

## FIG WORKING WEEK 2017

Surveying the world of tomorrow – From digitalisation to augmented reality

May 29 - June 2 Helsinki Finland





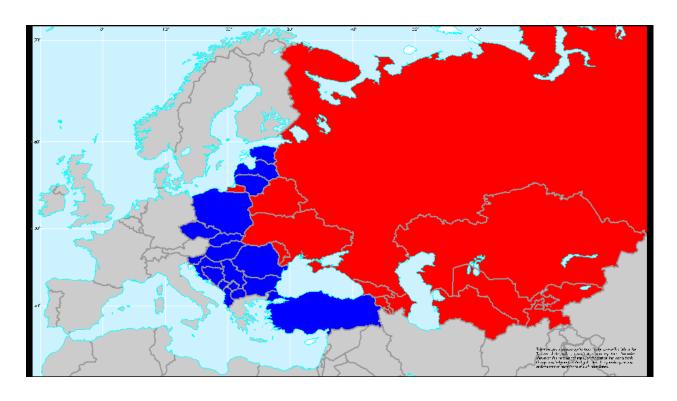


## Land Administration Success Story; Eastern Europe and Central Asia

Dr. Mika-Petteri Törhönen Lead Land Administration Specialist Global Land and Geospatial Unit



## Europe and Central Asia (ECA) Region



**Countries** 

30

**Population** 

893,314,335

Land area (sq km)

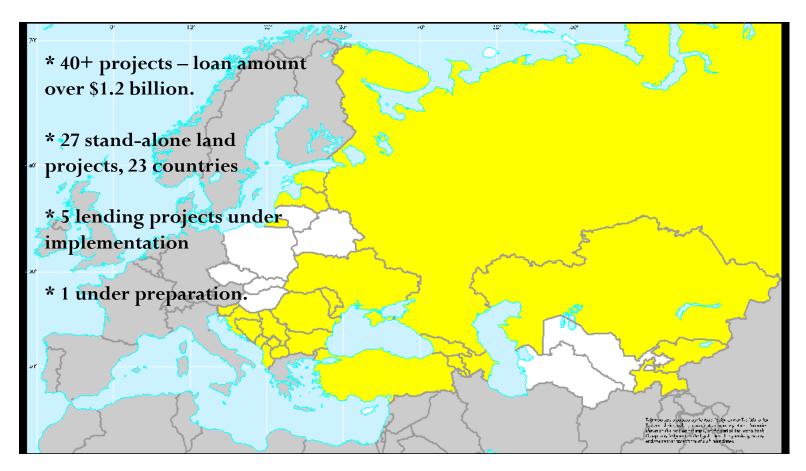
27,381,299

Properties registered since 1992

Estimated at 300-400 million



# Land Projects Supported by the World Bank (1994 - 2017)





## Three Stages of Land Administration Evolution in ECA

- Progression of reforms on land and property rights in ECA:
  - 1) Land reform; property rights, policy
  - 2) Land administration; land registers, cadastres, institutions, real estate markets, NSDI
  - 3) Land management; valuation, taxation, planning.
- Significant TAs from EU, FAO, USAID, Germany, Sweden, Switzerland ...



# Thematic coverage of Bank Supported ECA land projects (1994-2014)

	land reform	land administration	land management
Albania			
Armenia			
Azerbaijan			
Bosnia and Herzegovina			
Bulgaria			
Croatia			
Estonia			
Georgia			
Kazakhstan			
Kosovo			
Kyrgyz Republic			
Latvia			
Macedonia FYROM			
Moldova			
Montenegro			
Poland			
Romania			
Russia			
Serbia			
Slovenia			
Tajikistan			
Turkey			
Ukraine			
Uzbekistan			



## Land Reform Projects

- Creation of 300 400 million new private properties.
- Restitution of property to original owners.
- Optional compensation instead of the literal restitution State disposed the lands further.
- Revitalization of cadastral records and the registration system to facilitate sales, leases and mortgages on land.
- Game changers in the economy.

[Note: Apart from few countries, the Bank's role was rather limited in the land reform projects]



## Land Management Projects

- Planning
- Regularization
- Mass valuation systems
- Land consolidation
- Land use monitoring; EU systems (LPIS, IACS)

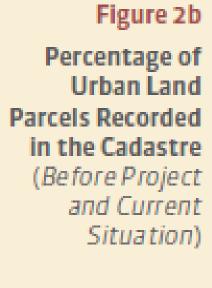
[Note: The Bank's engagement in land management in ECA has increased recently.]

