



# Republic of Mozambique Ministry of Mineral Resources

## BENEFITS AND CHALLENGES OF IMPLEMENTING FLEXICADASTRE SINCE 2003

PREPARED FOR ANNUAL CONFERENCE OF  
FLEXICADASTRE 2011,  
CAPE TOWN- SOUTH AFRICA

By: Grácio Cune and  
Geraldo Valoi

# History of Mining Licensing in Mozambique

## BEFORE 2003

- **FULL MANUAL PROCESS**
- Hard copy topographical maps, 1/50 000 & 1/250 000 maps,
- Hand designed license contours
- Low computer processing,
- No live maps,
- Only physical archives management

## Related problems

- Numbering system duplicated on different licenses type,
- Same license type duplicated in the different map scale,
- Hard topographic copy destroyed,
- Hand map matching during drawing...
- Maputo office reception as a reference date and time.
- Areas with no topographic Maps
- **TRANSPARENCY NOT GUARANTEED**

# 1998-2003 – Period of Main Change

1998 - Approved new Mining and Geological policy.

## ***OBJECTIVES***

1. Increase mining production,
2. Increase mineral exportation,
3. Increase geological data and investigation, and
4. Develop a modern government institution.

# 2002 - Approved new Mining Law focused on the new mining policy.

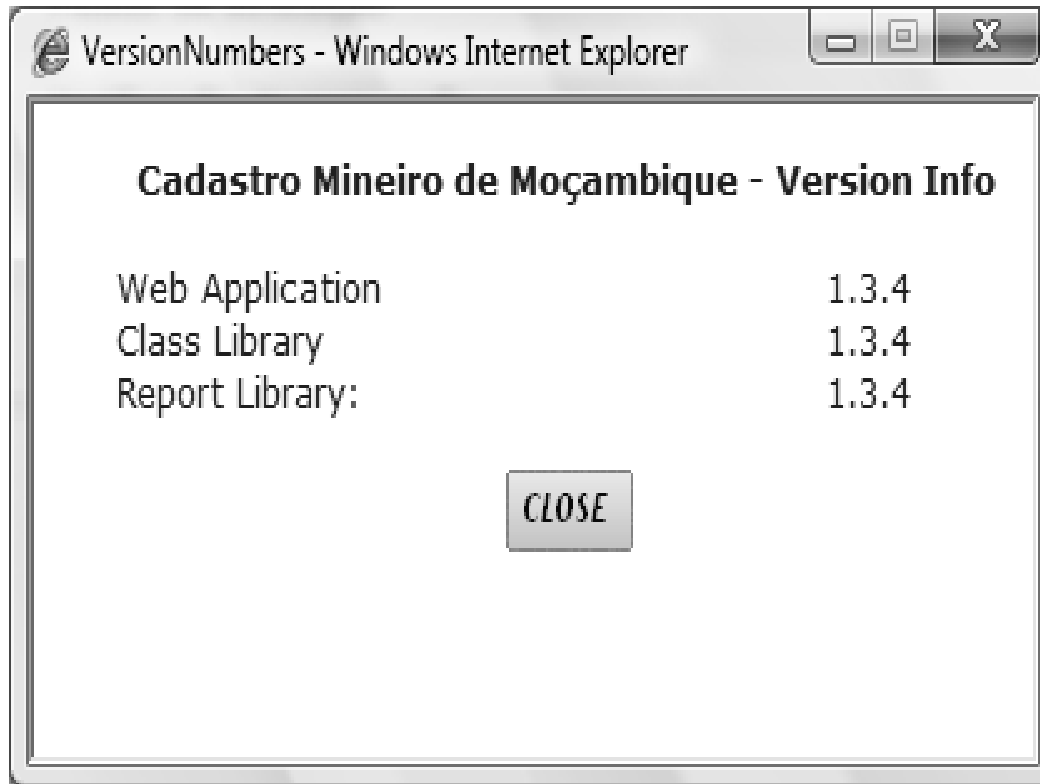
1. Avoid number duplication,
2. Provincial offices as entering points,
3. One national book entry registration,
4. Reduce the time of processing,
5. Less hand hard copy map use, and
6. Increase the transparency on mining licensing,
- 7. *FIRST TO COME FIRST SERVED...***

# How to achieve the objectives and implement the Law?

- Update the existing geological information,
- Train and increase the quality of human resources,
- Update the equipment and infrastructure,
- Create attractive investment environment through the legislation, and
- Update the mining licensing methodology and procedures

# Mining Licensing Methodology and Procedures

## Spatial Dimension contracted



## Results

1. Web application wizard designed
2. ArcMap overlap validation created,
3. One and unique national registration book implemented.
4. Four license type configured.

