



Collaboration, Innovation and Resilience: Championing a Digital Generation

EXPLORING THE INFLUENCE OF EFFECTIVE PROJECT MANAGEMENT WITHIN THE SURVEYOR-GENERAL'S OFFICE IN KWAZULU- NATAL (NATIONAL GEOMATICS MANAGEMENT SERVICE BRANCH S.A)

Author : Ms. Zamide Mdaka, Geomatics Technician

National Diploma Engineering Survey, Bachelor of Technology in Surveying, Post-Graduate Diploma in Project Management, Master of Business Administration



**agriculture, land reform
& rural development**

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA



Follow us on these platforms



PLATINUM SPONSORS



INTRODUCTION

Purpose of the study:

- To explore the influence of effective project management on project success within the Office of the Surveyor- General in KwaZulu-Natal.

The objectives of the study are:

- To investigate factors affecting effective project management implementation for project success at the Surveyor- General in KwaZulu-Natal.
- To explore the influence of effective project management on project success within the Surveyor- General in KwaZulu-Natal.
- To recommend strategies for effective project management to ensure the success of projects executed by the Surveyor- General in KwaZulu-Natal.

This presentation will discuss project management in the revamp of the current cadastral information system, using the Office of the Surveyor- General: KwaZulu-Natal as a case study.





Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6–10 April

BACKGROUND

- Ineffective project management has been an issue in the South African public sector, and as a result, departments at the national, provincial, and local government levels have consistently encountered project failure.
- The successful implementation of projects is dependent on efficient project administration which currently is less effective in many departments.
- It is uncommon for projects within the Department to be completed without meeting several issues that result in schedule and cost overruns, resulting in poor-quality delivery, which can lead to loss in revenue.



PLATINUM SPONSORS



Effective project management strategies

- Optimisation of Resources
- Communication and Engagement with Stakeholders
- Evaluation and Monitoring
- Training and Capacity Development
- Financial Planning

INFLUENCE OF EFFECTIVE PROJECT MANAGEMENT

- Accomplishing goals with greater efficiency.
- Controlling scope and minimizing scope creep.
- Managing budgets and schedules within defined parameters.
- Leveraging risk and resource management to keep projects on track.
- Enhancing stakeholder and customer satisfaction.



Source: projectmanagementacademy.net

Introduction of the Office of the Surveyor- General: KwaZulu- Natal

- Established in terms Section 4 of the Land Survey Act No. 8 of 1997
- Office has the following functions:
 - Maintain a spatial database of Surveyed Real Rights that provides a powerful tool for Macro Planning environments
 - Scan into electronic format all approved documents
 - Do Cadastral Data Processing to check the consistency of the numeric data on newly submitted documents
 - Maintain a current and dynamic cadastre by updating the various documents
 - Examination of Diagrams, Sectional Title plans and General Plans
 - Approval of Diagrams, General Plans & Sectional Plans which comply with all relevant statutory requirements
- Stakeholders

Internal: internal employees and External: land surveyors, conveyancers, State Departments, Deeds Office, etc

STATUS QUO (OFFICE OF THE SURVEYOR-GENERAL: KWAZULU-NATAL)

- The operations of the Surveyor General offices are largely paper-based, documents prepared on materials such as durable paper, plastic, film, cloth, cardboard, are accepted and filed in these offices.
- The SG office archives house documents produced over a period of more than 300 years, many of which have become fragile, brittle, and faded, while some have been misplaced, misfield, damaged through constant use, and even lost.
- Furthermore, the challenge with these hardcopy documents is that each document can only be in one place at a time, and can only be used by one official at a time.
- In addition, access to hardcopy document is only available under supervision during office hours.

STATUS QUO CONT.....

- Lost data in the current cadastral information system
- Poor turnaround times
- Often difficult to efficiently access office data
- Loss of documents
- Largely manual way of performing tasks such as lodgments and data capture.

