

**Annual Meeting FIG-Commission 7
Clermont-Ferrand, France, 13 Sept. 2004**

Cadastral Template Project



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swisstopo
+ + +

In cooperation with:
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- Ø Design and Content
- Ø Website

FIG-Commission 7: Country Report 1997

Replies from 54 Countries

- General statistics
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- Completeness
- Personnel and salary
- Cost recovery

FIG INTERNATIONAL FEDERATION OF SURVEYORS
FEDERATION INTERNATIONALE DES GEOMETRES
INTERNATIONALE VEREINIGUNG
DER VERMESSUNGSINGENIEURE

Commission 7
Cadastre and Land Management
Working Group 7.1
"Vision on Cadastre 2014"

Results of Questionnaire "Cost Recovery"

A) General Statistics and Content

CS = Cadastral Survey
LR = Land Register
RI = Reference Index

Jurisdiction	Population	GNP (M\$)	GNP per capita (M\$)	Number of parcels	Pop. per parcel	Total value of... Land...Mortgage (M\$)
Latvia	2497000	4070	1634	78731	32.5	5320
Liechtenstein	30000	1000	333	38000	1.3	1000
Lithuania	3787000	1000	0.26	1000000	3.8	1000
Luxembourg	401000	1000	2.5	100000	4	1000
Malaysia	20900000	1000	0.048	10000000	2.1	1000
Nepal	21330000	1000	0.047	10000000	2.1	1000
Netherlands	15422000	1000	0.065	10000000	2.1	1000
New Zealand	3690000	1000	0.27	1000000	3.7	1000
Norway	4300000	1000	0.23	1000000	4.3	1000
Papua-New G.	4199000	1000	0.024	1000000	4.2	1000
Philippines	68300000	1000	0.015	10000000	6.8	1000
Poland	39000000	1000	0.026	10000000	3.9	1000

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Results of Questionnaire "Completeness"

C) Completeness

Jurisdiction	Cadastral Surveying (spatial component)			
	actual coverage	in digital form	in digital form system	in digital form system
Latvia	40	40	3	00000000
Liechtenstein	90	90	40	00000000
Lithuania	24	7	16	00000000
Luxembourg	100	95	8	00000000
Malaysia	100	30	10	00000000
Nepal	100	65	0	00000000
Netherlands	100	84.2	90	00000000
New Zealand	100	100	100	00000000
Norway	100	100	0	00000000
Papua-New G.	100	100	14	00000000
Philippines	94	94	0	00000000
Poland	100	30	11	00000000

B) Performance, Reliability

Jurisdiction	Total number of parcels	Annual number of... new parcels	
		total number	% of total
Latvia	78731	79000	10.2
Liechtenstein	38000	150	0.4
Lithuania	492962	98500	20
Luxembourg	663261	19000	2.9
Malaysia	8500000	209000	2.5
Nepal	18441481	150000	0.8
Netherlands	7000000	400000	5.7
New Zealand	2000000	49000	2.5
Norway	2500000	39000	1.6
Papua-New G.	117873	200	0.17
Philippines	8100000	190000	2.3
Poland	29000000	150000	0.5

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Results of Questionnaire "Cost Recovery and Privatization"

