

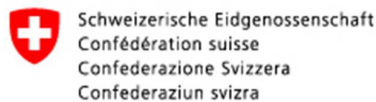


RENEWAL OF CADASTRAL TEMPLATE WITH WEB 2.0 TECHNOLOGY

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What is the Cadastral Template?

- Initiative: Permanent Committee on GIS Infrastructure for Asia-Pacific (PCGIAP), WG-Cadastre, under the leadership of Ian Williamson (Australia) and Ahmad Fauzi bin Nordin (Malaysia)
- Research Centre: University of Melbourne, Centre for Spatial Data Infrastructures and Land Administration (Ian Williamson, Abbas Rajabifard, Daniel Steudler, Stig Enemark)
- Launch: at a workshop in July 2003 in Okinawa, Japan
- Intention at that time:
 - "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".



Design Principles for the Template

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



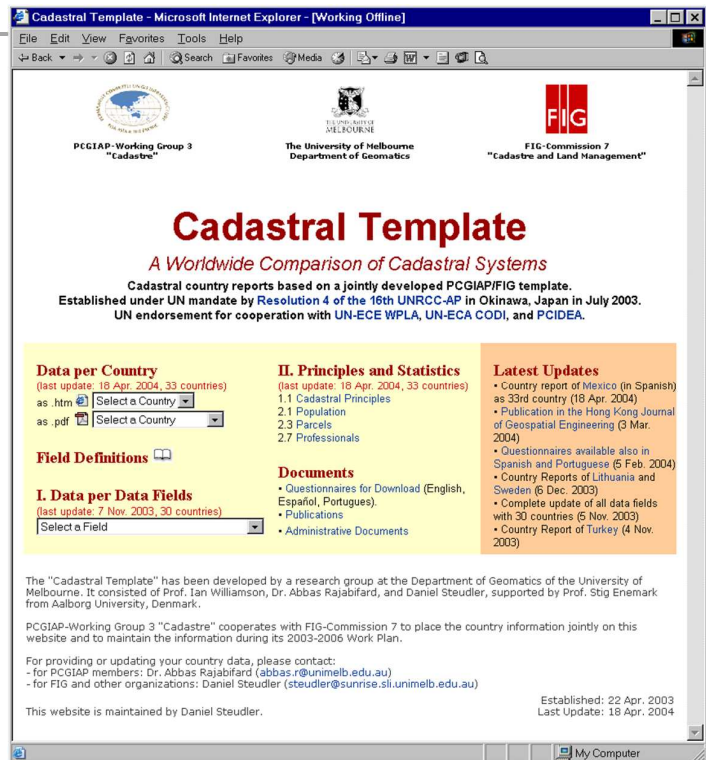
Structure

Part I: Descriptive Country Report

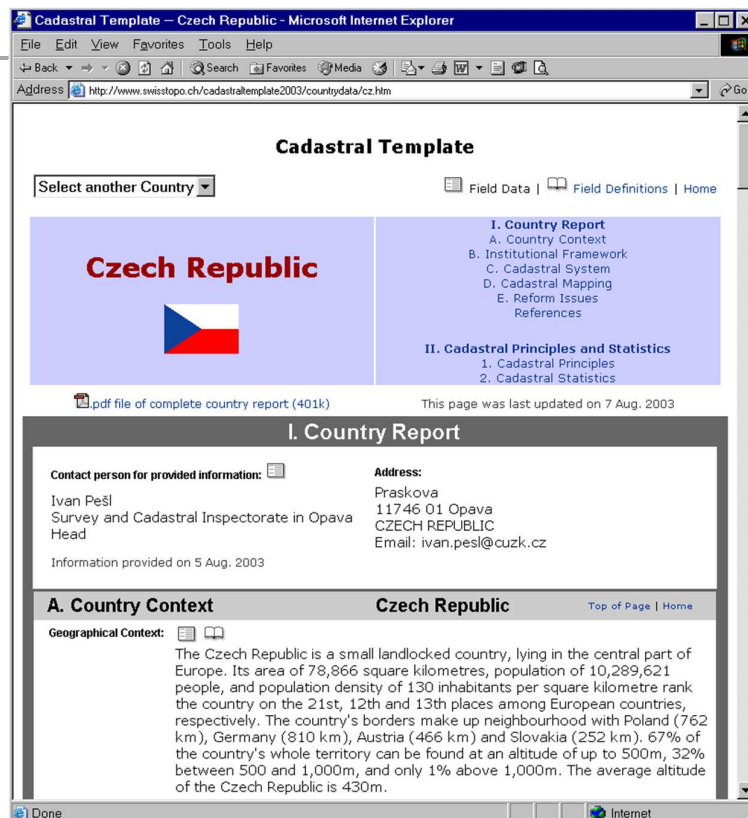
A. Country Context	Geographical Context / Historical Context / Current Political and Administrative Structures / Historical Outline of Cadastre
B. Institutional Framework	Government Organizations / Private Sector Involvement / Professional Organization or Association / Licensing / Education
C. Cadastral 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