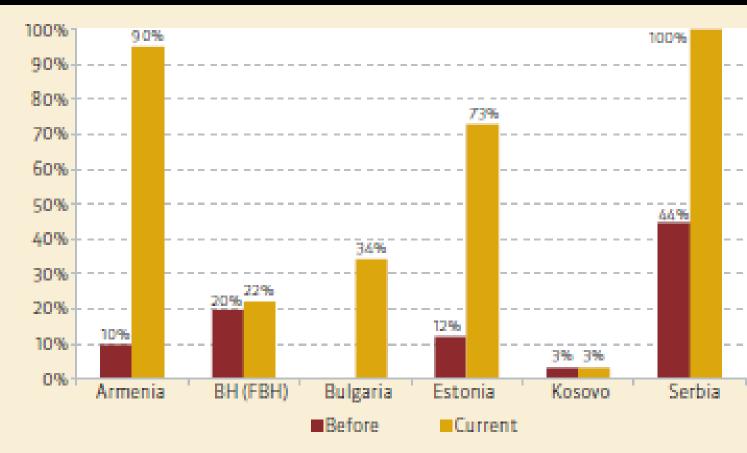


## Land Registration Projects

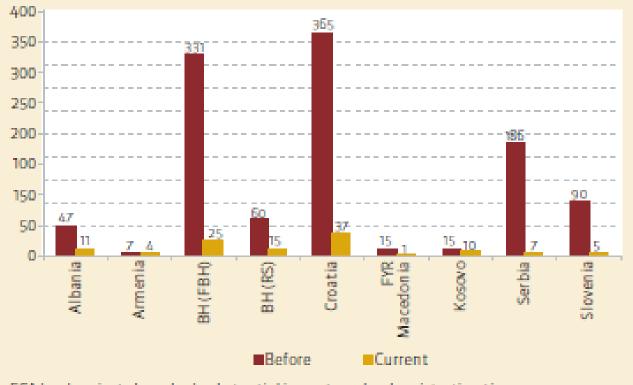
- National registration system of real estate rights and transactions
- Systematic registration of all parcels and buildings.
- Institutional reforms single agencies financial sustainability
- ICT; joint or unified systems, one-stop-shops and e-conveyancing
  - → Office networks, financial sustainability
  - → Volume escalations: transaction, mortgages, revenues
  - → Efficiency; from months to days and hours.
  - → Loan interest rate impact.
- Major implementation support collaboration between world bank group and Food and Agriculture Organization and donors.

  Food and Agriculture Organization and donors. of the United Nations





ECA land projects helped expand fiscal land record coverage.



#### Figure 7

Number of Days to Register a Land Sale (Before Project and Current Situation)

ECA land projects have had substantial impacts on land registration times.

## Economic Impact of 13 Land Registration Projects (1997 – 2012)

- **Armenia**; Land Titling Project
- Azerbaijan; Agricultural Development and Credit Project
- Bosnia and Herzegovina; Land Registration Project
- Bulgaria; Registration and Cadastre Project
- Croatia; Real Property Registration and Cadastre Project
- Kazakhstan; Real Estate Registration Pilot Project
- Kyrgyzstan; Land and Real Estate Registration Project
- Moldova; First Cadastre Project
- Romania; General Cadastre and Land Registration Project
- Russia; Cadastre Development Project
- Serbia; Real Estate Cadastre and Registration Project
- Slovenia; Real Estate Registration Modernization Project
- **Ukraine**; Rural Land Titling Project



US\$ 483 million of investment\*

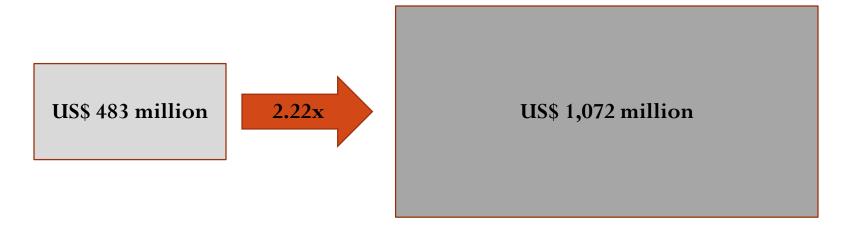
\* Includes funding from the World Bank, cofinanciers, and client governments

#### **Economic Rates of Return Estimates (ERRs)**

Country	Project Name	ERR (%)
Bosnia and Herzegovina	Land Registration Project	47
Croatia	Real Property Registration and Cadastre Project	12
Romania	General Cadastre and Land Registration	14
Serbia	Real Estate Cadastre and Registration	128
Slovenia	Real Estate Registration Modernization	12
Ukraine	Rural Land Titling Project	31

