

Department of Education



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1 Section 1: Executive Summary

1.1 Purpose of the Plan

In general the purpose of the Infrastructure Plan (IP) is to describe the delivery of institutional infrastructure in the Province in line with the Constitution of the Republic of South Africa, the 2007 State of the Nation Address by the President, National Budget Speech, the pronouncement of the Minister of Education, the Premiers speech and the MEC of Education's Budget speech.

Specifically the Plan seeks to:

- Identify community infrastructure needs;
- · Describe the prioritisation of those needs;
- Describe expenditure on the infrastructure programmes in terms of their life cycles;
- Communicate infrastructure plans, requirements and obligations to internal and external stakeholders.

The Physical Facilities Management unit at the Northern Cape Education Department (NCED) is responsible for producing, managing and operationalising the IP. As this is one of the first IPs that the unit has produced much of the data, systems and personnel have not been established to support an operational IP. This is the objective of this version – to identify some of the gaps and to address them through regular mini reviews within the unit to capture improvements as they are implemented

1.2 Description of Infrastructure Delivery Services

The infrastructure covered in this document includes all public school buildings, hostels and administration offices utilised by the Northern Cape Department of Education.

The infrastructure delivery services described in this document refers to:

- the construction of new infrastructure
- the routine (day-to-day) maintenance of existing infrastructure
- the renovation and repair of existing infrastructure
- the disposal of obsolete infrastructure and
- the administration of properties leased by the Department

1.3 Levels of Service

The NCED is responsible for the provision of suitable learning environments throughout the province. It is the intention that all schools and NCED facilities (colleges, offices, hostels, etc.) will provide the same high level learning environment, including the schools transferred to the NCED in the Kgalagadi district.

The minimum level of services is described in the National Norms and Standards document. These levels of service are the initial targets for the NCED. The NCED's primary focus is on the provision of water and sanitation and structurally safe buildings conducive to learning.

1.4 Community Need

The number of schools in the Northern Cape has increased dramatically with the inclusion of the schools in the Kgalagadi district (approximately 30%). These schools require urgent rehabilitation and additional facilities. In the rest of the province the need is mainly for improvements to the school facilities (additional classrooms, improved facilities (laboratories, workshops, libraries, etc) and improved maintenance and rehabilitation.

Migration of learners to urban areas and temporary economically active nodes makes planning and the provision of permanent structures (for periods exceeding 20 years) extremely difficult. Thus the department uses high quality mobile units that can be relocated to where the need is most urgent in much shorter time periods than the construction of permanent facilities.

The following factors will influence future demand for new schools, additional classrooms and other schools infrastructure:

- Changes in policy (infrastructure, learning requirements, etc)
- · Changes in curriculum requirements
- Health requirements (feeding schemes)
- Population migration patterns
- Increasing requirements to address vandalism and security problems

1.5 Existing Physical Facilities (Immovable Assets)

Data on existing buildings, land and sports fields used by the NCED is not available in a collated form. However estimates on the amount of property indicate that the department uses approximately 1,500,000 m2 of physical facilities with an estimated current replacement value of R6bn.

The data needs to be verified and collated into an operational immovable asset register. This will be one of the Physical Facilities Management unit's main tasks in the coming year.

In addition a system to monitor all maintenance and to record the condition of all physical facilities needs to be established.

1.6 Lifecycle Management Plan

The description of the infrastructure life cycle plans that the department is managing is covered under the following sections:

- Routine Maintenance Plan
- Repairs and Renovation Plan
- New Works Plan
- Disposal Plan

The School Rehabilitation Flagship Programme, although part of the repairs and Renovations programme, is handled separately as it is intended to create community ownership of the school facilities by creating jobs and providing meaningful training to community members especially family members of learners at schools. Construction management support is provided to schools that are responsible for identifying suitable repairs and renovations for each project.

1.7 Financial Summary

The planned expenditure on the department's infrastructure programmes for the 2007/08 – 2010/11 financial years is summarised in the following table.

Programmes allocated to 2007/08 - 2010/11 Financial Years					
Programme Total		MTEF (R'000)			
Programme	iotai	2007/08	2008/09	2009/10	2010/11
Personnel	R 6,253		R 1,977	2,076	2,200
Administration	R 3,505		R 1,108	1,163	1,233
Leases	R 6,196		R 1,959	2,057	2,180
Day to Day Repairs/Maintenance	R 3,797	R 1,055	R 1,200	R 1,260	R 1,336
Office Refurbishment/Conversions	R 21,034	R 8,945	R 6,650	R 6,982	R 7,401
School Rhabilitation Flagship Programme	R 33,989	R 10,000	R 10,746	R 11,283	R 11,960
Sub-Total: Equitable Share	R 74,774	R 20,000	R 23,640	R 24,822	R 26,311
Schools	R 30,797	R 7,760	R 8,456	R 10,845	R 11,496
New Classrooms	R 30,995	R 7,810	S R 8,510	R 10,915	R 11,570
ECD Classrooms	R 11,906	R 3,000	R 3,269	R 4,193	R 4,444
Repairs & Renovations	R 43,119	R 10,865	R 11,839	R 15,185	R 16,096
Science & Biology Labs	R 21,232	R 5,350	R 5,830	R 7,477	R 7,926
Administration Blocks	R 7,937	R 2,000	R 2,179	R 2,795	R 2,963
Ablution Blocks	R 15,835	R 3,990	R 4,348	R 5,576	R 5,911
Water	R 7,939	R 2,000	R 2,180	R 2,795	R 2,963
Sanitation	R 13,069	R 3,293	R 3,588	R 4,602	R 4,878
Security & Fencing	R 8,056	R 2,030	R 2,212	R 2,837	R 3,007
Sub-Total: Conditional Grant	R 190,886	R 48,098	R 52,412	R 67,220	R 71,253
Total for Programmes	R 265,660	R 68,098	R 76,052	R 92,043	R 97,565

The Physical Facilities Management unit has the task of reconciling the available funding as shown above with the requirements as shown in 6.4.5 and 7.2.

In addition the unit will be responsible for the development, prioritisation and management of projects within each programme.

1.8 Organisational and Support Plan

Currently the Physical Facilities Management unit consists of on Chief Works Inspector, one Senior Administration Clerk and one Administration Clerk. The unit has also contracted the services of 3 programme managers on short term basis.

The posts of Deputy Director, Control Works Inspector and 3 Chief Works Inspectors all at the provincial head office, have been advertised. Once these posts are filled the unit will have adequate delivery management staff at the head office, but will require staff in each district and at the head office to manage the department's infrastructure planning needs.

1.9 Monitoring and Improvement Plan

Monitoring and evaluation of infrastructure delivery is being reviewed as part of the Infrastructure Delivery Improvement Programme (IDIP) implementation phase. Recommendations made during the IDIP will be incorporated into departmental operations.

Areas of improvement that should be included in the mini reviews, as mentioned in 1.1, include:

- Updating, verifying and collation of data on existing immovable assets (asset register);
- Formalise a planning system incorporating circuit, district and municipal needs;
- Develop a prioritisation model that ensure that social and economic objectives are addressed:
- Develop formal systems that ensure that planning and delivery of infrastructure is aligned and supports departmental strategic objectives and is adequately reflected in departmental planning documentation eg APP and budget business plans.

Head of Department (Northern Cape Department of Education)

Mr EAB Williams

2 Section 2: Introduction

The Introduction must provide an overview of all the elements of the infrastructure within the plan. It should provide readers with a sound justification for owning and operating the infrastructures covered, and the reasons for preparing the plan.

2.1 Background

The constitution of South Africa demands response to critical obligations and deliverables for the people of Northern Cape and the country at large. Due to the growth in the demographics in the different areas in the province, a number of existing schools cannot accommodate all learners. The problem has also been exacerbated due to the development of new settlements that leads to limiting learner's access to public education.