www.cadastraltemplate.org



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

Address: http://www.swisstopo.ch/cadastraltemplate2003/fielddata/23.htm

Cadastral Template 2003

Field Definitions | Home

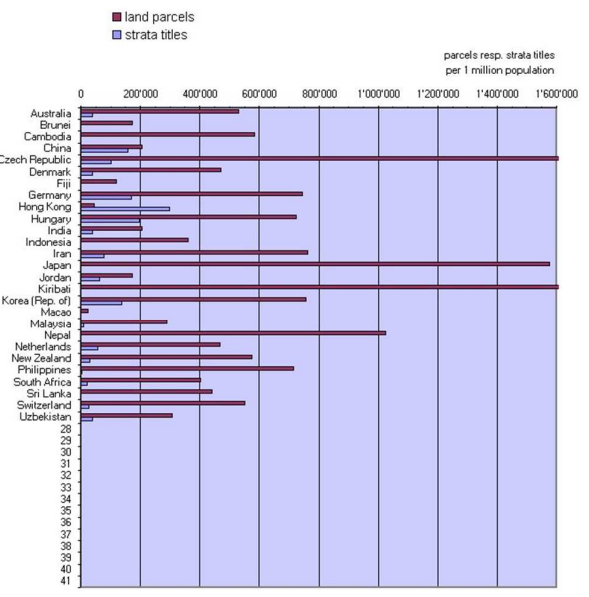
2. Cadastral Statistics

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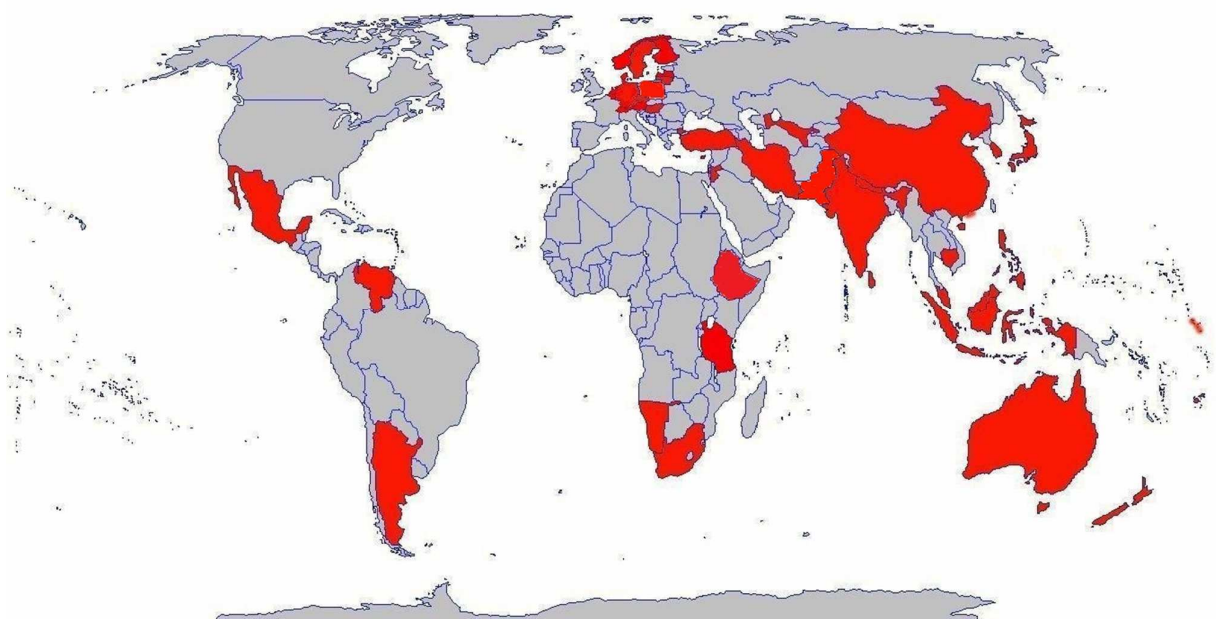
Land Parcels

