

Geospatial Information for Development: World Bank SDI Toolset – Assisting Country Action Plans

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CREATING A SPATIAL DATA INFRASTRUCTURE DIAGNOSTIC TOOLSET

Summary

1. World Bank-UNSD collaboration
2. Why have we developed the SDI Diagnostic Toolset?
2. What is it, and how does it work?
3. Results of testing the draft version
4. Next Steps

World Bank-UNSD Agreement

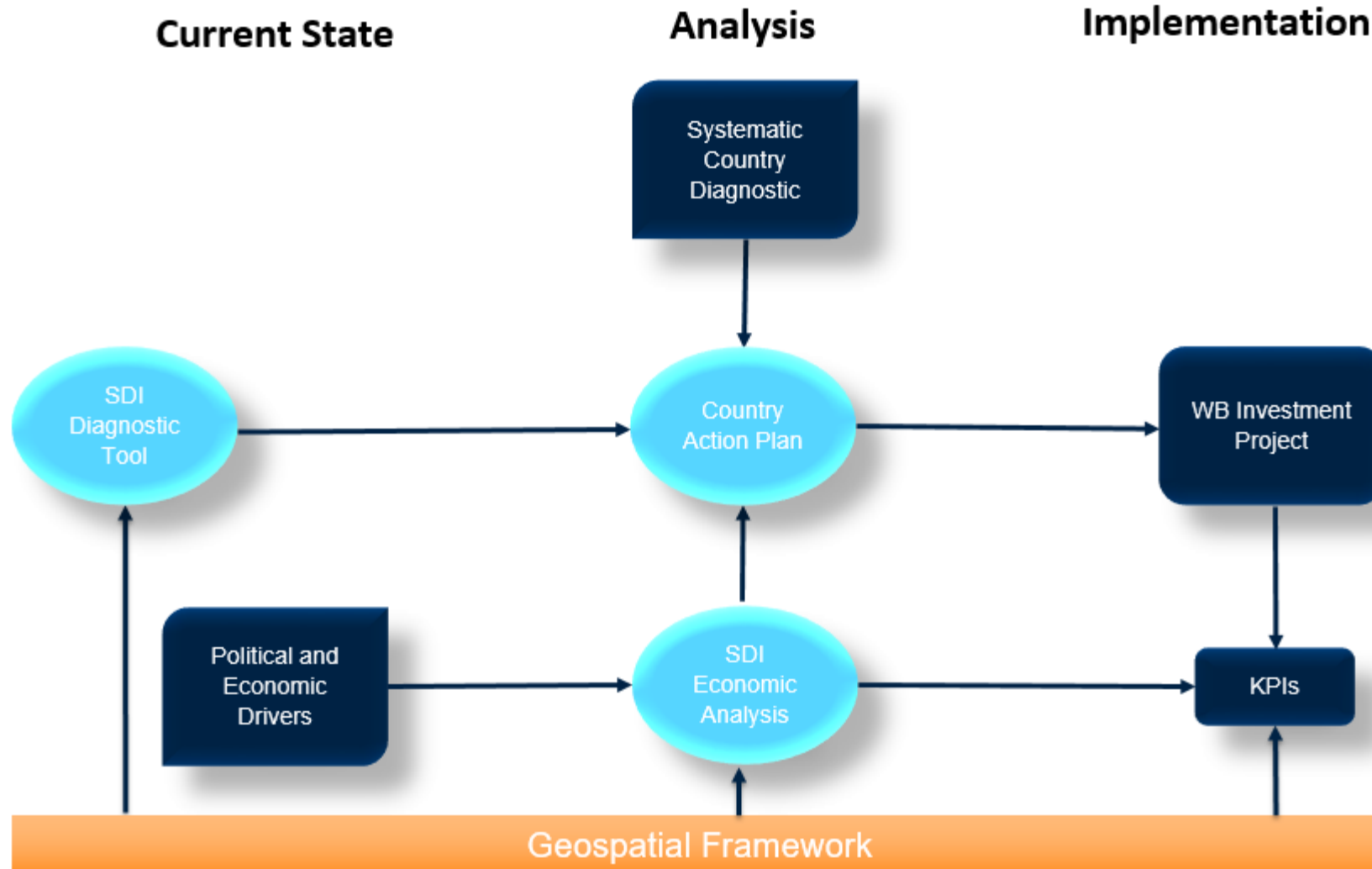
Key Activities:

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



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

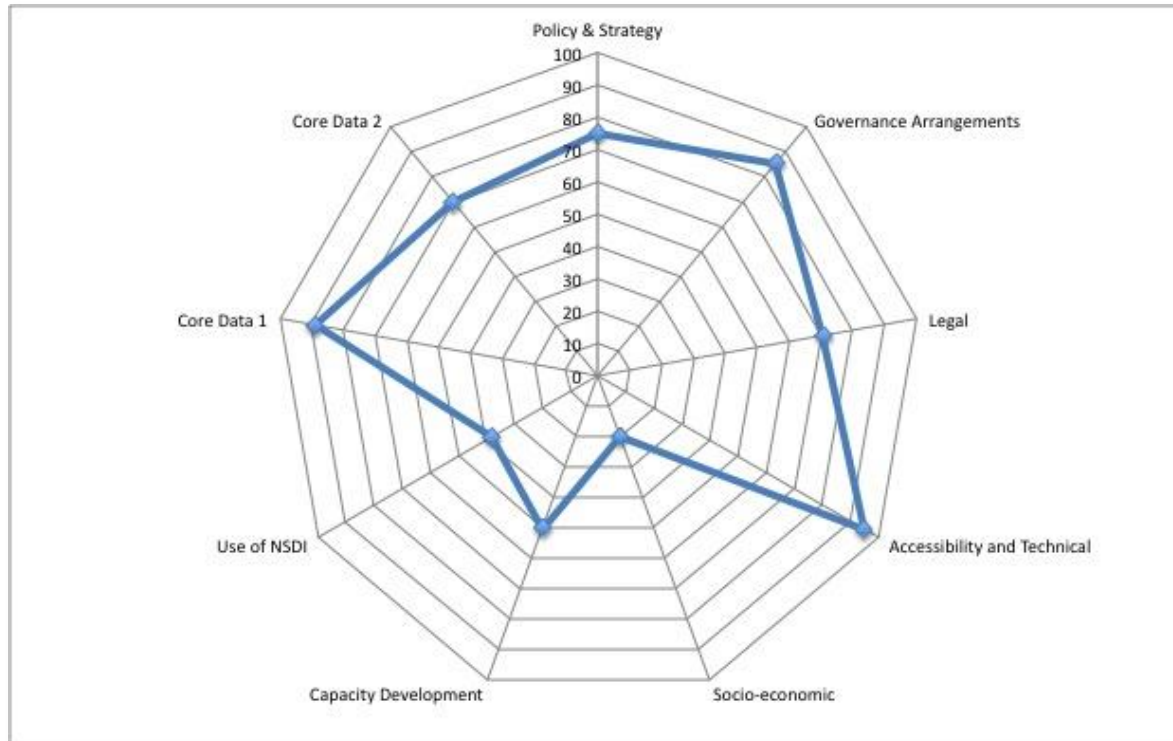


Socio-economic business case: Focus on middle and low income countries

Key Parameter: 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

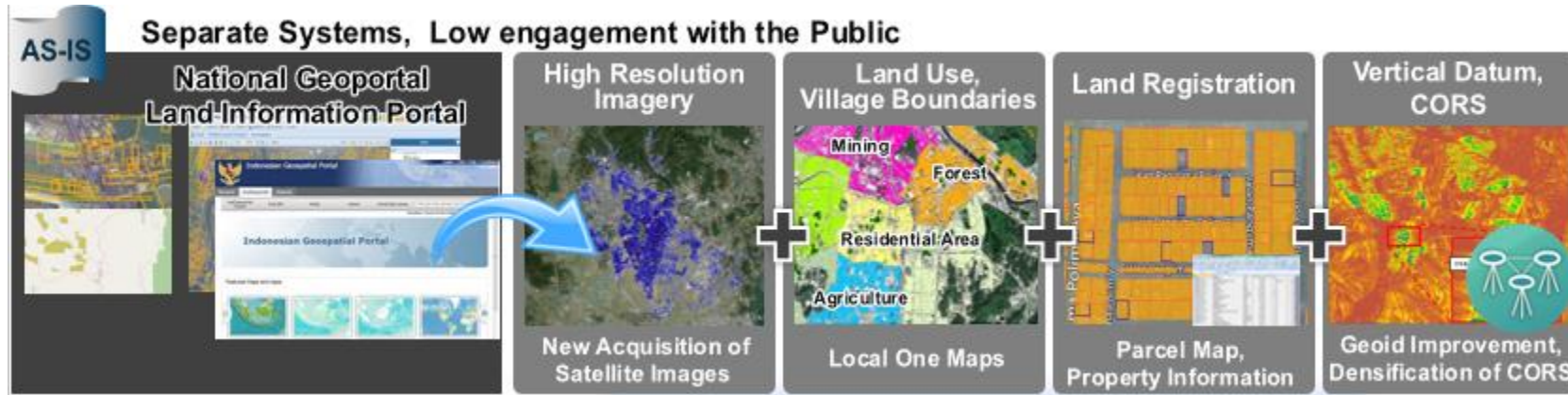
1. Policy & Strategy				
No	Indicator	Scoring guide	Comments	Score and notes
1.1	Does a NSDI policy and/or strategy exist, and is it “signed off” by government	None / not discussed=0; Planned /being drafted=25; Draft exists=50; Under Review=75; Exists and signed off=100	Policy should include vision / 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

A SPATIAL DATA INFRASTRUCTURE (SDI) DIAGNOSTIC TOOL: USES

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

From....