Temporary solutions such as mobile (prefabricated) structures are not ideal and need to be phased out where possible an area of the property o

In order to ensure that poorly resourced schools are given a base from which to provide quality education, the Northern Cape Education Department will also ensure that the Quality Improvement, Development, Support and Upliftment Programme, (QUIDS-UP), becomes particularly pronounced in its planning for upgrading and provision of infrastructure.

The planning, rehabilitation and maintenance of infrastructure model, which will be utilised, will ensure that the designs of schools are modern, learner friendly structures, which are appropriate for the 21st century.

Community participation in rehabilitating and maintaining schools, with a view to job creation, will surely empower communities and respond to the objectives set out in the Provincial Growth and Development Strategy (PGDS).

The plan will also be furthermore adapted to respond to the construction of additional facilities and major repairs and renovations of schools in the Kgalagadi and the Pampierstad districts as soon as the audit of school buildings have been concluded in April 2007.

The Northern Cape Education Department is also committed to service delivery standards, therefore timely delivery of the infrastructure to meet the requirements of public schools, e.g. rehabilitation of schools and maintenance will be prioritised. The delivery of infrastructure will be of particular importance because of its potential to create job opportunities and to stimulate growth.

The Northern Cape Education Department, Infrastructure Plan will be managed within the framework of the Extended Public Works Programme (EPWP) and the Infrastructure Delivery Management System (DMS), which is aimed at the removal of certain identified bottlenecks in the public infrastructure delivery process.

Long term Infrastructure Planning, with focus on strategic intent, is identified as one of the major elements in the DMS.

This Infrastructure Plan will most definitely respond to the Northern Cape Education Department's (NCED's) strategic objectives for the delivery of infrastructure related services to all public schools in the Northern Cape Province.

2.2 Infrastructure Plan Framework

The Northern Cape Education Department's strategic plan defines how the community will be provided with educational services defined in the policies of government. Infrastructure planning is undertaken in parallel with the development of the strategic plan for service delivery. The process is represented in the diagram in Figure 1.

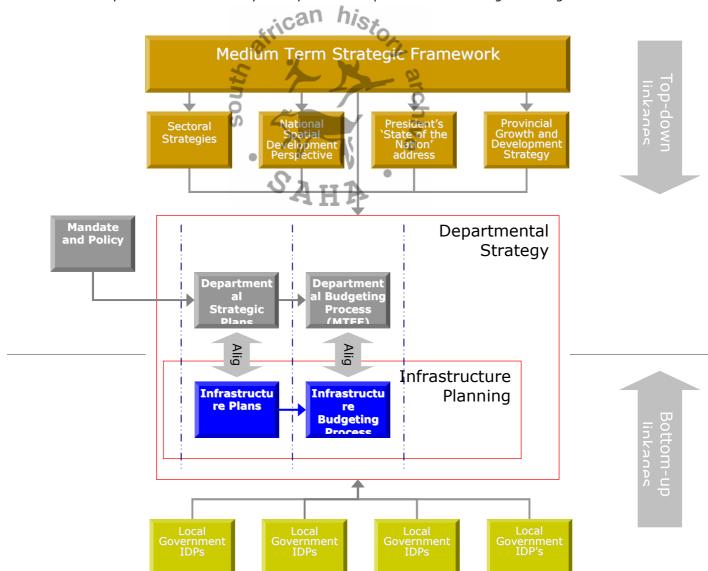


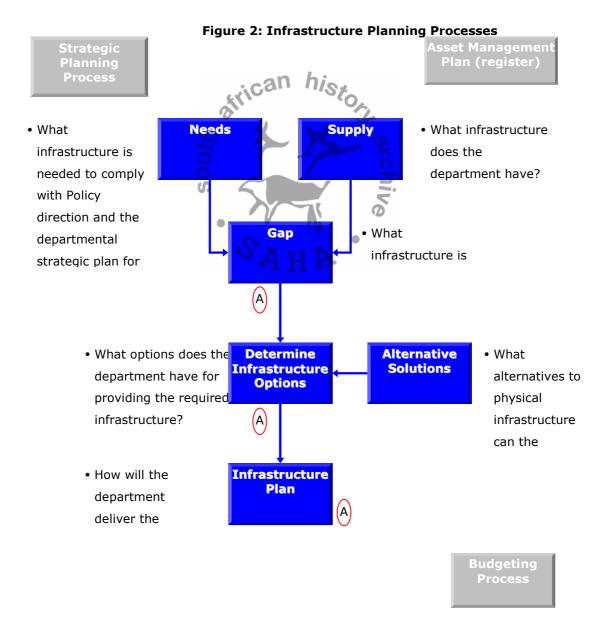
Figure 1: Strategic Planning Framework

2.3 Purpose of this Document

This plan is aimed at identifying the improvement required to make the Infrastructure Plan an essential management tool when delivering education services in the province.

The Infrastructure Planning Processes as described in Figure will be used as the basis for planning. At this stage much or the information is not available in a format that can used for planning. Identification of the more important information requirements will be done throughout the plan and be included in Section 9.

Detailed analysis of all the existing school buildings and administration offices under control of the NCED needs to be implemented to ensure that these processes are effectively implemented. Departmental strategy, goals and objectives for the routine maintenance, repair, rehabilitation, upgrading and disposal of all school infrastructure also need to be incorporated.



2.4 Relationship with other Planning Documents

This document has been compiled in terms of requirements outlined in the cidb Toolkit.

It provides the Infrastructure inputs into NCED's Strategic Plan and also serves as the basis for the compilation of the Infrastructure Programme Management Plan and Infrastructure Programme Implementation Plan

2.5 Stakeholders in the Plan

This Infrastructure Plan is written for the interest and use of all the following governmental role-players:

- In the Northern Cape Education Department (NCED)
 - o MEC responsible for providing infrastructure
 - o HOD accounting officer for infrastructure delivery
 - CFO responsible for monitoring and reporting of infrastructure expenditure
 - o Provisioning unit for timely acquisition of furniture and equipment
 - Human Resources unit- for recruiting of infrastructure personnel, and for Skills Development
 - o In the Northern Cape Provincial Government
 - Provincial Cabinet
 - o Provincial Cabinet Clusters
 - o Provincial Department of Public Works as implementing agent
 - Provincial Treasury responsible for monitoring infrastructure financial planning and expenditure
 - In National Government
 - National Treasury as custodians of the IDIP programme and responsible for monitoring provincial infrastructure expenditure
 - National Department of Education (DoE) responsible for implementing national educational policies
 - Local Government
 - o District Municipalities
 - Local Municipalities
- Other
 - Construction Industry Development Board (CIDB)
 - Development Bank of Southern Africa (DBSA) as partners to National Treasury in the IDIP

2.6 Infrastructure Delivery Strategic Goals and Objectives

Constitutional and Other Legislative Mandates

Mandates	Brief description
The Constitution of South Africa,	Requires education to be transformed and democratised in
1996 (Act No 108 of 1996)	accordance with the values of human dignity, equality, human
	rights and freedom, non-racism and non-sexism. It guarantees
	access to basic education for all with the provision that everyone
	has the right to basic education, including adult basic education.
	The fundamental policy framework of the Ministry of Education is
	stated in the Ministry's first White Paper: Education and Training
	in a Democratic South Africa: First Steps to Develop a New
	System (February 1995).
The South African Schools Act	To provide for a uniform system for the organisation, governance
(SASA), 1996 (Act No 84 of	and funding of schools. It promotes access, quality and
1996) as amended.	democratic governance in the schooling system. It ensures that
	all learners have right of access to quality education without
	discrimination, and makes schooling compulsory for children
	aged 7 to 14. It provides for two types of schools — independent
14	schools and public schools. The provision in the Act for
south	democratic school governance through school governing bodies is
Š	now in place in public schools countrywide. The school funding
	norms, outlined in SASA, prioritise redress and target poverty
•	with regard to the allocation of funds for the public schooling
	system.
The National Education Policy	To provide for the determination of national policy for education,
Act, 1996 (Act No 27 of 1996)	including the determination of policy on salaries and conditions of
	employment of educators. It was designed to inscribe in law
	policies, as well as the legislative and monitoring responsibilities
	of the Minister of Education, and to formalise relations between
	national and provincial authorities. It laid the foundation for the
	establishment of the Council of Education Ministers (CEM), as
	well as the Heads of Education Departments Committee
	(HEDCOM), as inter-governmental forums to collaborate in
	developing a new education system. As such, it provides for the
	formulation of national policies in general and further education
	and training for, inter alia, curriculum, assessment, language
	policy, as well as quality assurance. NEPA embodies the principle
	of co-operative governance, elaborated upon in Schedule Three
	of the Constitution.
The Further Education and	To regulate further education and training; to provide for the
Training Act, 1998 (Act No 98 of	establishment, governance and funding of public further
1998)	education and training institutions; to provide for the registration