Country	2.3 No. of Land Parcels [million]	--> land parcels per 1 million population	2.4 No. of Strata Titles	--> strata titles per 1 million population
Australia:	10.2	531,300	750,000	39,100
Brunei:	0.06	172,700	0	0
Cambodia:	7	583,300	n/a	
China:	246.5	205,400	188 million	156,700
Czech Republic:	21.6	2,099,300	1,033,484	100,300
Denmark:	2.5	471,700	200,000	37,700
Fiji:	0.09	118,600	271	300
Germany:	61.5	745,500	14 million	169,700
Hong Kong:	0.3	44,800	2 million	298,500
Hungary:	7.3	722,800	2 million	198,000
India:	210	205,500	41 million	39,900
Indonesia:	84.5	361,100	3,000	13

No. of Land Parcels and Strata Titles



47 countries (Oct. 2013)





Issues

- soon after the initial workshop in 2003, it became difficult to get support and to get data from more countries
- in 2007, a request for updates provided replies from 3 countries out of 39
→ BUT: information seems to of interest
- quality control
- there are no procedures in place for regular updates
- technical set-up of website is static, therefore difficult to maintain and to make updates
→ motto: not perfect, but better than nothing
- in May 2011: adaptation of website → no updating of .htm pages anymore, but instead a complete list of country reports and versions in .PDF and .DOC formats



Adapted website, May 2011

Country	Latest Version	Previous Versions
Argentina	5 Sep. 2003 pdf doc	
Australia	7 Sep. 2010 pdf doc	2 Apr. 2003 pdf doc
Austria	14 Jan. 2006 pdf doc	
Belgium	16 Sep. 2003 pdf doc	
Brunei	3 Jul. 2003 pdf doc	
Bulgaria	27 Apr. 2010 pdf doc	
Cambodia	21 Jun. 2003 pdf doc	
China	9 Jun. 2003 pdf doc	
Cyprus	14 Sep. 2010 pdf doc	21 Dec. 2007 pdf doc
Czech Republic	4 Mar. 2010 pdf doc	5 Aug. 2003 pdf doc
Denmark	27 May 2010 pdf doc	11 Apr. 2003 pdf doc
Ethiopia	19 Apr. 2011 pdf doc	
Fiji	2 Jul. 2007 pdf doc	
Finland	7 Sep. 2009 pdf doc	29 Apr. 2005 pdf doc
Germany	27 May 2003 pdf doc	
Hong Kong	18 Jun. 2010 pdf doc	30 May 2003 pdf doc
Hungary	23 Jul. 2010 pdf doc	6 Jul. 2003 pdf doc
India	23 Mar. 2003 pdf doc	
Indonesia	15 Jun. 2003 pdf doc	
Iran	30 May 2003 pdf doc	
Israel	16 Oct. 2006 pdf doc	
Japan	10 Jun. 2003 pdf doc	
Jordan	13 Aug. 2003 pdf doc	
Kiribati	10 Jun. 2003 pdf doc	
Korea (Rep. of)	28 Jul. 2003 pdf doc	
Latvia	20 Jun. 2006 pdf doc	19 Oct. 2005 pdf doc
Lithuania	27 Sep. 2010 pdf doc	9 Dec. 2003 pdf doc
Macao	30 Apr. 2003 pdf doc	
Malaysia	7 Sep. 2010 pdf doc	30 May 2003 pdf doc
Mexico	22 Apr. 2004 pdf doc	
Mexico (Español)	12 Apr. 2004 pdf doc	
Namibia	8 Aug. 2004 pdf doc	7 Jun. 2004 pdf doc
Nepal	23 May 2003 pdf doc	
Netherlands	6 Sep. 2010 pdf doc	9 Jun. 2006 pdf doc / 16 May 2003 pdf doc
New Zealand	6 Jun. 2003 pdf doc	
Norway	6 Aug. 2007 pdf doc	



