Fundamental Infrastructure for Spatially Enabled Societies

Global Land and Geospatial Agenda

May 10, 2018

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WORLD BANK GROUP

Presentation Outline

❖ Overview of World Bank

❖ New Approaches to Development Investment

❖ Overview of Global Land Portfolio

❖ Global Trends

❖ Investment in Modern Land Administration Systems & NSDI

❖ Opportunities

❖ Global Fora & Advocacy

❖ Final Remarks ☺

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The World Bank Group Structure

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International Bank for Reconstruction and Development (**IBRD**)	**1944**
International Development Association (**IDA**)	**1960**

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IBRD · IDA | WORLD BANK GROUP

IFC International Finance Corporation — **1956**

ICSID INTERNATIONAL CENTRE FOR SETTLEMENT OF INVESTMENT DISPUTES — **1966**

MIGA Multilateral Investment Guarantee Agency — **1988**

Over 10,000 employees

Over 5,000 consultants

120 country offices

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WBG Financing

WBG is one of the world's largest sources of funding and knowledge for developing countries, and is committed to reducing poverty, increasing shared prosperity, and promoting sustainable development.

- **Overall WBG Financing:** FY 2017, WBG provided nearly US$59 billion in loans, grants, equity investments, and guarantees to partner countries and private businesses—including to multiregional and global projects.*

- **Land-related Project Financing:** Globally, since 1980, WBG has financed over 70 Land projects, in at least 42 countries, with commitments of around US$3 billion.

*Source: http://pubdocs.worldbank.org/en/982201506096253267/AR17-World-Bank-Lending.pdf

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Sustainable Development Goals

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END EXTREME POVERY AND PROMOTE SHARED PROSPERITY

New Approaches for Development Investment

MFD – Maximizing finance for development

- systematically leverage all sources of finance, expertise, & solutions to support developing countries' sustainable growth
- countries' resource needs surpass their own budgets and available donor funding.
- consider a spectrum of solutions, private as well as public – help tap a variety of financing opportunities, incorporate global lessons and good practices, and address equity and affordability for consumers.

Harnessing Technologies - Including disruptive technologies in the Bank Group's work to in support of new pathways to growth

- **Build:** Develop the foundational building blocks for sustainable, technology-led economies

- **Boost:** Expand the capacity of people and institutions to thrive in a resilient society

- **Broker:** Harness disruptive technology, data, and expertise to solve development challenges and manage risks through collaborations

To apply a FIG term fit-for-purpose
embracing both MFD and harnessing technology (both disruptive and foundational) requires a savvy engagement with countries, understanding their needs, governance, political economy and citizen engagement.

The Current WB Land Portfolio

- Active Projects: 11 operations ($723 M)

- Pipeline (next 18 months): 11 operations ($698 M)

- Analytical and Technical Assistance: 20+ tasks

- Two Reimbursable Advisory Services ($11.8m)

- 15 Trust-Funded activities

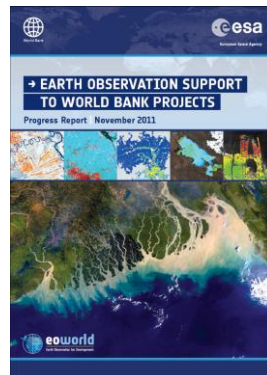From   To

Global Partnerships

Global Trends: Food Production Needs to Increase

Global food demand

To meet global food demand in 2050, agricultural production must be 60 percent higher by weight than in 2005.

Alexandratos and Bruinsma, 2012

F. Fiondella, IRI/CCAFS

Increase of population

2 to 3 billion by 2050

60% increase in agricultural production

Needs of…

another 2 billion tons of cereals

another 200 million of meat

another 130 million of oilseeds

Global Trends
Natural Disasters Frequency & Severity increasing
- ❖ **Links to Climate Change**
- ❖ **Other causes of natural disasters**

Resilience requires spatial enablement

Global Trends: Displaced persons*

❖An unprecedented **65.6 million** people around the world have been forced from home. Among them are nearly **22.5 million refugees**, over half of whom are **under the age of 18.**

❖**There are also 10 million stateless people** who have been denied a nationality and access to basic rights such as education, healthcare, employment and freedom of movement.

