

BRIDGING THE GEOSPATIAL DIGITAL DIVIDE: WORLD BANK-UNGGIM PARTNERSHIP

**5TH HIGH LEVEL FORUM ON UNITED NATIONS
GLOBAL GEOSPATIAL INFORMATION MANAGEMENT**

Mexico City, Mexico
28-30 November 2017



WORLD BANK GROUP

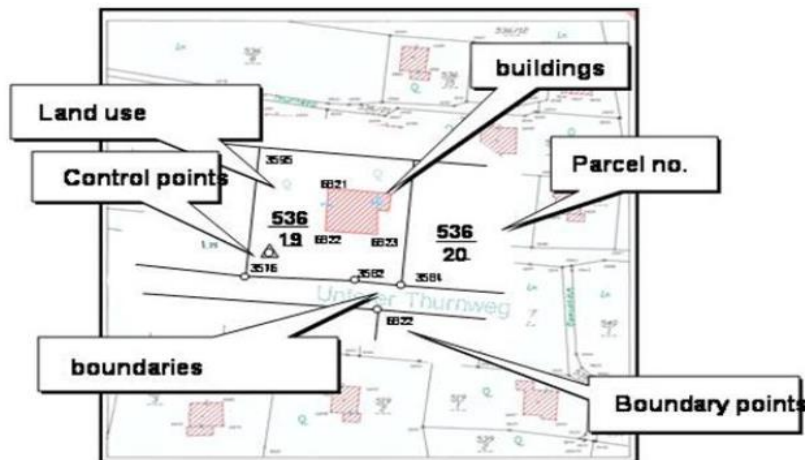
**Kathrine Kelm
Global Land/Geospatial Team**

Targeting Support for Client Countries: Geospatial Business Line

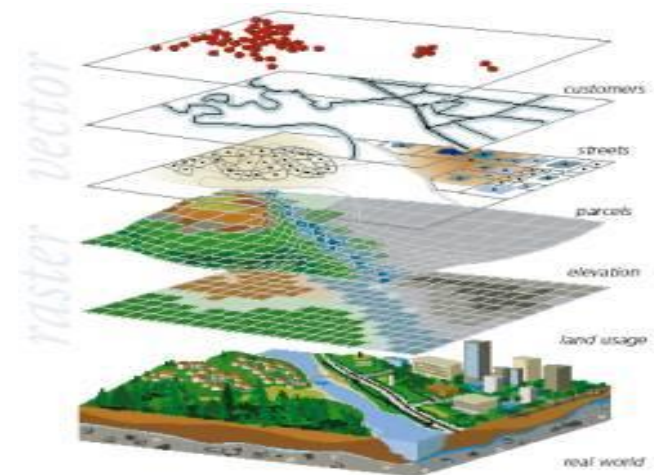
“The use of geospatial information provides great opportunities to accelerate development of nations and address global, national and local challenges but no longer are ever more sophisticated maps needed but the development of spatial data infrastructures are required, to underpin all decision-making of countries”.

Ede Jorge Ijjasz-Vasquez, Senior Director of World Bank Group
Geospatial Media- INSPIRE Conference, Lisbon, May 2015:

From: Flat maps



To: Multi-dimensions

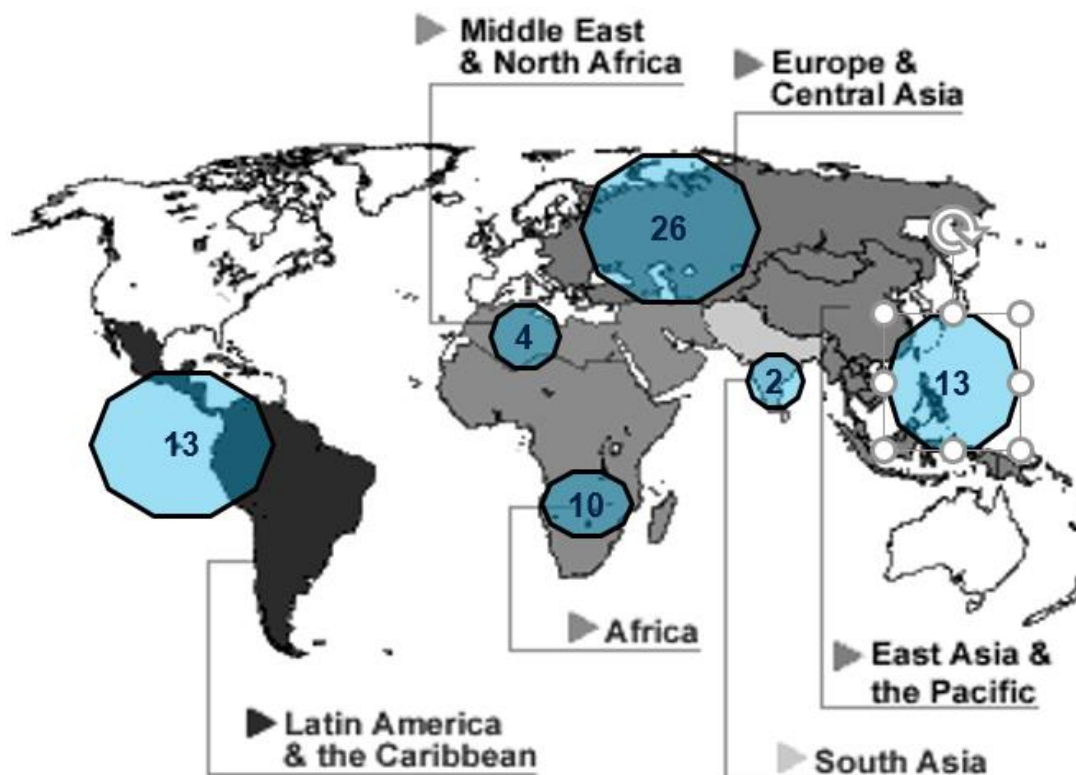


Global Land/Geospatial Portfolio: Increasing support for SDI

Current Portfolio: USD 1+ billion

More than 60% finances IT systems, digital services and NSDI

Regional concentration of projects



Strategic Partnership: World Bank – UNGGIM Agreement “Bridging the Geospatial Digital Divide”

Signed August, 2017

Aim: Assist countries to develop and implement digital transformation to bridge the geospatial digital divide

- Require a combined effort to overcome complex challenges, including the lack of robust national information systems
- Recognize the unique attributes and needs of each country, and tailor the response accordingly.



“

World Bank-UNGGIM Agreement: Two Key Activities

- 1. Develop an overarching Geospatial Framework** for countries to reference when developing their national and sub-national spatial data infrastructures (SDIs). The Framework will consist **of principles, reference guides and good practices for topics such as:**
 - geospatial policy
 - law/regulations
 - institutional arrangements
 - standards
 - geodetic infrastructure,
 - fundamental datasets,
 - capacity and knowledge sharing
 - use/applications of geospatial data,
 - methods to calculate the economic impact and value of SDIs.

Input and guidance from UNGGIM Working and Expert Groups, Networks Consultations in early 2018: UNGGIM regional committees, WB Land and Poverty Conference...

Delivery/Presentation at the UNGGIM Plenary in August 2018

World Bank-UNGGIM Agreement: Two Key Activities

2. Assist countries to prepare and implement Country-level Action Plans to operationalize the Geospatial Framework taking into consideration national circumstances and priorities.

The country level Action Plans include identification of investment needs, priorities, analysis of socio-economic benefits and potential funding sources.

Completion of 2-3 pilots by UNGGIM Plenary in August 2018

How?

