Introduction

- Over the past few decades cadastral concept has developed significantly
- Cadastre systems in early times were manual that were time consuming to operate and maintain
- The increasing demand for accurate, easily accessible and up-to-date cadastral data has pressed forward the conversion of data from analogue to digital format.

Introduction (cont./d)

- This process has been accelerated by the new possibilities of Geo-ICT
- Both theoretical and practical developments in ICT automate and improve the quality, cost effectiveness, performance and maintenance of cadastral systems

Organisational Structure

Division of Cadastral & Geodetic Surveys

- Responsible for maintaining the integrity of cadastre
- Examination and approval of all cadastral surveys & plans required for registration purpose
- Providing up-to-date cadastral data
Current cadastral system

- Well-organised manual system
- Volume of records has increased because of the demand for land information
- The current system will no longer serve the needs of clients

Current cadastral system cont./d

- System has become inefficient giving rise to the following problems:
  - Accessibility
  - Security
  - Data recovery
  - Delay in the registration process
  - Insufficient information
  - Lack of human resource
  - Not enough storage space
  - Paper quality reduces
  - Distribution process is very slow

Current Workflow

Stage 1: Reservation
- The client goes to the private surveyor to start a land division request
- In DSM, the request takes a reservation number (r) (depending on no. of diagrams / request)
- Approval from DSM representative
- DSM representative checks the request using Noting sheets & Register book & Farm Index card

Stage 2: Field Survey
- The private surveyor gets required data from DSM such as OId diagrams, General plan, Noting sheet
- The private surveyor carries out the field survey
- Required Data
- Required Data
- Required Data
- Required Data
- Required Data
Current Workflow
Stage 3: Lodgment

1. Check request attachments & Add the A. No. for each diagram in the lodgment book
2. Sec. Clerk update Old Survey frames for Commission requests
3. Sec. Clerk prepares Survey forms for lodgment

Current Workflow
Stage 4: Examination

1. Sending the comments To the private surveyor To modify them
2. The Chief Examiner sends The drawings to the Pre-Noting Stage
3. The Chief Examiner reviews the paper finally
4. The Examiner Verifies in Details the request Information using the Trigonometric book
5. Yes, there are so more drawings
6. No Comments
7. Final approval By the Professional Surveyor

Current Workflow
Stage 5: Pre-Noting

1. The Draftsman notes the Drawings with a pencil
2. The Draftsman records No. and description of Pre-Notings carried out in that day
3. The Chief Examiner checks the drawing After the Pre-Noting

Current Workflow
Stage 6: Approval

1. Final approval By the Professional Surveyor
2. Final approval By the Professional Surveyor
3. The Client registers The ownership information In the Deed Office
4. The Draftsman performs the final noting (With Ink) on the noting plan, update register book or form index and the diagrams

Current Workflow
Stage 7: Delivery & Filing

1. The Front disk receives the File after approval & Carries out 2 tasks
2. Adding the Correspondence files
3. Filing the survey records
4. Indexing the Parcels diagram

Current Workflow
Stage 8: Deed Office Registration

1. The Dead office sends The registration info For a no. of parcels to DSM
2. End Of Request
3. The Client registers The ownership information In the Deed Office
**Digital Cadastral Information System Project**

**Overall objective**

- Overall objective is to establish a digital Cadastral Information System in order to improve access, quality and usefulness of cadastral information in Namibia

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<thead>
<tr>
<th><strong>Project Overview</strong></th>
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<tbody>
<tr>
<td>- Due to problems experienced the division of Land information decided to develop &amp; implement a digital CIS</td>
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<td>- Project commenced in March 2005 &amp; will be completed end of February 2008.</td>
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<td>- System developers: Swedesurvey and QSIT</td>
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**Project Overview (cont./d)**

- System will provide complete cadastral information management
- Geodatabase contains a data model, where spatial data resides
- Database management system will be used for updating of urban & farm registers and plans

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<td>- Create a computerised version of all cadastral parcel data</td>
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<tr>
<td>- Develop &amp; implement a CIS</td>
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<tr>
<td>- Capture, convert &amp; load existing cadastral information into the new database</td>
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<td>- Develop applications for the cadastral functionalities</td>
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<th><strong>System functionalities</strong></th>
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<td>- Enable DSM's staff and clients to view topographic &amp; cadastral data in one map view</td>
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<tr>
<td>- Enable the administrative and managerial users to monitor activities</td>
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<td>- Mapping users will continue using the current software products and applications to support their functional requirements</td>
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<th><strong>System functionalities (cont./d)</strong></th>
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<td>- An internet application will be hosted to provide public access to cadastral information from any part of Namibia.</td>
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System Workflow

Proposed System Architecture

Cadastral System Architecture

Project Modules

- Capture Cadastre Data
- Cadastre Process Automation Module
- Retrieve Information from Deed Module
- Integration to Topographic Section Module
- Dissemination of information Module

Project Benefits

- Contribution to the economic development of Namibia through a more effective decision making processes at all levels ensuring sustainable land management
- Increased security
- Customer satisfaction
- Profit

Project Benefits (cont/.d)

- Improved Office Environment
- Getting More Support from the Government
Conclusion

- Development and implementation of a digital CIS
- Maintain & process digital cadastre data sets
- Speed up accessibility and delivery of data
- Speed up decision making processes
- Allow nationwide access to data

Conclusion (cont./d)

- Support the automation of DSM's cadastre process
- Overcome the drawbacks of the old system and ensure accurate and up to date digital cadastre data as well as integrating to the deed registry system and the topographic department database
- Provide means for DSM staff to capture existing cadastre data

THE END

THANK YOU !!!