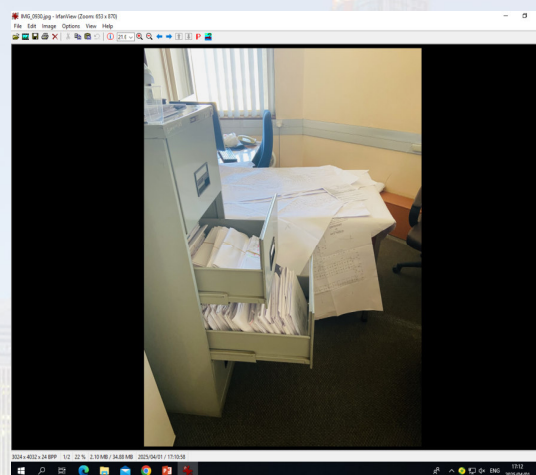


Image showing how captured general- plans are currently filed



Image showing manual file registers

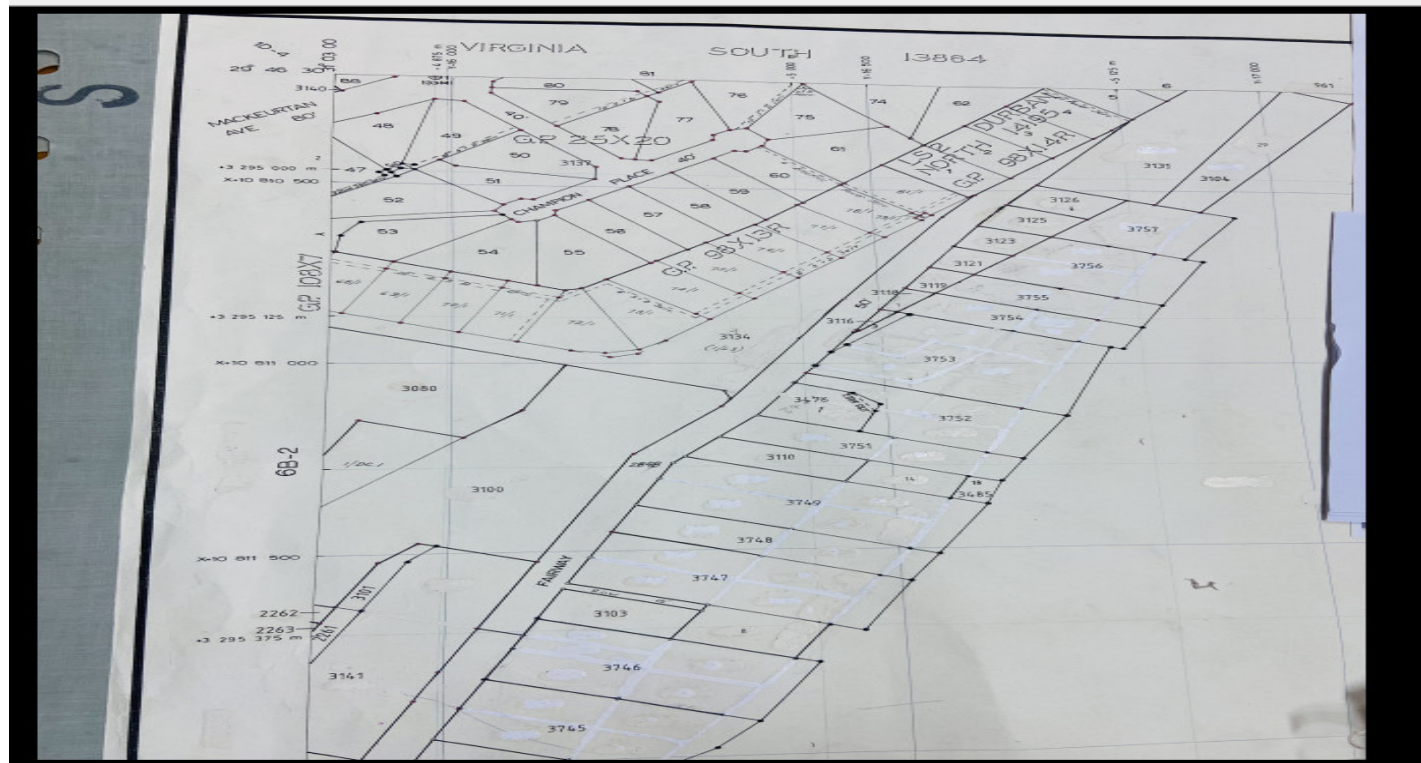


Image compilation plan that get's updated manually
whenever an cadastral diagram/ general plan is
approved



