the Education Infrastructure Grant, (ii) School Infrastructure Backlog Grant, and (iii) Provincial Equitable Share. . Between 2016/17 and 2020/21, the Eastern Cape Department of Education spent about R7.6 billion on school infrastructure through the Education Infrastructure Grant.

The National Department of Basic Education uses the indirect school infrastructure backlogs grant to replace unsafe and inappropriate school structures and provide water, sanitation services and electricity on behalf of provinces. This indirect Grant is administered by the National Department and supports the Accelerated School Infrastructure Delivery Initiative (ASIDI). The last source of funding is the Provincial Equitable Share. In this case, the province uses its own funding for infrastructure. Because of the budget cuts, the Eastern Cape only spent R266 million over the five years under review.

**Process analysis**

[1] https://ewn.co.za/2020/11/26/govt-is-too-slow-to-implement-norms-and-standards-for-school-infrastructure-ee

This spending review maps the processes involved in the infrastructure programme based on interviews with Departmental officials and several documents. The process analysis reveals several useful insights into inefficiencies within the infrastructure delivery cycle.

Although the Eastern Cape Department of Education develops plans for school infrastructure in the province, the ASIDI programme also operates in the province. Because of the enormous backlog in the province, the Eastern Cape receives a significant proportion of the School Infrastructure Backlog Grant. However, there appears to be limited coordination between the Eastern Cape Department of Education and the National Department in relation to the ASIDI grant. In particular, it seems that the ASIDI programme has invested in schools that are now underutilised because of learner migration from rural to urban education districts.

The Eastern Cape Department of Education appoints Implementing Agents to manage school infrastructure design and delivery. However, there have been concerns with the capacity of these agents to deliver. As a result, **poor performance by implementing agents has contributed to slow delivery in the Eastern Cape**. Moreover, the Department's infrastructure unit has limited capacity to oversee the implementing agents. According to the Equal Education report, in 2018, there were "only three ECDOE managers overseeing all eight IAs and their programme managers".

Finally, the number of contractors and civil engineering companies in the Eastern Cape is relatively small compared to other provinces. While the government has tried to bolster the construction sector in the Eastern Cape by awarding preferential points to companies with a local presence, there have been unintended consequences to this procurement policy. According to the infrastructure unit in the Department, local contractors have used this policy to increase their prices. Moreover, interviewed officials suggested that some local contractors have been **awarded contracts that they do not have the capacity or cash flow to deliver on infrastructure projects**. This, in turn, led to delays in the infrastructure projects.

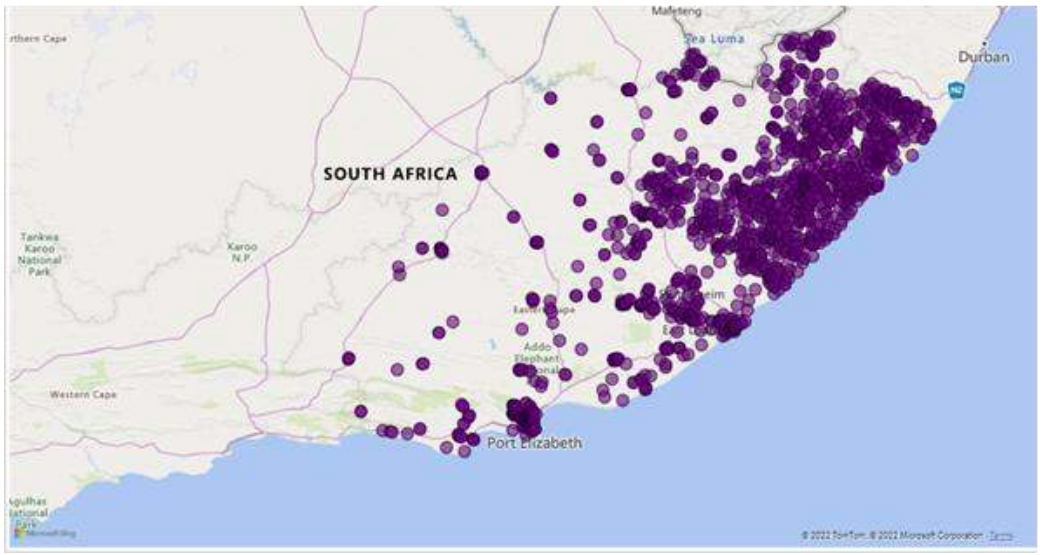
**Performance analysis**

Between 2018/19 and 2021/22, the Eastern Cape recorded 5393 projects on the IRM. About 29% of the school infrastructure projects involved building new, upgrading, rehabilitating or repairing secondary schools. Another 24% of infrastructure projects were aimed at improving

primary school infrastructure. Combined schools account for about 15% of all infrastructure projects recorded on the IRM.

Four districts – O.R Tambo, Chris Hani, Amathole and Alfred Nzo, account for almost half of all school infrastructure projects in the Eastern Cape. In these four districts, the emphasis has been on addressing backlogs, improving access to and the safety of schools.

**Exhibit 1: Infrastructure projects by location**




*Source: IRM*

The Eastern Cape Department of Education focuses on upgrading and extending school infrastructure. About 54% of all projects fall into this category of investments. The new-build programme accounts for 17% of all projects. The distribution of projects by investment type suggests that the Department has focused its **efforts on extending and upgrading existing infrastructure and less on the new build programme.**

**Exhibit 2: Infrastructure projects by nature of investment, 2018/19 – 2021/22**

| Type of school | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Total | % of Total |
|---|---|---|---|---|---|---|
| Upgrading and Additions | 888 | 778 | 676 | 576 | 2 918 | 54% |
| New or Replaced Infrastructure | 18 | 526 | 232 | 142 | 918 | 17% |
| Rehabilitation, Renovations & Refurbishment | 101 | 271 | 228 | 149 | 749 | 14% |
| Maintenance and Repairs | 27 | 207 | 245 | 221 | 700 | 13% |
| Non-Infrastructure | 15 | 17 | 16 | 14 | 62 | 1% |
| Other | 47 | 1 | | | 48 | 1% |
| **Grand Total** | **1 096** | **1 800** | **1 398** | **1 102** | **5 396** | **100%** |

*Source: IRM*

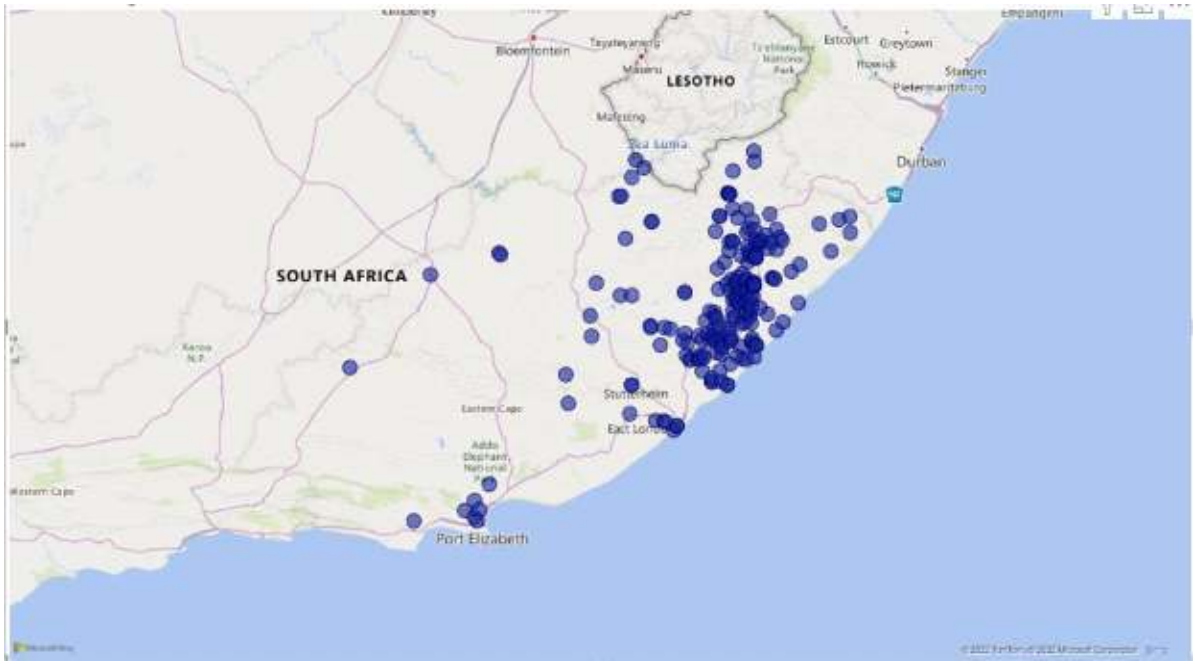
It takes almost five years to build a large or mega secondary school in the Eastern Cape. A medium-size primary school with a minimum capacity of 311 learners takes 4.4 years to complete. Likewise, the average construction time for a micro primary school with less than 135 learners was about four years. Typically, smaller primary and secondary schools are in the former homeland and rural areas. The data suggests that it takes longer to build, repair, and rehabilitate schools in these areas than those in urban centres

Between 2018/19 and 2021/22, 1 831 out of the 5374 (33%) were practically completed. However, only 543 (10%) of all school infrastructure projects reached the final completion stage in the four years. It is within this stage that school infrastructure is ready for commissioning.[2] The map below shows that most of the school infrastructure projects completed and ready for use were in the O.R Tambo and Amatole districts.

It is also apparent from the data analysis that 33.9% of projects had reached the practical completion stage. That said, there seems to be delays in translating projects from practical completion to final completion.

[2] Completed includes both practical completion and final completion. Practical completion is a stage where all works are complete except for minor defects and omissions. Final completion is the stage where the contractor has completed the entire project and addressed all defects. At this stage, the project is ready for for hand over.

**Exhibit 3: School infrastructure projects in final completion stage, 2018/19 – 2021/22**




## BAS expenditure analysis

Between 2016/17 and 2020/21, the Eastern Cape Department of Education spent R6.9 billion on infrastructure. About 98% of the expenditure went through the Infrastructure Development budget programme. Over the period under review, expenditure on infrastructure development declined by an annual average of 20%. This decline is partly attributable to the re-allocation of expenditure from the Education Infrastructure Grant towards Personal Protective Equipment in 2020/21 to deal with the COVID-19 pandemic.

**Exhibit 4: Expenditure by nature of investment**

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total | Share analysis |
|---|---|---|---|---|---|---|---|
| Operating Leases | | 17 695 537 | 27 025 276 | 16 229 825 | 22 407 264 | 83 357 903 | 1.20% |
| Infrastructure Transfers Current | | 307 699 | | 24 908 936 | 81 140 | 25 297 775 | 0.36% |
| Maintenance & Repair Current | 112 667 445 | 214 719 326 | 37 682 750 | 65 879 934 | 28 461 408 | 459 410 864 | 6.61% |
| New Infrastructure Capital | 1 094 195 884 | 69 651 193 | 79 927 940 | 209 793 784 | 167 580 087 | 1 621 148 888 | 23.34% |
| Refurbishment & Rehabilitation Capital | 291 694 699 | 387 304 276 | 220 555 759 | 157 840 857 | 44 186 536 | 1 101 582 127 | 15.86% |
| Upgrade & Additions Capital | 87 406 048 | 974 866 397 | 1 213 446 249 | 995 338 468 | 383 522 240 | 3 654 579 402 | 52.62% |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** | **100.00%** |

*Source: BAS*

The Department spends about 52.6% on upgrading and adding to existing infrastructure. This is by far the largest category of investment in school infrastructure. That said, investment in new capital climbed rapidly between 2017/18 and 2019/20 before the COVID-19 pandemic hit. As a result, investment in new infrastructure accounts for 23.3% of total infrastructure spending over the period.

Expenditure on repairs and maintenance is low. For example, between 2016/17 and 2020/21, the Eastern Cape Department of Education only spent 6.6% on maintenance and repairs.

About **44% of total spending goes towards building, repairing, upgrading, and rehabilitating secondary schools** in the Eastern Cape. About 28% is spent on primary schools and 17% on combined schools that run from Grade R to 12. Special schools, including schools for those learners with physical disabilities, account for about 8% of infrastructure spending. Expenditure on primary schools has remained relatively stable between 2016/17 and 2019/20, before the COVID-19 pandemic. Over the same period, the Department rapidly ramped up expenditure on secondary schools. Spending rose from R441.4 million in 2016/17 to R756.6 million in 2019/20. While spending has increased, only

12% of secondary schools were completed and commissioned between 2018/19 and 2021/22.[3]

### Accruals

in 2020/21, the total amount of invoices unpaid at the end of the year was R115.5 million. In that year, the Department **experienced cash flow problems and deferred the payment of invoices.** Delays in the payment of Implementing Agents have knock-on effects on contractors' payments. In turn, the delayed payment of contractor invoices can defer the completion of school infrastructure projects.

