AUDITOR-GENERAL
SOUTH AFRICA

PREVENTATIVE
CONTROL GUIDE

GUIDE 07

INFRASTRUCTURE DELIVERY PROCESS

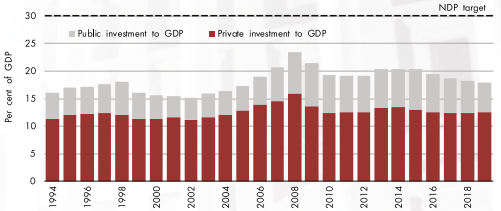
What this guide is about

The availability of appropriate infrastructure is crucial to service delivery in South Africa.

The proper development and management of infrastructure facilitates the implementation of key programmes in areas such as healthcare, education, human settlements, roads, and water and sanitation; and is vital for economic growth and employment. According to the 2020-21 public sector infrastructure expenditure and estimates, government invested approximately R226 billion in infrastructure in 2020-21.

The National Development Plan (NDP) targets capital investment of 30% of the gross domestic product (GDP) by 2030. Not only is the total investment by both the public and the private sector well below this target, it has also been continuously declining over the past few years. As a result, economic growth is slowed down and job creation is hampered.

Public and private sector capital investment as a share of GDP, 1994-2019



Source: National Treasury public sector infrastructure update

Spending on infrastructure forms a major part of government's budget at national, provincial and local government level.

Legislation places the responsibility for the effective, efficient, economical and transparent use of the resources of the institution on the accounting officer and authority (AO/AA). The AO/AA is also specifically tasked with the management, including the safeguarding and maintenance, of infrastructure assets.

Non-adherence to these responsibilities is likely to result in losses or fruitless and wasteful expenditure. Poor planning and inadequate project management cause project delays, late commissioning and the under- or non-utilisation of infrastructure assets.

In the infrastructure delivery process, there are usually two stakeholders: the client who requires the infrastructure and the implementing agent who implements the project on the behalf of the client. The budget normally resides with the client, who will therefore remain accountable for the spending of the allocated funds together with the implementing agent.

Audit outcomes demonstrate that in many cases controls over the infrastructure delivery process are not effective.

This typically results in the following deficiencies:

- Inadequate planning
- Late completion of projects
- Increase in budgeted cost
- Poor build quality
- Under- or non-utilisation of completed infrastructure assets

This guide on preventative controls in the infrastructure delivery process focuses on planning, project management, and commissioning and utilisation.

The guide includes limited detail on procurement. For more information on this part of the process, please refer to preventative control guide 4 issued in September 2020, which deals with the procurement of goods and services.

Oversight structures and executive authorities can use this guide to require assurance from the AO/AA that these preventative controls have been implemented and are working effectively – this is presented as questions to ask the AO/AA.

Ensure proper planning to reduce delivery delays and unnecessary costs

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Controls accounting officers and authorities should implement

Institutions should properly plan infrastructure projects, by addressing the following key areas:

- Condition assessment of existing infrastructure
- Needs assessment and the consideration of alternatives
- Feasibility study
- Design development
- Pre-tender estimates
- Consideration of the best method of contracting included in the delivery and procurement strategy
- Availability of the appropriate site (including geotechnical investigations and environmental impact assessments)

Questions oversight structures and executive authorities could ask to obtain assurance

1. Has an infrastructure plan been developed and is it updated annually?
2. Have condition and needs assessments been performed as part of the planning process? 3. Has the AO/AA approved the infrastructure plan and any amendments thereto?
4. How is progress against the plan monitored, who is responsible for monitoring, and how are deviations from the plan dealt with?
5. Does the initiation of projects take place in accordance with the plan? If not, what actions are being taken to address any non-adherence?
6. Have stage-gate approvals been obtained before progressing to the next phase? In other words, are there control points at the end of a process where a decision is required before proceeding to the next process or activity?

Why it is important

Poor demand and procurement planning results in the inadequate development of specifications, wrong decisions about the type and scope of work and/or the feasibility of the project, and unrealistic cost estimates.

Controls accounting officers and authorities should implement

Institutions should have **adequate capacity and the required skills in place.** This means that:

- The tasks, roles and resources required for the infrastructure delivery function should be defined and the establishment should reflect the capacity required.
- The positions of key officials (namely the accounting officer, chief financial officer as well as chief directors and built environment specialists in the infrastructure delivery and/or project management office) should be filled and there should be a low vacancy rate in the infrastructure delivery management unit.