Project «Cadastral Template 2.0»



Website

- new setup with Web 2.0 possibilities
- with possibility of quality and editing control by an auditing team of Commission 7

Commission 7

- auditing / editing team

Delegates

- regular provision of country reports



Objectives for «Cadastral Template 2.0»



- to increase the usability and attractiveness of the website, and provide better possibilities for data analysis and cross-country comparisons;
- to make it easier and more efficient for country delegates to update the data of their own cadastral system; and
- to reduce the time and effort to maintain the website.



Work Plan for Website



	Action	
1	Establish work plan	✓
2	Development of the infrastructure (University of Melbourne)	✓
3	Fine-tuning (with voluntary pilot countries) and re-launch	
4	Updating of existing data	
5	Review the data structure, i.e. potential new structure to support other current initiatives (e.g. SES, VG, LGAF, CoFLAS, etc.)	



Supporting Actors



Project team

- Daniel Steudler, Abbas Rajabifard (Univ. of Melbourne), endorsed by FIG-President (for 3 years, until end of 2016)
- to look after the validation of new and updated information
- to further develop, maintain and promote the cadastral template

Developers

- team from the University of Melbourne

FIG Head Office

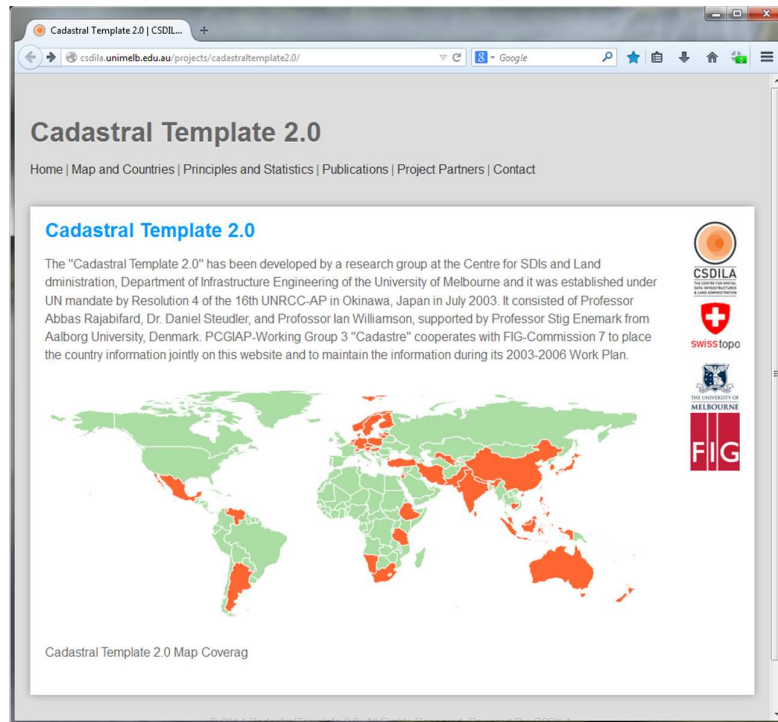
- to send out official requests for participation to its national member associations (e.g. when renewing membership)

