THE UNIVERSITY OF
MELBOURNE

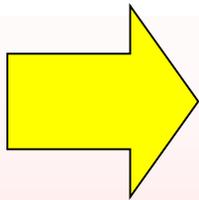# Evaluation of Land Administration Systems

Daniel Steudler

Table of Content

Ø   **Background**

Ø   **Evaluation Elements**

Ø   **Evaluation Framework and Methodology**

Ø   **Show Case**

Background

Benchmarking and evaluation of land administration systems:

- Many aid organizations and consultants are evaluating land administration systems for credit approvals;
- inventories and statistics by UN-ECE MOLA, UN-FAO, World Bank and UN-Habitat with little coordination;
- annual report of World Development Indicators by World Bank: land issues play a minor role in these statistics.

Currently, there are no internationally accepted methodologies to measure and compare the performance of land administration systems.

Why Benchmarking and Evaluating LAS ?

- to facilitate **cross-country comparisons** in the performance and eventually also **identify categories** of processes and systems;

- to provide a basis for comparisons **over time**

- to demonstrate **strengths and weaknesses** of LA systems

- to justify why a country should improve its LA system and identify areas/priorities for **reform**

- to help to draw **links to other issues** and sectors (financial, governance, environmental, social, etc.)

- **to justify an investment to improve**

- **to monitor improvement**

What is Benchmarking?

A definition by AusIndustry-Best Practice Program (1995):

"An *on-going, systematic process* to search for and introduce international *best practice* into your own organization, conducted in such a way that all parts of your organization understand and achieve their full potential. The search may be for *products, services, or business practices* and for processes of competitors or those organizations recognized as leaders in the industry or specific business processes that you have chosen."

What is Evaluation ?

Evaluation is concerned with questions such as (SDC, 2000):

- are we doing the right thing ?

- are we doing things right ?

- what lessons can we learn from our experiences ?

Evaluating or measuring the performance of a process or a system is a basic prerequisite for improving productivity, efficiency, and performance (Kaplan and Norton, 1996):
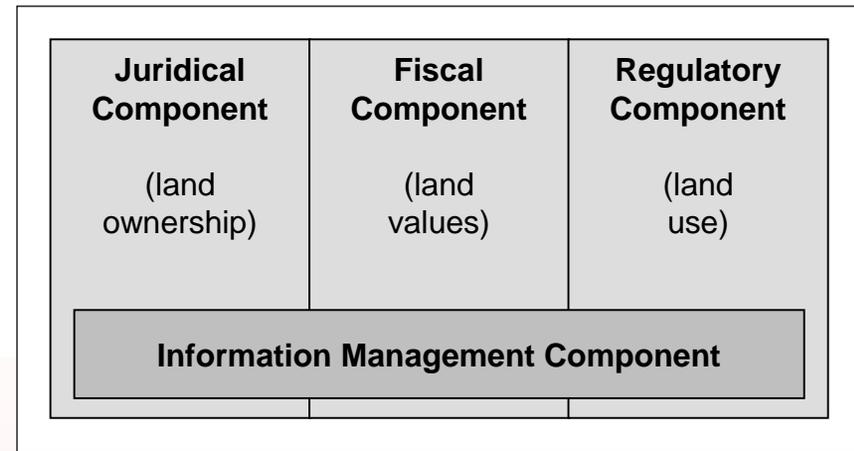
- "you can't improve what you can't measure" or

- "if you cannot measure it, you cannot manage it".