**Exhibit 5: Accrued invoices**

| Description | Total |
|---|---|
| 2017/18 | 1 383 740 |
| 2018/19 | 18 896 758 |
| 2019/20 | 2 016 329 |
| 2020/21 | 115 527 295 |
| 2021/22 | 6 800 712 |
| Unclassified | 21 129 786 |
| **Total** | **165 754 620** |

*Source: EcDOE*

### Unit cost analysis

Although any comprehensive assessment of value for money is not possible given the data limitations, the project data supplied by the Eastern Department of Education proved helpful in understanding the cost per square meter. Unfortunately, the analysis could only be carried out for Grade R and general classrooms.

The weighted average cost per GBA/$m^2$ for general classrooms is R22 410 in the Eastern Cape. The minimum cost per square metre is R13 897 for building classrooms in the Sterkspruit school in the Joe Gqabi district. The maximum is R 31 025 for building similar classrooms at the Makaula Senior Secondary School in Mount Frere. This means that there is a variance of R17 128.

[3] Note, the IRM and BAS data was available for different periods and therefore are not directly comparable.

In contrast, the weighted average of Grade R classrooms is R28 476 GBA/$m^2$. The lowest cost per square meter is R19 470 for a Grade R classroom in the Quayiya Primary School in Nolukhanyo Town, close to Port Alfred. On the other hand, the maximum cost per square meter is R75 118 for an ECD classroom in Qokolweni, close to Mthatha. For ECD classrooms, the variance between the maximum and minimum price is R55 378 per GBA/$m^2$

**Recommendations**

***Recommendation 1:*** *The Eastern Cape Department of Education must ensure that their Implementing agents evaluate the capacity of local contractors to deliver the infrastructure projects on time and within budget as part of the procurement process. This may involve reviewing the current due diligence processes that assess whether contractors can take on certain types of projects. Contractors that continuously fail to deliver should be reported to the National Treasury.*

***Recommendation 2:*** *The Eastern Cape Department of Education, National Department of Education and National Treasury should work together to determine the programme management capacity required to manage over 1000 infrastructure projects per year. The Department should also estimate how many projects it can manage effectively with its current capacity.*

***Recommendation 3:*** *The Eastern Cape Department of Education needs to identify the challenges that delay the completion of school infrastructure projects and develop an action plan to address these issues. In particular, the Department needs to accelerate the translation of projects from practical to final completion.*

***Recommendation 4:*** *The Eastern Cape Department of Education needs to manage its cash flow better to ensure that it does not delay the completion of school infrastructure projects.*

***Recommendation 5:*** *The Eastern Cape Department of Education must ensure that BAS correctly allocate infrastructure expenditures. The CFO's office must check that regional identifiers and project fields are used consistently. It is also recommended that the Department correctly the misclassifications raised in this report.*

***Recommendation 6:*** *The Eastern Cape Department of Education has done well to start monitoring costs per square meter. However, it must continue to monitor the unit costs*

*across its projects and build a dataset that shows the cost per square meter across different education districts, rural and urban areas. In addition, it must evaluate tenders against its price benchmarks to manage construction costs over time.*

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# 1. INTRODUCTION

## 1.1. Background

The Eastern Cape Department of Education has a constitutional obligation to provide basic education to all children between seven and fifteen years within the province. For any child, this right to access basic education encompasses access to: (i) safe and appropriate schools' infrastructure, (ii) the correct textbooks and learning material when they need it, and (iii) qualified teachers. However, since 1994, the Eastern Cape province has struggled to deliver these three elements to the nearly 1.8 million children enrolled in primary and secondary schools across the province.

Part of the problem stems from the legacy of apartheid and its continuing effects on spatial and demographic patterns. The education system in the Eastern Cape has been shaped by South Africa's history of racial segregation. Before 1994, the Eastern Cape province included two former homeland provinces – the Transkei and Ciskei. Although these homelands were administratively 'independent' during the apartheid government, all learners were still subjected to "Bantu education". However, the administrative independence of these homelands meant that they could establish and run schools to respond to the needs of their communities. Consequently, as communities petitioned the homeland governments for schools in the area, more and more schools were established with little regard for spatial planning, critical densities or the cost involved in resourcing these schools.

By 1994, when the democratic government took over, the Eastern Cape province had thousands of small (and sometimes structurally unsafe) schools serving rural communities. As one of its first tasks, the newly elected democratic government sought to integrate the different education administrations. The South African Schools Act (1996) established a unified system of education but also gave effect to the constitutional division of responsibilities. As a concurrent function, while the National Government set policy, curriculum and assessments frameworks within basic education, provinces were responsible for delivering basic education to learners. For the Eastern Cape, their constitutional and legislative responsibilities effectively meant that the province had to fund all the schools within the province, including the small rural schools. This situation placed significant budgetary pressures on the province.[4]

[4] GTAC (2019) The Eastern Cape Schools Rationalisation Project. Report commissioned by GTAC.

In parallel, demographic changes in the province affected the learner enrolment patterns. Migration from the Eastern Cape to other provinces and migration from rural to urban centres led to the declining number of learners in rural schools. As a result, the Eastern Cape province has under-utilised rural schools that are costly to maintain and overcrowded urban schools.

Aside from changing demographic trends, the Eastern Cape Department of Education is hamstrung by a lack of capacity to deliver infrastructure. Over the years, the capacity to plan, budget, and deliver school infrastructure has been variable. As a result, school infrastructure projects often take a long time from their inception to delivery.[5] Further compounding the problem are instances of maladministration within the Department. By 2011, the problem had become so pervasive that National Government was forced to place the Eastern Cape Department of Education under administration.[6]

> School infrastructure refers to any immovable assets that are acquired, constructed or which result from construction operations and movable assets which cannot function independently from purpose-built immovable assets in the basic education system. This includes school buildings, fencing and certain types of equipment.

## 1.2. Rationale for this spending review

Against this backdrop, the Eastern Cape Department of Education has struggled to deliver school infrastructure. Between 2016/17 and 2020/21, the Department has spent R7.9 billion developing new infrastructure, upgrading, and rehabilitating existing school infrastructure. With significant monies spent on school infrastructure, there are questions about the types of infrastructure funded, the regions where it is spending and whether the province is getting value for money. This spending review seeks to unpack expenditure by examining the nature of the investment, the regional patterns in spending, and the beginnings of a value for money analysis.

## 1.3. Structure of this report

This report is structured in six sections:

- **Section 1** outlines the background to the school infrastructure programme in the Eastern Cape

[5] National Treasury (2015) Standard for Infrastructure Procurement and Delivery Management. First Edition

[6] GTAC (2019) The Eastern Cape Schools Rationalisation Project. Report commissioned by GTAC.

- **Section 2** briefly discusses the methodology and challenges experienced during this spending review.
- **Section 3** analyses the policy framework governing the development of school infrastructure in the province.
- **Section 4** provides some detail on the number of infrastructure projects undertaken by the Eastern Cape, based on IRM data.
- **Section 5** analyses expenditure on infrastructure.
- **Section 6** concludes this report with recommendations.

# 2. METHODOLOGY

## 2.1. Overview

Spending reviews use a six-step methodology to analyse and make sense of government spending. The first step is an institutional analysis, which outlines the stakeholders involved in the programme and the flow of funds. In the second step, the methodology examines the processes involved in delivering infrastructure. The third step identifies indicators that can analyse the programme's performance. Next, the expenditure analysis step uses the information from the first three steps to allocate and assign expenditure to functions. Typically, an expenditure analysis in a spending review requires considerable and large-scale datasets.

Regarding infrastructure, these datasets would come from BAS, management information systems (e.g. Education Infrastructure Management Information System), Bills of Quantities, tender specifications, and contracts. Where needed, spending reviews can also cost out a new policy or establish a new baseline for existing programmes. The final step involves writing up the report concisely.

## 2.2. Challenges and limitations

This spending review has been hamstrung by the lack of a complete and reliable data set. The Eastern Cape Department does not appear to have complete and reliable asset registers for spending on school infrastructure between 2016/17 and 2020/21. There are two types of asset registers typically produced by Departments. The first is a Work-In-Progress (WIP) asset register that shows assets under construction. These asset registers are helpful to track the time it takes to complete a school infrastructure project across years.

In most cases, the longer it takes, the more it costs. Sometimes, cost escalations resulting from construction inflation might lead to higher than planned expenditure. The second type

of record is the immovable (fixed) asset register. Typically, this asset register capitalises the expenditure onto the balance sheet. A fixed asset register would typically reconcile with BAS expenditure and reflect “ready for use” assets. [7]

In addition, the Eastern Cape Department was unable to provide a complete record of school infrastructure projects for the five years under review. Whereas the Department had assigned a contractor to assist with the spending review, this person’s contract eventually ended and was not renewed. However, neither the Eastern Cape Department of Education nor the Provincial Treasury could get the performance and project data from the contractor after his contract had ended. Moreover, the Eastern Cape Department of Education’s infrastructure unit could not explain the project and performance numbers calculated by the Department’s contractor. We have opted not to use this data for this spending review due to these challenges.

Table 1 shows the datasets received from the Eastern Cape Department of Education, Provincial Treasury and GTAC. It also reflects the outstanding data and discusses the implications of these missing datasets on the analysis. Overall, the data issues limit the amount of analysis done in this spending review. While the aim was to find savings, it was impossible to do so, given the gaps in the datasets. However, this spending review does identify areas where efficiencies within the school infrastructure programme can lead to savings.

[7] National Treasury (nd) Illustrative Guide Capital Work-in-Progress.

**Table 1: Received and missing data**

| Data | Received | Missing | Comment |
|---|---|---|---|
| BAS | 2016/17-2020/21 | None | BAS expenditure was received from GTAC. However, there are concerns about data reliability due to misclassifications of school infrastructure. Moreover, as the government uses a modified cash basis for accounting, the spending recorded on BAS underestimates total expenditure in a year, with accruals. |
| ECDOE Asset Register (Completed Assets) | 2019/20, 2020/21 | 2016/17, 2017/18, 2018/19 | Completed asset registers are **missing for three years**. Although the EC DOE attempted to source the data from the Auditor General and their service provider, no additional data was received. |
| ECDOE Asset Register (Work In Progress - WIP) | 2020/21 | 2016/17, 2017/18, 2018/19, 2019/20 | Work in Progress asset registers that record uncompleted or ongoing projects are **missing for four financial years**. As a result, it is impossible to construct a time series to analyse how long projects take to complete using the WIP asset register. |
| Quantity Surveyor sampled database | No date | | We used the data from the quantity surveyor's **sample of 600 projects to identify the cost per square** metre across selected types of school infrastructure (e.g. Grade R classroom). While this dataset helps understand how much the Department is paying per square meter, it is difficult to say whether they are getting value for money from the spending. |
| IRM data | 2016/17-2020/21 | | To compensate for incomplete asset registers, we used **IRM data to analyse the number of projects**. Although the **IRM is an in-year-monitoring tool and does not reconcile with BAS**, this dataset provides valuable insights into the scale of the school infrastructure programme in the Eastern Cape. That said, there are several limitations with the IRM dataset. For instance, the project numbers are not consistently captured. Therefore, it is difficult to match the expenditure on the project to the description of what was done (e.g. classrooms built, roof fixed). In addition, qualitative information on the nature of investment is not consistently captured. |
| Accruals data | 2017/18-2021/22 | 2016/17 | We have cleaned and categorised this dataset to analyse the total amount of unpaid invoices in a year. |

*Source: Miscellaneous*

# 3. POLICY AND INSTITUTIONAL ANALYSIS

## 3.1. Problem statement

The quality and safety of infrastructure across the schooling system vary considerably. Nowhere is the contrast more pronounced than in the Eastern Cape, where some schools have sound and appropriate infrastructure while those in the former homelands struggle with dilapidated unsafe.

It is widely recognised that school infrastructure is one of the determinants of educational outcomes.[8] For example, classrooms with leaky roofs and broken windows can make learning very difficult. Even if learners have a teacher and are given textbooks, little or no learning occurs if the school infrastructure is not up to standard.

School infrastructure is a major challenge in education, especially in the Eastern Cape, KwaZulu-Natal, North West and Limpopo, provinces with self-governing states and homelands before 1994 democratic elections.

Several factors contribute to the difficulties faced by the Eastern Cape in delivering school infrastructure, some of these are specific to the province.