# FlexiCadastre (version 1) in Mozambique - 2003-2010

Cadastro Mineiro de Moçambique

REPÚBLICA DE MOÇAMBIQUE  
MINISTÉRIO DOS RECURSOS MINERAIS

CADASTRO MINEIRO DE MOÇAMBIQUE  
SISTEMA DE INFORMAÇÃO E GESTÃO AMBIENTAL

Pedidos: 724  
Títulos 1067  
Gracio Cune  
Novo Pedido

Agenda  
Relatórios  
Títulos  
Pesoaas  
Empresas  
Acções

Código: \_\_\_\_\_ Dono: \_\_\_\_\_ Básica

Tipo de Título: \_\_\_\_\_ Comuns

Estado: \_\_\_\_\_

Provincia: \_\_\_\_\_

Distrito: \_\_\_\_\_

Pedido: \_\_\_\_\_

Atribuido: \_\_\_\_\_

Caduca: \_\_\_\_\_

PROCURAR  
RELATÓRIO

Areia  
Argila  
Berilo  
Granito

- FlexiCadastre focused on license type,
- Only 4 licenses types included in the system,
- Two separate interfaces (the ArcMap and FlexiCadastre),
- ArcMap in specific computers,
- A live map not accessible in the provincial offices,
- Hard coded designed software (only SD can change), and
- Several Daughter Servers in the province for data replication.

# Benefits and Challenges

- Overlap reduced to zero,
- Unique licensing procedure and methodology,
- Live public information at Maputo office- present stage,
- Reduced time for application and registration,
- Infrastructure and equipment upgraded,
- Human resources allocated and trained
- Increased the number of licenses from 500 in 2003 to 1200 in 2010.



# Main Objectives for Upgrade

- Configure FlexiCadastre focused on the commodities,
- Include all existing licenses and permits,
- Go only for one page Flexicadastre,
- Go for one server office for the country,
- Train a new staff contracted in mining cadastre office,
- Configure the provincial offices for local use and licensing,
- More capabilities .....

# Major Advantages of new FlexiCadaastre

- Integrated **Mapping Interface** using ArcGIS Server
- **Customisable Workflow & Business Rules** - no longer hard-coded
- **Authorisations** – User Groups
- Email **Notifications**
- **Smart Actions** – shape changes and validations
- **Letter Templates** – no longer hard-coded
- Complete and transparent **Audit History**
- Ability to connect to **Provincial Offices**
- Ability to receive enhancements & improvements to core FlexiCadaastre via **standard service packs**
- **Portuguese Language Pack** can be updated with future service packs.

# Implementation Stage: Workflow Configuration Completed

1. Reconnaissance License – R,
2. Prospecting License – L,
3. Mining Certificate- CM,
4. Mining concession -C,
5. Trade License –COM,
6. Trade License card –CO,
7. Designated Areas –AD,
8. Mining Pass –SM,
9. Construction material permit- AMC, and
10. Geological investigation permit – AIG.



The screenshot shows the login page for 'flexicadastre' in the 'REPÚBLICA DE MOÇAMBIQUE'. It features a logo at the top left, followed by the text 'flexicadastre'. Below this, the text 'REPÚBLICA DE MOÇAMBIQUE' is centered. The login form includes fields for 'Nome do Usuário:' and 'Senha:', each with a white input box. A 'LOGIN' button is positioned below the password field. Below the login fields, there is a link that says 'Desabilitar bloqueio de Popup antes de login'. At the bottom of the page, there is version information: 'Versão:4.1.2.06 (Beta)' and '.NET Versão:v2.0.50727'. Copyright information reads 'Copyright © 2005-2010 Spatial Dimension (Pty) Ltd' and 'Todos Licenças Reservados'. A link for 'Condições de uso' is provided. At the very bottom, there are links for 'English' and 'Portuquese'.

# Present and future activities

## Activities in progress

- Validation & training on workflows in progress,
- Analysis and update of missing/inaccurate data in progress,
- Letter template creation in progress.

## Planned activities

- Training program starting on last week of Feb 2011
- Cadastre Office closure for month of March 2011
- Audit and import of data in March 2011
- Final training & User Acceptance Testing in March 2011
- Go-Live in April 2011

# Outstanding Issues

- Connection from Maputo to Provinces to be improved,
- Local Network in the Provinces to be improved,
- User training required for all users in Maputo and provincial offices,
- Data quality issues need to be addressed prior to go-live
- Additional hardware required (computers, scanners etc) to enable provinces to take advantage of new system.
- System configuration needs to accommodate future mining law changes
- Portuguese language pack needs to be reviewed for local Mozambique variations

**Questions.....?**

**Thank you very much**

**and**

**Welcome to Mozambique for mining  
investment**