Definition of Land Administration
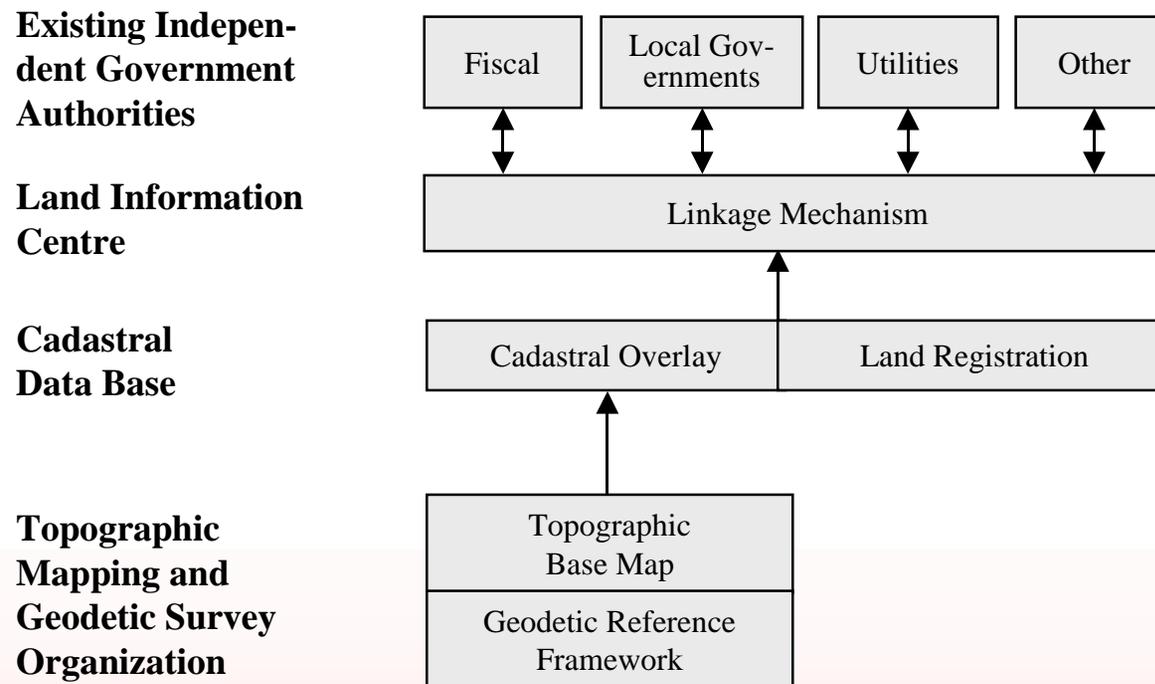
(UN-ECE MOLA, 1996)

"Land administration refers to the process of recording and disseminating information about ownership, value and use of land and its associated resources."

"Land administration includes, *inter alia*, cadastre, land registers, land consolidation, valuation and land information systems."

Juridical Component	Fiscal Component	Regulatory Component
(land ownership)	(land values)	(land use)
Information Management Component		

Conceptual Model of state-wide parcel-based Land Administration System

(Williamson, 1985)

Existing Independent Government Authorities	Fiscal	Local Governments	Utilities	Other

Land Information Centre — Linkage Mechanism

Cadastral Data Base — Cadastral Overlay | Land Registration

Topographic Mapping and Geodetic Survey Organization — Topographic Base Map / Geodetic Reference Framework

Evaluation Elements

Evaluation Elements

(Baird, 1998)