To....



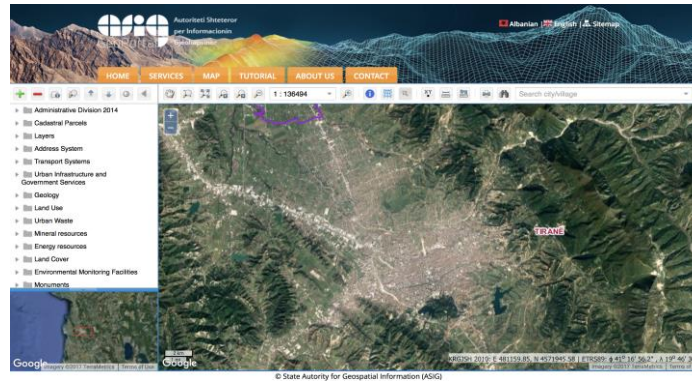
Albania: Technical Assistance for Government Reform Country Level Action Plan



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



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

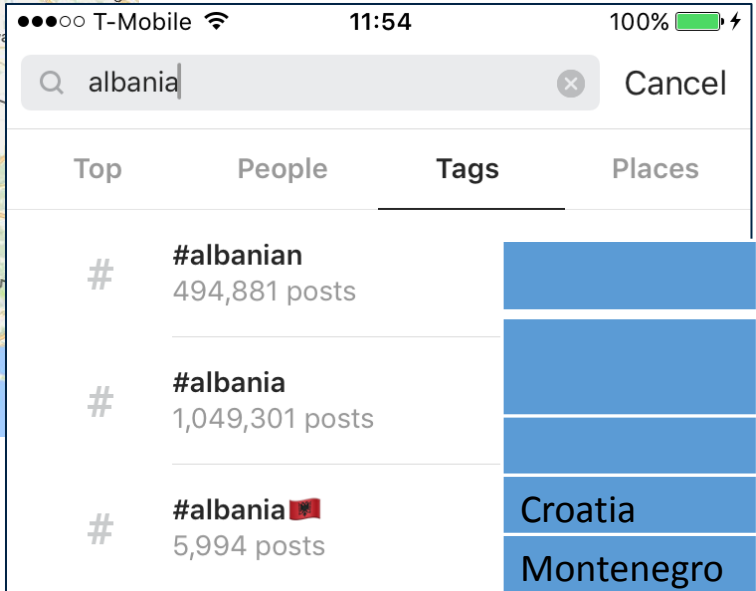
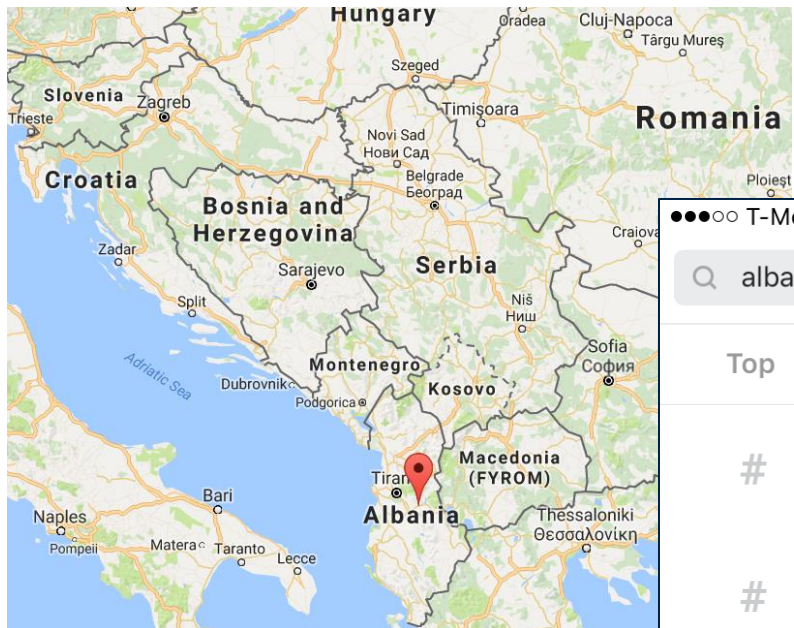
- Scope and Priorities: economic snapshot, Government priorities
- Land administration and management issues – key national issue
- Extensive Literature Review on economic benefits analysis
- Three missions to the country:
- In-person interviews (close to 100 people across 25 organizations)
- Cost-benefit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