# Economic Impact of Land Registration Projects

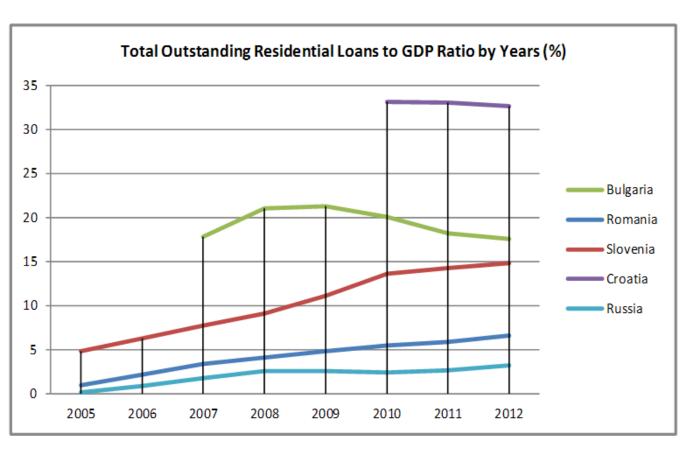
- Economic impact is estimated at 2.22x the initial investment\*
- Return on investment of 122%
- Estimated total short-term and long-term benefit to the economy of a single registration is estimated at US\$ 16.13



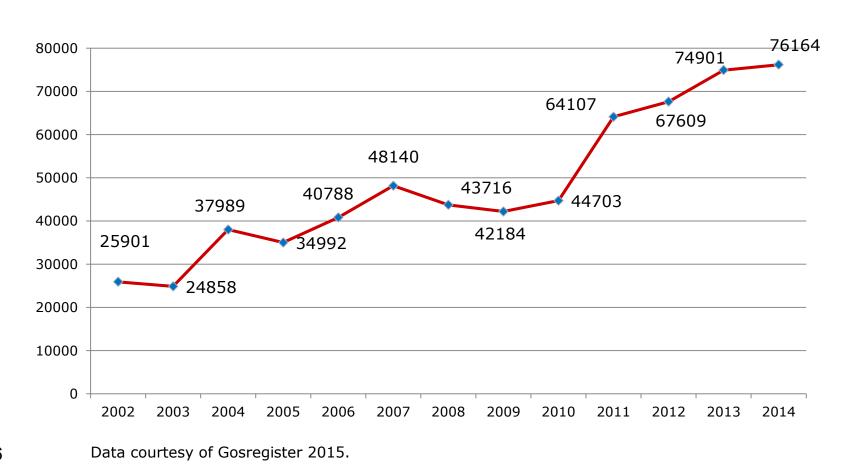
<sup>\*</sup> Excludes the project in Kazakhstan due to the lack of adequate data on the project's economic impact. In the case of Moldova, the economic impact is defined based on the economic impact per registration derived from data for six countries: Armenia, Azerbaijan, Kyrgyzstan, Romania, Slovenia, and Ukraine. All other numbers retrieved from respective project ICRs.

Total Outstanding Residential Loans to GDP Ratio %

	2005	2006	2007	2008	2009	2010	2011	2012
Bulgaria			17.8	21	21.3	20.1	18.2	17.6
Romania	1	2.2	3.4	4.1	4.8	5.5	5.9	6.6
Slovenia	4.8	6.3	7.7	9.1	11.1	13.6	14.3	14.8
Croatia						33.1	33	32.6
Russia	0.2	0.9	1.8	2.6	2.6	2.4	2.7	3.2



# Land Registration Projects in the Kyrgyz Republic (2000-2013) Impact to Sales Transactions



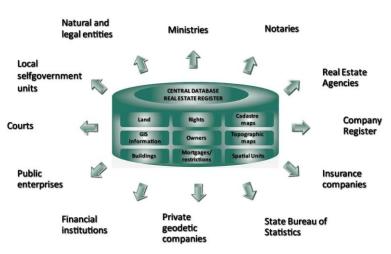
## **ECA Property Registration Success**

#### **Doing Business 2016; Registering Property**

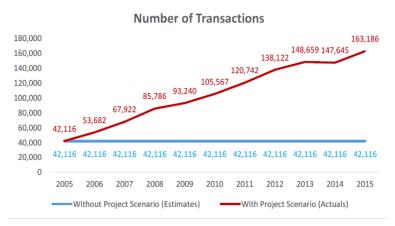
- New Zealand
   Lithuania
   Georgia
- **4** Rwanda
- **5** Belarus
- **6** Estonia
- 7 Slovak Republic
- 8 Kyrgyz Republic
- 9 Russian Federation
- **10** Sweden