❖In a world where nearly **20 people are forcibly displaced every minute.**

❖**Turkey is the top hosting country for refugees**

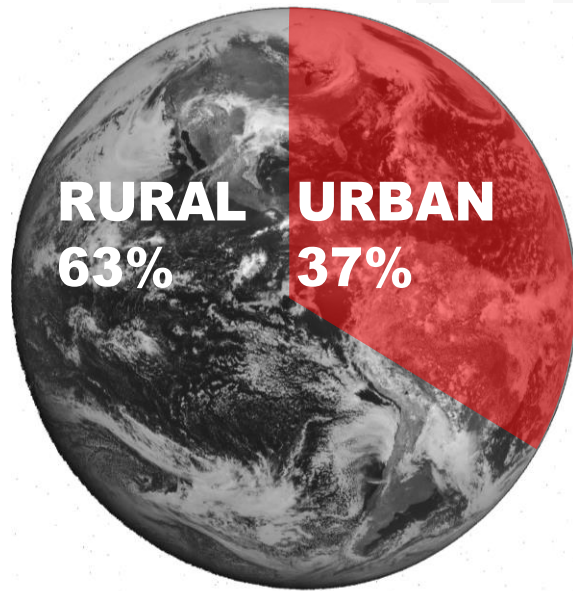**Displaced persons need shelter, nutrition, security, ID, etc.**

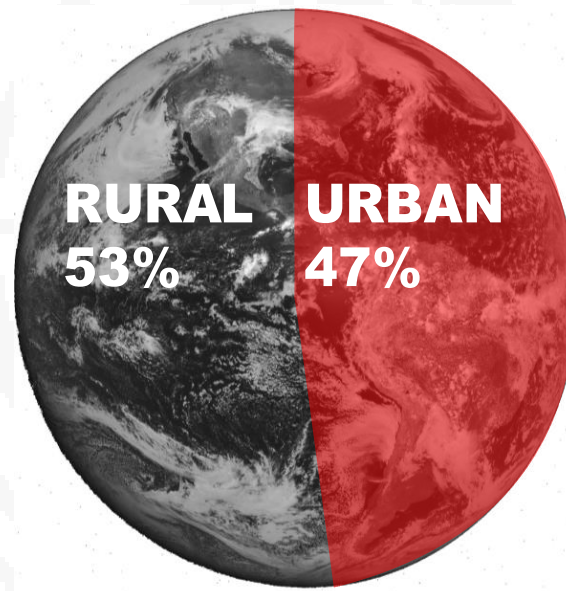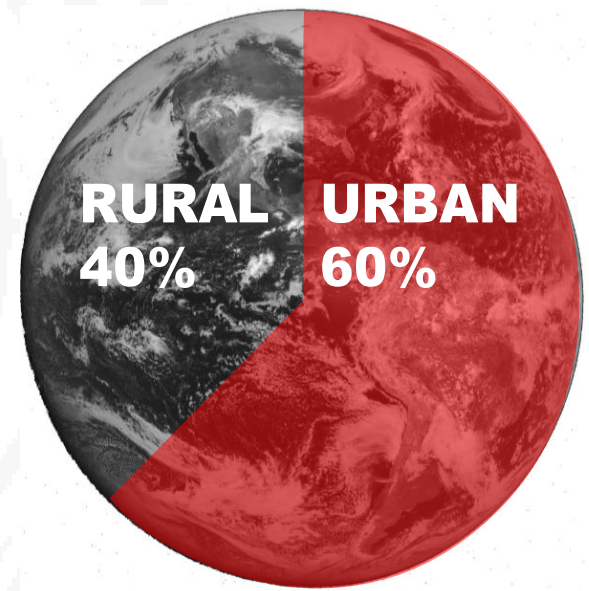**Solutions require access to land and to be spatially enabled**

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Global Trends: The World Becomes Urban

RURAL 63%   **URBAN 37%**

RURAL 53%   **URBAN 47%**

RURAL 40%   **URBAN 60%**

1970   **2000**   **2030**

+ 2 billion new urban residents
1.2 million new km^2 urban area

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# Modern Land Administration Links and Applies Data