For analyzing and comparing national administration systems such as land administration or cadastral systems, we need to establish an evaluation framework. To evaluate administration systems, **four basic evaluation elements** would have to be considered:
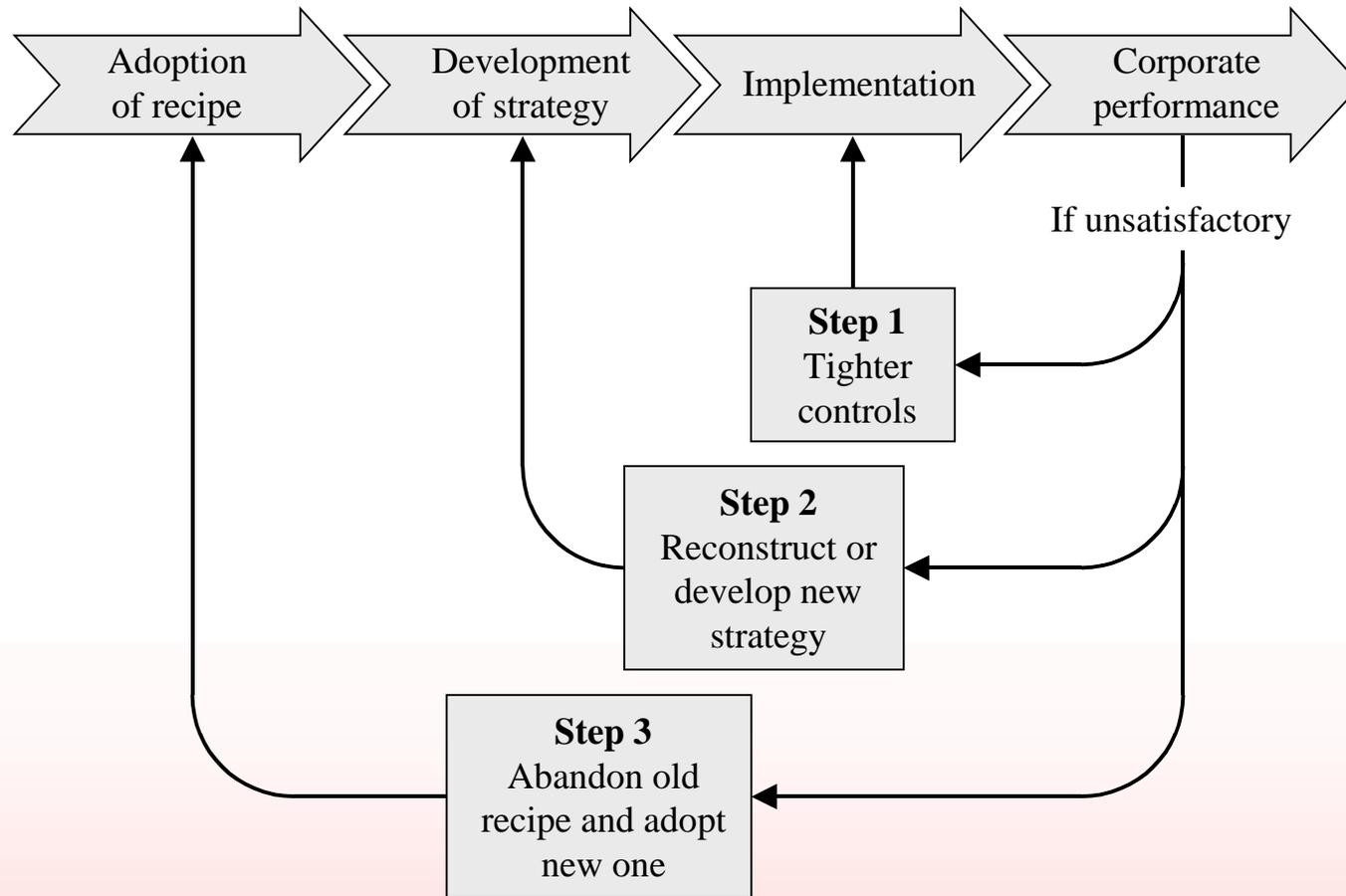
- well-defined **OBJECTIVES** (to know where to go to);
- clear **STRATEGY** (to know how to get there);
- **OUTCOMES** and monitorable **INDICATORS** (to know if on track);
- **EVALUATION OF RESULTS** (to gain input for improvements).

Evaluation Elements and Cycle of Assessment
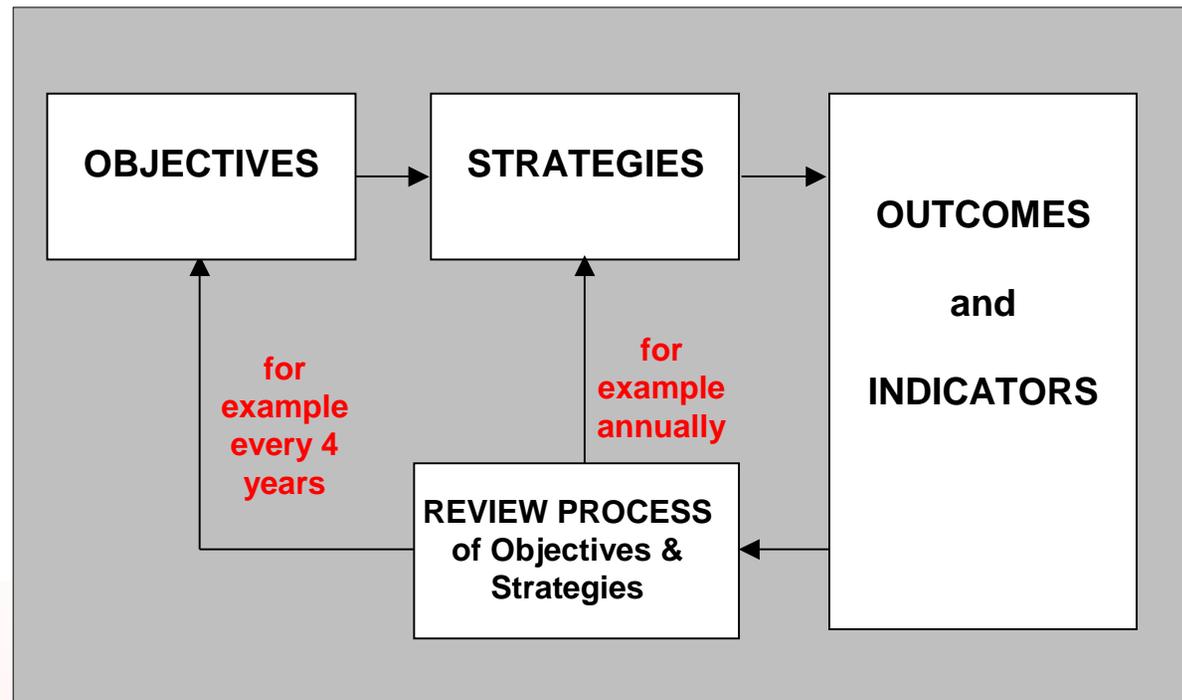
Dynamic of recipe change