Mandates	Brief description
	of private further education and training institutions; to provide
	for quality assurance and quality promotion in further education
	and training. Together with the Education White Paper 4 on
	Further Education and Training (1998), and the National Strategy
	for Further Education and Training (1999-2001), it provides the
	basis for the development of a nationally co-ordinated further
	education and training system, comprising the senior secondary
	component of schooling and technical colleges. It requires
	further education and training institutions, established in terms of
	the new legislation, to develop institutional plans, while making
	provision for programmes-based funding and a national
	curriculum for learning and teaching.
The General and Further	To provide for the establishment, composition and functioning of
Education and Training Quality	the General and Further Education and Training Quality
Assurance Act, 2001 (Act No 58	Assurance Council, to provide for quality assurance in general
of 2001)	and further education and training, to provide for control over
	norms and standards of curriculum and assessment, to provide
Ž.	for the issue of certificates at the exit points, to provide for the
~	conduct of assessment and to repeal the South African
14	Certification Council Act, 1986
The Employment of Educators	To provide for the employment of educators by the State and for
Act, 1998 (Act No. 76 of 1998)	the regulation of the conditions of service, discipline, retirement
•	and discharge of educators. It regulates the professional, moral
	and ethical responsibilities of educators, as well as competency
	requirements for teachers. One Act of Parliament and one
	professional council, the South African Council of Educators
	(SACE) now governs the historically divided teaching force.
The Public Finance Management	To regulate financial management in the national government
Act, 1999 (Act No 1 of 1999) as	and provincial governments, to ensure that all revenue,
amended.	expenditure, assets and liabilities of those governments are
	managed efficiently and effectively and to provide for the
	responsibilities of persons entrusted with financial management
	in those governments
The annual Division of Revenue	To provide for the equitable division of revenue raised nationally
Acts	among the national, provincial and local spheres of government
	for the respective financial years, to provide for reporting
	requirements for allocations pursuant to such division, to provide
	for the withholding and delaying of payments and to provide for
	the liability for costs incurred in litigation in violation of the
	principles of co-operative governance and intergovernmental
	relations
The Public Service Act, 1994 as	To provide for the organisation and administration of the public

Mandates	Brief description
amended [Proclamation No 103	service of the Republic as well as the regulation of the conditions
of 1994]	of employment, terms of office, discipline, retirement and
	discharge of members of the public service
The South African Qualifications	To provide for the development and implementation of a National
Authority Act, 1995 (Act No 58 of	Qualifications Framework and for this purpose to establish the
1995)	South African Qualifications Authority. The NQF is an essential
	expression, as well as a guarantor of a national learning system
	where education and training are of equal importance as
	complementing facets of human competence. The joint launch of
	the Human Resources Development Strategy by the Minister of
	Labour and the Minister of Education on 23 April 2001 reinforces
	the resolve to establish an integrated education, training and
	development strategy that will harness the potential of our young
	and adult learners.
The Adult Basic Education and	To regulate adult basic education and training; to provide for the
Training Act, 2000 (Act No 52 of	establishment, governance and funding of public adult learning
2000)	centres; to provide for the registration of private adult learning
Š.	centres; and to provide for quality assurance and quality
2	promotion in adult basic education and training

The NCED's Five Year Strategic Plan (2004-2009) summarises the department's infrastructure delivery strategic goals as follows:

- To ensure the effective provisioning of basic education infrastructure.
- To upgrade, renovate and maintain existing education infrastructure.
- Focusing on the construction of new schools through the project implementing agency (Department of Transport, Roads and Public Works).
- Eliminate unsafe structures and "learning under the trees" conditions, by replacing mobile, asbestos structures and other unsuitable learning environments.
- Provision of additional facilities at existing schools to address overcrowding, and promote full school effectiveness where some important facilities never existed.
- Giving more attention to the rehabilitation of farm schools, within the framework of the farm and rural school strategy.
- Upgrading and renovating existing hostels
- Provision of basic services: water, sanitation and electricity
- Providing funds to schools also encouraging and empowering School Governing
 Bodies to take charge of the rehabilitation of their buildings.

Infrastructure planning will also respond to objectives set out in the National Quality Education Development and Upliftment Programme (Quids-Up), especially in terms of:

- rehabilitation and maintenance of schools,
- provision of water, sanitation and power,
- creating a safe and adequate learning environment.

2.7 Planning Data and Modelling Techniques

It should be noted that this document is based on information currently available in the NCED.

The task of the infrastructure unit is to update, verify and improve on data availability to the unit. This includes developing an operational asset register and needs/requirements planning system.

No sophisticated modelling techniques have been used in the formulation of the plan. Cost estimates used in cost and cash flow forecasts are based on recently completed projects similar in nature to the scheduled projects.



3 Section 3: Level of Service

3.1 Legislative Requirements

The following legislation or regulations affect infrastructure levels of service:

3.1.1 National Norms & Standards for School Funding (SA Schools Act 84 of 1996)

This document provides guidelines for prioritising projects and for the allocation of budgeted infrastructure delivery funds to the schools in the province. The guidelines state, in summary, the following:

For the <u>construction of new schools or additional classrooms</u> and learning facilities, infrastructure delivery to be targeted to the "neediest" population, with "need" defined in terms of:

The lack of existing schools and learning facilities, or Overcrowding of existing schools

For <u>recurrent cost items</u>, <u>such as Routine Maintenance</u>, allocation be targeted on the basis of "need" determined according to:

the condition of the school buildings, and the relative poverty of the school community, the so-called "poverty rating" of the school.

3.1.2 Employment of Educators Act 76 of 1998 (Post provisioning norms and principles)

In Clause 4 the maximum class size or learner to educator ratios are prescribed for different grades and subjects respectively.

The Learner: Educator Ratios as prescribed in the Act shown in Table 2:

Table 2: Learner: Educator Ratio			
Grade	Maximum Class Size		
R	35		
1 to 4	35		
5 to 6	40		
7	37		
8 to 9	37		
10 to 12	Varies depending on subject, but 32 used as average		

3.1.3 National Building Regulations

The National Building Regulations prescribes minimum standards for general building work, as well as norms and ratios for the supply of water and sanitation services.

3.2 Infrastructure Delivery Planning Criteria

The National Department of Education has recently begun conducting workshops on the development of an Infrastructure Management Policy/Strategy, Infrastructure delivery models (particularly focussed on addressing a defined and quantified "backlog") and the development of standard modules/types of infrastructure for education.

3.3 Infrastructure Delivery Policy and Objectives

The NCED's infrastructure delivery policy is as follows:

"to effect redress and equity in the delivery of educational infrastructure by specifically targeting the needs of the poorest communities in the province".