Modern Land Applications

- Data/certificates compiled form **interlinked public datasets**
- Digital records used for **mass valuation systems** for taxes
- **State lands inventory and management** systems develop
- *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, Macedonia

www.katastar.gov.mk

Agrarian Reform and One Map, Indonesia

Forest and Village Boundaries

Mining

Forest

Residential Area

Agriculture

Working Maps

Parcel Registration

Parcel Map, Property Information
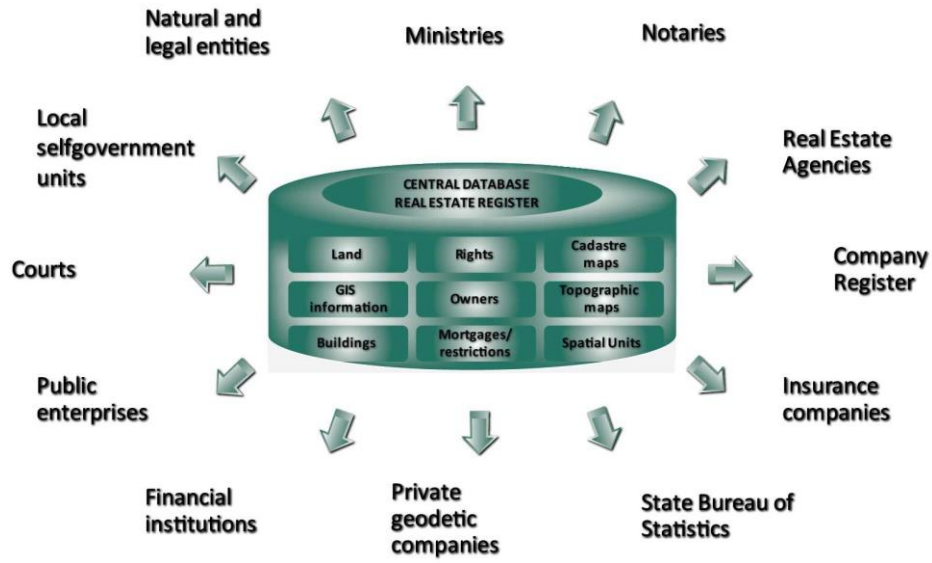
Land Records for Mass Valuation, Slovenia

