
Department of Education



Province of the Eastern Cape

**Approach to the Implementation of the
Regulations relating to Minimum Uniform
Norms & Standards for Public School
Infrastructure**

**November 2014
Updated April 2015**

Approved	Signature	Date
MEC		

**Prepared by:
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GLOSSARY OF ABBREVIATIONS

ABET	Adult Basic Education and Training
APP	Annual Performance Plan
ASIDI	Accelerated School Infrastructure Delivery Initiative
C-AMP	Custodian Asset Management Plan
CES	Chief Education Specialist
DBE	National Department of Basic Education
CIDB	Construction Industry Development Board
DCES	Deputy Chief Education Specialist
DEAET	Department of Economic Affairs, Environment and Tourism
DoE	Department of Education
DoRA	Division of Revenue Act
DRPW	Department of Roads & Public Works
DWA	Department of Water Affairs
EC	Eastern Cape
ECD	Early Childhood Development
EFMS	Education Facilities Management System
EIG	Education Infrastructure Grant
EMIS	Education Management Information Services
EPWP	Expanded Public Works Programme
FET	Further Education and Training
GET	General Education and Training
HoD	Head of Department
ICT	Information and Communication Technology
IDMS	Infrastructure Delivery Management System
IDP	Integrated Development Plan
IDT	Independent Development Trust
IPIP	Infrastructure Programme Implementation Plan
IPMP	Infrastructure Programme Management Plan
IRM	Infrastructure Reporting Model
JBCC	Joint Building Contracts Committee
MEC	Member of Executive Council
MTEF	Medium Term Expenditure Framework
NEIMS	National Education Infrastructure Management System
PIA	Programme Implementing Agent
PIDF	Provincial Infrastructure Delivery Framework
PGDP	Provincial Growth and Development Plan
PMT	Programme Management Team
PRP	Physical Resources Planning
PSC	Provincial Steering Committee
PTC	Provincial Technical Committee
RCC	Regional Co-ordinating Committee
RPM	Regional Programme Management
SDA	Service Delivery Agreement
SG	Superintendent-General
SGB	School Governing Body
SLA	Service Level Agreement
U-AMP	User Asset Management Plan
VO	Variation Order

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1. INTRODUCTION

1.1. Background

This report is in response to the following clauses extracted from the Regulations relating to Minimum Uniform Norms and Standards for Public School Infrastructure:

(6)(a) A Member of the Executive Council must, within a period of 12 months after the publication of the regulations and thereafter annually on a date and in the manner determined by the Minister, provide the Minister with detailed plans on the manner in which the norms and standards are to be implemented as far as schools referred to in sub-regulation (1) are concerned.

(b) The plans referred to in paragraph (a) are to make provision for, but not be limited to, the following:

- (i) The backlogs at district level that each province experiences in terms of the norms and standards;*
- (ii) Costed short, medium and long-term plans with targets;*
- (iii) How new schools should be planned and maintained and how existing schools are to be upgraded and maintained; and*
- (iv) Proposals in respect to procurement, implementation and monitoring.*

(7) In addition to the requirements contained in section 58C of the Act, a Member of the Executive Council must, in the manner determined by the Minister, report annually to the Minister on the implementation of the plans required in terms of sub-regulation (6).

(8) Measures which are taken to comply with the norms and standards contained in these regulations must be funded through the relevant budgetary sources and processes for new facilities and the upgrading of existing facilities at schools.

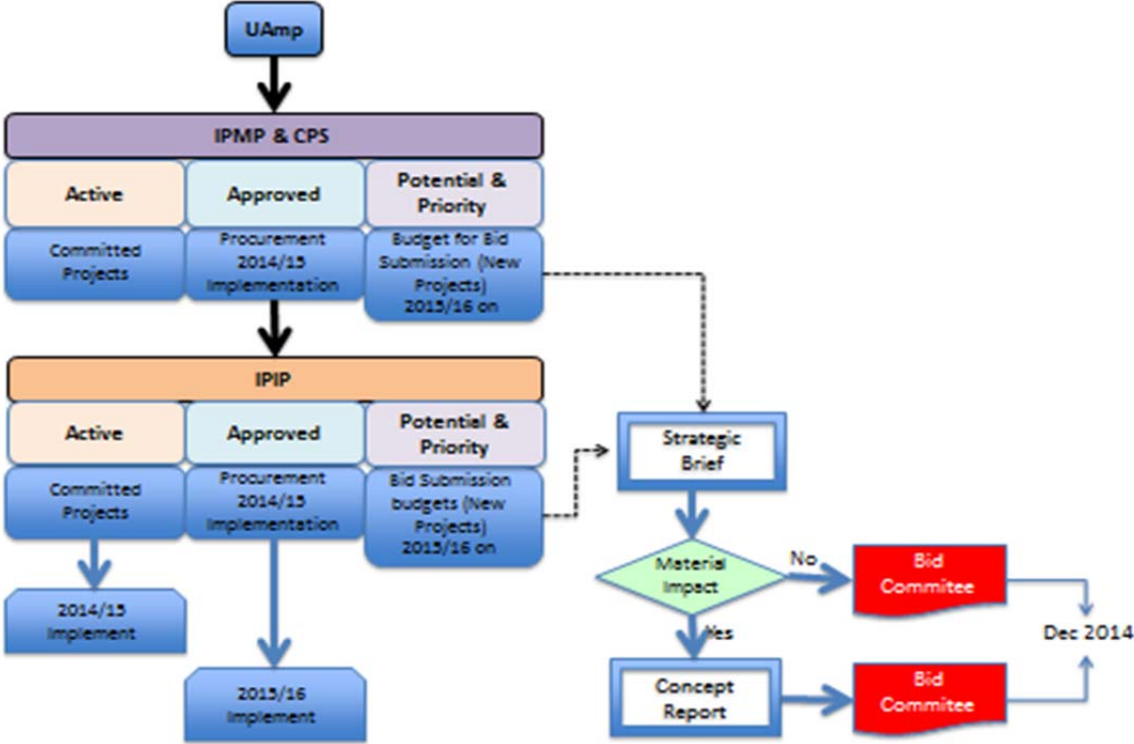
The purpose of this document is to present a framework that translates these regulations, together with policy decisions and strategic priorities into budgeted infrastructure intervention programmes. As such it forms part of the Department's 10 year infrastructure plan, and is thus also encapsulated in its User Asset Management Plan (U-AMP). Hence much of the information set out herein is extracted from the U-AMP.

This document represents a synthesis of the Department's U-AMP and IPMP for 2015/16, and therefore does not replace nor conflict with these in any way. Its purpose is to concentrate on the Department's approach to the implementation of the Regulations Relating to Minimum Uniform Norms and Standards for Public School Infrastructure.

1.2. Procedure for accessing Grant funding

Availability of funding, and hence the Department's ability to address backlogs, is subject to a bidding process. The Department has noted the DoRA requirements related to timely submission of documents to bid for Education Infrastructure Grant (EIG) funding in outer years. This requires that Business Cases be prepared for all identified projects, Strategic

Briefs (Project proposals) for all prioritised projects and Concept Designs for all potential projects in the MTEF period in question.



1.3. School Re-alignment and Rationalisation

The EC DoE inherited an inefficient schooling system from especially the former Transkei and Ciskei Education Departments. These consisted of primary (including junior primary and senior schools), junior secondary schools (comprising Grade R to Grade 9) and senior secondary schools (from Grade 10 to 12), which also resulted in too many small schools.

Realigning these schools with the current system of Primary and Secondary schools is under way. However, this has significant infrastructure implications and will still take many years to address entirely. The re-alignment and rationalisation process will be aligned to the implementation of the regulations.

1.4. Accelerated Schools Infrastructure Delivery Initiative (ASIDI)

The national Department of Basic Education (DBE) has embarked on a programme (ASIDI) to assist provincial Departments in addressing schools without any access to basic services (water, sanitation and electricity) and schools comprising entirely inappropriate structures (mostly mud structures in the case of the Eastern Cape).

The infrastructure being planned and delivered by the EC DoE needs to be carefully co-ordinated with the ASIDI programme to ensure that the two programmes complement each other and promote both cost effectiveness and prioritisation of needs.

2. STRATEGIC ALIGNMENT

2.1. Objectives

To align its planning and delivery the strategic goals of the Department, the infrastructure unit has set itself the following objectives which are articulated in the Annual Performance Plan (APP), together with the specific delivery targets:

- Providing adequate basic services such as water, sanitation and electricity to schools, and replacing mud and other inappropriate structures, in line with the Regulations
- Intensifying efforts to ensure that all schools are safe environments for all children.
- Aligning the EC DoE backlog elimination efforts with the ASIDI intervention.
- Re-alignment of schools (primary and secondary streams) and re-organisation of small schools that are no longer sustainable, or which are under-utilised.
- Systematically eliminating the backlog in classroom accommodation and improving access to facilities such as libraries and laboratories, in line with the Regulations
- Improving User Asset Management Planning, together with more emphasis on life cycle planning (especially improved maintenance planning), and provision of infrastructure that complements and promotes the relevant curriculum, especially regarding outcomes based education
- Ensuring that training and skills development initiatives form part of building programmes to respond to the requirements of the economy, rural development challenges and social integration
- Promoting the principles of sound asset and financial management, and effectively implementing these to ensure that all legislative compliance and audit criteria are met, and best practices are utilised throughout
- Effective and efficient implementation of the Education Facilities Management System (EFMS), both as a programme and an asset management tool.

2.2. Project planning process

The planning process is driven by two main components: firstly a register of all the assets and their condition, and secondly, an interactive process with the Districts to determine locally perceived needs and to confirm requirements.

Whilst it may appear that the process is driven from a local level, it in fact needs to be lead from a strategic level – i.e. strategic criteria applied to accurate statistical information, as local inputs have proven to be unreliable in the past. To institutionalise this approach, the Department is in the process of updating condition assessments (with the assistance of DBE) at all schools in the Province. The process referred to in the diagram above (currently being institutionalised) is briefly described hereunder:

- The EFMS, or current baseline information, will be used to identify and prioritise projects on agreed criteria (based on the Regulations and the Department's strategic objectives).