### 3.1.1. Demographic changes

Demographic and geographic issues that affect the school infrastructure programme include inward and outward migration and its impact on the demand for school services. Between 2017 and 2021, the number of learners in public schools within the Eastern Cape grew marginally from 1.74 million to 1.77 million at an average annual rate of 4 per cent. Migration appears to be a significant driver of changes in enrolment in the Eastern Cape. Migration happens in three ways: migration from the Eastern Cape, from rural to urban education districts within the provinces, and migration within education districts. In the latter case, this type of migration typically occurs when parents move their children to schools with better academic results.

Table 2 shows the enrolments by the district. Learner enrolments have increased in the two metropolitan areas - Buffalo City and Nelson Mandela Bay. However, there has been a marked decline in learner numbers of rural education districts over the same period. For example, the Amathole, Chris Hani and OR Tambo districts all experience negative growth rates in learner enrolments.

[8] (Nugroho, A and Wibowo, U, 2019)

**Table 2: Learners numbers by education district from Grade R to 12**

| Education district | 2017 | 2018 | 2019 | 2020 | 2021 | CAGR |
|---|---|---|---|---|---|---|
| Alfred Nzo East | 102 391 | 101 511 | 103 850 | 104 915 | 106 802 | 1.1% |
| Alfred Nzo West | 159 236 | 157 390 | 163 581 | 165 408 | 164 904 | 0.9% |
| Amathole East | 147 686 | 142 964 | 143 794 | 141 855 | 140 320 | -1.3% |
| Amathole West | 77 853 | 76 591 | 77 561 | 76 846 | 77 414 | -0.1% |
| Buffalo City | 180 640 | 182 409 | 187 334 | 189 499 | 191 815 | 1.5% |
| Chris Hani East | 110 832 | 107 473 | 109 059 | 107 632 | 106 104 | -1.1% |
| Chris Hani West | 114 392 | 112 680 | 114 457 | 114 167 | 114 510 | 0.0% |
| Joe Gqabi | 92 417 | 91 388 | 92 917 | 94 609 | 95 253 | 0.8% |
| Nelson Mandela | 225 657 | 227 130 | 231 371 | 233 206 | 235 569 | 1.1% |
| O R Tambo Coastal | 258 950 | 251 453 | 255 886 | 257 637 | 257 757 | -0.1% |
| O R Tambo Inland | 185 782 | 183 927 | 186 646 | 186 404 | 184 964 | -0.1% |
| Sarah Baartman | 92 511 | 92 111 | 94 338 | 96 462 | 98 015 | 1.5% |
| **Total** | **1 748 347** | **1 727 027** | **1 760 794** | **1 768 640** | **1 773 427** | **4.0%** |

*Source: EMIS data supplied by the ECDOE*

### 3.1.2. Historical inequity and backlogs

Like the rest of the country, the province is faced with significant schools' infrastructure backlogs. In particular, the infrastructure backlog is most pronounced in two districts: OR Tambo Coastal (Ngquza Hill, Nyandeni and Port St Johns), being the worst education district with infrastructure backlogs, followed by Alfred Nzo West (Matatiele, Ntabankulu & Umzimvubu). While OR Tambo has seen a decline in learner numbers, enrollment in the Alfred Nzo districts has grown. On the other hand, urban districts such as Buffalo City and Nelson Mandela Bay have experienced enrollment increases. Given the budgetary pressures that the Department faces, there is always a tension between addressing historical backlogs in rural areas and building new infrastructure in urban areas to cater for higher demand.

### 3.1.3. Capacity of contractors in the Eastern Cape

Overall, the construction industry had shrunk since 2008 when it peaked in the lead up to the 2010 World Cup. The decline is attributable to decreased government and private sector investment in infrastructure. Lower national, provincial and local government spending on infrastructure has resulted from significant budget cuts – with infrastructure transfers being easier to cut than other items such as compensation of employees.[9]

The number of contractors and civil engineering companies in the Eastern Cape is relatively small compared to other provinces. While the government has tried to bolster the

[9] CIDB (2020) Construction Industry Monitor.

construction sector in the Eastern Cape by awarding preferential points to companies with a local presence, there have been unintended consequences to this procurement policy. According to the infrastructure unit in the Department, local contractors have used this policy to increase their prices. Moreover, interviewed officials suggested that some local contractors have been awarded contracts that they do not have the capacity or cash flow to deliver on. This, in turn, led to delays in the infrastructure projects.

#### 3.1.4. Departmental capacity and coordination

Aside from these external challenges, the Eastern Cape Department of Education lacks the capacity to deliver its infrastructure programme. This is evidenced by the same types of audit queries on the asset registers between 2016/17 and 2018/20:

- **Accuracy of classification** - The Department incorrectly classified assets; for instance, upgrades were categorised as newly built infrastructure.
- **Completeness, existence and valuation** – The Department could not provide supporting evidence such as completion certificates and valuations of work-in-progress projects.[10]

The consequence of these errors and misclassifications was that the asset registers of the Eastern Cape Department of Education were **unreliable, and the values had to be restated** in the subsequent years.

Moreover, there are also concerns about the Department's capacity to manage contracts. Although the Department appoints implementing agents to oversee many of their projects, school infrastructure has been plagued by delays (see performance analysis below).

### 3.2. Legislation and policy

The table below describes the policies and legislation governing the school infrastructure programme in the Eastern Cape. In addition, it highlights the implications of these policies and legislation on the execution of the school infrastructure programme.

[10] Miscallaneous audit reports.

**Table 3: Relevant policy and legislation**

| Name | Definition in an educational context | Influence on school infrastructure programme |
|---|---|---|
| Constitution of South Africa | • The mandate of the Department is entrenched in the Constitution of South Africa, 1996 (Act 108 of 1996), which provides that education be transformed and democratised in accordance with the values of human dignity, equality, human rights and freedom, non-racism and non-sexism. It guarantees basic education for all, providing that everyone has the right to basic education, including adult basic education and children with disabilities. | • School infrastructure is one of three elements, along with textbooks and teachers, that give effect to the right to basic education.<br>• To discharge its obligation to provide access, the Department can either provide school infrastructure or transport learners to schools (where feasible). This effectively means that the Department must (through careful planning) evaluate the most appropriate way of giving access to education. |
| 2013 Government Regulations Relating to Minimum Uniform Norms and Standards | • This regulation specifies the minimum infrastructure standards for schools. Key elements of the policy framework state that every school must be provided with water, electricity and sanitation; schools made of inappropriate materials to be replaced within three years following the publication of the regulations; detailed physical norms that should be followed when building new schools or updating existing infrastructure. Minimum Norms and Standards stipulate the basic level of infrastructure that every school must meet to function correctly. | • In the Eastern Cape, these norms focused primarily on eradicating mud schools and pit latrines. The norms also ensure that existing schools met minimum infrastructure standards, especially regarding the classroom sizes to learner ratios. Finally, it sets a deadline for 2020 to eradicate all backlogs. |
| National Education Policy Act (1996) | • The purpose is inscribed into law the policies, the legislative and monitoring responsibilities of the Minister of Basic Education, and the formal relations between national and provincial authorities. | • This Act places a responsibility on the national government to monitor and oversee the school infrastructure programme in provinces. |
| Action Plan to 2014: Towards the Realisation of Schooling 2025 | • To improve access to education, provide safe buildings, supply learning and teaching materials promptly, increase educator numbers and improve their skills. The plan aims to eradicate all infrastructure backlogs by 2030. It requires the Department to provide every school with the physical infrastructure and an environment that inspires learners to come to school and learn and teachers to teach. | • This plan sets out targets for the eradication of all infrastructure backlogs. |
| Government | • This Act provides a uniform framework for managing an immovable asset held or used by a national or provincial department. It ensures that the use of an immovable asset is in line with the service delivery objectives of a | • To comply with the GIAMA Act, the National Department of Education has developed the Guideline for Conducting Condition |

| Name | Definition in an educational context | Influence on school infrastructure programme |
|---|---|---|
| Immovable Assets Management Act (GIAMA) | national or provincial department. | Assessment of Education Facilities. The Guide requires provincial education departments to conduct a condition assessment every five years or after every upgrade and intervention. |
| National Development Plan (NDP) | • The NDP aims to improve the quality of education that enables everyone to participate effectively in the South African education system - vision 2030 | • The NDP emphasises the importance of school infrastructure in delivering quality education. |
| Division of Revenue Act (DoRA) | • This Act provides for the equitable division of revenue raised nationally and provincially. An equitable share formula informs the distribution of revenue. In addition, this Act sets out the conditions for education infrastructure grants. | • The education component is based on the size of the school-age population in a province and the number of learners in ordinary public schools. Migration, therefore, affects the size of the education component received by the Eastern Cape. |
| Public Finance Management Act (PFMA) 1 of 1999 | • This legislation regulates the management of finances in national and provincial governments. It sets out the processes for the efficient and effective management of all revenue, expenditure, assets and liabilities. It establishes the duties and responsibilities of government officials in charge of finances. The Act aims to secure transparency, accountability and sound financial management in government and public institutions. | • The Public Finance Management Act and its regulation govern the procurement of school infrastructure, management of infrastructure transfers and asset management. |

*Source: Miscellaneous policies and legislation*

### 3.3. Institutional arrangements for delivery

In South Africa, Basic Education is a concurrent function making the National and Provincial Department of Education jointly responsible for delivering educational services. The resource envelope available for Basic Education is determined through the budget process. Typically, it begins in May every year with consultations on the budget process. This is followed by a series of technical and political meetings to make decisions on the allocation of resources. Next, in early October, Cabinet receives a recommendation that culminates in the tabling of the MTBPS later that month. Typically, departments and provinces receive their allocation letters based on the estimates in the mini-budget. Once provinces receive their allocations, the Provincial Executive will decide how the provincial equitable share is divided across the various functions, including determining the allocation to education. In the Eastern Cape, the Provincial Equitable Share pays mostly for salaries and goods and services. Infrastructure spending is funded primarily through direct and indirect grants (see Figure 1).

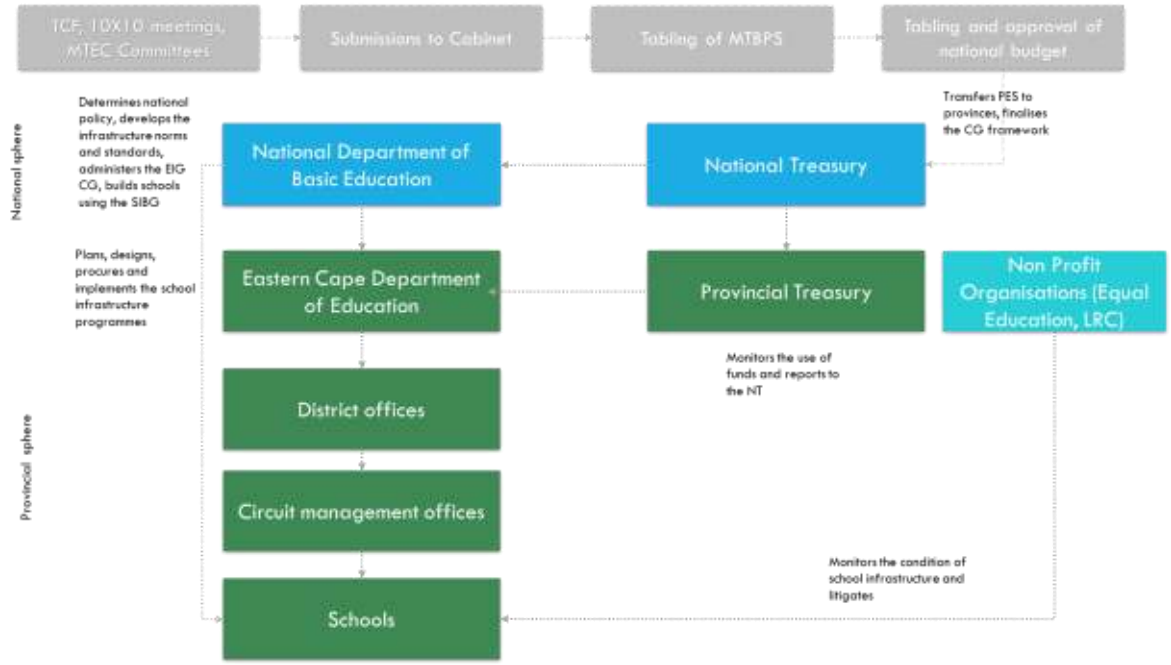
The National Department of Basic Education plays a significant role and regulatory role in terms of the norms and standards for the school building programme. Furthermore, the National Department is responsible for transferring funds to the provincial Department of Education, monitoring and evaluation, general financial and non-financial oversight, and developing the policies, legislative framework, strategies, plans, regulations, and guidelines.