URAD ZA MNOŽIČNO VREDNOTENJE NEPREMIČNIN

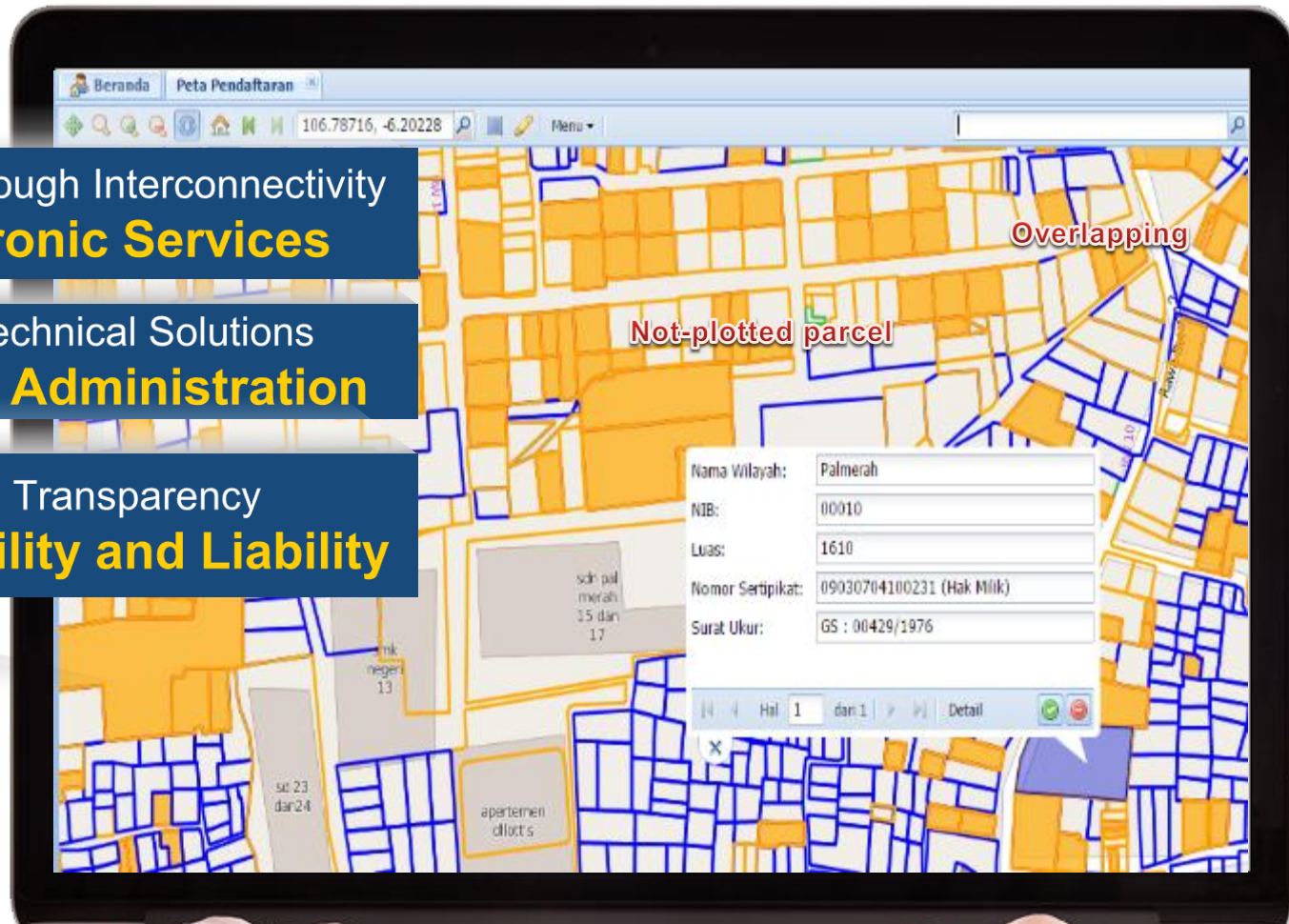THE WORLD BANK

Improved Governance Through Interconnectivity
Accessible Electronic Services

Modern Institutional and Technical Solutions
Sustainable Land Administration

Improved Data Quality and Transparency
Efficiency, Reliability and Liability

Technical **Institutional**

Support

Economical

Overlapping

Not-plotted parcel

Nama Wilayah:	Palmerah
NIB:	00010
Luas:	1610
Nomor Sertipikat:	09030704100231 (Hak Milik)
Surat Ukur:	GS : 00429/1976

Important for (value adding) investments:

- **Clear tenure**

- **Transparency** of markets/values

- **Availability** of data

- **Incentivized stakeholders**

Source: http://www.uitp.org/

Our "Two-Speed" World – High Speed vs Low Speed

80% of humanity live below US$10.00 a day or where 70% of humanity do not have clear legally & spatially defined land or property rights …."

Source: Childress, M., Bell, K.C. & Cheehai, T., 2014, *Spatial Innovation & Good Practices in Land Administration Forum*, Report of the Joint World Bank-FIG Forum held March 28, 2014, Washington D.C., Coordinates, May 2014.

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Some of the Notable Characteristics of Land Sector*

❖**Colonial legacies** embedded in land administration systems, laws & institutions.

❖**Land related conflicts** that have persisted over the years.

❖Frequent occurrences of **natural disasters**.

❖High proportion of **forestry lands**, **Indigenous Peoples & forest-dependent communities** who hold land in accordance with **customary tenure** arrangements.

❖**Large-scale investments in land** (e.g., forestry, agriculture, palm oil & mining concessions – especially **FDI**).

❖**Land acquisition** challenges.

❖Rapid pace of **urbanization** & emergence of mega-cities.

❖Strong interest & **growing investment in SDI** & related

Understanding the political economy of land in each country is an essential pre-requisite for engagement.