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- This list is then work-shopped with stakeholders in the Districts to confirm the basis for prioritisation and the sources of data.
 - The District then finalises its list, ensuring that the provision of facilities is fairly distributed throughout all the circuits. The District Director signs off the list and submits this to Head Office through the responsible Chief Directorate
 - The Department then compiles the final list based on the feedback from the Districts, taking cognisance of existing financial commitments and projected cash-flows (B5 schedule).
 - The list is then sent to the SG and MEC for final approval, which includes submission to the Standing Committee on Education.

The criteria and process for identifying projects has been described above. Once a project has been identified, both from asset data and local needs, a Business Case for the project must be prepared (Gate zero of IDMS). This will justify the project not only in terms of Departmental requirements and priorities but also in terms of local needs as articulated through IDPs and interactions with municipalities as described elsewhere herein. First order costs will also be determined as part of the business case development.

The process of compiling the project list is briefly summarised below:

1. Allocate funds to active projects already contracted (i.e. contractual commitments);
2. Allocate funds to approved projects, i.e. where planning and design is advanced and funds have been approved through the bidding process
3. Allocate funds for maintenance and emergency repairs (e.g. roofs blown off, floods and other situations that are clearly emergencies);
4. Allocate funds to prioritised new infrastructure, upgrades and additions at existing facilities, rehabilitation and maintenance, in accordance with strategic priorities (which are derived from the Strategic Plan) and Regulations, as captured in this U-AMP;
5. Ensure that there is sufficient allocation for planning (site assessments, land readiness, etc.)
6. Ensure that the worst affected schools are addressed first; Ensure equitable distribution across Districts depending on the population, condition and access to educational facilities

The criteria used for identification and prioritisation of projects are developed from the Regulations relating to Minimum Uniform Norms & Standards for Public school Infrastructure and the strategic inputs described earlier in this section. These determine the need for a project which must be confirmed by the development of a Business Case, which should be signed off by the accounting officer.

2.3. Stakeholder engagement

The process for engaging senior management & sections of the Department in the drafting of the U-AMP has now been formalised. The process, timeframes and management engagement arrangements were presented and agreed in the HoD's Infrastructure Commission. A two day infrastructure planning workshop was subsequently held wherein the relevant senior managers, Treasury and Implementing Agents participated. A preliminary

draft was widely circulated for comment, and, among other interactions, was presented to a full sitting of the SLMC.

However, due to the outputs of the condition assessments not yet being available, the process which has been followed during 2013 and 2014 is briefly set out below:

- District Interactions started on 12 March 2013. During 2013/14 District Managers were invited to an interactive one on one work session where they had to present the reworked priority list, the current B5 project list and the ASIDI project list.
- The intention was to determine and underpin a targeted infrastructure programme that complemented the infrastructure delivery programme and at the same time emphasise and prioritise the rationalization and re-alignment processes.
- The ASIDI's 210 small schools acted as the departure point for re-alignment/closure
- The next priority was to identify all other inappropriate structures to align with government's priority for rationalisation of small schools
- The District were asked to re-prioritise the remainder of schools on the priority list in accordance with the prioritization criteria, including re-alignment of schools (primary and secondary)

3. EXISTING ASSET BASE

3.1. Asset database

The Department has proactively taken the necessary steps to ensure the reliable and up to date information on all assets and their condition will be available for the next planning cycle, due to commence in early 2015. This process comprises the following:

- DBE has done condition assessments at 3 139 schools in the Eastern Cape, and is in the process of clearing this data for capturing onto the NEIMS database
- The EC DoE will then also upload this data onto the EFMS for provincial utilisation
- The EC DoE has awarded a contract to a service provider to undertake assessments at the balance of the schools, and to capture this data onto the EFMS
- This initiative includes the operationalisation of the maintenance module of the EFMS for future maintenance planning, as well as project identification and prioritisation
- Updating of the NEIMS register (and EFMS) as projects are completed (ongoing)

In the interim the existing NEIMS data (updated with new projects when completed) has been used for macro planning.

3.2. Condition of assets

The Department currently has 5552 public ordinary schools in the Province, which serve 1,889 million learners.

The condition of all these facilities is currently being assessed as indicated earlier in order to update the asset data base (EFMS). Their condition, based on the previous NEIMS assessment, highlights the following:

- Less than 20% of schools have a condition rating of C4 or C5
- Whilst the majority of the schools (more than 60%) have a condition rating of C3 (Fair), this is not conducive to effective teaching and learning, as is apparent from the table below, and carries significant costs to address appropriately. (In the table below it can be seen that this category covers a very wide condition range (CBM 4 – 18%). While 4% is quite acceptable, 18% implies significant deterioration)
- The balance of the schools (15%) have condition ratings of C1 or C2 which not acceptable at all

Condition status	General description	CBM index*	Rating
*The Condition Based Maintenance index (CBM) is the ratio of repair cost to replacement cost.			
Excellent	Accommodation has no apparent defects. Appearance is a new risk. Risk index: No effect on service capability. No risk.	≤ 2%	C5
Good	Accommodation exhibits superficial wear and tear, with minor defects and minor signs of deterioration to surface finishes. Risk index: Intermittent, minor inconvenience to operations. Probability of risk to health and safety or property is slight. Low cost implications.	2 – 4%	C4
Fair	Accommodation is in average condition, deteriorated surfaces require attention; services are functional, but require attention, backlog maintenance work exists. Risk index: Frequent inconvenience to operations. Some risk to health and safety or property. Medium cost implications.	4 – 18%	C3
Poor	Accommodation has deteriorated badly, with some structural problems. General appearance is poor with eroded protective coatings; elements are broken, services are interrupted; significant number of major defects exists. Risk index: Many disruptions to service capability, some risk to health and safety or property. High cost implication.	18 – 30%	C2
Very poor	Accommodation has failed; is not operational and is unfit for occupancy. Risk index: Accommodation is unusable, immediate high risk to security, health and safety or property. Significant cost impact.	≥ 30%	C1

The cost of restoring all the schools to an acceptable condition, i.e. undertaking the deferred maintenance at each school where necessary, is conservatively estimated to be in excess of R4bn. Maintenance costing is, however, addressed later in this section.

3.3. School sizes

The Eastern Cape is characterised by numerous small schools as well as the anomaly of combined schools, particularly in the rural areas of the former Transkei, as is evident from the table below.

Phase	Category	No. of Schools	% of Phase	% of total schools
Primary	0-134	926	41%	17%

	135-310	734	33%	13%
	311-620	332	15%	6%
	621-930	134	6%	2%
	≥931	107	5%	2%
	Total	2233		40%
Secondary	0-200	161	7%	3%
	201-400	220	10%	4%
	401-600	161	7%	3%
	601-1000	217	10%	4%
	≥1001	103	5%	2%
	Total	862		16%
Combined (JSS)	0-134	327	15%	6%
	135-310	1033	46%	19%
	311-620	772	35%	14%
	621-930	223	10%	4%
	≥931	82	4%	1%
	Total	2437		44%

Of significance for planning and the rationalisation of schools is the fact that almost a quarter (24,9%) of the schools have enrolments below 135 learners, which is considered the minimum for effective utilisation of physical and human resources.

3.4. Maintenance requirements

The Department acknowledges that, to maintain the value of its physical assets, it needs to budget sufficient funds for this purpose. Industry norms indicate that an annual budget of at least 2% of the replacement value of the building should be made available for its maintenance. The replacement value of the Department's building assets is conservatively estimated at R58,8bn. This would imply an annual maintenance budget requirement of almost R1,2bn, which is the same order of magnitude as the entire infrastructure budget.

In addition there is a substantial maintenance backlog, as is evident from the information on the condition of assets as described earlier herein. This backlog is estimated to be in excess of R4bn at current costs.

If the Department now concentrates only on maintaining assets built or renovated in the past 5 years and leaves other assets for refurbishment programmes, then the annual life cycle (maintenance) costs would amount to R80m. Such an allowance has been made in the project schedule which is summarised in the next section (see extract below). This allowance will grow annually as new projects are completed, increasing to R452m over the 10 years.

Strategic Priority	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Whole Life Costing	79,980	129,526	174,557	229,403	285,132	338,114	376,278	402,237	426,497	452,030

Clearly this is a situation that needs to be addressed urgently. However, in the light of the existing backlogs, it is difficult to justify the commitment of such substantial amounts to

maintenance. The Department has increased its maintenance budget significantly, and intends continuing this trend. It has also developed a maintenance plan for utilising this budget.

However, additional funding for maintenance needs to be sourced. The current budget is insufficient to eradicate mud structures and address backlogs, and also maintain existing infrastructure adequately. In the interim, if additional funding does not materialise, the Department will allocate at least 10% of its infrastructure budget to maintenance.

Due to the inadequacy of maintenance funding, most maintenance undertaken is reactive rather than planned. An initiative is currently being launched to take more control of how schools spend the maintenance funding allocated to them through the norms and standards funding, and to provide them with support from District Works Inspectors to identify their maintenance needs and procure services for undertaking this.

It should be noted that deferred maintenance (however undesirable) is being addressed through current refurbishment projects. This is also being addressed in the planning process, as shown in the summarised project schedule later herein. The identification and prioritisation of such maintenance / refurbishment is done on the basis of greatest need in terms of District priority, school utilisation rate and current condition.

4. DEMAND ASSESSMENT

4.1. Strategic Infrastructure Goals

4.2.1 Introduction

The Department's strategic infrastructure goals are derived from the following inputs:

Strategic Plan 2010 - 2014:

Strategic Goals 1 and 5 are most applicable to infrastructure planning, delivery and management, viz:

STRATEGIC GOAL 1

Access to basic education for all learners regardless of race, gender, disability, geographical location and socio-economic status

STRATEGIC GOAL 5

Improved institutional efficiency through enhanced management systems and integrated service delivery at all organisational levels (National, Provincial, District, Circuit and School).