- 1. Analytical Tools**
- 2. Technical Assistance**
- 3. Financing Options**

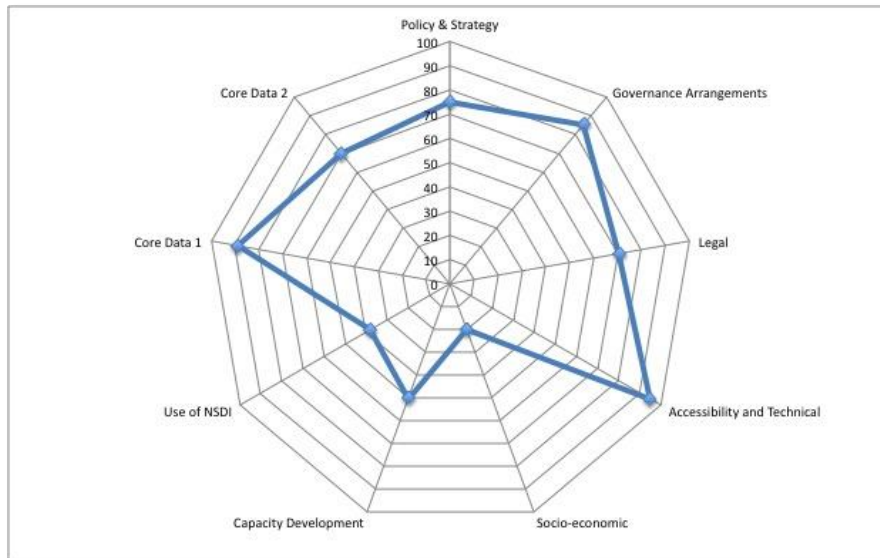
Step 1: Analytical Tools

Diagnostic Tool for Assessing SDI Readiness

**Key Parameters: Standardized, Quick and efficient
completed in a one week mission**

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



NSDI Diagnostic Tool Template: Guide to Scoring Indicators

1. Policy & Strategy				
No	Indicator	Scoring guide	Comments	Score and notes
1.1	Does a NSDI policy and/or strategy exist, and is it "signed off" by government?	None / not discussed=0; Planned /being drafted=25; Draft exists=50; Under Review=75; Exists and signed off=100	Policy should include vision / mission statements and road map.	Yes=100
1.2	Is there a NSDI policy and/or strategy Monitoring and Evaluation Framework / Mechanism set up?	None=0; Being drafted=25; Draft exists=50; Under Review=75; Exists and is being implemented=100	Is there a way of checking to see if the policy, if it exists, is achieving its objectives?	Yes=100
1.3	Is the NSDI aligned to high-level Government information policies (e.g. e-Government, Open Data, Statistics)?	No=0; Aligned to some=50; Yes, fully integrated/harmonised=100	When the NSDI policy is designed was it done with overall Government policy in mind? – i.e. is it designed to support Gov' policy – in planning, implementation etc	Yes=100
1.4	Is there a NSDI Engagement strategy?	None=0; Being drafted=25; Draft exists=50; Exists and being implemented=100	Or a communication plan? including stakeholder analysis, segmentation and targeted activities?	Yes=100
1.5	Is there a policy to make geospatial (and other) data accessible through "Open Data"?	None=0; Being drafted=25; Draft exists=50; Under Review=75; Exists and is being implemented=100	Is there an Open Data policy, and does this recognise and include NSDI?	Yes=100
2. Governance arrangements				
No	Indicator	Scoring guide	Comments	Score and notes
2.1	Is there a NSDI "champion" in Government?	None=0; Exists=50; Exists and active=100	Is there a clearly identifiable individual(s) actively promoting NSDI, resulting in tangible outcomes towards development and implementation of NSDI?	General Director of ALRC is also a member of the Government=100
2.2	Is there a NSDI Coordinating body? (policy/funding level)	None=0; Exists=50; Exists and active=100	This should be cross sector, and across levels of Government. Could be officially designated or de facto	Steering body being created for NSDI – in draft = 50
2.3	Is the NSDI Coordinating body represented at senior / top level in government?	No=0; Yes=50; Yes, by a senior Minister=100	Is there someone from the co-ordinating body representing it in the top level of Government, e.g. a cabinet level minister?	"Steering Body" Being designed, awaiting government approval = 50
2.4	Is the coordinating body involved in developing e-Government / Open Data / Statistics governance policy	No=0; Involved to some extent, some communication between players=25; Considerable communication between players=50; Yes, fully integrated / involved with relevant policy development=100	When Government policy is being decided, is there anyone to speak up for the role NSDI can play?	No, steering body still being designed and put in place=50



