

TS 18
Comparative Aspects of Land Administration Systems



FIG

International Federation of Surveyors

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The Strategies of Land Information Management System

ESA's Cadastral Department

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Agenda

- Egyptian Cadastral Historical background
- Reasons Behind Change, Methodology & Indicators about achievements
- Bottlenecks
- Results

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Egyptian Cadastral Historical background

- First written Cadastre in History
- First Egyptian Cadastre in recent era 1813 - 1822
- Cadastre 1892 – 1907
 - **ESA Establishment June,8,1898**
- Cadastre 1925 – middle of 1980
 - **In 1971 ESA changed to be independent service authority.**
- Digital Cadastre 1989 – up till now
 - **ESA became Economic in 2001**
- Unified Digital cadastral DB 2002 till Now

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Reasons Behind Change

- Politician Demands
- Internal Demands
- External National Demands

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Politician Demands

- State demand to complete the rural cadastre
- State desire to start urban cadastre
- State willing to simplify registration procedures
- State willing to Activate the Electronic Gov.
- **ESA as Economic Authority = Cost Recover**

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External National Demands




- ESA, Historically, is the trusted source of cadastral information.
- There are strong demands upon ESA to Provide the GIS Community with cadastral data in an efficient way.
- Necessity for adopting the formal links between ESA and relevant authorities to be improved/established on the following levels
 - Political Level, Administrative Level, and Technical Level

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Internal Demands



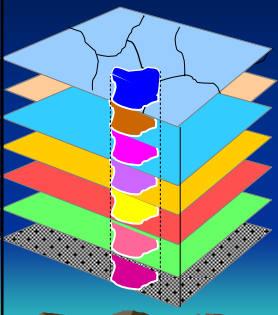
- ESA Necessity to computerise its cadastral processes and build its unified cadastral information system. Considering Updating as a higher priority.
- ESA Necessity to make use of the huge amount of data it has, the created revenues could help ESA to achieve the cost recovery Policy.
- ESA needs to revise carefully its regulations / instructions to simplify it to create better working Environment, which assist ESA to cope with EG, to fulfil GIS community demands, be ready to start **Urban cadastre, and to simplify it.**

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The available Data in ESA




1. Cadastral Data
 - Parcels
 - Streets
 - Hydrology
 - Pub. Utilities
 - Railways
 - Buildings
2. Geodetic Data
3. Topographic Data
4. Etc....

DB Enables

- Easy access
- Fast response
- Supporting Product diversity
- Support Forming standards
- Extensibility of DB (Structure & Content)
- Etc...

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Outputs of the ECIM

- Unified and integrated cadastral database for urban and rural, both graphical and textual
- System for conversion of existing different data formats.
- System for Up-Dating
- System for presenting information on screen and on printouts, as well as making information accessible on Internet and /or Intranet


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Methodology Approach

What is Important ?



**To Move / Change
As safe as possible**

**Radical Change
mostly is very risky**

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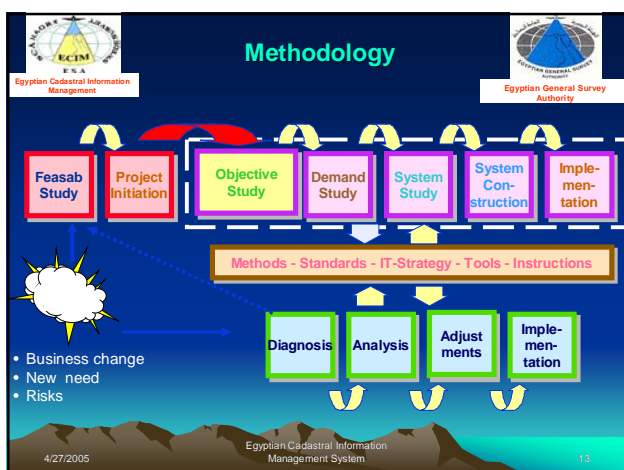
Methodology

A systematic approach to system development, including the phases: used in developing the Swedish Land Data Bank

- Objectives Study
- Demand Study
- System Study
- System Construction
- System Implementation