Provincial Education Departments are responsible for identifying the school infrastructure needs. Typically, schools and districts will submit their new infrastructure, upgrade, repair, and rehabilitation needs to the Provincial Head Office. The Head Office will also use the National Education Infrastructure Management System information to plan their infrastructure rollout programme. Once all their infrastructure needs are collated, the Head Office will draft their infrastructure plan and submit it to the National Department of Basic Education and National Treasury. The Infrastructure Program Management Plan (IPMP) consists of the User Asset Management Plan (U-AMP), procurement strategy, capacitation strategy, IRM dataset and year-end infrastructure report.

With regard to infrastructure planning, User Asset Management Plan (UAMP) is a ten-year Infrastructure Plan prepared by the provincial Department of Education where the policies and strategies guide the macro-planning integration. The purpose of UAMP is to present a framework that translate policy decisions and strategic priorities into budgeted infrastructure programmes.

Once the province's infrastructure plan is reviewed and any feedback taken into account, the National Department of Basic Education and National Treasury will approve the plan and develop the transfer payment schedule.

**Figure 1: Roles and responsibilities of key stakeholders**




*Source: MTEF Guidelines 2022 and own work*

## 3.4. Beneficiaries

The school infrastructure programme is designed to build new, rehabilitate, repair and upgrade existing infrastructure in schools across the five quintiles. The programme covers ordinary and special public schools. However, the resource allocation skewed towards the quintile 1 to 3 schools. The programme also delivers school infrastructure to early childhood development sites and schools, district offices and the head office. In addition, the programme aims to provide equity and access in the historically disadvantaged areas to give the learners proper infrastructure. Aside from the direct beneficiaries, contractors/suppliers in the province also benefit from the school infrastructure programme through the local procurement rules.

## 3.5. Flow of funds

There are three distinct sources of funding for school infrastructure: (i) the Education Infrastructure Grant, (ii) School Infrastructure Backlog Grant, and (iii) Provincial Equitable Share

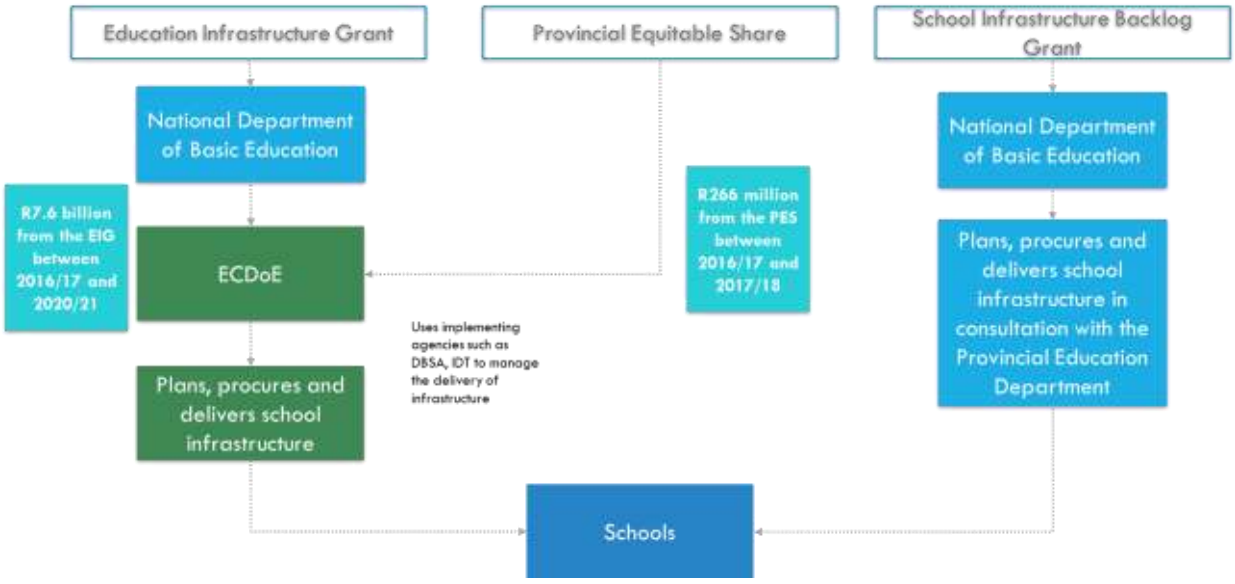
The **Education Infrastructure Grant** provides supplementary funding from the National Department of Basic Education to the Provincial Department of Education. This Grant funds

the infrastructure plan developed by the province. Like with all conditional grants, the Education Infrastructure Grant has conditions associated with funding disbursement. These include submitting approved infrastructure plans, maintenance plans, infrastructure reports, assessment forms for the NEIMS, capacitation plan, priority project lists. The Conditional Grant Framework also requires provinces to allocate a minimum of 30% of the Grant for preventative and corrective maintenance of school infrastructure. In addition, the Education Infrastructure Grant includes a performance-based incentive to encourage provinces to spend their money in line with their plans. Between 2016/17 and 2020/21, the Eastern Cape Department of Education spent about R7.6 billion on school infrastructure through the Education Infrastructure Grant.

The National Department of Basic Education uses the indirect school infrastructure backlogs grant to replace unsafe and inappropriate school structures and provide water, sanitation services and electricity on behalf of provinces. This indirect Grant is administered by the National Department and supports the Accelerated School Infrastructure Delivery Initiative (ASIDI).

The last source of funding is the Provincial Equitable Share. In this case, the province uses its own funding for infrastructure. Because of the budget cuts, the Eastern Cape spent R266 million over the five years.

**Figure 2: Flow of funds**




*Source: Own work*

### 3.6. Governance and reporting arrangements

In terms of the Public Finance Management Act, 1999 (PFMA) “a provincial treasury must exercise control over the implementation of the provincial budget”. Section 40 of the PFMA requires the Provincial Department of Education to submit a monitoring report to Provincial Treasury on the 15th day of the month. The Circuit Management Centres also submit the expenditure reports and their Annual Financial Statements (AFS) to the provincial head office. Lastly, the School Governing Bodies (SGB) must also submit the monthly financial reports, SGB minutes, and the school’s AFS. In this way, information flows from schools to provincial head offices to the national government in the education system.

As much of the school infrastructure programme is funded through conditional grants, the provincial education department must also submit the grant performance report to the national transferring officer – in this case, the National Department of Basic Education. The Infrastructure Reporting Model is a condition of the Division of Revenue Act (DORA). In terms of sections 13 (1) (c) and (g) of the Division of Revenue Act, The receiving officer of the Education Infrastructure Grant and any other conditional allocation partially or fully funding infrastructure must:

- Report in the format and on the date determined by the National Treasury to the transferring officer relevant provincial treasury and the National Treasury on all infrastructure expenditure partially or fully funded by the relevant Grant;
- Within 22 days after the end of each month, submit to the National Treasury, a final report on infrastructure programmes partially or fully funded from those Grants.

The flow of the second, third, fourth and fifth instalment depends upon receipt by DBE and provincial treasuries of the approved and signed-off:

- Monthly infrastructure reports in a format determined by the National Treasury and DBE
- A report on the filling of posts on the approved establishment for the infrastructure unit in the format approved by National Treasury for the fourth quarter of the 2020/21 financial year within 22 days after the end of the fourth quarter

## 4. PROCESS MAPS

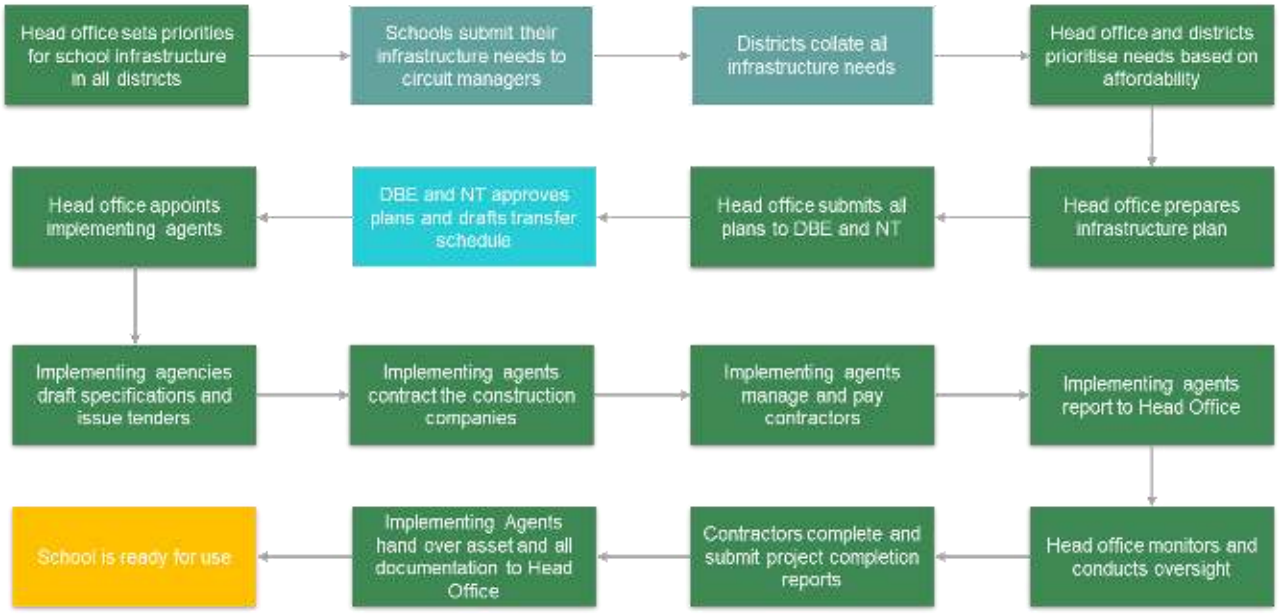
### 4.1. Overview

This section discusses the main processes involved in the school infrastructure programme. Every year, the Provincial Department of Education’s Infrastructure unit identifies priorities for school infrastructure. These priorities align with the Department’s 10-year infrastructure plan (U-AMP). Based on these priorities, schools submit their

infrastructure needs to districts. In the Eastern Cape, when planning for school infrastructure, all districts must consider two factors. The first is the provincial priorities for school infrastructure. This priority list includes eradicating backlogs and repairing and upgrading unsafe infrastructure. Districts must also consider ECD infrastructure to cater to Grade R learners in schools.

The second factor is the school rationalisation plan adopted by the Provincial Executive. The school rationalisation plan is a long-term plan that outlines the schools that have been identified for closure.

**Figure 3: EC Infrastructure delivery process**




*Source: Own work based on interviews with the Infrastructure unit.*

Once the plans have been developed, the Eastern Cape Department of Education submits its funding request for the Education Infrastructure Grant. Once its infrastructure plan is approved by the National Treasury and National Department of Basic Education, the provincial Department begins its procurement process. Most of the Department's infrastructure projects are managed by implementing agents. The role of the implementing agent is to:

- Plan management and roll out the design and delivery of school infrastructure
- Plan and manage the effective procurement of school infrastructure per the legislative framework
- Liaise and provide advice to the client department on the planning, design and implementation of infrastructure projects

- Oversee the commissioning, fine-tuning and hand over of completed infrastructure.
- Manage project and other socio-economic risks.[11]

## 4.2. Process analysis

There are several risks and challenges with the school infrastructure delivery process:

- **Planning process**

— Although the Eastern Cape Department of Education develops plans for school infrastructure in the province, the ASIDI programme also operates in the province. Because of the enormous backlog in the province, the Eastern Cape receives a significant proportion of the School Infrastructure Backlog Grant. However, there appears to be limited coordination between the Eastern Cape Department of Education and the National Department in relation to the ASIDI grant.

— In particular, it seems that the ASIDI programme has invested in schools that are now underutilised because of learner migration from rural to urban education districts.

— Moreover, ASIDI infrastructure is over-specified, with the programme building more classrooms than needed and does not align with the province's rationalisation plans.

- **Procurement and execution**

— The Eastern Cape Department of Education appoints Implementing Agents to manage school infrastructure design and delivery. However, there have been concerns with the capacity of these agents to deliver. As a result, poor performance by implementing agents has contributed to slow delivery in the Eastern Cape.

— The Department's infrastructure unit has limited capacity to oversee the implementing agents. According to the Equal Education report, in 2018, there were "only three ECDOE managers overseeing all eight IAs and their programme managers".[12]

[11] National Treasury (2015) Cost model for the Establishment of Control Budgets for Primary and Secondary Schools

[12] Equal Educatin (2018) *Implementing agents: The Middlemen in Charge of Building Schools.* Available online https://equaleducation.org.za/wp-content/uploads/2020/09/EE-IA-Report-23-10-19-Digital.pdf

— As mentioned earlier, another issue in the Eastern Cape is the capacity of contractors, especially emerging contractors, to deliver projects on time and within budget.