Controls accounting officers and authorities should implement (continued)

- The competence and skills requirements for officials should be defined in the relevant job descriptions. Recruitment should be done in accordance with these requirements. Any competency gaps should be identified and addressed through training and/or other development processes.
- The required competence and skills of other officials involved in the project management process (e.g. in the project management unit) should also be clearly defined and any gaps addressed.
- All officials involved in the project management process should be informed of, and trained in, the latest developments in the infrastructure sector, including all legislation, instructions, practice notes and guidance issued by the National Treasury as well as any other government and/or industry reforms.

Institutions should ensure that **infrastructure is completed timeously.** This means that:

- The contractor should commit to complete the project on time as per the approved contract,
- If the contractor is behind schedule:
  - the contractor should be put on notice
  - the contractor should submit a plan to get back on schedule
  - the institution should deduct penalties from progress payments
  - the institution should withhold part of the progress payment.

- If the contractor does not respond to the corrective action agreed to, notice of termination should be considered as a last resort.
- The project should be monitored regularly so that corrective action can be instituted early on and not only when the project is due to be completed.
- If necessary, the institution should call up the surety and retention money withheld to complete the project.

Institutions should ensure that **infrastructure projects are completed within budget.** This means that:

- The scope of the work (variation orders) as well extensions to the contract period should be managed where cost implications are applicable. This includes obtaining the relevant approvals from the client and/or relevant treasury.

Controls accounting officers and authorities should implement (continued)

- The client and implementing agent should comply with the contractual requirements and issue instructions and make payments for claims submitted on time as specified in the contract. This will ensure that claims for standing time and interest on late payments are prevented.
- Before progress payments are made, progress and materials on site should be verified. Institutions should ensure that infrastructure projects are built in accordance with design specifications and building standards to ensure that government is paying for **satisfactory standards of build quality.** This means that:
- Project managers from the client and the implementing agent should conduct regular site inspections and monitor thecontractor's workmanship.
- Project managers from the client and the implementing agent should perform adequate verifications to ensure that design specifications and building standards are adhered to.
- Where deficiencies are identified, project managers of both the client and implementing agent should work together to craft a corrective action plan to hold the contractor accountable. The project should be monitored regularly so that corrective action can be instituted through out and not only at completion. Measures may include:

    - The contractor should submit a plan to improve quality.
    - The institution should call up the surety and retention money withheld to rectify the deficiencies identified.
    - The contractor should correct quality issues and rectify items on the snag list at their own cost. Retention amounts should be used when the contractor does not do so.
    - The contract liability period should be enforced and the cost of correcting latent defects should be recovered from the contractor.
    - If the contractor does not respond to the corrective action agreed to, notice of termination should be considered as a last resort.

Questions oversight structures and executive authorities could ask to obtain assurance

1. How have the number and the type of resources been determined for the infrastructure delivery management unit (including the project management unit)? Are these sufficient?
2. Is the position of the head of the unit filled? What is the vacancy rate in the unit? What actions are being taken to address vacancies?
3. Have the required competence and skills of every position in the unit been defined, and on what have these been based? What gaps have been identified and how are these being addressed?
4. Have the required competence and skills of other officials involved in the project management process (e.g. in the project management unit) been determined? What are the requirements for these officials?
5. Is there a specific training curriculum to ensure that officials understand and can apply applicable policies and procedures?
6. How is the training kept up to date with the latest developments?
7. How is it ensured that all new developments and reforms are communicated within the institution and that those responsible for implementation have been trained?
8. If there have been recent changes in legislation or new reforms, processes or controls by the National Treasury or provincial treasuries, questions can be asked specifically on how these were disseminated and implemented at the institution.
9. How are the time, cost and quality of the project continuously monitored? What actions are taken to address deviations?
10. Are variation orders and extensions approved at the designated level?
11. What steps have been taken against defaulting contractors (e.g. calling up sureties, retentions, or blacklisting)?
12. What action has been taken against professionals who signed off incomplete or poor-quality work?

Why it is important

Project management plays a major role in the construction of infrastructure. Adequate capacity and skills ensure that right decisions are made; correct processes are followed; and sufficient segregation of duties, supervision, review and monitoring are built into the overall project management process. New infrastructure is expensive and should have a long economic life span. Therefore, a quality product should be ensured to limit future maintenance and guarantee the safety of users.