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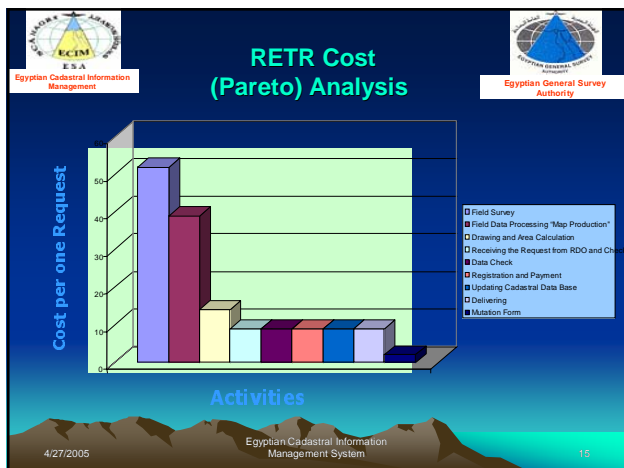
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Indicators

Problems	Reasons	Measures	Benefits
Ineffective cadastral information system	Complicated procedures and little use of IT. No clear and up-dated instructions.	IT environment and more efficient procedures. Produce clear instructions.	Effectiveness of cadastral work.
Different methods for establishing the cadastre and handling updating	Separate development projects with foreign support, lack of coordination by ESA.	Develop one unified system, taking the previous experiences into account.	One unified system is less costly to maintain than many different ones.
Important documents sometimes get lost or are duplicated, resulting in unclear information.	Insufficient facilities and rules for archiving original documents.	Introduce digital environment with sufficient security measures.	More efficient work in ESA and better working environment.
Monitoring of cadastral matters is difficult within ESA	Information is redundant and distributed in different offices	Digital environment. Organizational restructuring.	More efficient work. Facilitating management of ESA.

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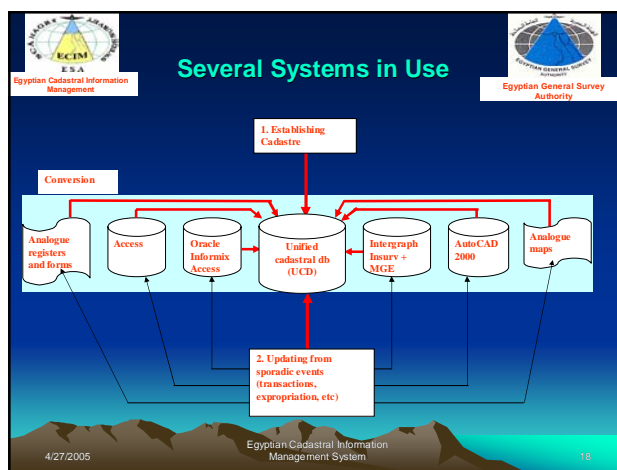
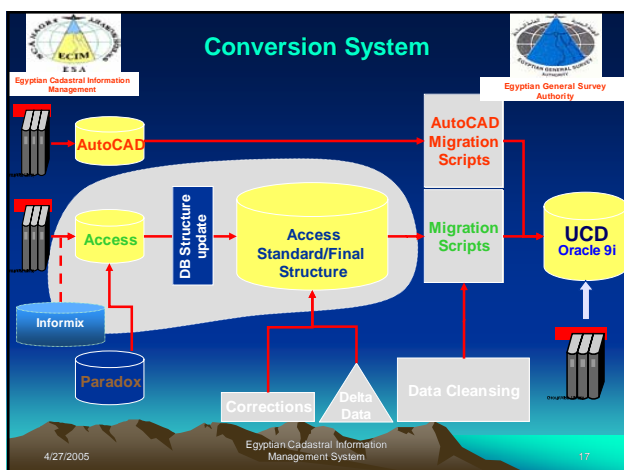


RETR Analysis

Behira Governorate

Year	No. of Transactions		CF done		Extended Transaction		Remarks
	No.	%	No.	%	No.	%	
1997	24	134%	16	192%	6	147%	
1998	28	157%	14	169%	14	337%	
1999	28	152%	10	177%	18	417%	
2000	22	119%	10	137%	12	28%	
2001	24	111%	7	109%	17	105%	
2002 (Jan - Feb)	2	10%	23%		12%		
Total Of 62 months	118	25%	53	120%	6	17%	
Yearly Average	22	133%	10	135%	11	217%	
Monthly Average	1	107%	80%	1%	10%	17%	

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The results of System Development Methodology

- The objective study showed the current situation that related to IT infrastructure, data, and its related ESA workflows.
- The objective study suggest also the solution of IT infrastructure for ESA.
- The demand study assist to select the suitable Hard and Soft ware for the new system.
- The demand study produced the Technical Demand Specification, which contains the process description and its enhanced workflows, to be mechanized by the new system.
- The system study end with a suitable system arc texture that has been selected from different alternative.
- The system study shows also, the internal and external Bottlenecks, which hinder the efforts of ESA to improve the processing of RETR.
- The system study, formulates the ECIM current data and information structure, for establishment of the system, and how to unify it in one unified and integrated database.