*Not all are applicable to all regions of the world

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Land Agency Governance Challenges

1

Substantial Financing

required for building land records and infrastructure and retaining specialist personnel
- Failed financing leads to poor systems, data and services

2

Monopoly Commodity

(transaction registration) as the core business line creates vulnerabilities
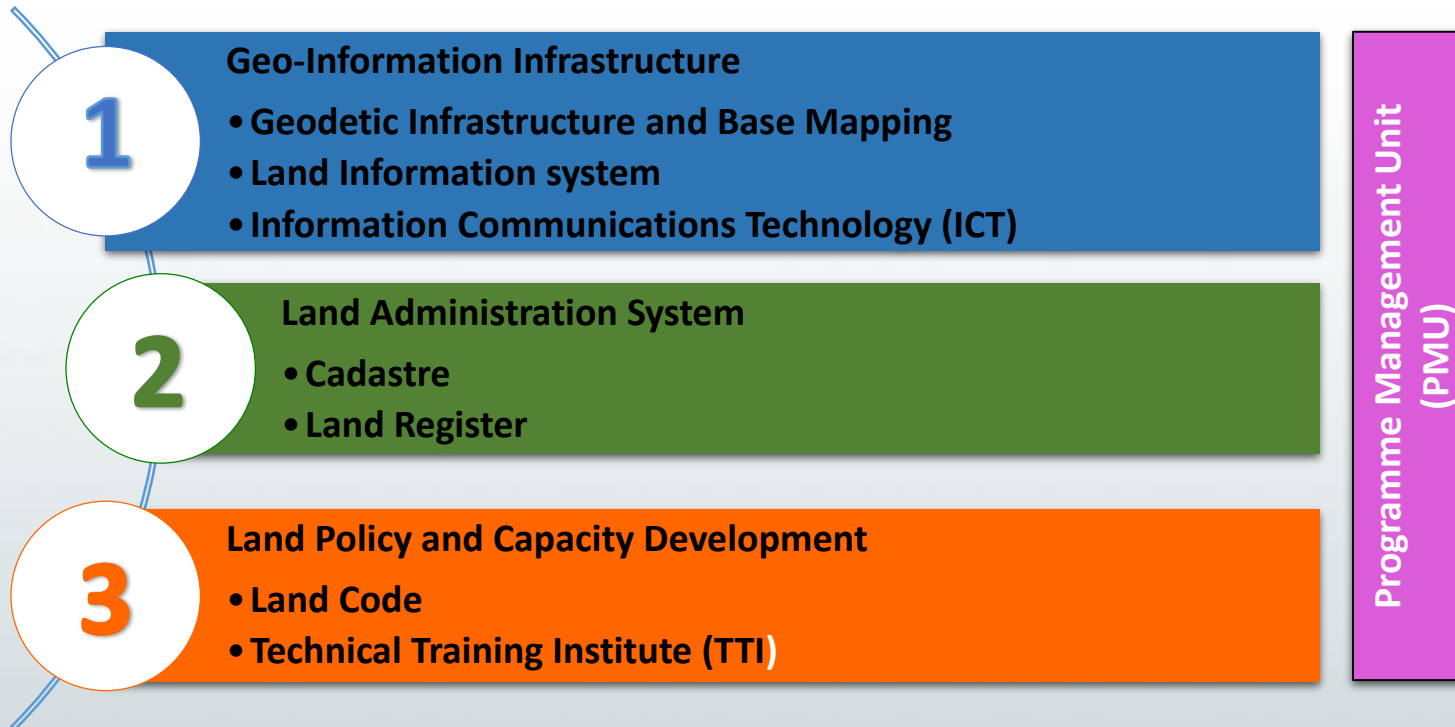- Petty and grand corruption
- Wealth accumulation

Governance arrangements and checks and balances define whether land agencies serve, hinder or exploit social and economic growth