The NCED's infrastructure delivery policy and objectives are summarised as follows:

3.3.1 Basic Services

- Water supply: All schools to have access to clean water on school premises
- Sanitation: All schools to be provided with toilets (VIP as minimum standard)
- Electricity supply: All schools to be provided with electricity
- Waste disposal: All schools to have waste disposal service

•

3.3.2 Classrooms

- Non-brick structures: All non-brick structures to be replaced with permanent structures
- Additional classrooms: Classrooms to be provided to meet norms described
- Mobile classrooms: To be used where demand is defined as "temporary" due to migration of learners
- Science Laboratories: To be built where required. The plan will particularly take
 the Maths Science and Technology Strategy into consideration, particularly the
 Dinaledi schools
- IT Laboratories: To be built where required

3.3.3 Safety and Security

Fencing: All needy schools to be provided with security fences.

3.3.4 Maintenance

To be carried out regularly according to a maintenance plan. This plan is to be developed for all facilities.

3.3.5 Renovation and Rehabilitation

Renovation and rehabilitation to be carried out at least every 10 years, but to be confirmed by regular condition and utilisation assessments.

3.3.6 Upgrading

Upgrading of facilities will be determined by needs at each school and by the requirements of curriculum changes.

3.4 Community Needs and Expectations

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A formal system to register and monitor community needs should be developed, incorporating inputs from schools, circuit and districts offices as well as inputs from local and district municipalities. At present these needs are addressed on an ad hoc basis as funds become available.

Overcrowding in schools in the Northern Cape is mainly influenced by the migration of communities in the mining and farming communities.

Incorporation of the Kgalagadi district into the NC has also increased the department's need for suitable infrastructure. In this regard the NCED will have to determine the optimal size of a school, develop efficient transport methods and possibly improve hostel/day care facilities at schools.

3.5 Level of Service Gap Analysis

Currently the department is addressing the most urgent community needs. A more formal analysis of reliable data will lead to improved planning, monitoring and delivery of infrastructure to meet NCED requirements.

Currently the infrastructure unit focuses on the following infrastructure categories:

- New schools;
- New classrooms (including classrooms for the use of computers)
- ECD classrooms
- Water new and upgrading
- Sanitation new and upgrading
- Electrical supply new and upgrading
- New Laboratories (Science, Biology & Computers)
- Computer laboratories computer training
- Media Centres/Libraries
- Administration Blocks
- Halls
- · Security and Fencing
- Special use classrooms (workshops, domestic science, etc)
- Mobile classrooms
- FET colleges

4 Section 4 Demand or Need determination

4.1 Provincial Population

It is estimated that the provincial population will increase from approximately 900,000 to 1,200,000 with the inclusion of the Kgalagadi District. This increase has also led to an increase in the number of learners and educators and school infrastructure in the province.

4.2 Number of Schools

From 1996 to 2005 the number of schools in the NC decreased due to the decrease in the population and the rationalisation of rural schools. After the inclusion of the Kgalagadi district the number of schools has increase to 622. Rationalisation of rural schools in the Kgalagadi district will reduce this number.

4.3 Factors Influencing Demand

The following factors need to be monitored because of the possible impact on the demand school infrastructure and other education facilities:

- Changes in National policy
- Changes in Departmental policy (e.g. use of mobile classrooms)
- Changes in curriculum (e.g. need for more science/IT laboratories due to curriculum requirements and OBE Methodologies)
- Pass rate (e.g. decrease in pass rate will lead to increased retention of learners)
- Changes in community needs and expectations (e.g. non-acceptance of water and sanitation standards)
- Security and vandalism issues

4.4 Demand Forecast

Both the population and the number of learners in the province are not expected to increase significantly over the next few years.

Migration of the population to urban areas and movement of the labour force between development nodes may however result in localised increases in the demand for school infrastructure.

The biggest area where physical facilities are required is in the Kgalagadi District. This includes new facilities as well as repairs and renovations to existing facilities.

Growth in demand for infrastructure is expected in the Sishen/Kathu/Postmasburg area due to the recently announced expansion plans at the iron ore mines.

Security and vandalism is becoming and increasing problem for physical facilities management. Physical facilities options to assist in addressing these issues that will be considered include:

- Installation of burglar proofing and stone guards
- Use of security doors where appropriate
- Installation of safes for equipment and lockers for personal valuables
- Installation of security lighting
- Installation of electronic alarms and surveillance in severe cases
- Improved security fencing and access control
- Ensure that the design of facilities provides for limited and controlled access points;
- Locate facilities to encourage/enable passive surveillance by community members.

Thus the major demand areas will be to:

- Address overcrowding caused by migration and rationalisation of schools
- Improve facilities to meet curriculum requirements
- Improve the provision of services (water, sanitation, electricity, access)'
- Improve the availability of facilities
- Ensure physical facilities design make provision for security enhancement and vandalism reduction

4.5 Demand Management Plan

The following non-infrastructure solutions are to be considered as alternatives to infrastructure-based solutions in order to manage the demand for additional schools/classrooms:

- Reduce vandalism by improving "ownership" and pride amongst users and beneficiaries of public school faculties
- Reduce theft at and malicious damage to facilities by improving passive surveillance and improved response to users needs
- · Reduce maintenance and repair requirements by improved operating procedures
- Improved maintenance of existing facilities
- Improved transport methods
- Conversion of single medium schools to parallel or double medium schools
- · Combining primary and secondary schools
- Sustain acceptable pass rate

Based on studies in New Zealand, Australia and the UK the following recommendations are made in terms of reducing both theft and vandalism at public school faculties:

5 Section 5: Existing infrastructure

The report on existing infrastructure data is based on data that has not been verified and which is based on a survey conducted in early 2006. It is noted that the data as is does not correspond with available EMIS data.

Improvements to the correctness and relevance of the data will be carried out as part of the improvement programme for this IP.

However the data is used to show trends and relationships

5.1 Physical Parameters

The following table summarise the facilities analysed:

Type of Facility					
Description Cal	Number	% of Total			
Ordinary School	433	67.4%			
Office \$	N 9	1.1%			
ABET 0	133	20.7%			
ELSEN	9	1.4%			
ECD •	60	9.3%			
TOTAL	H 1 642	100.0%			

From the available information is appears as if 33 of these facilities are not operational.

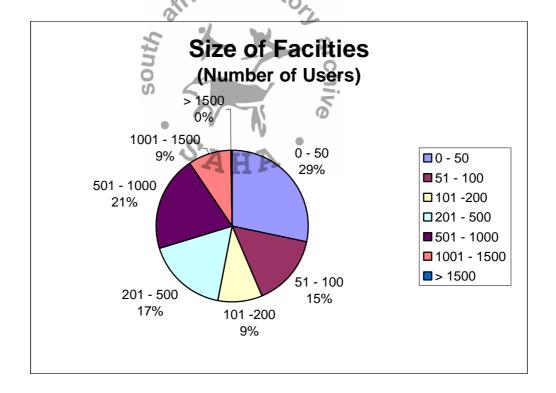
It should be noted that the number of schools, including Kgalagadi is 622. Therefore the data will have to be queried to determine which of the NW schools and other facilities should now be included in the NC.

5.2 Capacity / Performance

5.2.1 Size of Facilities

The following tables and graph show the size of the available facilities.

Size of Facilties				
Number of users	Number of Facilities	% of Total		
0 - 50	182	28.3%		
51 - 100	98	15.3%		
101 -200	60	9.3%		
201 - 500	112	17.4%		
501 - 1000	129	20.1%		
1001 - 1500	60	9.3%		
> 1500	1	0.2%		
TOTAL	his 642	100.0%		



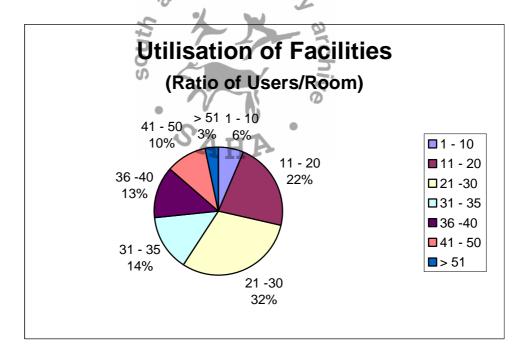
This data shows that approximately 50% of the departments facilities should be investigated for rationalisation (categories 0-50, 51-100 and 101-200) from an economic perspective and approximately 10% of the departments facilities should be investigated from an effectiveness perspective (categories 1001-1500 and >1500).