When projects are not completed on time or at the required standard, it negatively affects service delivery to citizens.

Controls accounting officers and authorities should implement

The completed infrastructure should be commissioned and used upon practical completion, which will require cooperation between the implementing agent, client and other role players. This means that:

- Coordination between the implementing agent, client and other role players is necessary to ensure that the infrastructure can be commissioned and utilised immediately after practical completion. This means that resources have been procured and acquired to enable the commissioning process. It also means that other government institutions have been consulted to ensure that accessibility and commissioning of the infrastructure are enabled.
- Different phases of the project should be completed in a practical and logical order to enable testing to ensure that the project need has been met Where different role players are implementing different phases, there should be coordination to enable commissioning and service delivery.
- The guarantee/warranty period of equipment should be coordinated with the commissioning period of the infrastructure.
- After practical completion, the responsibility for the security of the infrastructure moves from the contractor to the client. Contracts should thus be in place to take over security responsibilities to eliminate vandalism and theft.
- Where applicable, training to beneficiaries should be conducted to ensure that infrastructure assets are used in accordance with specifications.

Questions oversight structures and executive authorities could ask to obtain assurance

1. Has commissioning taken place on the date as specified in the contract? What corrective action has been taken where commissioning has been delayed?
2. Have equipment, furniture, staff and other resources been made available for the commissioning of the infrastructure? If not, what corrective action has been taken?
3. Have multiple-phase projects been coordinated to ensure completion and commissioning in a practical and logical order to facilitate service delivery?
4. What security measures have been put in place to safeguard the new asset?
5. In the case of vandalism or theft, has timeous corrective action been taken to hold the responsible parties accountable?

Why it is important

Service delivery to citizens is dependent on the timely commissioning and utilisation of completed infrastructure projects. In turn, such utilisation is dependent on the coordinated availability of the necessary resources.

Applicable legislation

Section 38(1)(a)(i) of the Public Finance Management Act (PFMA) states that the accounting officer for a department, trading entity or constitutional institution must ensure that the department, trading entity or constitutional institution has and maintains effective, efficient and transparent systems of financial and risk management and internal control. Section 51(1)(a)(i) of the PFMA prescribes similar requirements for an accounting authority of a public entity.

The Treasury Regulations (TR) of 2005, issued in terms of the PFMA, requires the following relating to contract and expenditure management:

- TR 8.2.3: Creditor accounts must be settled within 30 days from receipt of an invoice or the settlement date or court judgement in the case of civil claims.
- TR 15.10.1.2: Sound cash management includes avoiding prepayments for goods and services unless required by the contractual agreement with the supplier.
- TR 16.7.1: The AA/AO of the institution that is party to a public-private partnership agreement is responsible for ensuring that such agreement is properly implemented, managed, enforced, monitored and reported on. Such AA/AO must also maintain mechanisms and procedures for:
  - measuring the outputs of the agreement
  - monitoring the implementation of, and performance under, the agreement
  - liaising with the private party
  - resolving disputes and differences with the private party
  - generally overseeing the day-to-day management of the agreement
  - reporting on the agreement in the institution's annual report.
- TR 17.2: Sets out retention periods for documents, including contracts and all other documents relating to the purchase of goods and services.

Applicable legislation (continued)

Section 6(1)(a) of the Municipal Finance Management Act (MFMA) determines that the accounting officer of a municipality is responsible for managing the financial administration of the municipality, and must for this purpose take all reasonable steps to ensure that the resources of the municipality are used effectively, efficiently and economically.

Furthermore, section 63(2) of the MFMA requires the accounting officer to take all reasonable steps to ensure that the municipality has and maintains a management, accounting and information system that accounts for the assets and liabilities of the municipality; and that the municipality has and maintains a system of internal control of assets and liabilities, including an asset and liabilities register, as may be prescribed.
These requirements are also applicable to municipal entities as per sections 96(2)(a) and 96(2)(b) of the MFMA.

Learn more about this control here

National Treasury website:

- Standard for an Infrastructure Delivery Management System
- Framework for Infrastructure Delivery and Procurement Management
- MFMA Circular No. 62 dated 20 August 2012: Supply chain management: Enhancing compliance and accountability
- SCM Circular dated 29 July 2011: Guidelines on the implementation of demand management
- Government Immovable Asset Management Act