Policy speech 2014:

In his policy speech in June 2014, the MEC highlighted the following issues relevant to infrastructure delivery:

- Focus on rationalisation and re-alignment

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- Provision of ECD centres
 - Commitment to EPWP
 - Promotion of ICT

Annual performance Plan

- Providing adequate basic services such as water, sanitation and electricity to schools, and replacing mud and other inappropriate structures
- Intensifying efforts to ensure that all schools are safe environments for all children.
- Aligning the EC DoE backlog elimination efforts with the ASIDI intervention.
- Re-alignment of schools (primary and secondary streams) and re-organisation of small schools that are no longer sustainable, or which are under-utilised.
- Systematically eliminating the backlog in classroom accommodation and progressively improving access to facilities such as libraries and laboratories in line with the recently published Regulations on norms and standards
- Improving User Asset Management Planning, together with more emphasis on life cycle planning (especially improved maintenance planning), and provision of infrastructure that complements and promotes the relevant curriculum, especially regarding outcomes based education
- Ensuring that training and skills development initiatives form part of building programmes to respond to the requirements of the economy, rural development challenges and social integration (EPWP objectives)
- Promoting the principles of sound asset and financial management, and effectively implementing these to ensure that all legislative compliance and audit criteria are met, and best practices are utilised throughout
- Effective and efficient implementation of the Education Facilities Management System (EFMS), both as a programme and an asset management tool.

4.2.2 Strategic priorities

The strategic priorities of the Department are based on the policies and guidelines described earlier, as applied to the physical conditions of the Province and its schools.

The Department's strategic priorities are the following:

- Replacement of mud structures and unsafe schools
- Adequate water supply, sanitation, fencing and electricity at all schools
- Elimination of classroom and other backlogs (i.e.: shortage of facilities)
- Re-alignment of school grades and re-organisation of small and under-utilised schools, and the concomitant issues of providing hostels and/or transport
- Learning areas for children with special needs, i.e.: special schools and appropriate facilities at normal schools
- Addressing the shortage of specialist facilities (e.g.: laboratories, libraries, e-learning facilities)
- Development of nodal areas, and provision of education infrastructure for such areas
- Life cycle planning with growing emphasis on maintenance of infrastructure

While the increasingly technological world is calling for e-learning facilities and science laboratories, there are still thousands of learners being taught in mud structures and other

unsafe environments. Against this background, the allocation of scarce resources represents a huge challenge to the Department.

4.2. Norms and Standards (levels of service)

The new Regulations relating to Minimum Uniform Norms and Standards for Public School Infrastructure are being utilised to determine the scope of work for each project. However, this is based on the timeframes set out in the regulations. In certain cases the full scope of work (17 year timeframe) will not be provided initially in the interests of spreading the budget to the higher priorities.

The 3 year and 7 year targets are currently the highest priority, as these address access to basic services. The timeframes for addressing the various backlogs are summarized below.

Three Year Timeframe (Nov 2013 - Nov 2016)

- No supply: Water
- No supply: Electricity
- No supply: Sanitation
- Inappropriate structure classrooms (entire school)

Seven Year Timeframe (Nov 2013 - Nov 2020)

- Classrooms (incl Grade R Classroom, Multipurpose Classroom)
- Inappropriate Structures (Mud, Asbestos, Metal, Wood)
- Fencing
- Security (burglar proofing)
- Insufficient supply: Water
- Insufficient supply: Electricity
- Insufficient supply: Sanitation
- Connectivity: Tel, fax, internet & Intercom / PA system

Ten Year Timeframe (Nov 2013 - Nov 2023)

- Library & Multimedia Centre (library and computer function)
- Laboratories (Science laboratory)
- Computer room

Seventeen Year Timeframe (Nov 2013 - Nov 2030)

- Administration Areas
- Education Support Areas: Nutrition Centres
- Education Support Areas: Parking bays
- Education Support Areas: Sport facilities

4.3. Backlog analysis

4.4. Background

The basis of an accurate calculation of the infrastructure backlog is a reliable asset register (database) of all education infrastructure in the Province. Unfortunately there is no up to date register available, and the Department therefore took a decision some time back to

commission an asset and condition assessment survey at all schools in the Province, with the intention of ensuring that steps are put in place to maintain the currency of this data. A contract for the appointment of a service provider was been awarded. Up to date data will therefore be available shortly. The approach followed is summarized below.

4.5. Approach adopted

The Department decided to use the NEIMS data which formed the basis of the 2012 analysis undertaken by Core Focus on half of DBE. This data was updated using reports on projects completed in the period 2008/09 to 2013/14, and has further been compared with completed projects as recorded in the EFMS database.

This data was then analysed by applying the criteria for determining backlogs as set out in the Regulations and summarized in the DBE implementation plan. Enrolment figures from the 2014 snap survey were utilised for this exercise. The approach has thus been to update the NEIMS data as effectively as possible in the circumstances, and use this as the basis. Whilst this approach then includes all schools in the Province (not just a sample as proposed by some provinces), it is based on the current situation and does not take future re-alignment into consideration unless schools have already been re-aligned. A more detailed exercise taking into account all proposed re-alignment will be undertaken once the new condition assessment data is available, which it is hoped will all be ready for the 2016/17 U-AMP

4.6. Assumptions

A number of assumptions needed to be made, more especially in the case of criteria in the Regulations where sufficient data was not available in the existing data sources (e.g. security (burglar bars), parking bays, etc.).

Schools on the priority list and under implementation have been included in the backlog analysis, only completed projects have been considered when calculating backlogs.

The assumptions made and the unit rates used in the backlog calculations are summarized in an annexure hereto.

4.7. Estimated backlogs

The estimated monetary of the backlogs for each of the timeframes, in terms of the Regulations, is summarized below:

Component	Cost	Cumulative
Three Year Timeframe (Nov 2013 - Nov 2016)		
No supply: Water	R 39,475,000	
No supply: Electricity	R 182,960,000	
No supply: Sanitation	R 1,619,185,694	
Inappropriate structure classrooms (entire school)	R 656,343,487	
Sub-total	R 2,497,964,181	R 2,497,964,181
Seven Year Timeframe (Nov 2013 - Nov 2020)		
Classrooms (incl Grade R Classroom, Multipurpose Classroom)	R 5,409,124,449	
Inappropriate Structures (Mud, Asbestos, Metal, Wood)	R 1,834,553,882	
Fencing	R 2,059,395,000	

Security (burglar proofing)	R 1,089,492,800	
Insufficient supply: Water	R 421,145,000	
Insufficient supply: Electricity	R 1,084,880,000	
Insufficient supply: Sanitation	R 1,416,990,750	
Connectivity: Tel, fax, internet & Intercom / PA system	R 27,574,300	
Sub-total	R 13,343,156,181	R 15,841,120,362
Ten Year Timeframe (Nov 2013 - Nov 2023)		
Library & Multimedia Centre (library and computer function)	R 6,303,300,682	
Laboratories (Science laboratory)	R 5,679,107,996	
Computer room	R 1,526,560,195	
Sub-total	R 13,508,968,872	R 29,350,089,234
Seventeen Year Timeframe (Nov 2013 - Nov 2030)		
Administration Areas	R 9,458,834,052	
Education Support Areas: Nutrition Centres	R 7,772,360,378	
Education Support Areas: Parking bays	R 291,892,500	
Education Support Areas: Sport facilities	R 573,000,364	
Sub-total	R 18,096,087,294	R 47,446,176,528
Condition backlog (maintenance)	R 3,812,729,014	R4,963,234,754
TOTAL		R 52,409,410,542

NB:

It must be noted that the costs estimated above are all present day values. The elimination of these backlogs in a phased approach over the 17 year timeframe will need to include allowances for escalation. This is addressed in Section 6 on Budget Requirements.

5. OPTIONS ANALYSIS

5.1. Gap analysis

An analysis has been undertaken of comparing the infrastructure requirements as per the Regulations with the existing infrastructure as per the NEIMS data base. This shows shortages at virtually every school in the province. There are exceptionally few schools that do not require any additional facilities to comply with the minimum norms and standards. In fact only a few hundred of the 5 584 schools assessed do not require any intervention. This gap as been quantified in terms of costs to address, and is described in detail later in this section.

The estimated cost of addressing the infrastructure backlog as determined in the previous section (based on the Regulations relating Minimum Uniform Norms & Standards for Public School Infrastructure) amounts to some R52bn. This is a present day cost, and does not allow for escalation over any timeframe. It also excludes annual maintenance of the existing or newly constructed facilities. If amounts for escalation and maintenance are included, then the total funding requirement over the 17 year period amounts to R122bn.

This equates to an annual budget requirement of R5bn increasing to R8bn over this period. Any increase or movement of learners will result in additional infrastructure requirements.

In addition to this gap (backlog) of facilities there is a huge maintenance backlog that also needs to be addressed. As indicated earlier this is estimated in excess of R4bn. A more accurate quantification will be available on completion of the condition assessment process.

This magnitude of funding is clearly not available, thus other options and alternative delivery solutions will have to be considered, and difficult decisions will need to be made.

5.2. Alternative Infrastructure Solutions

5.3. Rationalisation of Small Schools

The Eastern Cape is characterised by a prevalence of small schools (less than 135 learners), mainly due to the uneven topography which also handicaps accessibility, with the number of educators not meeting the requirements of the curriculum for effective teaching and learning. A detailed breakdown of school sizes was shown later herein.

There is a process of rationalising small schools, which are by their nature inefficient. It is also not cost effective to provide infrastructure for such a limited number of learners.

In the interim the Department will only provide mobile structures where needed in such schools, restricting admissions up to Grade 3, and merge under capacity schools and integrate their management with that of overcrowded ones to relieve pressure thereon. The focus in the forthcoming period will be on maintenance of facilities rather than new structures until the long term need is confirmed.

5.2.2 Provision of hostels

Establishment of hostels, and the restitution of existing hostels, forms an integral part of the rationalisation and re-alignment process. The District offices will once again have a key role to play in identifying potential schools and hostels, and assisting the Directorate in planning these to be as cost effective as possible.

