



## A Framework for Benchmarking Land Administration Systems

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### **Definition of benchmarking**

'Benchmarking' has been defined by the AusIndustry-Best Practice Program (1995) as "*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 processes of competitors or those organizations recognized as leaders in the industry or specific business processes that you have chosen.*"

Within the general trend in governmental agencies to adopt 'New Public Management' strategies, there has been an growing trend to adopt management practices, to help organizations to perform at the level of international best practice. One of the key management strategies adopted in this trend is 'benchmarking', along with related techniques such as 'total quality management' or 'controlling'. Benchmarking is increasingly seen as a management tool and a key to improve productivity and efficiency and to measure service quality.

### **Why benchmarking land administration systems ?**

In the context of evolving land administration systems, benchmarking serves mainly two purposes:

- to justify investments to improve; and
- to monitor these improvements.

In order to achieve these two objectives, comparison of different systems becomes important. Even though the need for efficient systems of land administration is well recognized, the social, technical, and legal complexity of the issues involved has so far precluded a more rigorous comparison of systems across countries and over time. Such a comparison, however, would be very helpful:

- to help motivate and monitor reforms in the area of land and property, often opposed by powerful vested interests;
- to identify areas and priorities for improving the performance of property right systems that can be directly linked to policy;
- to facilitate cross-country comparisons in land administration performance;
- to provide a basis for comparisons over time;
- to demonstrate strengths and weaknesses of land administration systems;
- to help drawing links to other issues and sectors (financial, governance, environmental, social, etc.).



### **Cadastral systems in the land administration context**

In their guidelines, the UN-ECE (1996) defined land administration as “the processes of determining, recording and disseminating information about the tenure, value and use of land when implementing land management policies. It is considered to include land registration, cadastral surveying and mapping, fiscal, legal and multi-purpose cadastres and land information systems.” A land administration system in this context can therefore be considered to be the processes of recording and disseminating information about **ownership, value, and use** of land, whereby the process dealing with **spatial information** on land is linking and underpinning the other processes (compare Figure 1).

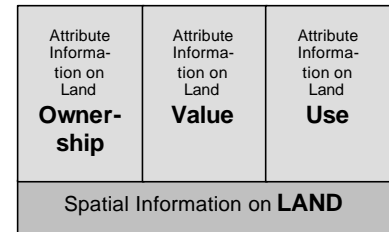


Figure 1: Processes in land administration

Cadastral systems traditionally consist of the two components of ‘land ownership’ and the corresponding ‘spatial information on land’, which are considered to be the core components of land administration system.

### **Best practice in land administration**

Williamson (2001) proposes, “that land administration ‘best practice’ evolves over time and varies from place to place and country to country in response to national and global drivers”. In recognizing the principle that what is ‘best practice’ for one country is not necessarily ‘best practice’ for another, he suggests the concept of a land administration ‘tool box’ of options for reforming or re-engineering land administration systems based on ‘best practice’ components.

Kaufmann (1999) stated that land administration needs reliable information about the existing land and its resources and about the legal situation of these items. Cadastres provide the ‘book-keeping’ for this information within the wider land administration and land management systems.

The six statements of the FIG publication ‘Cadastre 2014’ (Kaufmann and Steudler, 1998) are visions for future cadastral systems, and may in this context be considered as partial basis for establishing ‘best practice’ for the diverse cadastres around the world. Since 1998, ‘Cadastre 2014’ has been translated into 20 languages and is being reprinted at the moment. The six statements are giving visions regarding the “inclusion of public rights and restrictions in cadastres”, the “integration of ‘maps’ and ‘registers’”, the “role of data modeling”, the “diminishing role of ‘paper and pencil’”, the “increasing role of private sector”, and the “increasing cost awareness of cadastral systems”.