- 11 United Arab Emirates
- 12 Denmark
- 13 Armenia
- 14 Norway
- 15 Iceland
- 16 Switzerland
- 17 Taiwan, China
- 18 Kazakhstan
- 19 Singapore
- 20 Finland

#### Macedonia's eServices

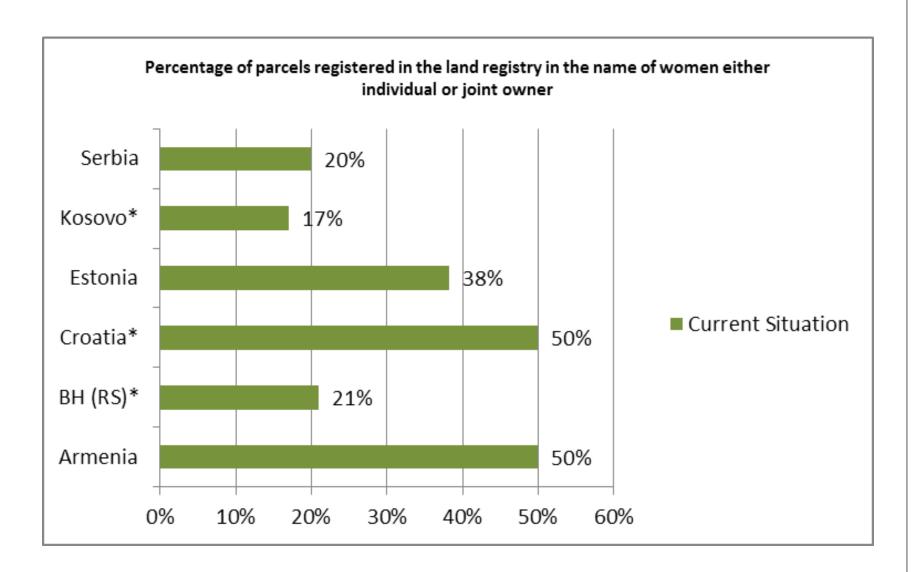








## Cadastre and Social Questions



## 20 Years of ECA Land Projects; Keys to successful land administration

- Clear rights, policy and law and institutional responsibilities.
- Long term commitment and political will.
- Training of public and private sectors → quality of services
- Focus to functioning systems rather than covering records.
- Public perception and participation!
- ICT ...
- Feasible surveying standards.
- Autonomy of operations, self-financing agencies
- Revenue generation.



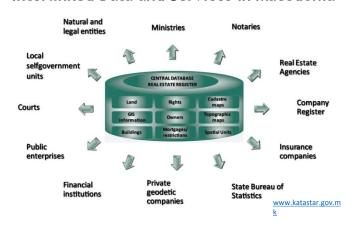


#### Applied Land Administration; Trends

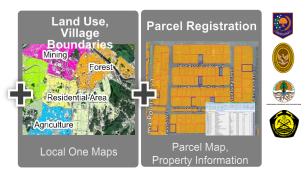
#### **Modern Land Applications**

- Register outputs produced from interlinked public datasets
- Digital land and geospatial records used for mass valuation systems for property taxes
- State lands inventory and management integrated to the land administration system
- One Map defined as the baseline for environmental conservation and management
- Geospatial data provides the base for Early
   Warning Systems and other disaster resilience.

#### Interlinked Data and Services in Macedonia



#### One Map on Land Use in Indonesia



#### Land Records for Mass Valuation in Slovenia







## Where do we go from here?





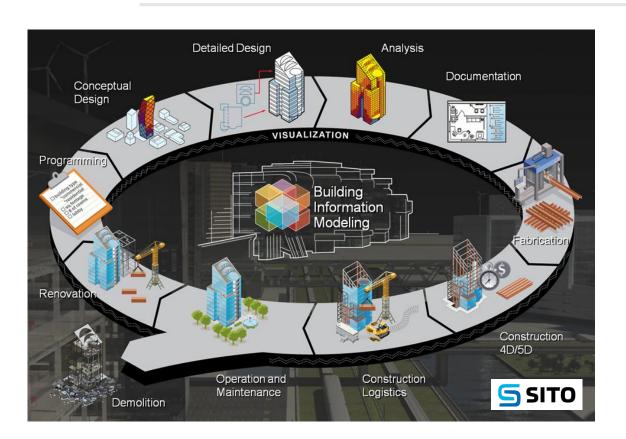
## Modern Finland







#### Next Generation Systems will be 3D



Buildings & infrastructure are already planned in 3D

City models are being prepared

But regulatory processes and SDI's are still 2D + paper



## Keys to Successful Land Administration

Lessons Learned in 20 Years of ECA Land Projects

Mika-Petteri Törhönen





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