This will also be a phased approach, looking at short, medium and long term solutions in terms of a holistic plan.

5.2.3 Alternative design & construction technologies

An aspect that has not yet been satisfactorily addressed is the acceptability of alternative building technologies. The perception that any building system other than conventional brick and mortar is inferior seems to be entrenched among communities of the Eastern Cape. However, significant progress has been made locally and internationally in the development of alternative systems that are highly effective in appropriate environments. Such systems could therefore be erected far more cost effectively in certain localities than conventional structures. Whilst there are many benefits for using conventional construction, there is a

strong case for alternatives. However, this would require the necessary time and effort be put into research and advocacy to ensure their acceptability and sustainability.

5.2.4 Temporary classrooms

The issue of re-aligning schools (junior secondary schools in particular) with the current dispensation will result in learners having to be relocated to other schools. This will create a need for additional classrooms at the identified senior secondary schools. In the case of the rationalisation of schools, the relocation of learners to neighbouring schools will also create a need for additional classrooms. To meet these needs in the short term the Department will provide mobile classrooms while the longer term solution is being finalised and implemented.

Where schools are currently overcrowded, the use of mobile classrooms can provide immediate relief while long term solutions are being developed. For these reasons the use of mobile classrooms is a useful and effective option as part of the infrastructure programme.

5.2.5 Integration with other Departments' initiatives

There are potentially substantial savings that can be effected by integrating delivery modes with the initiatives of other provincial departments and local authorities. These include, for example, transverse framework contracts for building maintenance, multi-disciplinary or shared facilities.

Provision of bulk services, especially water and sanitation, are the responsibility of local government. By improved co-ordination and co-operation, and appropriate phasing, the cost of supplying these services can be optimised.

5.2.6 Incremental fulfilment

The backlogs as described herein are significant, and it is clearly not feasible in the current environment to address these within the prescribed timeframes. The cost to benefit relationship will then inform where the prioritisation for cost effectiveness, and the Department will strive to achieve the targets incrementally. This has been taken into consideration in the current 10 year project list compilation.

5.4. Criteria for Prioritisation

The process for compiling the 10 year project list has been described earlier herein, but is repeated below for ease of reading:

The process of compiling the project list is briefly summarised below:

1. Allocate funds to active projects already contracted (i.e. contractual commitments);
2. Allocate funds to approved projects, i.e. where planning and design is advanced and funds have been approved through the bidding process
3. Allocate funds for maintenance and emergency repairs (e.g. roofs blown off, floods and other situations that are clearly emergencies);

-
4. Allocate funds to prioritised new infrastructure, upgrades and additions at existing facilities, rehabilitation and maintenance, in accordance with strategic priorities (which are derived from the Strategic Plan) and Regulations, as captured in this U-AMP;
 5. Ensure that there is sufficient allocation for planning (site assessments, land readiness, etc.)

With regard to the allocation of funds to new projects (point 4 above), the following criteria as developed from the Strategic Plan, Policy speech and APP have been used:

- Adequate water supply, sanitation, fencing and electricity at all schools
 - First address schools with no water or sanitation
 - Schools with pitlatrines, converting to or replacing with VIPs
 - Schools without electricity
 - Schools with insufficient basic services
- Replacement of mud and inappropriate structures
- Provision of ECD centres at all primary schools
- Elimination of classroom and other backlogs in line with the new Regulations on norms & standards
- Re-alignment of school grades and re-organisation of small and under-utilised schools, aligned to implementation of the Regulations for norms & standards
- Learning areas for children with special needs, i.e.: special schools and appropriate facilities at normal schools
- Addressing the shortage of specialist facilities (e.g.: laboratories, libraries, e-learning facilities) in line with the Regulations on norms and standards
- Provision of adequate funding for maintenance and refurbishment, as well as for addressing emergencies and disasters
- Provision of sufficient funding for planning and preparation of Business Cases (Gate 0) and Project Briefs

NB

The approach is to focus on schools lacking basic services as the top priority, but at the same time allocating funding to schools on a holistic basis, such that 7 year and 10 year priorities are also addressed, together with allocations to maintenance, emergencies and disasters.

5.5. Alignment with ASIDI programme

The ASIDI programme will continue over the next two years. It targets schools comprising entirely mud structures, and schools with no access to basic services such as water, sanitation and electricity. The situation in the Eastern Cape, and particularly in the eastern Transkei where most of the mud structure schools are located, is that these are usually very small schools with declining enrolments (hence no new facilities having been provided). The greater challenge lies with schools that partially comprise mud structures, together with other types of structures. These are schools where enrolments have steadily increased to the extent that the community and / or the State have provided additional facilities. Often these schools are in a poor condition and severely over-crowded, and as such are a higher priority than the schools identified for replacement under the ASIDI programme.

5.6. Funding strategies

The funding implications of meeting the requirements of the Regulations have been alluded to above, and are discussed later in this plan. However, in summary these reflect a requirement of R5bn increasing to R8bn annually.

Clearly this is not achievable in the current circumstances where indicative annual budgets are in the order of R1,5bn – R1,8bn. Significant policy decisions therefore need to be taken around the relevant issues, viz:

- Levels of service:
- Target dates
- Budgetary allocation
- Sourcing of funds
- Alternative solutions

As stated earlier herein, the possibilities are fairly limited, viz:

- Increase the annual budget to meet the needs at the required levels of service
- Lower the levels of service to reduce financial requirements
- Extend the period within which backlogs are to be eliminated

The final strategy will probably have to be a combination of all 3 of the options listed above. However, the latter two are unlikely to be palatable to the affected communities. It is therefore earnestly recommended that the management of the Department lobby strongly for redress funding to eliminate backlogs, and look to central Government support for accessing foreign donor funding to assist in this regard.

In particular it is maintenance funding that must be made more accessible to ensure the physical learning environment is adequately maintained, and potential donors are given peace of mind that any investment they may make will be properly cared for.

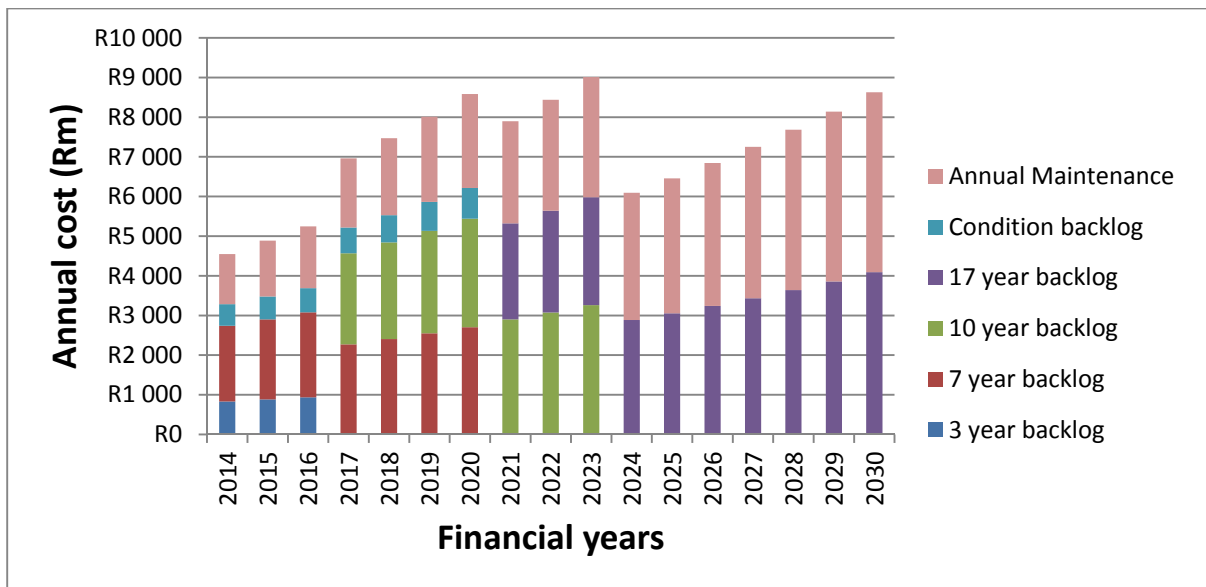
5.7. Procurement strategies

Procurement strategies can improve the cost effectiveness of infrastructure delivery. The mode of delivery, packaging of projects, and procurement options to optimise the cost effectiveness are dealt with in the Construction Procurement Strategy which forms part of the Infrastructure Programme Management Plan (IPMP).

6. BUDGET REQUIREMENTS

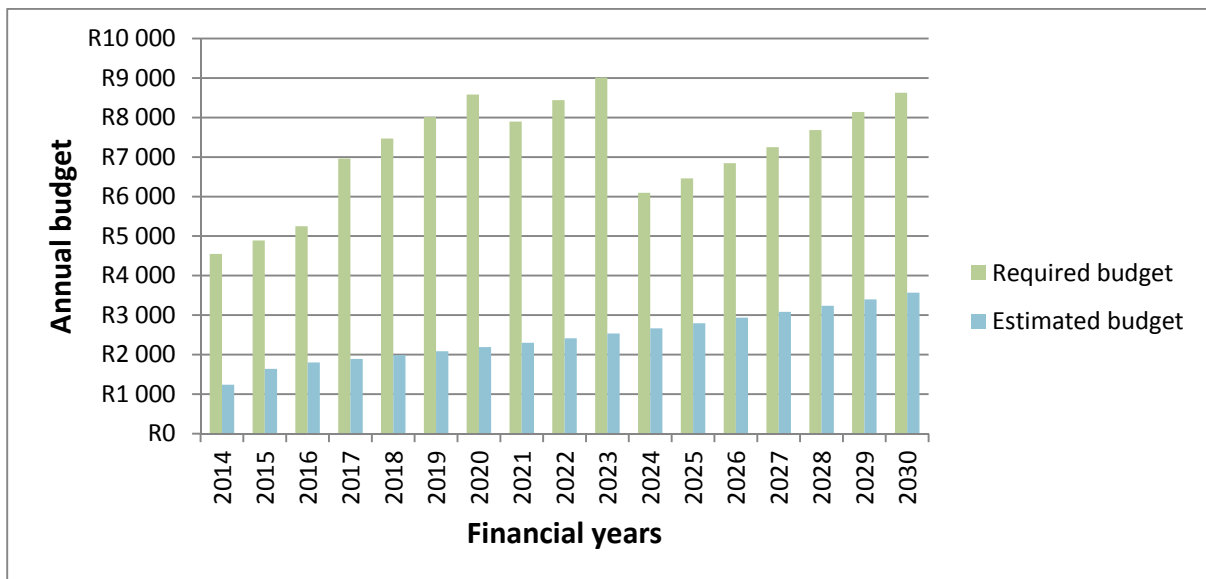
6.1 Projected budget requirements

If it is assumed that this backlog described earlier herein is to be eradicated over the 17 year period (but addressing each particular type of backlog within the requisite timeframe), and allowance is made for escalation (6% p.a.) and annual maintenance (2% p.a. of replacement value of assets), then the following funding scenario is realised.