### **Methodology**

In a World Bank Seminar about the evaluation of public management systems, Baird (1998) emphasized four evaluation elements that are central in how to evaluate the performance of an organization or a system:

- well-defined **objectives** – to know what to achieve
- a clear **strategy** – to know how to get there
- monitorable **indicators** – to know if on track
- **evaluation** of results – for accountability and learning purposes

In Switzerland, the Federal administration was under pressure in the mid-1990's to introduce measures for improving the financial efficiency. The Federal Directorate of Cadastral Surveying introduced a system of performance mandates with the Cantons and established a so-called controlling cycle for monitoring and evaluating the results in cadastral surveying (Figure 2). These elements correspond with the above-mentioned evaluation elements, which can be formulated for land administration as follows:

- **Objectives:** what the objectives of the national land administration system is;
- **Strategy:** what strategic approach and what components/tools have been established to reach these objectives;
- **Performance, outcomes:** what the performance of these components/tools are and what mission effectiveness they achieve;
- **Evaluation of results:** how the system is managing change and how objectives and strategies are re-evaluated.

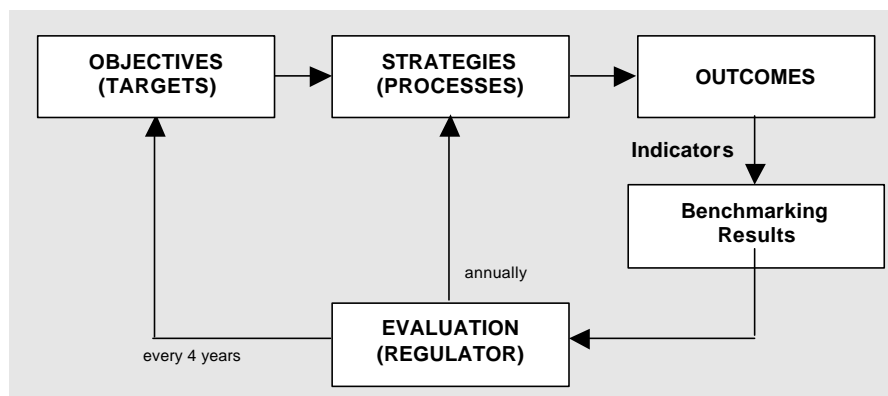


Figure 2: Basic controlling cycle for performance monitoring system in Swiss cadastral surveying (adopted from Selhofer and Steudler, 1998).

## Indicators

For benchmarking land administration systems, it is suggested that the objectives and the strategies are measured with ‘operational’ and ‘policy indicators’.

‘Operational indicators’ will give hints for executive directors responsible for some or all of the land administration components. These indicators look for example at technical issues, such as number of parcels, cost and time for comparable processes, number of personnel, etc. The standardized country report of FIG-Commission 7 – being carried out during its 2001 annual meeting – is a first proposal and contains a number of such operational indicators.



'Policy indicators' are intended to give information on a decision-making level in order to support political decisions. Based on the above outlined 'best practice', the following structure is suggested:

1. Comprehensiveness of the cadastre as well as of other land administration aspects:

De Soto (2000) argues that the legal comprehensiveness of a cadastre is a crucial ingredient for land ownership security and loan credibility, and in consequence of a sound national economic development. With the integration of public rights and restrictions, 'Cadastre 2014' extends this comprehensiveness from a legal ownership perspective to other land administration aspects and offers managerial as well as technical solutions such as the digital format, data modeling, the concept of land objects, and the principle of legal independence.

2. Organizational aspects, such as data integration, degree of information use and information sharing;
3. Public-private sectors (role of private sector, level of cooperation, professional associations);
4. Financing aspects (levels of administration, cost and cost recovery of first surveys-upgrading-updating);
5. Data quality (content, reliability, accuracy, currency);
6. Applied technologies;
7. Staff (education, appropriateness).

The most important factors on a policy-maker level are the economic, social, and environmental issues as suggested in the FIG Agenda 21 proposal (FIG, 2001). For a land administration system, the economic issues are e.g. the land sales market, land taxes, agricultural productivity; social issues would be secure ownership, reduced disputes, re-privatization of state-owned land, equity of ownership, and good governance; and environmental issues are environmental monitoring, sustainable development, and protection against encroachments. 'Policy-maker indicators' will need to also address such issues in order to be effective.

### ***First results and further steps***

First results for the 'operational indicators' are expected at the annual meeting of FIG-Commission 7 in Gävle, Sweden in June 2001. A proposal for a standardized country report has been prepared and first results are expected.

During the continuing research, the author will carry out several case studies with the objective to further the above-described first outline, and to gain experience and input for improving the framework. The aim of the research is to establish a framework and methodology for benchmarking land administration systems.



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