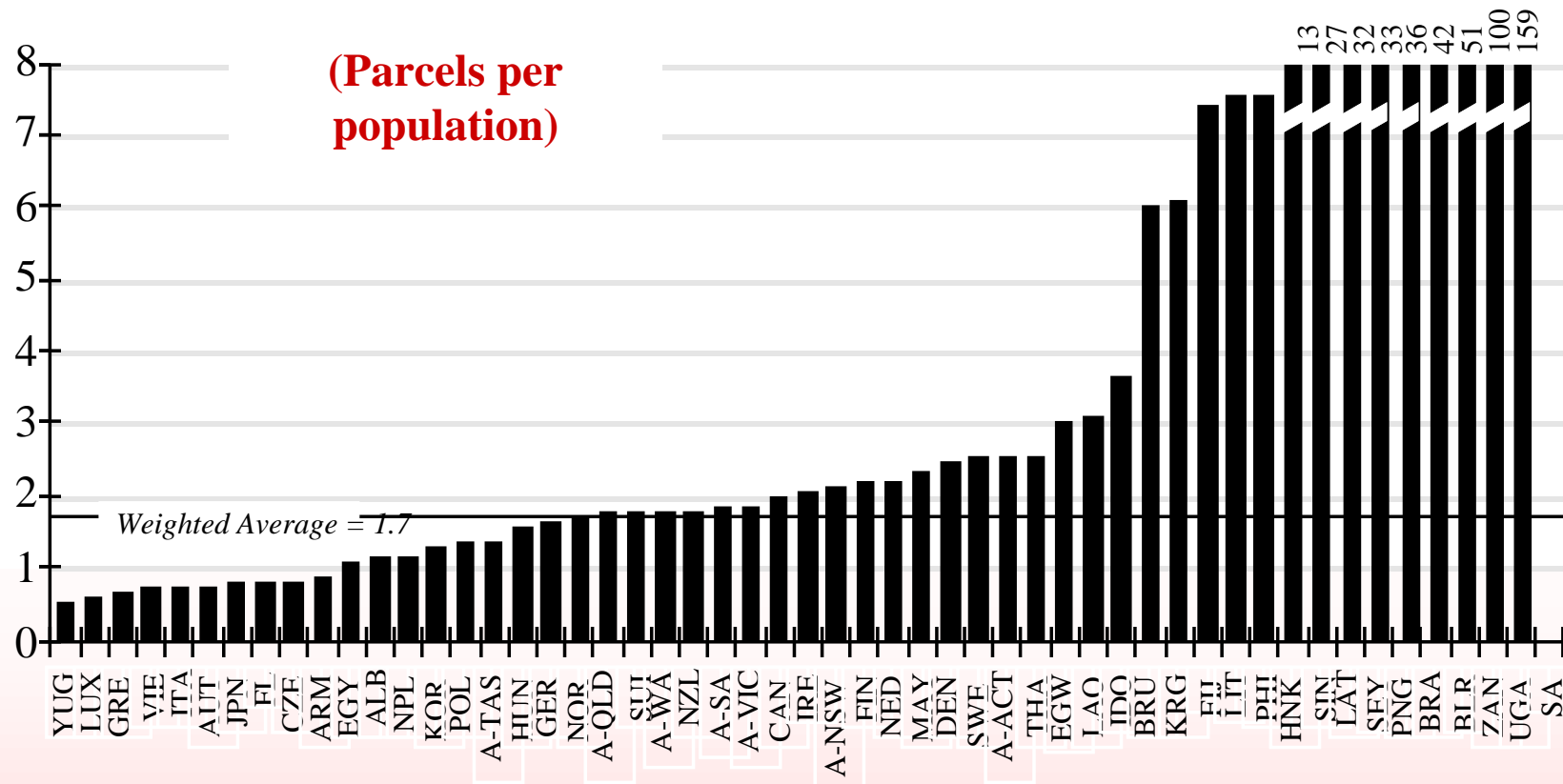
E) Cost Recovery Aspects

CS = Cadastral Surveying
LR = Land Registration

Jurisdiction	Total number of parcels	Cost of initial data capt.		Supposed annual expenditures				Costs for transactions		Supposed annual income		Supposed cost recovery degree						
		CS	LR	CS	LR	CS	LR	CS	LR	CS	LR	CS	LR					
Latvia	78731	150	50	27	43	2	3	5	8	100	50	7	1	8.7	1.8	330	15	
Liechtenstein	38000	700	70							420								1
Lithuania	492962	65	20	5	3	1	1	2	2	95	48	5	1	1.5	2	633	47	
Luxembourg	663261	220								200								1