From the above graphic it is apparent that the annual budget requirement will amount to between R5bn and R8bn, depending on the phasing of the delivery programme. It can also be seen that the maintenance budget required by 2030 is in the order of R4,5bn per annum.

This scenario needs to be compared with the current estimated annual infrastructure budget (based on the present MTEF allocations and an annual increase of 5% thereafter).



6.2 Alignment of priorities with long term targets

In the short term (i.e. less than five years) the Department expects to achieve the following targets, and therefore they do not form part of the long term targets that follow:

- Replacement of mud structure and other inappropriate schools
- Basic services and safety at all schools
 - Water
 - Sanitation
 - Fencing

-
- Electrification (as appropriate)
 - Universal access to Grade R
 - Rationalisation and re-alignment of schools (in line with Regulations)
 - Improved repairs, rehabilitation and maintenance of schools

In the long term the Department would like to achieve the targets as set out in the Regulations, noting however that this will depend on the availability of funding.

The implementation programmes utilised by the Department to achieve these targets are described in the sections that follows.

7. INTERVENTION PROGRAMMES

7.1 Replacement of Mud and Unsafe Structures

All new structures to be provided will be built according to the requirements of a school subscribing to the norms and standards as per the Regulations.

The mud structure crisis situation will be addressed concurrently with the finalisation of the projects under way. This will be undertaken in conjunction and close consultation with the ASIDI programme of the national Department.

The split in funds among this and the foregoing will vary, but initially it is foreseen that a significant portion of the available budget will go to this programme

7.2 Conventional building programme

This programme addresses the shortage of educational facilities (mainly classrooms) together with the refurbishment of existing facilities where necessary. The necessary facilities required are provided in accordance with the norms and standards and levels of service as described previously. All the required facilities as determined are provided during a single intervention (ie: preferably not phased), the intention being that the Department should not need to return to any particular school until the medium to long term. The main focus of the conventional programme is on the provision of facilities for the re-alignment of schools to primary and secondary streams.

7.3 Basic Services & Safety

7.3.1 Water and Sanitation

The Department is attempting to address the backlog in sanitation and water supply at schools, and has a dedicated programme for this. This is dealt with on an area basis, prioritising areas of greatest need first (especially areas that are prone to cholera outbreaks). Close consultation is maintained between the Departmental and ASIDI interventions.

7.3.2 Fencing

There is a programme for fencing of school buildings and sports fields. Stock fencing is provided around the perimeter, with security fencing around the buildings. In higher sensitivity areas security fencing and even palisade fencing may be considered

7.3.3 Electrification

All schools will be electrified where electricity supply is available. Where there is no electricity as yet, but the school is planned for inclusion in the Eskom grid, conduits will be provided and these blanked off at switch and plug points. If the school is outside the Eskom grid, it will be included in the Department's non-grid electrification programme. This provides for essential electrification such as lighting.

The electrification of schools is also being addressed by the ASIDI programme, and close consultation is maintained with the DBE to avoid duplication of effort and ensure effective delivery

7.4 Maintenance

A comprehensive Maintenance Plan has been prepared as part of the U-AMP submission, and more details on the approach to and content of maintenance programmes are set out therein.

To date routine maintenance has been fairly limited, as the emphasis of the infrastructure programme has been on eliminating historical backlogs and replacing uninhabitable buildings, such as mud structures.

Typically the annual routine (day to day) maintenance budget has been in the order of R50 – R80m, which is about 0,2% of the replacement value of the current asset stock. Last year this was increased to R160m, which is 0,4% of replacement value, but still well below the industry norm of 2%.

Maintenance funds are transferred directly to the schools to which they are allocated (Section 21 schools) or to the District office to procure services on their behalf (Section 20 schools).

The Department's current approach to maintenance is as follows:

- DRPW to put framework contracts in place per District Municipality for call down to address maintenance – building works, electricity and plumbing
- Schools to prepare school development plans, each of which must include a maintenance plan. EDOs to support the formulation of these plans
- Maintenance budgets to be devolved to District level
- Capacity of Works Inspectors in Districts to be increased
- Ratio / relationship between capital works and maintenance to be reviewed. Involve DRPW in determination of life cycle costing
- Consider need for major refurbishment at Quintile 4 and 5 schools. The Department needs to preserve the asset value of these facilities
- Local economic development, job creation, youth development to be promoted as part of maintenance approach. Strategy to be developed for replication of the Butterworth pilot

- Relationships to be developed with municipalities re maintenance of schools, possibly on agency basis
- Condition assessment data must be kept up to date and must form the basis of planning and prioritising maintenance

7.5 Emergency / Disaster Interventions

Emergencies are defined as situations arising from failure of infrastructure, resulting in conditions which threaten lives or cause misery. The Head of Department or delegated official can invoke emergency procurement procedures to deal with crises which occur and are acknowledged as emergencies.

An allocation will be made as a one line budget item for emergencies and disasters.

Major disasters (such as tornado or snow damage) on a wide scale are addressed on the basis of emergency intervention. Once a disaster has formally declared, funds can be sourced from a special provincial allocation.

The Department collaborates closely with the relevant Municipality who will have established a disaster management team.

7.6 Life cycle costing & demand on budget

The Department acknowledges that life cycle costing is now a legislative requirement. It has therefore taken a decision in principle that provision should be made to accommodate planned maintenance for all new projects. In addition all projects completed in the previous five year cycle should have maintenance plans compiled for costing. Older projects will be treated on the current basis of prioritising maintenance and rehabilitation for implementation as part of the infrastructure programme. The funding requirements have been included in the costing earlier herein, and shown below.

Strategic Priority	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Whole Life Costing of projects completed in past 5 years, plus new projects per annum	79,980	129,526	174,557	229,403	285,132	338,114	376,278	402,237	426,497	452,030

It should be noted that the budgetary implications of the proposed planned maintenance are significant, and will put further pressure on budgets that are already over-stressed.

7.7 Funding sources

The funding strategy of the Department is very dependent on Grant funding from the national fiscus, but does rely on other sources to supplement this. The sources of infrastructure funding for comprise the following:

Education Infrastructure Grant:

As stated above this is the major source of funds and the Department relies heavily on it. The preparation of bidding documentation for sourcing funds from the Grant therefore plays a central role in the planning process, to the extent that the Department wishes to secure more funding than indicative budgets imply. In particular bids for additional maintenance funding, refurbishment, and ECD centres have been prepared. The strategy is to secure as much Grant funding as possible, as other sources of funds as described below are substantial enough to make an impact on the backlogs.

The table below shows the value of funding for which the Department intends bidding (per strategic priority). The anticipated funding (projected at 5% increase per annum) is shown in the bottom line. This highlights the difference, and hence the challenge of eradicating all the backlogs within the regulatory timeframes.

Row Labels	Sum of MTEF 2015/16	Sum of MTEF 2016/17	Sum of MTEF 2017/18	Sum of MTEF 2018/19	Sum of MTEF 2019/20	Sum of MTEF 2020/21	Sum of MTEF 2021/22	Sum of MTEF 2022/23	Sum of MTEF 2023/24	Sum of MTEF 2024/25
ADDITIONAL CLASSROOMS	1,286	21,347	63,978	104,532	59,757	48,384	34,127	36,992	32,300	27,198
COMBINED PRIORITY	255,519	958,540	916,136	818,321	652,311	630,042	268,817	53,057	4,960	
ECD COSTED	121,786	333,743	350,976	348,045	235,394	259,354	208,178	84,696	76,290	76,505
ELECTRICITY	13,171	42,007	46,370	50,082	30,927	33,891	36,547	13,855	14,363	12,640
FENCING	10,759	34,741	37,716	46,031	38,395	36,214	40,029	33,381	30,397	23,835
INSUFFICIENT WATER & SAN	98,453	75,104	107,028	103,212	105,514	100,022	107,034	118,039	99,796	95,548
MAINTENANCE AND REPAIR	207,237	210,499	230,975	253,466	278,174	305,318	335,138	367,906	403,908	443,469
MUD/INAPPROPRIATE	123,314	637,041	300,844	678,432	806,823	633,061	451,653	122,262	40,416	54,665
NEW & REPLACEMENT ASSET	225,495	147,381	67,213	46,836	49,365	52,031	54,841	57,802	60,924	64,213
PLANNING	10,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
REALIGNMENT	193,648	154,789	156,629	106,000	223,919	189,154	186,131	195,438	205,210	215,470
REFURBISHMENT	330,922	297,272	94,793	138,205	184,540	153,152	136,077	40,623	25,829	29,359
WHOLE LIFE COSTING	44,321	129,526	174,557	229,403	285,132	338,114	376,278	402,237	426,497	452,030
Special School	107,152	405,823	129,910	253,847	268,480	283,996	300,453	317,911	336,433	356,093
Grand Total (bidding)	1,743,542	3,456,330	2,685,124	3,184,413	3,226,731	3,070,734	2,543,304	1,852,200	1,765,322	1,859,025
Anticipated funding	1,827,488	1,562,003	1,400,000	1,470,000	1,543,500	1,620,675	1,701,709	1,786,794	1,876,134	1,969,941

Equitable Share:

The Department also budgets for maintenance from its Equitable Share allocation. This has unfortunately diminished considerably over the past number of years, to the extent that the allocation for 2015/16 is negligible. However, the Department has committed itself to savings in other areas in order to increase the contribution to infrastructure.