(Grinyer and Spender, 1979)

The Six Basic Parts of the Organization

(Mintzberg et al., 1995)

**Strategic Apex:** where the whole system is overseen.

Middle Line: Managers of managers; the middle line establishes a hierarchy of authority between the operating core and the strategic apex.

Operating Core: Operators, who perform the basic work of producing the products and providing the services.

Technostructure: A large organization requires a group of people who mainly analyze, plan and control the operations of the whole organization and the work of other staff. They are often outside the direct hierarchy of line authority.

Support Staff: Staff units that provide various internal services, from a cafeteria or mailroom to a legal counsel or public relations office.
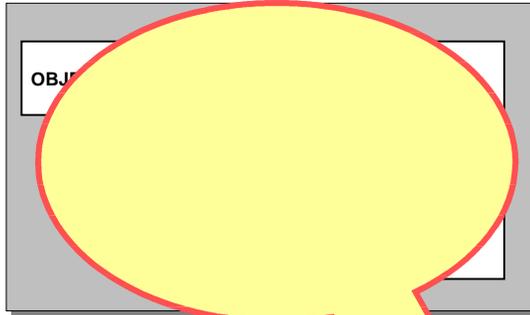
Ideology: encompasses the traditions and beliefs of an organization that distinguish it from others and infuse a certain life into the skeleton of its structure.

