Land Management and Cadastre – a Symbiotic Interaction?

Dr. Alexander Kohli, Switzerland
geosuisse, Delegate to Commission 8

FIG Congress 2010, Sydney, Australia, TS 8E – Law and Planning

Agenda

1. Introduction and Motivation
2. Economic Development and Sprawl of Agricultural Land
3. Sustainable Land Management (SLM) – Steering for Better Conditions of Development
4. Cadastre of Real Estate and Rights - and SLM
5. Conclusions

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Introduction and Motivation

<table>
<thead>
<tr>
<th>Development Stage</th>
<th>Land Management Laws</th>
<th>Land Consumption / Sprawl</th>
<th>Services / Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland – Industrialized Country</td>
<td>1969, Article on spatial planning incorporated in the Federal Constitution for Spatial Planning at three levels (state, regional and municipal), federal/ regional laws</td>
<td>Huge – only 75% filling grade of construction zones – periodical extension of construction zones</td>
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<td>Azerbaijan – Transition Country</td>
<td>No clear legacy on Spatial Planning; Vertical integration of the planning process at different levels (state, regional and municipal) is missing; No proper horizontal coordination, and planning schemes are prepared by different bodies and institutions</td>
<td>Huge sprawl, illegal construction</td>
<td>+/-</td>
</tr>
<tr>
<td>Kosovo – Post-Conflict and Transition Country</td>
<td>No clear legacy on Spatial Planning; 2006, UN-Habitat Urban Planning Initiative on Municipal Level; Weak Land Administration</td>
<td>Unregulated sprawl, illegal construction, illegal occupation run rampant etc.</td>
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</table>

Requests to Land Management

- More powerful implementing governmental institutions.
- More control and monitoring on all levels of implementation;
- More rigorous (and consequent) interpretation of the existing laws;
- Better quality of education for surveyors, planners, engineers, and architects.
How to Achieve…

…taking into account a:

- Dynamic economic development?
- Need for rising food and fiber production?
- Preservation of agricultural production capabilities?
- Prevention of land degradation?

1. Introduction and Motivation
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How to Approach…

Statement 1: Economic development consumes land.
Statement 2: (Sub-)urban development sprawls agricultural land.
Statement 3: Land consumption and sprawl cannot be stopped but steered and controlled.
Statement 4: Steering of land consumption and sustainable land management (SLM) create better conditions for development.
Statement 5: Sustainable Land Management (SLM) needs cadastre as a pre-requisite.

1. Introduction and Motivation
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Economic growth caused land consumption in Switzerland during last decade:

1 m²

...every second one square meter!

Economic growth caused land consumption in Switzerland during last decade:

2 m²

...every second one square meter!
Economic growth caused land consumption in Switzerland during last decade:

...every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Economic growth caused land consumption in Switzerland during last decade:

...every second one square meter!
Types and Tendencies of Sprawl…

- Hunger for land along communication roads;
- Stockpiling of valuable development areas (75% of filled in CH);
- Around urbanized areas (centrifugal dynamics for poor and well-off):
  - car ownership;
  - looking for better living conditions (gated communities, desire for single family housing);
- Filling up city outskirts or gaps in developing/post conflict countries with:
  - informal urbanization;
  - illegal settlements/occupation;
- Caused by planned development:
  - residential programs from investors or government;
  - re-settlements of IDP’s;
- Cities’ economies as driving forces for sprawl (Prud’homme 2004).

Results of Sprawl…

2. Economic Development and Sprawl of Agricultural Land
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Sustainable Land Management (SLM)…

- Not stopping – **but steering**;
- Measures for steering (trials for stopping):
  - legally approved land use planning with public involvement;
  - risk based land use planning (**destruction** incl.);

SLM as an Asset…

- Higher density of development → **better conditions**:
  - Security of life;
  - Security of investments (**utilities, communication, etc.**);
  - Quality of services;

- **Procedures** – easy and transparent:
  - Building permit;
  - Property registration;
  - Planning cycles/horizons.
Cadastre – the Tool for SLM… (I)

- Land Management based on documentation of actual state:
  - Call for new tools – fast approach cadastre (SLTM);
  - ‘FIG Cadastre 2014’ – use of separate layers for different legal states, land holding type, occupations etc.;
  - Procedures to regularize and legalize tenures.

Cadastre – the Tool for SLM… (II)

<table>
<thead>
<tr>
<th>Law</th>
<th>Cadastre</th>
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<tbody>
<tr>
<td>Land Code: Legal Boundaries</td>
<td>Cadastral Survey</td>
</tr>
<tr>
<td>Public Law: Urban zoning</td>
<td>Register of Real Estate</td>
</tr>
<tr>
<td>Protection zones</td>
<td>and (other) Rights</td>
</tr>
<tr>
<td>Tenures etc.</td>
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</tbody>
</table>
Cadastre – the Tool for SLM... (III)

- Land use under awareness of Public-Right Restrictions:
  - More transparency (building code, lines of construction, forest, refuse dumps, water protection etc.);
  - Easy access to information.

→ Cadastre on Public Right Restrictions of Landownership Rights

Conclusion

Sustainable Land Management needs

- **Comprehensive** documentation of real estate and rights in one system;

- Straight forward approach for actual cadastre information – as a pre-requisite;

- Quick and transparent procedures to regularize and legalize tenures.

→ Land Management and Cadastre = a Symbiotic Interaction!