Malaysia	8500000	260	30	5	2	43	17	5	2	4700	1500	800	2266	60.3	28.8	1882	13235	
Nepal	18441481	15	600	1	4	11	9	2.6		200								6.0
Netherlands	7000000	482	63	16	17	118	119	3	4	388	63	155	25	5	1	140	21	
New Zealand	2000000	10	7	8	4	10	7	3	1	500	200	20	46	3	7	125	571	
Norway	2500000	1660	1000	10	7	25	18	2	2	1700	150	35	21	3	2	120	120	
Papua-New G.	117873	1260	6	5	8	1	1	1	1	1700	50							0.50
Philippines	8100000	75	16															
Poland	29000000	16	1	70	4	2030	116	13.1	8	180	200	27	66	2	4	1	62	

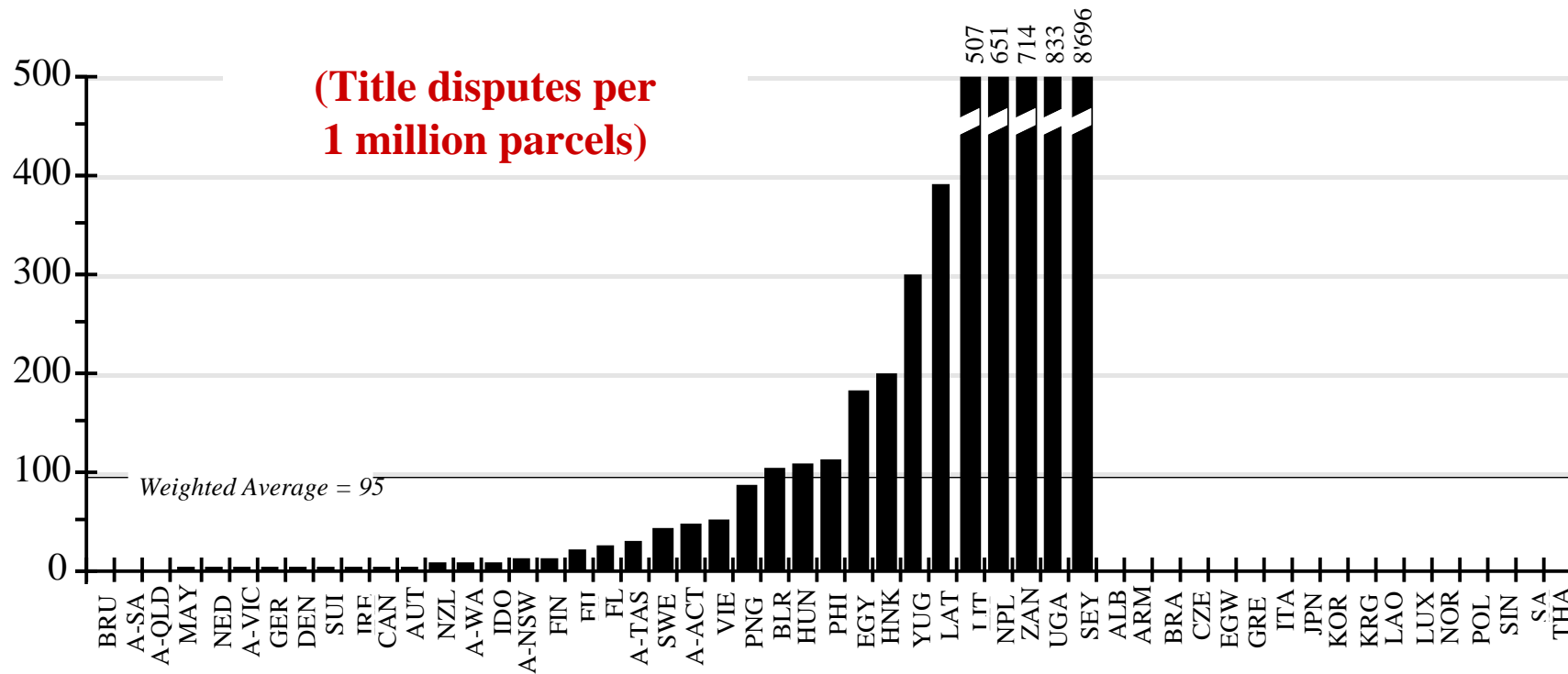
Benchmarking Cadastral Systems

(Stuedler, Williamson, Kaufmann, and Grant, 1997)