— Finally, the Eastern Cape Department of Education delays paying their implementing agents has a knock-on effect. In turn, Implementing Agent cannot pay their contractors on time. This leads to a situation where work is stopped as contractors cannot continue to pay their staff or projects are postponed to the following year, attracting escalation costs.

# 5. PERFORMANCE ANALYSIS

## 5.1. Backlogs

One of the priorities for the Eastern Cape Department is to address backlogs in school infrastructure to ensure that it complies with the Minimum Norms and Standards for School Infrastructure. The National Education Infrastructure Management System (NEIMS) captures and tracks backlogs in schools across the country. The Eastern Cape province has made strong progress in addressing severe backlogs – only 2% of schools are without electricity, and projects are underway to connect schools. In addition, there are no schools without water and sanitation. That said, there is still much work to improve essential services' reliability. However, half of the schools report an unstable water supply, and 18% of schools still use dangerous pit latrines as a form of sanitation.

**Table 4: Infrastructure backlogs in the Eastern Cape**

| Type of infrastructure | Description | Number of Backlogs (2021) | As a percentage of all schools |
|---|---|---|---|
| Electricity supply | Without electricity | 90 | 2% |
| | Unreliable electricity | 1 900 | 37% |
| Water supply | No water supply | 0 | 0% |
| | Unreliable water supply | 2 621 | 51% |
| Sanitation | No sanitation | 0 | 0% |
| | Pit latrine only | 944 | 18% |

*Source: NEIMS (2021)*

## 5.2. Project analysis

The Eastern Cape Department of Education provided some analysis of their project data. However, the numbers provided by the Eastern Cape Department of Education differed substantially from the IRM. As we mentioned earlier, the contract employee assigned to this project did not supply the Provincial Treasury with the raw data with the number of projects and the nature of their investment. Despite numerous attempts by the Provincial Treasury

officials, the contract employee did not supply any of the project data. As we cannot verify the accuracy of the aggregate numbers, we have opted not to use this analysis.

Instead, we have relied on the Infrastructure Reporting Module (IRM) maintained by the National Treasury that captures all infrastructure projects across provinces. Although the IRM is an in-year monitoring tool and will not always reconcile to BAS expenditure, it is useful to analyse infrastructure expenditure.

In terms of the Minimum Norms and Standards for School Infrastructure, the types of schools depend on their learner numbers. The figure below shows the school types and their learner sizes.

**Figure 4: School types and sizes**

| | |
|---|---|
| Primary | Micro with fewer than 135 learners |
| | Small with a minimum capacity of 135 learners |
| | Medium with a minimum capacity of 311 learners |
| | Large with a minimum capacity of 621 learners |
| | Mega primary with a capacity in excess of 931 learners |
| Secondary | Small with a minimum capacity of 200 learners |
| | Medium with a minimum capacity of 401 learners |
| | Large with a minimum capacity of 601 learners |
| | Mega with a capacity in excess of 1001 learners |

*Source: Minimum Norms and Standards for School Infrastructure (2013)*

### 5.2.1. Provincial infrastructure projects

Between 2018/19 and 2021/22, the Eastern Cape recorded 5393 projects on the IRM. About 29% of the school infrastructure projects involved building new, upgrading, rehabilitating or repairing secondary schools. Another 24% of infrastructure projects were aimed at improving primary school infrastructure. Combined schools account for about 15% of all infrastructure projects recorded on the IRM. While the type of school is not always captured in the IRM, it is interesting to note that Eastern Cape Province has invested in building and upgrading the infrastructure of mega schools with over 1001 learners. These infrastructure upgrades are designed to respond to the overcrowding problems faced by schools in urban centres in the Eastern Cape, where migration has led to rapid growth in enrolments in some schools.

**Table 5: School infrastructure projects in the Eastern Cape**

| Type of school | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Total | % of Total |
|---|---|---|---|---|---|---|
| Secondary School | 273 | 424 | 369 | 316 | 1 382 | 26% |
| Primary School | 253 | 381 | 333 | 287 | 1 254 | 23% |
| Combined School | 152 | 249 | 228 | 183 | 812 | 15% |
| Unclassified | 282 | 365 | 21 | 45 | 713 | 13% |
| Special School | 19 | 22 | 20 | 21 | 82 | 2% |
| Mega Secondary School | 8 | 20 | 18 | 17 | 63 | 1% |
| Large Secondary School | 5 | 16 | 9 | 15 | 45 | 1% |
| Medium Secondary School | 9 | 10 | 10 | 6 | 35 | 1% |
| Medium Primary School | 4 | 9 | 8 | 9 | 30 | 1% |
| Large Primary School | 4 | 11 | 6 | 8 | 29 | 1% |
| Boarding School | | 9 | 10 | 6 | 25 | 0% |
| Office Accomodation | 2 | 6 | 8 | 9 | 25 | 0% |
| Mega Primary School | 4 | 7 | 6 | 6 | 23 | 0% |
| Small Secondary School | 3 | 3 | 3 | 1 | 10 | 0% |
| Small Primary School | | 2 | 4 | 2 | 8 | 0% |
| Micro Primary School | | 2 | 2 | 2 | 6 | 0% |
| Micro Secondary School | 1 | 1 | 1 | 1 | 4 | 0% |
| **Grand Total** | **1 096** | **1 800** | **1 398** | **1 102** | **5 396** | **100%** |

*Source: IRM*

### 5.2.2. Infrastructure projects by region

Four districts – O.R Tambo, Chris Hani, Amathole and Alfred Nzo, account for almost half of all school infrastructure projects in the Eastern Cape. In these four districts, the emphasis has been on addressing backlogs, improving access to and the safety of schools.

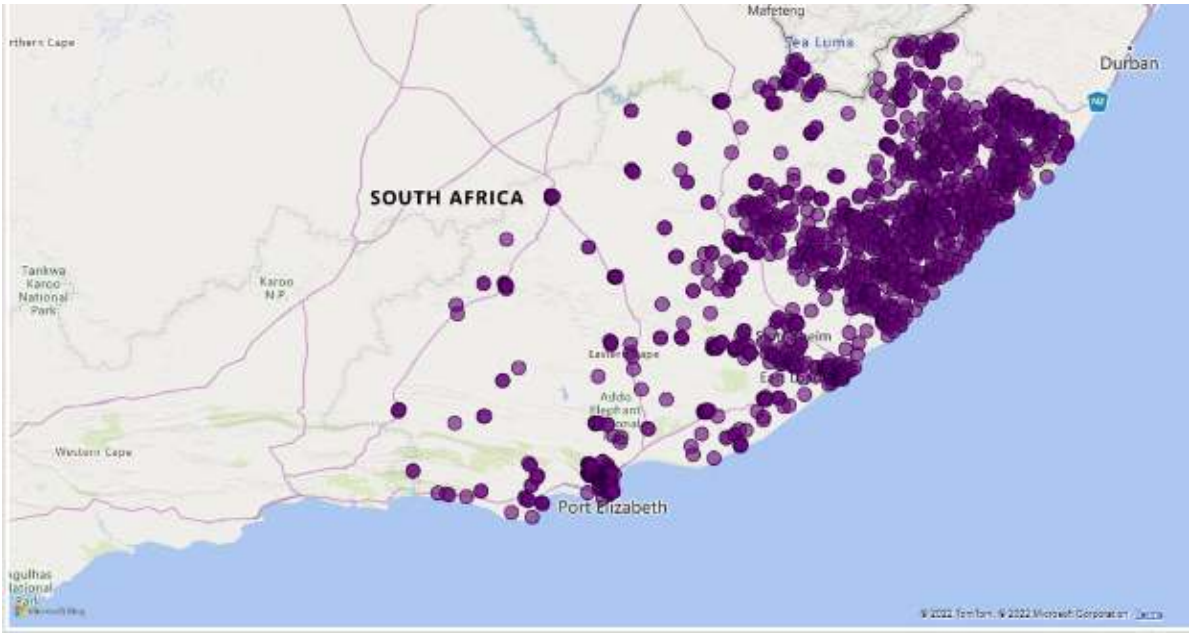
**Table 6: Infrastructure projects by districts**

| Type of school | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Total | % of Total |
|---|---|---|---|---|---|---|
| Alfred Nzo | 137 | 247 | 206 | 157 | 747 | 14% |
| Amathole | 180 | 288 | 233 | 171 | 872 | 16% |
| Buffalo City | 96 | 162 | 105 | 104 | 467 | 9% |
| Chris Hani | 205 | 284 | 234 | 174 | 897 | 17% |
| Joe Gqabi | 83 | 121 | 92 | 65 | 361 | 7% |
| Nelson Mandela Bay | 118 | 229 | 118 | 141 | 606 | 11% |
| O.R.Tambo | 187 | 366 | 344 | 243 | 1 140 | 21% |
| Sarah Baartman | 61 | 102 | 64 | 47 | 274 | 5% |
| (blank) | 29 | 1 | 2 | | 32 | 1% |
| **Grand Total** | **1 096** | **1 800** | **1 398** | **1 102** | **5 396** | 100% |

*Source: IRM*

The map below visualises the infrastructure projects across the province. It shows clearly the concentration of projects in the four districts.

**Figure 5: Projects by location**




*Source: IRM*

### 5.2.3. Nature of investment

The Eastern Cape Department of Education focuses on upgrading and extending school infrastructure. About 54% of all projects fall into this category of investments. The new-build programme accounts for 17% of all projects. The distribution of projects by investment type suggests that the Department has focused its efforts on extending and upgrading existing infrastructure and less on the new build programme. It is worth mentioning that there may be errors in the classification of projects. Sometimes, officials erroneously classify upgrades as new infrastructure and vice-versa. So the line between new infrastructure and "additions" is somewhat blurred.

**Table 7: Infrastructure projects by nature of investment**

| Type of school | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Total | % of Total |
|---|---|---|---|---|---|---|
| Upgrading and Additions | 888 | 778 | 676 | 576 | 2 918 | 54% |
| New or Replaced Infrastructure | 18 | 526 | 232 | 142 | 918 | 17% |
| Rehabilitation, Renovations & Refurbishment | 101 | 271 | 228 | 149 | 749 | 14% |
| Maintenance and Repairs | 27 | 207 | 245 | 221 | 700 | 13% |
| Non-Infrastructure | 15 | 17 | 16 | 14 | 62 | 1% |
| Other | 47 | 1 | | | 48 | 1% |
| **Grand Total** | **1 096** | **1 800** | **1 398** | **1 102** | **5 396** | **100%** |

*Source: IRM*

### 5.2.4. Turnaround time

We estimated the average construction time using IRM data to understand how long it takes to build school infrastructure. This figure was calculated by estimating the difference

between the start and end of construction. While there are no benchmarks against which to compare these turnaround times to evaluate their efficacy, the table below can be used as a baseline to analyse future performance.

It takes almost five years to build a large or mega secondary school in the Eastern Cape. A medium-size primary school with a minimum capacity of 311 learners takes 4.4 years to complete. Likewise, the average construction time for a micro primary school with less than 135 learners was about four years. Typically, smaller primary and secondary schools are in the former homeland and rural areas. The data suggests that it takes longer to build, repair, and rehabilitate schools in these areas than those in urban centres. It might be the case that it is more challenging to get workers and construction materials to rural areas in the Eastern Cape because of the long distances.

To explain the delays in urban areas, the Eastern Cape Department of Education's Infrastructure unit suggested that the sites allocated for schools are sub-optimal and require considerable earthworks to prepare for construction.