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The IDPL Architecture

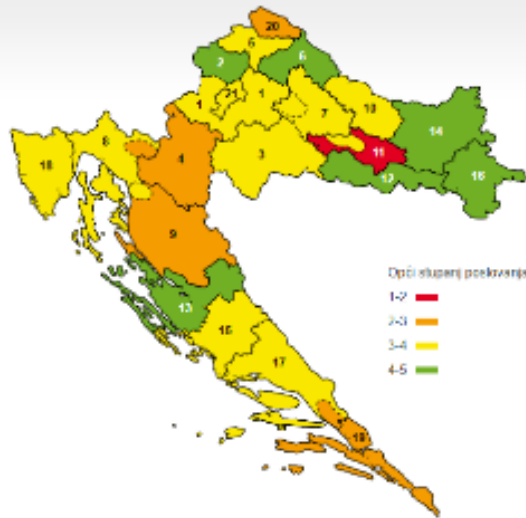The IDPL consists of the following 3 inter-related components and 7 sub-components:

1

Geo-Information Infrastructure

- **Geodetic Infrastructure and Base Mapping**
- **Land Information system**
- **Information Communications Technology (ICT)**

2

Land Administration System

- **Cadastre**
- **Land Register**

3

Land Policy and Capacity Development

- **Land Code**
- **Technical Training Institute (TTI)**

Programme Management Unit (PMU)

600,000 (Lebanon) vs 100,000,000 (Croatia)

TURKEY: 3D City Model Production Project

İL : ANKARA
İLÇE : GÖLBAŞI
MAHALLE : VİRANCIK - İMAR
ADA : 1126231
PARSEL : 8
BAĞIMSIZ BÖLÜM : 9

Tapu ve Kadastro
Genel Müdürlüğü

New Project in Indonesia, US$200m+

Acceleration Program of Agrarian Reform and One Map Policy
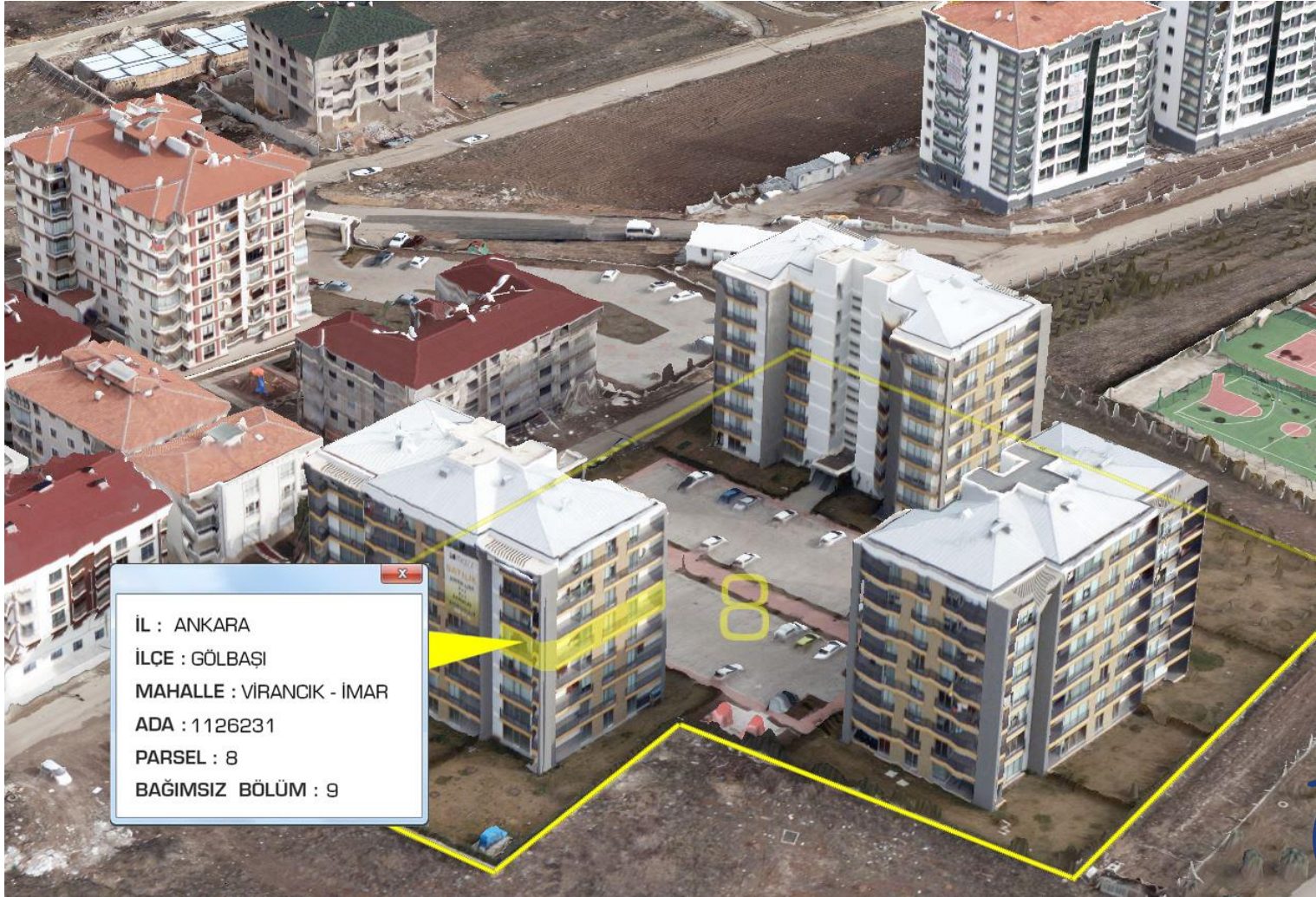
1 Participatory Mapping and Agrarian Reform