FIG-Commission 7

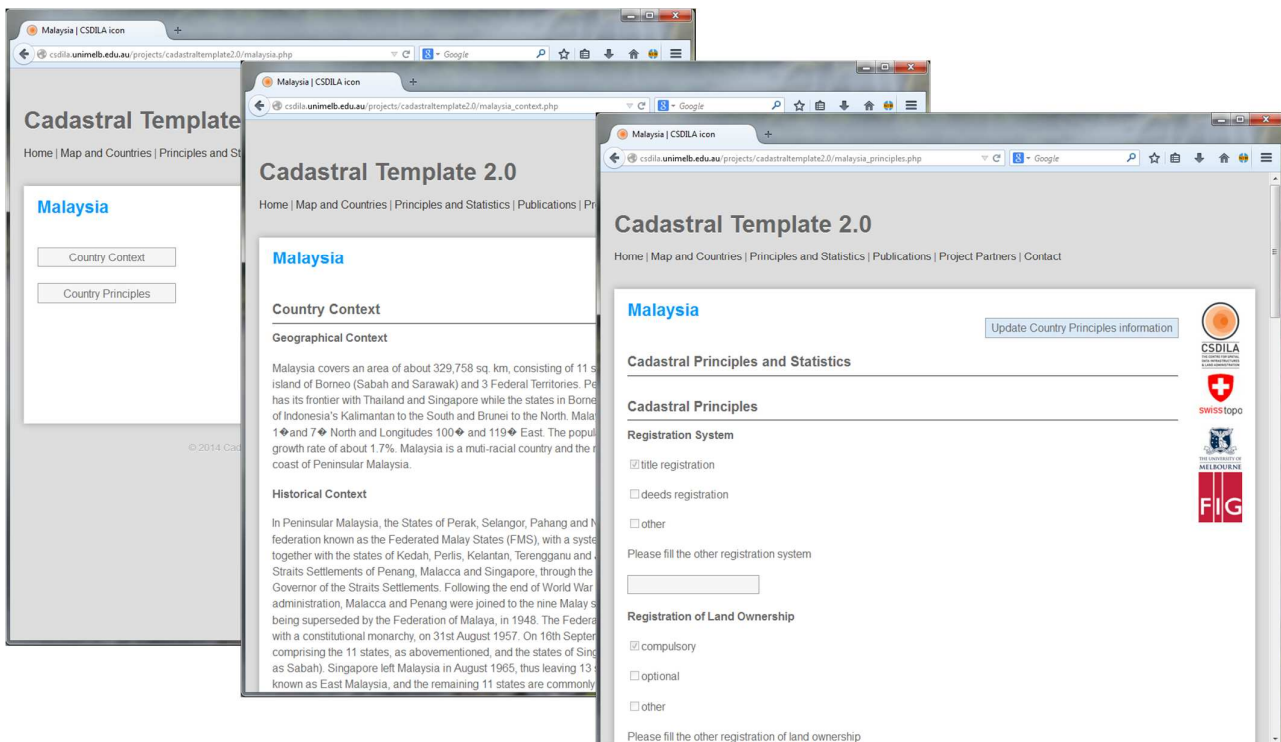
- to involve its delegates to contribute to the Cadastral Template



