



Presented at the FIG Working Week 2023,  
28 May - 1 June 2023 in Orlando, Florida, USA

# FIG WORKING WEEK 2023

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Protecting  
Our World,  
Conquering  
New Frontiers

## Comparative analysis of Land Tenure systems in Canada

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## Distribution of Legislative Powers over Property Rights under the Constitution

**Federal Powers** – Section 91 of the Constitution Act, 1867 :

- Public Property
- Beacons, Buoys, Lighthouses, and Sable Island
- Indigenous Peoples, and Lands reserved for Indigenous Peoples

**Provincial Powers** – Section 92 of the Constitution Act, 1867 :

- the management and sale of the public lands belonging to the province and of the timber and wood thereon;
- property and civil rights in the province.

The Constitution Act of 1982 (section 35) recognizes and affirms the existing Indigenous and treaty rights of the Indigenous peoples in Canada, including any rights that exist by way of land claims agreements or may be so acquired.



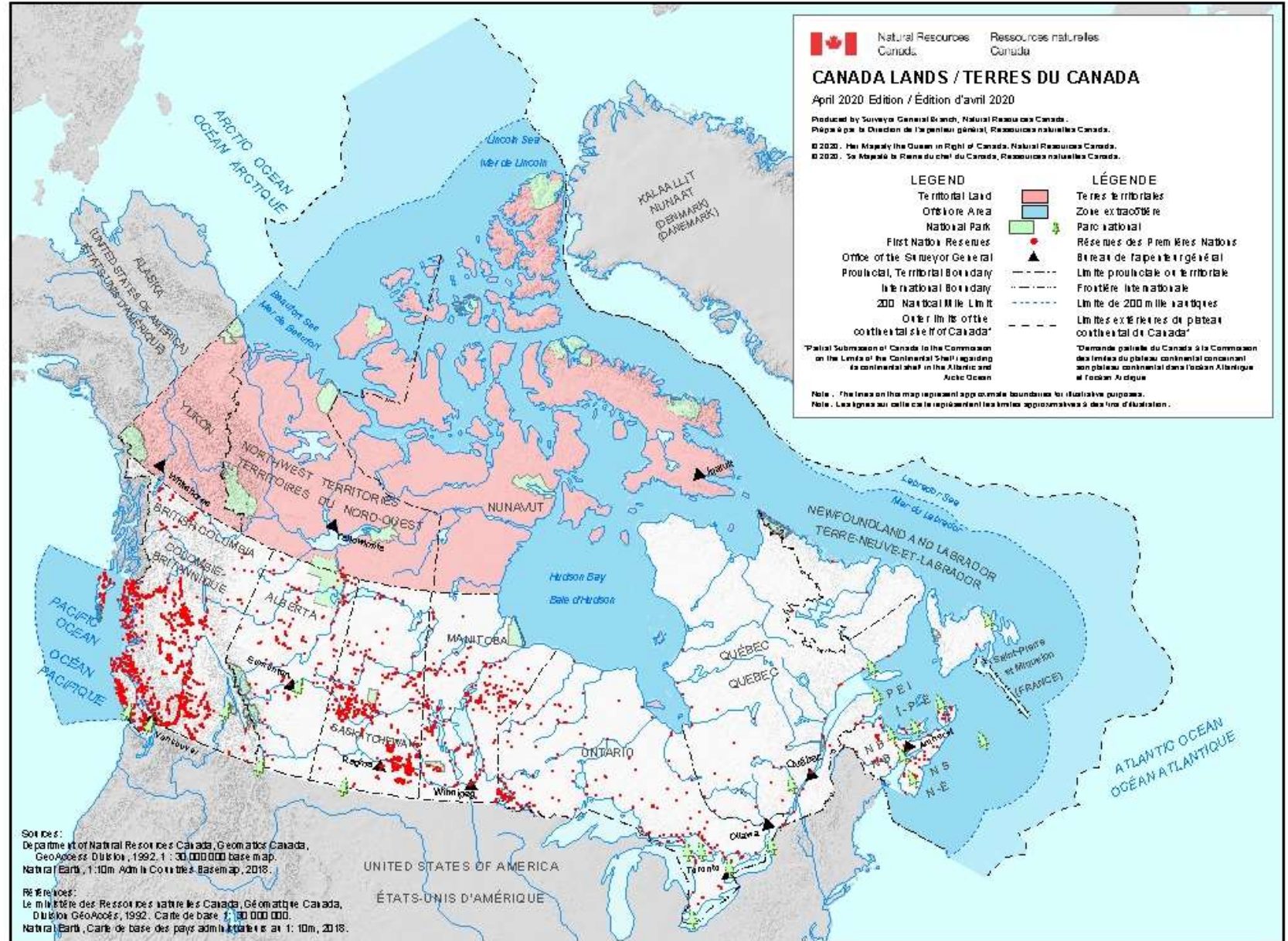
# CANADA

- National capital
- Provincial or territorial capital
- Populated place
- - - Provincial or territorial boundary
- - - International boundary
- Trans-Canada Highway
- Other roads





## Canada Lands Federal responsibilities





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## Methodology

Questionnaire developed based on various sources:

- Cadastral Template developed by the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) in collaboration with the International Federation of Surveyors (FIG);
- Framework for costing and Financing land administration services (COFLAS) developed by UN Habitat, including financial aspects;
- From the Land Administration Systems survey prepared by the Working Party on Land Administration (WPLA) of the United Nations Economic Commission for Europe (UNECE);
- CCOG Cadastral Forum sub-committee members.