Strategic Appex

Ideology

Techno-structure

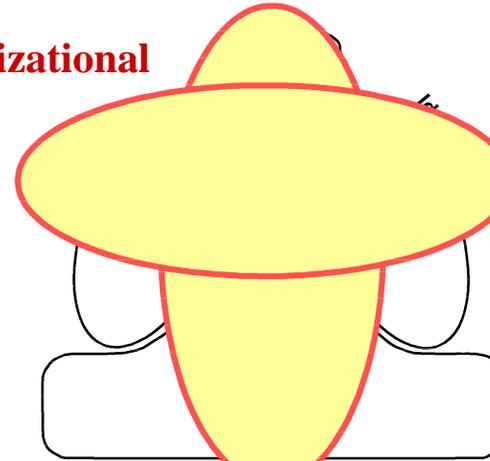**Middle Line**

Support Staff

Operating Core
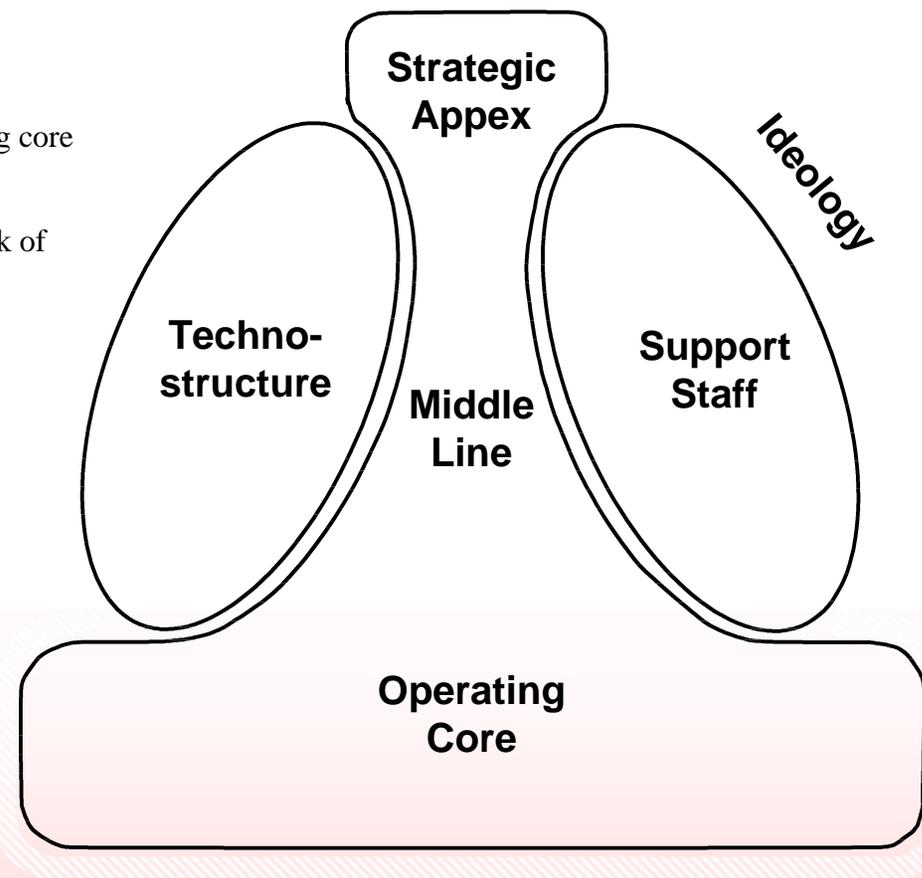
Evaluation Framework and Methodology