Benchmarking Cadastral Systems

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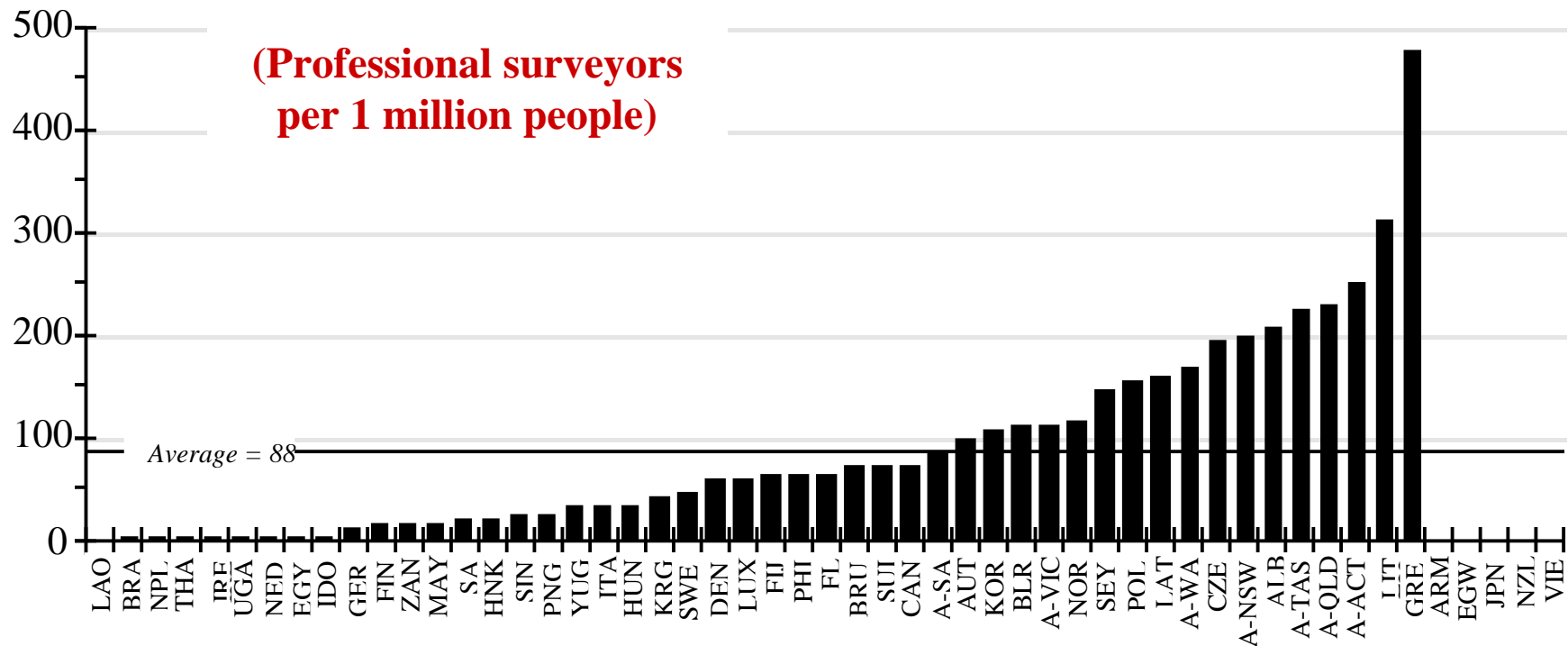


FIG-Commission 7

Standardized Country Reports:

2001 – Replies from 13 Countries

- **Annual Indicators**
- **Long-Term Statistics**

2002 – Replies from 17 Countries

- **Education**
- **Trends and Reforms**

PCGIAP – Working Group 3 (Cadastre)

- PCGIAP:** Permanent Committee on GIS Infrastructure for Asia-Pacific (annual meetings, reports to UNRCC-AP, 55 member nations)
- WG-Chair:** Ian Williamson (Australia)
- WG-Vice chair:** Ahmad Fauzi bin Nordin (Malaysia)
- Research Centre:** University of Melbourne, Dept. of Geomatics, Center for Spatial Data Infrastructures and Land Administration
- Researchers:** Prof. Stig Enemark
Dr. Abbas Rajabifard
Dr. Daniel Steudler
Prof. Ian Williamson
- Workshop:** Okinawa, Japan, 12/13 July 2003

Intention of Cadastral Template

To develop an appropriate **generic template** for country profile analyses describing the status of cadastre and land administration, and the need for improvements, which will facilitate benchmarking and the development of performance indicators.

UNRCC-AP Resolutions, Okinawa, July 2003

In Okinawa, the UNRCC-AP adopted a resolution concerning the jointly developed cadastral template and - among other issues - recommended:

- (i) that the PCGIAP-Working Group 3 encourages the member nations to complete the template during its new 2003-2006 work plan,
- (ii) that Working Group 3 cooperates with **FIG-Commission 7**, PCIDEA, UNECE-WPLA and UNECA-CODI, and
- (iii) that PCGIAP cooperates with FIG-Commission 7 to maintain and update a web site for the cadastral template.

Design Principles for Template

- Ø keep it simple in order to attract as many participants as possible → part I and II (descriptive and statistics)
- Ø 3 Ps as basic indicators: population / parcels / professionals
- Ø role of cadastre for SDI
- Ø resource for lesson-learning from each other
- Ø resource for developing best practice and performance indicators

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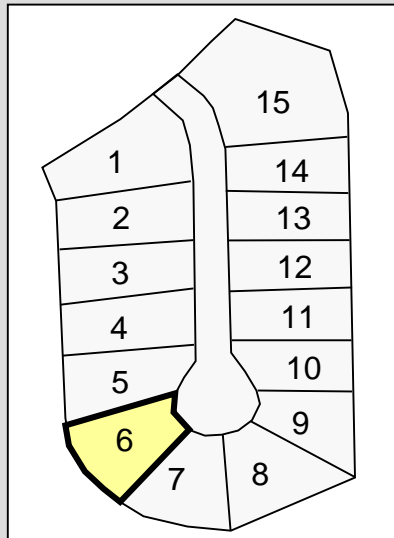
Part I: Descriptive Country Report

A. Country Context	Geographical Context / Historical Context / Current Political and Administrative Structures / Historical Outline of Cadastre
B. Institutional Framework	Government Organizations / Private Sector Involvement / Professional Organization or Association / Licensing / Education
C. Cadastral System	Purpose of Cadastral System / Types of Cadastral System / Cadastral Concept / Content of Cadastral System
D. Cadastral Mapping	Cadastral Map / Example of a Cadastral Map / Role of Cadastral Layer in SDI
E. Reform Issues	Cadastral Issues / Current Initiatives

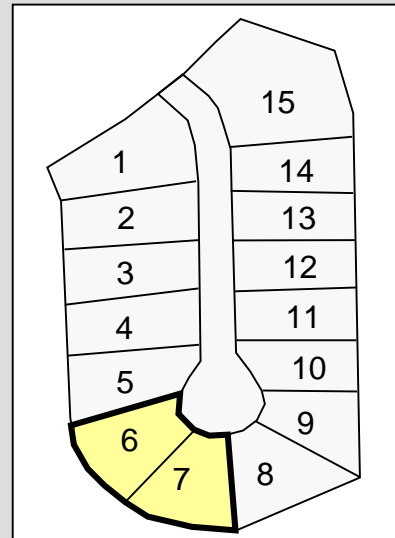
Part II: Questionnaire

1. Cadastral Principles	Deeds vs. title registration / registration compulsory or optional / systematic vs. sporadic registration
2. Cadastral Statistics	Population / no. of land parcels / no. of strata titles / degree of registration / no. of professional land surveyors and lawyers/solicitors