Norms & standards funding:

All schools get a funding allocation for operational expenses in terms of norms & standards, the quantum depending on its quintile. A portion of this funding is intended for day-to-day maintenance, the total value of which is in the order of R150m per annum. The Department

is in the process of strengthening its control over the use of these funds in order to direct it towards school maintenance.

School funds:

Schools with access to sufficient school funds (e.g. quintile 5 schools), and possibly trust funds as well, can and do utilise these funds to provide additional facilities and maintain existing infrastructure.

Donor funding:

The Department has been fortunate to have received substantial assistance from donors over the past 20 years to support its infrastructure endeavours. The major donors have been national (e.g. DfID, EU, etc) and large businesses (e.g. Vodacom, Implats, etc). However, in the current state of the economy this has declined to minimal levels. Such funding usually comes with specific conditions attached, hence cannot be accommodated sustainably in infrastructure planning.

Intervention funding (e.g. ASIDI):

It is foreseen that significant intervention funding (such as in the case of the ASIDI programme) would be needed to meet the targets as set out in the Regulations on norms and Standards. The Department intends pursuing this actively, as the magnitude of funding required cannot be met from the sources described above.

8 IMPLEMENTATION PLANS & IMPLICATIONS

8.1 Introduction

From the foregoing it is apparent that the Department cannot implement the Regulations within the stated timeframes without significant additional funding in order to address the backlogs in terms of the Regulations and meet its obligations towards the maintenance of its infrastructure. The implications are clearly set out herein.

Against this background, the prioritisation of competing needs has been carefully assessed, and support enlisted at a political level, both provincially and nationally, to determine the most effective way forward. The current approach is to address needs on as wide a front as possible. Although this might not always be the most cost effective, it will ensure more equitable distribution of infrastructure improvements.

8.2 Approach adopted

The process followed in compiling the list was to obtain priority lists from the Districts for the various categories (water & sanitation, overcrowding, re-alignment, etc.). To populate the schedule, the top priorities in each District were selected. The number of priorities vary in each case (as is apparent when viewing the list) and will still change further based on the outcome of the bidding process in the short term and access to better planning data (emanating from the condition assessments) in the longer term.

Where appropriate the projects have been consolidated, i.e. where a school is identified as a priority for an ECD centre, for over-crowding, and for refurbishment (combined priority). These priorities are largely reflected in the outer years, while current projects on the B5 form the greater part of the forthcoming MTEF period. In these cases the projects classification still reflects the Treasury categorisation, as is evident from the schedule above.

Whilst the 3 year targets (basic services and replacement of mud schools) remain the highest priority, additional infrastructure in line with outer year targets will also be provided, more especially applicable to re-aligned schools. This is consistent with the requirement in the Regulations that the programmes for addressing the various targets should all commence simultaneously, but have a greater focus on the higher priority targets initially

8.3 Alignment with Strategic Priorities / Norms & Standards

The 10 year project list which forms part of this U-AMP has been compiled to align itself with the strategic priorities of the Department and the process described above. A field has also been included in the schedule to indicate which is the leading priority addressed by each project.

It should, however, be noted that many, if not most projects, address more than one priority. For example if a schools is being provided with water and sanitation or fencing (as the priority) it will also undergo any necessary renovations or upgrading at the same time. Similarly if an ECD centre is built at a school, rehabilitation of other facilities such as classrooms, ablutions and fencing will also be addressed. Where a number of strategic priorities are covered at a single school, this school has been categorised as “Combined Priority”.

The alignment of the required funding with the available budget will be an ongoing process based on further interaction and clarification with Districts on their priorities, and can only be finalised once the indicative budgets are confirmed. This is dependent on the outcome of the bidding process for Education Infrastructure Grant funds.

The projected nature of the infrastructure investment programme over the medium term (10 years) is summarized in the table below;

Strategic Priority	Backlog category as per Regulations	Approx % of anticipated budget	Description and trends
Combined Priority, water, sanitation, electricity, mud structures (where these do not feature as part of greater Interventions)	3 & 7 yr (to a lesser extent 10 & 17 year)	44%	Schools without water, sanitation, electricity, mud structure schools, or a combination of these priority issues in terms norms & standards, expected to remain at a high level throughout 10 year period
New and Replacement Asset	3, 7, 10 & 17yr	11%	This allocation will diminish annually until all inappropriate structure are replaced, thereafter only providing new facilities
REALIGNMENT	3, 7, 10 & 17yr	7%	This item will be a significant element of the infrastructure programme for at least the entire 10 year period. Will include hostels, etc.

Upgrade and Additions	3, 7, 10 & 17yr	3%	This allocation is set to increase as the Department strives to reduce backlogs and meet norms & standards targets by 2030.
ECD Centres	7 yr	7%	ECD centres are currently a priority - this allocation will reduce substantially after 2020/21
Additional classrooms	7 & 10 yr	4%	This allocation is to relieve overcrowding and to accommodate learners affected by re-alignment of schools. Will reduce over the 10 years.
Maintenance and Repair	ongoing	10%	Whilst this is currently 10% of the anticipated budget, the maintenance allocation should grow to 25% by the end of the 10 year period
Rehab, renovation & refurbishment	ongoing	9%	This allocation will reduce systematically as planned maintenance reduces the need for major refurbishment.
Whole Life Costing	ongoing	5%	Life cycle costing, more especially maintenance of completed facilities will form an ever increasing component of the budget.
Planning	ongoing	≤1%	Small allocation to ensure planning issues addressed well in advance and consistent delivery sustained.
HR Strategy	As per DoRA	≤1%	R26m allocated for 2015/16, increasing annually for capacitating provincial infrastructure unit and Districts

8.4 Implementation programmes

The Department's intervention programmes are aligned to the strategic priorities shown in the foregoing table. The number of projects which will be ongoing or activated in the 2015/16 MTEF period are summarised in the table that follows.

Strategic Priority	No of projects in the 2015/16 MTEF period
ADDITIONAL CLASSROOMS	64
COMBINED PRIORITY	113
ECD COSTED	279
ELECTRICITY	107
FENCING	125
INSUFFICIENT WATER & SAN	434
MAINTENANCE AND REPAIR	59
MUD/INAPPROPRIATE	83
NEW AND REPLACEMENT ASSET	138
REALIGNMENT	196
REFURBISHMENT	171
Special School	32
TURN KEY	5
UPGRADE AND ADDITIONS	119
Grand Total	1927

The extents to which these projects address the identified backlogs are set out in the attached schedules.

8.5 Implications for Norms & Standards

8.5.1 Introduction

The projected progress with achievement of the norms and standards as set out in the foregoing section is apparent. In the light of the constrained budget, the Department's focus for the short to medium term is largely on basic services and maintenance. Facilities such as libraries and laboratories are being provided, but not to the required extent to meet the regulatory deadline, due to budgetary constraints.

Re-alignment of schools will also require additional classrooms, as well as the necessary hostels to accommodate learners in many cases. These also need to be considered in the build-up of the infrastructure programmes.

The implications for the implementation of the norms and standards are dealt with in their various categories below.

8.5.2 Basic services

Schedules of all the schools lacking basic services as per the NEIMS database are attached hereto as annexures (Annexure E). In each case the schools without the basic service are listed, and the interventions scheduled for the MTEF are listed, indicating the balance that are unable to be addressed within the MTEF and which will form part of longer term interventions.

These are summarised below, with a brief explanation in each case.

Summarised effect of current programme on basic services backlogs				
Description of backlog (in terms of Norms & Standards)	No of schools without facilities as per NEIMS	Revised No of schools without facilities as per EC DoE assessment	No of schools on current programmes within the current MTEF	Balance of schools to be included in outer years of the MTEF
Schools without water	261	261	147	114
Schools without any sanitation	94	94	26	68
Schools with pitlatrines	2885	2044	805	To be determined
Schools without electricity *	318	143	27	116
Entire mud structure schools	Being addressed by ASIDI			

a) Schools without water

The reliability of water supply to many schools is problematic, due largely to the dependence on rainwater harvesting. However, this is often compounded by a lack of maintenance of the rainwater goods (gutters, downpipes & tanks).

The schools recorded as being without water but not yet on an intervention programme will be assessed in the current financial year, and where necessary included in the programme for the outer years of the current MTEF period.

b) Schools without sanitation / with pitlatrines

The DBE assessments identified 94 schools without any sanitation at all. Of these, 26 schools have already been included in an intervention programme. The balance of the schools will be assessed during 2015/16 to establish the situation on site and why these have not been prioritised for intervention yet. Where applicable these schools will be included in sanitation intervention plans within the current MTEF.

The Eastern Cape is in the unfortunate position of most schools having pitlatrines, which are now classified as unacceptable sanitation. The NEIMS data records there being 2885 schools in the Eastern Cape which have no sanitation or only pitlatrines. However, an analysis of this data, in conjunction with the EC DoE condition assessment data, shows this number to be 2044 schools. The schools not yet on an intervention programme will be assessed and prioritised for intervention in consultation with the Districts.

c) Schools without electricity

As indicated in the foregoing table, there were 318 schools initially identified as not having electricity as per the NEIMS database. Following the EC DoE condition assessment, this number was reduced to 143 schools. Of this number there are 27 schools which will be electrified as part of projects scheduled by EC DoE for the MTEF period. This leaves a balance of 116 schools where intervention is required.

*The schools programmed for ASIDI intervention were not yet available at the time of printing this report. It is assumed that most of these schools will be on the ASIDI programme; however the EC DoE is planning a dedicated electrification programme, and this will include any of the above schools which are not part of the ASIDI programme.

d) Mud structure schools

Schools comprising entirely of mud structures are accommodated in the ASIDI programme. Other schools which include high proportions of mud structures form part of the EC DoE mud structure replacement programme. These are included as part of the 7 year backlog intervention programme.