Evaluation Areas

Cycle of Assessment

Organizational Levels

Social, cultural, technological context

Administration System

Review process

Policy Level

Management Level

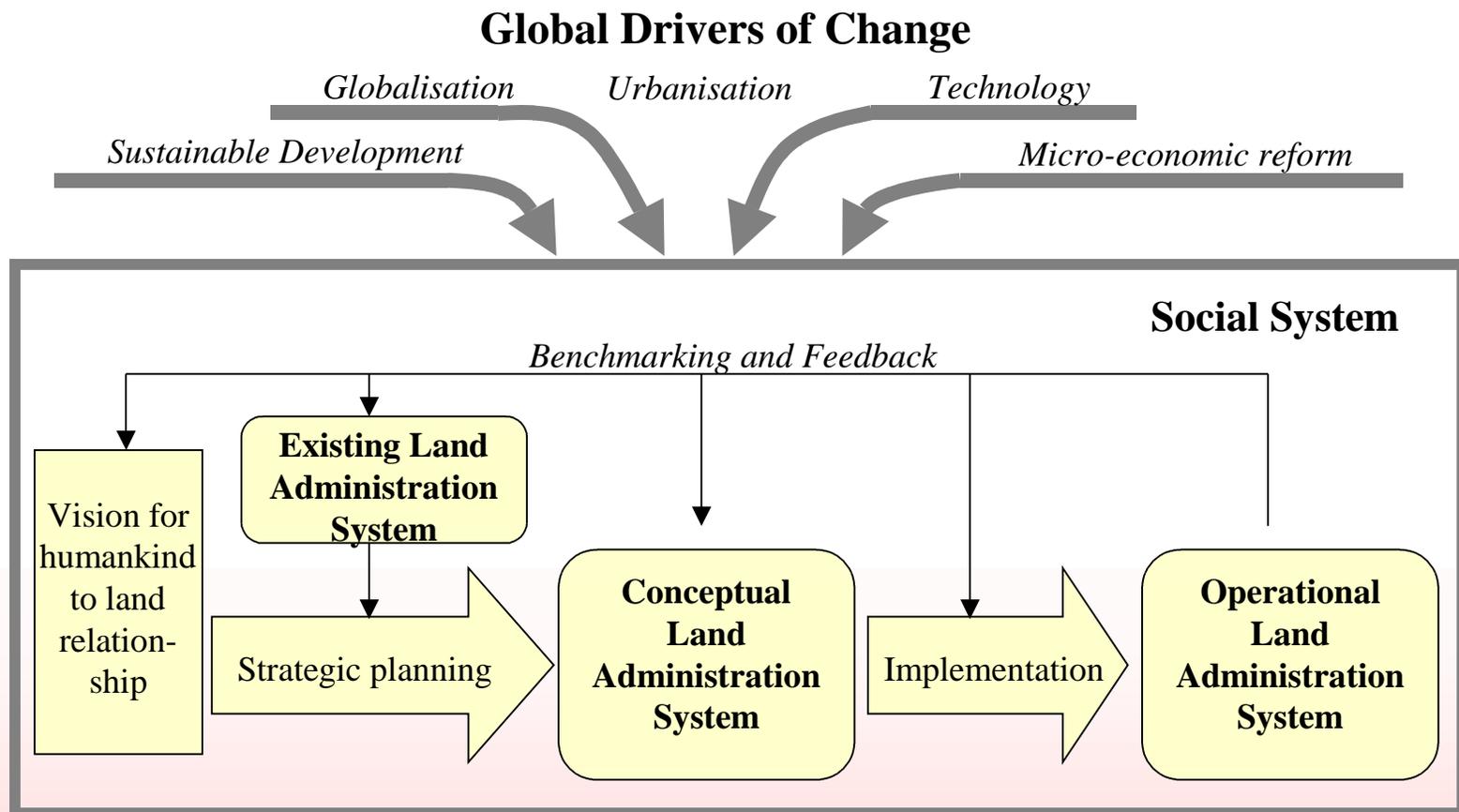**Operational Level**

External Factors
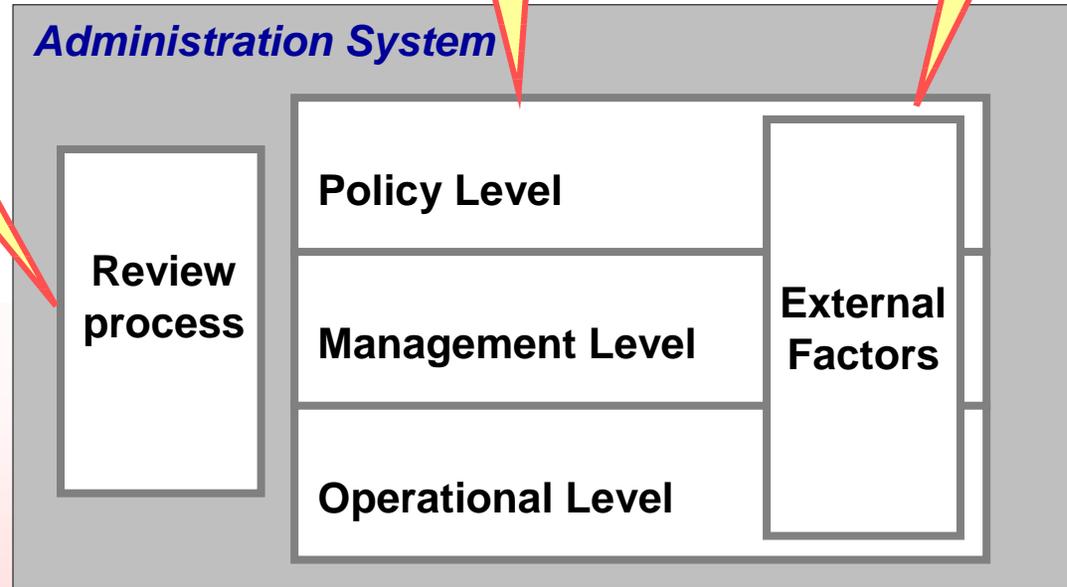
Analogy to General Business Management

(based on Kaufmann, 2000)

Organizational Levels	General Business (stakeholder: private company)	Land Issues (stakeholder: society)
Policy (goal setting)	*Sound economic development*	*Sustainable development*
Management (measures to meet strategy) Admin. business processes	*Company management* *Administrative units*	*Land management, resource management* *Land administration functions and organizations*
Operational (tools for documenting and monitoring)	***Accounting system:*** • *accepted principles of bookkeeping* • *reliable* • *complete* • *appropriate to needs* • *adaptable to development*	***Cadastre:*** • *accepted principles for documentation of rights, restriction and responsibilities* • *reliable* • *systematic* • *appropriate to needs and laws* • *adaptable to development* • *public*

Analogy to Re-engineering Concepts

Framework for Re-engineering Land Administration
Systems (Williamson and Ting, 2001)