This could lead to a decrease in the number of facilities, but an increase in the average size of the facilities. This has an implication for the operation and maintenance of facilities.

5.2.2 Utilisation of Facilities

The following table and graph shows the utilisation of the facilities based on users per room. Although this is not an accurate indication of the utilisation of individual facilities (eg. some are offices) it does provide an indication of the proportion of under and over utilised facilities.

Utilisation of Facilities				
Ratio of Users to Rooms	Number of Facilities	% of Total		
1 - 10	39	6.4%		
11 - 20	135	22.1%		
21 -30	187	30.6%		
31 - 35	87	14.2%		
36 -40	80	13.1%		
41 - 50	62	10.1%		
> 51	b : 21	3.4%		
TOTAL	611	100.0%		



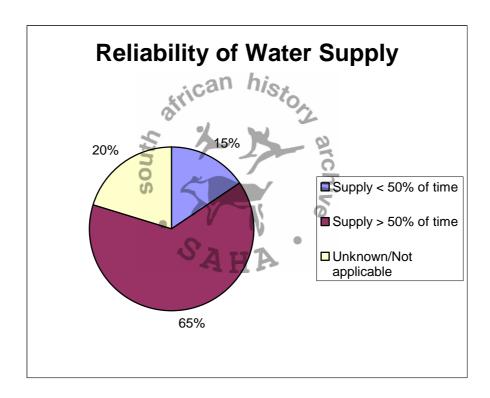
This data indicates that although more than 70% of the department's facilities fall below the 1:35 ratio more rooms (standard classrooms) are required. This agrees with the previous observation that although provinces learner numbers are decreasing (except for the once off injection of learners from the NW) overcrowding of facilities is still occurring.

A more detailed analysis is required to determine the location cause and estimated duration of the increased demand for facilities.

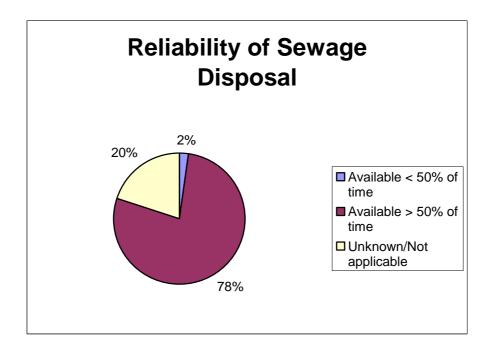
5.2.3 Reliability of Water and Sanitation Supply

The following tables and graphs indicate the proportion of facilities that receive a reliable water and sanitation service. The reliability is based on the time that the service is available.

Reliability of Water Supply				
Description	Number of Facilities	% of Total		
Supply < 50% of time	97	15.5%		
Supply > 50% of time	402	64.1%		
Unknown/Not applicable	128	20.4%		
TOTAL	627	100.0%		



Reliability of Sewage Disposal					
Description	Number of Facilities	% of Total			
Available < 50% of time	14	2.2%			
Available > 50% of time	500	77.9%			
Unknown/Not applicable	128	19.9%			
TOTAL	642	100.0%			



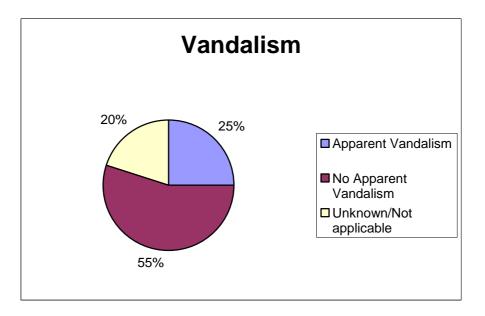
This data indicate that the level of provision of these services is not acceptable. It should be noted that the failure of the water service often adversely affects the sanitation service, while the failure of the sanitation service has living conditions and health impacts.

5.3 Condition

The condition of all facilities has not been formally surveyed. One of the tasks of the infrastructure unit will be to develop and implement a system to determine, capture and analyse this data.

However data is available on the extent of vandalism of facilities in the province. Although the data does not include the entire Kgalagadi district it once again provides an indication of the extent of the problem. The following table and graph indicate the relevant proportions of the problem.

Vandalism					
Occurrence	Number of Facilities	% of Total			
Apparent Vandalism	161	25.1%			
No Apparent Vandalism	353	55.0%			
Unknown/Not applicable	128	19.9%			
TOTAL	642	100.0%			



5.4 Valuations

Based on data compiled by the CSIR in 2001 the floor area of all schools excluding those in the Kgalagadi district, is approximately 1,300,000 m2. To this should be added the area of other NCED facilities (colleges, offices, etc). This will assist in determining the value of the required maintenance and refurbishment work.

As an estimate allow an additional 200,000 $\rm m^2$ for offices, colleges and Kgalagadi schools, thus an estimated total of 1,500,000 $\rm m^2$

Based on latest tender prices of approximately R4,000/ m^2 this values the infrastructure portfolio of the department at an estimated R6bn.

5.5 Historical Data

It is anticipated that a lot of historical data is available at various locations including the finance unit, the Department of Transport Roads and Public Works and at private consultancies. Once an effective asset register has been established this data should be collated to assist in determining maintenance and refurbishment cycles and depreciation values.

5.6 Summary of Needs

The anticipated infrastructure requirements are listed below.

- New Schools to meet urbanisation demands and rationalisation of rural areas
- New Classrooms to meet urbanisation demands, replacement of non-brick structures and upgrading of infrastructure
- New and refurbished ECD classrooms
- Water installation of permanent reticulation and upgrading existing services
- Ablution blocks and reticulation to meet minimum requirements, upgrade existing systems and address increased demands at schools
- Electrical supply to meet additional demands at schools and to ensure that all schools have adequate supply
- Administration Blocks to meet additional requirements and ensure a minimum standard of accommodation
- Laboratories Science, biology and computer to meet curriculum requirements
- Provision of secure classrooms for the installation of computers to be used by learners
- Media centres/libraries
- · Workshops and Domestic science rooms
- Security and Fencing
- Halls
- FET colleges requirements
- Improved office accommodation for management
- HOD offices and storerooms at schools

6 Section 6 Asset Management - Infrastructure

6.1 Routine Maintenance Plan

Routine maintenance is the regular ongoing day-to-day work that is necessary to keep infrastructures operating, including instances where the portions of the infrastructure fail and need immediate repair to make the infrastructure operational again.

6.2 Implementation Strategy

Most of the schools in the Northern Cape (excluding Kgalagadi) are Section 21 Schools with the School Governing Body (SGB) responsible for the day-to-day maintenance of the schools. This expenditure is budgeted for in Programme 2 and does not form part of the Infrastructure Budget. This budget is managed by schools.

An allowance from Programme 2 for use by non-section 21 schools with the maintenance responsibility has been made. This budget is managed at district level.

The above 2 amounts are not included in the Infrastructure Budget and are therefore not reported on by the Physical Facilities Management unit. This should be investigated with a view to recording all maintenance work on infrastructure in a systematic manner in the infrastructure asset register.

The maintenance requirements of Section 14 Schools, i.e. schools located on Farm, Church and Mine owned land, are usually included in the lease agreement with the respective land owners and therefore not included in the Department's maintenance plans.

6.2.1 Standards and Specifications

The general approach at the schools is to repair or replace a defective item to the same level/condition as before the breakdown.

6.2.2 Summary of Future Costs

Routine maintenance of buildings in a **good condition** usually amounts to about **2%** of the replacement value.

Schools should be made aware of the importance of routine maintenance and the impact of deferred maintenance on the future cost of repairs. The risks associated with deferred maintenance are the following:

Rapid deterioration of infrastructure

- Drastic increase in cost of repairs
- Reduced serviceability of the facility

Routine Maintenance is funded from the provincial funds (equitable share) and is mainly budgeted for in Programme 2 of the provincial budget.