INTRODUCTION OF THE CADASTRAL INFORMATION SYSTEM REVAMP PROJECT

- NGMS is building an effective and efficient CIS solution that resonates with, and aims to satisfy internal and external stakeholders.
- The CIS Revamp will digitally intergrade the entire processing chain from lodgment to distribution, processing and achieving of cadastral records.
- The system is aimed at ensuring the accurate and complete products and services are always readily and easily accessible to anyone.

NEW CADASTRAL INFORMATION SYSTEM IN PROGRESS

Purpose:

- To improve the current outdated system
- To digitalize the operations of the Offices of the Surveyors- General

Old System	New System
Pros <ul style="list-style-type: none"> • Familiarity • Lower costs • Can still perform tasks manually 	Pros <ul style="list-style-type: none"> • Enhanced productivity • Access to new features
Cons <ul style="list-style-type: none"> • Reduced productivity • Hinder Innovation • Data loss • Duplication of coordinates 	Cons <ul style="list-style-type: none"> • Performance issues • Security vulnerabilities • Unable to work if database is down • High development and implementation costs

RESEARCH METHODOLOGY

- Qualitative methodologies were used which include interviews which were conducted virtually and in person
- Direct observation and analysis of existing documents and data within the office.
- Sampling for the investigation was conducted using judgmental technique. T
 - The rationale behind this approach was to select participants by considering desired traits such as knowledge of project management (Zainal, 2022).
 - The inclusion criteria was affiliation with the SG office KZN as well as familiarity with projects it undertakes.
- The researcher used semi-structured interview is a qualitative research method that involves using a planned set of open-ended questions, but also allowing the interviewer to go deeper into a certain topic or response (Creswell, 2018).
- The research used thematic analysis technique to analyse the data for this study.

FINDINGS AND DISCUSSION

- Filing transformation (hardcopy to soft copy)
- Encourage Technology and Innovation Use
- Conduct investigation electronically instead of manual process
- CSG WEBSITE accessibility <http://csg.drdlr.gov.za> Currently anyone access General Plans, Compilation plans and Diagrams, however other documents such as file registers still need to be added on the website.
- The new cadastral system in the office brings significance increased efficiency,
- Cost savings due to reduced paper usage
- Improved document security
- Streamlined workflows

FINDINGS AND DISCUSSION CONT.....

- Environmental friendliness
- Better space utilization by eliminating the need for large filing cabinets
- This ultimately leads to more productive and organized work environment.

CONCLUSION

- The study explains several factors affecting the implementation of effective project management within SG office KZN .
- It emphasizes the critical influence that effective project management practices used on the success of projects.
- Key factors identified include organizational culture, stakeholder participation, resource distribution, regulatory compliance, and effective planning and risk management.
- The conclusions drawn from the research indicate that these factors collectively enhance the effectiveness of project management, thereby contributing to the attainment of project objectives.
- The study further demonstrates that successful project management aligns with the strategic goals of Surveyor General's Office KwaZulu-Natal, optimizes resources, ensures timely delivery, maintains budgetary compliance, and upholds quality standards.

The most relevant SDGs related to the presentation and theme of this session



**SUSTAINABLE
DEVELOPMENT GOALS**

International Federation of Surveyors supports the
Sustainable Development Goals



**WORKING
WEEK 2025**

AND

Locate25 | **G**
THE NATIONAL GEOSPATIAL CONFERENCE

Collaboration, Innovation and Resilience:
Championing a Digital Generation



Geospatial
Council of Australia

Brisbane, Australia 6–10 April

THANK YOU

ORGANISED BY



Geospatial
Council of Australia

PLATINUM SPONSORS



CHCNAV