**Table 8: Average construction time**

| Type of school infrastructure | Average construction time (years) |
|---|---|
| Boarding School | 4.76 |
| Combined School | 4.50 |
| Large Primary School | 2.83 |
| Large Secondary School | 5.29 |
| Medium Primary School | 4.47 |
| Medium Secondary School | 2.37 |
| Mega Primary School | 4.83 |
| Mega Secondary School | 4.25 |
| Micro Primary School | 4.00 |
| Micro Secondary School | 2.00 |
| Office Accomodation | 4.44 |
| Primary School | 3.89 |
| Secondary Secondary school | 4.01 |
| Small Primary School | 3.63 |
| Small Secondary School | 4.20 |
| Special School | 4.63 |
| (blank) | 2.54 |
| **Grand Total** | **3.86** |

*Source: Estimated from IRM data*

### 5.2.5. Handover and completion

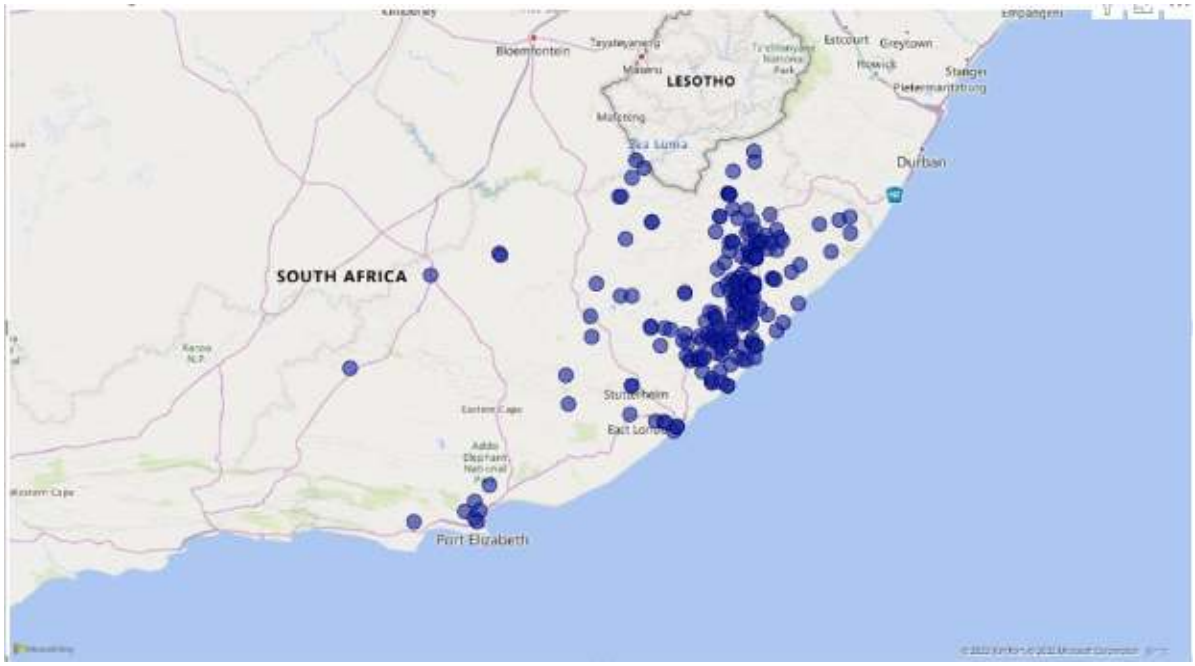
Between 2018/19 and 2021/22, 1 831 out of the 5374 (33%) were practically completed. However, only 543 (10%) of all school infrastructure projects reached the final completion

stage in the four years. It is within this stage that school infrastructure is ready for commissioning.[13]

The map below shows that most of the school infrastructure projects completed and ready for use were in the O.R Tambo and Amatole districts. However, completion rates are considerably lower in rural districts such as Alfred Nzo, Chris Hani and urban districts including Buffalo City and Nelson Mandela Bay. While it takes more time to build large schools in urban areas, the slow pace of infrastructure delivery is concerning.

It is also apparent from the data analysis that 33.9% of projects had reached the practical completion stage. That said, there seems to be delays in translating projects from practical completion to final completion.

**Figure 6: School infrastructure projects completed**




*Source: IRM*

### 5.2.6. Professional fees

The IRM dataset allows for the calculation of the professional fees as a percentage of the total project cost. The table below shows the professional fees as a percentage of the total cost for different types of school infrastructure. Professional fees for combined schools are

[13] Completed includes both practical completion and final completion. Practical completion is a stage where all works are complete except for minor defects and omissions. Final completion is the stage where the contractor has completed the entire project and addressed all defects. At this stage, the project is ready for for hand over.

higher on average than those for primary and secondary schools. Office buildings have the highest percentage of professional fees relative to project costs. That said, spending on this type of infrastructure is low.

**Table 9: Professional fees as a % of total project cost (average per type of infrastructure)**

| Average professional fees as a % of total expenditure | 2018/19 | 2019/20 | 2020/21 | 2021/22 |
|---|---|---|---|---|
| Boarding School | | 6% | 6% | 11% |
| Combined School | 14% | 15% | 16% | 16% |
| Large Primary School | 12% | 4% | 8% | 6% |
| Large Secondary School | 4% | 4% | 8% | 5% |
| Medium Primary School | 3% | 6% | 6% | 7% |
| Medium Secondary School | 4% | 3% | 3% | 3% |
| Mega Primary School | 4% | 5% | 3% | 6% |
| Mega Secondary School | 10% | 7% | 6% | 9% |
| Micro Secondary School | 13% | 13% | 13% | 13% |
| Office Accomodation | 21% | 13% | 22% | 12% |
| Primary | 15% | 11% | 12% | 12% |
| Secondary | 13% | 10% | 12% | 11% |
| Small Primary School | | 8% | 4% | 0% |
| Small Secondary School | 9% | 9% | 9% | 28% |
| Special School | 14% | 13% | 9% | 14% |
| (blank) | 4% | 2% | 0% | 17% |

*Source: IRM*

### 5.2.7. Performance measurement

Table 10 shows the Eastern Cape Department of Education's indicators to report on its school infrastructure projects. Most of the indicators focus on measuring the outputs of the school infrastructure programme. However, while monitoring output indicators that measure crucial policy priorities, such as the eradication of the backlogs and the expansion of school infrastructure, are essential to measure, the Department does not track the efficiency of the school infrastructure programme. In other words, the Department measures what the school programme delivers but not how long it takes to deliver and at what cost.

**Table 10: Performance indicators for the school infrastructure project**

| Indicator name | Type of indicator | Potential data source |
|---|---|---|
| Number of public ordinary schools provided with water | Outcome | APP; SP; EPRE(B5 project list) |
| Number of public schools supplied with sanitation facilities | Outcome | APP; EPRE |
| Number of additional specialist rooms built in public schools (includes specialist rooms built in new and replacement schools). | Outcome | APP; EPRE |
| Number of additional classrooms built in, or provided for, existing public schools (includes new and replacement schools). | Outcome | APP; EPRE |
| Number of public schools provided with electricity infrastructure | | APP; EPRE |
| Number of new Grade R classrooms built or provided (includes those in new, existing and replacement schools). | Outcome | APP; EPRE |
| Number of schools where scheduled maintenance projects were completed. | Activity | APP; EPRE |

*Source: Miscellaneous Annual Performance Plans*

# 6. EXPENDITURE ANALYSIS

## 6.1. BAS analysis

### 6.1.1. Total spending

Between 2016/17 and 2020/21, the Eastern Cape Department of Education spent R6.9 billion on infrastructure. About 98% of the expenditure went through the Infrastructure Development budget programme. Over the period under review, expenditure on infrastructure development declined by an annual average of 20%. This decline is partly attributable to the re-allocation of expenditure from the Education Infrastructure Grant towards Personal Protective Equipment in 2020/21 to deal with the COVID-19 pandemic. Expenditure under the Administration budget programme is mainly for administrative buildings for the Eastern Cape Department of Education. The Infrastructure Development budget programme builds school infrastructure for the primary, secondary and ECD phases of basic education.

In terms of the budget structure, all school infrastructure expenditures should be allocated to the infrastructure development programme. However, there are some misallocations in the data, as evidenced by the inclusion of certain types of infrastructure expenditure under other budget programmes.

**Table 11: Infrastructure expenditure**

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total |
|---|---|---|---|---|---|---|
| Administration | | 1 048 909 | 1 547 964 | 8 501 325 | 9 845 519 | 20 943 716 |
| Early Childhood Development | | | | - | | - |
| Examination Related Services | | | | | - | - |
| Independent School Subsidies | | - | | | | - |
| Infrastructure Development | 1 585 964 076 | 1 644 420 291 | 1 550 099 128 | 1 426 425 075 | 621 005 618 | 6 827 914 188 |
| Public Ordinary School | | 19 075 229 | 26 990 881 | 34 593 404 | 15 387 540 | 96 047 054 |
| Public Special School | | | - | 472 000 | | 472 000 |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** |

*Source: BAS*

### 6.1.2. By source of funding

The Eastern Cape Provincial Department of Education relies heavily on the Education Infrastructure Grant to fund school infrastructure. About 96% of all school infrastructure spending is funded from this conditional grant. Only about 4% of infrastructure projects are funded from the Provincial Equitable Share. Of the R259.7 million from the Provincial Equital Share, R60.3 million was for emergency and disaster response interventions in 2017/18.

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total | Share analysis |
|---|---|---|---|---|---|---|---|
| Education Infrastructure Gra | 1 524 958 225 | 1 567 637 364 | 1 545 835 110 | 1 426 212 968 | 621 005 618 | 6 685 649 285 | 96.26% |
| Voted Funds | 61 005 851 | 96 907 065 | 32 802 863 | 43 778 837 | 25 233 058 | 259 727 674 | 3.74% |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** | **100.00%** |

*Source: BAS*

### 6.1.3. Nature of investment

In 2016/17, the Eastern Cape Department of Education recorded about R1.1 billion in new infrastructure capital. However, according to the infrastructure unit, this amount includes misclassification errors where additions such as building new classrooms in existing schools were classified as new infrastructure. Although the data for 2016/17 is somewhat misleading, the reliability of BAS has improved considerably since then and provides some valuable insights into the school infrastructure programme in the Eastern Cape.

**Table 12: Expenditure by nature of investment**

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total | Share analysis |
|---|---|---|---|---|---|---|---|
| Operating Leases | | 17 695 537 | 27 025 276 | 16 229 825 | 22 407 264 | 83 357 903 | 1.20% |
| Infrastructure Transfers Current | | 307 699 | | 24 908 936 | 81 140 | 25 297 775 | 0.36% |
| Maintenance & Repair Current | 112 667 445 | 214 719 326 | 37 682 750 | 65 879 934 | 28 461 408 | 459 410 864 | 6.61% |
| New Infrastructure Capital | 1 094 195 884 | 69 651 193 | 79 927 940 | 209 793 784 | 167 580 087 | 1 621 148 888 | 23.34% |
| Refurbishment & Rehabilitation Capital | 291 694 699 | 387 304 276 | 220 555 759 | 157 840 857 | 44 186 536 | 1 101 582 127 | 15.86% |
| Upgrade & Additions Capital | 87 406 048 | 974 866 397 | 1 213 446 249 | 995 338 468 | 383 522 240 | 3 654 579 402 | 52.62% |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** | **100.00%** |

*Source: BAS*

Table 12 highlights several noteworthy trends with spending on school infrastructure spending:

- Expenditure on repairs and maintenance is low. For example, between 2016/17 and 2020/21, the Eastern Cape Department of Education only spent 6.6% on maintenance and repairs.
- In 2020/21, the Department used R28.3 million out of the R621 million on repairs and maintenance from the Education Infrastructure Grant. In other words, the Department used 5% on corrective and preventative maintenance instead of the 30% minimum set out in the conditions in the DORA. That said, the COVID-19 pandemic was an unusual year, and infrastructure projects were delayed due to the lockdowns.
- Investment in new capital climbed rapidly between 2017/18 and 2019/20 before the COVID-pandemic hit. As a result, investment in new infrastructure accounts for 23.3% of total infrastructure spending.

- The Department spends about 52.6% on upgrading and adding to existing infrastructure. This is by far the largest category of investment in school infrastructure.

### 6.1.4. Type of school

About 44% of total spending goes towards building, repairing, upgrading, and rehabilitating secondary schools in the Eastern Cape. About 28% is spent on primary schools and 17% on combined schools that run from Grade R to 12. Special schools, including schools for those learners with physical disabilities, account for about 8% of infrastructure spending.

Expenditure on primary schools has remained relatively stable between 2016/17 and 2019/20, before the COVID-19 pandemic. Over the same period, the Department rapidly ramped up secondary school expenditure. Spending rose from R441.4 million in 2016/17 to R756.6 million in 2019/20. While spending has increased, only 12% of secondary schools were completed and commissioned between 2018/19 and 2021/22.[14]

In contrast, spending on combined schools is declining as the Eastern Cape Department of Education seeks to split these schools into primary and secondary phases. Several combined schools in the Eastern Cape have been earmarked for merger with primary or secondary schools or closure.[15]

**Table 13: Spending on different types of schools**

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total | Share analysis |
|---|---|---|---|---|---|---|---|
| Primary schools | 432 017 814 | 551 926 408 | 412 304 927 | 408 064 938 | 146 732 845 | 1 951 046 932 | 28% |
| Secondary schools | 441 481 716 | 657 780 463 | 778 053 713 | 756 642 928 | 406 528 446 | 3 040 487 266 | 44% |
| Combined schools | 637 125 392 | 367 576 162 | 73 115 807 | 95 324 754 | 10 733 389 | 1 183 875 504 | 17% |
| Specialised schools | 69 860 755 | 66 794 348 | 274 388 256 | 93 498 681 | 47 738 632 | 552 280 671 | 8% |
| Other buildings and assets | 5 478 399 | 20 467 048 | 40 775 271 | 116 460 503 | 34 505 364 | 217 686 585 | 3% |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** | 100% |

*Source: BAS*

### 6.1.5. By region

The regional identifiers are not well used in the BAS, evidenced by a large amount of unclassified expenditure and not assigned to a district. Nevertheless, the OR Tambo and Amatole account for the highest expenditure amongst districts. These districts also have the highest number of infrastructure police.

