

Introduction and Motivation

Development Stage	Land Management Laws	Land Consumption / Sprawl	Services / Utilities
Switzerland – Industrialized Country	1969, Article on spatial planning incorporated in the Federal Constitution for Spatial Planning at three levels (state, regional and municipal), federal/regional laws	Huge – only 75% filling grade of construction zones – periodical extension of construction zones	++
Azerbaijan – Transition Country	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	Huge sprawl, illegal construction	+/-
Kosova – Post-Conflict and Transition Country	No clear legacy on Spatial Planning; 2006, UN-Habitat Urban Planning Initiative on Municipal Level; Weak Land Administration	Unregulated sprawl, illegal construction, illegal occupation run rampantly etc.	-

1. Introduction and Motivation
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

3



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.

1. Introduction and Motivation
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

4



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
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

5



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
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

6

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

1 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

2 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

3 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

4 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

5 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

Economic growth caused land consumption in Switzerland during last decade:

BSB+ Partner
Ingenieure und Planer

bsb+

5 m²

....every second one square meter!

2. Economic Development and Sprawl of Agricultural Land
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia




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).

2. Economic Development and Sprawl of Agricultural Land
 Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia


13



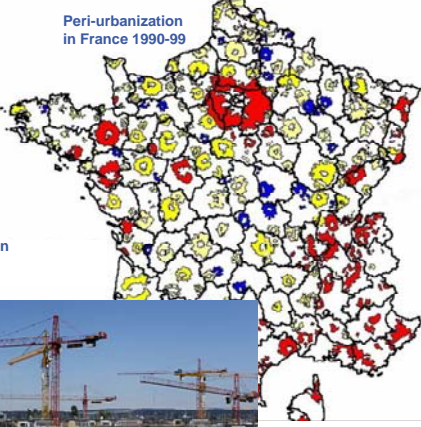
Results of Sprawl...




IDP settlement in Georgia



Construction hype in Baku (AZ)



Peri-urbanization in France 1990-99



Construction hype in Switzerland

2. Economic Development and Sprawl of Agricultural Land
 Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

14



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.);



3. Sustainable Land Management (SLM)
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

15



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.



Business complex
in Baku (AZ)

3. Sustainable Land Management (SLM)
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

16




Cadastre – the Tool for SLM... (I)

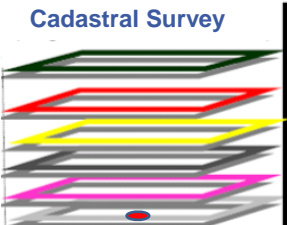

- Land Management **based** on **documentation** of actual state:
 - Call for new tools – fast approach cadastre (SLTM);
 - ‘FIG Cadastre 2014’ – use of separate layers for different legal states, land holding type, occupations etc.;
 - Procedures to regularize and legalize tenures.

4. Cadastre of Real Estate and Rights
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

17



Cadastre – the Tool for SLM... (II)

<p>Law</p> <p>Land Code: Legal Boundaries</p> <p>Public Law: Urban zoning Protection zones</p> <p>Tenures etc.</p>	<p>Cadastral Survey</p> 	<p>Cadastre</p> <p>Register of Real Estate and (other) Rights</p> 
---	--	---

4. Cadastre of Real Estate and Rights
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

18



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**



private law restrictions of landownership	public law restrictions of landownership	
	Decree on individual basis	General decrees
Civil Code	Geoinformation Act	
Land Register	PRLR Cadastre	
Cadastral Zoning (CZ) as an element	CZ as a reference	
parcel identifier known	perimeter known	

4. Cadastre of Real Estate and Rights
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

19



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!**

5. Conclusion
Dr. Alexander Kohli, TS 8E – Law and Planning – FIG Congress 2010, Sydney, Australia

20