Screen Shot of CT2.0

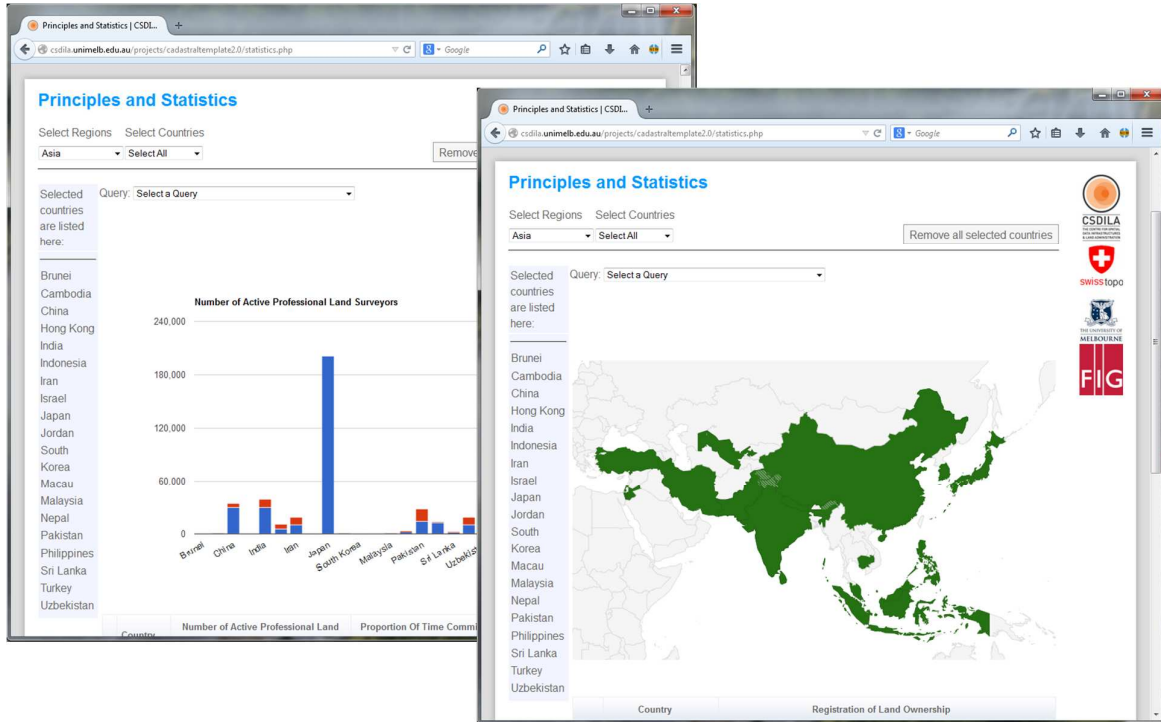


Screen Shots of CT2.0





Screen Shots of CT2.0



Possible Extensions of Data Structure

<p>Cadastral Template, Version 1.0 (PCGIAP, FIG, 2003)</p> <p>I. COUNTRY REPORT</p> <p>A. Country Context</p> <p>A1 Geographical Context</p> <p>A2 Historical Context</p> <p>A3 Current Political and Administrative Structures</p> <p>A4 Historical Outline of Cadastre</p> <p>B. Institutional Framework</p> <p>B1 Government Organizations</p> <p>B2 Private Sector Involvement</p> <p>B3 Professional Organization or Association</p> <p>B4 Licensing</p> <p>B5 Education</p> <p>C. Cadastral System</p> <p>C1 Purpose of Cadastral System</p> <p>C2 Types of Cadastral Systems</p> <p>C3 Cadastral Concept</p> <p>C4 Content of Cadastral System</p> <p>D. Cadastral Mapping</p> <p>D1 Cadastral Map</p> <p>D2 Example of a Cadastral Map</p> <p>D3 Role of Cadastral Layer in SDI</p> <p>E. Reform Issues</p> <p>E1 Cadastral Issues</p> <p>E2 Current Initiatives</p>	<p>II. QUESTIONNAIRE</p> <p>1. Cadastral Principles</p> <p>1.1 Deed or title registration (title registration / other)</p> <p>1.2 Registration of land ownership (optional / other) (comments)</p> <p>1.4 Approach for the establish records (systematic /sporadic / already registered / other)</p> <p>2. Cadastral Statistics</p> <p>2.1 Population</p> <p>2.2 Population distribution - urban / rural</p> <p>2.3 Number and distribution of the smallest uniquely identified parcels</p> <p>2.4 Number of registered strata units</p> <p>2.5 URBAN areas land parcels surveyed / legally occupied, but not surveyed / informally occupied</p> <p>2.6 RURAL areas land parcels surveyed / legally occupied, but not surveyed / informally occupied</p> <p>2.7 Number of professional land surveyors</p> <p>2.8 Number of lawyers/solicitors</p>	<p>Voluntary Guidelines (FAO, 2012)</p> <p>Part 1: Preliminary matters</p> <p>sets the direction of the Guidelines.</p> <p>Section 1: Objectives</p> <p>Section 2: Nature and scope</p> <p>Part 2: General matters</p> <p>provides guidance which applies to all situations of governance of tenure.</p> <p>Section 3: Guiding principles on responsible tenure governance</p> <p>Section 4: Rights and responsibilities related to tenure</p> <p>Section 5: Policy, legal and organizational frameworks related to tenure</p> <p>Section 6: Delivery of services</p> <p>Part 3: Legal recognition and allocation of tenure rights and duties</p> <p>addresses the legal recognition of tenure rights of indigenous peoples and other communities with customary tenure systems, as well as of informal tenure</p> <p>Section 13: Land consolidation and other readjustment approaches</p> <p>Section 14: Restitution</p> <p>Section 15: Redistributive reforms</p> <p>Section 16: Expropriation and compensation</p> <p>Part 5: Administration of tenure</p> <p>covers the administrative aspects of effective governance of tenure</p> <p>Section 17: Records of tenure rights</p> <p>Section 18: Valuation</p> <p>Section 19: Taxation</p> <p>Section 20: Regulated spatial planning</p> <p>Section 21: Resolution of disputes over tenure rights</p> <p>Section 22: Transboundary matters</p> <p>Part 6: Responses to climate change and other emergencies</p> <p>The earlier parts of the Guidelines address mostly "every day" situations, whereas this part addresses extreme situations where people could be displaced on a large scale. In all cases, States should strive to prepare</p>