Based on the above estimates a minimum allocation for routine maintenance (minor repairs and preventative work including inspections) should be approximately R120 million per year.

Currently the system used manages about 15% of the norm. This figure needs to be verified and reports of actual work done must be recorded against each facility.

It is therefore proposed that Routine maintenance for 2008/09 be at least 15% of the norm (R18m), but that management requirements be increased. In future years it is proposed that the higher per centages of the norm be allocated until 100% of the norm is allocated in 2017/18.

6.3 Renewal / Replacement Plan

Renewal expenditure is major work which does not increase the infrastructure's design capacity but restores, rehabilitates, replaces or renews an existing infrastructure to its original capacity. Work over and above restoring an infrastructure to original capacity is new works expenditure.

6.3.1 Renewal Plan

6.3.1.1 Condition Assessments

The NCED desired level of service is to renovate and repair each school in the province at least every 5 years. The infrastructure unit plans to institute an inspection of each school once per year by the District Maintenance Officer and the condition of each building is to be assessed on a five-point scale as follows:

Condition Assessment Guidelines

Scale	Asset Condition Maintenance Need	
5	New or nearly new	Nil; continued routine maintenance
4	Good	Minor renovations
3	Fair	Renovations and repairs as required
2	Poor	Major renovations/repairs to return to adequate service provision
1	Failed	Renewal, Replacement or Disposal

The recommended condition assessment system will assist in developing a prioritisation model for Renewals (Renovations) and Replacement (New) projects.

6.3.1.2 School Rehabilitation Flagship Programme

The Northern Cape Education Department has embarked on an innovative model to effectively empower School Governing Bodies allowing them to take charge of maintaining their school buildings.

The objectives of this system include:

- Developing a skills base for future routine maintenance, repairs, renovations and upgrading work in communities
- Encouraging communities to take "ownership" of the school to reduce vandalism and improve discipline at the school
- Providing jobs to the community
- Providing practical training venues for FET colleges
- Assisting SGB's to acquire management skills

In the 07/08 financial year the NCED requested DTRPW to manage the project on their behalf.

6.3.2 Renewal Standards

All Repair and Renovation projects are executed in accordance with the quality standards and material specifications as contained in the Department of Public Works Standard Specifications.

The risks associated with using alternative standards are as follows:

Benchmarking of costs

Availability of maintenance/service personnel

6.3.3 Summary of Future Costs

As in the case for Maintenance it is proposed that Renewals, including the NCED programmes it is proposed that the SRFP, Repairs and Renovations, Water and Sanitation repairs programmes be increased to 15% of the norm (R45m) in 2008/09 and increasing to 100% of the norm in 2017/18.

The 2007/08 budget amounted to R21,5m.

6.4 Creation / Acquisition Plan

New works are those works that create a new infrastructure that did not previously exist, or works which upgrade or improve an existing infrastructure beyond its existing capacity. They may result from growth, social or environmental needs. Infrastructure may be required at no direct cost to the department (i.e. sub divisional development for local authorities).

6.4.1 Selection Criteria

Currently the Physical Facilities Management unit does not use any formal prioritisation model. Needs are however broadly tested against the criteria of:

Access to schools within 1 hour walking time; and Overcrowding of existing schools.

6.4.2 Standards and Specifications

New Works are normally based on standard designs and constructed according to the Public Works Standard Specifications for Materials and Workmanship.

6.4.3 Summary of Future Costs

Based on norms for New and Upgrading of facilities 15% of the norm amounts to R27m. However the NCED is required to build a lot of new infrastructure mainly in the Kgalagadi district, including:

- · ECD classrooms;
- Hostels can
- Computer classrooms
- Halls
- Media centres
- · Additional water and sanitation facilities.

This infrastructure is an additional burden on the department with preliminary estimates for 2008/09 amounting to:

TOTAL	R31m
facilities:	R 10m
Additional Water and Sanitation	
Media Centres:	R5m
Halls:	R5m
Computer Classrooms:	R2m
Hostels:	R5m
ECD Classrooms:	R 4m

Thus a total projected need for 2008/09 amounting to R58m.

The 2007/08 budget for the province for these infrastructure programmes amounts to R36,5m.

6.4.4 Disposal Plan

According to the norms for Infrastructure Management, a 15% of the norm amounts to R9m. These funds will be required once the department starts rationalising facilities throughout the province, but mainly in the Kgalagadi district.

6.4.5 Projected Requirements

The NCED has estimated its requirements for infrastructure over the next 3 years. These estimates need to be evaluated based on more accurate data from circuits and districts, but are expected to be conservative. In order for the NCED to implement these estimates, additional capacity (human resources, reporting systems, asset register and planning systems) will be required.

The following table illustrates NCED's infrastructure requirements:

Summary of Budget Required for Physical Facilities (R'000)									
Dr. aream m.		Districts		Tatal		MTEF			
Programme	Frances Baard	Pixley ka Seme	Namaqua	Kgalagadi	Siyanda	Total	2008/09	2009/10	2010/11
Schools	R 15,000	4	R 10,000	R 10,000		R 35,000	R 14,000	R 14,000	R 7,000
Special Schools	R 2,000	R 1,000	R 1,000	R 2,000	R 1,000	R 7,000	R 2,000	R 3,000	R 2,000
Hostels			•/	R 10,000	4	R 10,000	R 2,000	R 3,000	R 5,000
New Classrooms	R 5,000	R 4,000	R 4,000	R 5,000	R 4,000	R 22,000	R 10,000	R 12,000	
ECD Classrooms	R 13,000	R 9,000	R 8,000	R 11,000	R 9,000	R 50,000	R 15,000	R 15,000	R 20,000
Repairs & Renovations	R 30,000	R 10,000	R 10,000	R 30,000	R 10,000	R 90,000	R 30,000	R 30,000	R 30,000
Science & Biology Labs	R 5,000	R 3,000	R 3,000	R 5,000	R 3,000	R 19,000	R 6,000	R 6,000	R 7,000
Computer Labs	R 5,000	R 3,000	R 3,000	R 5,000	R 3,000	R 19,000	R 6,000	R 6,000	R 7,000
Media Centres	R 8,000	R 7,000	R 7,000	R 10,000	R 8,000	R 40,000	R 11,000	R 13,000	R 16,000
Halls	R 5,000	R 5,000	R 5,000	R 5,000	R 5,000	R 25,000	R 2,000	R 8,000	R 15,000
Workshops, Home Economics Classrooms	R 3,000	R 3,000	R 3,000	R 3,000	R 3,000	R 15,000	R 3,000	R 5,000	R 7,000
Administration Blocks	R 6,000	R 2,000	R 2,000	R 6,000	R 2,000	R 18,000	R 2,000	R 8,000	R 8,000
Ablution Blocks	R 6,000	R 3,000	R 3,000	R 6,000	R 3,000	R 21,000	R 7,000	R 7,000	R 7,000
Water	R 6,000	R 6,000	R 6,000	R 15,000	R 6,000	R 39,000	R 13,000	R 13,000	R 13,000
Sanitation	R 6,000	R 6,000	R 6,000	R 15,000	R 6,000	R 39,000	R 13,000	R 13,000	R 13,000
Security & Fencing	R 9,000	R 9,000	R 9,000	R 12,000	R 9,000	R 48,000	R 16,000	R 16,000	R 16,000
Recreation Facilities	R 6,000	R 6,000	R 6,000	R 6,000	R 6,000	R 30,000	R 3,000	R 10,000	R 17,000
Day to Day Repairs/Maintenance	R 45,000	R 20,000	R 20,000	R 45,000	R 20,000	R 150,000	R 45,000	R 50,000	R 55,000
Office Refurbishment/Conversions	R 15,000	R 2,000	R 4,000	R 15,000	R 2,000	R 38,000	R 15,000	R 15,000	R 8,000
School Rhabilitation Flagship Programme	R 15,000	R 5,000	R 5,000	R 12,000	R 5,000	R 42,000	R 12,000	R 15,000	R 15,000
Mobile Classrooms New/Move	R 3,000	R 3,000	R 3,000	R 4,000	R 3,000	R 16,000	R 5,000	R 5,000	R 6,000
Child & Youth Care Centres		R 5,000				R 5,000	R 1,000	R 4,000	
FET Colleges	R 3,000	R 3,000	R 3,000		R 3,000	R 12,000	R 4,000	R 4,000	R 4,000
TOTALS	R 211,000	R 115,000	R 121,000	R 232,000	R 111,000	R 790,000	R 237,000	R 275,000	R 278,000

This table represents perceived needs by the department. It will be the task of the Physical Facilities Management unit to reconcile this table with the table in 7.1 which is based on funding norms based on Current Replacement Values for infrastructure.