Evaluation Areas à Evaluation Framework
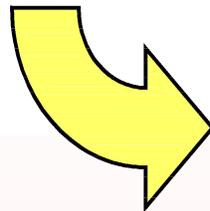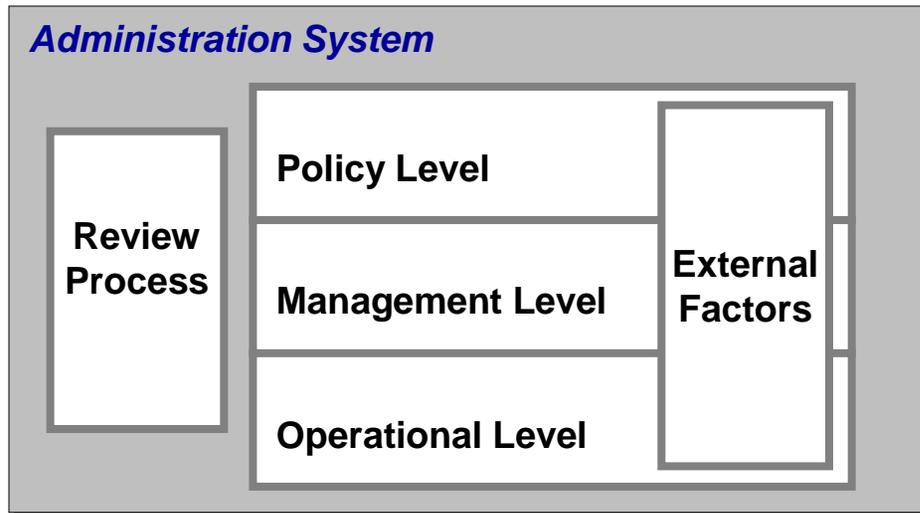
Administration System

Review Process	Policy Level	External Factors
	Management Level	
	Operational Level	

Area	Possible Aspects	Possible Indicators	Good Practice
Policy Level			
Management Level			
Operational Level			
External Factors			
Review Process			

Evaluation Framework (1)

Area	Possible Aspects	Possible Indicators	Good Practice
Policy Level	• Objectives and tasks of the system • Historic, legal, social, cultural background • Equity in social and economic terms • Viability of system (economical, social)	• List of objectives and tasks • Historic, legal, social arrangements • Social indicators • Economic indicators (expenses, incomes, fees, costs)	• System is well defined by objectives and tasks • System responds to needs of society • System is equitable for all • System is economically viable
Manage-ment Level	• Structural definition of system • Strategic targets • Institutional and organizational arrangements • Cooperation and communication between institutions • Involvement of private sector	• Definitions and characteristics of system • List of strategic targets • List of institutions and their responsibilities and strategies • Links between institutions (legal, organizational, technical) • No. of contracts with private sector	• Structure of system is useful and clearly defined • Strategies are appropriate to reach and satisfy objectives • Involved institutions have each clearly defined tasks and cooperate and communicate well with each other • Private sector is involved

Evaluation Framework (2)

Area	Possible Aspects	Possible Indicators	Good Practice
Operational Level	• Outcomes • Technical Specifications • Implementation	• Products for clients • Technical indicators • Implementation factors	• Products respond to objectives • Technical specifications and implementations are appropriate to strategic needs
External Factors	• Human Resources (personnel, training) • Capacity building • Professional association • Technical developments	• Number of personnel, eduction • Continuing eduction (seminars, etc.) • Number of universities and students • Is there a professional association (y/n) • New technologies on the market	• Appropriate number of personnel in relation to task and population • Continuing eduction on a regular basis • Appropriate number of universities and students • Professional association takes active role • New technologies are evaluated on a continuing basis

Evaluation Framework (3)

Area	Possible Aspects	Possible Indicators	Good Practice
Review Process	• Review of objectives and strategies • Performance and reliability of system • User satisfaction	• Review of objectives and strategies (y/n) • Turnover, time to deliver, number of error • Review of user satisfaction (y/n)	• Regular review process • System is efficient and effective • System delivers in time and with few errors • Appropriate, fast and reliable service to clients

Evaluation Methodology

Area	Possible Aspects	Possible Indicators	Good Practice
Policy Level			
Management Level			
Operational Level			
External Factors			
Review Process			

Evaluation Framework

Evaluation of Aspects and Indicators — **Good Practices** = **Performance Gaps**

Summary / SWOT-Matrix

Strengths	Weaknesses
Opportunities	Threats

"Land Administration" Case

Input for Land Administration evaluation framework

Features and Criteria:

- Seven features from Simpson (1976)
- Considerations for Land Registration Improvements (Holstein (1987)
- Requirements for Implementing the Multipurpose Cadastre (Dale and McLaughlin, 1988)
- Aspects of a well-functioning cadastral system (Bogaerts, 1999)
- Cadastre 2014 (Kaufmann and Steudler,1998)
- Toolbox Principles for Land Administration Systems (Williamson, 2001)

Modern Context:

- Sustainable development
- Holistic approach to land issues
- Inclusion of all rights, restrictions, responsibilities
- Good governance and civic participation
- E-government
- Data integration

Examples of Performance Indicators (1)

Area	Aspects	Possible Indicators (not detailed and not exhaustive)
Policy Level	**Land policy principles**	§ Existence of a government policy for land administration (y/n) § List of statements for land administration system role § Existence of independent land board (y/n)
	Land tenure principles	§ Existence of formal recognition and legal definition of land tenure (y/n) § Security of tenure (no. and solution of disputes) § Social and economic equity (underrepresented groups)
	Economic and financial factors	§ Cost/benefit and fee structures, land tax revenue § Economic indicators (value and volume of land market) § Funding and investment structure
Management Level	**Cadastral and land administration principles**	§ Adequate protection of land rights § Support of land market (secure, efficient, simple, at low cost)
	Institutional principles	§ List of responsible departments and ministries § Central or decentral organization § Number of institutions and offices § Private sector involvement, no. and volume of contracts
	SDI principles	§ Standards arrangements, core data § Access network, pricing § Data definition, modelling

Examples of Performance Indicators (2)

Area	Aspects	Possible Indicators (not detailed and not exhaustive)
Operational Level	**Technical principles**	§ Data properties (capture method, quality and accuracy) § Data maintenance, timeliness
External Factors	**Human resources**	§ Number of personnel (public and private) § Professional association
	Capacity building	§ Number of universities and students § Funding structure for capacity building § On-going education (no. of workshops, seminars)
	Research and development	§ Number of research institutes in the land administration field
	Technology	§ Freedom of systems and methods (y/n) § Regular review of new technologies on market and assessment of fitness for use (y/n)
Review Process	**Assessment of Review Processes**	§ User satisfaction indicators § Degree of satisfaction of objectives and strategies § Existence of a regular review process (y/n)

Show Case

Show Case for Evaluation of an LAS (1/3)

Evaluation of single areas and aspects

Area	Aspects	Possible Indicators (not detailed and not exhaustive)
Policy Level	**Land policy principles**	§ Government policy § Existence of independent land board § Spatial info. supports good governance
	Land tenure principles	§ Recognition and definition of land tenure § Security of tenure § Social and economic equity
	Economic and financial factors	§ Cost/benefit awareness § Land tax revenue § Support of land market
Management Level	**Cadastral and land administration principles**	§ Structure is useful (comprehensive and systematic cadastre) § Strategies are appropriate to reach and satisfy objectives
	Institutional principles	§ Central vs. decentral / state vs. local § Private sector involvement
	SDI principles	§ Standards, core data § Access network § Data definition, modelling

Show Case for Evaluation of an LAS (2/3)

Evaluation of single areas and aspects

Area	Aspects	Possible Indicators (not detailed and not exhaustive)
Operational Level	**Technical principles**	§ Data maintenance § Timeliness
External Factors	**Human resources**	§ Number of personnel (public and private) § Professional association
	Capacity building	§ Number of universities and students § Funding structure for capacity building § On-going education (no. of workshops, seminars)
	Research and development	§ Number of research institutes in the land administration field
	Technology	§ Freedom of systems and methods § Regular review of new technologies on market and assessment of fitness for use
Review Process	**Assessment of Review Processes**	§ Regular review process of objectives and strategies § User satisfaction

ü
ü
-
ü
ü
ü
ü
ü
o
ü
ü
~

Summary / SWOT-Matrix

Strengths • Regular and comprehensive review of strategy • Good cooperation between public-private-academic sectors • Strong academic sector	**Weaknesses** • Cadastre not comprehensive and systematic • Cadastral issues not integrated in strategy • Data modelling
Opportunities • Vision of spatial information being crucial for good governance • Strengthen political support	**Threats** • Not being able to bring the diverging interest groups together • Loosing political support
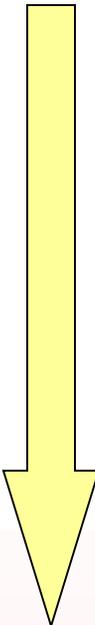
Thank you for your attention !