Direct Quantifiable Benefits: Summary Slide

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

Big Data/Social Media: Instagram Hashtags to Determine Tourism Potential

When traditional data sources not available



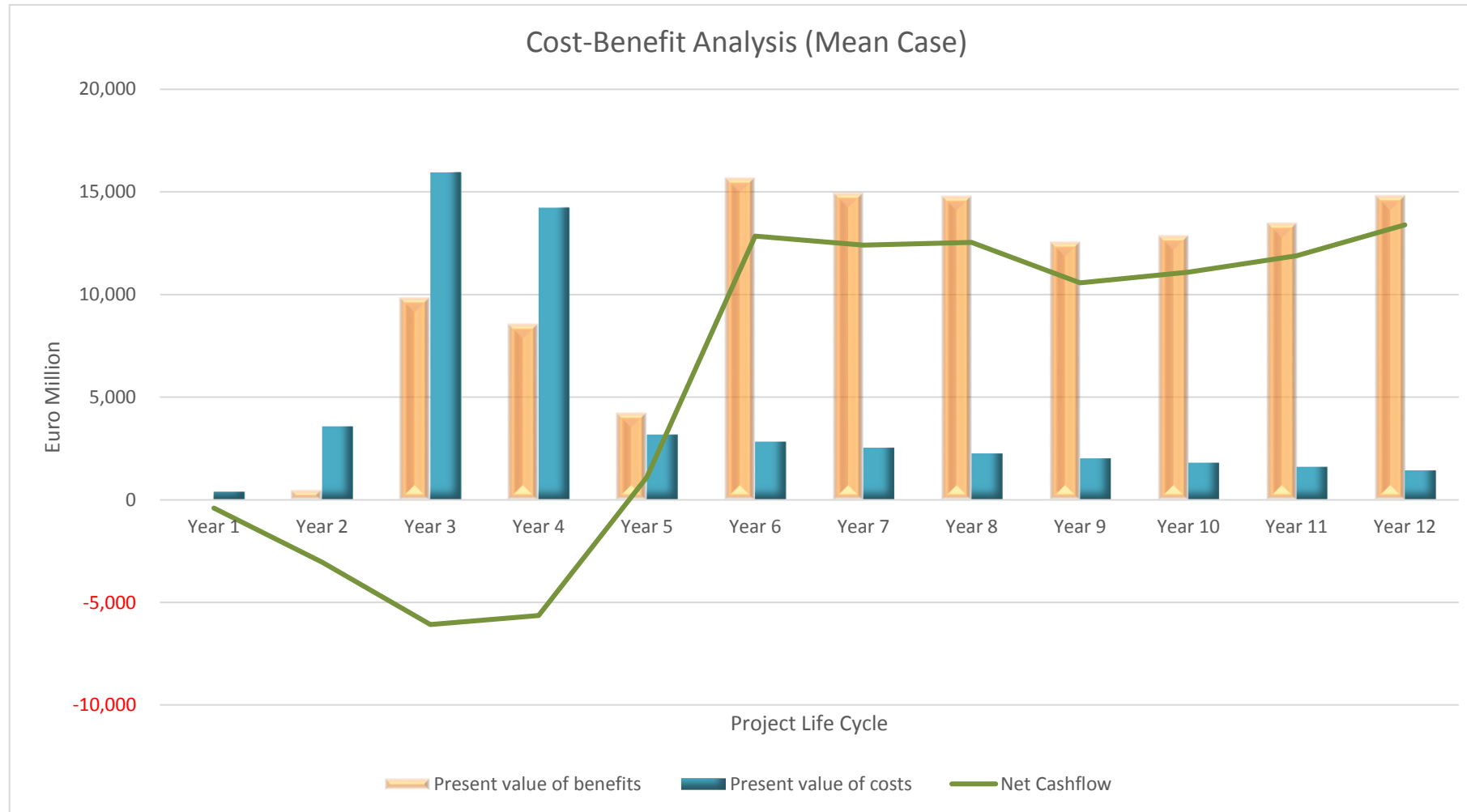
Tourism Potential in Albania			
	Instagram Hashtags	Coastline	Hashtags/Km Coastline
	Million	Kilometers	#/km
Croatia	6.48	4,058	1,597
Montenegro	1.60	295	5,424
Albania	0.48	476	1,013
Albanian Potential based on...			
Croatia	1.58x		
Montenegro	5.36x		

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