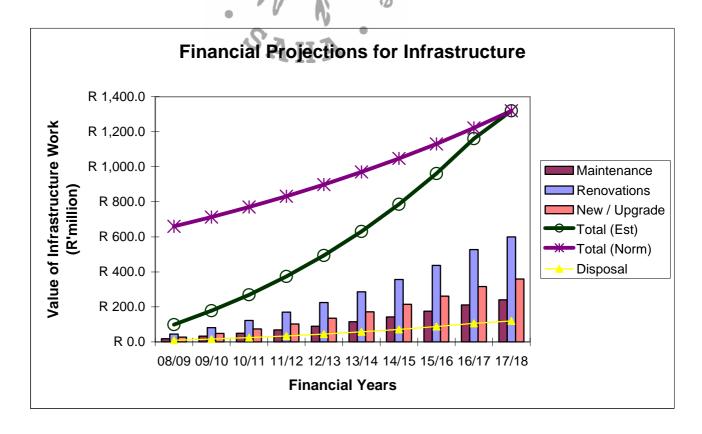
7 Section 7: Financial Summary

This section should contain the financial requirements resulting from all the information presented in previous sections. As plans become more advanced, various levels of service / cost scenarios may be included.

7.1 Financial Projections

The following table and graph are based on the assumptions listed in Section 7.4.

	Projected Budget for Infrastructure per Financial Year (R million)									
					Financ	ial Year				
Category	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
					Estimated N	CED Budget				
Maintenance	R 18.0	R 32.4	R 49.0	R 68.0	R 89.8	R 114.6	R 142.8	R 174.8	R 211.0	R 239.9
Renovations	R 45.0	R 81.0	R 122.5	R 170.1	R 224.5	R 286.5	R 357.0	R 437.0	R 527.5	R 599.7
New / Upgrade	R 27.0	R 48.6	R 73.5	R 102.0	R 134.7	R 171.9	R 214.2	R 262.2	R 316.5	R 359.8
Disposal	R 9.0	R 16.2	R 24.5	R 34.0	R 44.9	R 57.3	R 71.4	R 87.4	R 105.5	R 119.9
Total (Est)	R 99.0	R 178.2	R 269.4	R 374.1	R 493.9	R 630.3	R 785.5	R 961.5	R 1,160.5	R 1,319.3
% of Norm	15%	25%	35%	45%	55%	65%	75%	85%	95%	100%
			10.	Budget Nor	ms for Infrasti	ucture in Goo	d Condition			
Maintenance	R 120.0	R 129.6	R 140.0	R 151.2	R 163.3	R 176.3	R 190.4	R 205.7	R 222.1	R 239.9
Renovations	R 300.0	R 324.0	R 349.9	R 377.9	R 408.1	R 440.8	R 476.1	R 514.1	R 555.3	R 599.7
New / Upgrade	R 180.0	R 194.4	R 210.0	R 226.7	R 244.9	R 264.5	R 285.6	R 308.5	R 333.2	R 359.8
Disposal	R 60.0	R 64.8	R 70.0	R 75.6	R 81.6	R 88.2	R 95.2	R 102.8	R 111.1	R 119.9
Total (Norm)	R 660.0	R 712.8	R 769.8	R 831.4	R 897.9	R 969.8	R 1,047.3	R 1,131.1	R 1,221.6	R 1,319.3



From the above it is shown that the intention is to reach a normal funding for physical facilities within 10 years. This give the NCED and its infrastructure support departments (DTRPW and the Premier's Office) time to develop the required capacity to plan and manage this work effectively.

These projections need to be updated regularly and reported on annually.

7.2 Funding Strategy

The Physical Facilities Management unit relies mainly on the Infrastructure Grant for Provinces and the funds provided by the NCED from the Equitable Share budget. Some funding is provided by donors.

Increases in the Equitable Share will assist the province achieve other long term goals such as improved skills levels, job creation and a higher level of service provided by the provincial government. In addition an attempt should be made to increase funding from donors to support departmental infrastructure plans.

The currently available funding over the 2007/08 - 2009/10 MTEF and the programmes associated with this funding are shown in the following tables.

It will be the task of the Physical Facilities Management unit to reconcile the requirements reflected in 7.1 and 6.4.5 with the available funding.

Current MTEF Budget (R'000)					
Aug-07	Financial Year				
Funding Source	07/08	08/09	09/10	10/11	
Equitable Share	20,000	23,641	24,823	26,312	
Conditional Grant	48,098	52,411	67,220	71,253	
Total	68,098	76,052	92,043	97,565	

Programmes allocated to 2007/08 - 2010/11 Financial Years							
Dro growmo	Total	MTEF (R'000)					
Programme	Total	2007/08	2008/09	2009/10	2010/11		
Personnel	R 6,253		R 1,977	2,076	2,200		
Administration	R 3,505		R 1,108	1,163	1,233		
Leases	R 6,196		R 1,959	2,057	2,180		
Day to Day Repairs/Maintenance	R 3,797	R 1,055	R 1,200	R 1,260	R 1,336		
Office Refurbishment/Conversions	R 21,034	R 8,945	R 6,650	R 6,982	R 7,401		
School Rhabilitation Flagship Programme	R 33,989	R 10,000	R 10,746	R 11,283	R 11,960		
Sub-Total: Equitable Share	R 74,774	R 20,000	R 23,640	R 24,822	R 26,311		
Schools	R 30,797	R 7,760	R 8,456	R 10,845	R 11,496		
New Classrooms	R 30,995	R 7,810	R 8,510	R 10,915	R 11,570		
ECD Classrooms	R 11,906	R 3,000	R 3,269	R 4,193	R 4,444		
Repairs & Renovations	R 43,119	R 10,865	R 11,839	R 15,185	R 16,096		
Science & Biology Labs	R 21,232	R 5,350	R 5,830	R 7,477	R 7,926		
Administration Blocks	R 7,937	R 2,000	R 2,179	R 2,795	R 2,963		
Ablution Blocks	R 15,835	R 3,990	R 4,348	R 5,576	R 5,911		
Water	R 7,939	R 2,000	R 2,180	R 2,795	R 2,963		
Sanitation	R 13,069	R 3,293	R 3,588	R 4,602	R 4,878		
Security & Fencing	R 8,056	R 2,030	R 2,212	R 2,837	R 3,007		
Sub-Total: Conditional Grant	R 190,886	R 48,098	R 52,412	R 67,220	R 71,253		
Total for Programmes	R 265,660	R 68,098	R 76,052	R 92,043	R 97,565		

7.3 Valuation Forecasts

Valuation forecasts can not be done due to the unavailability of sufficient information relating to the floor area and condition of the buildings. The Physical Facilities

Management unit should actively participate in the development of a fixed asset register

Based on currently available data and realistic estimates, the replacement value of NCED is estimated at R6,0bn as shown in the following table.