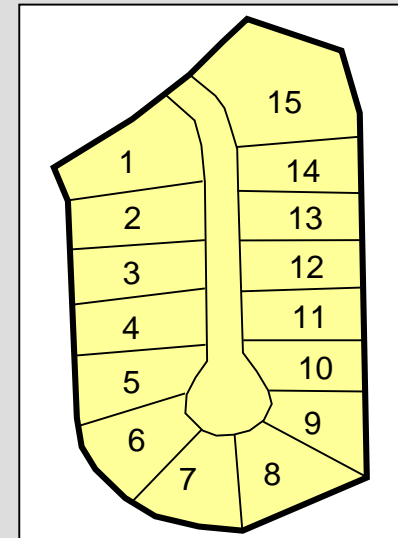
Parcel-Property Relationships



Scenario (i)



Scenario (ii)

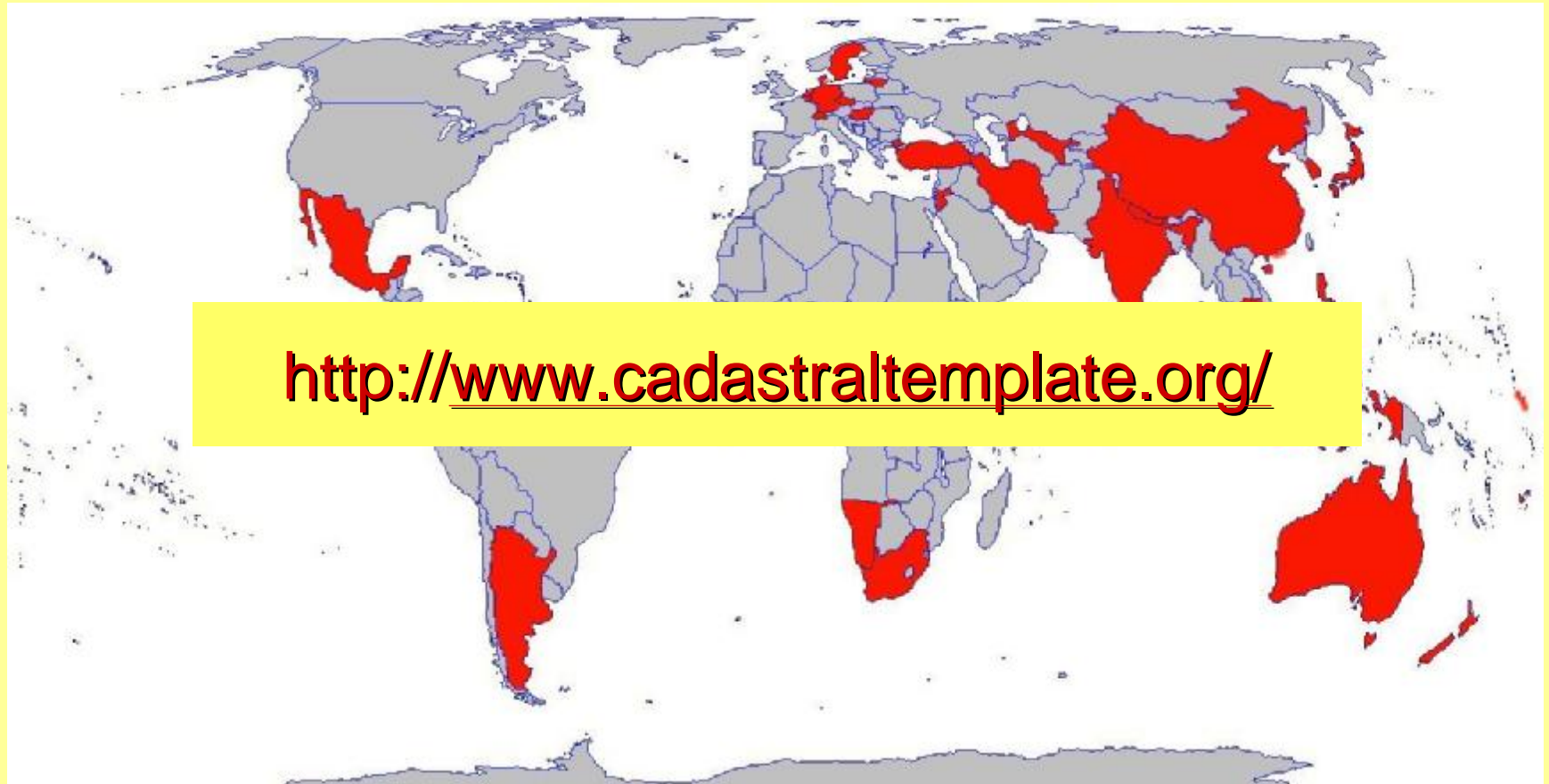


Scenario (iii)

in many jurisdictions the smallest uniquely identified (and usually surveyed) unit shown in the land registry is termed a parcel ;	in many other jurisdictions, while the smallest uniquely identified (and usually surveyed) unit is a parcel, the land registry only records single land ownership units often called properties , which may include one or more parcels;	in some other countries, there are many properties or land ownership units , often unsurveyed, in one legally defined and surveyed parcel
15 parcels / 15 properties (entries in land registry)	15 parcels / maybe 8 properties	1 land parcel in cadastre / 15 land ownership units and 15 titles in land registry
à number of smallest uniquely identified land units: 15	à number of smallest uniquely identified land units: 15	à number of smallest uniquely identified land units: 15

35 Countries (September 2004)

www.cadastraltemplate.org



<http://www.cadastraltemplate.org/>

**PCGIAP-Working Group 3
"Cadastré"**

**The University of Melbourne
Department of Geomatics**

**FIG-Commission 7
"Cadastré and Land Management"**

Cadastral Template

A Worldwide Comparison of Cadastral Systems