Step 2: Technical Assistance Country Level Action and Investment Plans

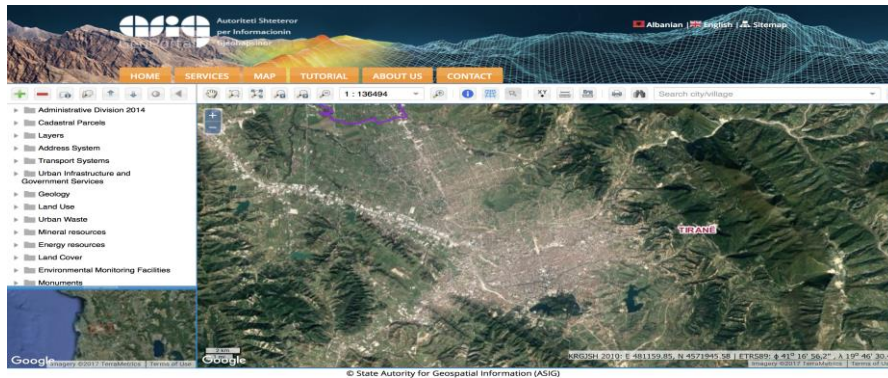
Albania:

Country priorities (tourism, roads, FDI)

Key Registers (datasets)



\$\$ Investment \$\$



Integrated Land Management Program for Albania:

**Detailed and Costed Roadmap for
Land Market & Tourism**

June, 2017

World Bank Technical Assistance to the Government of Albania



Step 3: Financing

Valuing Geospatial Information

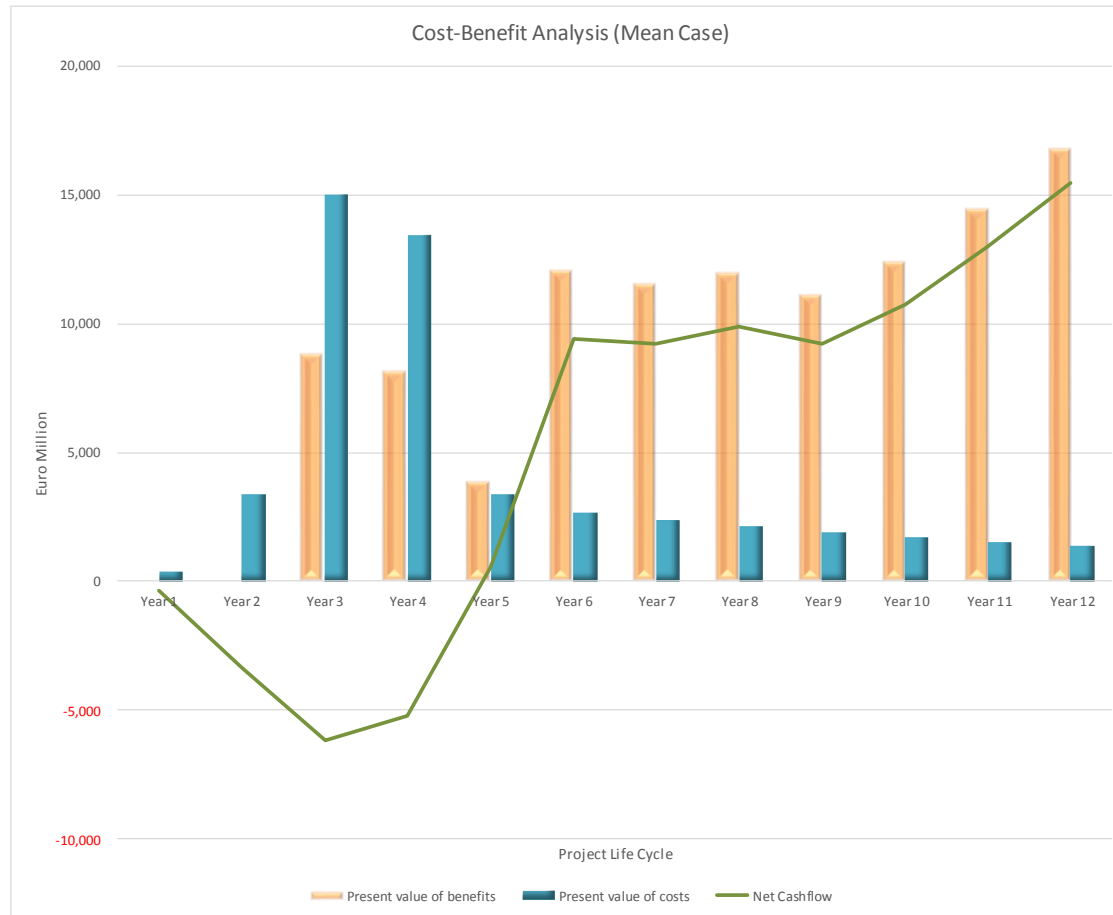
Albania: First Geospatial Investment Calculation with Return of Investment (RoI) in low/middle income country