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ESA Business Bottlenecks

External Bottlenecks

- Concerning meeting Management → Longy of time → standard report of Survey
- Concerning meeting the legislation → Missing or insufficient collected data in the required report
- Concerning meeting the legislation → Accepting requests on retired or temporary parcels
- Concerning meeting the legislation → Multiple parcels → Multiple transactions within one request
- Concerning meeting the legislation → Non notification of request applicants legal ownership
- Concerning meeting the legislation → Missing necessary data → (ESA - RETR) report CIP
- Concerning meeting the legislation → ESA is not informed concerning rejected requests
- Concerning meeting the legislation → Requirement information on → (cost on frequency) field

Internal Bottlenecks

- Organizational structure → Most of the work load is done in EDO
- Organizational structure → Duplication in the job description within the EDO units
- Organizational structure → Difficulty to match the request between EDO and RETR
- Working instructions → Missing instruction manuals
- Working instructions → Existing and unclear cost estimation instructions
- Cadastral procedures → Violating Sign Area regulations by not creating two location forms in case of subdivision
- Cadastral procedures → Updating all field surveys on the mutation form
- Cadastral procedures → Disturbed surveying activities
- Cadastral procedures → Inappropriate surveying tools
- Cadastral procedures → Information presented in the CIP is descriptive without analytical data
- Cadastral procedures → Missing certificates in issuing property leases
- Cadastral procedures → Missing the cadastral properties can be by having one public utility parcels as multi polygons

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The overall strategy

- The overall strategy of ESA's Cadastral Department "ESACD" is to secure the land tenure and facilitate the ownership transformation requests from the Real Estate Publicity Department (REPD, the authority under the Ministry of Justice responsible for real estate registration).

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Strategy 2

- In Egypt, land tenure covers all real estate including land, and constructions above/under the land.

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Strategy 3

- Information and data about land shall contain all needed data to serve these strategies

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Strategy 4

- The establishment of data and information about the land is regarded as national infrastructure, which should be subsidized by the State, but the updating and maintenance of these data and information is the responsibility of ESACD, through the cadastral daily services, and the updating and maintenance is a cost recovery, not a profit activity

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Strategy 5

- Land information management system is based on cadastral principles (land parcel, its unique identifier and its unambiguous location). This will minimize the duplication of efforts among different partners

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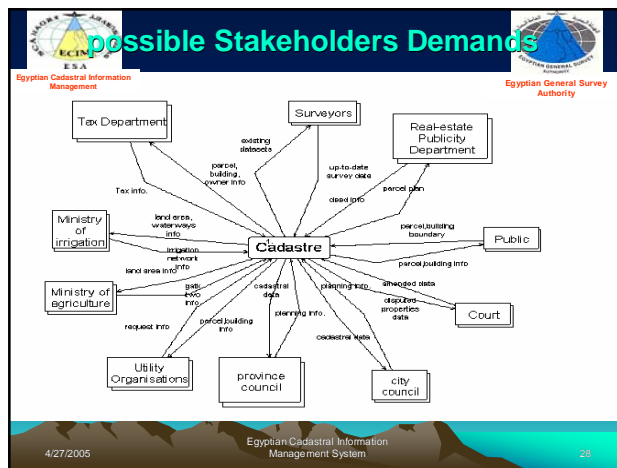
Strategy 6

- Land information management system will enable one-window services to facilitate the daily cadastral services and access to land related data.

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Thank you
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What is not considered before

- Conversion
- Urban
- Data Integration
- Quality System
- Automation
- New User Needs
- New Legal Changes
- Workflow Management
- Product Oriented
- Product Diversity
- Costing & Pricing
- Managing Process Improvement
- Staff & Training
- Standardization
- Follow up and Monitoring

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Objectives Study highlights

ESA create some strategic decisions before we continue with the next development phase ...

The Demand Study

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