Cadastral country reports based on a jointly developed PCGIAP/FIG template.
Established under UN mandate by [Resolution 4 of the 16th UNRCC-AP](#) in Okinawa, Japan in July 2003.
UN endorsement for cooperation with [UN-ECE WPLA](#), [UN-ECA CODI](#), and [PCIDEA](#).

Data per Country
(last update: 18 Apr. 2004, 33 countries)
as .htm
as .pdf

Field Definitions

I. Data per Data Fields
(last update: 7 Nov. 2003, 30 countries)

II. Principles and Statistics
(last update: 18 Apr. 2004, 33 countries)
1.1 Cadastral Principles
2.1 Population
2.3 Parcels
2.7 Professionals

Documents

- Questionnaires for Download (English, Español, Portuguese).
- Publications
- Administrative Documents

Latest Updates

- Country report of Mexico (in Spanish) as 33rd country (18 Apr. 2004)
- Publication in the Hong Kong Journal of Geospatial Engineering (3 Mar. 2004)
- Questionnaires available also in Spanish and Portuguese (5 Feb. 2004)
- Country Reports of Lithuania and Sweden (5 Dec. 2003)
- Complete update of all data fields with 30 countries (5 Nov. 2003)
- Country Report of Turkey (4 Nov. 2003)

The "Cadastral Template" has been developed by a research group at the Department of Geomatics of the University of Melbourne. It consisted of Prof. Ian Williamson, Dr. Abbas Rajabifard, and Daniel Steudler, supported by Prof. Stig Enemark from Aalborg University, Denmark.