8.5.3 Other backlogs

The interventions targeted at the 7, 10 and 17 year backlogs form an integral part of the infrastructure programme. However, the backlogs in these categories are far greater, and due to their more specialised nature are more costly to address. As indicated earlier, the greater focus for the short to medium term is thus on basic services, sufficient classroom accommodation, fencing and maintenance.

The extent to which the programmes over the current MTEF are addressing the longer term backlogs is set out in the attached project list for the 2015/16 MTEF. The projected achievements in terms of implementation of the norms and standards are briefly summarised below:

Sub-programme group by Strategic Priority	No of schools to be addressed in the 2015/16 MTEF	Description of intervention and norms & standards which will be addressed by the sub-programme
ADDITIONAL CLASSROOMS	64	These provide additional classrooms as per enrolment requirement, including other facilities as per the 7 year timeframe
COMBINED PRIORITY	113	These projects address all norms up to 10 year requirement, plus admin and nutritional centre
ECD Centres	279	Stand-alone ECD centres at primary schools where these are lacking
ELECTRICITY	107	Dedicated sub-programme for provision of electricity to schools where lacking, in accordance with N & S
FENCING	125	Dedicated sub-programme for provision or reinstatement of fencing to schools.
INSUFFICIENT WATER & SAN	434	Dedicated basic services interventions as discussed earlier herein.
MUD/INAPPROPRIATE	83	These projects address all norms up to 10 year requirement, plus admin and nutritional centre.
NEW AND REPLACEMENT ASSET	138	These projects address all norms up to 10 year requirements
REALIGNMENT	196	These provide additional classrooms as per enrolment requirement, including other facilities as per the 7 year timeframe.
UPGRADE AND ADDITIONS	119	These projects address all norms up to 10 year requirement, plus admin and nutritional centre
Special School	32	These projects provide for learners with special needs in accordance with the guidelines for Special Schools, including hostels where required.
TURN KEY	5	These projects address all norms up to 17 year requirement
REFURBISHMENT	171	
MAINTENANCE AND REPAIR	59	
Grand Total	1927	

Clearly the rate at which these backlogs are being eradicated is far too slow to meet the timeframes as per the Regulations. However, the challenge is about effective utilisation of the available funding, and the current allocations represent the most equitable and effective approach within the current funding.

It is therefore critical that external intervention / funding be availed to meet the requisite time frames.

8.5.4 Maintenance

The condition assessments carried out recently indicate a (provisional) maintenance backlog of R4,96bn. To this must be added the cost of ongoing annual maintenance which, as set out earlier herein, amounts to approximately R1,2bn per annum.

The current maintenance programmes of the Department (2015/16) are summarised below:

1. Day to day maintenance

- Procurement by SGB (or District on their behalf)

Day to day (minor and preventative) maintenance is carried out by the school or the District office with funds transferred directly to the school (Section 21) or to the relevant District office for utilization by the school (Section 20).

For 2015/16, the maintenance portion of the norms and standards funding to schools has been increased significantly (to 20% of the N & S allocation), and now amounts to R342m.

- Maintenance of pit-latrines

The Department has expanded franchisee-franchisor arrangement for the maintenance and repair of sanitation facilities which it piloted in the Butterworth District to 4 Districts, viz. East London, Dutywa, Butterworth and Cofimvaba. The programme comprises 1 368 schools, over a 3 year period, with 2015/16 being the final year. Funding for 2015/16 amounts to R26m.

However, the intention is that this arrangement should become self-sustaining, with the relevant schools paying the franchisee directly for the services provided. The process of making these schools sustainable, and migrating the efforts of the franchisor to other Districts will be actively pursued during 2015/16.

2. Maintenance and repairs

This element constitutes maintenance which is greater than that which can be accommodated in the schools' day-to-day programmes. It comprises minor maintenance (which can be done departmentally through the 3 quote system), and major maintenance and refurbishment is usually undertaken as part of the capital works programme, utilizing the DRPW procurement or that of the relevant implementing agent.

The allocation for 2015/16 amounts to R213m (R198m in Programme 8.2 and R15m in Programme 8.3). Of this amount, R80m has already been allocated to projects on the B5 schedule (53 projects in total) and the balance will be allocated to projects in the maintenance list.

3. Refurbishment, rehabilitation and renovations

The Department has allocated R114m to refurbishment, rehabilitation and renovation projects. This amount includes R50m that has been ring fenced for disasters (see Section 3.4.6 below).

The balance being R64m has been allocated to 59 projects included in the B5 schedule for 2015/16.

3. Hostel renovations / refurbishment

Hostel renovations are also a big undertaking, as there is a significant backlog of deferred maintenance. This is also addressed as part of the capital works programme, utilizing the DRPW procurement or that of the relevant implementing agent.

Six schools have been identified for hostels, and Treasury has availed an amount of R120m for this purpose. This will include refurbishment of the existing hostels at the six schools.

4. Disaster schools

There are a number of schools (currently 233, but increasing) affected by natural disasters (storm damage).

An amount of R50m has been budgeted for addressing existing storm damage at schools in the 2015/16 financial year. This allocation forms part of the refurbishment budget noted above.

8.6 Conclusions

The balance of the backlogs has been prioritised in the 10 year infrastructure plan which is attached hereto. However, the funding of this plan is dependent on budget availability. The budgetary needs as will be included in the annual bidding for funds is shown in the summary below. It is, however, unlikely that the required funding will be realised, given the current state of the economy. Anticipated funding is unlikely to exceed half the required amount as per the 10 year priority list earlier herein.

The prioritisation of competing needs will remain a reality for the foreseeable future, and infrastructure programmes will need to be managed around this challenge. The current approach is to address basic services needs on a wide front, as the first priority.

Progress is being made in terms of enhancing planning data, building capacity and institutionalising systems to improve the planning and delivery of infrastructure, but will need support both internally and externally to ensure that these are effectively institutionalised.

The major challenge to meeting the Department's infrastructure needs remains adequate funding, and a collective effort is required to address this systematically and efficiently over the forthcoming years.

9 PROCUREMENT STRATEGY

9.1 Primary procurement objectives

The primary procurement objectives are to:

- 1) Provide for cost effective delivery of infrastructure services in a timely manner to ensure full utilisation of the available budget
- 2) Address the Department's strategic priorities in a balanced and equitable manner whilst applying the Regulations relating to Minimum Uniform Norms and Standards for Public School Infrastructure
- 3) Perform the works in such a manner that the utilisation of Implementing agents and the number of relationships that have to be managed is optimised
- 4) Minimise the health and safety risks where teaching and learning must co-exist with construction activities on the same site.
- 5) Upgrade facilities such that:
 - a) The furniture and equipment required to utilise the upgraded facilities follow immediately after the completion of the works; and
 - b) A maintenance capability is put in place to run and operate the upgraded facilities.
- 6) Provide durable and robust facilities which require minimal maintenance.
- 7) Provide facilities which are accessible to all potential users.

9.2 Construction Procurement

The procurement and contracting approach has traditionally been to go the design by employer route with an open tender process, and this is still the dominant means of procuring contracting services. There are, however, framework contracts in place for maintenance work (building, plumbing & electrical), as well as for the provision of mobile classrooms.

A number of alternative strategies are now being piloted, and these are given in the CPS template which forms part of the IPMP.

The current preferred procurement arrangements, which PIAs are expected to follow, comprise the following:

Category	Preferred Procurement Strategy
Low value works (< R 2 million)	<ul style="list-style-type: none"> • Provincial Programme Managers in DPW or PIA • Appoint PSPs on framework contracts • Utilise experienced management contractors (medium & large) to deliver consolidated packages of works on framework contracts
Medium value works (R 2 – R 13 million)	<ul style="list-style-type: none"> • Provincial Programme Managers in DPW or PIA • Appoint required Project Managers per area • Appoint PSPs on framework contracts • Utilise large experienced contractors to deliver works on framework contracts
High value works (> R 13 million)	<ul style="list-style-type: none"> • Provincial Programme Managers in DPW or PIA • Appoint Professional (incl. Principal Agent) per project • Utilise established contractors on a per project basis

	<ul style="list-style-type: none"> • Package lower value contracts to minimum package size per region
General maintenance	<ul style="list-style-type: none"> • As per category < R 2 million • The DRPW will procure framework contracts on a regional basis for building works, electrics and plumbing work. • However, the DoE will also undertake minor maintenance type projects itself, through its own infrastructure units and utilising the DoE procurement process.
Water & Sanitation	<ul style="list-style-type: none"> • Utilise specialist PIA (Mvula Trust, and possibly Amatola Water), and determine specific strategy in consultation with PIA. • Note scope for development of SME contractors and locally based maintenance capacity. • Also utilise lessons learned from Butterworth pilot and explore potential for replication.
Fencing	<ul style="list-style-type: none"> • As per category < R 2 million, include fencing with water and sanitation projects where appropriate. • Also utilise lessons learned from Butterworth pilot and explore potential for replication.

9.3 Developmental objectives

The developmental (secondary) objectives of the Department's infrastructure programme are the following:

- Broad based black economic empowerment.
- Poverty alleviation through the provision of work opportunities to the local communities including those provided in terms of the Expanded Public Works Programme.
- Local economic development, particularly local contracting expertise and local materials suppliers.
- Development of local CIDB registered contractors.
- Transfer of skills to local people.
- Reducing the spread of the HIV infection through workers, as well as other requirements in terms of the Occupational Health and Safety Act

The developmental objectives are linked to the Construction Procurement Strategy, and will be achieved through conditions included in the relevant tender documents.

The means of achieving each of the secondary objectives varies according to the project, but are briefly (and very generally) summarised below:

- Broad based black economic empowerment:
 - Tender eligibility criteria
 - Targeting of SMEs

- Poverty alleviation through the provision of work opportunities
 - Local labour content requirements
 - Expanded Public Works Programme alignment
- Local economic development
 - Sourcing of material from local suppliers
 - Contractor development programmes
 - Franchisee programmes (e.g. sanitation)
- Development of local CIDB registered contractors.
 - Targeting potentially emerging contractors
 - Mentorship programmes
- Transfer of skills to local people.
 - Training programmes as part of procurement strategies
 - Setting targets for training
- Reducing the spread of the HIV infection through workers, as well as other requirements in terms of the Occupational Health and Safety Act
 - Compulsory life skills training
 - Inclusion in safety plan requirements

The Department has also committed itself to the implementation of Phase 3 of the EPWP learnership programme initiated some years ago.

