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Summary

1. World Bank-UNSD collaboration

2. Why have we developed the SDI Diagnostic Toolset?

3. What is it, and how does it work?

4. Results of testing the draft version

4. Next Steps
World Bank-UNSD Agreement

Key Activities:

1. Development of a Geospatial Framework
2. Assisting countries to prepare and implement Country-level Action Plans

How?
• Analytical Tools
• Technical Assistance
• Financing Options
Role of SDI Toolset: analytics, technical assistance and financing

Current State
- SDI Diagnostic Tool
- Political and Economic Drivers

Analysis
- Systematic Country Diagnostic
- Country Action Plan
- SDI Economic Analysis

Implementation
- WB Investment Project
- KPIs

Geospatial Framework
A SPATIAL DATA INFRASTRUCTURE (SDI) DIAGNOSTIC TOOL and ECONOMIC-BUSINESS CASE ANALYSIS

Launched in December 2016
Conducted in 9 countries to date

Why? Need standardized assessment of status and investment needs

What? A questionnaire with scores and set of indicators
- Policy and Strategy
- Governance arrangements
- Legal Framework
- Accessibility and Technical Infrastructure
- Socio-economic impact
- Capacity Development
- Use of NSDI / Applications
- Core Datasets (from UNGGIM)
- Thematic datasets: tailor/target datasets linked to a country’s priorities

Socio-economic business case: Focus on middle and low income countries
Outputs:

- Completed questionnaire based on interviews (2-3 hours)
- Scores for 9 categories- “the journey of SDI development”
- Assessment Report (standard format, approx. 10 pages)
- List of priority sectors and datasets for socio-economic assessment
A SPATIAL DATA INFRASTRUCTURE (SDI) DIAGNOSTIC TOOL: USES

Project Preparation in Moldova and Indonesia: Component Design and investment
Baseline → Targets → Indicators

From….  

To…..
Albania: Technical Assistance for Government Reform
Country Level Action Plan

Country priorities (tourism, roads, FDI)
Key Registers (datasets)
↓
$$ Investment $$

Socio-econ Business Case for land/geospatial
First case study completed March 2017
2.5x:1 RoI (very conservative)
Economic and Financial Analysis of Geospatial Information: The Albania Case Study
Background

Broader Strategic Dialogue at the World Bank

- Geospatial information: key enabler for the global development agenda
- Developing a corporate strategy, SDI diagnostic, and business lines to respond to client needs
- Valuing information

Country Level: Albania

- New 5-year USD 1 billion WB investment, heavy focus on infrastructure
- Integrated Land/Geospatial Project under preparation
- Albania has recently set up a national spatial data agency – ASIG
- Project component investing in the development of NSDI – need for a business case
- First World Bank client country where such a geospatial business case is being developed
Valuing Geospatial Information

Everyone agrees NSDI is important but how important is it?

Where should the first investments go?

- Value for money / socio-economic return
- Marginal benefit vs. marginal cost

Existing economic studies

- No standard framework or methodology
- High income countries only
- Developing countries’ analysis restricted to ex-post anecdotal evidence
Approach

• Scope and Priorities: economic snapshot, Government priorities
• Land administration and management issues – key national issue
• Extensive Literature Review on economic benefits analysis
• Three missions to the country:
  • In-person interviews (close to 100 people across 25 organizations)
  • Cost-benefit analysis constructed from:
    • Case Studies
    • Big Data/Social Media when lack of traditional data
    • Benefits transfer
## Direct Quantifiable Benefits: Summary Slide

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Info Gathering</th>
<th>Methodology</th>
<th>Amount (EUR M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 National data sharing</td>
<td>Interviews</td>
<td>Multiplier effect of shared resource</td>
<td>42.9 (project period)</td>
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<tr>
<td>2 Reduced court case cost</td>
<td>Interviews</td>
<td>Cost/case evidence</td>
<td>1.3 (annual)</td>
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<tr>
<td>3 Improved Flood Prediction</td>
<td>Post-disaster Study (PDNA)</td>
<td>Expert interviews (% improvement)</td>
<td>0.25-0.80 (per 5 year event)</td>
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<tr>
<td>4 Property Tax Collection</td>
<td>Interviews</td>
<td>Evidence from Municipalities</td>
<td>0.20-0.30 (annual)</td>
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<tr>
<td>5 Cost savings in infrastructure development</td>
<td>Interviews/studies</td>
<td>Potential saved costs of design surveys/cost of investment projects</td>
<td>0.5-1.5 (annual)</td>
</tr>
<tr>
<td>6 Land Market Potential</td>
<td>Interviews / Regional Studies</td>
<td>Case study evidence of missed opportunities</td>
<td>40m (annually)</td>
</tr>
<tr>
<td>7 Tourism Potential</td>
<td>Instagram Hash Tags</td>
<td>Regional comparison and scaling</td>
<td>8.9 (annual)</td>
</tr>
<tr>
<td>8 Improved road navigation</td>
<td>Global Studies</td>
<td>Benefits Transfer</td>
<td>3.66 (annual)</td>
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<tr>
<td>9 Improved Govt Efficiency</td>
<td>Interviews</td>
<td>Savings/employee; time savings</td>
<td>3.0-4.0 (project period)</td>
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</table>
Big Data/Social Media: Instagram Hashtags to Determine Tourism Potential

When traditional data sources not available

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<tr>
<th>Country</th>
<th>Hashtags/Km</th>
<th>#/km</th>
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<td>Croatia</td>
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<td>Albania</td>
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Tourism Potential in Albania

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Albanian Potential based on...

<table>
<thead>
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<td>5.36x</td>
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Other Socio-economic Benefits

Contributions to:

• Improved social cohesion
• Contributes to EU accession plan
• More affordable housing
• Better spatial planning – greater coordination, evidence-based decision making
• Easier access to microfinance in Agriculture
• Climate change adaptation
Results: 2.5x:1 Return on Investment on USD 50 million investment
Lessons Learned for socio-econ analysis

• Close alignment to economic and policy agenda
• Stakeholder input is key – create a customized framework for the analysis
• Quantify a small number of case studies with high impact
• Mixed method approaches that combine qualitative interviews with quantitative methodologies (big data analytics and benefits transfer) work best
• Information only has value if applied to significant use cases
• And Interventions only yield societal benefit if they change behaviour
Conclusions

- Need standard approach to assessing a country’s SDI readiness, needs and priorities
  - SDI analytical toolkit: quick and efficient
  - Country Level Action Plans:
    - Socio-econ analysis for middle and low income countries
      - Data availability: need methods for non-traditional data
    - Targeted financing options: IFIs, private sector