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## Framework

Questionnaire divided following the 9 strategic pathways of the Integrated Geospatial Information Framework (IGIF) developed by the UN Group of experts on Geospatial and Information Management (UN-GGIM) :

- Governance and Institutions;
- Legislation and Policy;
- Financial;
- Data;
- Innovation;
- Standards;
- Partnerships:
- Capacity and Education;
- Communication and Engagement.



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	Population (2023)	Area (Km <sup>2</sup> )	Private rights basis	Joined Canada
British Columbia	5,399,118	944,735	Common Law	1871
Alberta	4,647,178	661,848	Common Law	1905
Saskatchewan	1,214,618	651,036	Common Law	1905
Manitoba	1,431,792	647,797	Common Law	1870
Ontario	15,386,407	1,076,395	Common Law	1867
Québec	8,787,554	1,542,056	Civil Code	1867
New Brunswick	825,474	72,908	Common Law	1867
Nova Scotia	1,037,782	55,284	Common Law	1867
Newfoundland and Labrador	531,948	405,212	Common Law	1949
Prince Edward Island	173,954	5,660	Common Law	1873
Yukon	44,238	482,443	Common Law	1898
North West Territories	45,493	1,346,106	Common Law	1870
Nunavut	40,692	2,093,190	Common Law	1999
Canada	39,566,248	9,984,670		

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## Governance and Institutions

### Land Surveying Profession in Canada

- Approximately 3000 professional licensed land surveyors
- 11 regulatory authorities – one per Province and one for Federal lands.
- Mutual Recognition Agreement on Labour Mobility between the 11 regulatory bodies



# Governance and Institutions



Province	Governance Private lands (Land registry)	Governance Private lands (Cadastre)	Governance Public lands
Alberta	Service Alberta (Minister of Alberta Environment and Protected Areas)	Ministry of Environment and Protected Areas	Ministry of Environment and Protected Areas
British-Columbia	Land Title and Survey Authority (LTSA); <b>self-funded</b>		Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Lands Branch.
Manitoba			
New-Brunswick	Service New-Brunswick; <b>self-funded</b>		Ministry of Natural Resources and Energy Development
Newfoundland & Labrador	Service NL	Association of NL Land Surveyors	Ministry of Fisheries and Natural Resources
Nova-Scotia			
North-West Territories	Land Titles Office	Federal Government Surveyor General Branch	Land Titles Office
Nunavut	Land Titles Office	Federal Government Surveyor General Branch	Land Titles Office
Ontario	Teranet (PPP) under the supervision of Service Ontario (Ministry of Public and Business Service Delivery)	Ministry of Natural Resources and Forestry	Ministry of Natural Resources and Forestry
Prince-Edward-Island			
Québec	Single <b>self-funded</b> organization: Land Rights Infrastructure and Geospatial Information Sector Ministry Natural Resources and Forests		
Saskatchewan	Office of Public Registry Administration (OPRA), Ministry of Justice Operation of the registers: Information Services Corporation (ISC), a private company (PPP).		
Yukon	Land Titles Office	Federal Government Surveyor General Branch	Ministry of Energy, Mines and Resources

	Type of System	Partnership	Mandatory Registration	Unique ID for registration	% Guaranteed titles State	Litigation per 100k transactions
Alberta	Torrens	Data Partnership	Yes	Yes	100	0.5
British Columbia	Torrens		Yes	Yes	100	0.1
Manitoba	Torrens	PPP Teranet	T: Yes D :No	Yes	95	
New Brunswick	Mixed		T: Yes D :No	Yes	53	<1
Newfoudland and Labrador	Deed		No	No		
Nova Scotia	Deed					
Ontario	Mixed	PPP Teranet	Yes	Yes	99	0.6
Prince Edward Island	Deed		Yes	Yes		
Québec	Deed		Yes	Yes	0	0.6
Saskatchewan	Torrens	PPP ISC	Yes	Yes	100	N/A
North West Territories	Torrens		Yes	Yes	100	
Nunavut	Torrens		No	Yes	100	
Yukon	Torrens		Yes	Yes	100	
Federal ILR/FNLR	Deed		No	Yes	0	
Federal CRINA	Deed		No	No	0	
Nisga'a	Torrens		Yes	Yes	100	
Westbank	Deed		No	Yes	0	





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## Innovation

Regarding some emerging technologies:

- Cloud computing is used in British Columbia, New Brunswick and Newfoundland and Labrador and is under review in Quebec;
- 3D model and visualization is used in New Brunswick (for buildings, elevation flood modeling, etc.) and is under review in Quebec;
- Blockchain is not in use but under review in British Columbia;
- Crowdsourcing is not in use.
- Megadata is used in Ontario and New Brunswick (LIDAR dataset)
- Artificial intelligence: is used only in Ontario and British Columbia (Pilot project);
- Automatic change detection is used in two jurisdictions (ON, QC);
- Internet of things is used only in Newfoundland and Labrador, Ontario and partially in New Brunswick with the updating of the Road Network



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## Other topics covered

- Cadastral numbering
- Timeframe for cadastral and title/deed registration
- Business continuity
- Cadastre and land title registration fees
- Number of cadastral parcels and strata or condominium
- Digital transactions
- Capacity and Education





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## Perspectives

- First time that such comparative analysis of land tenure systems is performed in Canada.
- Information for some provinces is incomplete.
- Living analysis that will be completed and updated in the coming years.



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## Acknowledgements

- CCOG Cadastral Forum members for their time, contribution and support;
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Thank you for your attention.

Full paper on the website of the FIG WW2023

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