PCGIAP-Working Group 3 "Cadastré" cooperates with FIG-Commission 7 to place the country information jointly on this website and to maintain the information during its 2003-2006 Work Plan.

For providing or updating your country data, please contact:
- for PCGIAP members: Dr. Abbas Rajabifard (abbas.r@unimelb.edu.au)
- for FIG and other organizations: Daniel Steudler (steudler@sunrise.sli.unimelb.edu.au)

This website is maintained by Daniel Steudler.

Established: 22 Apr. 2003
Last Update: 18 Apr. 2004

Cadastral Template – Czech Republic - Microsoft Internet Explorer

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Address http://www.swisstopo.ch/cadastraltemplate2003/countrydata/cz.htm Go

Cadastral Template


Select another Country | Home

Czech Republic



- I. Country Report**
 - A. Country Context
 - B. Institutional Framework
 - C. Cadastral System
 - D. Cadastral Mapping
 - E. Reform Issues
 - References

- II. Cadastral Principles and Statistics**
 - 1. Cadastral Principles
 - 2. Cadastral Statistics

 pdf file of complete country report (401k) This page was last updated on 7 Aug. 2003

I. Country Report

<p>Contact person for provided information: <input type="button" value=""/></p> <p>Ivan Pešl Survey and Cadastral Inspectorate in Opava Head</p> <p>Information provided on 5 Aug. 2003</p>	<p>Address:</p> <p>Praskova 11746 01 Opava CZECH REPUBLIC Email: ivan.pesl@cuzk.cz</p>
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A. Country ContextCzech Republic[Top of Page](#) | [Home](#)

Geographical Context:

The Czech Republic is a small landlocked country, lying in the central part of Europe. Its area of 78,866 square kilometres, population of 10,289,621 people, and population density of 130 inhabitants per square kilometre rank the country on the 21st, 12th and 13th places among European countries, respectively. The country's borders make up neighbourhood with Poland (762 km), Germany (810 km), Austria (466 km) and Slovakia (252 km). 67% of the country's whole territory can be found at an altitude of up to 500m, 32% between 500 and 1,000m, and only 1% above 1,000m. The average altitude of the Czech Republic is 430m.

Done Internet

Cadastral Template 2003 – Field Data of "Land Parcels" - Microsoft Internet Explorer

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Cadastral Template 2003

Field Definitions | Home

2. Cadastral Statistics

This page was last updated on 24 Aug. 2003

Country	2.3 No. of Land Parcels [million]	--> land parcels per 1 million population
Australia:	10.2	531,300
Brunei:	0.06	172,700
Cambodia:	7	583,300
China:	246.5	205,400
Czech Republic:	21.6	2,099,300
Denmark:	2.5	471,700
Fiji:	0.09	118,600
Germany:	61.5	745,500
Hong Kong:	0.3	44,800
Hungary:	7.3	722,800
India:	210	205,500
Indonesia:	84.5	361,100

No. of Land Parcels and Strata Titles

parcels resp. strata titles per 1 million population

Country	Land Parcels	Strata Titles
Australia	531,300	118,600
Brunei	172,700	118,600
Cambodia	583,300	118,600
China	205,400	118,600
Czech Republic	2,099,300	118,600
Denmark	471,700	118,600
Fiji	118,600	118,600
Germany	745,500	118,600
Hong Kong	44,800	118,600
Hungary	722,800	118,600
India	205,500	118,600
Indonesia	361,100	118,600
Iran	745,500	118,600
Japan	1,800,000	118,600
Jordan	118,600	118,600
Kiribati	118,600	118,600
Korea (Rep. of)	745,500	118,600
Macao	118,600	118,600
Malaysia	361,100	118,600
Nepal	745,500	118,600
Netherlands	471,700	118,600
New Zealand	745,500	118,600
Philippines	745,500	118,600
South Africa	471,700	118,600
Sri Lanka	361,100	118,600
Switzerland	745,500	118,600
Uzbekistan	361,100	118,600

Done

**Thank you for your
attention !**