9.4 Utilisation of Implementing Agents

In terms of an Executive Committee decision, the Department of Public Works (DRPW) is the implementing agent of choice for all provincial government departments. The DoE has confirmed this as its approach, hence a bilateral SDA between these two departments. Where the DRPW does not have the capacity, it may engage external implementing agents (as is the case with the DoE). By mutual agreement, the DRPW will utilise the other PIAs who have historically also supported the DoE on its infrastructure delivery programme in the Province. The implementing agents currently engaged, and their areas of involvement are set out in the schedule below:

PIA	Current areas of Involvement
IDT	ECD centres, emergencies, EPWP projects, School building, mud structure replacement, special schools
CDC	EPWP projects, ECD centres, emergencies, school building, mud structure replacement
DRPW	District Offices, ECD centres, exam centres, special schools, emergencies, fencing, office administration, maintenance
The areas of involvement of the above 3 PIAs are all very similar, hence they will be dealt with similarly in the sections that follow.	

The proposed assignment of projects to Implementing agents is based on the following criteria:

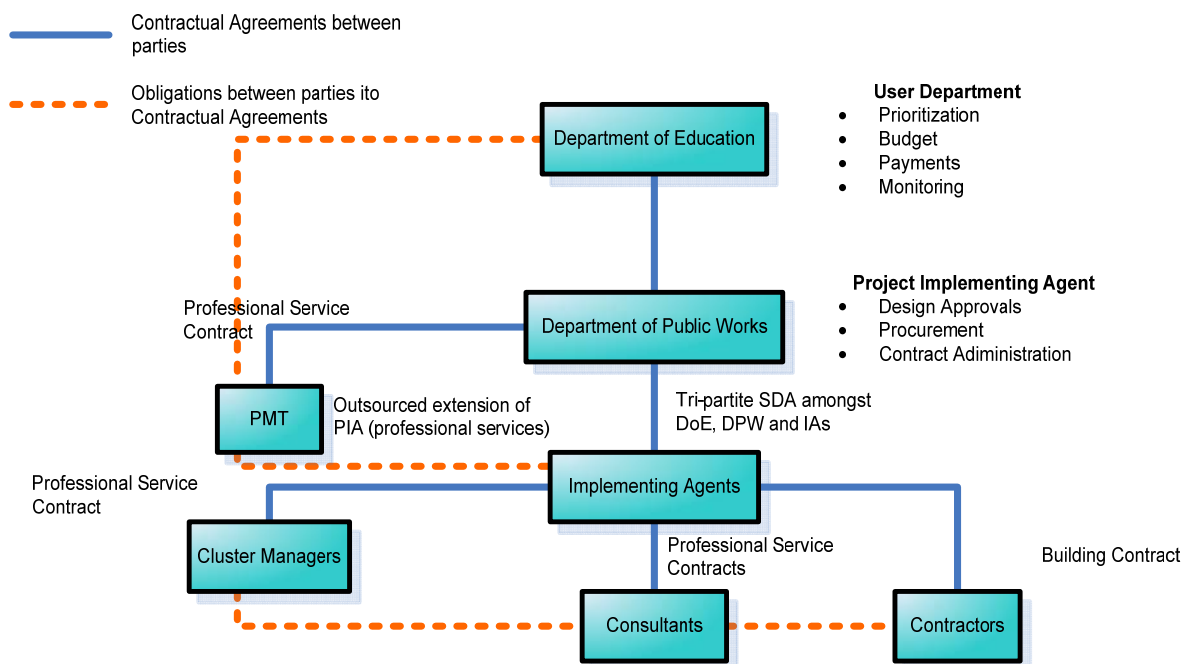
- Willingness to become involved in the programme;
- Expertise and capacity in the particular field of involvement;
- Delivery performance on past programmes;
- Current workload and performance;
- Project management performance (updating EFMS, closing out of projects)
- Status of projects (recently commenced, nearing completion, etc)
- Presence in the Eastern Cape and location of offices; and
- Cost of engagement.

Based on these criteria and the experience and perceptions of the relevant DoE officials, the allocation of projects for the 2015/16 MTEF (including carry through projects from 2014/15) has been made. This is set out per project in the B5 schedule.

10 DoE PROGRAMME MANAGEMENT PLAN

10.1 Programme Structure & Contracting Arrangements

The organisational/contractual arrangements for the implementation of the Department’s infrastructure programme are shown diagrammatically below:



The delivery mechanism employed is prescribed through a Provincial Executive Committee resolution that the DRPW shall be the IA of choice for all provincial government departments.

Where the DRPW does not have the requisite capacity, it may engage other IAs to support this function. Currently the DoE is still party to such agreements with IAs, as indicated in the diagram above. While the DRPW (or its IAs) is responsible for delivery, the DoE is still responsible for:

- Infrastructure planning;
- Client-side programme (or delivery) management; and
- Financial management (oversight & accountability).

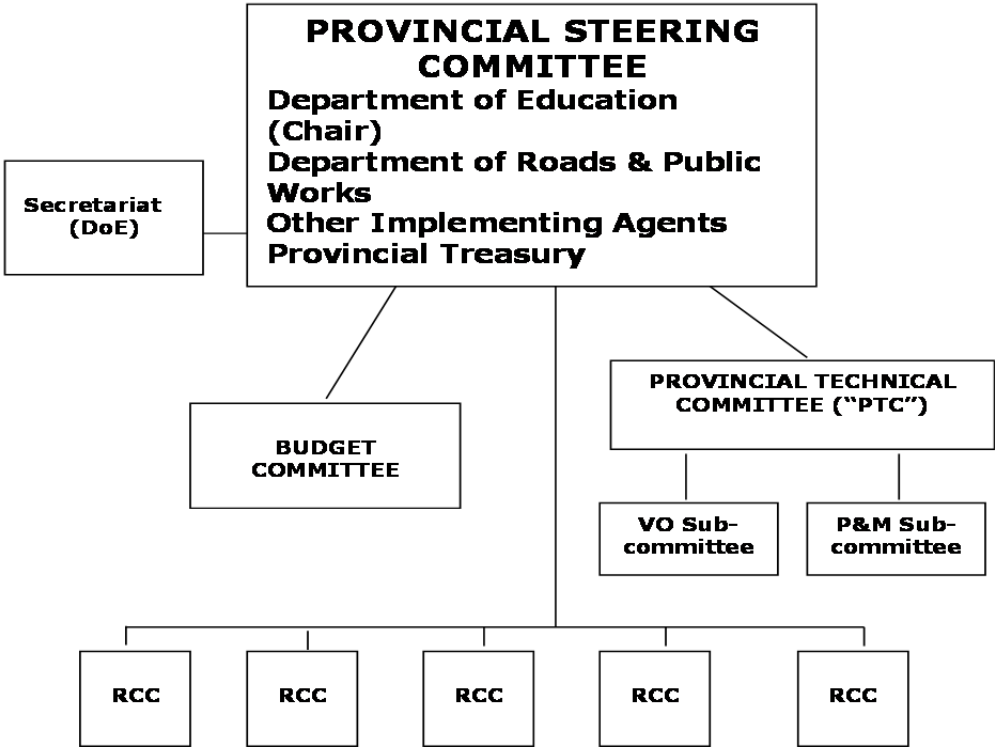
The planning function is undertaken by the EC DoE, and is based on information contained in its EFMS. This is also linked to the Department’s asset management function.

Both the planning (and asset management) and delivery management functions require sufficiently skilled personnel at both provincial and district level. These personnel requirements are described in the following section.

10.2 Programme Governance Structure

The Eastern Cape DoE manages the programme (or delivery management) function through an approved governance structure. This is shown graphically on the next page, together with the functions of the main structures.

The terms of reference of the entire governance structure are available as a separate document.



The key components of the governance structure are described in the next section of the IPMP. All PIAs are required (in terms of their SDAs) to be adequately represented on all the relevant structures.

The programme implementation is managed by the structure as described below:

- **Provincial Steering Committee (PSC)**
 - Representation: Senior Management of DoE, DRPW and PIAs. PT is also a member.
 - Functions: Overall management of programme.
Decision making body on all major issues affecting programme (eg: scope, budget, etc).
 - Meeting Frequency: Quarterly

- **Provincial Technical Committee**
 - Representation: Line function managers of DoE, DRPW and PIAs
 - Functions: Day to day decision making
Formulation of recommendations to the PSC
Reviewing of all technical issues referred by RCCs
Pro-active technical product evaluations
Consideration of Variation Orders
 - Meeting Frequency: Monthly

- **Budget Committee**
 - Representation: Programme managers of the DoE, DRPW & PIAs
 - Functions: Expenditure monitoring vs expenditure projections
Recommendations for interventions to mitigate under-expenditure

- **Regional Co-ordinating Committees (RCCs)**
 - Representation: DRPW regional representatives, DoE district representatives, Regional management of relevant PIAs, relevant PIA Cluster Managers.
 - Functions: Progress and quality monitoring
 - Meeting Frequency: Bi-Monthly

11 CONCLUSIONS

From the foregoing it is apparent that the Department cannot implement the Regulations within the stated timeframes without significant additional funding in order to address the backlogs in terms of the Regulations and meet its obligations towards the maintenance of its infrastructure. The implications are clearly set out herein.

Against this background, the prioritisation of competing needs will need to be carefully assessed, and the support enlisted at a political level, both provincially and nationally, to determine the most effective way forward.

The recent condition assessment exercises conducted by DBE and EC DoE have now covered all the Eastern Cape schools, and will facilitate planning immensely. There are, however, numerous reliability challenges with the data, and the cleaning thereof will be an ongoing process in the short to medium term.