Multi-purpose Cadasters and Their Link to Fiscal Policy and Planning

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What is a cadastre?

Understanding the Latin American meaning of the term, and its evolution
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2010 Haiti Earthquake
Dichato, Chile, before the tsunami

Dichato, Chile, after the tsunami

2010 Chile Earthquake
What is a cadastre?

Orthodox model

Understanding the Latin American meaning of the term, and its evolution

The three waves

- Economic
- Legal
- Physical

- Taxes
- Territory Organized
- Tenure

Value
Why Transition to the Multipurpose Cadastre Model?
The three waves

It is more than the three waves

Multipurpose cadastre
Multipurpose cadastre

Rural Environmental Cadastre

Is an electronic national public registry, mandatory for all rural properties, with the purpose of integrating the environmental information of rural properties.
Multipurpose cadastre?

Rural Environmental Cadastre

Analysis or Validation
Multipurpose cadastre?

Rural Environmental Cadastre

- Regeneration
- Restoration
- Compensation

Vivian Ribeiro - Ipam.org.br
Multipurpose cadastre?

Infrastructure, and utility networks
Multipurpose cadastre?

Infrastructure, and utility networks
Multipurpose cadastre?

Infrastructure, and utility networks
Benefits of MPC Implementation

1. Correlates Territorial Data
2. Optimizes Technical and Human Resources
3. Enables a More Effective Urban Planning
4. Improves Market Transparency and Agility
5. Expands Urban Financing Alternatives
MPC Supporting Land Policies

1. Correlates Territorial Data

Locating Vacant Land
MPC Supporting Land Policies

1. Correlates Territorial Data

Cadastres and Urban Informality
MPC Supporting Land Policies

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Cadastres and Urban Informality
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1. Correlates
Territorial Data

Cadastres and Urban Informality

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1. Correlates Territorial Data

Mapping Urban Informality
MPC Supporting Land Policies

1. Correlates Territorial Data

Identifying Public Land
MPC Supporting Land Policies

1. Correlates Territorial Data

Mapping Urban Informality
MPC Supporting Land Policies

2. Optimizes Technical and Human Resources

Interoperability
MPC Supporting Land Policies

2. Optimizes Technical and Human Resources

Joint financing
MPC Supporting Land Policies

2. Optimizes Technical and Human Resources

Joint urban control
MPC Supporting Land Policies

3. Enables a More Effective Urban Planning

Land Readjustment
MPC Supporting Land Policies

3. Enables a More Effective Urban Planning

Transfers of Development Rights
MPC Supporting Land Policies

3. Enables a More Effective Urban Planning

Transfers of Development Rights

Partially Restricted Parcel
MPC Supporting Land Policies

3. Enables a More Effective Urban Planning

Transfers of Development Rights
MPC Supporting Land Policies

4. Improves Market Transparency and Agility

The Key: Geotechnologies
MPC Supporting Land Policies

4. Improves Market Transparency and Agility

The Key: Land Value Map

The cities that we do not see
MPC Supporting Land Policies

4. Improves Market Transparency and Agility

The Key: Land Value Map
MPC Supporting Land Policies

5. Expand Urban Financing Alternatives

Special Betterment Contributions Charges for Building Rights

The cities that we do not see
MPC Supporting Land Policies

5. Expand Urban Financing Alternatives

The Key: Land Market Observatories

Mario Piumetto, Córdoba, Argentina
MPC Supporting Land Policies

5. Expand Urban Financing Alternatives

The Key: Land Market Observatories
What is next?

In terms of economic cadastre

Virtual Valuation

From the desktop, the system can track a virtual sun across the sky, estimating how much daylight an apartment gets. And it can also model sound—a lower-floor unit facing a busy traffic intersection is disadvantaged compared to a unit facing a peaceful courtyard.
What is next?

In terms of technologies and law framework

FI G-3D-Cadastres-Best-Practices- Ch1-Legal Framework
FI G-3D-Cadastres-Best-Practices- Ch2-Initial Registration
FI G-3D-Cadastres-Best-Practices- Ch3 3D Information Modelling
FI G-3D-Cadastres-Best-Practices- Ch4-3D-Spatial-DBMS
FI G-3D-Cadastres-Best-Practices- Ch5-3D-Visualization
Policy Considerations

These suggestions address some of the specific needs of policymakers.

• **Assess what you already have for data.** The restructuring of a land cadastre does not mean starting from scratch. Thoroughly analyze existing records, and identify those that may be shared with each of your future MPC partners.

• **Use existing technology to the fullest.** Rather than buy new applications or equipment, look to your partners for any additional resources you might need. Alternatively, explore free software alternatives, which are probably adequate to support urban analysis.
Policy Considerations

• **Build territorial and land-value observatories with the greatest number of partners possible.** This is the best way to monitor the changes that affect the real estate market.

• **Coordinate databases with others.** The vast majority of thematic cadastres have excellent data and information systems, often including coverage of informal areas.

• **Incorporate data on informal settlements in cadastre maps** and characterize the parcels in the alphanumeric database. A cadastre does not grant rights, but its records are strong evidence for obtaining them.
Multipurpose Cadastre Academic Network (Red Académica de Catastro Multifinalitario) RACAM