<p>CoFLAS (LEI, 2013)</p> <p>Part 1 BASIC DATA</p> <p>Name, position, date, currency, fiscal year</p> <p>Part 2 QUESTIONNAIRE DATA SHEET</p> <p>Section A Policy Setting</p> <p>A1 Fees Policy</p> <p>A2 Additional costs for the user</p> <p>A3 How are staff salaries set?</p> <p>A4 Providing service directly to public</p> <p>A5 Participation</p> <p>A6 Coverage</p> <p>A7 Restrictions on Transactions</p> <p>A8 Self-Financing</p> <p>Section B Land Administration Arrangements</p> <p>B1 Level of roles and responsibilities</p> <p>B2 Institutional infrastructure</p> <p>B3 Taxation on property</p> <p>B4 Data format and storage location</p> <p>Section C Land Administration and Registration Statistics</p> <p>C1 Properties (number, area, %urban/rural)</p> <p>C2 Registered transaction types</p> <p>C3 Property taxation</p> <p>C4 Technical and Administrative Staff</p> <p>Section D Cost and Revenue Information</p> <p>D1 Period of financial information</p> <p>D2 Amount for operational costs</p> <p>D3 Funding of operations</p> <p>D4 Revenue collected in registry/cadastre</p> <p>D5 Total non-recurrent expenditure</p> <p>D6 Non-routine/development costs</p>	<p>Land Governance Assessment Framework (LGAF)</p> <p>THEMATIC AREA 1. LEGAL AND INSTITUTIONAL FRAMEWORK</p> <p>... of institutional mandates, and nondiscrimination in the decision-making process.</p> <p>THEMATIC AREA 2. LAND USE PLANNING, MANAGEMENT AND TAXATION</p> <p>... of institutional mandates, and nondiscrimination in the decision-making process.</p> <p>THEMATIC AREA 3. MANAGEMENT OF PUBLIC LAND</p> <p>LGI 12. Identification and clear management of public land.</p> <p>LGI 13. Justification and time-efficiency of expropriation processes.</p> <p>LGI 14. Transparency and fairness of expropriation procedures.</p> <p>LGI 15. Allocation of public land is transparent.</p> <p>THEMATIC AREA 4. PUBLIC PROVISION OF LAND INFORMATION</p> <p>LGI 16. Completeness.</p> <p>LGI 17. Reliability.</p> <p>LGI 18. Cost-effectiveness, accessibility, and sustainability.</p> <p>LGI 19. Transparency.</p> <p>THEMATIC AREA 5. DISPUTE RESOLUTION AND CONFLICT MANAGEMENT</p> <p>LGI 20. Assignment of responsibility.</p> <p>LGI 21. Low level of pending conflict.</p>	



In Conclusion



- «Cadastral Template 2.0» is under way and will be fully operational in the coming months.
- We are looking for 5-6 volunteers to fill out or update their country data and provide the developers with feedback.
- The Cadastral Template will mainly be kept alive through input from FIG-Commission 7, but hopefully also other contributors.
- The editing team is in contact with other monitoring initiatives in need of indicators.





Possible questions:

- what do volunteers have to do?
- how do you ensure continuity of CT2.0?
- what is the role of FIG Commission 7 delegates?
- how do you plan to integrate other monitoring projects?