Prime Activity

Sumatra: Riau, Jambi and South Sumatra. Kalimantan: East, Central, West and South

- Fit-for-Purpose Cadastral Mapping
- *Land Registration*
- Forest Boundary Demarcation

- Strengthen Local Land Offices
- Strengthen Land Information System

2 Geospatial data Infrastructure

Support Activity

For Environmental and Natural Resources Management

- Strengthen Geodetic Framework
- Improve NSDI Technology Infrastructure

→ Prepare Satellite Imagery for Working Maps

3 Project Management and Institutional Development

Driver of Change

For Overall Supervision and Improvement to the Policy & Legal Framework

- Project Management and Monitoring and Evaluation
- Strengthen Policy, Legal and Institutional Framework
- Capacity Development, Outreach and Pilots

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- *Land administration systems* provide **secure tenure** reducing vulnerability, and the **baseline** for estimating disaster damages and eligibility for support

- *NSDI* provides the common **location platform** for identifying the impact, directing responses, reconstituting the pre-disaster land use, identifying areas for temporary shelter, and facilitating planning and reconstruction.

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Taxation base requires a reliable cadastre

- Builds on digital land registry and cadastre
- Produces accessible results
- Creates revenue
- Improves market transparency, corporate and public asset values, and compensation fairness
- Reduces financial risk
- Facilitates local government finance

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Strategic Partnership:
World Bank – UN Initiative on Global Geospatial Information Management (UN-GGIM)

"Bridging the Geospatial Digital Divide": Two Key Activities

1. **Develop an overarching Geospatial Framework** for countries to reference when developing their national and sub-national spatial data infrastructures (SDIs).

    To be endorsed by member states August 2018

2. Assist countries to **prepare and implement Country-level Action Plans** to operationalize the Geospatial Framework

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Global Advocacy Campaign for Women's Land Rights

- Land rights are key for shelter, livelihoods, identity, security ...

- Yet many, especially women, lack secure rights to land.

- SDGs (1.4.2 and 5a) require reporting and action on women's access to land.

- Good laws not enough – implementation and impact on women matters.

- Change in social norms required – long term effort.

- Improving women's land rights is right and also good economics!

- The global advocacy campaign will be launched with WBG support to raise attention and action on the importance of secure land rights to women.

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Sustainable Societies Must be Spatially-Enabled

CLEAN AND EFFICIENT

INCLUSIVE

RESILIENT

COMPETITIVE

And land is at the center of it all…

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Social, Urban, Rural & Resilience

Final Remark: It is About Rights!

"**The technocratic illusion is that poverty results from a shortage of expertise, whereas poverty is really about a shortage of rights.**"

Easterly, W., 2013, *The Tyranny of Experts. Economists, Dictators, and the Forgotten Rights of the Poor*.

Access to land &
spatial enablement
 are fundamental
to redressing
the shortage of rights

Pic Source: The Guardian, Jun 30, 2010

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