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[14] Note, the IRM and BAS data was available for different periods and therefore are not directly comparable.

[15] See https://www.news24.com/news24/SouthAfrica/News/education-department-gives-notice-of-merger-realignment-of-390-eastern-cape-schools-20210810

**Table 14: Spending by district**

| Programme | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Total | Share analysis |
|---|---|---|---|---|---|---|---|
| Unclassified | 437 380 817 | 59 972 034 | 241 630 730 | 274 361 686 | 129 998 614 | 1 143 343 880 | 16% |
| Alfred Nzo Municipalities | 215 078 605 | 123 375 621 | 195 771 798 | 186 307 099 | 71 896 526 | 792 429 650 | 11% |
| Amathole Municipalities | 159 981 187 | 188 038 535 | 300 031 662 | 208 192 880 | 85 413 907 | 941 658 171 | 14% |
| Buffalo City | 64 299 798 | 554 102 434 | 90 970 077 | 120 306 980 | 81 862 529 | 911 541 817 | 13% |
| Chris Hani Municipalities | 157 150 843 | 170 521 675 | 183 419 566 | 166 239 894 | 53 279 850 | 730 611 828 | 11% |
| Joe Gqabi Municipalities | 41 497 946 | 97 724 905 | 104 279 004 | 97 848 479 | 20 827 052 | 362 177 385 | 5% |
| Nelson Mandela Bay | 97 734 134 | 175 466 299 | 159 285 325 | 147 530 021 | 69 582 331 | 649 598 110 | 9% |
| O.R. Tambo Municipalities | 277 701 879 | 200 533 336 | 209 473 356 | 165 763 400 | 95 776 661 | 949 248 632 | 14% |
| Sarah Baartman Municipalities | 135 138 867 | 94 809 591 | 93 776 455 | 103 441 365 | 37 601 206 | 464 767 484 | 7% |
| **Total** | **1 585 964 076** | **1 664 544 429** | **1 578 637 973** | **1 469 991 805** | **646 238 676** | **6 945 376 959** | **100%** |

*Source: BAS*

## 6.2. Unit cost analysis

The Infrastructure Unit within the Eastern Cape Department of Education provided us with the square metre ($m^2$) cost per Gross Building Area (GBA) on a sample of 266 projects at IDMS Stage 4. In this stage, the design is completed, and the tender has been approved. We used this spreadsheet to analyse the unit cost of two types of infrastructures (i) Grade R classrooms and (ii) additional classrooms in schools. Unfortunately, the data does not differentiate between primary and high schools, which are very different in size and scale and should be interpreted with caution.

Furthermore, this spending review has no benchmarks to compare the optimal per square metre cost. And hence, it is difficult to say whether the Eastern Cape Department of Education is getting value for money from its tender contracts. Nonetheless, tracking the average cost per Gross Building Area is a good start and, over time, could help the Department manage its costs better.

### 6.2.1. Grade R classrooms

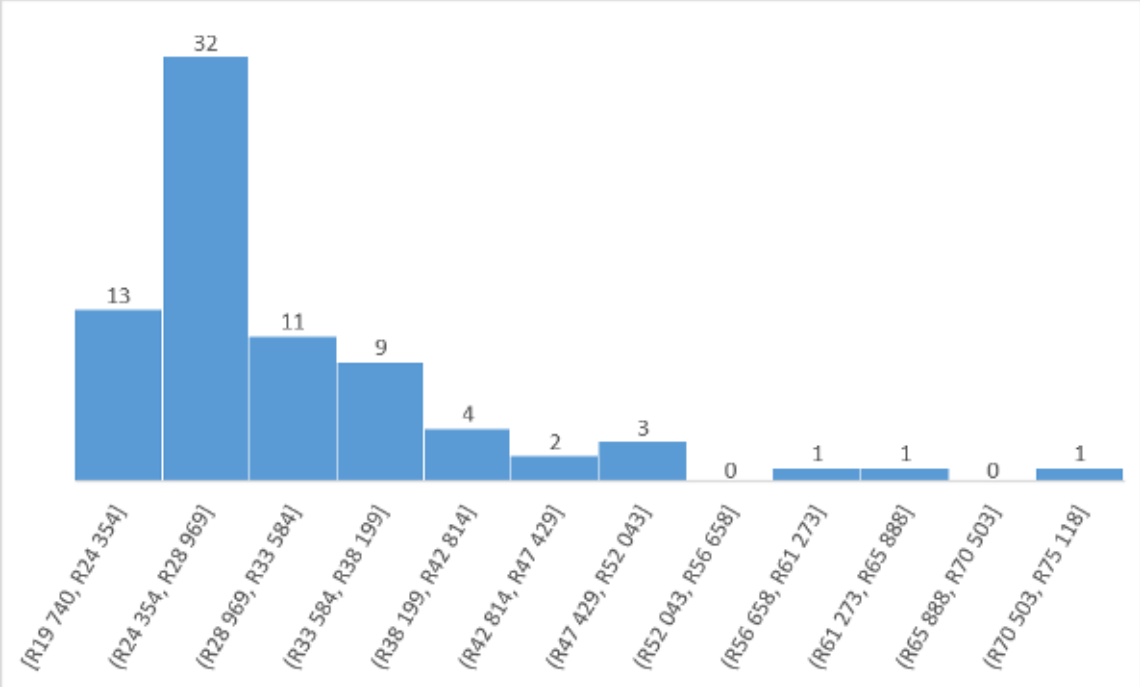
In terms of the Norms and Standards for School Infrastructure, the minimum size for a Grade R classroom is 60$m^2$. Therefore, we estimate the average cost per square metre for a Grade R classroom in the Eastern Cape using the available data. The chart below uses a histogram to interpret the data by grouping the unit costs of 77 ECD projects. The histogram points to two significant findings. First, at least half of the projects fall between R24 354 and R33 584 per GBA/$m^2$.

On the one hand, the lowest cost per square meter is R19 470 for a Grade R classroom in the Quayiya Primary School in Nolukhanyo Town, close to Port Alfred. On the other hand, the maximum cost per square meter is R75 118 for an ECD classroom in Qokolweni, close to Mthatha. Second, the histogram demonstrates the significant variance between the

highest and lowest cost per square metre in the Eastern Cape. If the Eastern Cape Department of Education manages the unit cost at which they procure construction services, they could find savings and efficiency gains on their programme.

As part of the analysis, we also tested for correlation between the total number of square metres and the GBA/m$^2$. The results reveal a negative correlation of -0.23. This suggests an inverse correlation between the unit cost per GBA/m$^2$ and square meetings. Prices per square metre drop as the number of Grade R classrooms increases. This potentially means that the Department could benefit from the economics of scale by packaging Grade R classrooms together.

**Figure 7: Distribution of unit costs for a Grade R classroom**




*Source: ECDOE project database*

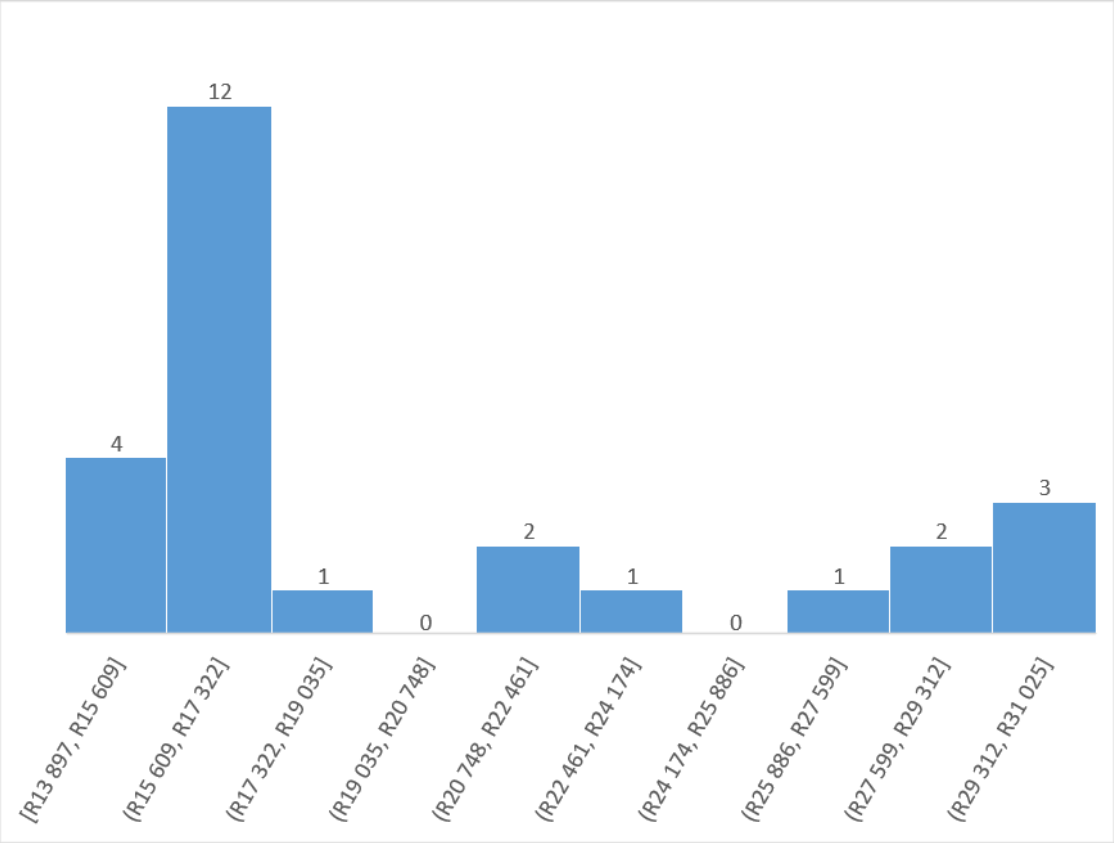
### 6.2.2. Classrooms

The minimum size of a classroom is set as 48m$^2$ in terms of the Norms and Standards for School Infrastructure. Based on the dataset provided by the Eastern Cape, we were able to identify 26 projects that built new classrooms. The weighted average cost per GBA/m$^2$ for classrooms is R22 410 in the Eastern Cape. The minimum cost per square metre is R13 897 for building classrooms in the Sterkspruit school in the Joe Gqabi district. The maximum is R 31 025 for building classrooms at the Makaula Senior Secondary School in Mount Frere.

The correlation coefficient between the unit cost and square meterage is 0.83 on this small sample of projects. Effectively, this means that the cost per GBA/m$^2$ rises as the number of

square metres increases. However, this correlation coefficient should be interpreted with caution as the number of projects is relatively small.

**Figure 8: Distribution of unit costs for primary and secondary classrooms**




*Source: ECDOE project database*

### 6.2.3. Accrual analysis

The Department provided the spending review team with data on the invoices accrued for the following year. For example, in 2020/21, the total amount of invoices unpaid at the end of the year was R115.5 million. In that year, the Department experienced cash flow problems and deferred the payment of invoices. It is also worth highlighting that a large amount of invoice information is unclassified and cannot be allocated to a specific year. Delays in the payment of Implementing Agents have knock-on effects on contractors' payments. In turn, the delayed payment of contractor invoices can defer the completion of school infrastructure projects.

**Table 15: Accrued invoices**

| Description | Total |
|---|---|
| 2017/18 | 1 383 740 |
| 2018/19 | 18 896 758 |
| 2019/20 | 2 016 329 |
| 2020/21 | 115 527 295 |

| | |
|---|---|
| 2021/22 | 6 800 712 |
| Unclassified | 21 129 786 |
| **Total** | **165 754 620** |

*Source: EcDOE*

# 7. CONCLUSION AND RECCOMENDATIONS

Amongst other things, the right to basic education encompasses access to safe and appropriate school infrastructure. Unfortunately, since 1994, the Eastern Cape Provincial Department of Education has struggled to deliver its school infrastructure programme over the past two decades. Occasionally, headlines like "It's back to school at John Bisseker under appalling conditions"[16] or "Another child dies in a pit latrine"[17] remind citizens of the plight of learners in getting access to functioning and safe school infrastructure.