Item	Value
Floor area	1,5 million m2
Cost/m2	R 4,000
Current Replacement Value	R6,0bn

7.4 What Are the Key Assumption Made in Financial Forecasts?

The following key assumptions were made in the forecasting infrastructure delivery expenditure:

The following key assumptions were made in the forecasting infrastructure delivery expenditure:

- Sufficient capacity will be developed/provided to plan and manage the increased budgets
- An annual inflation rate of 8%
- Maintenance is estimated at 2% per year of replacement value
- Renewal/renovation is estimated at 5% per year of replacement value
- An estimate of 3% of replacement value has been made for the creation of new infrastructure. This includes addressing "backlogs", but will have to be confirmed by improved surveys and infrastructure studies.



8 Section 8: Organisational and Support Plan Structure

This section outlines the supportive Organisational and Support Plan.

8.1 Human Resources

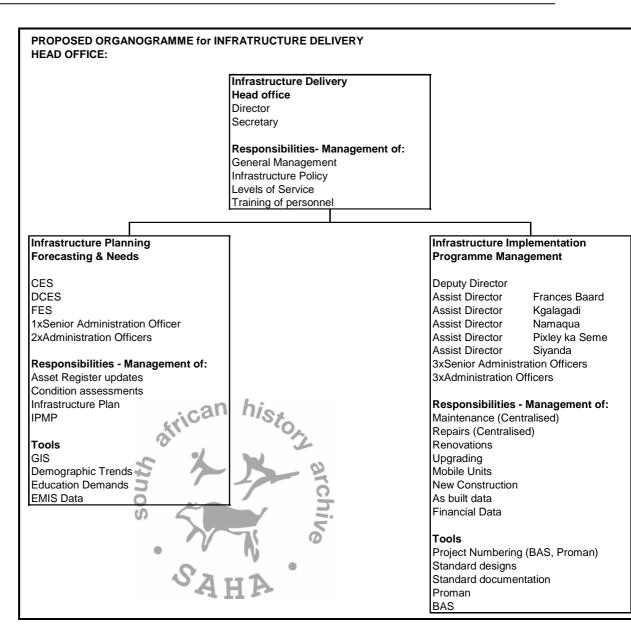
Based on the preliminary organogramme shown in 8.2 below the Physical Facilities
Management unit requires 45 skilled people (20 at head office and 25 at district offices)
Currently the department has 3 full time people and 3 contract programme managers at
head office and 4 people in the district offices to provide the infrastructure delivery
service

The Control Works Inspector and Chief Works Inspectors posts have been advertised.

8.2 Organisational

The proposed organisational structure that is needed to support infrastructure delivery at both the head office and at district offices is shown below.

This structure and others are being investigated by the IDIP PMU and the National Department of Education



Note the position of Assistant Director could be filled by a Control Works Inspector.

PROPOSED ORGANOGRAMME for INFRATRUCTURE DELIVERY

DISTRICT OFFICES (x5)

Infrastructure Delivery District Offices

Deputy Director

1xSenior Administration Officer

1xAdministration Officer

Responsibilities- Management of:

General Management

District Co-ordination of:

Planning activities

Implementation activities

Liaison with DTRPW

Liaison with Schools

Local municipalities

District job creation initiatives

Infrastructure Planning Forecasting & Needs

DCES

Responsibilities - Management of:

Operate systems for:

Liaison with schools

Liaison with municipalities (IDF

Assist EMIS

Tools

GIS maps

Demographic Trends

Monitor Education Demands

EMIS Data

Infrastructure Implementation Programme Management

Assist Director

Responsibilities - Management Operate systems for:

Quality assurance Verify maintenance

Verify repairs

Co-ordinate as built data

Co-ordinate mobile deployment

Tools

Project Numbering

Standard designs

Standard documentation Proman

Promar

BAS

Core Functions: NCED Infrastructure Delivery				
1. Infrastructure Planning	NCED performs Planning function			
1.1 Demographic & Socio-Economic Analysis				
1.2 Physical Planning				
1.3 Spatial Planning				
1.4 Norms & Standards	NCED performs these functions with help from external sources including Premier's office, Provincial Treasury, DBSA, cidb and Professional Service Providers (Architects,			
1.5 Project Prioritisation	QSs, Engineers, Economists, Demographers, Statisticians, etc)			
1.6 Project Life Cycle Costing				
1.7 Budgeting & Financial Planning	and has			
1.8 Asset Management	can history			
2. Programme Management	NCED performs Programme Management function			
2.1 Contracting with Programme Implementing Agents (PIA)	NCED contracts with DTRPW			
2.2 Review and approval of Infrastructure Programme Implementation Plans (IPIPs)	NCED Implementation Section			
2.3 Monitoring & Evaluation	NCED Implementation reviews progress as programme level			
2.4 Managing Compliance by PIAs	NCED manages DTRPW's performance			
2.5 Financial Management of PIA contracts	NCED manages cash flow made available to DTRPW			
2.6 Construction Procurement	NCED ensures that DTRPW complies with SCM regulations			
2.7 Reporting Progress	NCED receives and evaluates programme progress			
2.8 Risk Management	NCED ensures that DTRPW manages risk			
2.9 Communication Management	NCED receives regular reports and holds monthly programme management meetings			
2.10 Assessment of quality of infrastructure	NCED ensures that DTRPW has a quality management system in place and audits this system			
2.11 Handover & commissioning of Infrastructure	NCED liases within department to ensure that furniture, educators, LSM, light and water etc are ready when the infrastructure is delivered			
2.12 Integration & Process Management	Infrastructure is added to asset register, EMIS, GIS are updated, district and circuit offices include infrastructure on inspection programmes etc.			

8.3 Financial

Financial projections for the implementation of the Organisation Support programme will be developed as the systems and organogramme are developed.

8.4 Systems and Processes

8.4.1 Accounting / Financial Systems

Currently the department uses the BAS system and captures all payments for infrastructure on this system. Recently the department has started a project led by the Provincial Treasury to improve reporting on project expenditure by adjusting the structure of the BAS system.

8.4.2 Infrastructure Management Systems

All infrastructure reporting is currently based on separate Excel spreadsheets which are searched when reports are required.

The DTRPW is developing a project reporting system to improve project management and reporting. This system will probably be available towards the end of the financial year.

Recently the WC has implemented a project portfolio management system which will improve document management as well as project and programme management at both the client and implementing agent. A similar system should be investigated by the Northern Cape.

8.4.3 Data

Currently the department does not have an accurate fixed asset register and should actively participate in the development and implementation of a fixed asset register.

Data from various sources (National DOE, DTRPW, consultancies, NCED circuit and district offices) should be collated and included in the asset register.

Part of the asset register system should be a method/mechanism to update (collect, collate, standardise and verify) data on a regular, scheduled basis.

8.4.4 Information Flow Requirements and Processes

Communication links within the NCED and with other provincial infrastructure support departments should be developed. These links could take the form of progress meetings, bidding for budgets, developing estimates, supporting economic development and reduction of vandalism of property.

8.4.5 Standards and Guidelines

The department will support all legislation related to infrastructure by making use of skilled Built Environment Professionals, working closely with infrastructure delivery departments and advancing the goals of the CIDB.



9 Section 9: Plan Improvement and Monitoring

In order to make this plan an operational management tool, it must become reviewed, improved and updated regularly during the financial year. .It is therefore proposed that monthly mini reviews be conducted by the Physical Facilities Management unit. This will assist the unit in the compilation of annual and quarterly reports. In addition this will assist the unit in achieving the department's goal of aligning infrastructure planning with the budget cycle.

Areas of improvement that should be included in the mini reviews include:

- Updating, verifying and collation of data on existing immovable assets (asset register);
- Formalise a planning system incorporating circuit, district and municipal needs;
- Develop a prioritisation model that ensure that social and economic objectives are addressed;
- Develop formal systems that ensure that planning and delivery of infrastructure is aligned and supports departmental strategic objectives and is adequately reflected in departmental planning documentation eg APP and budget business plans;
- Formalise and institutionalise operating procedures of physical facilities.

10 Section 10: References

- National Norms and Standards for School Funding
- Physical resources Planning Manual
- IDIP Toolkit