Direct Quantifiable Benefits Summary using traditional data

Ref	Impact	Evidence	Methodology	Estimated Net Undiscounted Value of Impacts
1	National geospatial data sharing	ASIG cost estimates and usage assessment	Multiplier effect of information sharing	€38.3m (total for project period)
2	Reduced land-related court case costs	Court Case records Survey of Legal Professionals	Average court case cost x reduced case volumes	€2.6m (annual saving)
3	Reduced Loss and Damage from Better Flood Prediction	Post-disaster Study (PDNA)	Expert judgement (4% improvement) from improved Digital Terrain Models	€0.7m-€2.0m (per 5 year event)
4	Property Tax Collection	Expert interviews and tax revenue records	Predictions of increased revenues from Municipalities	€2.1m – €2.5m (annual increase)
5	Cost savings in infrastructure development	Project costs from published reports and expert interviews	Potential saved costs of surveys and design for recent projects	€0.5m-€1.5m (annual saving)
6	Land Market Growth	Regional Studies plus interviews with subject matter experts	National Accounts and Benefits Transfer	€5m – €46m (incremental annual growth after investment period)
7	Improved road navigation	Global Study	Benefits Transfer	Up to €3.7m p.a. (incremental growth)
8	Improved Government Efficiency	Interviews	Predicted time savings per employee	€3.0-€4.0m (over project period)



Cost-Benefit Analysis Results



Base Case:

Project Life: 12 years

Investment: US\$50m

Discount Rate: 12%

RoI: 2.5 : 1 (conservative)



Food and Agriculture Organization
of the United Nations

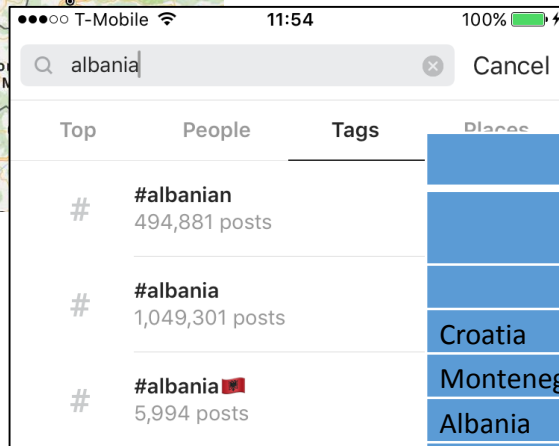
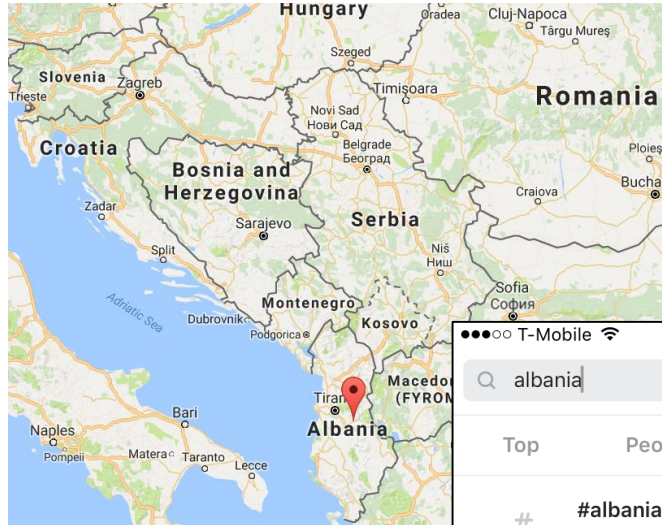


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Non Traditional Sources of Data: Big Data/Social Media: Instagram Hashtags to Determine Tourism Potential

Valuable when traditional data sources not available

Shows potential but not used in official calculations
as needs further work to prove causal relationship



Tourism Potential in Albania			
	Instagram Hashtags	Coastline	Hashtags/Km Coastline
	Million	Kilometers	#/km
Croatia	6.48	4,058	1,597
Montenegro	1.60	295	5,424
Albania	0.48	476	1,013
Albanian Potential based on...			
Croatia	1.58x		
Montenegro	5.36x		



Thank you!

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