There are several reasons why building school infrastructure has been challenging for the Eastern Cape. Part of the problem stems from the legacy of apartheid and its continuing effects on spatial and demographic patterns. Before 1994, the Eastern Cape province included two former homeland provinces – the Transkei and Ciskei – responsible for building and operating schools. By the time the democratic government took over and unified the basic education system, the province had thousands of small farm and mud schools across the province.

Another dimension of the problem is the distinct divide between rural and urban areas in the province. Migration in the provinces drives changes in demographic patterns. Regarding education, migration from the Eastern Cape to other provinces (e.g. Western Cape) reduces the number of learner enrolments in rural districts. On the other hand, there are clear migration patterns within the province from rural to urban districts and even within urban districts as parents seek to enrol their children in better-performing schools.

***Capacity of contractors***

The pace of the school infrastructure programme is also influenced by the capacity of contractors in the Eastern Cape. The pool of contractors in the province is relatively small. Many of the companies are emerging contractors with limited resources and cash flows. With local procurement rules favouring companies from the province, there are always risks to on-time delivery of school infrastructure if contractors are not sufficiently capacitated and resourced to execute the project.

[16] https://www.dispatchlive.co.za/news/2022-01-18-its-back-to-school-at-john-bisseker-under-appalling-conditions/

[17] https://mg.co.za/article/2018-03-16-00-another-child-dies-in-a-pit-latrine/

***Recommendation 1:*** *The Eastern Cape Department of Education must ensure that their Implementing agents evaluate the capacity of local contractors to deliver the infrastructure projects on time and within budget as part of the procurement process. This may involve reviewing the current due diligence processes that assess whether contractors can take on certain types of projects. Contractors that continuously fail to deliver should be reported to the National Treasury.*

***Internal capacity of the Department's Infrastructure Unit***

On average, the Eastern Cape Department of Education managed 1 349 school infrastructure projects between 2018/19 and 2021/22 per year. With this large volume of projects, there are questions about whether the Department has sufficient internal capacity to administer this extensive portfolio. Three pieces of evidence point to shortages of capacity within the Department. First, the recurring audit queries on the asset register demonstrate challenges in recording, contracting and commissioning school infrastructure. Second, there are not enough programme managers to oversee the number of implementing agents within the Department. Finally, the turnaround time for school projects points to programme management weaknesses (see more on this below).

***Recommendation 2:*** *The Eastern Cape Department of Education, National Department of Education and National Treasury should work together to determine the programme management capacity required to manage over 1000 infrastructure projects per year. The Department should also estimate how many projects it can manage effectively with its current capacity.*

***Project management***

The project analysis reveals that it takes between 4 and 5 years to complete school infrastructure projects. Secondary schools take marginally longer to complete than primary schools due to their configuration and the specialist infrastructure (e.g. laboratories). That said, it is difficult to say how long it should take to complete a primary or secondary school without comparable data from provinces.

However, only 10% of school infrastructure projects were completed and ready for use in the four years under review. There also seem to be delays in translating projects from practical to completion.

***Recommendation 3:*** *The Eastern Cape Department of Education needs to identify the challenges that delay the completion of school infrastructure projects and develop an action plan to address these issues. In particular, the Department needs to accelerate the translation of projects from practical to final completion.*

***Management of cash flows***

The Department has delayed the payment of invoices to manage cash flow. As a result, there were approximately R115 million outstanding invoices for the 2020/21 financial year. The delayed payment of invoices affects the ability of Implementing Agents to pay contractors and can delay the completion of infrastructure projects.

***Recommendation 4:*** *The Eastern Cape Department of Education needs to manage its cash flow better to ensure that it does not delay the completion of school infrastructure projects.*

***Data availability***

This spending review has been hamstrung by the limited data on school infrastructure projects. Data issues can be broadly categorised into (i) incomplete and missing data and (ii) unreliable and misclassified data. First, even though the Department has invested close to R7 billion in school infrastructure over five years under review, it has an incomplete set of asset registers to record its investments. Asset registers are the most reliable source of information on assets within Provincial Education Departments. However, during this spending review, the team could access neither the fixed asset register nor the Work-In-Progress register for each year. Second, across nearly all the datasets reviewed (e.g. IRM and accruals dataset), several pieces of data were missing or left blank. These incomplete datasets limit the type and amount of analysis done during a spending review.

The second issue is unreliable and misclassified data. As demonstrated in the BAS analysis, several infrastructure expenditures have been incorrectly classified under programmes other than the infrastructure development budget. Moreover, fields such as the regional identifiers and project fields (with the school names) are not used consistently, making it challenging to identify where the infrastructure expenditure occurs.

***Recommendation 5:*** *The Eastern Cape Department of Education must ensure that BAS correctly allocate infrastructure expenditures. The CFO's office must check that regional identifiers and project fields are used consistently. It is also recommended that the Department correctly the misclassifications raised in this report.*

***Value for money***

Although any comprehensive assessment of value for money is not possible given the data limitations, the project data supplied by the Eastern Department of Education proved helpful in understanding the cost per square meter. Unfortunately, the analysis could only be carried out for Grade R and general classrooms.

The weighted average cost per GBA/$m^2$ for general classrooms is R22 410 in the Eastern Cape. The minimum cost per square metre is R13 897 for building classrooms in the Sterkspruit school in the Joe Gqabi district. The maximum is R 31 025 for building similar classrooms at the Makaula Senior Secondary School in Mount Frere. The variance between the maximum and minimum for general classrooms is R17 128.

In contrast, the weighted average of Grade R classrooms is R28 476 GBA/$m^2$. The lowest cost per square meter is R19 470 for a Grade R classroom in the Quayiya Primary School in Nolukhanyo Town, close to Port Alfred. On the other hand, the maximum cost per square meter is R75 118 for an ECD classroom in Qokolweni, close to Mthatha. For ECD classrooms, the variance between the maximum and minimum price is R55 378 per GBA/$m^2$

***Recommendation 6:*** *The Eastern Cape Department of Education has done well to start monitoring costs per square meter. However, it must continue to monitor the unit costs across its projects and build a dataset that shows the cost per square meter across different education districts, rural and urban areas. In addition, it must evaluate tenders against its price benchmarks to manage construction costs over time.*

## 8. ACTIONS

The following action plan is ordered by priority and responsibility and covers the year's first six months.

| Action No | Description | Responsibility | Deadline |
|---|---|---|---|
| 1. | Present the findings of this spending review to the Eastern Cape Department of Education | Provincial Treasury | February 2022 |
| 2. | Provide an action plan to addressing the data issues raised in spending review report | Eastern Cape Department of Education | April 2022 |
| 3. | Engage with implementing agents to discuss how the due diligence and monitoring of contractors and infrastructure projects can be improved | Eastern Cape Department of Education | May 2022 |
| 4. | Develop an action plan to accelerate the transition from practical to final completion | Eastern Cape Department of Education | June 2022 |

# 1. APPENDIX A: SCHOOL INFRASTRUCTURE PROJECTS BY NATURE OF INVESTMENTS

| Type of infrastructure | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Grand Total |
|---|---|---|---|---|---|
| **Infrastructure Transfers - Current** | | | **1** | | **1** |
| Combined School | | | 1 | | 1 |
| **Maintenance and Repairs** | **27** | **207** | **245** | **221** | **700** |
| Boarding School | | 2 | 2 | 2 | 6 |
| Combined School | 2 | 15 | 29 | 31 | 77 |
| Condition Assessment | | 41 | 68 | 57 | 166 |
| Large Primary School | | 5 | 1 | 3 | 9 |
| Large Secondary School | | 8 | 2 | 8 | 18 |
| Medium Secondary School | | | 2 | 3 | 5 |
| Mega Primary School | | 1 | 1 | 1 | 3 |
| Mega Secondary School | | 1 | 3 | 1 | 5 |
| Primary | 6 | 54 | 62 | 54 | 176 |
| Secondary | 10 | 33 | 49 | 48 | 140 |
| Small Primary School | | | 2 | 1 | 3 |
| Small Secondary School | | | 2 | | 2 |
| Special School | | 4 | 3 | 7 | 14 |
| (blank) | 9 | 43 | 19 | 5 | 76 |
| **New or Replaced Infrastructure** | **18** | **526** | **232** | **142** | **918** |
| Combined School | 3 | 57 | 40 | 13 | 113 |
| Condition Assessment | | 42 | 64 | 12 | 118 |
| Large Secondary School | | 2 | 2 | 1 | 5 |
| Medium Primary School | 1 | 5 | 3 | 4 | 13 |
| Medium Secondary School | | 2 | 1 | | 3 |
| Mega Primary School | | | | 1 | 1 |
| Mega Secondary School | | 1 | 1 | 1 | 3 |
| Micro Primary School | | 1 | 1 | 1 | 3 |
| Office Accomodation | | 1 | 1 | | 2 |
| Primary | 6 | 104 | 60 | 41 | 211 |
| Secondary | 5 | 113 | 56 | 49 | 223 |
| Small Primary School | | | | 1 | 1 |
| Small Secondary School | | 2 | 1 | 1 | 4 |
| Special School | | 2 | 2 | 1 | 5 |
| (blank) | 3 | 194 | | 16 | 213 |
| **Non-Infrastructure** | **15** | **17** | **16** | **14** | **62** |
| Boarding School | | 1 | 1 | | 2 |
| Combined School | 1 | 1 | 2 | | 4 |
| Condition Assessment | 7 | 9 | 9 | 9 | 34 |
| Office Accomodation | | | 1 | 1 | 2 |
| Primary | | 1 | 1 | 1 | 3 |
| Special School | 2 | 2 | 2 | 2 | 8 |
| (blank) | 5 | 3 | | 1 | 9 |
| **Rehabilitation, Renovations & Refurb** | **101** | **271** | **228** | **149** | **749** |
| Boarding School | | | 1 | 2 | 3 |
| Combined School | 17 | 62 | 51 | 26 | 156 |
| Condition Assessment | 6 | 36 | 40 | 8 | 90 |
| Large Primary School | | 1 | 1 | 3 | 5 |
| Large Secondary School | | 2 | 2 | 1 | 5 |
| Medium Primary School | 1 | 1 | 1 | 2 | 5 |
| Medium Secondary School | 1 | 2 | 2 | 1 | 6 |
| Mega Primary School | 1 | 2 | 2 | 2 | 7 |
| Mega Secondary School | 3 | 5 | 4 | 4 | 16 |
| Micro Secondary School | | | | 1 | 1 |
| Office Accomodation | | 1 | | 1 | 2 |
| Primary | 21 | 55 | 57 | 38 | 171 |
| Secondary | 23 | 74 | 63 | 59 | 219 |
| Small Primary School | | 1 | 2 | | 3 |
| Special School | 2 | 3 | 2 | | 7 |
| (blank) | 26 | 26 | | 1 | 53 |
| **Upgrading and Additions** | **888** | **778** | **676** | **576** | **2 918** |
| Boarding School | | 6 | 6 | 2 | 14 |
| Combined School | 126 | 113 | 105 | 113 | 457 |
| Condition Assessment | 63 | 135 | 161 | 82 | 441 |
| Large Primary School | 3 | 5 | 4 | 2 | 14 |
| Large Secondary School | 3 | 4 | 3 | 5 | 15 |
| Medium Primary School | 2 | 3 | 4 | 3 | 12 |
| Medium Secondary School | 8 | 6 | 5 | 2 | 21 |
| Mega Primary School | 3 | 4 | 3 | 2 | 12 |
| Mega Secondary School | 5 | 13 | 10 | 11 | 39 |
| Micro Primary School | | 1 | 1 | 1 | 3 |
| Micro Secondary School | 1 | 1 | 1 | | 3 |
| Office Accomodation | 2 | 4 | 6 | 7 | 19 |
| Primary | 205 | 167 | 153 | 153 | 678 |
| Secondary | 218 | 204 | 201 | 160 | 783 |
| Small Primary School | | 1 | | | 1 |
| Small Secondary School | 3 | 1 | | | 4 |
| Special School | 15 | 11 | 11 | 11 | 48 |
| (blank) | 231 | 99 | 2 | 22 | 354 |
| **(blank)** | **47** | **1** | | | **48** |
| Combined School | 3 | 1 | | | 4 |
| Condition Assessment | 1 | | | | 1 |
| Large Primary School | 1 | | | | 1 |
| Large Secondary School | 2 | | | | 2 |
| Primary | 15 | | | | 15 |
| Secondary | 17 | | | | 17 |
| (blank) | 8 | | | | 8 |
| **Grand Total** | **1 096** | **1 800** | **1 398** | **1 102** | **5 396** |